

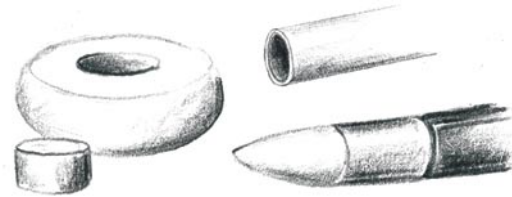
Shaper or sharpened pencil to make an indentation into the ball. To conserve on clay and visually lighten the object, many people like to pierce a hole through the bottom of this conical cavity.

Place the point of the stone (the culet) into the opening and press the stone into the clay far enough that the table is recessed slightly below its surface. When the piece is fired, the metal clay will shrink and hold it securely in place.

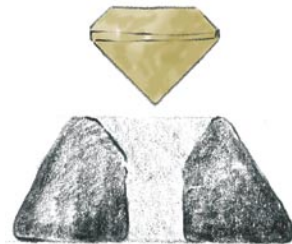
Check to make sure that the table of the stone is parallel with the top plane of the metal clay. To easily see the angle of the stone, hold the piece up so that light reflects off of the table. If the stone is not sitting level in the seat, now is the time to adjust it. If the stone is tilted in its setting, the sparkle will be diminished, and the shrinkage of the metal clay can push the stone up enough that a portion of the girdle might be exposed. Not only would this look unsightly, but the stone would be more likely to fall out of its setting. Once the stone has been set, trim excess clay from around the outside perimeter to thin the bezel walls.

Some artists like to refine the reverse side of the setting, particularly for larger stones. Let the piece dry to the point where the sides are stiff enough to handle and the back is still soft. Use a pointed blade to dig out surplus material from around the culet and lower girdle. The curved end of the potter's double-ended carving tool is perfect for this job. Remove clay until the remaining walls are about two millimeters thick. This will allow enough leeway for thinning that will occur as the bezel shrinks around the stone during firing. Be sure to leave the metal clay around the girdle itself, because this is what will hold the stone in place from behind.

To set a cabochon stone, roll out a ball of metal clay, then press it down to be a thick patty. Push the stone into the clay deep enough to insure that even after shrinking there will be a strip of metal curled over the edge of the stone. For large



The most basic bezel in metal clay starts with a lump of clay, a conical hole, and a straw or tube to remove the center.



This drawing shows the desired cross section for a typical setting of a round stone. The light colored area indicates a hole from front to back.



If the bezel wall is too short (left), the stone may fall out. If the bezel is too tall (center), it will be difficult to press down, and it will cover the stone. The goal (right) is a bezel that will cover about a third of the crown after firing.

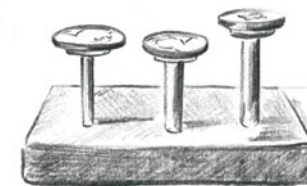


To conserve material and make a lighter setting, carve away excess clay from behind.

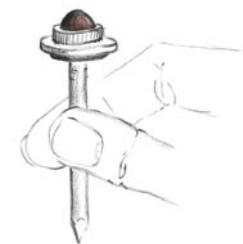
gems, it is helpful to carve out a bit of clay before pressing the stone into position. As before, examine the setting to be sure that the stone sits level. This process is made easier if you work on a surface that allows you to lift your work up to eye level.

Allow the PMC to dry completely, either naturally (which will take several hours) or with the help of a dehydrator, mug warmer, hair dryer, or similar tool. If desired, sand the bezel to refine the shape, a process I do with a Salon board. Brush the clay dust off the stone—a thin layer of dust will

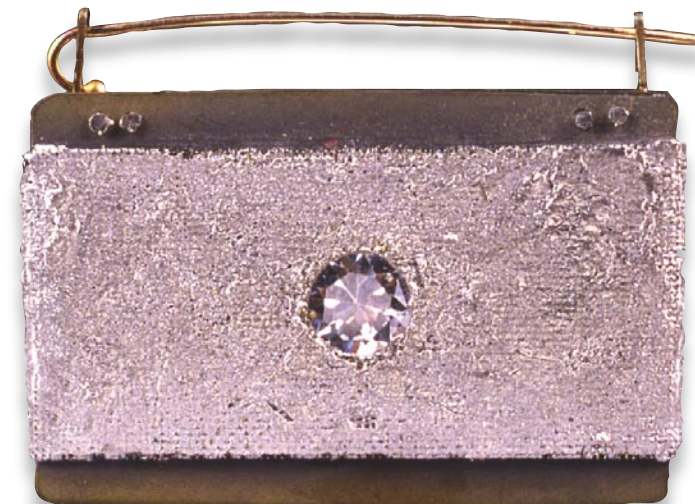
fuse and create tiny silver specks that will discolor the stone. In some cases the stone mounting is created on the jewelry piece, but in other situations, I like to create the setting separately and then attach it to the work. We can take a lesson here from cake decorators, who traditionally work on a tool that consists of a metal disk attached to a length of wire. You can make a similar device suited to stonemounting scale by gluing a penny onto a nail. When the setting is complete and dry enough that it will not be damaged during transfer, it can be incorporated into a metal clay design.



Glue coins onto nails to make tools to hold bezels during construction.



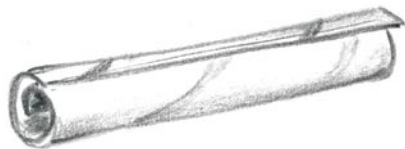
CHET HOLINS



Christopher Darway, Brooch
Fine silver, 14k gold, titanium, stainless steel mesh, cubic zirconia.
3" wide

Tube Settings

Tube settings are a variation of bezels that are, you guessed it, made from tubes. The term usually refers to small round settings in which the stone (either faceted or cab) is supported by a lip cut into the top edge of the tube. These are common in traditional jewelrymaking, and lend themselves well to metal clay. Whether firing in place or setting after firing, the process of making the tube is the same.



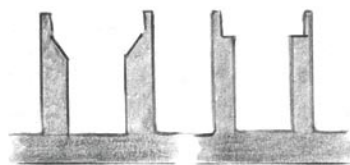
Find or make a cylinder that is a little larger than the diameter of the stone. A drinking straw is a good tool for this purpose. To reduce the diameter of the straw, cut off an inch or so and make a cut vertically, coil the straw as needed, and seal it with a small piece of tape.



Roll out a piece of PMC+ or PMC3 and cut a rectangle that is large enough to handle. I often make several tube settings at once. For instance, to make four quarter-inch tubes, I start with a strip that is an inch wide. This needs to be thick enough to carve a seat. Wrap the metal clay around the straw, cut to size, and seal the seam. Set aside to dry.



Slide the tube off the straw and sand the end to make it smooth and perpendicular to the edges. Carve a seat into the top edge of the tube to hold the stone with a V-gouge, a graver, a Hart bur, or a craft knife. This can be done after firing, but it's easier to do it when the clay is dry but unfired. For a cabochon this will be a level ledge and for a faceted stone, this will have a slope that matches the pavilion of the stone. The material above this ledge is what will grip the stone, so it is important to provide sufficient metal. For faceted stones, be sure to check the thickness of the girdle and account for it as needed.



Attach the tube onto the base piece with slip, syringe, or oil paste. If the stone will be set after firing, the piece is ready to go. If you are firing the stone in place, set the gem into the tube. If it threatens to fall through (remember, the tube is a little large to compensate for shrinkage), use a drop of household white glue to temporarily hold it in place.

If you are setting the stone after firing, the first step is always to refine the seat. This can be done with a needle file or a graver, but the most commonly used tool is a small bur in a flex shaft. For cabs, use a cylinder or inverted cone bur, and for a faceted stone, use either a Hart bur or a setting bur.



Patrik Kusek
Fine silver, beach pebble.
2" tall

Strap Setting

This is an unusual technique, and one that lends itself well to metal clay. It is a terrific choice for setting larger stones that can be viewed from any angle, and also a great option to wrap the edge of a bullet stone. It is particularly useful for found stones, the kind that might be picked up from along the roadside, a beach, or a creek bed.

Cut strips or roll out strands of metal clay and wrap them around the stone. The strips can be textured but don't texture too deeply or there will be weak spots. The strips can be cut into several short lengths and applied, however, fewer long strips keep the number of joins that need to be sealed down to a minimum. Wrap the strips loosely. Secure all the joins well so they don't break open as they shrink during firing. Let the piece dry, fire, and finish.

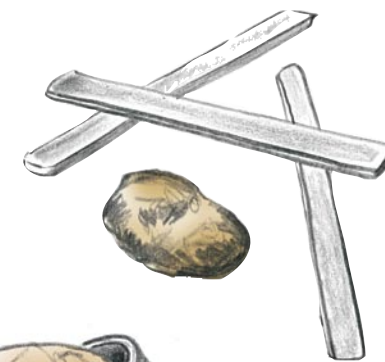
For a bullet stone, wrap the bottom edge with a strap, secure the join, and let it dry. Add clay as

needed to complete the design, for instance by adding a bail, a shank, or loops. Or, poke a piece of heavy gauge wire through the top edge of the setting, then shape the wire into a bail after firing.

Strap Setting Heat-Sensitive Stones

Roll out a sheet of metal clay three to four cards thick and embellish as desired. A simple version is to simply fire the straps flat and then construct the setting, but with a little ingenuity it might be possible to connect a few parts and secure them during firing. This will make the wrapping process easier and stronger.

After firing, the straps are given a patina if desired, and taken to their final finish. They are then wrapped around the stone and somehow locked into place. Cold connections are a good option, for instance, using a rivet to secure two ends together.



Strap settings are a good way to set odd shaped stones.