

# Chapter 1: Becoming a Digital Photography Maven

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## In This Chapter

- ✓ Choosing equipment
- ✓ Making great digital photos
- ✓ Converting other photos to digital format
- ✓ Making hard-copy prints

**"I**s digital photography all that different from film photography?" I hear that question all the time, and there's a definitive answer: yes and no. (So much for absolutes.)

Perhaps I should explain: The equipment you'll use and the procedures you'll follow in digital photography are indeed very different from your venerable 35mm camera. Forget film and traditional film processing — and, if you're a photographer with experience in the darkroom, you can also cast off all those chemicals. If you have an inkjet or laser color printer, you can produce all the prints you need right from your computer. Plus, you can use an image editor like Photoshop Elements or Paint Shop Pro to modify your images and repair problems, or add all sorts of artistic effects.

On the other hand, digital cameras look and operate very much like their film cousins, and they share many of the same accessories: lenses, flash units, tripods, and the like. The basic rules of photo composition are the same no matter which kind of camera you're using, and you'll find that you still need to plan ahead when buying supplies and outfitting your camera bag for a trip.

In this chapter, I outline the guidelines you should follow to reach that hallowed summit we all crave — the title of *Serious Digital Photographer*!

## Knowing What Equipment You Need

I realize that not all of you are curled up with this book in one hand and a digital camera in the other. You may already have a digital camera and have just purchased this book to find out exactly what you can do with it. However, I'm guessing that quite a few of you haven't taken the plunge yet. You bought this book to find out more about digital photography before spending your hard-earned money on the equipment you need. You have questions that need answers first: Can I afford a camera that does the things I need it to do? Can a computer fumble-fingers like me really jump into digital photography? What's the best camera to buy? Still others are



digital camera veterans who are already thinking of upgrading. You, too, need some advice about equipment, which you can find in this book.

Choosing a digital camera that's right for you can be tricky because a lot more goes into your selection than simply the specifications. Two cameras with identical specs can perform quite differently. One may exceed your expectations while another one frustrates the heck out of you. I explore some of the subtleties of camera selection in Chapter 2 of Book I.

However, if you want to get the most from this book, your digital camera (or *digicam* for short) should have certain minimal features and capabilities. For example, if your digital camera is one of those Web cams that can capture stills measuring 320 x 200 pixels, or maybe 640 x 480 pixels, you probably don't have what you need to take serious or semi-serious digital photos.

One of those \$59 digicams with a lens that can't be focused, no exposure controls, and no removable storage probably won't do the job for you either, other than as a fun toy. If you believe the adage, "Any camera is better than no camera," go ahead and slip one in your pocket and be ready to take a snapshot anytime, anyplace (as long as you have enough light, your subject holds still, and a wallet-sized print will suffice). Such a minimalist digital photo system, however, won't enable you to do much.

Any digital camera costing a couple hundred dollars or more will probably do a fine job for you. Even the least expensive, true digital cameras boast resolutions of at least 1 megapixel. (That is, at least 1 million pixels of information, usually 1024 x 768 pixels or more.) Typical digital cameras have automatic exposure, a color LCD viewing screen for previewing or reviewing your photos, and removable storage so you can take out your digital film card when it's full and replace it with a new one to keep shooting. Most have a zoom lens so that you can magnify an image without moving forward, which is invaluable when you want to take pictures of different subjects from one spot.

Those minimum specs give you everything you need to take great photos. After all, it's the photographer, not the camera, that produces the best images. I once wrote an article for *Petersen's PhotoGraphic Magazine*, in which I presented photos of the same subjects, side by side, taken with an inexpensive point-and-shoot camera and a full-blown professional system that cost 100 times as much. After both sets of photos had been subjected to the vagaries of halftone reproduction, it was difficult to tell them apart.

Spending a lot on a digital camera buys you a few new capabilities from better zooms, enhanced resolution, or a more sophisticated built-in flash. If you have a full-featured model, you can find lots of information in this book on how to get the most from your camera's capabilities (as well as workarounds for those owning more modest equipment).

You can find digital cameras suitable for the most exotic of photographic pursuits, such as the underwater setup shown in Figure 1-1. It's a Canon WP-DC300 waterproof case for the Canon PowerShot S40 digital camera. It provides full access to all your camera's controls, while letting you photograph those colorful coral reefs in Tahiti at depths up to 100 feet!

**Figure 1-1:**  
A typical  
underwater  
case for  
shooting  
marine life.



## *Minimum and Maximum Specs*

For most of this book, I assume you have a digital camera with a resolution of at least 2 megapixels. (If you don't understand resolution right now, see Chapter 2 of Book I, for an explanation.) A camera with a 2-megapixel sensor corresponds to about 1600 x 1200 pixels, which is enough detail to give you decent 6-x-8-inch prints or larger at 200 dpi printer resolution. A 2-megapixel camera also can capture enough information to allow some cropping, especially if you plan to use the image on a Web page, where high resolution isn't necessary. A 4-megapixel resolution was a standard midrange spec as I wrote this book.

However, if you have a 1.0- to 1.3-megapixel camera, you can still do plenty of things. You can prepare images for dynamite Web pages and make sparkling 4-x-5-inch prints. I still use an ancient Epson digital camera that maxes out at 1024 x 768 resolution to take pictures for eBay auctions, and most of the time, I take the snaps at a lower 640 x 480 setting that's plenty sharp enough for photos shown at small sizes.

Cameras with up to 6 megapixels of resolution have dipped into the \$1,000 range and will probably become common during the life of this book. If you own one of these babies, you can do even more. You can make tack-sharp 8-x-10-inch prints (and even larger prints if your printer supports them), crop out the center of an image, and still have sharpness to spare. Your camera will have loads of automated features, such as automatic bracketing (taking several exposures at different settings to make sure one is ideal) or a very long zoom lens (to reach way out and capture distant objects).

Although I seem to focus on the number of pixels a camera has, other considerations, such as the zoom lens I just mentioned, may also be important to you. Even the least expensive cameras may have a 2:1 to 3:1 zoom, which can magnify an image 2x and 3x (respectively). Better cameras have 4:1 or longer zooms, up to 10:1 or more. Your camera probably has *macro*, or close-up, capability, which lets you grab images from inches away from your subject.

Most of the other components (such as the amount and type of memory storage, manual/automatic exposure and focusing options, built-in flash capability, and so on) can vary widely. You can find discussions of these in Chapter 2 of Book 1.

Although I've been using single lens reflex (SLR) cameras, both digital and conventional, for more years than I care to think about, very little in this book actually requires a digital SLR to achieve. Those of you with high-end cameras should still find lots to like in this book because one of my goals has been to present pro-level techniques in ways that can help beginners, too. If you have a digital SLR, you'll find these techniques even more useful.

One thing I avoid in this book is mentioning the names of specific camera models, except as a matter of interest from time to time. My oldest digital camera in regular use is a 4-year-old (plus) Epson PhotoPC 600. Its capabilities still compare favorably with the least expensive 1-megapixel models, and that's what's important. When camera model matters, I may mention 6- or 3.3- or 2-megapixel models in a generic sense. You won't find any discussion in this book about the relative merits of the latest Nikon or Fuji cameras, or other references that will be hopelessly outdated in a few months. (Those of you reading this in the year 2005 with your \$500 10-megapixel cameras should refrain from laughing.)

## *Taking Great Digital Shots*

So, when you have a camera in hand, what do you need to know to take great digital photos? In this section, I discuss the knowledge that needs to reside in your brain (or be otherwise available) to take great pictures.

### *Understand how your camera works*

No digital photography book can tell you how to turn on your camera, how to adjust the auto-exposure settings, or how to use your model's self-timer to take a picture with you in it. Those are things found only in your camera's instruction manual. Read it. I promise that the information you seek is in there; it may just be hard to find. The instructions for my own Nikon digital camera are so cryptic that I found myself creating a cheat sheet with lists of steps, such as, "To turn off the auto-sharpening feature, press the Menu button, and then. . . ."



Some of the techniques in this book call for using a specific exposure mode or lens setting. I may ask you to switch to your camera's close-up mode to take photos a few inches from your subject. You may need to use your camera's built-in flash. Find out how to do these now so that you can add some simple but effective tools to your shooting repertoire.

### *Know some photography fundamentals*

Certainly, you can point your camera and snap off a picture that may turn out great. Some prize-winning shots were taken in an instant as a fast-breaking news event unfolded without warning. Amateur photographers took more

than a few of those photos, such as the famous Pulitzer Prize winner of a woman falling from a burning hotel captured by a 26-year-old Georgia Tech student. However, whatever part instinct and luck take in the production of great pictures, a little knowledge can be much more important.

- ◆ If you know a little about composition, you can nudge your images into a more pleasing arrangement. (See Book I, Chapter 7, for a full course in photographic composition.)
- ◆ Understanding how focus can make parts of your image sharp or blurry gives you the freedom to use focus selectively to isolate or emphasize subjects (Book I, Chapter 8).
- ◆ Having some background in how shutter speeds can freeze action can improve your sports photography (Book I, Chapter 11).
- ◆ You don't need to become an expert in lighting effects, but understanding how light works can improve your people pictures (Book I, Chapter 9).

### *Find out how to use an image editor*

In digital photography, the pseudo-snap of an electronic shutter is only the beginning. You can do lots of things after the shot to improve your photo — or transform it into an entirely new one. Simple image editors enable you to crop pictures, fix bad color, or remove defects such as those glaring red eyes found in many flash photos. However, you can find even more creative freedom in more advanced image editors that let you do anything from eliminating trees that appear to be growing out of your subject's head to bringing seriously damaged photos back to life. If you want to polish your reputation as an all-around digital photographer, plan on developing at least a modicum of skill with a decent image-editing program. You'll find general information on a broad range of image editors in Chapter 13 of Book I, as well as specifics on Adobe Photoshop Elements in Chapters 14 through 18 also in Book I).

### *Master a scanner*

Digital photographers don't *have* to own a scanner, but you don't *have* to own a camera bag or an extra digital film card, either. Like other digital accessories, a scanner provides you with some supplemental techniques that let your scanner complement or substitute for your digital camera. For example, a scanner can be used for producing close-up images of relatively flat three-dimensional objects, such as coins. A scanner can grab pictures of very small objects (less than 1 x 1 inch) that are difficult to capture with a digital camera.



I won't be going into scanners in any depth in this particular tome — I've got a lot of ground to cover just by focusing on digital cameras! However, I can recommend an excellent book with comprehensive coverage of all types of scanners: *Scanners For Dummies*, 2nd Edition, written by Mark L. Chambers (Wiley). You find out everything you need to know about scanning hardware and application software, as well as tips and tricks for improving your scanned images with Paint Shop Pro or your favorite image editor. Check it out!

## ***Making Any Photo Digital***

In this book, you can find out how to transform any photo you happen to have into a digital image. As I just mentioned, scanners are one way to do this: Slap an existing photo down on the scanning bed and scan it into your image editor, and you have a digital image that's the equal of anything you might capture with your digital camera — except it's likely to have dust spots!

Or, drop off your film at your local photo lab and request a Photo CD along with (or instead of) your prints. Photo CDs can be produced from slide film, too, or even stacks of existing prints. What you receive for your money is a high-resolution scan of your images, perfect for manipulating in your image editor and printing on your own color printer. You don't even need to own a scanner: Your photo lab does all the work for you.

Another option is using a local or mail-order service that processes your film and puts the finished images on the Internet. You can download your photos to your computer or make them available for viewing by family, friends, and colleagues on a Web page. What could be easier? You can find more information on this topic in Chapters 20 and 21 of Book I.

## ***Printing Your Final Pictures***

The final piece of the digital photography puzzle is the hard-copy print. You may create photos electronically, view them on your computer, post them on your Web site, and send them to others as e-mail, but nothing beats having a stack of prints to pass around or an enlargement to hang over the fireplace.

So, in Chapter 20 of Book I, you can find basic information on making prints. The good news is that the equipment you need is inexpensive and easy to use. A photo-quality inkjet printer can set you back \$100 or so. It probably plugs directly into a USB port on your computer and requires little or no setup. Making the prints can be a point-and-click operation, and a variety of printers can do the job for you. Today's models can produce prints directly from your digital camera, with no computer required at all!

The bad news, if it can be called that, is that the cost of materials can seem a little high. You can pay \$1 or more just for the paper and ink for a single 8-x-10-inch print. The best news is that, unlike a photofinishing lab, you don't make a print of every single photo you take. You can view your prints on your computer display and make hard copies of only the best images. From that viewpoint, making your own prints isn't expensive at all. You're printing only the pictures you want and, in the long run, probably paying a lot less overall than you used to spend on those prints that end up in a shoebox.

