

Long Exposures in Full Sunlight!

Experience the simplicity and the surprise

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ne of the best definitions of photography is that it's a photographer's ability to capture the right "moment in time" on film.

Dedicated photographers travel to all ends of the earth to capture this split second onto a thin film of silver and color dyes. They buy sophisticated, hi-tech devices and exotic film emulsions, this all in the name of creative photography.

Many photographers are familiar with ultralong exposures, most of which are made at night of stars, fireworks, or even interior spaces under poor lighting conditions. But what about taking time exposures in the middle of the day in full sunlight? Impossible? Not if you have a tripod and some means of cutting down the amount of light reaching the film. A tripod is probably already part of your standard equipment. The means of cutting down light may be another matter.

FILTERS

The use of a neutral density filter is one way to reduce daylight to a manageable level for daylight time exposures. A 2.0 neutral density filter (6 $\frac{2}{3}$ stops) is available from Kodak in a three-inch gel for about \$20. You will also need a gel filter holder that screws onto the front of your lens. These can be found in most camera stores.

If you are fortunate enough to own two polarizing filters, you can achieve the same neutral density effect by stacking them. By turning the outside filter, varying degrees of neutral density can be accomplished. Positioned at 90° to one another, polarizers will block all light; if you can't see an image in the viewfinder, back off a bit. If you can see a darkened image in the viewfinder, you'll get one on film. Using stacked filters with a wide-angle lens will give you some cutoff even

with a lens of 35mm focal length.

SUBJECTS

You will, of course, need a subject that crosses many moments in time. One of the most commonly photographed subjects with this quality is water. Rivers, waterfalls, and the ocean all make great subjects for daylight time exposures. Other subjects that cross moments of time include all modes of transportation, people in action, trees or other plants in the wind, machines used for fun or work, and many species of the animal kingdom. Carnivals or fairs are also great sources for interesting shots.

One practical use of daylight time exposures is to make unwanted moving objects disappear from the final result, showing only your stationary subject. Architectural interiors with just a vague suggestion of the human form moving through them (called ghosting) have a touch of scale no empty room can match. Whether moving objects disappear totally or leave a hint of their existence is determined in large part by the length of time you leave the shutter open. Keep in mind that any moving white object will leave a streak no matter how long the lens is left open, so wait until the white subject is totally out of the frame before opening the shutter.

THE TECHNIQUE

Mount your camera on the tripod, and attach a cable release and the filter in its holder or the stacked polarizing filters. If you have a manual camera, make exposures for both 15 seconds and 30 seconds at f/22, f/16, and f/11. Try to keep your exposure between 15 and 30 seconds, as you'll encounter varying degrees of color shift with exposures longer than 30 seconds due to reciprocity failure. One effective method in lessening an additional color shift problem is to carefully affix the neutral density filter to

the rear of the lens. This, of course, means cutting your filter gel to size and taping it to the back in a way that doesn't interfere with the lens mounting operation. For wide-angle lenses, this also helps eliminate cutoff and flare resulting from stacking two polarizers.

When using slide film with an automatic camera, set the film speed index on the camera to your film's normal ISO rating. Make a normal exposure, one stop over, two stops over and, if possible, three stops of overexposure. A light meter will not work for determining the correct exposure, as reciprocity failure will have a severe effect on your overall exposure. Bracketing exposures is your assurance of good results.

If you don't have full sunlight, you may not need as much neutral density. Shooting early in the morning or late in the afternoon may require only two stops of neutral density to achieve exposures up to 30 seconds. Kodak sells gels in 13 steps of neutral density from $\frac{1}{3}$ -stop (.1) to 13 $\frac{1}{3}$ stops (4.0). Each tenth is $\frac{1}{3}$ -stop, so a .3 gel equals one full stop, a .6 gel equals two full stops, and so forth.

FILM CHOICES

If slides are in your future, then Kodachrome is the best bet. This fine-grain film offers higher contrast than the Ektachromes, which is necessary when using large quantities of neutral density.

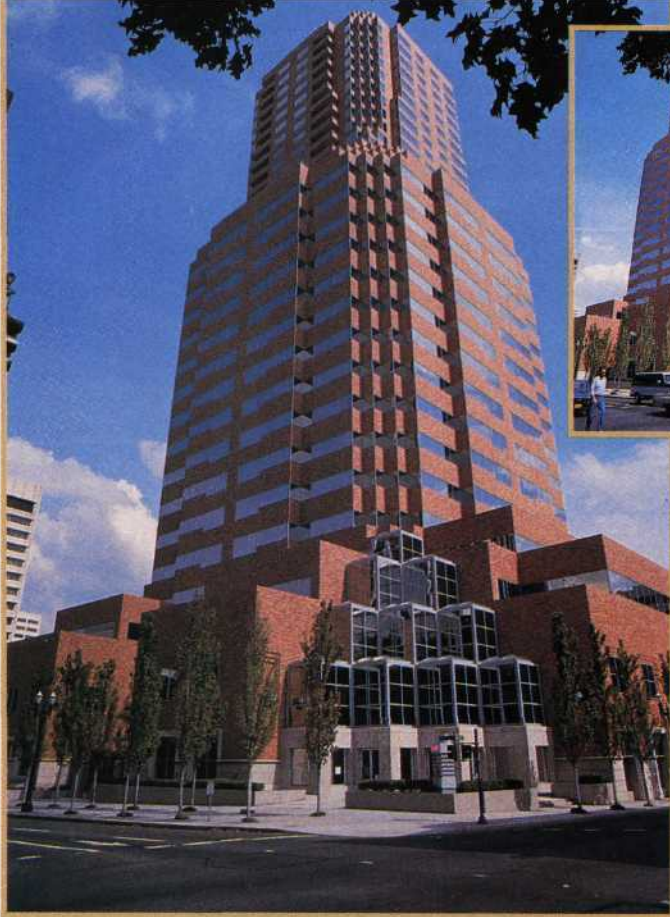
When shooting color negative films as your final image, Kodak VR-G 100 or Fujicolor Super HR 100 would be the best bets. If you are using an autoexposure camera, set the film speed index at EI 25. Color negative film has such latitude that a meter set at two stops overexpo-

This scene was photographed on a bright but cloudy day. Kodachrome 25 film was used with a single polarizing filter for 15 seconds to obtain the soft, flowing rendition of water.

By Jack and Sue Drafahl



Long Exposures



1a. Full sunlight; Ektachrome 100 film; 2.0 ND.
 1b. Full sunlight; Ektachrome 100 film exposed for $\frac{1}{60}$ at f/16.
 2a. Full sunlight; Kodachrome 25 film, $\frac{1}{125}$, no filtration.
 2b. Full sunlight; Kodachrome 25 film, 30 seconds with 2.0 ND.

1b

2a



2b



3. Dusk; Ektachrome 100 film, one-second exposure, no filter.
 4. Full sunlight; Ektachrome 100 film, 20 seconds with 2.0 ND.
 5. Two stacked polarizing filters can give varying amounts of

neutral density, but see text for their limitations.
 6. Three-inch neutral density gels can be used with accessory filter holder or cut to fit the rear of the lens.



sure will fall very close to a correct exposure. Color negative films seem to control color shifts much better than the slide films.
 The results of daylight time exposures are not always predictable, but that's what makes this type of photography fun and interesting. Grab your tripod and neutral density filter to capture your subject moving through time on film—and a whole new world of photography will become a latent image.



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