

Ten Photo Assignments

Amanda Quintenz-Fiedler

Ten Photo Assignments

to develop your photographic
skills

WITH PHOTOS BY

Bobby Sanchez

Chuck Place

Dan O'Day

Glenn Rand

Jesse Strigler

Judith Preston

Kevin Osborn

Mercury Megaloudis

Michael Penn

Randy Sullivan

Robert Bradshaw

Sam Rivera

Steve Dutcheshen

Tom Flory



While many of the images in this book illustrate a specific concept or portion of an assignment, others are included simply to inspire you. A variety of photographers have contributed stunning images that we hope will motivate you to get out there and start shooting!



© Steve Dutchshen. Courtesy of the artist.

Introduction

We've all had moments when we saw the perfect photograph and weren't able to capture it: the look of surprise on a child's face when they open the perfect present, the unexpected instant when the groom dips the bride for a hero's kiss, or that thrilling apex of a motocross jump when an athlete's legs stick out behind him as his bike seems to hang suspended in the air. These are moments you can never get back; the second they happen, they're over—unless you have the presence of mind, training, experience, and know-how to snap that frame perfectly when it counts.

In some circumstances, you may have time to fiddle with dials, evaluate the histogram, and try to recreate the shot you want, but the purpose of this book is to help you gather the tools you need to get it right the first time, every time, and always get the shot.

This book will turn you into a better photographer by leading you through a series of practical assignments that will help you better understand the capabilities and limitations of your equipment, the theories and practices of a good photographer, and how you can see the scene in front of you and ensure that you get the perfect shot. Each of the five sections in this book has two assignments to help you learn by doing.

Don't get me wrong—reading this book won't be some quick fix for a couple of issues you have. This is a book about doing. You have to work your way through each of these assignments, be honest with yourself about whether or not you understand them, and determine when you are ready to move on.

In order to get the most out of this book, you also need to have proper equipment to get a full understanding of the processes, techniques, and controls that you are able to employ as a photographer who knows what you're doing. This means that you must have a manually adjustable camera—preferably a digital SLR with interchangeable lenses and fully manual controls for aperture, shutter speed, and focus. You can still get a lot out of this book with a point-and-shoot camera (one that has an attached zoom lens), but it must have a manual operation mode that allows you to change the aperture and shutter speed; otherwise, you cannot apply the knowledge in these pages to the exercises.

If you want to be a better photographer who is in control of your images, you have to make the decisions; you can't let your camera do it for you. If you don't have a manually adjustable camera, this book won't be very helpful, so either go out and get one now to take the next step, or wait until you're able to get one to proceed with these assignments.

If you are ready to work toward becoming a better photographer, follow these simple guidelines and you will quickly see yourself evolving as an image-maker:

1. Do the work! – If you don't work your way through each individual assignment, you are only letting yourself down. You can't learn these skills without applying yourself at every stage along the way.
2. Do the assignments in order! – This book is designed to build on concepts from one stage to the next. The more carefully you follow the layout of this book, the more you will be able to apply what you have learned to expand your knowledge base.
3. Be thorough! – Sometimes these assignments might seem like overkill, but trust me, when you repeat a process or look at it from a different perspective, you will solidify your knowledge. Don't short-cut your success.
4. Be honest with yourself! – Sometimes the best way to learn something is to do it again. And again. If your results don't seem to match the examples provided, try to figure out where you went wrong and do the assignment again if need be. You are only hurting yourself if you skip in this process.

If you want to be the best photographer you can be, you have a lot of work ahead of you. But even though this process might be difficult at times, it should also be fun and rewarding. At the end of the day, you are going to see a difference in your photography. So what are we waiting for? Let's get started.

Section A

You're Smarter Than Your Equipment



Septa R8 © Michael Penn. Courtesy of the artist.

Your knowledge, experience, and skills will be your most important equipment to make a great image. In fact, the first thing you should do when you get a camera (or now that you are reading this, go back and do) is read the manual. Even though the information discussed here will help you refine, clarify, and even circumvent some of the standard functions of your camera, you should understand those functions before trying to bypass them. At this point, I will assume that you have a good working knowledge of your specific camera.

As you grow and learn throughout these exercises, you may find that you are limited by your photographic equipment and its inherent shortcomings. Anything mass-produced may not be perfectly calibrated out of the box. What's nice about higher-level cameras is that often you have the ability to either manually adjust the equipment itself or perform tests on the equipment to be sure you know what is really happening.

In the two assignments in this section, we are going to evaluate the way your camera handles light and review the basic functions of your lenses to make sure we are starting with a good solid base to build from, both in terms of equipment and knowledge. From this point forward, keep track of how your camera and your equipment solve the problems addressed within these assignments. Each camera and meter combination will react differently, so you are taking the first step toward becoming a better photographer by ensuring that you know everything about your specific equipment. If you get a new lens, test it. If you get a new camera body, definitely test it. The more you understand about your tools, the better choices you can make later.

In the introduction, I mentioned that you will need to have a camera that is fully manual to get the most out of this book. Every modern camera has a built-in light meter that will help you find the proper exposure for a scene based on the amount of light in the scene. In later sections, we will discuss how to determine when we should use different types of metering, such as center-weighted, averaging, or spot metering.

Modern cameras also have a quantifiable light sensitivity setting; this is known as the camera's ISO. This quantity can be set in a digital camera, but it isn't always 100% accurate. The ISO setting will be approximately equal to the actual sensitivity of your particular CCD or CMOS chip, but the actual exact sensitivity, or the Exposure Index (EI), of your chip might be slightly more or less. In this book, we aren't interested in close; we only want precise. What good will an exact exposure reading be if the camera itself is not reading the light accurately? If you could be certain that your exposure was going to be exactly what you planned it to be, even if your internal sensors or ISO settings were incorrect, wouldn't you take advantage of that ability? Well, we can; so grab your camera and read on.



© Kevin Osborn. Courtesy of the artist.

What Will You Need?

For this assignment, you will need the equipment that you intend to use throughout this book. If at any time you upgrade your equipment, drop your meter in the pool, loan your camera to your unreliable cousin, or just want to ensure that you have the right info, come back to this assignment. This process is not terribly difficult, and it will help you sleep better before (and after) a really big photo shoot, because you won't have to question whether you got "the shot" or not.

What I Recommend

- ⊕ Your fully manually adjustable camera
- ⊕ A tripod

- ⊕ A handheld light meter
- ⊕ A manufactured digital gray card
- ⊕ A Zebra card with black, white, and 18% middle-gray tonalities
- ⊕ A model in a textured white shirt
- ⊕ A sunny day (if possible) with a dark, even background
- ⊕ A notebook and pencil
- ⊕ A computer
- ⊕ Photo management software to open files and evaluate exposures

Purpose

The purpose of this assignment is to establish a baseline for how truthfully your camera records light. Your exposure setting may indicate that you have set your ISO to 100, but your camera might actually be reading at 80 or even 60. This assignment will also balance the readings of your in-camera or handheld meter with the settings of your camera. That way, if your meter or camera is slightly off, you will be able to specify the compensation that results in a perfect exposure. Once you have completed this calibration (the assignment), you can trust that your camera and meter will work together harmoniously from this point forward. If they are both perfect, fantastic—this assignment will prove it. If not, you will have the ammunition you need to work around any shortcomings.

Procedure

1. Set Up – Let's make sure that we are starting in the same place. You should set your camera up on a tripod for ease of use (though this is not necessary if you don't have one). Place your model, in a white shirt, into a scene fully illuminated by the sun (the sun should be behind both you and the camera). Have your model hold the gray card and the black, white, and gray strip perpendicular to your lens. The model and the cards should be illuminated by the same light. In other words, make sure that both the model and the cards are in direct sunlight, not in shadow or under cloud cover. (Your model needs to hold the gray card steady. If you are worried that they won't, use the light stand and tape the card to it.)
2. When placing your camera, you want to be sure to use a close crop. The gray card should take up a good portion of the image so that you can see it and take appropriate readings in your photo software. [[1.1](#)]



1.1 This is the type of set up we are looking for. Something simple with all of the required elements. To create this scene, I put my husband, Steve, in a white shirt and asked him to hold a DGC-150 Digital Gray Card and a QP Card so I could capture the middle gray tonalities as well as white, gray, and black. You can use any manufactured middle gray card for this book.

- 3.** Initial Camera Settings – Set the white balance on your camera to “sunlight.” We will discuss white balancing in more detail later, but for now, trust that the sunny symbol on your white balance menu is correct for this scene. Set your camera ISO to 100.
- 4.** Set your handheld incident light meter ISO to 100 as well. This way, we are comparing apples to apples.
- 5.** Read the incident light (the light falling on the subject) by pointing the diffusion dome of the meter toward the light source—in this case, the sun. Write down the exposure information for aperture (f-number) and time (shutter speed). (To get the most out of this book, I highly recommend investing in an incident light meter. However, if you don’t have an incident light meter, you can use the meter in your camera. Fill the frame with your gray card and use the camera’s meter settings as your starting point. Make sure the camera does not cast a shadow on the card.) [[↩ 1.2](#)]
- 6.** Set your camera with the exposure information that you just wrote down; for my reading, it was $f/16 @ \frac{1}{125}$ sec.
- 7.** Open up the aperture two stops from the meter reading. “Open up” means that you need to increase the amount of light that is hitting the sensor by making the aperture opening larger (hence, “open up”). This can also be accomplished by slowing down the shutter speed. Although either will work for the purposes of EI testing, let’s just use the aperture for this exercise to make things simpler. So, since my starting aperture was $f/16$, my new aperture should be $f/8$.



1.2 This is the incident meter that I use: the Sekonic L-558R. It has both incident and reflective metering capabilities, and lots of functionality.



1.3 This is what we expect to see with the first shot. It should be overexposed (too light), meaning there shouldn't be much detail in the whites. We go to this extreme to ensure that we are getting a full range of exposures, from over to under, so that we can find the perfect match for our camera system.

- 8.** Take your first photo with this adjusted exposure setting. [[📄 1.3](#)]
- 9.** Close down your aperture $\frac{1}{3}$ stop (or $\frac{1}{2}$ stop, depending on the smallest aperture shift you can make with your lens) and take another shot.
- 10.** Do this again for every aperture between two stops over and two stops under your metered exposure (this means I should take shots from $f/8$ through to $f/32$). If your lens won't open up any further, change the shutter speed by $\frac{1}{3}$ or $\frac{1}{2}$ stop instead so that you get a full range of images. Once you have taken these shots, you are done with the "on location" portion of this assignment, so you can pack up your equipment and head to your computer.
- 11.** Download your images, but don't change anything! This is not the time to play around with your exposures—we are doing careful work here! [[📄 1.4](#)]
- 12.** In your photo management software, arrange your image files in order from most exposed to least exposed, keeping track of which image is which. [[📄 1.5](#)]



1.4 To view my images, I used Adobe Lightroom 3. As you can see, these are arranged from most exposed to least, in the same order I took them on location. If you followed the procedure correctly, you should end up with 13 images (for a $\frac{1}{3}$ stop camera).

13. In your photo software (Adobe Photoshop or something similar), find the file for which the RGB values of the white card are closest to 245, 245, 245. To do this, open each file and hover your cursor over the white area of your test card. Your RGB values are the red, green, and blue values for that spot, which can usually be found in an information block at the side of the image. The image with the 245, 245, 245 RGB values has the most accurate EI. [↗ 1.6]
14. Be sure there is not any clipping in the frame and that you can see the texture on your subject's shirt. (Clipping occurs when you overexpose or underexpose your subject, leaving no detail in the extreme highlights or shadows. You can use the histogram to see if there is clipping in the frame. In a program like Adobe Photoshop, you can enable a histogram function called "Show Clipping Warning" to indicate clipped areas.) Use the closest RGB values that don't cause clipping in the final image.
15. Determine how many $\frac{1}{3}$ or $\frac{1}{2}$ stops there are between this image and the first image. That number of stops is how "off" your camera/meter combination is, so the new EI for your camera will be ISO 100 +/- those stops.



1.5 To review the white tonalities in each of my images, I used Adobe Photoshop CS5. Here, you can see that the RGB values are 244, 244, and 246, which is pretty close to the 245, 245, 245 we are looking for.



1.6 This is the full image at the correct exposure as determined using the Eyedropper Tool in Adobe Photoshop. You can see a range of tonalities from the textured white shirt to details in the shadowed side of my subject's face and hair, and in the shadow behind him. This exposure will give my images the greatest depth without causing any information in the highlights to be lost.

	COMPENSATION	EXPOSURE INFORMATION	EI	RGB VALUES (R, G, B)
Image #1	+2	f/8 @ $\frac{1}{125}$ sec	25	255, 255, 255
Image #2	+1½	f/9 @ $\frac{1}{125}$ sec	32	255, 255, 255
Image #3	+1½	f/10 @ $\frac{1}{125}$ sec	40	255, 255, 255
Image #4	+1	f/11 @ $\frac{1}{125}$ sec	50	255, 255, 255
Image #5	+¾	f/13 @ $\frac{1}{125}$ sec	60	255, 255, 255
Image #6	+¾	f/14 @ $\frac{1}{125}$ sec	80	244, 244, 246
Image #7	Meter Reading	f/16 @ $\frac{1}{125}$ sec	100	228, 237, 220
Image #8	-¾	f/18 @ $\frac{1}{125}$ sec	125	214, 213, 217
Image #9	-¾	f/20 @ $\frac{1}{125}$ sec	160	205, 203, 208
Image #10	-1	f/22 @ $\frac{1}{125}$ sec	200	190, 189, 194
Image #11	-1½	f/25 @ $\frac{1}{125}$ sec	250	168, 166, 172
Image #12	-1½	f/29 @ $\frac{1}{125}$ sec	320	147, 145, 151
Image #13	-2	f/32 @ $\frac{1}{125}$ sec	400	132, 130, 135

1.7 This table shows you the compensation for each image and the final EI associated with the correct RGB values. To show you what your ultimate data should look like, I have included the RGB values for each of my exposures in the last column, but, of course, your values will be different. Use your values to choose the correct EI. Based on this test, the correct EI for my sensor with this camera and meter is actually EI 80, not EI 100.

- 16.** Write down the new EI for your camera based on the table provided. From this point forward, when your meter is set to ISO 100, your camera EI should be set to this new value. For example, I will use EI 80 instead of EI 100. With some cameras and meters, you can manually set the EI to adjust up to two stops in either direction. If this is the case, you can change the setting now and be certain that your system will be calibrated in the future. If not, just know that your camera is different from your meter by this specific value, no matter what ISO value you're using.

Note: You can perform this exercise with your in-camera meter; just be sure to fill the frame with the black, white, and gray cards to get a perfect reading. If your camera has a spot meter, repeat the procedure above, but set your spot meter so that it lands directly on, and is filled by, the gray card. You will still get an accurate reading from your in-camera reflective meter, and will be able to precisely calibrate that meter in relationship to your camera's listed ISO.

Congratulations on completing your first assignment!

Now that we know for certain how precise our exposures are going to be, we can (or must) evaluate the rest of our equipment so that we will have confidence in our choices when setting up a photograph, planning a trip, or preparing for a big job.