

Make sure <u>your dolls</u> have it, too:

A look that's unmistakable.

Perfect eye cutting gives you the edge.

Here's how to achieve it.

by Sheryl Williams

'm sure you've heard the saying that the eyes are the window to the soul. What's true for humans works for dolls, too - with a slight twist. Your doll's eyes are what give her soul. If the eyes are cut poorly your doll will lack the realism that makes the best work so compelling. Eye cutting can seem daunting. You have to be precise, and you have to be

versatile: Doll eyes come in an amazing number of shapes and sizes; you have to be capable of adjusting your cutting and beveling skills to match the eye that best suits your doll. But these challenges don't mean that good work is impossible - or even difficult. All you need to succeed are a few guidelines, the right tools and a little practice.

Your Tool Box

The tools that you need for eye cutting and beveling are few; some of them are common household items.

The Eyes

Your real decision comes when choosing the kind of eyes you want to set in our doll's head. Pictured below are nine examples and their uses. Eyes fall into two categories: paperweight eyes (left) and round glass eyes (right). Paperweight eyes have a raised iris that gives them depth, but they're expensive and can be more difficult to set. Round eyes are a good choice for novice doll makers.



The Basics

- Sharp Featherknife
- Eye beveler one size larger than your doll's final eye size
- Eyes to be used in your doll
- Round toothpicks
- Pencil with sharp point
- Nylon stocking and round cosmetic pad



- 1. Solid-glass paperweight eye with very rounded sclera. This eye sets into the socket with a bulge of crystal protruding forward. The heavy crystal over the iris threading gathers the surrounding light to give depth and sparkle to the eyes. The iris is threaded with radial white lines; the pupil is large.
- **2.** Paperweight eye with broad, whiteglass sclera. The colored iris threading is scrambled and natural-looking.
- 3. Solid-glass paperweight eye with very

- flat-weight glass next to the iris. The iris threading is dark and natural, with slightly curved lines.
- 4. Solid-glass paperweight eye with oval white-glass sclera. The iris is threaded with scrambled, colored lines. This type of eye works well for a socket with outer corners that wrap around the head.
- **5.** Plastic "realistic" eye. The threading is colored.
- **6.** This "crystal"-type round eye is hollow glass. The iris is set into the glass;

- an additional crystal is placed over the iris. The threading is natural.
- 7. Completely round eye made of hollow molded glass. The iris color and pupil are near the surface. The threading comprises white, curved lines. A good choice for dolls with sleep or flirty eyes.
- **8.** Completely round mouth-blown glass eye with a deep-set iris and pupil. The iris threading is dark and curved.
- **9.** Half-round molded glass eye with deep-set iris and pupil.

Eye Cutting Method #1

There are two parts to eye preparation: the cutting of the opening and the beveling of the eye socket to thin and shape it to fit the eyeball. How you approach the cutting and beveling depends on the stage the head is in - leather hard stage or soft-fired. This first method works for a head that you have poured and cut in the leather hard stage.

Overview: With the leather hard greenware head in the mold, mark the corners of the eyes and then cut each eye socket nearly to the edge of the eye shape marked by the mold. Soft-fire and continue with final eye shape and beveling.

- 1. Once the casting has set up, remove the face section of the mold slowly, lifting it straight up to avoid brushing the features. Mark the corners of the eyes with a sharp pencil. Tilt the mold up with one hand; then, with a Featherknife in your other hand, make a small horizontal cut from each corner of the eye into the eyeball area. Turn the mold sideways if doing so helps you to make the marks. These marks will act as guides for you to keep the eyes level when you cut them: The inner corners of the eyes are always on the same horizontal line, although you can tip the outer corners up or down.
- 2. Place the Featherknife just inside the upper edge of the eye at its center line; slowly cut to the corner marker at the inner edge. Next, cut from the center line to the outer corner marker on the upper lid. Stop at the corner marker; if you cut around the corner, you could enlarge the eye too much. Repeat on the lower line.
- **3.** With the blade on an angle, shave the opening to start the bevel. Soft fire greenware to cone 018.







TIPS

- Point the Featherknife straight into the eye and use vertical strokes for a smooth cut.
- Use a sharp knife; a dull blade could cause ragged edges.
- Work when the greenware is still moist for the smoothest cut.
- Keep the cut to the inside of the edge of the eye, so that you do not enlarge it too much, and so that you leave room to make corrections.
- Turn the head upside down when you work on the cut for the lower line. Doing so makes it easier to keep the cut inside the edge.

Method "pros"

- Head less likely to warp, because it remains in the mold longer
- Fastest method

Eye Cutting Method #2 and #3

If you don't pour your own greenware, you may receive a head that's been prepared in one of two different ways. Eye Cutting Method #2 addresses a soft-fired head that has a small hole cut into the center of the eye or does not have any opening started in the eye.

Overview: Mark the eye shape with a sharp pencil and enlarge the opening up to the eye edge.

- 1. Using a very sharp pencil, mark the inside edge of the eye sockets. This pencil mark will be your guide as you cut the eye opening. In this photo, you can see where I've marked the eye on the right-hand side of the picture. The hole was cut into the center at the greenware stage. I've already cut the eye opening on the left-hand side.
- **2.** Insert the point of your Featherknife into the opening in the center of the eye. If there is no such opening, slowly rotate the point of the knife in the eye until it drills through. Enlarge the eye opening, cutting from the middle to the corner, up to the pencil line.
- **3.** Work on only one corner at a time (here I'm starting with the inside corner), alternating between the upper and lower eyelid edges. Scrape slowly and hold the head gently; the soft-fired ware can chip and break easily. By cutting and scraping from the middle of each eye to the corners, you'll maintain the correct angle and definition. When the pencil line marking the shape of the eye begins to disappear, the eye cut is finished.







TIPS

- Soak the head before beginning the cut by placing it in a plastic tub of water that is at room temperature. The moistened head will be softer and easier to cut.
- Use a sharp knife; a dull blade could cause a break or chip.
- Keep the cut to the inside of the edge of the eye, so that you do not enlarge it too much, and so that you leave room to make corrections.
- ➤ Turn the head upside down when you work on the cut for the lower eyelid. Doing so makes it easier to keep the cut inside the edge.

Method "pros"

- Saves time when casting the greenware. .
- ➤ The pencil line provides a good visual of the eye shape.
- Accurate.



Doll Artist's Notebook

Honing your eye-cutting skills

Some eye shapes are easier to cut than others. The more symmetrical the eye, the simpler the cut and beveling. The challenge comes when the eyes are slightly different in shape or alignment. The following tips and techniques will help you to see the character of the eye you're cutting and reproduce the correct shape.

Overview: Keen observation and a sharp pencil allow you to tackle any eye shape with ease.

- **1.** The unusual shape of this doll's eyes makes cutting, beveling, and fitting the eye a challengeóbut with careful work and a little preparation, you can master this shape. First, if you have a picture of the sculptor's original doll, study the shape of the eyes. Pictured here is the Katarina head. Are the corners sharp or are they rounded? Has the tear duct been removed? Many modern dolls have eye cuts that are rounded at the inner or outer corners. If you change the contour or the eye shape in the cleaning process, you will change the expression of the doll. Use the pencil-outlining trick described above to define the true eye shape.
- 2. Observe a human eye to see just how the eye sits in the socket. If you cut or bevel too much of the socket edge, the eyes won't look natural; they'll seem to bulge out (ibugî eyes). For modern dolls make sure you keep an eyelid ridge. In this photo of a human eye you can clearly see the line of flesh (which you want to pre-serve on your doll) between the eyeball and the lash line.



TIPS

- For modern dolls leave an eyelid ridge so that the eye will sit naturally in the socket.
- ➤ Use a picture of the original doll as your guide whenever possible. It's all right to change the eyecut if you want to just be aware that doing so will alter the expression of the doll.
- Cut eyes in excellent light, and use an Optivisor or Doll Master Head Lupe if you need it to help you see well.
- > Practice, practice, practice
- Relax and take your time it will be time well spent.

In this photo of a human eye, you can see the eyelid ridge and the isetî of the eye in the socket.1.

Beveling the eye openings

Beveling shapes the eye openings so that the eyes sit snug in the sockets and fill them without bulging too much. Because eyes come in many sizes and shapes, take a minute before beveling to consider the profile of the eyes you've chosen. You can use more than one beveler on the eye opening to create the perfect fit. If, for example, you'll be using a high-profile paperweight eye, you can bevel the middle of the eye opening with a smaller beveler to accommodate the bulge of the paperweight.

Overview: Smooth the eye socket with an eye beveler. To check the socket size and fit of the eye use an eye slightly larger in size than the ones you'll set. Work with dampened soft-fired ware and a wet beveler.

- 1. Use a Master Eye Beveler that is 2mm (one size) larger than the eye you wish to set in the bisque head. (When the head shrinks in the bisque firing, the eye opening will be the correct size.) Keep the soft-fired head and beveler wet; the water acts as a lubricant. Place the beveler into the head through the pate opening; keep the eyes facing you, so that you can check your progress Gently rotate the beveler behind the eye socket. Rinse the beveler frequently.
- **2.** As you bevel closer to the rim of the eye, pad the beveler with a thin cosmetic sponge covered with smooth panty hose. Doing so reduces the chance of chipping. Watch the eye shape during the beveling process, to be sure you are thinning the lid evenly. For recreations of antique dolls bevel the rim more closely, but not razor thin.
- **3.** To check for proper fit of the eye in the socket it is helpful to have an eye 2mm larger than the one you intend to set in the doll available during the beveling process. The eye should fit snugly against the eye rim without large gaps around it.







Master Eye Bevelers

Master Eye Bevelers are abrasive balls attached to handles; they come in various millimeter sizes. This type beveler is preferable to the wooden type, which can become worn and lose their round shape.







If you don't have a larger eye, you can use an eye that is the correct, final size, to approximate the fit. If the iris just barely comes to the edge of the upper and lower eyelids at this stage, the eye should be about right after bisque firing, with the iris partially hidden underneath the upper eyelid and touching the lower eyelid.

- **4.** The paperweight eye in this picture is a correct size for the opening, but the shape prevents a smooth fit. You can see the slight gap between the upper lid and the center of the eye, although the edges of the eye are snug in the socket. In such a case, use a smaller beveler to shape the middle of the eye opening, contouring it to fit the eye.
- **5.** After you've beveled the eye openings smooth any tiny rough spots or jagged edges with the side of a round toothpick. You can also use a toothpick to refine the eye cut, slightly rounding any flat spots. Now check the eyes: Are the corners lined up? Do the eyes have the same shape and curve? Is the curve smooth? Are the eye openings approximately the same size? Is there a ridge around the inside of the eye opening so that the eyes sit in the socket naturally? Do the eyes fit well and look natural? Turn the head upside down and check all these points again. Finally, face the head toward a mirror, look at the image of the head in the mirror and ask yourself these questions again.
- **6.** The eye opening on the right-hand side of the picture is correctly beveled, with a smooth ridge left, against which you will set the eye.

Painting Schedule for Annika

Here's a brief painting schedule for Annika, the model for this Notebook:

1st Firing: Jr. cone 016 in sitter

Overall wash

- 1 part Bisq-Tone #1 Creamy Rose
- 1 Part Rosewater
- 1 Part Bisq-Tone #4000 Honey

Remove wash from nails and lips

2nd Firing: Jr. cone 017 in sitter

Eyelashes

Eyebrow #4, Dark Brown

Underbrow Mahogany

Lips and Nose Dots

Melonberry Kiss Contour Shading (head,

arms, legs)
Pink Fawn Shadow

3rd Firing: Jr. cone 017 in sitter

Upper & Lower Eye Rims Eyebrow #4, Dark Brown

Eyebrow Feathers
Mahogany

Contour Shading - head Pink Fawn Shadow

Contour Shading - arm, legs Slate Blue

Blushing (cheeks) Ruby Cheek Blush

Manicure White for beds, tips

4th Firing: Jr. cone 017 in sitter

Lower Eyelid Rim Melonberry Kiss (light)

Eyebrow Feathers
Mahogany

Blushing (cheeks, arms &

Ruby Cheek Blush

French Manicure Pink



Sheryl Williams is a traveling Instructor for the Doll Artisan Guild, D.A.G. Doctor of Dollmaking Educator and a D.A.G. Millie and Gold Rosette winner. She lectures at dollmaking events around the globe and is a frequent contributor to DOLLS Beautiful magazine. For questions about this project feel free to contact Sheryl at: sherylwilliams99@yahoo.com All molds, china paints and most tools and supplies available from Seeley's. Eyes can be purchased from various doll supply companies.

For information about Doll Artisan Guild seminars contact the D.A.G at P. O. Box 1113, Oneonta, NY 13820, USA, Phone (607) 432-4977, Fax (607) 432-2042, E-mail: info@dollartisanguild.org, • Website: www.dollartisanguild.org.