

MIRROR MAGIC  
THROUGH THE LOOKING GLASS

Written by June Grayson

Photographed by Richard Grayson

Are you tired of reading about family violence, street  
crime, world terrorism, and universal chaos? Do you yearn for  
some semblance of order in a disorderly world?

Then consider the kaleidoscope.

The kaleidoscope is a mirrored tube that lets the light shine through. By this simple act it creates such beautiful geometric designs from any jumble of mundane objects that even the most jaded adult may gasp with delight.

Small wonder that committed kaleidoscope collectors attach an almost mystical significance to these fleeting glimpses of a heaven in a fractured world.

David Brewster, a Scottish scientist esteemed for his research on polarized light, accidentally invented the kaleidoscope in 1816, thus precipitating the first wave of mirror madness.

Within a few months, aggressive entrepreneurs sold hundreds of thousands of kaleidoscopes throughout Europe. One magazine reported in 1818: "In the memory of man, no invention and no work, whether addressed to the imagination or to the understanding, ever produced such an effect. A universal mania for the instrument seized all classes, from the lowest to the highest, from the most ignorant to the most learned, and every person not only felt, but expressed the feeling, that a new pleasure had been added to their existence."

Throughout the Victorian Age, the kaleidoscope provided parlor entertainment for the whole family.

With the advent of radio and television, such parlor  
fancies disappeared. Scopes were forgotten except as a child's  
Christmas stocking stuffer.

The resurrection of the kaleidoscope began with the  
American home craft movement of the 1960s and 1970s. Talented  
artists started their own cottage industries and sold their scope  
interpretations at craft fairs and flea markets.

Perhaps only five to ten crafters could support  
themselves this way until the SMITHSONIAN MAGAZINE published an  
article on the kaleidoscope in 1982.

Now there are almost 100 designers working full-time  
to supply the 5 million scopes sold annually in the United  
States.

The SMITHSONIAN MUSEUM concluded a month-long  
exhibition of kaleidoscopes in January, 1987.

If any one person can be considered the inspiration of  
the present renaissance, that person is Cozy Baker, a writer and  
philosopher from Maryland. Although she only began to collect  
kaleidoscopes in 1983, she is already considered an international  
authority. In 1985 she did all of the following: 1) she wrote  
and published the first book on kaleidoscopes, **THROUGH THE**

KALEIDOSCOPE, since Brewster published his original thesis in 1816, 2) she arranged the first major American exhibition of kaleidoscopes in Maryland, and 3) she founded THE BREWSTER SOCIETY for designers, collectors, and lovers of kaleidoscopes. Now she writes and publishes the society's quarterly newsletter. She also seeks to establish a museum in an old barn near Washington, D.C., as a permanent home for her extensive scope collection.

"You can't look through a kaleidoscope without smiling," Cozy says. "It is just impossible to frown."

The scientific principles by which the kaleidoscope works are simple. The images are formed by two, three, or four inclined mirrors that create the reflections of reflections. The mirrors are enclosed in a tube that has an eyepiece at one end and an object box containing colored glass or other trinkets at the other end. The number of images produced depends on the number of mirrors and the angles between them. A 90 degree angle produces four images, a 60 degree angle six images, and a 45 degree angle eight images and so on.

The excitement is in how different designers vary the materials and techniques, using wood, metal, plastics, and textiles.

The best scopes use "first-surface" mirrors where the silvering is on the top surface of the glass rather than on the bottom as in cheap mirrors. This makes the images unbelievably crisp and brilliant as compared with those in a child's inexpensive scope.

Some designers use glycerin or oil in the object box with the bits of glass or marbles, making the objects roll seductively from one design to another.

Some object boxes contain precious gems or valuable antique stained glass. Other scopes have an object box to which you can add your own whimsies; even paper clips and rubber bands create breathtaking designs. Some scopes are packaged with several interchangeable object boxes.

The kaleidoscope has even gone high-tech, creating sound-activated designs with polarized light.

The "teleidoscope", also known as the "thalmoscope", dispenses with an object box altogether and uses a lens or crystal sphere to throw images of the environment on the mirrors. Use it as wand to create your own magic.

Carolyn Bennett, of C. Bennett SCOPES, is typical of designers working today. Bennett was trained as a painter and

taught high school art classes while designing kaleidoscopes in her free time. Now she owns her own company employing seven people.

She produces 50,000 scopes a year to service her 1,500 nationwide accounts. Her scopes range in price from \$12 to \$500. She also produces custom scopes ordered as promotional devices for big business. She recently did one for CBS to promote a Cindy Lauper record.

She made the 30 scopes that were gifts to Russian dignitaries on a state visit to Pennsylvania. The case was red, white, and yellow, bearing the words, Partners for Peace and displayed the American eagle and the Russian hammer, sickle, and star.

A shy client commissioned a one-of-a-kind scope with the words, "Carol, will you marry me?" in the object box. "He said it worked," Bennett reports.

Chicago has two stores that carry extensive kaleidoscope collections.

The Mindscope Gallery in Evanston sold out its entire supply of scopes at Christmas and has ordered more for Valentine's Day and Easter gifts.

According to Carrie Betlyn of the Fabrile Gallery, Chicago, the quality of the materials - the optics, mirrors, lenses, and housing - distinguishes a great scope from a mediocre scope.

"We ordered our first scopes for Fathers Day last year and sold out several dozen immediately. We also sold many for Christmas gifts. Women do the most buying but men are getting them as gifts."

Betlyn says, "I love to watch people as they react to the beauty when they first look into the scope. They all say - "My, I had one of these when I was a kid." And then no matter how tired or sad they first seemed, they become young and happy again right before your eyes."

#####

(For a Sidebar)

MORE LIGHT ON THE SUBJECT

To examine or buy collector scopes, visit the Mindscope Gallery in Evanston or the Fabrile Gallery, North Michigan Avenue, Chicago.

To show your children the WALK-IN KALEIDOSCOPE, visit the Museum of Science and Industry.

Buy the book, THROUGH THE KALEIDOSCOPE, at the Fabrile or Mindscope Gallery. Or order it through the Brewster Society. Join THE BREWSTER SOCIETY by writing to 100 Severn Avenue, Suite 605, Annapolis, MD 21403.

For directions to make a simple kaleidoscope, read MOTHER EARTH NEWS, November, December, 1983, page 80-81.

To order your own one-of-a-kind, custom-made scope, (allow 3-4 weeks), write or call C. Bennett SCOPES, Inc., 101 East Old State Road, Media, PA, 19063, 215-565-3532.

If you go to San Francisco, see the kaleidoscope display at the Light Opera Gallery, Ghiradelli Square.

To order a mail order catalog of kaleidoscopes, write the Light Opera Gallery, Ghiradelli Square, SF.

#####