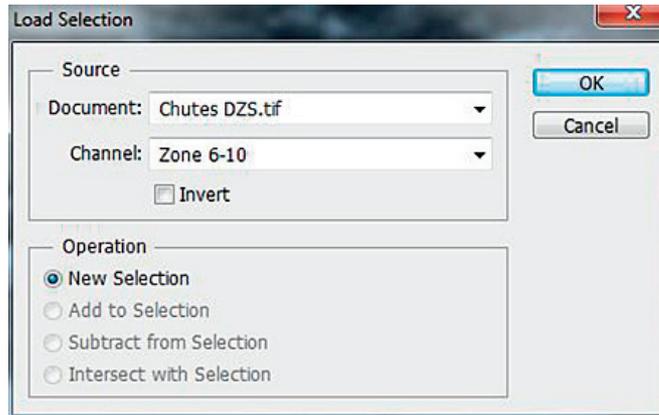


6. Save this selection. Name the new channel something like Zone 7–10.
7. Repeat steps 3 and 4 to generate channels named Zone 8–10, Zone 9–10, and Zone 10.
8. Go to **Select>Load Selection**. Choose Zone 6–10 from the Channel drop-down menu as in the screenshot in figure 5.9. Again, you can also use the alternate method with the icons at the bottom of the Channels palette discussed in chapter 4 or CTRL+click (⌘+click) on the alpha channel—whichever you’re more comfortable with.
9. Go to **Select>Inverse**. This will load a selection composed of Zones 0 through 5.
10. Save this selection. Name the new channel Zone 0–5.



► Figure 5.9: Load Selection dialog box

11. Repeat steps 3 and 8 to create channels named Zone 0–4, Zone 0–3, Zone 0–2, Zone 0–1, and Zone 0.

You’re halfway there. What you’ve done to this point is lay the groundwork for creating the individual zone masks, as described earlier in relation to the sample gradient image. Next, you need to separate the individual zone masks from the zone groups. To do this, subtract one group from the other in succession as follows:

1. Load the selection called Zone 6–10.
2. Hold CTRL+ALT (⌘+option) and click on the thumbnail for the Zone 7–10 channel in the Channels palette. You’ll get the “No pixels are more than 50% selected” warning. Click OK and continue.
3. Name this new channel Zone 6.
4. Load the selection called Zone 7–10.
5. Hold CTRL+ALT (⌘+option) and click on the thumbnail for Zone 8–10 in the Channels palette.
6. Name this new channel Zone 7.
7. Repeat steps 4 through 6 to create Zones 8 and 9. Remember that Zone 10 was already created when we set up the zone groups.
8. Load the selection called Zone 0–5.

- Repeat steps 4 through 6 to create Zone 5 down to Zone 1. Remember that Zone 0 has already been created.

Congratulations! You've created your zone groups and have your individual zone masks set up as well. What you should have is a Layers palette that looks like the image in figure 5.10. You should also have a Channels palette that looks similar to figure 5.11.



▲ Figure 5.10: Layers palette



▲ Figure 5.11: Channels palette

There's more punch and there's some good separation of tone in the darker areas. There are also the beginnings of some highlights in the trees at the back of the image. But it's still not quite where I want it. I could try to take it further with any of the dodging and burning techniques, but they are time consuming and sometimes inaccurate, particularly when used in small, finely detailed areas.

When you begin working with the DZS, there will be some trial and error in finding out which zone masks impact different areas of the image. Go back to the grayscale step wedge in chapter 1 to remind yourself of the grayscale values that apply to each Zone. By moving your cursor over an area you want to work on in the image, you can view its RGB values in the Info palette. Looking at these values and correlating them with the step wedge will give you a good starting point for figuring out which zone mask you need to use. In figure 5.14, the cursor was held over the reddish brown rocks on the right, where you can see the white circle. The RGB values in the Info palette for this area are R 213, G 189, and B 147. This equates to an average of 183, which is Zone VII.

Another way to determine the brightness of the area you want to work on is to turn off the visibility of the background or base layer, make your luminance layer the active layer, and move your cursor over the area you want to work on. This will show the true grayscale values. If we do that with this image, the values are R 191, B 191, and G 191, which is essentially the same as the 183 we measured as an average on the color layer. You'll become more comfortable and will train yourself to visualize the different levels of brightness as you use the DZS more, and you'll be able to load the appropriate zone mask more quickly and edit more efficiently.

Measure the areas you want to adjust before you start adding new adjustment layers. As you add new layers and begin adjusting the image, the RGB values will change to reflect the effect of the adjustments you've made. This makes sense. Your digital darkroom adjustments have an impact that is similar to the effect of development adjustments in the Zone System, where changing the development could shift a tone from Zone VI to Zone VII. Your adjustments should be based on the original luminance values. If you want to go back and remeasure some areas, simply turn off the visibility of any adjustment layers by using the eye icon next to the layer.

As you load a zone mask, you'll be presented with the same "No pixels are more than 50% selected" warning. Again, this is nothing to worry about, so you can just click out of the warning. (It would be nice if Adobe allowed you to disable the warning, as they do with most others.)

To save the time it takes to load each zone mask individually, you can program an action to load them all and set up Curves adjustment layers for each. I've programmed that action, and you can download it from rockynook.com/dzs. The action also adds Hue/Saturation adjustment layers for all your zone masks.

When you're finished, you can delete the zone mask adjustment layers that you didn't use. To make it easier to remember which were used and which were not, you can turn



▲ Figure 5.14: Assessing luminance values in the image



► *Figure 5.15:*
Final version edited
with DZS

off the visibility of all the layers and turn on visibility of the ones you use. The ones that remain turned off can be deleted.

The primary adjustments you're likely to use with your zone masks are Curves or Levels for tonal adjustments, along with Vibrance or Hue/Saturation for color adjustments. Some of the other adjustment tools may be helpful in certain situations.

Now let's take a look at the version of the autumn river edited with the DZS (figure 5.15.) Next, we'll walk through the steps required to create it.

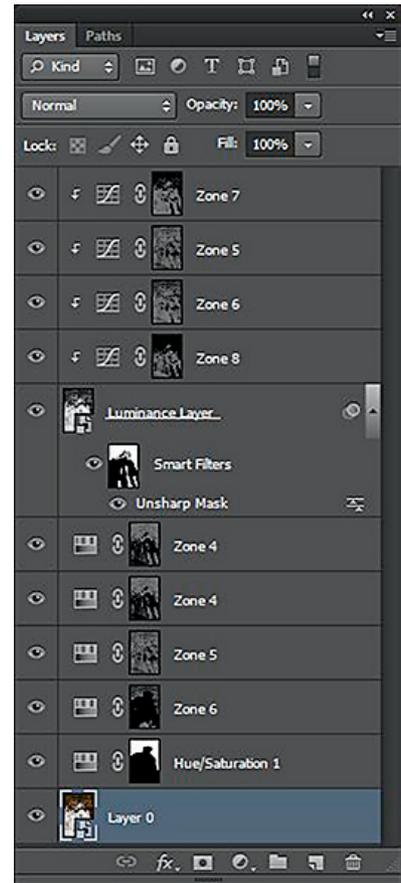
What do we see? We see an image that has much more life and vitality than the previous version. We have an image that takes much more advantage of the slight tonal differences in some of the colors. Look at the trees in the back of the shot. Where before the trees on the upper left were a relatively uniform mass of deep red, we now have deep reds in the shadows and lighter, brighter reds in the light areas. The yellows and oranges on the right also show much more brightness because we worked with the luminance in the image to bring out that level of brightness. Even the green in the trees on the upper left has small hits of luminance that add visual interest to an otherwise uniform mass of color. Note, too, that in the evergreens in the back at the middle, we have hits of highlight on the edges of some of the branches.

To bring these tonal and brightness differences out in the version edited with traditional tools, we had to do a lot of very fine painting in the image. With the DZS, we were able to bring them out by using the luminance that already existed in the image. Another thing to note is how much sharper the DZS version is. We'll see the reason for that shortly.

Figure 5.16 shows the layer stack for the image. At the bottom, we have our original image layer. You can see the small icon at the bottom right that indicates this is a Smart Object. In the middle is the luminance layer, and it, too, is a Smart Object.

Above the luminance layer is a series of Curves adjustment layers pertaining to a selection of zone masks—in this case Zones 5 through 8. You see that each of these is clipped to the luminance layer. The reason for this is that we want these Curves adjustments to affect the luminance of the image only. If the layers were not clipped to the luminance layer, they would impact the entire series of layers, including those below the luminance layer. That's because the luminance layer is set to the Luminosity Blend Mode. To clip an adjustment layer to a specific image layer, hold down the ALT (option) key, position your cursor on the line between the adjustment layer and the layer below, and click. As an alternative, you can check the box that says "Use Previous Layer to Create Clipping Mask" when you create the adjustment layer. Doing this will automatically clip the new adjustment layer to the layer below.

On top of the base layer, we have a series of Hue/Saturation adjustment layers applied to different zone masks. The background layer is named Layer 0 here because I was working with an existing image, and when you convert an existing image to a Smart Object that's what happens. Note that I have two Hue/Saturation adjustment layers for Zone 4. Applying the adjustments in two separate layers gives a slightly different look from applying a combined adjustment in a single layer. One builds on the other. There is a global Hue/Saturation adjustment layer that is applied to the entire base layer. In this one, you'll see that I've masked out the adjustment to the water and only kept the effect in the rocks and trees. The painting necessary to create this mask was not difficult because



▲ Figure 5.16: DZS layer stack

farther to the left. We have effectively improved overall (global) contrast by making very selective adjustments to specific areas of tonality (local contrast).

Could we have done the same thing with traditional editing methods? Maybe. But not nearly as easily. We would have to do more selective dodging and burning and would have to have been very precise with the painting to get a similar kind of result. It would have taken much more time, and the image still wouldn't have the vitality or luminance that the DZS version has. With the DZS, we can add an adjustment layer, then simply adjust that layer. With this technique, we can push and pull the tonality of the image to improve dynamic range and image contrast in specific areas without overly affecting other areas. The amount that adjoining zones are affected due to the overlapping of the zone masks is just enough to maintain smooth transitions between tones.

When you're finished editing your image and are ready to save it, you can reduce the size of the file by deleting all the alpha channel zone masks and zone groups. If you want to work on the image in the future, getting the masks back again is pretty simple. Open the image, then duplicate it via Image>Duplicate. Delete all the layers so you're back to your original, then run the zone masks action. Click on the first zone mask channel, hold the SHIFT key, and click on each successive zone mask and zone group channel until all are selected. (Unlike with layers, you cannot click the first, hold SHIFT, and click the last to select all. Each has to be selected individually.) Now, drag the channels back to your DZS image. The masks are all back in place and you're ready to continue editing. I've programmed an action to automate this step, which you can download from rockynook.com/dzs.

As was mentioned earlier in the chapter, the luminance layer is actually in grayscale. We can use this layer to help us with black-and-white conversions. We'll cover that in chapter 6.

Downloadable actions can be found on the Rocky Nook website at rockynook.com/dzs

Sharpening

Sharpening of digital images is a step that needs to be done. Digital capture by either scanner or camera imparts some measure of softness to the image. The concepts around sharpening have evolved over the years. In the early days of digital, it was considered best to leave sharpening until the last step in the image-editing process and to sharpen only once. Today, it's considered best to use a three-stage sharpening process.

The first stage of sharpening is done to the RAW file in your RAW converter. The purpose of sharpening at this stage is to remove the effects of the anti-aliasing filter and demosaicing of the image. This is called *capture sharpening*.

The second stage of sharpening is called *creative sharpening*. We looked at this earlier in the chapter. Creative sharpening is done once your editing is finished but before you resize for output. It can be applied to the entire image, or as we saw with the waterfall image, only to selected areas. That's the "creative" part. Creative sharpening can be broken down further into sharpening for high-frequency and low-frequency image information.



High-frequency information in images is those areas that have a lot of detail. The trees and rocks in the waterfall example represent high-frequency data. Low-frequency information in images is those areas that don't have a lot of detail, like the flowing water in our example. Broad expanses of sky are another common low-frequency area. You'll generally apply more sharpening to high-frequency data and less or no sharpening to low-frequency data.

The last step is output sharpening. This is a step that's done to sharpen the image for a specific kind of output. It's done after the image is resized. Resizing can impart some softness due to pixel interpolation. Printing will soften the image slightly due to what's called *dot gain*, which is the increase in the size of the ink dots as they hit the paper. The dot gain with "soft" papers is greater than with "hard" papers, so a bit more output sharpening needs to be applied for matte papers than for glossy papers. Adobe's High Pass filter is good for output sharpening because it can be adjusted with the Opacity slider.

In the DZS, output sharpening for color images is pretty simple. Duplicate your original image layer, delete any Smart Filters on the duplicated layer, drag it to the top of the layer stack, and place it directly above the last adjustment layer that applies to your color image but below any layers that apply to a black-and-white version. Rename this new layer Output Sharpening or something similar that will tell you what it is. If this layer is not already a Smart Object (it should be since your base layer is a Smart Object), make it one by going to **Layer>Smart Objects>Convert to Smart Object**. Change the layer Blend Mode to Overlay. The image will look ugly at this point, but don't worry.

Go to **Filter>Other>High Pass**. In the box that pops up, choose a starting point of three to five for the Radius and click OK. You'll see that the image now looks "normal" again. If you check and uncheck the eye icon next to the High Pass Smart Filter, you'll see the effect of the sharpening on the image. You can fine-tune this by adjusting the Opacity of the layer or by double-clicking on the High Pass Smart Filter to reopen it and adjusting the Radius up or down. You can also change the layer Blend Mode to Soft Light, which will reduce the effect a little.

Output sharpening of black-and-white images in the DZS is similar. Duplicate your luminance layer and delete any Smart Filters on the duplicated layer. Rename this layer Output Sharpening BW or something else that will remind you what it is. Drag it to the top of the layer stack above the last adjustment layer for your black-and-white conversion. Change the layer Blend Mode to Overlay and apply the High Pass Filter in the same way as before. Fine-tune the effect with the Opacity slider or by changing the layer Blend Mode to Soft Light to get the final result you want.

