

Take Control

of Buying a Digital Camera

by Laurence Chen

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READ ME FIRST

Welcome to *Take Control of Buying a Digital Camera*, version 3.1.

This book helps you cut through the marketing hype and confusing jargon to find the digital camera that's right for you. You'll learn which camera features are important, which ones aren't, and why. This book was written by Laurence Chen, edited by Jeff Carlson, and published by TidBITS Publishing Inc.

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What's New in Version 3.1

This update mainly brings information such as prices, megapixel ranges, and models up to date to reflect the current state of the market, especially in [Appendix C: Model Suggestions](#), page 89).

I've also added information about Auto ISO—see particularly [Camera ISO \(Sensitivity\) Range](#), page 40.

If you printed version 3.0 on a home printer and wish to update your book, but don't wish to re-print the entire document, I suggest that you proceed as follows:

1. Print the first page of [Set a Realistic Camera Budget](#) (the table has lots of updated information)
2. Print these sections entirely:
 - ◇ [Compare Camera Features](#)
 - ◇ [Buying a Digital SLR Camera](#)

- ◇ [Read Between the Lines of Camera Reviews](#)
- ◇ [View Pictures on Your Computer](#)
- ◇ [Appendix A: Camera Buying Worksheet](#)
- ◇ [Appendix C: Model Suggestions](#)

3. Replace the old sections (or page, in the case of Step 1) in your version 3.0 book with the newly printed sections.

The page numbers on your resulting printed copy won't be exactly sequential or correct, because it will now have a mix of old and new pages, but otherwise, these steps should give you a fully updated, printed book. If you want the page numbers to work out, you'll have to re-print the entire ebook. (Note, you can also click [Print](#) on the [cover](#) of the ebook to get a more professional looking printed copy.)

What Was New in Version 3.0

Version 3.0 of *Take Control of Buying a Digital Camera* contains these updates and improvements over the 2.0 edition:

- The sidebar [Megapixel Convergence](#) (page 31) notes the ongoing shift of the digital camera market caused by manufacturers offering higher-megapixel sensors (in the 7 to 12 MP range) in consumer cameras.
- **Table 3**, *Digital Camera Feature Priorities* (page 20), has a new organization, based on changes in the camera market. The topics in [Compare Camera Features](#) (page 19) are also rearranged.
- [Buying a Digital SLR Camera](#) (page 54) is updated and expanded.
- [Appendix C: Model Suggestions](#) (page 89) reflects the latest camera trends.
- The pricing and model information is updated throughout.

INTRODUCTION

Maybe you have a baby on the way or you're going on a trip soon. Maybe it's time to replace your old camera. For whatever reason, you want to make better pictures and a new camera is going to help.

Photos of happy smiling faces dance through your head—until you get to the store and discover an overwhelming set of camera choices, camera features, and associated gizmos. Today, most digital cameras are loaded with lots of buttons and features, some of which you may never use or care about (but which you end up paying for anyway).

In this book, I guide you through the process of buying a camera. Using a form-follows-function philosophy, I help you decide which shapes, sizes, buttons, and features are important to you. I explain camera features not in isolation, but in the context of using them in the real world. Will the camera help you get the shot or will it hinder you? (A feature that hinders you is not a feature—it's a problem.) And I cut through the marketing that is often more about the latest technical wizardry than the end product: a good photograph.

This guide covers consumer point-and-shoot cameras and digital single lens reflex (*DSLR*) cameras. Consumer cameras are built to suit many needs, usually as all-in-one devices. Today's cameras—which have become specialized computers in their own right—are not all built alike, so buying one requires thought. DSLRs are even more complex than consumer point-and-shoots because they are built to work with parts of a system, such as lenses and lighting units.

I start by helping you think about how much to spend. Then I show you some not-so-obvious ways in which a camera is used, so you can look for one that fits your usage style. Don't think you have a style? Not to worry! I help you identify one. With all this in mind, I explain various camera features with an eye on how they help you accomplish your picture-taking. Finally, I cover a few accessories you may want in addition to a new camera, and I briefly survey photo software.

Along the way, I also share some of what I've learned in my years working as a professional photographer. As you learn about digital cameras, you can use my explanations and tips help you make better photographs. Digital cameras are remarkable tools to help you see the world with fresh eyes. Feel free to experiment and see the world anew!

QUICK START FOR BUYING A DIGITAL CAMERA

Use this quick start to find the information that you want. I've arranged the contents to show an overall process for making choices, but if you don't want to read the material in order you can simply find the heading that describes your interests and review its suggestions.

Budget before you buy:

- Find suggestions on how to plan for your camera purchase in [Set a Realistic Camera Budget](#) (page 6).

Understand camera features versus camera usability:

- Print the worksheet in [Appendix A: Camera Buying Worksheet](#) (page 84), and keep it handy as you read these sections.
- A camera that is easy to use is more fun to use, and if you're having fun, you will likely take better pictures; see [Understand Camera Usability](#) (page 11).
- Learn about megapixels, zooms, and such in [Compare Camera Features](#) (page 19) and [Buying a Digital SLR Camera](#) (page 54).

Cut through the hype:

- What's important when you research specific models? Discover a gold mine of hands-on camera tests and user experiences online; see [Read Between the Lines of Camera Reviews](#) (page 62).
- If optimal image quality is your goal, nothing beats comparing the data in sample images; see [Evaluate Picture Quality](#) (page 66).
- Now it's time to [Buy the Camera](#) (page 73), but if you still can't make up your mind, read [Appendix C: Model Suggestions](#) (page 89) for ideas on camera models by type.
- Gadget lovers rejoice! Choose from a world of things to make your camera more fun; see [Find Camera Accessories](#) (page 77).

View your photos and become a better photographer:

- Find software that serves as the shoebox for your photos or that lets you edit them; see [View Pictures on Your Computer](#) (page 79).
- Digital cameras can help you "make" instead of "take" great photos; find out how in [Appendix D: Improve Your Photography](#) (page 96).

SET A REALISTIC CAMERA BUDGET

To spend your money wisely, estimate your budget by considering how much to spend on a camera and on accessories that will make the camera more useful. **Table 1** shows what you might find at certain retail price points for point-and-shoot cameras announced through October 2007. For DSLRs, see **Table 6** and **Table 7**, later, in [Buying a Digital SLR Camera](#).

Table 1: Camera Price Ranges		
Price Range	Comments	Major Manufacturers
\$100–\$200	<ul style="list-style-type: none"> • Small size, simple controls, low-resolution sensors, limited options, questionable durability, and generally slow camera operations. • Save for a better model or buy a recently discontinued, higher-end model. • Stick with a major brand for reliability and service. 	All major manufacturers and many no-name brands.
\$200–\$400	<ul style="list-style-type: none"> • Basic to extensive controls and features, medium to high resolution, and various sizes. • Most people buy in this range, so many models are available for various purposes. • Physical size and build quality varies greatly. 	Many, including Kodak, Nikon, Canon, Casio, Sony, Fuji, and Panasonic.
\$350–\$700	<ul style="list-style-type: none"> • Higher resolution sensors and faster camera responsiveness. More features (e.g., stabilization). • Physical size ranges from tiny to medium-large. • High build quality. 	Same as above, but the better models typically come from the list below.
\$700+	<ul style="list-style-type: none"> • Highest quality sensors available at time of manufacture, advanced features, ability to use external lighting, better lenses, and camera speed. • High build quality but physically larger than others. • May approach quality of entry-level DSLRs. 	Canon, Nikon, Olympus, Fuji, Konica/Minolta, Pentax, Sony, and Panasonic/Leica.

UNDERSTAND CAMERA USABILITY

Usability encompasses *how* you use your camera, from the way you hold it in your hand to the ease with which you access the controls. Start your new camera purchase by thinking about *how* and *when* you use a camera. This important step informs your purchase decisions more than anything else. Consider the following list of common photographic situations—you'll likely find yourself shooting in several of them:

- **Special events:** Family events, important activities, places you visit, or people you meet. Story-telling.
- **Everyday life:** Do you see cool things around you “all the time?” For example, some parents make a daily picture of a new baby for the first 100 or 200 days. Maybe you're going out to dinner with friends, or proving that your boyfriend really can dance.
- **Travel:** People, places, things: a camera can act as a type of visual diary or memory photocopier.
- **Art:** Photography as expression of ideas, thoughts, and emotions. Color, light, composition, texture, abstraction, etc., are just as important—and sometimes more important—than the subject.
- **Landscapes and nature:** Like art, capturing the natural or man-made vistas of the world around you.
- **Macro photography:** The fascinating textures and shapes of the teeny-weensy.
- **Sports or wildlife:** Two of the hardest specialties in photography, requiring speed and consistency from both the camera and the photographer.
- **Portraiture:** You don't have to be a rock star to look cool, or to have “the look.” Digital photography saves you time and money as you can easily work to perfect the shot.
- **Other hobbies:** Many of the world's best photographers possess deep knowledge of other subjects such as astronomy, aviation, architecture, and botany. Even subjects like history offer visual elements in the present.
- **Weather:** Seriously. Clouds are cool.

COMPARE CAMERA FEATURES

After all this talk about usability, it's ironic that often the first thing that draws us to a particular camera model is the size of the image sensor (measured in the number of *megapixels*, or MP). However, it comes as no surprise when you realize that computers have long been sold this way (speed of processor chip) and digital cameras now are just highly specialized computers. So the challenge here is to overcome the allure of what's new and think through the issues.

Keep your photographic style and preferences in mind as you evaluate the features. In the overall scheme of things, you'll have to make trade-offs between desirable features, so you'll need a clear set of priorities to steer you effectively to a decision.

Also remember that *no single camera feature is responsible for creating a quality picture.* Each feature is but one link in the chain—and you know the old saying about the chain being only as strong as the weakest link. And by the way, your photographic experience is part of that chain!

CASE STUDY Someone once asked me for my opinion of a particular model, saying, "It's got a Zeiss lens" (Zeiss is a famous lens maker from the film days; <http://www.zeiss.com/>). I explained that digital is different due to the complexity of designing lenses for sensors rather than film. Thus, a manufacturer's sensor design and internal software (among several other factors) could make the lens quality a moot point. "But," he repeated, "it's got a Zeiss lens." After explaining my chain analogy to him, he still exclaimed, "Zeiss!" Sigh. The proof is in the picture, not the marketing hype.

Table 3, next page, lists the camera features I believe are most important. I've based my ranking on what I think most people will find important, and on what I think sets models apart. Of course, your choices may vary—use this table as a starting point in your own evaluation. Also feel free to use the printable, two-page worksheet in [Appendix A: Camera Buying Worksheet](#) to help track your thinking.

BUYING A DIGITAL SLR CAMERA

If a digital single lens reflex (DSLR) camera is so much more complicated than a digital point-and-shoot camera, why does buying a DSLR get relegated to only a small section of this book?

My advice in this book, for the most part, applies equally to DSLRs, but since DSLRs are inherently designed for advanced users, many trade-offs that you must choose between with point-and-shoot cameras do not exist in the same fashion as they do for DSLRs.

For example, no DSLR fits in your pocket. If you want quality, you get quality in spades (**Figure 16**), but you have to lug it around. Lens choices abound: zooms of all kinds, as well as super wide angles and big, fast sports/wildlife lenses. You have to lug those around, too. In other words, SLRs are for people who are willing to sacrifice convenience for quality.

Therefore, choosing a DSLR is less about camera model trade-offs and more about finding a *total system* that works the way you do. The DSLR camera body is just one part of an overall system of lenses, lights, other accessories, *and computer hardware and software*, making your research options more complicated.

FIGURE 16



This figure shows a huge cropped shot (this is about 5 percent of the original frame!) from the 8 MP Canon Digital Rebel XT and a 50mm Macro lens.

DSLRs can use special lenses, and their image quality makes such sharp pictures possible.

READ BETWEEN THE LINES OF CAMERA REVIEWS

Now, it's time to put all this knowledge and photographic soul searching to work! Aside from testing a model yourself, the easiest way to evaluate a potential camera is to read its reviews on the Internet. You will find a variety of feedback on almost all models, making this step one of the more interesting parts of the process.

Search a review for detailed and insightful comments about usability, functionality, and quality. Avoid reviews that merely summarize the manufacturer's marketing materials or just rave about every new model; instead, pay attention to reviews that put marketing claims to the real-world test for your kind of photography.

CASE STUDY Reader Bob H. upgraded from his existing digital point-and-shoot. He believes that reading a lot of reviews was critical to his final DSLR choice, the Konica Minolta 7D. (Note: Sony bought KM's technology and now manufactures and sells it under their own brand).

"Good reviews are easy to find on the Internet," he said, "so you don't have to spend a fortune on magazines... A camera is not a car so you can't take it for a test drive... Reading reviews is essential to choosing a new camera. I finally settled on the Konica Minolta because I already had Minolta lenses (from a film camera)... It was a long wait, but worth it as the 7D has a new anti-shake mechanism making it virtually impossible to take a blurry hand-held picture."

For example, wedding and wildlife photographers sometimes need to be extremely quiet—so quiet that even the noise of the shutter release must be subtle, lest the sound disturb the mood. If a reviewer observes not only the volume, but also the pitch of the release, you can have more confidence in their opinion because they are sensitive to how equipment works in the field.

Also try to develop a sense of reviewers' biases, which reflect how they work with or respond to the tools. One person's technique and preference may not suit yours, so read the comments to get a sense of what they do with their gear. Obviously, someone who shoots a lot in a studio may not have the best advice for working outdoors on location, and vice versa.

EVALUATE PICTURE QUALITY

In this section, I make suggestions for how to evaluate and understand picture quality as you read reviews and examine sample images.

TIP If you download an image to evaluate it on your monitor, magnify the image to 100 percent in your photo-viewing software so each pixel in the image is displayed by an individual pixel on the monitor. You will be able to see things like the smoothness of tones (e.g., skin, sky) and the sharpness (or over-sharpness) of lines (e.g., fine details, such as hair or tree branches in the distance). Viewing above or below 100 percent magnification doesn't display this detail properly!

Basic Quality Considerations

Digital picture quality comes down to the entire camera system working together to produce a smooth, natural, low-noise image data file, which you see as a “clean” picture (when viewed at 100 percent on-screen). To make your evaluation, look for color accuracy, digital noise, and posterization.

Color accuracy and saturation

We all see color a little differently—one person's blue is another person's purple. Absolute color accuracy is not necessarily desirable; though *pleasing* color is usually desired. If accuracy and aesthetics end up being one and the same, wonderful. If not... not. Most cameras now provide controls for tweaking color and *color saturation* (the brightness of a given color).

Look at lots of photos (your own and others') to determine your preference for specific colors such as skin tones (all the variations and ethnicities), blue skies, green grasses, and reds. Good reviews offer sample images and test shots with color charts to show the color differences from one model to another. Think about how you expect a subject to appear, and then pay attention to these specific elements:

- Shadow regions and the detail within shadows.
- Shadows on faces such as eye sockets or around cheeks and foreheads; are they natural looking, or slightly darker or lighter in spots, giving the person more facial lines?

BUY THE CAMERA

By now, you should have a good idea of what you want to spend and which features you most desire. If you haven't already, you may wish to print and fill in [Appendix A: Camera Buying Worksheet](#) and use it as a cheat sheet while you shop. Your next step is to figure out where to shop; in this section, I give some pointers about shopping locally and shopping online.

Local Retailers

A general rule of thumb is that a camera bought at a local store may cost more than one purchased from an online retailer. The local store, however, is great if you need to try a particular model before you buy. If you're lucky, the nearest photographic specialty store may carry a wide variety of models and brands. Look for stores that cater to professional photographers, as well as photo labs that also happen to sell cameras. Major retail chains and office supply stores also carry lines of mid- and lower-end cameras. Finally, if you decide you want to return a camera after you've opened the box and played with it for a week, buying from a local retailer is usually the only way to go. Ask yourself: is the money saved worth the wait? Is it worth the extra hassle, shipping cost, and possible fee if you want to make a return?

CASE STUDY When buying a camera as a gift, I narrowed the choices down on paper, but I could not decide between a few models that all looked good. So, I visited a few local big box retailers and played around with everything they had on display. (At one store, the loud music and the cacophony of customers, salespeople, and gadgets drove me out after 5 minutes.)

After pushing the buttons and playing with the switch mechanisms of some display units, build quality—which had not been high on my list before—suddenly became another consideration. Some cameras and their components felt cheap. Handling them also gave me an idea of the size and weight, and how the camera displayed controls on the LCD screen. With my mind made up, I bought one on the spot.

Five days later, I downloaded the first set of pictures and hit a snag: every picture had a *hot spot* (a malfunctioning pixel) in the middle. No problem, however: local purchase, local return.

FIND CAMERA ACCESSORIES

If you have a weak spot for gadgets and accessories, beware! Cameras are prone to making you feel inadequate if you're not equipped with the latest doohickey add-on to make your pictures exhibition-worthy. Still, you may consider adding a few useful things along with your new toy.

Camera Cases

For many small consumer cameras, you may wish to purchase a thin sleeve or small padded case to protect the camera when it is in a purse or other bag. As you accumulate other camera-related items, however, you may want to move up to a dedicated bag with padding and plenty of pockets. The advantage is that you'll have a padded, protective place for all your photographic gear. The disadvantage is that you may not be able to carry much else. For example, a camera backpack (for DSLRs) often includes padded dividers and pockets for lenses, but no place for an extra jacket or your lunch. With a fancy camera bag, you may also be advertising to thieves that you're carrying a camera, so be careful when and where you set your bag down—a nice case often carries a nice camera inside.

TIP I recommend a good shoulder bag or purse with pockets to hold a variety of things rather than a dedicated camera case.

If you want to capture spontaneous candid moments, a camera case (and lens cap, for that matter) becomes another physical barrier to getting the shot. For candid photos, nothing beats having the camera out and at the ready. I wrap the camera in a bandana and put it my shoulder bag if I'm worried about damaging it, but otherwise I have it ready to shoot. Or, I just put it in a coat pocket as is.

Oh, and don't drop your camera. Just *don't* do it.

As you're shopping around for cases, consider these aspects:

- Will you have fast and easy access to the camera?
- Does the bag or case carry easily on your shoulder or hips?
- Does the cover/lid open away from you or provide you with a "deck" to place small objects on?

- Is it sealed against the weather?
- Is it lightweight and comfortable to carry?
- Will your camera and accessories fit comfortably?

Tripod

Tripods take discipline to use, because they tend to be inconvenient to carry and unwieldy to set up. However, they can be worth the effort, especially for landscape and macro photographers. They come in many sizes, shapes, and prices for all types of photography. If you're serious about using a tripod, consider the lightest you can afford and, if applicable, buy a decent ball head for the tripod (good tripods come in two parts, the legs and the head). Also consider mini-tripods and monopods if you're looking for quick, light support.

Waterproof/Underwater Housing

A waterproof or water-resistant housing, if available, may be one of the best accessories you can buy for your camera if, of course, you plan to spend a significant amount of time shooting pictures under water or in very wet conditions. Be prepared to pay for this protection; camera housings can cost almost as much as the camera itself. Still, the better ones make all controls available, and you can take some fun pictures on a snorkeling or whitewater-rafting trip. (Don't forget to twist the camera strap around your arm to secure it!)

Housings aren't available for all models, so if you're serious about housings, be sure to check what is available. Some housings are made by the camera manufacturer, such as Olympus, while others are made by aftermarket companies like Ikelite (<http://www.ikelite.com/>).

Filters or Filter Software

A photo doesn't need to be an exact representation of reality. Artistic photographers often use filters that screw onto a lens to add effects, filter out ultraviolet light, or other variations.

If your camera cannot accept traditional screw-on filters, you can create photographic filter effects in the computer (see [Consider Third-Party Photo Workflow Software.](#))

VIEW PICTURES ON YOUR COMPUTER

Many people find themselves taking many more pictures with a digital camera than they do with a film camera. Obviously the low cost of digital is a big reason why. But is it really “low cost?” Once those digital pictures start piling up, you may need a more modern computer and associated software than you originally thought. Here are some ways to make viewing pictures more efficient.

Buy More External Storage

As your collection of images grows, your computer’s disk may run out of space. Instead of storing it all on your main disk (where it will compete for space with the operating system, applications, and other data), offload your photos to an external drive.

More important is the need to back up your images. Like all digital data, your images can be lost if your hard drive crashes—containing *your only copies*. Unlike being able to make new prints from film negatives stashed in a drawer, your digital photos are irreplaceable.

To safeguard your images, copy them up to a different location, such as an external hard disk or optical media (CDs or DVDs). Better yet, maintain two backups of your image files, one preferably at a different location than your first copies: a safety deposit box, your brother’s house, the office, or wherever.

Of course, in 5 or 10 years who knows what kind of storage media will be available? No digital medium is considered archival over the long term, so be sure to migrate your picture files to whatever storage technology standard comes next. (Remember the floppy disk? Me neither.)

(And while we’re on the subject, you *are* keeping updated backups of all your data, right? If not, *start today*. If you’re using Mac OS X, read Joe Kissell’s ebook, [Take Control of Mac OS X Backups](#).)

APPENDIX A: CAMERA BUYING WORKSHEET

Before you buy a camera, I suggest that you prioritize features and accessories that you'll be looking for. Print our two-page cheat sheet and checklist—it begins on the next page—to keep track of what's important to you during your research, and then refer to it when you choose a camera.

APPENDIX B: FEATURE ROUNDUP

Whether you've read the entire book and still want advice, or you are too busy to read the entire book but want some quick help, this appendix rounds up suggested features to think about for different types of photography.

For general snapshots:

- Small physical size, generally rectangular with retracting lens; easy to carry and stow in small pockets
- Quick and easy one-handed shooting operation (power on/off, zoom control, and shutter release)
- Fast start-up time when powering on
- Responsive shutter release/fast auto-focus
- Fast shot-to-shot speed
- Telephoto lens range from 85mm and higher
- Wide angle lens or zoom (lens equivalent to 28mm, 24mm, or lower focal length)
- Large telephoto lens aperture (f4 or lower f-stop number)
- Quick review of last picture shot
- Quick white balance setting (if overriding automatic)
- Self-timer shutter release

For portraiture:

- Telephoto lens range from 85mm and higher
- Large telephoto lens aperture (f4 or lower f-stop number)
- Responsive shutter release
- Fast shot-to-shot speed

APPENDIX C: MODEL SUGGESTIONS

The selection of digital cameras continues to grow at a rapid pace. The good news is that many useful features are now found in every model, making your technical decisions easier. Manufacturers offer a range of models that are well tailored for consumers who want convenience, balanced features, or advanced features, all with corresponding quality. In this appendix, I present some different options and suggest models that you may wish to consider.

I haven't personally used all of these cameras, so I'm not necessarily making *recommendations*; rather, these models are where I suggest that you start examining the options. Of course, you may find suitable cameras that I do not mention, such as recently replaced models.

Ultra-Compact Cameras with “Folding Optics”

If you are a take-a-camera-everywhere-anytime photographer, you can choose among several super-thin, truly pocketable cameras, featuring “folding optics”—the lens does not extend, but rather directs light through the body of the camera. These cameras are smaller and thinner than a deck of cards, yet offer reasonable to very good image quality. Trade-offs include potential limited battery life, the cost of the proprietary batteries needed in such compact designs, and the high cost of tiny memory cards. Did I mention that small is expensive? These models cost around \$400. Nonetheless, if you're looking for a stylish, take-anywhere camera that won't slow you down, these may be just the ticket:

- Casio Exilim EX-V8, EX-V7: <http://exilim.casio.com/>
- Fujifilm FinePix Z10 fd, Z3: http://www.fujifilm.com/products/digital_cameras/
- Nikon Coolpix S51c, S51: <http://www.nikonusa.com/>
- Olympus Stylus 790 SW, 770 SW, 730: http://www.olympusamerica.com/cpg_section/cpg_digital.asp
- Pentax Optio Z10, W30: <http://www.pentaximaging.com/>
- Samsung i85, i7: <http://www.samsungcamera.com/>
- Sony Cyber-shot DSC-T200, DSC-G1: <http://www.sonystyle.com/>

APPENDIX D: IMPROVE YOUR PHOTOGRAPHY

You may not aspire to become a great photographer, but it is so easy to make better photographs with digital cameras that you almost can't help but try. Digital photography enables you to shoot a lot more photos than you would with film, and then simply discard the ones you don't want to keep. More significant, digital photography's immediate feedback lets you see and improve right away. Here are a few tips to help you start taking advantage of this remarkable tool.

Use the LCD Monitor

The main hurdle with photography is that what we see with our eyes in three dimensions gets converted to two dimensions. When we see a subject we want to photograph, we tend to look only at the subject and fail to see what is around it, behind it, or above it. We forget that the background becomes part of the picture, especially things in the distance. The monitor, being two-dimensional, makes it easier for the brain to compose better visual frames (**Figure 23**).

FIGURE 23



Using the pivoting LCD screen of a 4 MP camera, I spent about 10 minutes composing this image to get as many extraneous branches out of the frame while retaining the desired shape and positioning of the "Y" shaped trunks.

GLOSSARY

This glossary defines a number of photography-related terms, which also appear in the text in blue, italic formatting. You can click blue, italic text to move to the glossary page that defines it; you can then return from the Glossary to where you were reading using a menu command or keyboard shortcut, as noted in **Table 8**.

Table 8: Navigating to the Glossary and Back		
Viewing Software	Menu Command	Keyboard Shortcut
Adobe Acrobat 6 and 7	View > Go To > Previous View	Command-Left arrow
Adobe Acrobat 5	Document > Go To > Previous View	Command-Left arrow
Preview	Go > Back	Command-[

aperture: A measure of a lens's capability to allow a certain amount of light into the camera; also see *f-stops*.

artistic photographer: A classification describing a person's preference for making pictures that involve more care in framing and processing; also see *snapshotter*.

autofocus: The camera's capability to focus the lens automatically on a specific spot in the camera's viewfinder or on the LCD monitor.

barrel distortion: Barrel distortion occurs as a by-product of lens design. It makes straight lines in a photo appear to bloat outward. See **Figure 21** (page 71), and compare to *pincushion distortion*.

burst depth: The number of consecutive pictures the camera can capture, when the shutter release button is held down, before the internal memory fills up.

cropping factor: See *focal length magnification factor*.

digital zoom: A method of increasing the telephoto range by interpolating the image data within the camera's software; digital zoom is rarely acceptable.

exposure: A combination of settings on a camera that allows a certain amount of light into the camera (see *aperture* and *f-stops*) for a certain amount of time.

f-stops: F-stops are used in terms of exposure (along with *shutter speed*) to describe how much light is being allowed into the camera.

ABOUT THIS BOOK

Thank you for purchasing this Take Control book. We hope you find it both useful and enjoyable to read. We welcome your comments at tc-comments@tidbits.com. Keep reading in this section to learn more about the author, the Take Control series, and the publisher.

About the Author



My background in photography comes from a desire to blend the storytelling qualities of photojournalism with the aesthetic qualities of art. Much of my early work is self-taught, but 2 years of graduate school at Ohio University's School of Visual Communications whipped me into shape. Even so, there are always new things to learn in photography. It's about the journey, as they say. My clients have included the *New York Times*, *Fortune Magazine*, *Saveur* magazine, and *America 24/7*. I am also an adjunct faculty member teaching photography at Seattle Pacific University.

Author's Acknowledgements

Sam Abell and his peers at *National Geographic* set both technical and aesthetic standards for photography, and their careers have inspired myself and countless other photographers the world over.

The faculty, staff, and my classmates at Ohio University's VISCOM department deserve recognition, too, for giving me a chance to sink or swim. In particular, thanks to Terry Eiler, Larry and Marcy Nighswander, and Chris Tyree for putting the right stuff between my photographic ears. Thanks to Tom Wallace and the crew at Copley Chicago Newspapers for providing the proper photographic mantra back in my early days: "Git to work!"

This book would not be in your hands (or on your screen) without the efforts of Adam and Tonya Engst, whose series of Take Control books help tame the wild beast of ever increasing digital complexity. My editor Jeff Carlson deserves thanks and a few pounds of coffee for his guidance and encouragement. I thank God for the many people that made this book possible: my mother and father, and my former officemates Glenn Fleishman, Jeff Tolbert, Agen Schmitz, Kim Ricketts, David Blatner, and Steve Roth. Last, but certainly not least, love and thanks to my wife Gena Morgan.

Shameless Plug

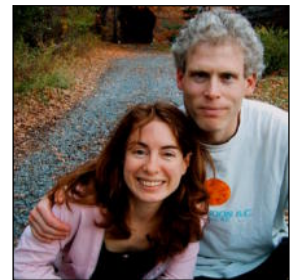
You can find more information about me and my work at the following Web sites:

- Editorial and documentary photography:
<http://www.lchenphoto.com/>
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About the Publisher

Publishers Adam and Tonya Engst have been publishing Mac-related content since they created their online newsletter, *TidBITS*, in 1990 (<http://www.tidbits.com/>).



Adam and Tonya are known in the Mac world as writers, editors, and speakers. They are also parents to Tristan, who thinks ebooks about clipper ships and castles would be cool.

Production Credits

Link-making AppleScript: Matt Neuburg

List macros: Sharon Zardetto

Take Control logo: Jeff Tolbert

Editor: Jeff Carlson

Editor in Chief: Tonya Engst

Publisher: Adam Engst

Thanks to Larry and Jeff for their continued work on this project!

Take Control of Buying a Digital Camera

ISBN: 1-933671-07-6

December 2007, Version 3.1

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TidBITS Publishing Inc.

50 Hickory Road

Ithaca, NY 14850 USA

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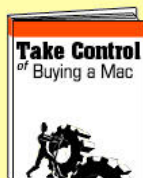
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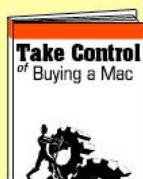


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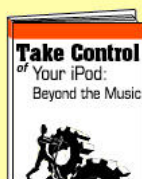


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