# Chapter 1

# INTRODUCTION TO THE PHOTOSHOP LIGHTROOM CONCEPT

You have embarked on a voyage of discovery. Adobe Photoshop Lightroom is a whole new program that offers you a very different way of working with photos in an Adobe product (and it is influencing the design and functions of other Adobe software now, too). It does not have a decade of history or a wealth of books, videos, and such things about it.

However, I believe it is well worth the effort to learn Lightroom. The program, as you can see in figure 1-1, makes some very powerful tools readily available in a context that you will quickly understand. In this chapter, you discover what makes Lightroom different and how that difference is important to you as a photographer.

1-1

## What Is Lightroom About?

Photoshop is the premier image-processing software available today. But it was never designed specifically for photographers. There are many things about Photoshop that make photographers crazy!

Lightroom is not designed to replace Photoshop (it is even considered part of the Photoshop family of products), but it is made specifically for photographers. Adobe's first effort to make the Photoshop processing "engine" (all the algorithms and high-level computer engineering that happens behind the scenes, under the hood) more accessible to the average photographer was Photoshop Elements. (You may remember Photoshop LE, but that was a butchered version of Photoshop, not a product made for photographers.) Photoshop Elements introduced many photographer-friendly ideas that influenced later software. Just

compare the interface of Photoshop Elements interface shown in figure 1-2 with Lightroom's.

Photoshop Elements was a great effort, to be sure. Lightroom goes far beyond that. It is a program built from the ground up for photographers, and more specifically professional and advanced photographers. It was developed to enhance the photographer's experience with working with RAW and other image files so that the photographs are as important as the program.

Lightroom is not about designing fancy graphics, creating wild composites, or prepping images for the printing press — all things that Photoshop does very well. It is about organizing digital images to make them more accessible, processing them quickly, and then getting them to an audience through slide shows, prints, or Web galleries (and of course image files).
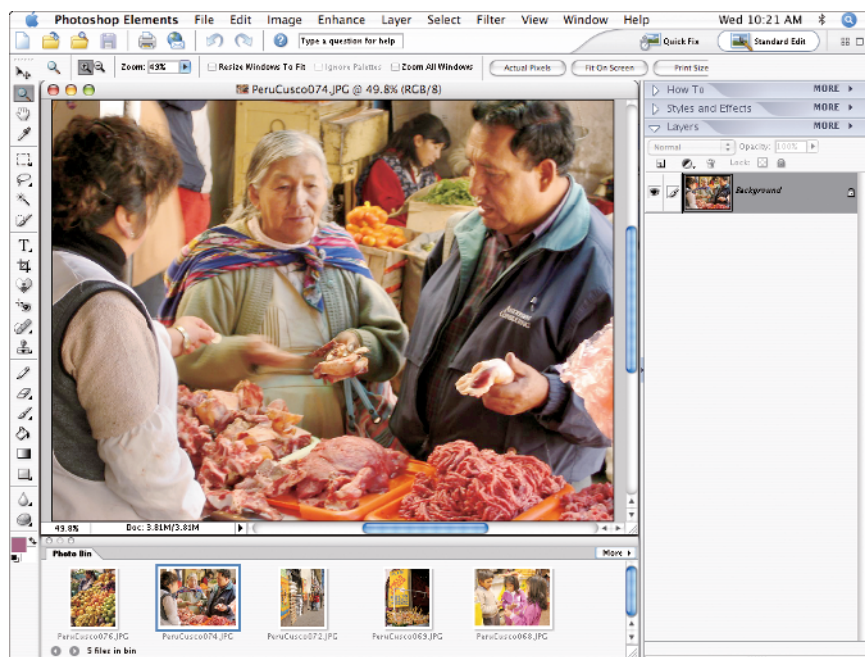
1-2

## Designed for **RAW**

RAW is an important format for photographers because of its depth of information. It offers a great deal of flexibility in its use and processing so that very high-quality images can be consistently achieved. High-quality (low-compression) JPEG is absolutely capable of excellent, professional-level images, but it has much less flexibility before problems (or image artifacts) start showing up. For the early part of digital camera history, RAW was a bit esoteric for photographers. It demanded more in its processing, required special software, created larger files than many photographers' computers were able to handle well, and so on. In short, it was a pain to use.

Lightroom was designed to make RAW processing an easy, integrated part of image work on the computer.

Adobe Camera Raw first changed how RAW could be integrated into a Photoshop-oriented workflow, as shown in figure 1-3. Other RAW conversion software programs offer excellent results and their own workflow advantages, plus they process colors slightly differently, so they do have advantages for some photographers. However, the fact that Camera Raw fit the Photoshop workflow really made quite a difference for most photographers.

Adobe software engineers had long wanted to make RAW file processing easier, more efficient, and better integrated with how a photographer works. Lightroom does exactly that. In fact, if you compare the features of Camera Raw to Lightroom, you'll notice that a good part of Lightroom's Develop module is based on Camera Raw. And now, with Photoshop CS3, which includes Camera Raw 4, you can see Lightroom influencing Camera Raw! The Adobe engineers are using what they learn from photographers using one product to refine the others.
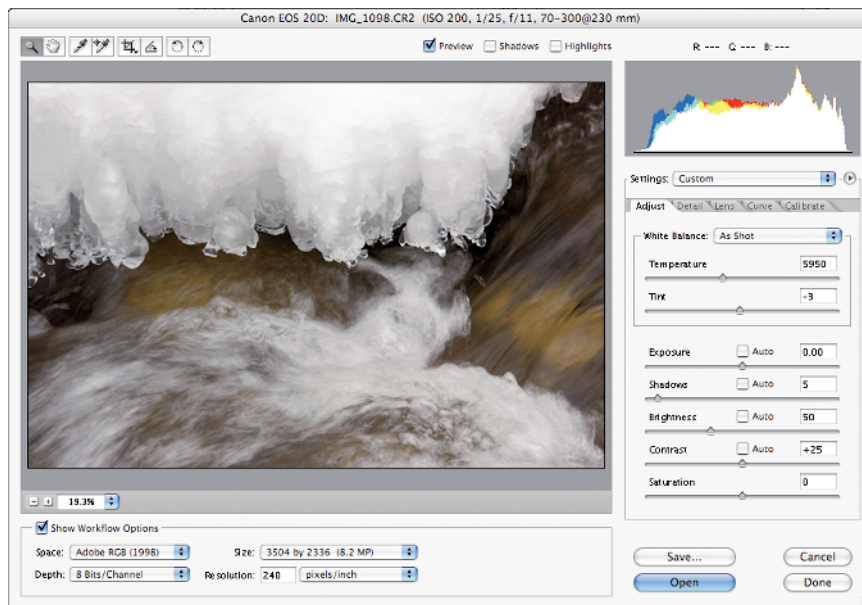
1-3

With all the talk about RAW files and Lightroom, it is worth noting that Lightroom also works quite well for other formats. It will do its magic with well-crafted JPEG files, which makes organizing, processing, and using them more efficient and more effective than ever. In addition, the actual JPEG files are not altered by Lightroom — all adjustments are saved as instructions and not actually applied to the files until the image is exported from Lightroom.

## Non-Destructive Processing

Non-destructive processing is a really big deal. This is something unique to Lightroom in that it deals with ALL files non-destructively.

You may have heard about non-destructive processing before. It means that you can adjust a file without damaging its original data. The look of the image changes, but no pixels are harmed. What happens is that the program creates a set of instructions on how to process an image, but does not apply those instructions to that file until a new file is needed.

RAW file processing is non-destructive simply because of the nature of a RAW file. A RAW file is basic data from the sensor — you can convert it to another format, but the original data cannot be altered in any way through processing. However, JPEG files have been traditionally processed in a way that changes pixels. That's how Photoshop works, though Camera Raw 4 processes JPEG files non-destructively, too.

Changing pixels is not how Lightroom works. It affects JPEG, TIFF, and RAW simply with instructions for adjustments. You can adjust and readjust any file as much as you want without affecting its quality. It is only when you export the file that it finally changes, with the adjustments actually applied to the pixels.

There is another advantage to non-destructive processing in Lightroom that is often missed — it reduces the number of image files you have to keep. For example, you don't need multiple files at different resolutions for printing — you simply print directly from the Lightroom file. You don't need a whole new set of image files for a slide show — you just work on the slide show in Lightroom. And you don't need to make up a whole series of file sizes for clients — you can always get exactly what you need from the Lightroom file.

## Why Lightroom and Not Aperture

Originally, I thought about putting this section later in the chapter, but I know this is a big deal for a lot of photographers. Lightroom came along just after Apple's Aperture (shown in figure 1-4). It seemed like Adobe was just copying Aperture, using its power with Photoshop to create a me-too program.

If you think a bit about that, you will quickly discover that this was simply not possible. Developing a program like either Aperture or Lightroom takes a lot of work and time. It is not something that developers can throw together overnight in response to a competitive product. Adobe undoubtedly changed its plans for how to continue its development of Lightroom after Aperture was announced, but it did not change its original concept.

Both companies developed programs for photographers because they recognized a frustration that a lot of photographers had. Photoshop is great, but it doesn't fit cleanly into a lot of digital photographers' workflow needs. Photographers wanted a complete solution, especially something that integrated RAW image workflow into the process, from getting images onto the computer's hard drive all the way through producing the print.

1-4

This driving force, strong photographic needs that Photoshop or any other program was not meeting, stimulated some very bright people at both Adobe and Apple. Because both companies saw the same needs, the programs they developed offer similar functions to meet these needs.

Yet Aperture and Lightroom are very different programs. There are some things that Aperture does better (its light table is phenomenal) and some things it lacks (it has no threshold screens for black and white tonalities). Both programs also deal with filing and organizing images, processing, slide shows, and prints in different ways.

A big difference, however, is in how the programs are used by photographers and their computers. Aperture is a highly processor- and RAM-intensive program. There is no question that Aperture is not simply a program for Apple to sell for its own sake, but it also sells computers. Though Apple claims Aperture can run well on low-powered machines, it really doesn't do all that well. You need a computer with some power.

Lightroom, on the other hand, has a much smaller footprint on its host computer. It will run, and run quite well, on older computers without requiring as much processing power or RAM. In addition, Lightroom works well on both Mac and Windows computers. Aperture is Mac only.

## PRO TIP

RAM is still important for any image processing software. With too little RAM, your computer slows down as it uses the virtual RAM or memory it creates with your hard drive. Have at least 1GB of RAM for Lightroom (2GB is better if you are also running Photoshop at the same time).

## THE LIGHTROOM DEVELOPMENT PROCESS

Lightroom was developed in a very different way from any other Adobe product because it was first released in a public beta program, as shown from an early stage in figure 1-5. This means that anyone (and maybe you) could have downloaded the early version of the software, tried it out, and given Adobe feedback on what was right or wrong for the program.
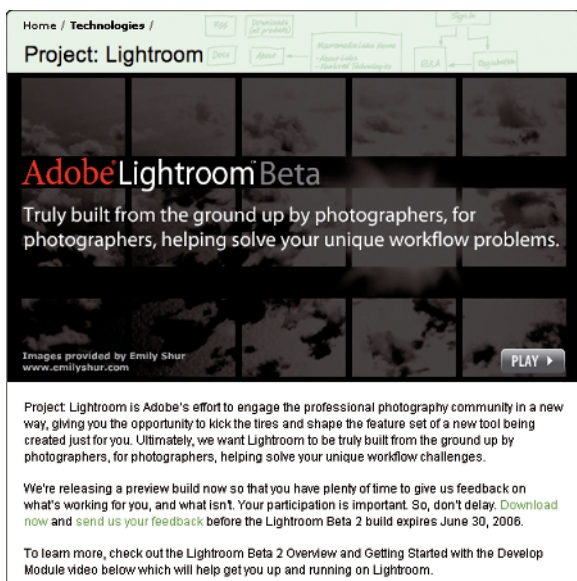


1-5

Software generally goes through a series of stages of development. After the company establishes the initial idea, sets goals, and puts a development team into place, the team creates a program. Early versions are called alpha software as features come and go. The program is very fluid and not at all stable at this point.

After a bit, the team determines the main features and interface design, thus reaching a more stable, less fluid part of the development. At this point the program becomes the beta software. It goes to beta testers, which include folks inside the company and special testers outside the company, who try out the program in their specific situations. They look for problems, mistakes, shortcomings, and so forth.

As developers refine the software, they distribute new beta versions called *builds* to the testers to test again. This way the software developers get input from a variety of people in a lot of different situations to be sure the final program is as good as it can be. These people all work very hard to catch all the bugs they can and look for program limitations, though individuals may still later use the software in a way no one thought of and find new issues later when the program is actually released as a saleable product.

With Lightroom's beta free to the public, anyone could literally be a tester of the software. Instead of a limited group of testers evaluating and commenting on the beta software, thousands of people could see it and help make it the best program it could be.

This really affects photographers because it means that Lightroom was not only developed specifically for photographers, but it was also refined by photographers on its way to a final product.

However, there is sort of a good news/bad news element to the public beta. On the one hand, lots of great ideas came into the Lightroom development team, who worked furiously to incorporate a lot of new features into the program before it was a final product. But on the other hand, the program did become more complex with less simplicity and ease-of-use compared to when it was first announced.

## LIGHTROOM COMPARED TO PHOTOSHOP

Here's something I need to clear up right away. There is little in Lightroom that you can't do in Photoshop (including Bridge). Lightroom is not some amazing new approach to processing images in the computer. In fact, a lot of Camera Raw shows up in Lightroom, as well as ideas from Bridge and Adobe Photoshop Elements programs (and Lightroom is now showing up in Camera Raw, Bridge, and Photoshop, too).

Lightroom is not a new program that bumps Photoshop out of the top position in image processing. It is, as I've explained, one that responds specifically to photographers' needs for working on images in the computer. It is about making a process easier, more convenient, and more intuitive for photographers.

To be more explicit:

> **Lightroom is a program designed to include features optimized for photographers.** Photoshop is a high-featured program designed to meet a great deal of users' needs from graphic artists to art directors to video artists to photographers and more.

> **Lightroom offers a flat hierarchy of controls you can access quickly.** Photoshop offers hierarchies of controls with different levels of access to meet the diverse needs of its users.

> **Lightroom has a small RAM footprint and boots up very quickly.** Photoshop has a large RAM footprint and loads slowly.

> **Lightroom is designed for fast work by a photographer.** Photoshop is designed for complex work by many types of users and speed is not the primary goal (although Photoshop CS3 does have speed refinements built into it).

> **Lightroom offers a targeted set of controls to deal with images.** Photoshop gives you an infinite amount of control over how you deal with images.

> **Lightroom only offers tools that affect the photographer.** Photoshop offers text, special effects, high-level commercial printing controls, and other specialized tools.

> **Lightroom has no compositing or manipulation tools.** Photoshop includes advanced compositing and image manipulation tools.

> **Lightroom integrates the workflow process into a linear and photo-centric process that can be used nonlinearly as needed.** Photoshop separates parts of the workflow process into nonlinear (and often illogical for photographers) patterns.

I could compare the two for a long time. My point is not that either program is arbitrarily better, but that they are different and offer different processes for the user.

Photoshop has a huge number of tools that you can use in a great number of ways. That is definitely true and all of its tools just can get a little overwhelming, as shown in figure 1-6. Lightroom takes a very different approach. Its tools are aligned in a way that matches photographer workflow needs.

Bottom line: Lightroom is a highly capable program that helps photographers organize and process images faster and more efficiently. It offers a better and more photo-centric workflow than Photoshop. For some photographers, Lightroom offers a complete and effective way of working with digital images and they will need nothing else.
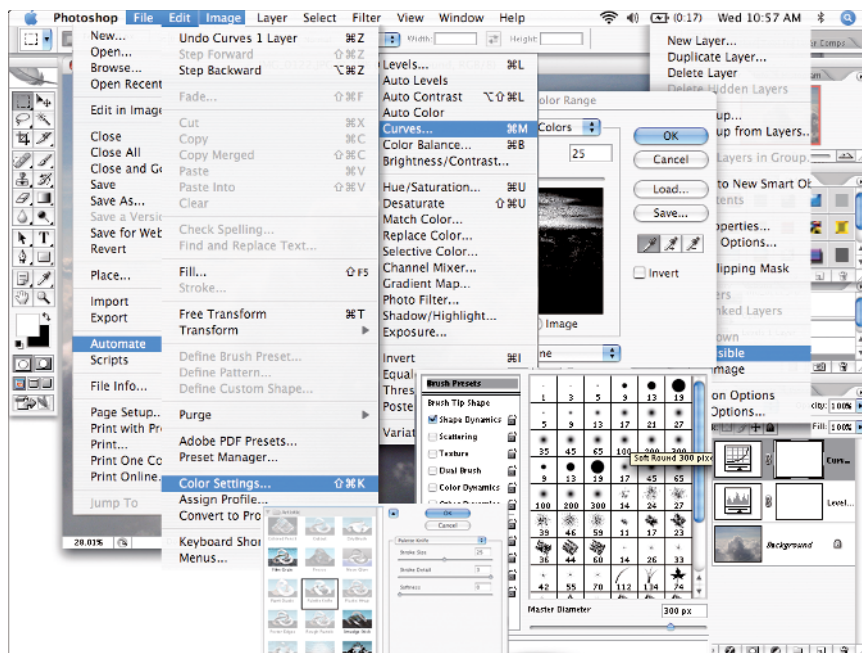
1-6

## CAN PHOTOGRAPHERS FORGET ABOUT PHOTOSHOP?

Some photographers will be able to give up Photoshop. If Lightroom does everything you need, why bother with Photoshop? But I'm afraid that I can't tell you if that is something for you or not. You'll have to see how well Lightroom meets your needs.

I love Lightroom. Lightroom is far better than Bridge for organizing and storing images. It is also much, much faster (though the latest version of Bridge does try to address this issue in how it deals with previews). Lightroom makes working with RAW files a real pleasure, and the Slideshow and printing modules simplify those processes and include a great deal of power.

However, because Lightroom cannot do everything that Photoshop can do, I am not about to give up using Photoshop. Image processing includes making overall adjustments to an image, but very often, you need to make local or small area changes. Photoshop, with its selection tools, layers, layer masks, and history brush, offers a wealth of power for adjusting an image in quite precise and defined areas. Lightroom is not made for that.

For folks who like special effects, from image-warping filters to composited images, Photoshop is the place to go. And if your work involves going beyond working an image for slide shows or printing, you may need the added color- and graphics-oriented tools you'll find in Photoshop.
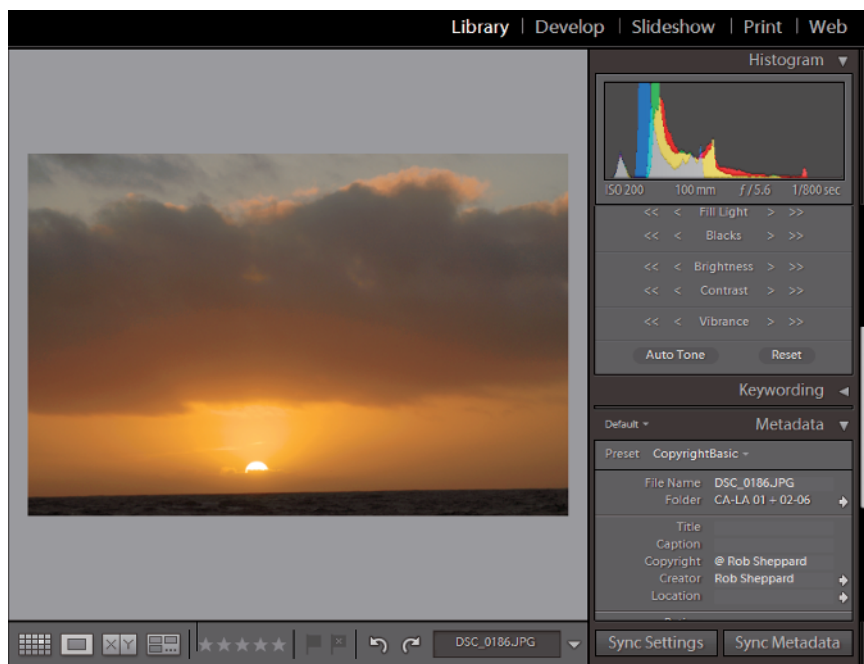
## WHO BENEFITS FROM LIGHTROOM?

Lightroom is for digital photographers, obviously. Any digital photographer will find it useful. It is aimed at pros, yet anyone who shoots a lot of photographs, needs to organize and access them readily, and needs a way of processing them quickly and easily through to a saved file, slide show, print and/or Web gallery, will find Lightroom a great way to go. You can see one photo's progression through the modules in Lightroom in figures 1-7 through 1-11.
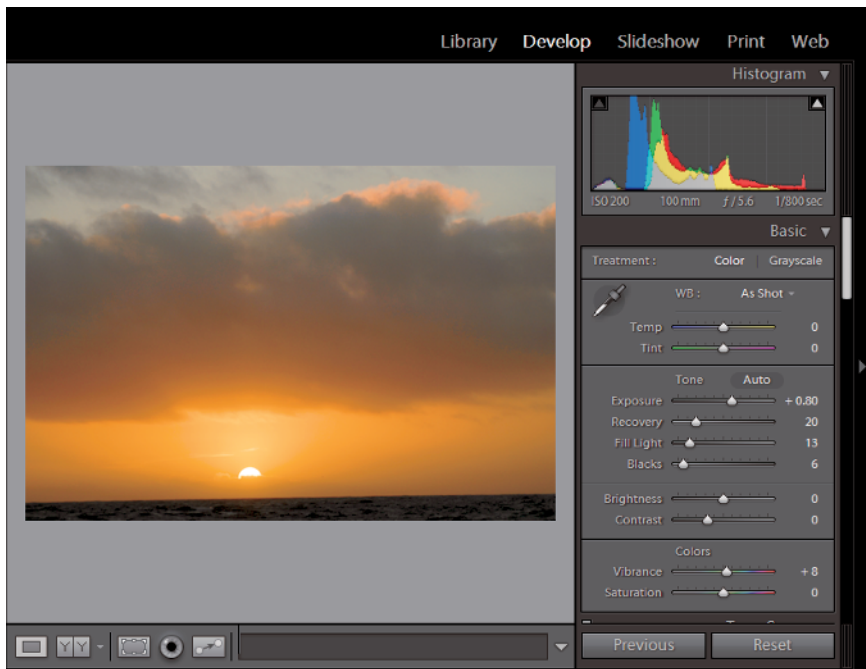
Lightroom is for serious photographers who don't need the full-featured options of Photoshop or its price. And it is for photographers who want to work quickly and efficiently with most images, while retaining the ability to use Photoshop in a more targeted way for specific images that need its power (and its more detailed workflow).
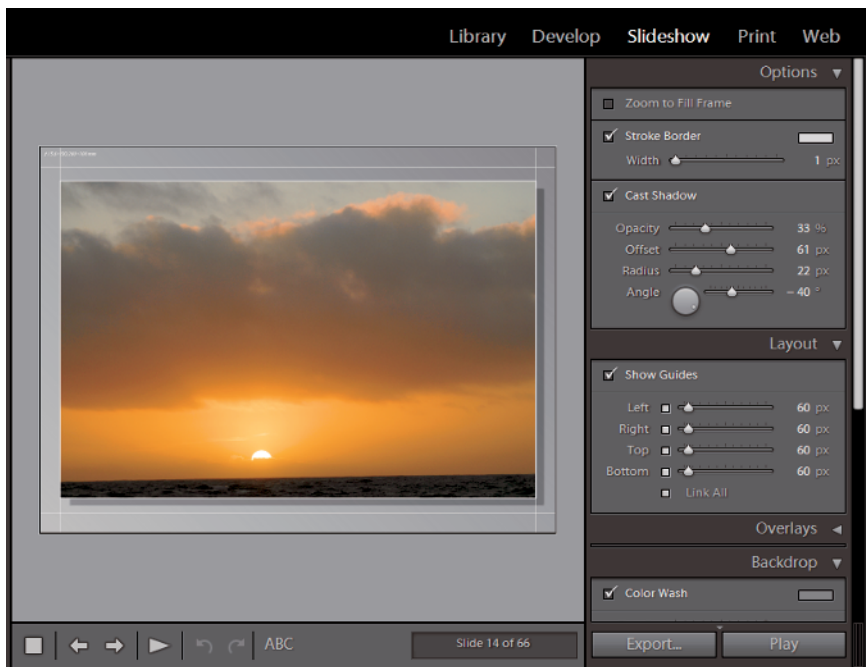
It is definitely for the photographer who doesn't want to deal with the learning curve of Photoshop or is intimidated by all the tools Photoshop offers the user. Yet it is also for the sophisticated Photoshop user who wants a simpler approach to working with large numbers of photos more quickly, especially RAW files.
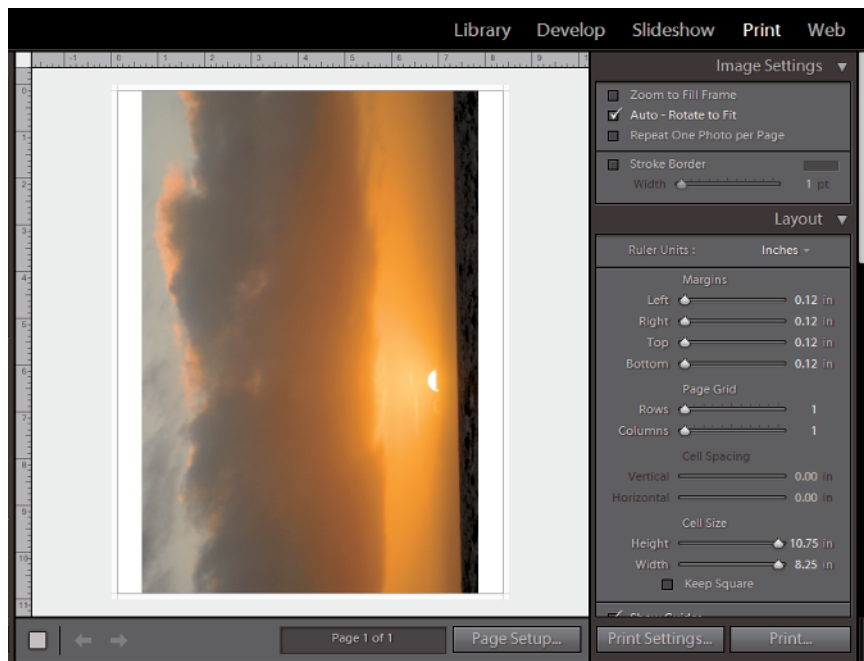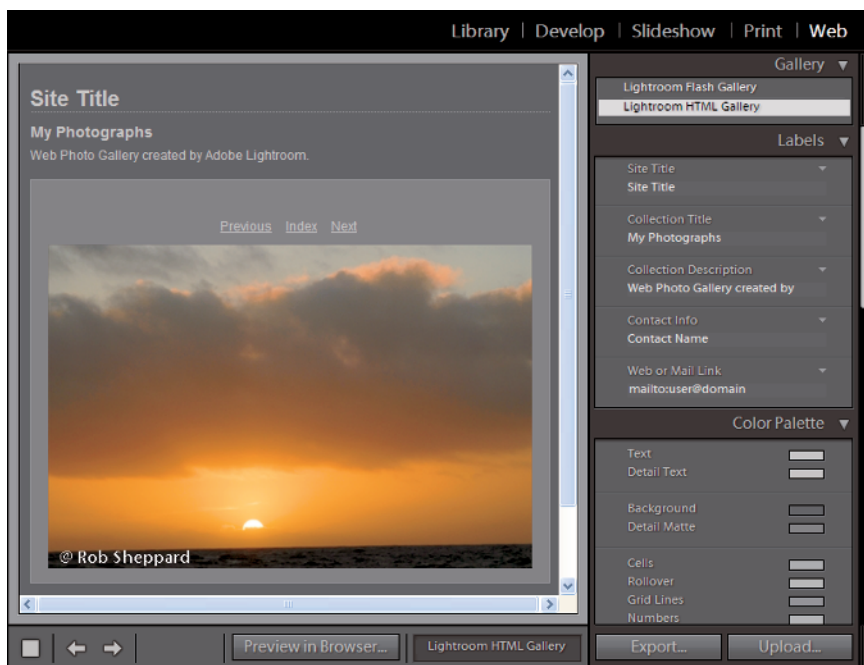


1-7

1-8



1-9

1-10



1-11