

Infrared Photography in the Digital Age



A Home Forgotten



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Years ago, many of us who started a little earlier than others (Oops, maybe we're just OLDER than others rather than starting earlier!) used this surreal film in a yellow box labeled Kodak Hi-Speed Infrared HIE 135-36. We needed to load it in the dark into our cameras, not touch the emulsion side more than necessary to get it wound onto the take-up spool of our SLR's, and finally to develop it by unloading it in the dark or taking it to a lab that knew what they were doing. We had very little idea of what we'd see and what we'd get until that wonderful monochromatic proof sheet made its way back to us in a day or two. Oh, did I mention we had to put a deep red filter over our lenses during exposure and sometimes expose for shutter speeds that mandated a tripod?

Those golden days are past us, and like so many aspects of photography, we have a new world in the digital age in regard to photographing in the infrared spectrum. It's novel, exciting, a unique new view of our surroundings, and yet one more tool in the kit of those who want to create exciting images with impact. A recent image made on a trip to Kauai, Hawaii, *Kilauea Moment*, typifies how the ordinary might just be taken to the extraordinary by changing the medium from normal daylight to the world of infrared.

Before going further, just what IS the infrared

spectrum? We have heard it mentioned in regard to missile guidance systems, intruder cameras, and night vision goggles...but in photography?

Well, quite simply, it refers to a portion of the light spectrum we typically can't see. Light as we know it is measured by wavelengths, and the unit of measure used is the nanometer. Visible light is measured from 400—700 nanometers. Light at this 'length' can be seen with the naked eye. Just above that wavelength in the region of 700—900 nm we have infrared light or radiation that is invisible to us. However, remove the infrared blocking filter from the sensor surface of a digital camera, replace it with an infrared enhancing filter, and you have a camera that is capable of capturing images in the infrared spectrum. Enough of the *Physics of Light* 101!

How is this accomplished? While there are several businesses across the world that will 'convert' a camera from digital (visible light spectrum) to digital (infrared spectrum), the one seemingly most popular or more, pardon the pun, *visible* is a firm called LifePixel Inc. (www.LifePixel.com). Based in Mukilteo, WA, this business is focused primarily on infrared photography and all its components. Not only can you pack and ship your camera to them for conversion, you can download and view numerous tutorials and helpful Q&A pages

to reduce the complexity of digital infrared photography.

So, you've converted a camera (at a current cost of about \$350-\$400) to digital infrared, now what? But I'm getting ahead of myself, and a better question to ask at this point is "why should I shoot infrared?" The flip answer is "because you can," but a more cogent answer is that digital infrared images offer you more variety, more latitude, and perhaps greater creativity in your pursuit of the winning image. In general, images taken in deep black and white infrared display bold black and whites, darken the skies, and turn most all foliage to various shades of white. The ethereal effects of infrared are most pronounced in the image *Fallen Dreams* taken at Crown Hill Cemetery in Indianapolis, Indiana. Note the skies and equally view the grass and the foliage. Inanimate objects like stone would typically render as normal monochromatic representations in infrared.

Another excellent reason to use or own an infrared camera is that you can shoot at times of the day when normal visible light images look very poor, suffer contrast issues and have little to no dimension or depth. Take high noon for example, direct sun overhead, and most photo classes or workshops have you taking a break, sleeping, or attending a class in the hotel or conference room instead of shooting. Those of us with digital cameras converted to infrared are out there creating images and trying to capture that elusive blue



Ocean Belle



Kilauea Moment

Desert Beauty



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ribbon or best of show! Too, I always say “no shadow, no shot,” meaning that the bolder and brighter the sun, the better when shooting digital infrared.

One last reason is worth a mention. We frequently upgrade our equipment and then wonder how or if to sell our older gear when the newer model arrives. Converting the old camera to digital IR solves that problem, adds a new dimension to your photography, and doesn't cost anything like the new DSLR or mirror-less digital camera you've just acquired.

Being able to 'see in infrared' is a useful skill that the digital photographer can develop. Immediately asking oneself questions about the presence of green foliage, bold light, inanimate

subjects, and other basics of seeing a good photograph are all skills to be improved and honed in digital infrared photography. The image *A Home Forgotten* was a scene in the Mojave Preserve in California that just said “shoot this in infrared” when coming upon it a few years ago. Bold sky, contrasting clouds, a prime example of foliage in the foreground and an inanimate, abandoned home all added up to an excellent choice for infrared.

So far, the example images in this article have been of landscapes. While you are at it, try using the infrared medium for people and portraits. The image *Desert Beauty* is one such use of IR, and the effect is quite dramatic. A caution, however—hair colors often change, and typically close-ups suffer from a darkening of the eyes and the eye socket area overall. This can be objectionable and difficult to correct in post-processing. Using a reflector might help to some degree, but the IR reflection from the eye area will often ruin an otherwise ethereal and moody portrait. You'll note that this image was taken at a distance, and the model didn't mind that her hair turned from black to blond!

There's so much more to say about all this. What shutter speed and f-stop and ISO you ask? Start with a bright sunny day with an ISO of 200, a shutter speed of 1/60th second and shoot at f8 or f11. Your histogram, while not exactly accurate for measuring infrared light levels, gives a decent approximation of your exposure. Adjust your next shot from there. What about focus? Infrared light focuses at a different place in the film plane

Fallen Dreams





Pooles Mill Bridge

compared to visible light. Images can be blurry if you rely entirely on your camera's AF feature or even focus manually. LifePixel solves that during conversion such that your converted DSLR will now be 'tuned' to auto-focus in the infrared spectrum. This takes away much of the guesswork or special lens settings from the film days.

It's important to mention that IR isn't any kind of substitute for a good scene and good technical work. Sure, it's novel, and it's filled with the potential for impact. Given that, it still behooves us to capture the exciting scene before us, utilizing all the photographic techniques and guidelines we've learned over the years. The image *Pooles Mill Bridge* could have been taken in color and might be equally impressive after processing, since balanced compositional elements, a full range of tones, and a good depth of field would display well in either color or monochrome. Also, you may find your infrared images working well (or not!) in the PSA approved international exhibitions. Some countries seem most receptive to IR images in the PID-Monochrome sections, while others do not. Don't be discouraged, especially if YOU like the infrared image you've created.

We could go further, but you have the idea, you have some new information, and you have at least one website from which to learn even more. Give it some thought, especially if you're in the market for a new camera and are wondering if it's worth it to put the old one on eBay or another similar online site. Your new images in infrared may be all you need to convince yourself you've added to your photo portfolio and have made a wise choice! ■



Lighthouse Reflection