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Getting Smart About Personal Technology

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H.D.R. Photography for the Realist

By ROY FURCHGOTT

The images across the bottom were combined to create the image at the top.

A technique called "High Dynamic Range," or H.D.R. for short, has gotten a bad rap for its ability to make photos surreal-looking.

But when used subtly, it can even out lighting in difficult shots. The classic example is a daytime indoor photo in which the family is properly exposed, but the windows are blurry glowing squares.

Harold Davis has made a specialty of H.D.R., much of it so subtle only another photographer would immediately spot the technique. "Essentially, H.D.R. can be used to add information to make a more subtle and nuanced photograph," said Mr. Davis, who recently wrote a guide, "Creating H.D.R. Photos."

Mr. Davis shared some tips on getting good H.D.R. shots, but first a little explanation of what the technique does and what it is.

The way H.D.R. works is to use software that takes data from several digital photos, each shot at a different exposure, then pieces together the best parts of each, so the over-lighted and under-lighted sections are fixed.

It's not a new technique. Mr. Davis traces it to the 1857 Gustave Le Gray photo "the Great Wave," which fused different negatives of the sea and sky to create an evenly exposed shot. More modern H.D.R. shots, done digitally, don't have to be nearly psychedelic, but many do, hence the bad rap. Instead, it can be used to make a photo look more the way you perceive it.

When you look at a landscape with the sun behind a mountain, you don't see an over-lighted sky and under-lighted mountains the way a camera does, partially because your brain puts together its own H.D.R. image from what your eye surveys.

Here's how to use it.

Sight a Subject. Because you are blending several images, it's important that they match closely. That means it's best to photograph things that are still (there are exceptions). Landscapes are good, so are interiors, sunsets, night shots, cityscapes and anything with a wide range of light and dark. "I shoot everything with it," said Mr. Davis. That includes some exceptions to the no-movement rule. "Moving water and clouds are rendered somewhat bizarrely," he said, "but it's an attractive bizarre."

Steady. Not only does your subject need to be still, so does your camera. That means using a tripod. "It's really important that the camera doesn't move," he said.

Making copies. There are a lot of ways to capture multiple exposures. The best way, said Mr. Davis, is to take five to 10 images, changing shutter speed manually with each shot. Don't adjust using aperture or the shots will have different depth of field (differing amounts of background blurriness). That makes them hard to match. If you want to try it with fewer images, many cameras have auto bracketing, which will vary several exposures for you. Use auto bracketing in burst mode, which takes several shots in rapid succession and helps assure the images will match.

Merge. Mr. Davis combines his photos by hand, choosing the best parts of each to assemble the shot. But there is software that will do the merging for you. The most popular are HDR Efex Pro from Nik Software, or Photomatix from HDRsoft. Photoshop also has built it H.D.R. features. "Any of the three software will let you open the photos up and select a preset and get something pretty decent out of it," said Mr. Davis. He sometimes uses it on top of his custom assembly for a bit of extra "pop," he said.

Or Shortcut. Many cameras – and even phone cameras – have H.D.R. capability. They tend to take only two or three images, and the software in the camera isn't as sophisticated as computer-based software, but even this can do a great deal to improve photos in difficult light. "It's a technique, not a style and nothing on earth says it has to be garish," Mr. Davis said. "It's just such an important part of the arsenal of the digital photographer."