

## Increasing Dynamic Range

Where a scene contains a great range of brightness, sacrificing the shadows may be one option, but not the only option. If the camera is mounted on a tripod, you can take a matching pair of images and marry them together in PhotoShop.

### **Slight underexposure:**

Once on your computer screen, the blacks may be indistinguishable from the darkest midtones. You can then boost the shadow contrast with Curves or Levels, or try Photoshop's Shadow/Highlights adjustment to bring the shadow detail back. However, higher noise can work against you in the darker exposure.



Underexposed, shadow detail is blocked. Sky looks great, contains highlight detail.

Solution, shoot the same image (while camera is mounted to a tripod) and meter for shadow detail. The sky may be over exposed, and that is OK. Keep the dark exposure and later sandwich the images together in post-production – in your darkroom, using your image editor. For this discussion, we are using Adobe Photoshop.

## REGROUPING

Another post processing workaround is to make two differing conversions of the RAW file, and sandwich them together. Alternatively, Adobe Camera Raw and other RAW converters now have sliders for “fill light” which can detect shadow areas and lift their brightness and contrast. So instead of sandwiching two conversions, more can be achieved in the RAW converter itself at a single pass. But you are still working with limited image data about the shadows.



It isn't always possible to lift the brightness of shadows in an image that was underexposed to protect the highlights – the resulting digital noise can be a problem.

A second frame is exposed to record shadow detail. This top exposure received three stops.

### **Bracketing**

While black-and-white often lets you get away with some blocked shadows, a solution is to blend bracketed exposures. With the camera mounted on a tripod, shoot a pair of shots of the same exact scene, changing only the exposure between frames. Use the Zone System and meter for where you wish to hold highlight detail, and where you wish to hold shadow detail. The lighter exposure will have blown out highlight detail, yet the shadow detail will hold up.

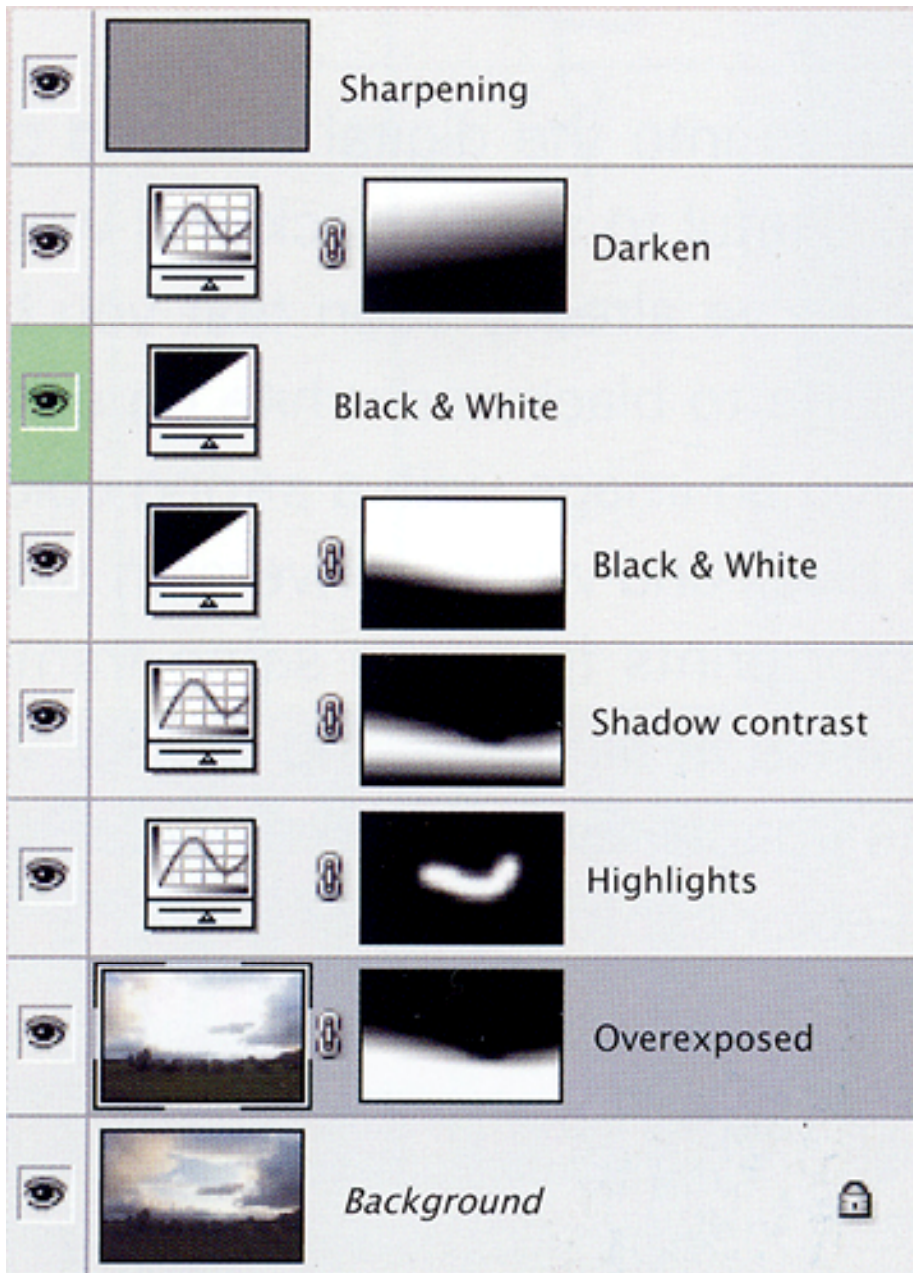
The two images can be matched up in Photoshop by holding down the Shift key as one image is dragged onto the other (or use the Photomerge tool). The final image contains

the highlight elements from the one (darker version), and the shadows from the other (lighter version).



Sandwiching exposures increases your camera's dynamic range and provides the viewer with compelling detail throughout the frame.

The key to the finished image, above is in the bottom two layers in Photoshop. The sky was masked out of the overexposed frame, allowing the correctly exposed sky to show through.



Reference:

John Beardsworth, *Advanced Black & White Photography* (2007), Pp. 28-29

“Poor Man’s” Dynamic Range: For Beginners:

<http://www.kenrockwell.com/tech/fixing-dynamic-range.htm>