

# Can Apple's innovative approach overcome the flaws in its workflow software?

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# The *rookie*

APPLE APERTURE

Photographers have had excellent software for manipulating and retouching images for years, but scant solutions for speeding the editing and processing of RAW files from a typical shoot. Zeroing in on the problem, Apple Computer Inc. recently announced the release of Aperture software, its first application designed for the professional photographer's workflow.

Aperture attempts to wear many hats, but its greatest promise lies in handling image ingestion, the process of moving digital images from camera to computer, then examining and organizing them.

From there, Aperture can process RAW files

for further manipulation and eventual output. Like most RAW converters, Aperture has tools for global image correction, cropping, sharpening and noise reduction, as well as limited cloning tools for spotting. It also has tools for producing Web galleries, slide shows, proof sheets and booklets, and it allows you to export images to Photoshop and other applications.

Aperture was designed to provide these functions and more, through a user interface that's intuitive, efficient and fast. It does have the capability to import JPEG and other Raster image files and apply limited image corrections, but Aperture isn't meant to

compete with Photoshop's array of tools.

Some of Aperture's features show great ingenuity, while others are broken, bug-riddled or ill-designed for professional photographers and basic digital imaging. The sharpening and noise reduction tools are best left untouched, and why is there a red-eye reduction tool in an application for pros?

We cover some of Aperture's better features here, along with some of its most severe shortcomings. We present an in-depth evaluation of the software in the March Bonus Content at [www.ppmag.com](http://www.ppmag.com).

**THE GOOD.** Several unique features in Aperture make it easy and efficient to process large volumes of RAW image files. Suppose that for one job you've got 1,000 RAW files shot at four locations. You need to edit out the ones you don't want your client to see, then build a Web gallery or a proof sheet. Aperture excels at handling this process, most notably through a feature called Stacks, an advanced process that would be impractical in the analog world.

Stacks works by grouping similar images, allowing you to place your favorites in one Pick group. A mouse click will condense the Stacks so that the Pick group alone is visible, with the rest of the similar images hidden beneath it. You can also click to expand the view to see all of the images in the Stack (**Figure 1**). Stacks can be generated manually or automatically based on the image files' date/time shot metadata; a control slider allows you to designate a time span.

The Digital Loupe is another awesome

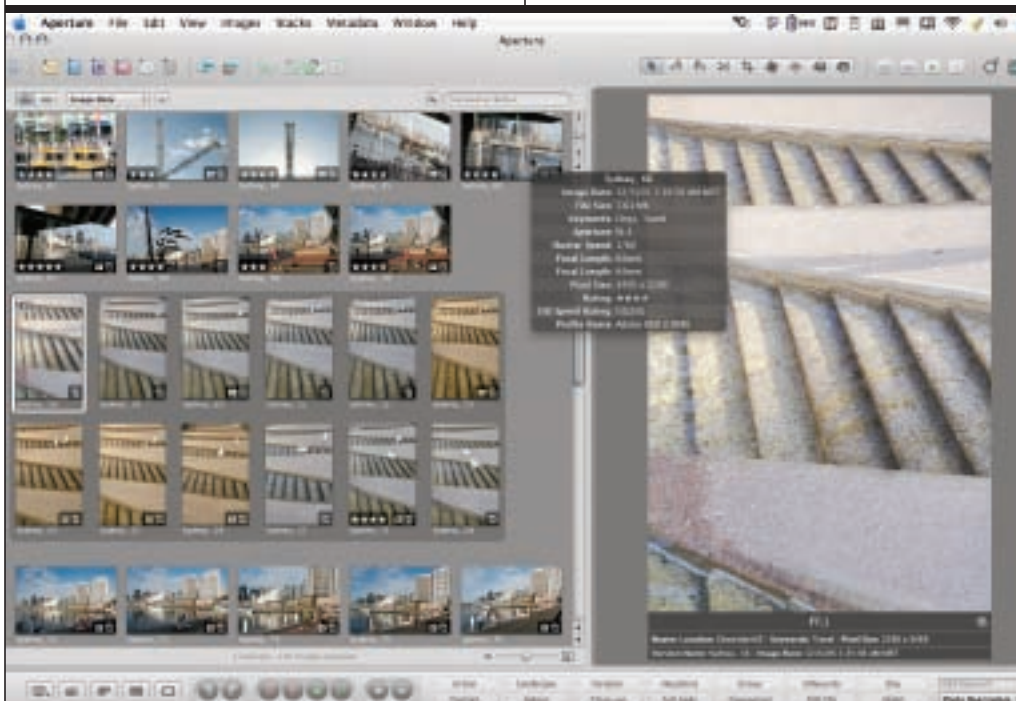


Figure 1. An expanded Stack of similar images. The Pick (far left) has a number 12 on top, indicating the number of images in the stack. The darker background around this group indicates it's a Stack. If I click on the Pick, the images below number 12 will slide underneath to display just one image in the browser.

tool for making your picks. You simply move it over a thumbnail of any RAW file in the Aperture browser to produce a greatly enlarged preview as in **Figure 2**. That means you don't have to fully process a RAW file to find tiny flaws. You'll soon wonder how you ever got by without this time-saving feature. If you wish to view a larger zoomed preview without the Loupe, simply hit the Z key to view the open file at 100%.

Aperture makes it a joy to select a Pick group by allowing you to configure the viewer to a compare mode. Select a shot from a group of similar images and it will stay in place while you click on other similar images to compare with it. You can easily change your Pick as you continue to compare and select.

Adding such metadata to your image files as your copyright and keywords is fast and easy in Aperture. Just use the Lift and Stamp tool to grab the data from one image and embed it in another in a single step. The Batch Change command allows you to add metadata from lists you can create.

Aperture also has some powerful layout tools. You can build Web galleries and books by dragging and dropping your images into templates; fill Smart Albums or Smart Web Galleries automatically with images that fit parameters you designate; create multiple albums from any image you import to Aperture's main library.

These tools can potentially save you more hours of work than any other software on the market.

Albums contain only pointers to the original RAW files in the library. When you alter, delete or move an image from an album, the master RAW image remains in the library untouched. You can delete a file from the library, but only when you select it and tell Aperture to remove it.

You can back-up the library in an Aperture Vault. Both the the Library and Vault must



**Figure 2.** With the Loupe tool active, when I move it over a thumbnail in Aperture's browser, it produces a high-resolution view, in this case 100%.

be stored on a single drive, so if you shoot thousands of gigabytes' worth of images, this could be a deal breaker. Let's hope Apple devises a way to split this database into manageable chunks.

**THE BAD.** Aperture's limited correction tools include tint and white balance, saturation, exposure, and a shadow/highlight command. The lack of curves is disappointing, but the Levels command provides a four-way slider for manipulating a range of tones (**Figure 3**). My biggest complaint with this tool set is the lack of an RGB info palette. No numeric feedback is provided, and after working with other image manipulation packages for so long, it feels like a serious omission.

The Histogram is equally useless, as it's based on Aperture's internal color space rather than the space that the RAW file will be rendered to. It gives me no way of knowing if the edits and color space selection will be effective once the RAW processing is completed.

All RAW converters can save your

original files untouched, but Aperture is exceptional in its library structure and the way it handles stored rendered images that you wish to edit. Any image alteration done within Aperture takes place on a duplicate version that Aperture creates. With RAW files, editing is just a set of instructions that will be used to render a true pixel-based image should you either export the file or use the Open with External Editor command.

You can have a dozen different versions in Aperture representing a dozen different alterations, but only one RAW file will exist in the library. The new versions are stored in the library and linked to the master. But things get messy (and the library grows huge) when you import layered PSD images to Aperture. Long story short, you end up with flattened files and no access to the original layers. There are a few workarounds for retaining and working with the original layered file, but the process is way too convoluted.

And there's a nasty bug in moving images

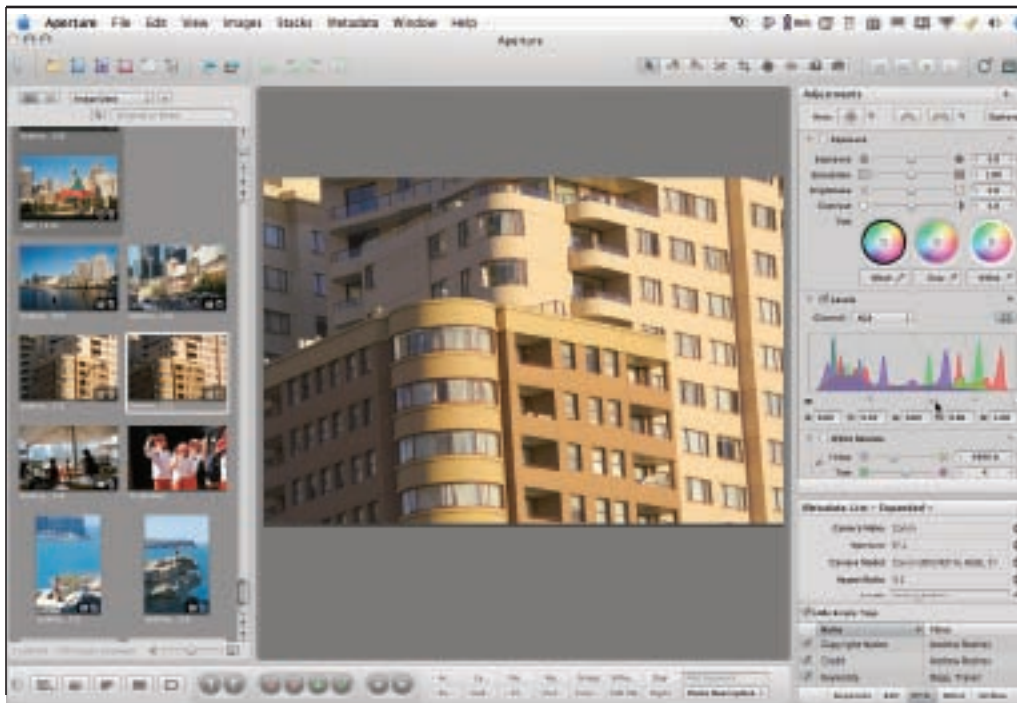


Figure 3. There's an adjustments pane on the right side of the interface. The Levels command provides four sliders (top and bottom) for applying tone corrections, and with a bit more control than with most Levels commands.

from Aperture to Photoshop and back. If you click on a master and ask to edit it in Photoshop, do the edits, then immediately return to Aperture and select Undo (cmd-Z), Aperture will delete that version *forever*.

When you use the Open in External Editor command, you have no control over the bit depth or color space of the file. If you ask for a PSD, you end up with a 16-bit image in Adobe RGB (1998). If you ask for a TIFF, you get an 8-bit file in Adobe RGB (1998).

There's no way to specify an output resolution. Aperture always defaults to 72 dpi. You retain all the original pixel density, but it's more work when you want to specify an output size for printing.

When you export a file, you can select any RGB output color space based upon any ICC profile you have installed on your Mac, but you cannot control the rendering intent.

## THE CONTENDER

### Adobe Lightroom Beta

Less than two months after Apple introduced Aperture, Adobe Systems surprised the imaging world by releasing the beta version Lightroom software for professional photographers. Despite what sounds like similar functionality, Lightroom was not hastily developed and rushed to market in response to Aperture's release. Apparently both companies have been developing these products for some time.

In the strictest sense, this Lightroom release isn't actually a beta version, as it's still feature incomplete. Based on user feedback, the software will evolve until its commercial release late this year. That means you can immediately begin

using the product at no cost, and perhaps play a role in the development of its features. I can't recall Adobe's ever releasing a product this way, and in light of Aperture's shortcomings, it's a brilliant game plan.

Against the current version of Lightroom, Aperture does have more capabilities (as well as problems). Lightroom has little metadata functionality, and it manipulates a single RAW or rendered file. There are no Master/Version options as in Aperture, but that's coming. Lightroom sports a clean and modern interface broken into four modules: Library, Develop, Slide-show and Print.

Library is where you browse, rank and apply keywords to images. There's not a sexy Loupe tool like Aperture's, but you

can view your RAW images at 100 percent or full screen with a single click and quickly pan around the image, so it's just as easy to inspect each photo. With another key command, you can fade or totally remove all other interface items to better view the image alone. The Compare mode allows previews of any number of images in the browser. The small Quick Develop pane allows for simple global corrections to one or hundreds of images displayed in the Library module.

The Develop Module is where you apply corrections to both RAW and existing rendered image files. The RAW conversion tools in the Develop module are far more robust than Aperture's. The selective color controls, called HLS Color Tuning, are so remarkable that even

All conversions use the Relative Colorimetric intent, a major omission from a company that put color management on the map!

**WORSE.** As a RAW converter, Aperture's results are both good and bad. While Aperture's default color is attractive, requiring few if any corrections, the resulting processed data exhibited noise and other artifacts in shadows that I didn't find in Adobe Camera RAW, Bibble Pro or RAW Developer. No amount of tweaking would fix this.

I suspect that even with the sharpening controls turned off, there is far too much sharpening applied during RAW conversions.

Aperture has a hefty minimum hardware configuration, so not everyone on the Mac platform can even run the product (**See sidebar, right**).

*All* software has bugs, especially in v.1. In the case of Aperture, it feels like they rushed

the product market much too soon. I'm hard pressed at this time to recommend anyone spend \$500 on the product. Let's hope there will be updates forthcoming to fix the most

serious bugs and improve the RAW processing. If so, Aperture could be a major software contender for professional photographers using the Macintosh platform. ■

## APERTURE: MINIMUM SYSTEM REQUIREMENTS

### One of the following Macintosh computers:

- Power Mac G5 with a 1.8 gigahertz (GHz) or faster PowerPC G5 processor
- 15- or 17-inch PowerBook G4 with a 1.25 GHz or faster PowerPC G4 processor
- 17- or 20-inch iMac G5 with a 1.8 GHz or faster PowerPC G5 processor
- Not supported on Intel-based Mac computers with Rosetta; a Universal version to be available before the end of March 2006

### Mac OS X version 10.4.3 "Tiger" or later and 1GB of RAM

### One of the following graphics cards:

ATI Radeon x600 Pro or x600 XT; ATI Radeon X800 XT Mac Edition; ATI Radeon X850 XT; ATI Radeon 9800 XT or 9800 Pro; ATI Radeon 9700 Pro; ATI Radeon 9600, 9600 XT, 9600 Pro, or 9650; ATI Mobility Radeon 9700 or 9600; NVIDIA GeForce 6600 LE or 6600 NVIDIA GeForce 6800 Ultra DDL or 6800 GT DDL; NVIDIA GeForce 7800 GT; NVIDIA Quadro FX 4500

### 5GB of disk space for application, templates, and tutorial

### DVD drive for installation

Photoshop and Camera Raw have reason to envy. The grayscale conversion tools are quite good, and the Auto button produces excellent results. RAW rendering is up to par, but not identical to Adobe Camera Raw. I had reservations about Aperture's rendering engine, but I'm pleased with the quality Lightroom yields. Like Camera Raw, Lightroom has a camera calibration pane for easy tweaking of the default rendering or to create a series of calibrations for different illuminants.

In the Slideshow Module, slideshows can be designed and exported as HTML, PDF or Flash. Printing within Lightroom is well implemented, offering the ability to produce multiple templates, control over output using color management, and even output sharpening. The unique and useful Enable Draft Mode Printing allows very

quick output of multiple RAW files to proof sheets.

Lightroom was quite fast at both browsing and processing files on my 1.67MHz Power Book. The hardware requirements are nothing like Aperture's. One feature Aperture users might highly desire is Lightroom's option to copy or move all images in a central library or to store the files elsewhere leaving a reference to the files, even on external drives. This allows you to retain your established folder structures. In fact, you have the option to import each folder as an individual Shoot (the equivalent of an Aperture Album), or to alter the structure of your files on import. So far, Lightroom reads over 100 proprietary RAW file formats, as well as DNG, TIFF and JPEG.

Right now Lightroom is available only

for the Macintosh platform, but a Windows beta version is in the works. While it's currently not functionally akin to Aperture, I recommend downloading a copy of Lightroom and giving it a try. It costs nothing to give it a workout, yet you can retain all your files in their original location and produce very good RAW conversions. More important, you can squash bugs and have your say in how this product evolves. Adobe has a very good QuickTime introduction to Lightroom, which can be accessed at <http://av.adobe.com/russellbrown/LightroomSM.mov>

*Get a deeper look at Adobe Lightroom, plus download and forum links, in the March Bonus Content at [www.ppmag.com](http://www.ppmag.com).*