



Notice the artistic donut effect produced by Monte Nagler's 500mm mirror lens in this late afternoon photo of a seagull. The donuts are actually out-of-focus sun sparkles shimmering in the water.

Mirror lenses can play tricks

Want the effects of a 500mm or 1,000mm telephoto lens but can't get turned on to the problems inherent in such a long lens — weight, size, cost? Suppose I told you there's a hand-held 500mm lens, reasonable in price, weighing just over a pound and only 3 inches in length. Furthermore, this lens could focus closer than a conventional telephoto and give your pictures special effects not obtainable with any other kind of lens. Sound too good to be true? Think I've flipped my lens cap?

IT'S NO put-on. Long in name, but short in length, it's called a "catadioptric" lens. More commonly, it's called a mirror lens.

How does it work? Essentially, it's the same principle as the reflecting telescope.

By using a reflective system that employs mirrored optics, a design that allows extreme focal lengths can be packed in a very short lens barrel. The

Composer given award

Stanley Hollingsworth, Oakland University professor of music, has been awarded a residency at the Rockefeller Foundation Study and Conference Center in Bellagio, Italy. During the fall 1990 semester Hollingsworth will be on sabbatical from OU to work on his Concerto for Violin and Orchestra. He received the Rockefeller



photography
Monte Nagler

combination of a concave spherical mirror and conventional lens elements is what does the trick.

WHAT ARE the advantages of mirror lenses? I've touched on a few that I'll cover now in greater detail.

First, mirror lenses are lightweight and compact. There are fewer glass elements in the design, considerably reducing their weight. Also, because mirror lenses operate on a reflected light principle, the overall length is reduced.

Another major advantage is that mirror lenses enable you to focus to very close distances. Some mirror lenses can

focus to an astoundingly close 8 feet, compared with about 40 feet for a conventional 500mm lens.

To the creative photographer, a major advantage of mirror lenses is their ability to turn out-of-focus light highlights into ring-shaped doughnuts.

This occurs because there is a reflecting central mirror in the lens rather than a diaphragm. These doughnuts can add an artistic touch to your photographs and give you very dramatic results. This is especially effective with sun sparkles on water.

ANY DISADVANTAGES? There is one. Because it's impossible to incorporate a diaphragm into the design, mirror lenses must operate at a fixed f-stop, usually f/8 or f/11. This means exposure is manipulated only by varying the shutter speed control or by using neutral density filters (filters that block out light).

Overall, mirror lenses are fun and exciting and can give you results not possible with any other type of lens. So reflect for a moment on the value of mirror lenses. You'll be glad you did.

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Pewabic Pottery sale

Pewabic Pottery, nationally recognized for its beautiful, individually hand-crafted tile, is opening its storage facility for a sale of tile Friday and Saturday, June 22 and 23.

Thousands of contemporary ceramic tiles, in various shapes and sizes featuring the glazes that make Pewabic so special, will be sold at a 40-percent discount. All tiles are first quality inventory stock and overruns.

The sale will be open for members only 9 a.m. to 5 p.m. June 22, and to the public 8 a.m. to 5 p.m. June 23, at Pewabic's storage site, the "Old Firehouse" at Waterworks Park, on the river side of Jefferson Avenue across from the historic Pot-

tery. All sales are cash and carry. This tile sale is expected to generate \$10,000 for Pewabic Pottery's educational programs, according to Mary Roehm, executive director.

PEWABIC POTTERY, which derives its name from an Indian word meaning "copper-colored clay," is one of only two remaining historic pottery facilities in the United States.

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