sitions between the yellow surrounding the sun and the more orange areas.

If we really tortured them, we'd find that the Camera Raw version is the noisiest of the three. It would be a wholly academic exercise, because the capture was quite good, and noise would never become an issue in any reasonable scenario. Let's move on to where it might.

Noise and Acquisition Issues

The first edition had plenty of material on how to eliminate noise, and also showed that operating in LAB got smoother results than what was then the equivalent in RGB. At that time, Camera Raw was an inferior product that lacked the ability to be competitive with LAB corrections generally. The question of which produced smoother results was therefore moot.

By the time of *Modern Photoshop Color Workflow* in 2013, Camera Raw had to be taken more seriously. Also, I was ready to advocate a certain method of working with it that can exacerbate noise under certain circumstances. Therefore the whole question had to be investigated. This is harder than it sounds, because we would like to have two identical-looking files to compare, but Camera Raw and LAB are so different that the best we can hope for is some degree of similarity.

The results were decisive. Working with flat files in LAB always produced less noise than equivalent moves in Camera Raw. Two cautions, however: first, it takes a very large color move indeed before the difference becomes significant. Second, moves as drastic as some shown in this book can emphasize

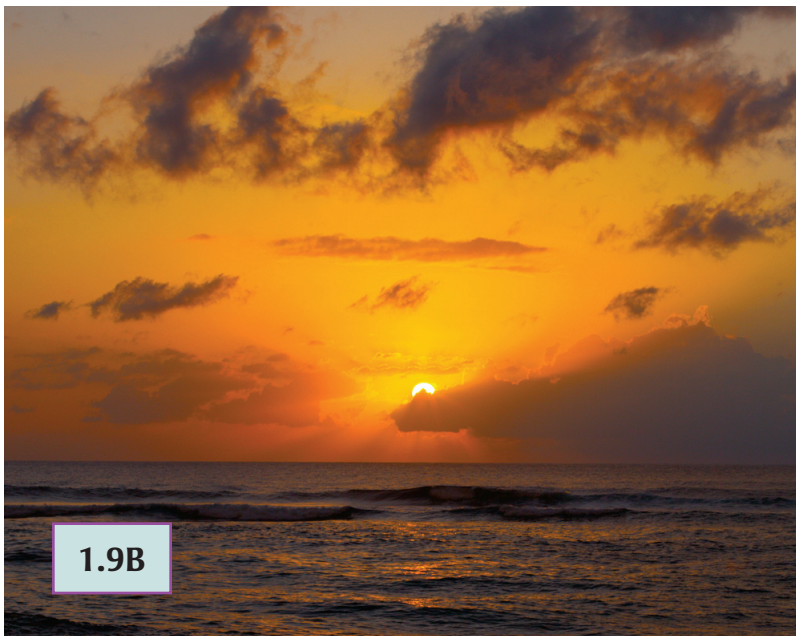


Figure 1.9 *Top, starting from Figure 1.8A, a color boost as shown in the first half of the chapter is added. Middle, instead, +100 Saturation is added in Camera Raw. Bottom, the same approach as at top, but a stronger color boost because a duller original was acquired in Camera Raw.*

noise. As such moves are almost never done in Camera Raw it can seem that LAB is to blame, but it's not true: Camera Raw would be worse.

In *Modern Photoshop Color Workflow* my example came from a world-famous photographer. The scene itself was exceedingly dull and needed a lot of color added. This time we will consider the opposite: a raw image deliberately underexposed to compose a symphony of artifacts. Figure 1.10A is the shocking default in Camera Raw. Figure 1.10B is also acquired in Camera Raw, but with the Exposure slider set to its maximum 5.0 and nothing further done in Photoshop.

Figure 1.10C is as close as I could get to it by converting to LAB and applying curves to the nearly black start point, because the LAB method is faithful to the original hues and the Camera Raw method is not. I restricted myself to equal angles in the A and B. It may not seem that way in the foreground, but this file is actually the more colorful of the two, especially in the cooler areas, and in the pinks of the choir.

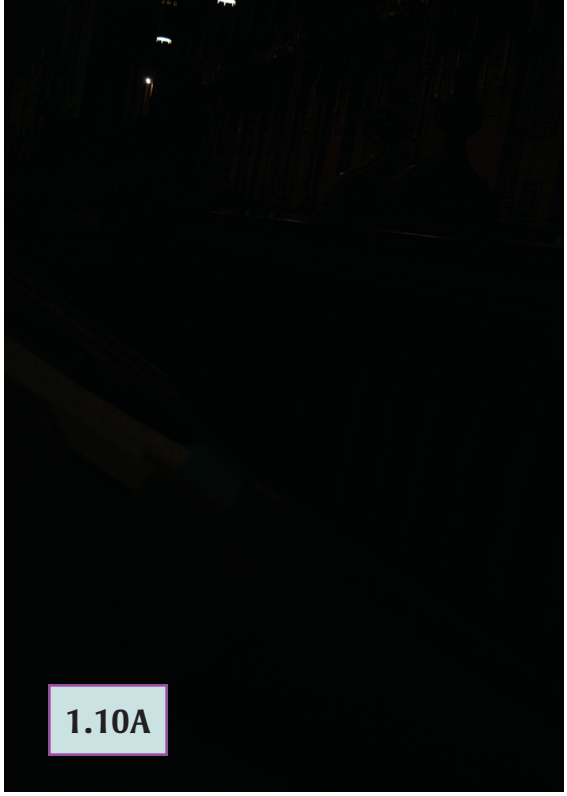
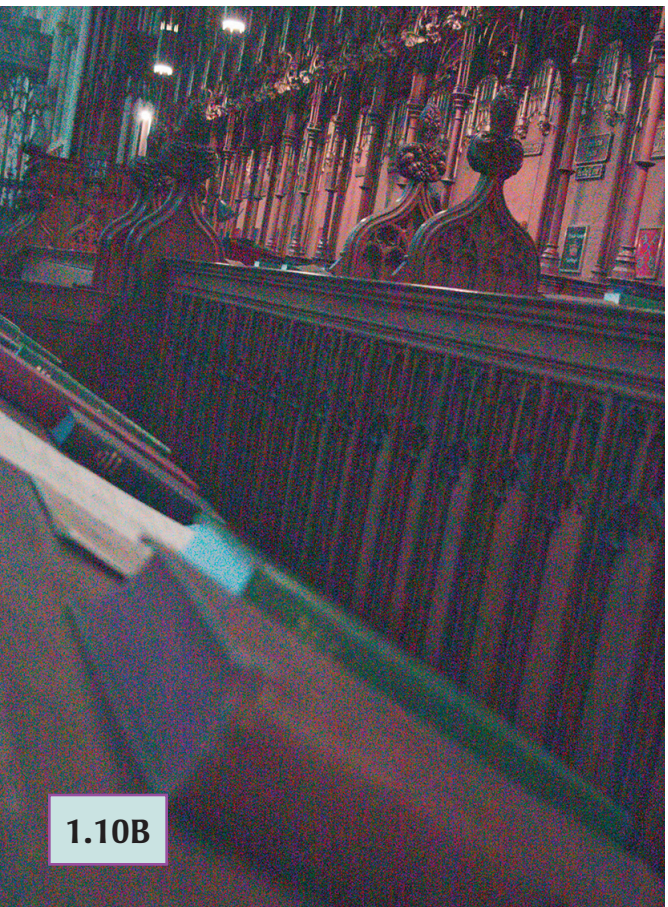
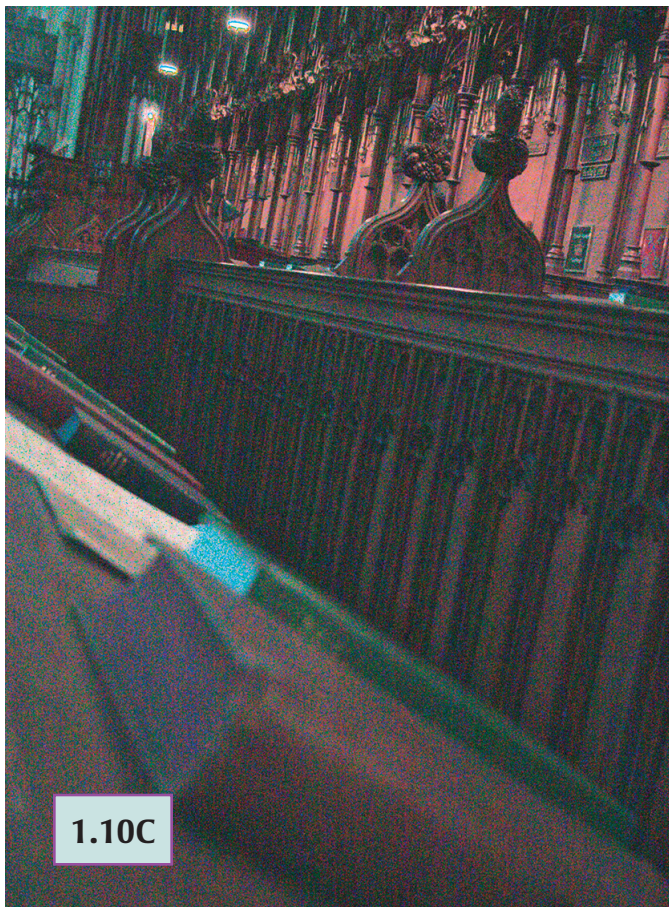
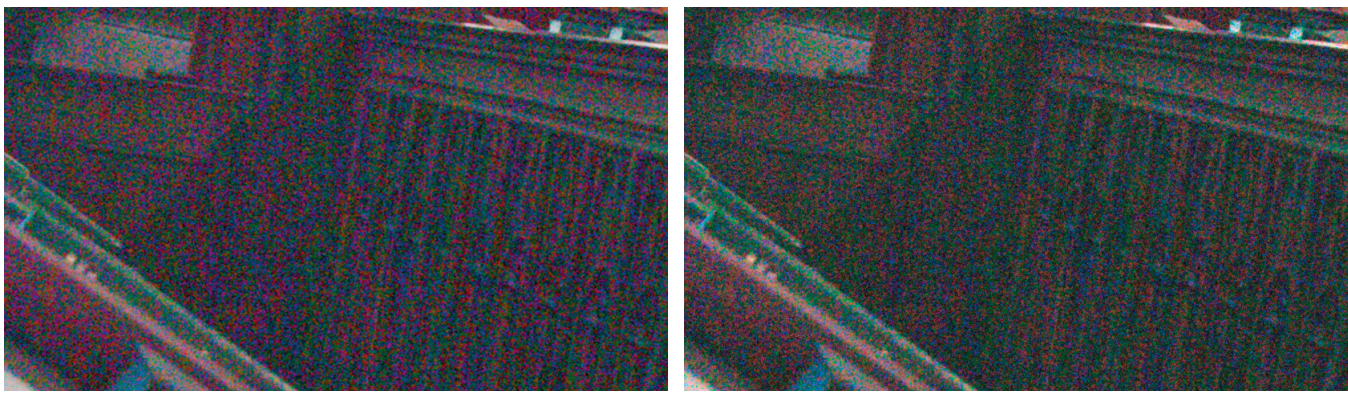
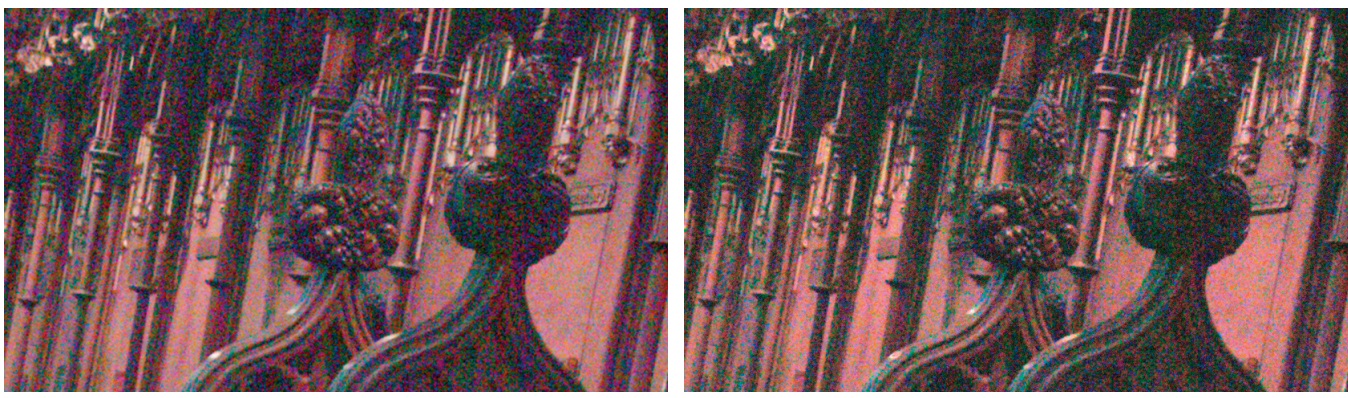


Figure 1.10 *A grossly underexposed original is a good test of noise handling. Above, a default Camera Raw acquire. Below, left, corrected by moving the Exposure slider in Camera Raw to its maximum. Right, the nearly black version above is instead corrected with the type of LAB curves shown in this chapter.*









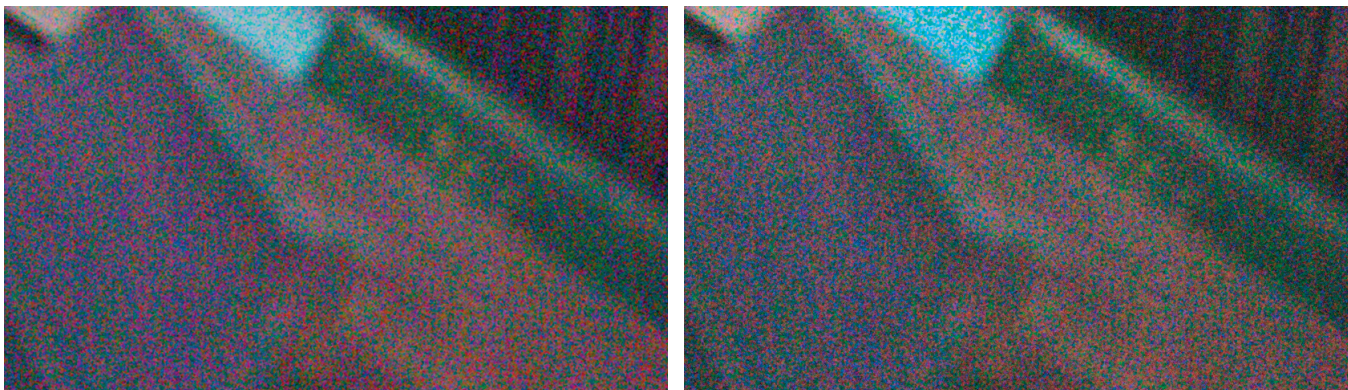


Figure 1.11 *The images of Figure 1.10 were downsized to fit on a single page. On this page, comparisons at actual size. The left-hand samples are from Figure 1.10B, which was done entirely in Camera Raw. To their right are the same areas of Figure 1.10C, which was produced by simple LAB curves using the horrendously black Figure 1.10A as a start point.*

It also has slightly more contrast, again especially in the choir.

For form's sake I state the conditions of contest. For the LAB entrant the file was exported from Camera Raw in 8-bit RGB and converted to 8-bit LAB without dither. For the Camera Raw entrant I tried several export settings and none made a difference. For printing in this book, identical settings were used to move into CMYK. The LAB file therefore had one extra conversion (from RGB to LAB). The files were downsized for printing in Figure 1.10 but are at actual size, 240 pixels per inch, in the subsequent examples.

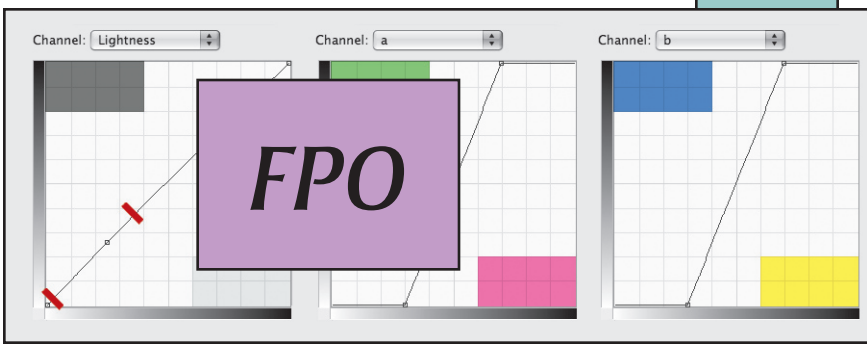
The deck seems stacked against the LAB entrant, but Figure 1.11, which compares various portions of the two, can be the arbiter. The Camera Raw pieces are always on the left.

The conventional wisdom is that manipulating raw data has the best chance of avoiding artifacting issues. As you can see, the conventional wisdom is wrong.

***Figure 1.12** The original Man from Mars.*

The Man from Mars Method

Setting the last example aside, the comparisons so far demonstrate that LAB moves to enhance color, in addition to being faster, have a slight technical superiority. However, those who study LAB are looking for something jaw-dropping, which we haven't yet seen.



But until now, we have looked only at the simplest application. Granted, steepening the A and B curves through their center points is the fundamental move.

The next method has been around for a while, but modifications that make it far more effective are in Chapter 3. It is named after Figure 1.12, which my wife announced resembled a Man from Mars when I used it to introduce the technique in a 2005 column.

The idea was to illustrate how AB curving is the only way to get certain results. The L channel wasn't touched. The image was created by AB curves that are simply straight lines made as steep as possible. Unlike the other straight-line AB exercises of this chapter, both pass well to the left of the center point. The left is the negative side, the cool-color side.

The image is therefore being forced toward green and blue in relatively neutral areas, but the curves are so steep that certain areas get redder nevertheless. Thus, the weird effect of having some skin turn violently more red while