PRESENTS

Making Copper Jewelry:
Etching, Hammering & Wire Projects
There was a time when few of us used copper for jewelry. Copper was for plumbing. But when silver prices went through the roof, we all gave copper a try, and lo and behold, it’s fabulous!

Both copper sheet and copper wire are widely available and very affordable. Almost anything you can do with silver you can do with copper. It’s a warmer looking metal than silver, and when it’s patinated, it’s truly delicious. And the bonus is, it’s easy to work with. It’s soft and easily manipulated, and takes texturing very well. When it’s work hardened, it’s tough and durable.

It’s best to finish copper projects with some wax or lacquer, particularly if it will be worn next to the skin since some people have a reaction to copper. But you can finish your copper pieces in matte or shiny, with a number of products.

These three projects show the versatility of copper. The sky’s the limit!

Denise Peck
Editor in chief
Step by Step Wire Jewelry
crystal funk

BY Kate Richbourg

I LOVE THE LOOK OF CRYSTAL AND METAL! This buckle bracelet is a perfect pairing of the two. I use the Crafted Findings riveting tool for the rivets in this piece, but you can also make your own rivets if desired. Use your imagination...this piece is perfect as a springboard for your own designs!

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<td>• 14mm Swarovski Crystal square, 1</td>
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<td>• Decorative discs with ¼” diameter hole, 4</td>
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<td>• Metal washers with ½” diameter hole, 6</td>
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<td>• 16” diameter x ⅜” long rivets, 6</td>
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<td>• Crafted Finding riveting tool or ⅛” metal hole punch</td>
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<td>• Assorted metal design stamps (⅛” and ⅜” asterisk and period stamp used)</td>
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<td>• Permanent marker</td>
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<td>• Soldering pan with pumice stone</td>
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1. Cut a strip of paper about ½” wide and 11” long. Wrap the strip around the widest part of your hand and mark the length. This will be your finished length. Use metal shears to cut a strip of copper flat wire about 2 ½” longer than the finished length.

2. Measure ½–⅝” from each end of the cut piece of wire and mark with the permanent marker. Texture the metal between the marks using the back end of the riveting hammer to make vertical marks across the length of the piece.

3. Anneal the wire (see sidebar). Don’t worry about the fire scale; it will form the patina for the finished piece.

4. After the metal is annealed, continue adding texture. I used a ¼” and ¾” asterisk stamp and a period stamp to add a random design.

5. To finish the texture, use the ball side of the chasing hammer and tap along the edges of the wire.

**Annealing**

For a no-fail method, use a black permanent marker to mark a thick line on the surface of the metal. Place the strip on on a charcoal block on a fireproof surface. Turn on your torch and heat the metal until the mark fades and the metal has a dull red glow. Turn off the torch and quench the metal in a bowl of water. Dry the metal with a paper towel.
6. Apply a coating of permanent marker to the wire. Use a Pro-Polish pad to buff the marker off, leaving the recessed areas darkened.

7. Mark the placement for the accent discs. Use the riveting tool (or metal hole punch) to punch \( \frac{3}{8} \)“ diameter holes for the matching rivets. TIP: Always make sure that the diameter of your rivet and the punched hole size match.

8. Thread a rivet first through a washer, then through a disc, with the textured side up. Put the rivet through one of the holes in the wire. Turn the bracelet upside down in the riveting tool and tighten to complete the rivet. Repeat for all the discs.

9. Use metal shears to cut each unhammered \( \frac{1}{2} \)“ end into a taper that will fit through the center of the crystal square. Hammer the underside of the taper to texture, and file the edges smooth. Anneal the entire piece again.
10. Using round-nose pliers, bend one end of the bracelet up and over to form a hook that will fit around the crystal square.

11. Mark and punch a hole at the tip of the taper. Use chain-nose pliers to tighten the tip against the metal of the bracelet and use the first hole as a guide to mark and punch the second hole. Select a rivet and washer and rivet the two pieces of metal together, capturing the crystal square in the loop.

12. Use bracelet forming pliers or your hands to shape the wire into a bangle shape.

13. Shape the second tapered end into a hook and place it through the opposite side of the crystal. Mark and punch a hole as before, then rivet this end of the bracelet. Give the piece a final shape with chain-nose pliers or bracelet forming pliers as needed.

KATE RICHBOURG loves jewelry. She loves to teach it. She loves to make it. She loves to wear it. Teaching and designing jewelry since 1992, she teaches at national shows, bead societies and bead shops and is published in a variety of jewelry magazines and is the author of the popular blog “We Can Make That at Home.” She has also appeared on several episodes of the DIY and HGTV network shows DIY Jewelry and Craft Lab. See Kate’s first book Simple Soldering: A Beginner’s Guide to Jewelry Making from Interweave Press.
A new take on an old shape.
WIRE HEARTS make a fanciful chain.

**my copper heart**

*BY Christine Terhaar*

**THIS DESIGN IS A FUN WAY TO PLAY WITH BALLED-UP WIRE.** Now you can wear your heart on your sleeve, around your neck, dangling from your ears, and anywhere else you wish!

**TOOLS & SUPPLIES**

- 18-gauge copper wire, 25”
- 18-gauge 4.5mm copper jump rings, 15
- Antiqued copper chain, 12”
- 15mm lobster clasp, 1
- Nylon hammer
- Bench block
- Ball-peen hammer
- Round-nose pliers
- Chain-nose pliers
- Bent-nose pliers
- Flush cutters
- Ruler
- Butane micro torch or propane torch
- Flameproof work surface
- Bowl of water
- Needle-nose pliers with a heat resistant handle
- Pickle compound
- Pickle pot
- Liver of sulfur
- 0000 steel wool
- Pro-Polish polishing pad

**RESOURCES:** Copper flat antiqued chain from Rings & Things, rings-things.com.
1. Flush cut five 5" lengths of 18g wire. Grasp one end of one copper wire with needle-nose pliers. Using a butane micro torch or propane torch, hold the opposite end of the wire in the flame until it balls up. Quench the wire in the bowl of water. Repeat, to ball the other end of the same wire; quench. Place the wire in a warm pickle solution to clean it. Repeat, to ball both ends of the remaining 4 pieces of wire.

2. Remove the pieces from the pickling solution, rinse and dry. Using round-nose pliers, grasp 1 wire just beneath the ball on one end and form a loop. Make a loose spiral with chain-nose pliers about one and a half times around the balled end.

3. About ½" from the spiral, wrap the remaining wire around the tip of the pliers, forming the lower loop of the heart. Make a second spiral with the other end of the wire. Repeat Steps 2 and 3 to make a total of 5 hearts.
4. Using a nylon hammer and bench block, tap each heart to work-harden and straighten. Use the flat end of the ball-peen hammer to flatten the balled ends of the wire and the curves of the heart.

5. Texture each heart with the ball end of the ball-peen hammer. If necessary, use the nylon hammer and your fingers to maintain the heart shape.

6. Prepare the liver of sulfur solution according to the manufacturer’s instructions. Dip the hearts in the solution until you have the desired patina. Patina the jump rings at the same time. Dry the components thoroughly. Polish with 0000 steel wool followed by a Pro-Polish pad.

7. Attach 1 jump ring to another, forming a rosette. Use the rosette to connect 2 hearts, linking them together. Repeat, to link all 5 hearts. Attach 1 additional rosette to the heart on each end.

another idea

Add tiny glass drops or charms to the lower loops of the hearts. Or, make two more hearts for a pair of matching earrings.
8. Measure and cut two 6” lengths of antiqued copper chain. Attach one end of each chain to the last rosettes added in Step 7. Attach the lobster clasp to the end of one chain with a jump ring. Attach a rosette to the end of the other chain.

CHRISTINE TERHAAR finds inspiration living in the Pacific Northwest. She enjoys long walks, treasure hunting, anything vintage, books, and sewing. She is a self-taught artist who loves learning what heat does to metal. As a mother of six children, she also enjoys cooking and baking.

Looking for Great Design Ideas?

*Step by Step Wire Jewelry* is the only magazine devoted to bringing you the very best in wire!

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Southwest Spirit Etched Pendant

Conjure up ancient voices in contrasting metals of silver plus copper, brass or bronze

BY LEXI ERICKSON

Maybe it was my return to the haunts of my old archaeological days during a trip to Tucson with my friends. Or maybe it was the influence of teaching at Bead Fest in Santa Fe, from where I’d just returned. Whatever it was, my first love — the designs of the First People of my beloved desert — called me. The Indians of the Southwest produce stunning designs, whether in jewelry, pottery, weaving, basketry, or fine art.

This piece was influenced by a shard of Tularosa Black on White pottery, produced by the Mogollon culture of western New Mexico from about A.D. 1100-1300. The bold black designs on a white background are elegant, symbolic, and timeless. I listened to R. Carlos Nakai’s flute music as I made this piece and heard the Ancient Voices as this piece emerged from the flat metal sheets into a piece of jewelry.
**MATERIALS**
1 piece of etched copper (to make a 1.75” circle), 20 gauge
1 circle of sterling silver, or sterling sheet, 2 x 2”, 20 gauge
.33” x 1” 20 or 22 gauge sterling
2.25” x .50” cabochon
22 gauge fine silver sheet, .25” x 5+”
.25” sterling tubing, outer diameter, 3mm (or enough for a 20 gauge wire to slip through)
1” 20 gauge sterling wire
cut-up credit card
epoxy glue
patina solution

**TOOLS**

**HAND TOOLS:** Circle template, fine tip Sharpie, saw, sawblades, files, wooden dapping block and punches (wooden daps), rawhide mallet or planishing hammer, round and flat nose pliers, bezel pusher, alphabet stamps or logo stamp and “sterling” quality stamp

**SOLDERING TOOLS:** torch, striker, pickle, T-pins, pickle pot, copper tongs, snips, soldering station, fire brick, easy and hard solder, flux, quenching water

**FINISHING TOOLS:** 9 and 30 micron 3M finishing film, green Scrubbie, patina of your choice, brass brush, liquid Dawn, burnisher

**SOURCES**
Most of the tools and materials for this project will be available from well stocked jewelry supply vendors.

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Using a circle template, draw a 1.75 (1⅞) inch circle out of your pre-etched copper sheet.

Use the template as a guide to find the most interesting part of your design. Cut it out with your saw, file, and set aside.

**Photo 1** Using the template, draw a 2” circle on the sheet of sterling. Cut it out, file and, if you wish, hallmark with your initials and “sterling.” Use your template to check the roundness of your circle. If there are any flat edges, round them out. When filing a circle, use the flat edge of a hand file and file with the edge of the circle, not across or perpendicular to the edge because the latter will produce flat areas.

Find a corresponding circle so that the copper circle sits right on or just inside the circle of the dapping block. Using a rawhide mallet, gently tap the circle into the depression.

**Photo 2** Tap deeply enough so the top of the dome reaches the bottom of the depression. The top must be smooth, and all edges must be level all the way around. Check it for “levelness” on a flat surface.

**Photo 3** All areas of the edge of the dome must be touching the surface. If not, repeat tapping until they are. Since I had a design which divided my circle into three parts, it was easy to decide where to place my “tabs.” Choose where your tabs will be, and mark them on the sterling plate.

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**AN EASIER WAY**

You can make an interesting variation of this pendant by buying patterned sheet. Although it does not have the depth of etched sheet or allow you the creative freedom of making your own, patterned sheet is available from such suppliers as Metalliferous (metalliferous.com) or David H. Fell (dhfeo.com).
The smooth texture of the back of the piece provides an interesting contrast to the etching on the front.

**Photo 4** Draw a circle with the Sharpie around your inner domed circle so you will know how far down to cut your tabs. Cut the tabs with your saw. Set aside. Do not connect the copper dome and backplate yet. Fit the strip of fine silver, which will act as a bezel, around the stone, and treat exactly as a bezel. Fit the metal around the stone, mark it, and saw or cut where it fits together.

**Photo 5** To make sharp corners, measure where the corners turn, and cut or file a small ‘v’ groove into the metal. This will give you a cleaner corner. Smooth the ends of the bezel as needed with a file. It should be a perfect butt joint, with no space showing from the top of the bezel to the bottom. Clean by sanding or pickling and solder it closed using hard solder. Quench, pickle, rinse.

Set the bezel on a backplate, making sure the bezel touches the backplate all the way around. Solder the bezel down with easy. I also melt a bit of easy solder on each of the corners where I cut the ‘v’ groove for more stability. Quench, pickle, and rinse.

**Photo 6** File or saw away any backplate showing around the bezel. Finish edges with 3M 30 micron finishing film. Lay a piece of finishing film on the bench top. Turn the bezel upside down onto the flat piece of film and sand back and forth, evening out any top edges of the bezel which may be irregular.
Photo 7 Stand the bezel on its bottom and attach it with T-pins to the solder brick. Flux and lay the small piece of tubing on the center top of the bezel, and solder with a small chip of easy solder. Quench, pickle, and rinse.

Photo 8 Thread the sterling wire through the tubing, and fit it along the bottom of the sterling circle, where the bottom tab will be. Using flat nose pliers, bend the wire and fit and file until it fits just under the bottom edge of the circle.

Photo 9 Using a rawhide mallet or a planishing hammer, flatten out the wire’s arms. By doing this, you will create more surface contact between the backplate and the wire. Solder onto the round backplate of sterling using easy solder. At the same time, you may bend your bail strip, fit and attach it with easy solder to your back plate. Quench, pickle and rinse. Make a small “bed” from copper sheet to hold your backplate up off the solder brick. That way the wire arms will be the equal height of the backplate. Do not use copper pennies for this.

Sand the entire piece with 30 micron finishing film to create a bit of a tooth to hold the patina.

Set the copperetched dome onto the backplate and bend the tabs over with a bezel pusher. It should be a snug fit with no wiggling.

Finish the piece by running it under water and brushing with a brass brush and liquid Dawn. Patina to your satisfaction. Bring up a slight polish on the copper after patination by brushing it lightly with the 9 micron finishing film or the green Scrubbie.

Burnish the edges with a burnisher, and set the stone into the bezel. Raise the stone to the level of the bezel top, or just below, by gluing several layers of cut-up credit cards into the bottom of the bezel. Glue your stone to the credit cards using epoxy glue. This bezel is a box bezel and is not to be folded over the stone.

LEXI ERICKSON lives in Highlands Ranch, Colorado, and is active in the Colorado Metalsmithing Associaton and Coyote Creek Studio Arts Foundation in Fairplay, CO. She is available for workshops and can be reached through her website, www.LexiEricksonDesigns.com.
More Resources:

- [ Book with DVD: Contemporary Copper Jewelry: Step-by-Step Techniques and Projects ](click here)
- [ Book: Making Etched Metal Jewelry: Techniques and Projects, Step by Step ](click here)
- [ Book: Jewelry Etching on Copper: Download in HD ](click here)

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