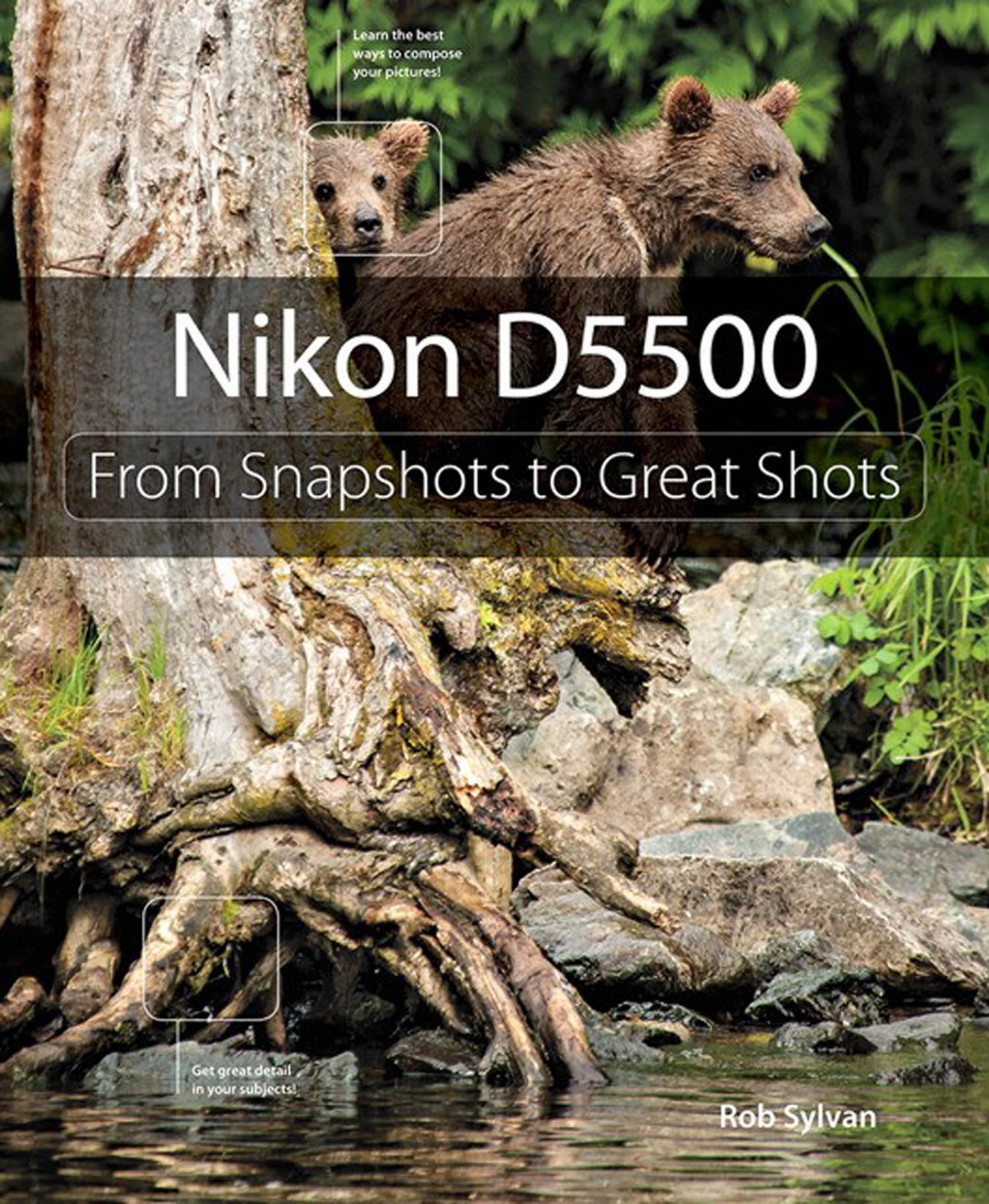
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Nikon D5500
From Snapshots to Great Shots
Get great detail in your subjects!
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Peachpit Press is a division of Pearson Education

Acquisitions Editor: Susan Rimerman
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ISBN-13: 978-0-134-18547-7
ISBN-10: 0-134-18547-1

9 8 7 6 5 4 3 2 1

Printed and bound in the United States of America

The camera used while writing this *From Snapshots to Great Shots* book was generously provided by B&H Photo.

www.bhphotovideo.com

Dedication

For Uncle Tony—this one's for you!

Acknowledgments

My deepest thanks go to Jeff Revell, the author of a number of books in the *From Snapshots to Great Shots* series, and specifically the book on the D5000, which I had the honor and pleasure of updating for the D5100, D5200, D5300, and now the D5500. Jeff is a tremendous photographer and gifted teacher. Thank you for providing such a sound foundation upon which to build.

Any book that has reached the final stage of being published is actually the work of many hands (eyes, brains, and hearts, too) behind the scenes. I owe everyone at Peachpit a great deal of gratitude, but specifically Susan Rimerman, Valerie Witte, Suki Gear, Lisa Brazieal, WolfsonDesign, Karin Arrigoni, Sara Jane Todd, and Nancy Aldrich-Ruenzel, who were instrumental in getting this book finished, making it look so darn fantastic, and putting it out into the world. Thank you all.

A special thanks to David Brommer and B&H Photo Video for help in securing the D5500 I used to write this book.

I am grateful for all that I have learned from my friends at the National Association of Photoshop Professionals, from the fantastic instructors at Photoshop World, and of course from my friends and fellow photographers at www.stocksy.com and www.thedigitalphotoworkshops.com. You all have taught and inspired me over the years.

I also want to thank my wife, Paloma, for being the love of my life and my number one supporter during this project; my son, Quinn, for assisting me on many shoots and being the model in many more; and my family, friends, and neighbors—Adrienne, Emma, Julia, Paige, Shiela, Ron, Kris, Max, Otis, Hayden, Jaylin, Alden, Jayda, Maggie, Raymond, Kayla, Justin, Nekos, Ben, and Scott—for being a part of the book in large and small ways.

Also, a big shout-out to Crackskull's Coffee & Books and the New Hampshire Media Makers. Thanks, guys!

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Introduction

The D5500 is an amazing piece of technology and a very capable tool for creating photographs that you will be proud to show others. The intention of this book is not to rehash the owner's manual that came with the camera or the downloadable Reference Manual PDF, but rather to be a resource for learning how to improve your photography while using your D5500. I am very excited and honored to assist you in that process, and to that end I have put together a short Q&A to help you get a better understanding of just what you can expect from this book.

Q: Is every camera feature going to be covered?

A: Nope, just the ones I feel you need to know about in order to start taking great photos. Believe it or not, you already own a great resource that covers every feature of your camera: the user's manual (there's also a free, comprehensive Reference Manual PDF that I recommend you download from Nikon). Writing a book that just repeats this information would have been a waste of my time and your money. What I did write about was how to harness certain camera features to benefit your photography. As you read, you will see callouts that point you to specific pages in the Reference Manual PDF that are related to the topic being discussed. For example, in Chapter 1, I mention touch-screen functionality, but more information on this feature is available in the manual.

Q: So if I already own the manual, why do I need this book?

A: The manual does a pretty good job of telling you how to use a feature or turn it on in the menus, but it doesn't necessarily tell you *why* and *when* you should use it. If you really want to improve your photography, you need to know the whys and whens to put all of those great camera features to use at the right time. In that respect, the manual just isn't going to cut it. However, the Reference Manual PDF (even more than the printed manual) is an excellent resource on the camera's features, and that's why I treat it like a companion to this book.

Q: What can I expect to learn from this book?

A: Hopefully, you will learn how to take great photographs. My goal, and the reason the book is laid out the way it is, is to guide you through the basics of photography as they relate to different situations and scenarios. By using the features of your D5500 and this book, you will learn about aperture, shutter speed, ISO, lens selection, depth of field, and many other photographic concepts. You will also find plenty of full-page photos that include captions, shooting data, and callouts so you can see how all of the photography fundamentals come together to make great images. All the while, you will be learning how your camera works and how to apply its functions and features to your photography. Also, while the main focus of this book is on shooting still photographs, I do devote a chapter to help you get started with the video functions of the camera.

Q: What are the assignments all about?

A: At the end of most of the chapters, you will find shooting assignments, where I give you some suggestions about how you can apply the lessons of the chapter to help reinforce everything you just learned. Let's face it—using the camera is much more fun than reading about it, so the assignments are a way of taking a little break after each chapter and having some fun.

Q: Should I read the book straight through, or can I skip around from chapter to chapter?

A: Here's the easy answer: yes and no. No, you shouldn't skip because the first four chapters give you the basic information you need to know about your camera. These are the building blocks for using the camera. After that, yes, move around the book as you see fit, because those chapters are written to stand on their own as guides to specific types of photography or shooting situations. So you can bounce from portraits to landscapes and then maybe to a little action photography. It's all about your needs and how you want to address them. Or, you can read the book straight through. The choice is up to you.

Q: Is there anything else I should know before getting started?

A: In order to keep the book short and focused, I had to be pretty selective about what I included in each chapter. However, there is a little more information that might come in handy after you've gone through all the chapters. So as an added value, I have written a bonus chapter: Chapter 12, "Creative Compositions." Chapter 12 will lead you through some photography tips and techniques to make your photographs even better. To access the bonus chapter, just log in or join peachpit.com (it's free), and then enter the book's ISBN on this page: www.peachpit.com/store/register.aspx. After you register the book, a link to the bonus chapter will be listed on your Account page under Registered Products. Note: If you purchased an electronic version of this book, you're set—Chapter 12 is already included in it.

Q: Is that it?

A: One last thought before you dive into the first chapter. My goal in writing this book has been to give you a resource you can turn to for creating great photographs with your Nikon D5500. Take some time to learn the basics and then put them to use. Photography, like most things, takes time to master and requires practice. I have been a photographer for many years, and I'm still learning.

Always remember, it's not the camera but the person using it who makes beautiful photographs. Have fun, make mistakes, and then learn from them. In no time, I'm sure you will transition from a person who takes snapshots to a photographer who makes great shots.

ISO 100 • 1/500 sec. • f/8 • 300mm lens

4

The Professional Modes

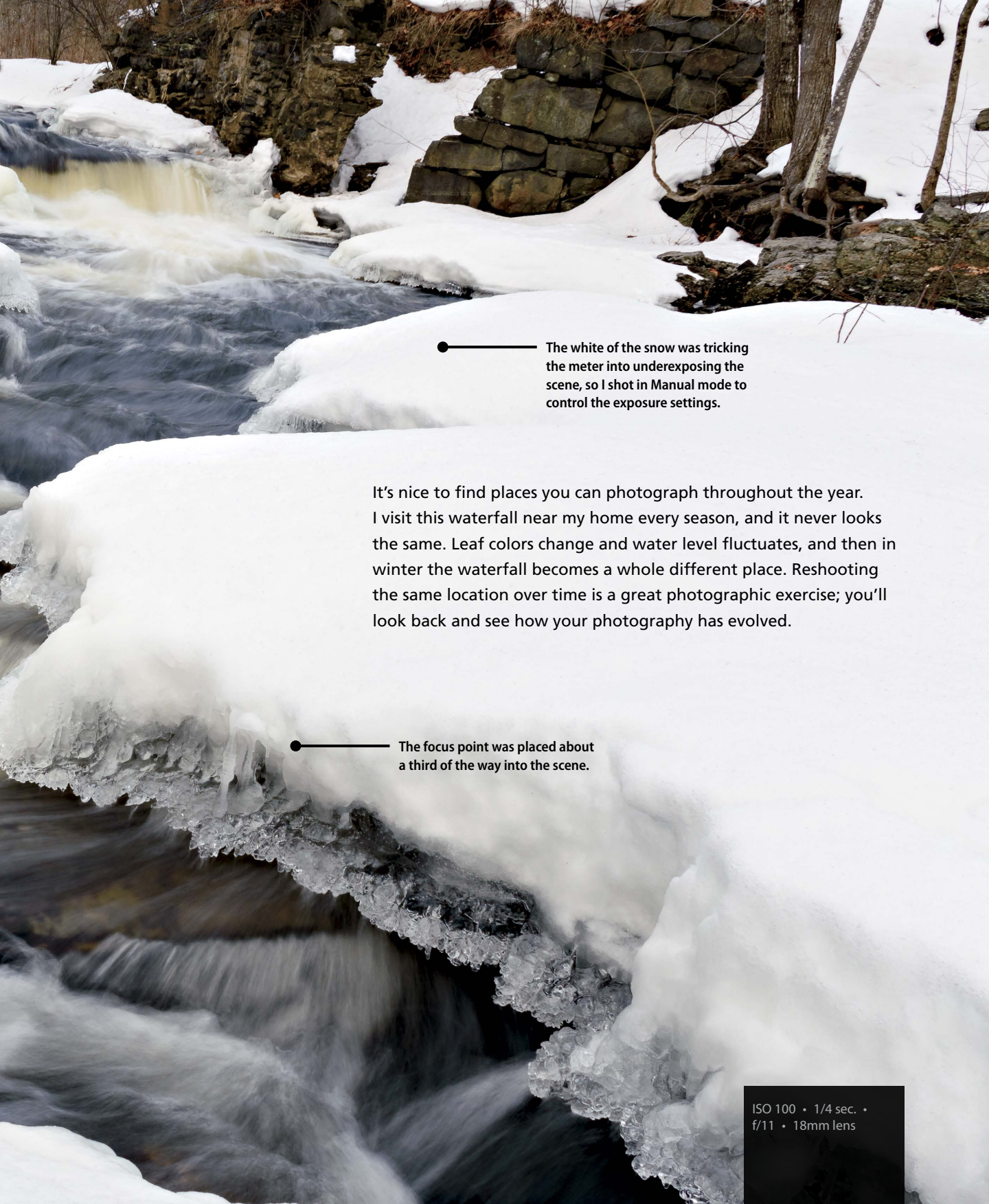
Taking Your Photography to the Next Level

If you talk to professional photographers, you will find that the majority of them use a few selective modes that offer the greatest amount of control. These modes are known as the backbone of photography. They allow you to influence two of the most important factors in taking great photographs: *aperture* and *shutter speed.*

To access these modes, you simply turn the Mode dial to one of the letter-designated modes and begin shooting. But wouldn't it be nice to know exactly what those modes control and how to make them do your bidding? If you want to take that next step in controlling your photography, it is essential that you understand not only how to control these modes but why you are controlling them. So let's move that Mode dial to the first of our professional modes: Program mode.

Poring Over the Picture

I wanted a wide depth of field, so I chose a relatively small aperture setting.



The white of the snow was tricking the meter into underexposing the scene, so I shot in Manual mode to control the exposure settings.

It's nice to find places you can photograph throughout the year. I visit this waterfall near my home every season, and it never looks the same. Leaf colors change and water level fluctuates, and then in winter the waterfall becomes a whole different place. Reshooting the same location over time is a great photographic exercise; you'll look back and see how your photography has evolved.

The focus point was placed about a third of the way into the scene.

ISO 100 • 1/4 sec. • f/11 • 18mm lens

P: Program Mode

There is a reason Program mode is only one click away from the automatic modes: With respect to aperture and shutter speed, the camera is doing most of the thinking for you in this mode. So, if that is the case, why even bother with Program mode?

First, let me say that I rarely use Program mode because it just doesn't give as much control over the image-making process as the other professional modes. However, on occasion it comes in handy; for instance, when I am shooting in widely changing lighting conditions and don't have the time to think through all of my options, or when I'm not very concerned with having ultimate control of the scene. Think of a picnic outdoors in a partial shade/sun environment. I want great-looking pictures, but I'm not looking for anything to hang in a museum. If that's the scenario, why choose Program over one of the scene modes? Because it gives me choices and control that none of the scene modes can deliver.

Manual Callout

To see a comparison of all the different modes, check out the table on page 348 of the Reference Manual PDF.

When to use Program (P) mode instead of the automatic scene modes

- When shooting in a casual environment where quick adjustments are needed
- When you want more control over the ISO
- When you want to make corrections to the white balance
- When you want to change shutter speeds or the aperture to achieve a specific result

Let's go back to our picnic scenario. As I said, the light is moving from deep shadow to bright sunlight, which means the camera is trying to balance our three photo factors (ISO, aperture, and shutter speed) to make a good exposure. From Chapter 1, we know that Auto ISO is just not a consideration, so we have already turned that feature off (you did turn it off, didn't you?). Well, in Program mode, you can choose which ISO you would like the camera to base its exposure on. The lower the ISO number, the better the quality of photographs but the less light sensitive the camera becomes. It's a balancing act, with the main goal always being to keep the ISO as low as possible—too low an ISO and we will get camera shake in our images from a long shutter speed; too high an ISO and we will have an unacceptable amount of digital noise.

Starting points for ISO selection

We discuss ISO quite often in this and other chapters, but it might be helpful to know where your starting points should be for ISO settings. (Again, you should always try to use the lowest possible ISO setting.)

- 100: Bright, sunny day
- 200: Hazy or outdoor shade on a sunny day
- 400: Indoor lighting at night or cloudy conditions outside
- 800: Late-night, low-light conditions, or sporting arenas at night

These are just suggestions, and your ISO selection will depend on a number of factors that will be discussed later in the book. You might have to push your ISO even higher as needed, but at least now you know where to start.

For our purposes, let's select ISO 400 so we provide enough sensitivity for those shadows while allowing the camera to use shutter speeds fast enough to stop motion.

With the ISO selected, we can now make use of the other controls built into Program mode. By rotating the Command dial, we have the ability to shift the program settings. Remember, your camera is using the internal meter to pick what it believes are suitable exposure values, but sometimes it doesn't know what it's looking at and how you want those values applied (**Figures 4.1** and **4.2**). With the program shift, you can influence what the shot will look like. Do you need faster shutter speeds in order to stop the action? Just turn the Command dial to the right. Do you want a smaller aperture so you get a narrow depth of field? Then turn the dial to the left until you get the desired aperture. The camera shifts the shutter speed and aperture accordingly in order to get a proper exposure, and you will get the benefit of your choice as a result. Just keep in mind that the camera is always trying to maintain the right exposure at every setting, and so the available light and the maximum and minimum aperture values of the attached lens will limit the range of shutter speeds at a given ISO value.

You will also notice that a small star will appear above the letter P in the viewfinder and the rear display if you rotate the Command dial. This star is an indication that you modified the exposure from the one the camera chose. To go back to the default Program exposure, simply turn the dial until the star goes away, or switch to a different mode and then back to Program mode again.

Figure 4.1
This is my first shot using Program mode. I rotated the Command dial to the right to increase shutter speed and use a wider aperture for shallow depth of field.

ISO 100 • 1/1600 sec. • f/2 • 50mm lens

Figure 4.2
To increase the depth of field, I rotated the Command dial to the left to slow down shutter speed and decrease the size of the aperture.

ISO 100 • 1/80 sec. • f/9 • 50mm lens

Let's set up the camera for Program mode and see how we can make all of this come together.

Setting up and shooting in Program mode

1. Turn on your camera, and then turn the Command dial to align the P with the indicator line.
2. Select your ISO by pressing the **i** button on the back of the camera.
3. Press up or down on the Multi-selector to highlight the ISO option, and then select OK.
4. Use the Multi-selector to select the desired ISO setting, and then press OK to lock in the change.
5. Point the camera at your subject, and then activate the camera meter by depressing the shutter button halfway.
6. View the exposure information in the bottom of the viewfinder or on the display panel on the back of the camera.
7. While the meter is activated, use your thumb to roll the Command dial left and right to see the changed exposure values.
8. Select the exposure that is right for you and start clicking. (Don't worry if you aren't sure what the right exposure is. We will start working on making the right choices for those great shots beginning with the next chapter.)

S: Shutter Priority Mode

S mode is what we photographers commonly refer to as Shutter Priority mode. Just as the name implies, it is the mode that prioritizes or places major emphasis on the shutter speed above all other camera settings.

As with Program mode, Shutter Priority mode gives us more freedom to control certain aspects of our photography. The selected shutter speed determines how long you expose your camera's sensor to light. The longer it remains open, the more time your sensor has to gather light. The shutter speed also, to a large degree, determines how sharp your photographs are. This is different from the image being sharply in focus. Two of the major influences on the sharpness of an image are camera shake and the subject's movement. Because a slower shutter speed means that light from your subject is hitting the sensor for a longer period of time, any movement by you or your subject will show up in your photos as blur.

When to use Shutter Priority (S) mode

- When working with fast-moving subjects and you want to freeze the action (**Figure 4.3**); much more on this in Chapter 5
- When you want to emphasize movement in your subject with motion blur (**Figure 4.4**)
- When you want to use a long exposure to gather light over a long period of time (**Figure 4.5**); more on this in Chapter 8
- When you want to create silky-looking water in a waterfall (**Figure 4.6**)

Figure 4.3
Even the fastest of subjects can be frozen with the right shutter speed.
ISO 25600 • 1/1000 sec. • f/5.6 • 400mm lens

Figure 4.4
Slowing down the shutter speed and following the motion conveys a sense of movement in the shot.
ISO 800 • 1/10 sec. • f/8 • 24mm lens

Figure 4.5
Long exposure coupled with a steady tripod can bring out the Big Dipper.

ISO 400 • 120 sec. • f/3.5 • 24mm lens

Figure 4.6
Increasing the length of the exposure time gives the flowing water a silky look.

ISO 100 • 1/2 sec. • f/13 • 70mm lens

As you can see, the subject of your photo usually determines whether or not you will use Shutter Priority mode. It is important that you be able to visualize the result of using a particular shutter speed. The great thing about shooting with digital cameras is you get instant feedback by viewing your shot on the LCD screen. But what if your subject won't give you a do-over? Such is often the case when shooting sporting events. You can't go ask the quarterback to throw that touchdown pass again because your last shot was blurry from a slow shutter speed. It's important to know what those speeds represent in terms of their capability to stop the action and deliver a blur-free shot.

Shutter speeds

A *slow* shutter speed refers to leaving the shutter open for a long period of time—like 1/30 of a second or longer. A *fast* shutter speed means that the shutter is open for a very short period of time—like 1/250 of a second or shorter.

First, let's examine just how much control you have over the shutter speed. The D5500 has a shutter speed range from 1/4000 of a second to 30 seconds. With that much latitude, you should have enough control to capture almost any subject. The other thing to think about is that Shutter Priority mode is considered a "semiautomatic" mode. This means you are taking control over one aspect of the total exposure while the camera handles the other. In this instance, you are controlling the shutter speed and the camera is controlling the aperture. This is important because there will be times when you want to use a particular shutter speed but your lens won't be able to accommodate your request.

For example, you might encounter this problem when shooting in low-light situations: If you are shooting a fast-moving subject that will blur at a shutter speed slower than 1/125 of a second, but your lens' largest aperture is f/3.5, you might find that your aperture display in the viewfinder and the rear LCD panel will blink. This is your warning that there won't be enough light available for the shot—due to the limitations of the lens—so your picture will be underexposed.

Another case where you might run into this issue is when you are shooting moving water. To get that look of silky, flowing water, you usually need to use a shutter speed of at least 1/15 of a second. If your waterfall is in full sunlight, you may see the aperture readout blink because the lens you are using only stops down to f/22 at its smallest opening. In this instance, your camera is warning that you will be overexposing your image. There are workarounds for these problems, which we will discuss in Chapter 7, but it is important to know that Shutter Priority mode has certain limitations.

Setting up and shooting in Shutter Priority mode

1. Turn on your camera, and then turn the Mode dial to align the S with the indicator line.
2. Select your ISO by pressing the **i** button on the back of the camera.
3. Press up or down on the Multi-selector to highlight the ISO option, and then press OK.
4. Use the Multi-selector to select the desired ISO setting, and then press OK to lock in the change.
5. Point the camera at your subject, and then activate the camera meter by depressing the shutter button halfway.
6. View the exposure information in the bottom area of the viewfinder or on the rear LCD panel.
7. While the meter is activated, use your thumb to roll the Command dial left and right to see the changed exposure values. Roll the dial to the right for faster shutter speeds and to the left for slower speeds.

A: Aperture Priority Mode

You wouldn't know it from its name, but Aperture Priority mode is one of the most useful and popular of all the professional modes. This mode is one of my personal favorites, and I believe it will quickly become one of yours as well. Aperture Priority mode is also deemed a semiautomatic mode because it allows you to control one factor of exposure while the camera adjusts for the other.

Why, you may ask, is this one of my favorite modes? It's because the aperture of your lens dictates depth of field. Depth of field, along with composition, is a major factor in how you direct attention to what is important in your image. It is the controlling factor of how much area in your image is sharp. If you want to isolate a subject from the background, such as when shooting a portrait, you can use a large aperture to keep the focus on your subject and make both the foreground and background blurry. If you want to keep the entire scene sharply focused, as with a landscape scene, using a small aperture will render the greatest amount of depth of field possible.

When to use Aperture Priority (A) mode

- When shooting portraits or wildlife (**Figure 4.7**)
- When shooting most landscape photography (**Figure 4.8**)
- When shooting macro, or close-up, photography (**Figure 4.9**)

Figure 4.7
A large aperture created a very blurry background, so all the emphasis was left on the subjects.
ISO 3200 • 1/125 sec. • f/1.4 • 50mm lens

Figure 4.8
A smaller aperture setting brings sharpness to near and far objects.
ISO 100 • 1/15 sec. • f/11 • 45mm lens

Figure 4.9
Small apertures give more sharpness in macro images.

ISO 4000 • 1/320 sec. • f/8 • 400mm lens

F-stops and aperture

As discussed earlier, the numeric value of your lens aperture is described as an *f-stop*. The f-stop is one of those old photography terms, which technically relates to the focal length of the lens (for example, 200mm) divided by the effective aperture diameter. These measurements are defined as "stops" and work incrementally with your shutter speed to determine proper exposure. Older camera lenses used one-stop increments to assist in exposure adjustments, such as 1.4, 2, 2.8, 4, 5.6, 8, 11, 16, and 22. Each stop represents about half the amount of light entering the lens iris as the larger stop before it. Today, most lenses don't have f-stop markings, since all adjustments to this setting are performed via the camera's electronics. The stops are also now typically divided into 1/3-stop increments to allow much finer adjustments to exposures as well as to match the incremental values of your camera's ISO settings, which are adjusted in 1/3-stop increments.

So we have established that Aperture Priority (A) mode is highly useful in controlling the depth of field in your image. But it's also pivotal in determining the limits of available light you can shoot in. Different lenses have different maximum apertures. The larger the maximum aperture, the less light you need in order to achieve an acceptably sharp image. You will recall that when using Shutter Priority mode, handholding your camera introduces movement or hand shake, which causes blurriness in the final picture. If your lens has a larger aperture, you can let in more light all at once, which means you can use faster shutter speeds. This is why lenses with large maximum apertures, such as f/1.4, are called "fast" lenses.

On the other hand, bright scenes require the use of a small aperture (such as f/16 or f/22), especially if you want to use a slower shutter speed. That small opening reduces the amount of incoming light, and this reduction of light requires that the shutter stay open longer.

Setting up and shooting in Aperture Priority mode

1. Turn on your camera, and then turn the Mode dial to align the A with the indicator line.
2. Select your ISO by pressing the **i** button on the back of the camera.
3. Press up or down on the Multi-selector to highlight the ISO option, and then select OK.
4. Use the Multi-selector to select the desired ISO setting, and then press OK to lock in the change.
5. Point the camera at your subject, and then activate the camera meter by depressing the shutter button halfway.
6. View the exposure information in the bottom area of the viewfinder or on the rear display panel.

7. While the meter is activated, use your thumb to roll the Command dial left and right to see the changed exposure values. Roll the dial to the right for a smaller aperture (higher f-stop number) and to the left for a larger aperture (smaller f-stop number).

Zoom lenses and maximum apertures

Some zoom lenses (like the 18–140mm lens) have a variable maximum aperture. This means that the largest opening will change depending on the zoom setting. In the example of the 18–140mm zoom, the lens has a maximum aperture of f/3.5 at 18mm and only f/5.6 when the lens is zoomed out to 140mm.

M: Manual Mode

Once upon a time, long before digital cameras and program modes, there was manual mode. In those days it wasn't called "manual mode" because there were no other modes. It was just photography. In fact, many photographers cut their teeth on completely manual cameras. Let's face it—if you want to learn the effects of aperture and shutter speed on your photography, there is no better way to learn than by setting these adjustments yourself. However, today, with the advancement of camera technology, many new photographers never give this mode a second thought. That's truly a shame, as not only is it an excellent way to learn your photography basics, but it's also an essential tool to have in your photographic bag of tricks.

When your camera is set to Manual (M) mode, the camera meter will give you a reading of the scene you are photographing. It's your job to set both the f-stop (aperture) and the shutter speed to achieve a correct exposure. If you need a faster shutter speed, you will have to make the reciprocal change to your f-stop. Using any other mode, such as Shutter Priority or Aperture Priority, would mean that you just have to worry about one of these changes, but Manual mode means you have to do it all yourself. This can be a little challenging at first, but after a while you will have a complete understanding of how each change affects your exposure, which will, in turn, improve the way you use the other modes.

When to use Manual (M) mode

- When learning how each exposure element interacts with the others (**Figure 4.10**)
- When your environment is fooling your light meter and you need to maintain a certain exposure setting (**Figure 4.11**)
- When shooting silhouetted subjects, which requires overriding the camera's meter readings (**Figure 4.12**)

Figure 4.10 **I wanted to expose for the bright signs to keep them from blowing out, but I also wanted to use a shutter speed that was slow enough to convey motion.**

ISO 100 • 0.6 sec. • f/22 • 80mm lens

Figure 4.11
Sand and snow are always a challenge for light meters. Using Manual mode allowed me to prevent the scene from being underexposed.

ISO 100 • 1/400 sec. • f/6.3 • 22mm lens

Figure 4.12
I used the spot meter on the bright background and adjusted exposure manually to put the subject into silhouette.

ISO 200 • 1/80 sec. • f/8 • 200mm lens

Setting up and shooting in Manual mode

1. Turn on your camera, and then turn the Mode dial to align the M with the indicator line.
2. Select your ISO by pressing the **i** button on the back of the camera.
3. Press up or down on the Multi-selector to highlight the ISO option, and then select OK.
4. Use the Multi-selector to select the desired ISO setting, and then press OK to lock in the change.
5. Point the camera at your subject, and then activate the camera meter by depressing the shutter button halfway.
6. View the exposure information in the bottom area of the viewfinder or on the display panel on the rear of the camera.
7. While the meter is activated, use your thumb to roll the Command dial left and right to change your shutter speed value until the exposure mark is lined up with the zero mark. The exposure information is displayed by a scale with marks that run from –2 to +2 stops. A proper exposure will line up with the arrow mark in the middle. As the indicator moves to the left, it is a sign that you will be underexposing (there is too little light on the sensor to provide adequate exposure). Move the indicator to the right and you will be providing more exposure than the camera meter calls for; this is overexposure.
8. To set your exposure using the aperture, depress the shutter release button until the meter is activated. Then, while holding down the Exposure Compensation/Aperture button (located behind and to the right of the shutter release button), rotate the Command dial to change the aperture. Rotate right for a smaller aperture (large f-stop number) and left for a larger aperture (small f-stop number).

How I Shoot: A Closer Look at the Camera Settings I Use

The great thing about working with a dSLR camera is I can always feel confident that some things will remain unchanged from camera to camera. For me, these are the Aperture Priority (A) and Shutter Priority (S) shooting modes. Regardless of the subject I am shooting—from landscape to portrait to macro—I am almost always going to be concerned with my depth of field. Whether it's isolating my subject with a large aperture or trying to maximize the overall sharpness of a sweeping landscape (**Figure 4.13**), I always keep an eye on my aperture setting. If I do have a need to control the action, I use Shutter Priority, my fallback mode: To create a silky waterfall effect, I can depend on Shutter Priority mode to provide that long shutter speed that will deliver. If I am shooting a soccer game, I definitely need the fast shutter speeds that will freeze the fast-moving action.

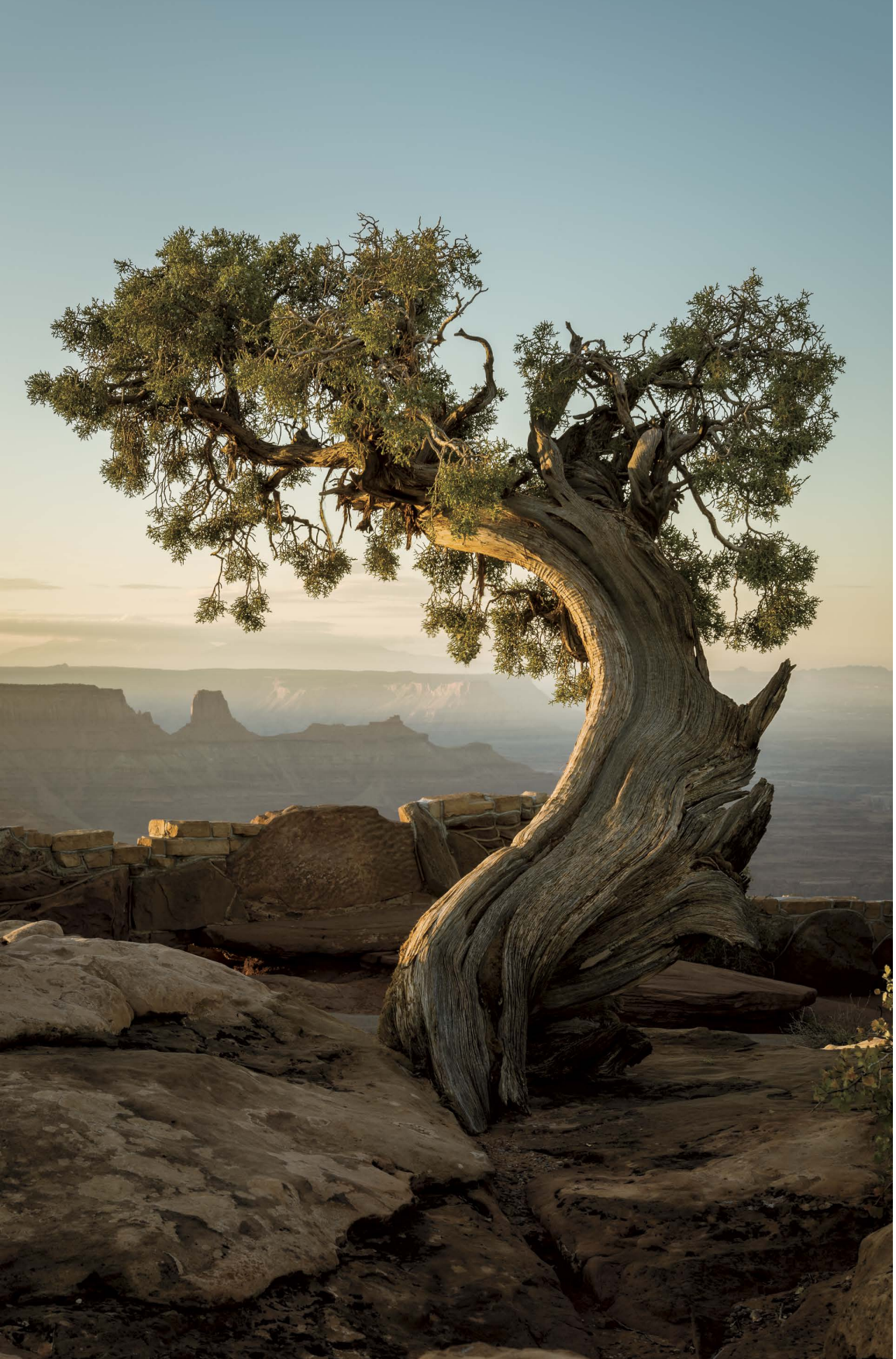


Figure 4.13
A small aperture increases the depth of field, which means more of the landscape is in focus.

ISO 100 • 1/3 sec. • f/13 • 52mm lens

While the other camera modes have their place, I think you will find that, like me and most other working pros, you will use the Aperture Priority and Shutter Priority modes for 90 percent of your shooting.

Another major concern I have when I am setting up my camera is just how low I can keep my ISO. This is always a priority for me, because a low ISO will deliver the cleanest image. I raise the ISO only as a last resort, because each increase in sensitivity is an opportunity for more digital noise to enter my image. To that end, I always have the High ISO Noise Reduction feature turned on (see Chapter 7).

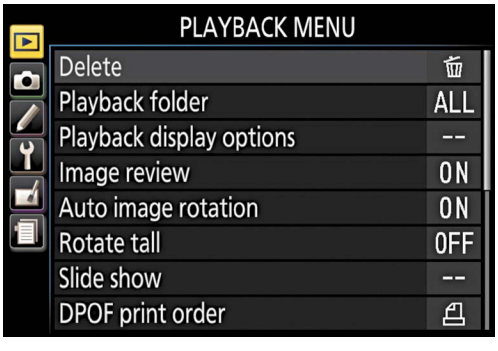
To make quick changes while I shoot, I often use the Exposure Compensation feature (also covered in Chapter 7) so I can make small overexposure and underexposure changes. This is different than changing the aperture or shutter speed; it is more like fooling the camera meter into thinking the scene is brighter or darker than it actually is. To get to this function quickly, I press the Exposure Compensation/Aperture button and dial in the desired amount of compensation. Truth be told, I usually have this set to –1/3 so there is just a tiny bit of underexposure in my image. This usually leads to better color saturation. (Note: The Exposure Compensation feature does not work in the Manual shooting mode.)

One of the reasons I change my exposure is to make corrections when I see the "blinkies" in my rear LCD. Blinkies are the warning signal that part of my image has been overexposed to the point that I no longer have any detail in the highlights. When the Highlight Alert feature is turned on, the display will flash wherever the potential exists for overexposure. The black-and-white flashing will appear only in areas of your picture that are in danger of overexposure.

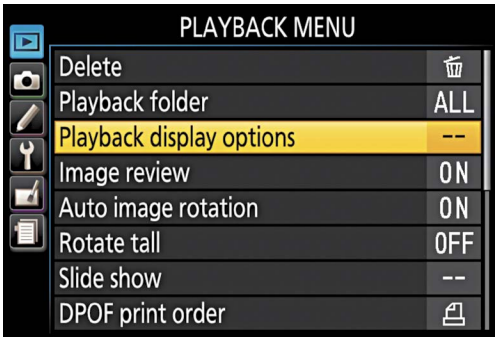
Setting up the Highlight Alert feature

1. Press the Menu button, and then use the Multi-selector to navigate to Playback Menu (**A**).
2. Move the Multi-selector to Playback Display Options and press OK (**B**).
3. Move the Multi-selector down to select the Highlights option, and then press OK to place a check mark next to the word Highlights (**C**).
4. Now move back up to select Done, and press OK again to lock in your change.

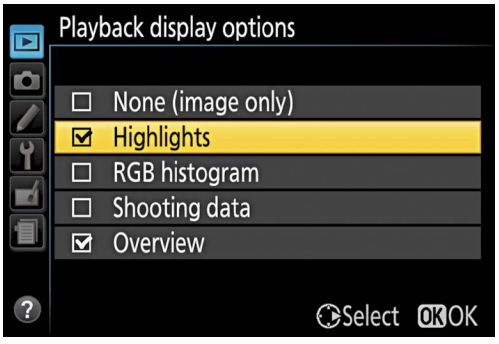
A



B



C



Once the highlight warning is turned on, I use it to check my images on the back of the LCD after taking a shot. If I see an area that is blinking, I will usually set the Exposure Compensation feature to an underexposed setting like –1/3 or –2/3 stops and take another photo, checking the result on the screen. I repeat this process until the warning is gone.

Sometimes, such as when you're shooting into the sun, the warning will blink no matter how much you adjust the exposure because there is just no detail in the highlight. Use your best judgment to determine if the warning is alerting you to an area where you want to retain highlight detail.

As you work your way through the coming chapters, you will see other tips and tricks I use in my daily photography, but the most important tip I can give is to understand the features of your camera so you can leverage the technology in a knowledgeable way. This will result in better photographs.

This will be more of a mental challenge than anything else, but you should put a lot of work into these lesson assignments because the information covered in this chapter will define how you work with your camera from this point on. Granted, once in a while you'll just want to grab some quick pictures and will resort to the automatic scene modes, but to get serious with your photography, you should learn the professional modes inside and out.

Starting off with Program mode

Set your camera on Program mode and start shooting. Become familiar with the adjustments you can make to your exposure by turning the Command dial. Shoot in bright sun, deep shade, indoors, anywhere you have different types and intensities of light. While you are shooting, make sure you keep an eye on your ISO, and raise or lower it according to your environment.

Learning to control time with the Shutter Priority mode

Find some moving subjects and set your camera to S mode. Have someone ride a bike back and forth, or even just photograph cars as they go by. Start with a slow shutter speed of around 1/30 of a second, and then start shooting with faster and faster shutter speeds. Keep shooting until you can freeze the action. Now find something that isn't moving, like a flower, and start with your shutter speed at something fast like 1/500 of a second and work your way down. Don't brace the camera on a steady surface. Just try to shoot as slowly as possible, down to about 1/4 of a second. The point is to see how well you can handhold your camera before you start introducing hand shake into the image, making it appear soft and somewhat unfocused.

Controlling depth of field with the Aperture Priority mode

The name of the game with Aperture Priority mode is depth of field. Set up three items—chess pieces or something similar—at different distances from you. Focus on the middle item, and set your camera to the largest aperture your lens allows (remember, large aperture means a small number, like f/3.5). Now, while still focusing on the middle subject, start shooting with ever-smaller apertures until you are at the smallest f-stop for your lens. If you have a zoom lens, try doing this exercise with the lens at the widest and then the most telephoto setting. Now move up to subjects that are farther away, like telephone poles, and shoot them in the same way. The idea is to get a feel for how each aperture setting affects your depth of field.

Giving and taking with Manual mode

Manual mode is not going to require a lot of work, but you should pay close attention to your results. Go outside on a sunny day and, using the camera in Manual mode, set your ISO to 100, your shutter speed to 1/125 of a second, and your aperture to f/16. Now press your shutter release button to get a meter reading. You should be pretty close to that zero mark. If not, make small adjustments to one of your settings until it hits that mark. This is when the fun begins. Start moving your shutter speed slower, to 1/60, and then set your aperture to f/22. Now go the other way. Set your aperture on f/8 and your shutter speed to 1/500.

Review your images. If all went well, all the exposures should look the same. This is because you balanced the light with reciprocal changes to the aperture and shutter speed. Go back to our original setting of 1/125 at f/16 and try moving the shutter speed without changing the aperture. Just make 1/3-stop changes (1/125 to 1/100 to 1/80 to 1/60), and then review your images to see what a 1/3-stop of overexposure looks like. Then do the same thing going in the opposite way. It's hard to know if you want to overexpose or underexpose a scene until you have actually done it and seen the results.

With each of the assignments, make sure you keep track of your modes and exposures so you can compare them with the images. If you are using software to review your images, you should also be able to check the camera settings that are embedded within the images' metadata.

Share your results with the book's Flickr group!
Join the group here: flickr.com/groups/nikond5500_fromsnapshotstogreatshots

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