After years of being tossed in oceans and lakes, each piece of sea glass has its own, often irregular, topography. Bezel-setting an odd-shaped piece can be a challenge, but by taking extra care to custom fit your bezel (including adjusting the height of the bezel wall to follow the contours of the glass), you can set nearly any piece of glass (or stone!) that might wash ashore. My love of sea glass began on a surf trip to Mexico, and it was my desire to use sea glass creatively that led me to metalsmithing.
Silver bezels in a brushed matte finish complement the characteristic frosted glow of sea glass. 1\(\frac{1}{4}\) x 1\(\frac{1}{4}\) in. (44 x 32 mm).
Part 1: Bezel setting

Determine whether you will make an open- or a closed-back setting. Follow the steps in the corresponding sections below to complete your setting. Then, to finish your bezel, follow the steps that apply to both types of bezel settings.

For my design, I used two pieces of sea glass. The blue piece’s bezel has a closed back with an Argentium sterling silver insert (see “Preventing the Dreaded Black Spot!” for more information). The bezel for the green piece has the backplate cut out; the opening lets light pass through.

Open-back setting

Choose your bezel wire. Sea glass can be uneven; you’ll need to choose 28-gauge (0.32 mm) fine-silver bezel wire that is tall enough to accommodate the highest point of your piece of sea glass.

Cut a piece of bezel wire.
Wrap the 28-gauge (0.32 mm) bezel wire around the sea glass, following all the curves. Using a permanent marker, mark the wire where it overlaps [1], and trim it using jeweler’s scissors [2]. Use a flat needle file to clean up the cut edges.

Solder the bezel. Using hard solder, join the ends of the bezel wire. Pickle and rinse the bezel, and check that it fits the sea glass. Adjust or remake the bezel if necessary.

Make a backplate. Your backplate needs to be larger than the bezel by at least 1 mm (⅛ in.) all the way around; I trace around my glass pieces with a permanent marker to determine the size of my backplates [3].

Use a jeweler’s saw with a 4/0 blade to cut a piece of 24-gauge (0.5 mm) sterling silver sheet to the correct size.

Solder the bezel to the backplate. Using medium solder, join the bezel to the backplate.

Trim the backplate. Using a jeweler’s saw, trim the excess backplate from the perimeter of the bezel. Using a medium/fine-cut flat file, smooth the edges of the backplate until they are flush with the bezel wire. Be careful about the angle of your file; you don’t want to file away any of the thin bezel wire.

Pierce the backplate.
Using a drill bit in a flex shaft, drill a small hole in the backplate. Make sure that the hole is large enough to fit your saw blade.

Thread the saw blade through the hole, and saw around the inside perimeter of the bezel, leaving a 2–3 mm ledge on which your sea glass will rest [4]. Use needle files and sandpaper to smooth this inside edge.
Closed-back setting

Make the bezel setting. Follow the steps for the open-back setting, with the following changes: If you plan to use an insert in your closed-back bezel, make sure to add its thickness to the height of the sea glass when determining the height of your finished bezel. Also, do not drill into or pierce the interior of the backplate.

Create an insert. Turn your bezel so the backplate is facing up. Place the bezel on your chosen insert medium, and trace the bezel.

Using a jeweler’s saw, cut around the inside of the traced line. Use files or sandpaper to clean up and refine the edges so that the insert fits well within the closed-back bezel; it should lie flat against the backplate and not move around inside the bezel.

Both types of settings

Test the fit. Place the piece of sea glass into your bezel setting to check the height of the bezel wire.

TIP: To make it easy to remove any cabochon from a closed-back bezel during test fitting, drape dental floss across the bezel before you insert the cab [6]. If the bezel is too tight, you can pull the cab out using the floss.

Adjust the bezel height. If the sea glass is uneven, trace around the inside of the bezel with a scribe, following the differing heights of the sea glass; I use a compass point [7]. Remove the glass, and use small jeweler’s scissors to cut along the inscribed line [8]. Using 400-grit sandpaper, sand the edges of the bezel, following the contour that you just cut out [9].

what is sea glass?

Authentic sea glass is found on the shorelines and beaches of the world, not in the craft aisle of your local retailer!

Genuine sea glass, also known as “beach glass” or “mermaid’s tears,” is the antithesis of conventional gemstones. Gemstones are originally formed by nature and then fashioned by humans into the desired shapes. Sea glass is first created by humans but rendered a gem only by nature’s refining elements of waves, sand, and stone.

Glass that was once bottles, vases, decorative glass, or dinnerware is deposited via shipwreck, beach bonfires, old coastal dumping sites, etc. into oceans and lakes. The tumbling action of the waves combined with the abrasive effects of sand and stone smooth the sharp edges of the broken glass. It takes years to produce a well-conditioned, perfectly frosted, smooth piece of sea glass.

Some try to mimic this effect by using tumblers or chemical etching to alter new glass. But a trained eye can quickly tell the difference; authentic, nature-made sea glass has telltale C-shaped markers on its surface that are difficult to duplicate.

Each castaway bit of sea glass is unique and imbued with the mystery of history and time. These mysteries compel some avid sea glass collectors to investigate the source of the sea glass. Many are able to confidently date and identify sea glass shards to particular eras.

Sea glass comes in a wide array of colors, shapes, and sizes and is generally graded by the shape and level of overall frostiness from “craft” to “jewelry” qualities. The rarer colors of orange, red, and turquoise are highly sought after by collectors, while the colors white, green, and brown are more plentiful and considered common.

Authentic sea glass is becoming harder to find on beaches and riverbanks. It’s a diminishing resource as recycling becomes even more a way of life. For more information on sea glass and the difference between genuine and artificial/tumbled glass, visit www.seaglassassociation.org.
Working with sea glass presents some challenges, but with a bit of practice you can easily overcome them. You can capture sea glass well with techniques such as wire wrapping, custom prong settings, and bezel settings (my preferred method). You can also drill holes into the glass to use the pieces as beads.

Here are a few things to think about when bezel-setting sea glass:

- **The shape and condition of the sea glass**
  For best results, select a piece of sea glass that is similar to a cabochon — relatively flat on the bottom (no rocking back and forth) and consistent in thickness. Choose a piece with soft curves; sharp corners and crevices are trickier to bezel-set.

- **Consistency in height of the dome**
  Your sea glass may be taller on one end than another, so you’ll need to select bezel wire tall enough to accommodate the highest point on the sea glass. This means that you’ll have to remove some of the bezel wall in the shorter places so it doesn’t overshadow the glass. So, for an easier setting job, choose a piece of sea glass that has a relatively consistent dome.

- **Open-back or closed-back setting?**
  Some sea glass artisans prefer open-back bezels, which let light pass through the glass and are lightweight (great for earrings). Others prefer closed-back bezels, because they offer control over what can be seen on and through the glass. Keep in mind that if you choose a closed-back setting for your sea glass (or any other transparent gemstone), you will likely witness the “Dreaded Black Spot” under your bezel setting. See “Preventing the Dreaded Black Spot!” below, for tips on how to avoid this.

**Problem:** Sterling silver tarnishes. If you’ve used a piece of sterling silver sheet as the backplate of a closed-back bezel setting, the backplate will darken over time. If you’ve set a transparent or translucent material, such as sea glass, over this sterling silver, you will see this tarnishing, which I call the “Dreaded Black Spot.”

**Solutions:**
1. I like to cut a thin piece of fine silver or Argentium sterling silver to fit within my bezel. I lay this piece of tarnish-resistant metal between the traditional sterling silver backplate and the sea glass, then set the bezel around the glass as usual. Just make sure that when you measure the height of your bezel, you keep the insert’s thickness in mind.

   Alternatively, to save on costs, you can use a jeweler’s saw to cut a piece from an old CD. The shiny silver color of the disc looks just like real silver under the frosty sea glass, and it’s much less expensive than fine silver.

2. You could create your setting entirely of Argentium sterling silver, which is tarnish resistant.

**A trick to avoid:** I don’t recommend coating your sterling silver with clear nail polish. I’ve tried this, and it’s never satisfactorily worked for me. In the long run, the spot always appeared.
Scratched tools
The frosty surface of genuine sea glass is attractive, but it also has the texture of coarse sandpaper, which can take a toll on the polished surfaces of your jewelry tools.

I constantly have to deal with scratches on my bezel pusher, bezel roller, and burnisher. During the last steps of bezel setting, these tools can slip onto the surface of the sea glass, which scratches the tool. These scratches will then transfer to whatever project you’re working on the next time you use that tool.

Regular maintenance of these tools is crucial to keeping them smooth and shiny. I have a separate flex shaft buff reserved just for steel tool cleanup; I keep it in my bench drawer for regular tune-ups.

Scratched glass
Many times when I’m bezel setting, my tools slip onto the surface of the sea glass, sometimes leaving a mark on the glass. Not to worry — a quick wipe with a damp towel or a clean finger usually makes scratches disappear instantly.

One of the pieces of glass that I chose for my pendant is a rare color of sea glass known as “Vaseline glass.” Originally from the Victorian era, this glass contains trace amounts of uranium, a naturally occurring element that is weakly radioactive.

Though “Vaseline glass” looks like ordinary sea glass in daylight, that small amount of uranium causes it to glow brightly in the presence of a blacklight.

Each piece of sea glass will require a bezel in a custom height. These two are 1/4 in. (6.5 mm) and 1/8 in. (3 mm) tall, respectively.

does your glass glow?

materials
- Genuine sea glass
- Fine-silver bezel wire: 28-gauge (0.32 mm), dead-soft, dimensions to fit sea glass
- Sterling silver or Argentium sterling silver sheet: 24-gauge (0.5 mm), half-hard, to fit base of sea glass
- Insert material for closed-back sterling silver bezel setting (choose from):
  - Argentium sterling silver sheet: 28-gauge (0.32 mm)
  - Fine-silver sheet: 28-gauge (0.32 mm)
  - Compact disc (CD)

additional tools & supplies
- Small jeweler’s scissors
- Radial bristle sanding disks
- Scribe or compass point
Part 2: Assembly and finishing

Assemble your piece. Using medium and/or easy solder, join any other silver elements that you've planned in your design to the bezels.

To my piece, I added a bail that I made from 24-gauge (0.5 mm) sterling silver sheet. I also forged a piece of 14-gauge (1.6 mm) round sterling silver wire and soldered it between the bezels [1].

Sand and polish your piece. Use 400–600-grit sandpaper to clean up any stray solder on your piece. I like to use radial bristle sanding disks with my flex shaft for cleanup [2].

To polish your piece to the desired finish, use buffs with the polishing compound(s) of your choice.

Add the insert and sea glass. If you made a closed-back setting, place the insert into the bezel [3]. Without using dental floss this time, press the sea glass into the bezel as well.

Set the sea glass cabochons. Using either a bezel pusher or a bezel roller, gently push the bezel over the edges of the sea glass [4].

TIP: When you’re setting irregular shapes, make sure to push down any corners before you smooth down flat areas; this will distribute the bezel metal more evenly and help you avoid bulges of metal.

If necessary, once the glass is sufficiently captured, go over the perimeter edges again with the bezel tools, using a bit more force this time.

Smooth the bezels. Using a burnisher, smooth the edges of the bezel over the sea glass [5], making sure your burnisher doesn’t slip and scratch the sea glass or your tool.

To forge means to alter the shape of metal mechanically using hammer blows and/or another type of pressure, such as hydraulic force.

Process photos by David Rankin.