



## Chapter 6

# Black and white

I was eleven years old when I first got into photography. My first darkroom was kept under the stairs of our house and like most other budding amateurs, my early experiments were all done in black and white. Back then, very few amateur photographers were competent enough to know how to process color, so black and white was all that most of us could manage to work with. For me, there has always been something rather special about black and white photography and digital imaging has done nothing to diminish this. If anything, I would say that the quality of capture from the latest digital cameras, coupled with the processing expertise of Photoshop and improvements in inkjet printing have now made black and white photography an even more exciting avenue to explore.

### Black and white film conversions

Traditional black and white film emulsions all differ slightly in the way they respond to different portions of the visual spectrum (as well as the colors we can't see). This is partly what gives emulsion films their 'signature' qualities. So in a way, you could say that film also uses standard formulas for converting color to black and white, and that these too are like rigid grayscale conversions. You may also be familiar with the concept of using strong colored filters over the lens when shooting with black and white film and how this technique can be used to emphasize the contrast between certain colors, such as the use of yellow, orange or red filters to add more contrast to a sky. Well, the same principles apply to the way you can use the Black & White adjustment to mix the channels to produce different kinds of black and white conversions.



**Figure 6.1** If you convert a color image to grayscale mode, Photoshop pops the dialog shown here which is basically advising you there are better ways to convert to black and white.

### Converting color to black and white

The most important tip here is to always shoot in color. Wherever possible you are far better off capturing a scene in full color and using Camera Raw or Photoshop to carry out the color to mono conversion. Although having said that, you do need to use the most appropriate conversion methods to get the best black and white photographs from your color files.

### The dumb black and white conversions

When you change a color image from RGB to Grayscale mode in Photoshop, the tonal values of the three RGB channels are averaged out to produce a smooth continuous tone grayscale. The formula for this conversion consists of blending 60% of the green channel with 30% of the red and 10% of the blue. The rigidity of this color to mono conversion limits the scope for obtaining the best grayscale conversion from a scanned color original (see Figure 6.1). The same thing is true if you make a Lab mode conversion, delete the *a* and *b* channels and convert the image to grayscale mode, or if you were to simply desaturate the image. There is nothing necessarily wrong with any of these methods, but they aren't really making full use of the information that can be contained in a color image.

### Smarter black and white conversions

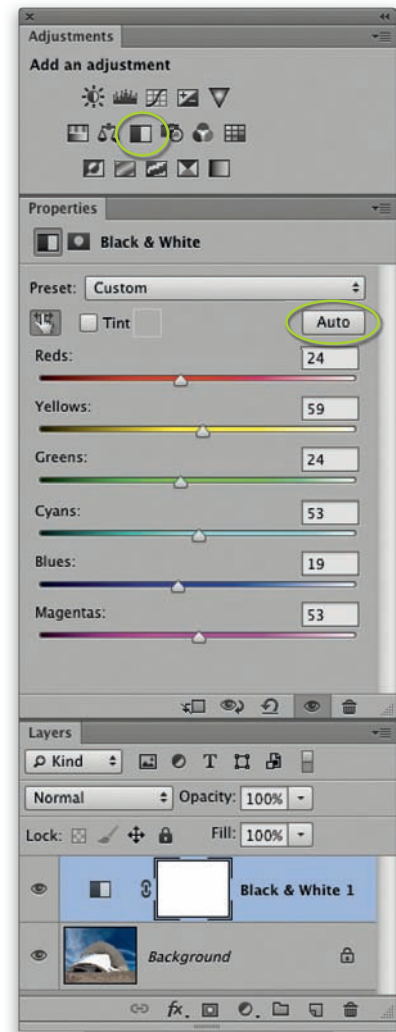
If you capture in color, the RGB master image contains three different grayscale versions of the original scene and these can be blended together in different ways. One of the best ways to do this is to use the Black & White image adjustment in Photoshop, which while not perfect, can still do a good job in providing you with most of the controls you need to make full use of the RGB channel data when applying a conversion. The Black & White slider adjustments will, for the most part, manage to preserve the image luminance range without clipping the shadows or highlights. These adjustments can be applied to color images directly, or by using the Adjustments panel method to add an adjustment layer. The advantage of using an adjustment layer to apply a black and white conversion is that you can quickly convert an image to black and white and have the option to play with the blending modes to refine the appearance of the black and white outcome. Let's start though by looking at the typical steps used when working with the Black & White adjustment controls.



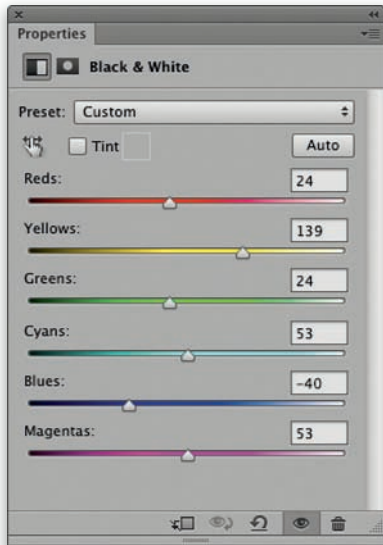
**1** The following steps show a basic method for converting a full color original photograph to black and white. The Black & White image adjustment can be applied directly by going to the Image ⇒ Image Adjustments menu, or you can go to the Adjustments panel and click on the Black & White button (circled) to add a new adjustment layer.



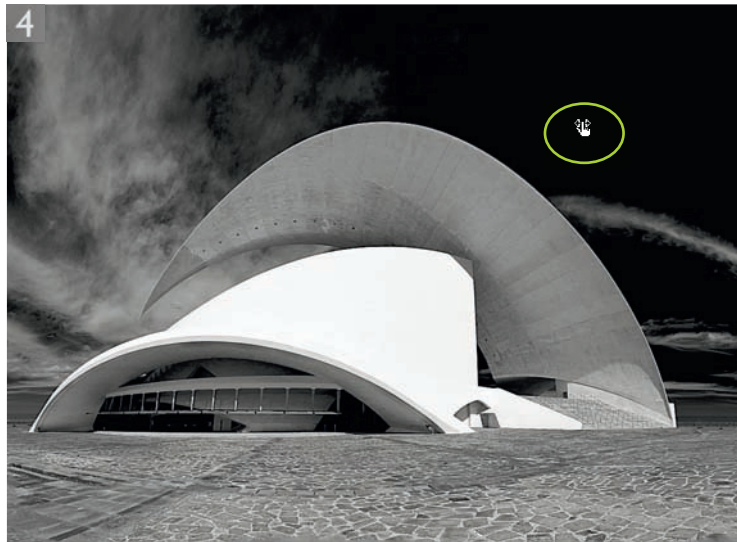
**2** To begin with I clicked on the Auto button (also circled). This applied an auto slider setting based on an analysis of the image color content. The auto setting usually offers a good starting point for most color to black and white conversions and won't do anything too dramatic to the image, but is immediately a lot better than choosing Image ⇒ Mode ⇒ Grayscale.







**3** If you don't like the auto setting result, you can adjust the sliders manually to achieve a better conversion. In this example, I lightened the Yellows and darkened the Blues.



**4** Lastly, I clicked on the target adjustment mode button (circled) for the Black & White adjustment. This allowed me to move the cursor over particular areas of interest (such as the sky) and drag directly on the image to modify the Black & White adjustment. This step selected the nearest color slider in the Black & White adjustment panel. Dragging to the left made the tones beneath the target adjustment tool cursor go darker and dragging to the right, lighter. The end result was a photograph in which I managed to increase the contrast in the sky.