

Infrared

by the Editors

Infrared films are sensitive to infrared radiation as well as visible radiation. We can't see infrared (and our exposure meters don't measure it), so infrared film produces images that don't look like what we see. Therein lies infrared's intrigue.

Kodak's High Speed Infrared and Konica's Infrared 750nm are black-and-white films that are sensitive to infrared radiation as well as visible light. Used with a deep red filter that blocks most of the visible wavelengths, such as the Wratten No. 25, they produce eerie images, with white foliage and black skies (usually—infrared film is a bit unpredictable). Objects in a scene that reflect or emit infrared radiation appear very light; those that don't appear dark—regardless of how they look to the eye.

These infrared films require special handling—the camera must be loaded and unloaded in total darkness, and you must adjust focus to compensate for the fact that camera lenses don't focus infrared wavelengths at the same plane as visible wavelengths (many lenses have infrared focusing marks to help you do this—just focus normally, then rotate the focusing ring until the focused-on distance aligns with the infrared focusing mark on the lens barrel).

For the really adventurous, there's also color infrared film: Kodak Ektachrome Professional Infrared EIR. This false-color slide film is sensitive to infrared radiation from 700–900nm (sensitizing the film beyond 900nm would render it apt to fogging from the many heat sources out in the everyday world) as well as visible wavelengths from 380–700nm. Because two of its three emulsion layers are sensitive to visible radiation, you needn't use the infrared focusing index as with black-and-white infrared film, but it's a good idea to shoot at medium to small apertures to provide extra depth of field.

Exposed through a yellow No. 12 filter at EI 200, EIR generally renders blue objects as black, green objects as blue, red objects as green, and infrared-emitting objects as red. Part of the fun of infrared is experimenting with filters and exposure. You might want to experiment

with orange, red and even blue filters as well as yellow, and try a polarizer—or even shoot with no filter. And bracket exposures. E-6 and AR-5 processing result in different effects (E-6 is the most widely available process, and produces the oddest effects).

Shown here is an example of the false-color rendition of Kodak Ektachrome Infrared EIR. ■

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