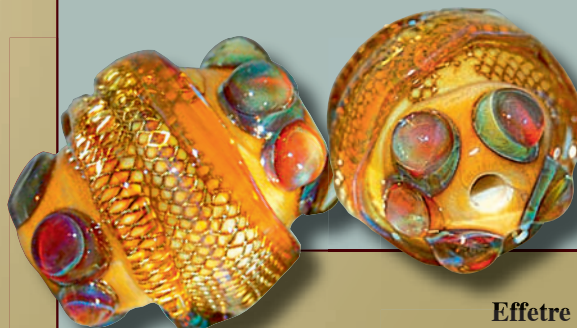




# Cat's-Eye Bicone

*Text and Demonstration  
by Darlene Hayes*



**Effetre Glass Rod**  
791262 Pastel Ivory  
**Double Helix Glassworks Rod**  
Ekho©

Aether© or Premium Clear  
**Retro Glass Tools**  
Precision Marver

**Tools and Materials**  
3/32" Prepared Mandrel  
10 mm x 30mm Fine Silver Mesh Strip  
Safety Equipment Kiln Tweezers

Photography by Cliff and Suzanne Allen

This cat's-eye bicone is made with a process I discovered in 2007 several months after I began making lampworked beads. I've incorporated the process in many beads in the past and love the reflective, flashing light seen as the bead is turned in the hand. Initially I called them Opal Dots, but recently I began calling them cat's-eyes after the similar reflection found in chrysoberyl, of which I have many. This floating light reflection is known as chatoyance. The effect when viewed in yellow chrysoberyl is called the cymophane effect.

I've been making this type bead for some time, but I'm still constantly amazed at the variety of color combinations and reactions created by the different glasses. Any reactive glass can be used to create this effect. I favor Double Helix for its purity and consistency. It's extremely important to use the best clear that you can get to ensure a very clear, bubble- and foam-free cat's-eye.

Before we begin, let me share some words about lampworking and safety. Your eyes and lungs cannot be replaced, so please use appropriate eyewear and exhaust ventilation for the materials you are working with. I use an ACE shield in front of my flame that protects not only my eyes but also my face from dangerous rays and flying glass. My exhaust system is a professional grade 900cfm ventilation system. I also use a thin lambskin apron to protect my legs. Never sacrifice your vital organs with inadequate protection. What you can't see can hurt you!

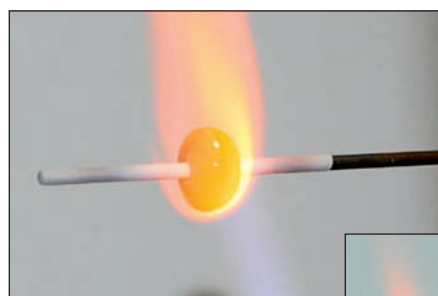
With the Precision Marver, I set the 3/4" doors to about a 10 mm opening. To use the tool properly, your base bead should be slightly larger than the spread of the doors. After the base bead has been applied to the mandrel, simply add on ivory glass to the length you wish your final bead to be.

Use the 3/4" doors of the Precision Marver to create a cylindrical shape.

Using the Precision Marver (or tool of your choice), roll the bead into a well-centered cylinder. If you are using the Precision Marver, simply heat the bead to a firm but malleable stage and then roll the bead between the doors.

Once you have a nice cylinder, begin to marver each end of the bicone.

Using the Precision Marver will help you to create perfect end balance. It is best to work with only one end at a time, keeping the other end warm enough to not cause it to crack.



*Begin by creating your base bead in ivory.*

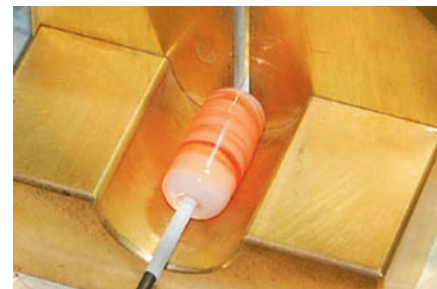


Begin with a small base bead and keep adding to it.

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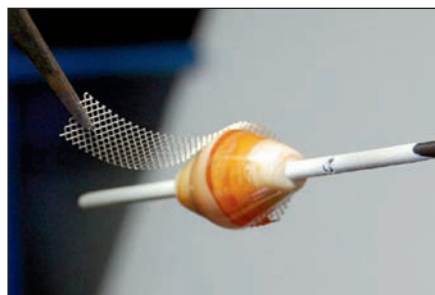
Use the radius trough to create a bicone shape.



The trough can be used as a marver. You can guide the mandrel through the sliding doors for stability and straightness.

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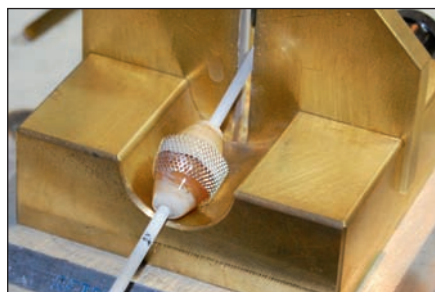
Once you are satisfied with the shape of the bicone, add the silver mesh.



You'll want to lower the intensity of the flame so you have enough heat to melt a spot on the bead to stick the mesh but not hot enough to vaporize it. All you need is to get the edge of the mesh embedded or stuck onto the bead, then bring it to a warm spot next to the flame and use tweezers to shape it around the girth of the bead. This process has to happen pretty quickly so that you don't lose too much of the heat in the bead.

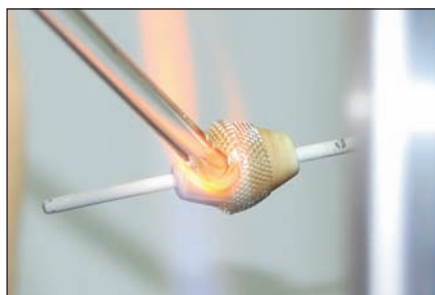
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Burnish the silver mesh onto the bead shape using the Precision Marver.



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Cover the mesh in a thin layer of clear to protect the integrity of the mesh.

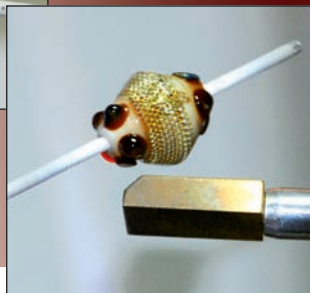


This is an important step, since you have to put the bead back into the flame.



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Apply dots of Ekho to each end of the bead stretch the stringer around the center of the bead.



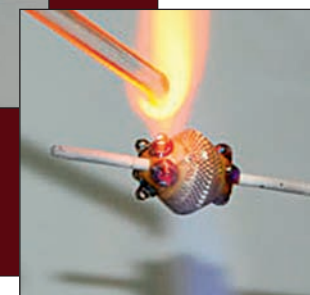
Heat approximately 1/2" of the Ekho rod tip, touch it to the warm bead, and stretch the stringer around the center of the bead while twirling the mandrel. It takes a little practice, but you can create some very cool stringer designs with it. Just remember that the thinner it gets, the more likely it is going to bead up instead of staying in string form when you apply heat to it. You want to be sure that you are applying it to a very warm bead. Plus you'll want to make sure that you secure this stringer to the bead well so your stringer doesn't break off after the bead comes out of the kiln.

After you've applied the dots and center stringer, warm everything up well and press down the dots to give them a flat top, but not flat into the surface. At this time, change to a reduction flame and reduce. Then reverse and reduce the flame again.



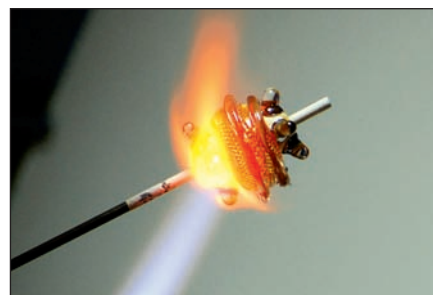
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When you have surface reaction on the Ekho to your satisfaction, apply dots of clear over the Ekho dots and cover the center stringer lightly.



10

Reduce the flame, reverse, and melt the bead smooth.





It's important to keep a reduction flame during the application of the clear, because if you change your flame back to a neutral flame, you also change the Ekho as you apply the clear. After all of the Ekho is covered, you can go back to a hotter neutral flame to give everything a good going over, securing and smoothing everything to the point you like it to be.

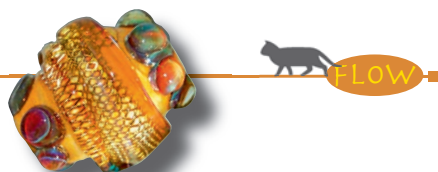
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*Remarver the entire bead and flame-polish it.*



Then give it one more quick reduction flame to shine up any halo effect that may be lurking. The halo effect occurs when the clear dot does not entirely cover the reactive glass. A small circle is created around the clear magnifying dot that will give a mirror finish when hit with a reduction flame.

Take a final look and make sure that everything is how you want it, then place the bead in the kiln and anneal it at your preferred schedule.



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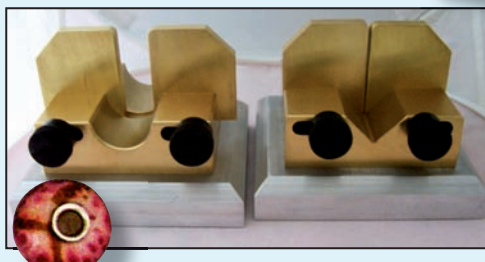


*Darlene Hayes, aka LA BeadLady, has been making beads since early 2007. A relative newcomer to the lampworking world, she has immersed herself in the medium by continually experimenting and educating herself. Although her career as a registered nurse spanned over twenty years, she always had an artist's heart and mind. She now spends her time creating unique organic and fantasy beads in soft glass.*

*Considering herself a colorist, Darlene prefers to focus on color combinations and reactions. The majority of her work incorporates heavily silvered glasses by Double Helix Glassworks. She also is the coinventor of the Precision Marver, a patent-pending, hands-free lampworking tool, in collaboration with Jerry Gaydusek of Retro Glass Tools ([www.retroglasstools.com](http://www.retroglasstools.com)). Darlene also creates jewelry and offers her works on Ebay, Etsy, and through her niece's website at [LionQueenDesigns.com](http://LionQueenDesigns.com).*



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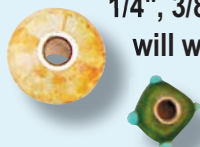


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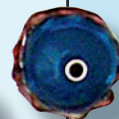
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