



COOL TOOLS

Hearts & Bones Pendant Project

This project will teach you to combine wet and dry components, build custom connectors and some basic wire forming. The finished pendant weighs 13.2 grams.

Supplies

28g PMC Plus or 25g PMC 3
PMC+ or PMC 3 paste

Toolbox

Claymate, Badger Balm or Olive Oil
CoolSlip*
Cool Roller or pvc pipe roller
#4, #5 & #3T spacers
Tissue blade
Paste brush (#3 red sable)
Water brush (#5 red sable)
Dusting brush (#5 red sable or extra soft dry brush)
Clay Shaper #6 Taper Point
3 piece Divit Tools (extra small ball burnishers)
Diamond or Cut 4 needle file - barrette shape*
Brass buff or brush
Burnishing tools or rotary tumbler
Polishing papers or rotary finishing tool
Ultra Clay Pick*

Sanding stick or paper, 220 grit
Crosshatch Texture Tile (or other texture)
Bone Texture Tip (or other center design)



Hockey Puck Rubber Bench Block
4x6 Acrylic worksurfaces x 1
Wolf Groovy Looping Pliers or Round Nose Pliers*
2" piece of 20g sterling or fine silver wire
2 Small plastic or glass containers for patina
Liver of sulphur
Polishing cloth

- * Badger Balm or olive oil can be used as a release
- * A needle tool can be used if you do not have an Ultra Clay Pick
- * A Cut 4 barrette shape needle file is preferred because it has a safety edge that is very useful in filing wire ends flat
- * Then end of a Cut 4 needle file can be used as a mandrel to shape the wire if you do not have Wolf Groovy Looping Pliers



Make the Bones

1. Spritz CoolSlip on a rag or pad and rub over your worksurface. Install #5 spacers on your Cool Roller. Apply ClayMate to your hands and fingers to avoid clay sticking.
2. Roll a slab with #5 spacers about 1" x 1" in size. Impress the slab with the Bones Texture Tip in 2 places. Use your flexible tissue blade to trim the shapes. The bones can be trimmed to a rectangle, or use your Ultra Clay Pick to trim around the bone shape. Set these aside to dry. These pieces should be made in advance so they are dry before you make the heart shape.

Make the Heart

1. Install #4 spacers on your Cool Roller. Spritz your Texture Tile with CoolSlip. Apply ClayMate to your hands and fingers to avoid clay sticking.
2. Roll a slab with #4 spacers about 2" x 2" in size. Place the slab on the Texture Tile, change spacers to 3T and roll over the tile and slab. Remove the textured slab to a cutting surface and cut out a heart shape from the slab. Use a water brush to wet the outside edges of the heart shape. Peel away the excess clay and shape roughly into a thick wire shape (center photo).
3. Roll the thick wire into a snake with a worksurface, about 3/16" in diameter.



4. Apply the snake to the edge of the heart shape, starting at the center top. Overlap the end and cut using the Ultra Clay Pick. Remove the scraps and put away. Apply water to the trim where it meets the heart edges.
5. Using the size 6 Tapered Clay Shaper, impress decoration to the snake.
6. Use a small divit tool to make pilot holes for the jump rings. (see photo on next page)



Apply the Bones

1. Apply paste to the back of the dry bone, keeping it in the center of the bone so it does not squish out when pressed in place.
2. Place bones where desired on heart and press in place, holding for a few seconds. Apply water to edges of bone pieces.



Make the End Caps

1. Roll a slab using #5 spacers. Impress the slab with the Hash Marks Texture Tip, then rotate the tip 90 degrees and stamp a second time.
2. Trim the textured slab to about 3/8" x 3/4" in length. Wrap around a mandrel or straw and cut where the seam overlaps. Remove excess clay.

I've used a 3mm rubber cord as a mandrel because I plan on using this size cord in the finished piece.



3. Apply water to the seam, then using a small divit tool, blend the edges together.

4. As the tube dries, it will shrink. Twist the mandrel regularly inside the tube until it has firmed up so the mandrel is not locked in place. Once it has firmed up, the mandrel can be removed. Allow tubes to dry, then apply a small bit of syringe to the end of your palette knife and press into any dents in your seam. Allow to dry.

Make the End Caps

1. The ends of the tubes, now dry, need to be sanded flat. Place the tube on a piece of sandpaper or a sanding stick and move in a figure-8 pattern to sand the ends flush. This must be done on a firm, flat surface, which is why sanding sticks work well.
2. Roll a slab using #5 spacers. Press each of the dried tubes lightly into the slab, remove the tubes and trim the clay just outside of the impression. Remove and put away the excess clay. Apply water to the trimmed end cap.
3. Apply a small amount of paste to one end of the tube and place paste side down on the trimmed cap piece. Press on the tube for a few seconds to set it. Repeat for other tube and allow this assembly to dry.



Make the End Cap Loops

1. Roll a snake at least 2" long and about 1/16" in diameter. Cut 2 lengths, about 1" long each. Form each snake piece into a teardrop shaped loop.
2. Use the size 6 tapered point Clay Shaper to impress decoration around the loops. Allow loops to dry, then sand the ends of each loop flush as shown in far right photo below.



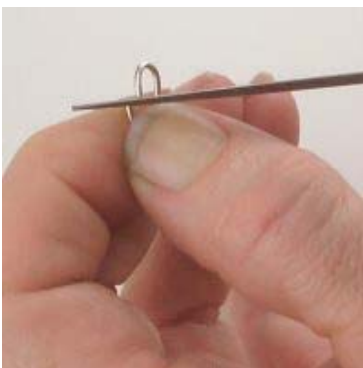
Attach the Loop

1. Place the tube with end cap up on the hockey puck. Hold the loop with a pair of tweezers (gently, so you don't make a mark) and apply a blob of paste to the end of the loop.
2. Turn the link over and place on the end cap. Notice how I am steadying the tweezers with my free hand. Hold this for a few seconds. Allow the paste to dry.
3. Apply additional paste where the loop joins the end cap. This may take 2 or 3 coats. Be sure to stir the paste well and use fresh paste, with no lumps. There should be no holes or pits. Fill any holes or pits with paste.



Make the Jump Rings

1. Form the jumprings with either a pair of round nose pliers, a mandrel (the end of a needle file works well for this), or a pair of Wolf Groovy Looping Pliers using the largest notch. The inside of the loop should be $\frac{1}{8}$ " in diameter. Make the jumpring about $\frac{1}{4}$ " from end to end. Center photo shows the wire after one loop has been formed. Make a second loop, then use a good quality flush cut pliers to cut through both loops.



2. Open the ring, twisting side to side, and use a Cut 4 flat file to file the jumpring ends flat and remove any burs from cutting.

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4. When end caps are dry, you can mix up a tiny bit of investment and fill the end caps to keep pieces from shrinking in inside diameter. I use a dropper to fill the cavities.



Fire & Patina

1. Fire the pieces. I fired my pieces in a kiln for 1 hour at 1650F. Fire for the longest time at the highest temperature you can.
2. After firing, use a brass buff to burnish the white surface down, then tumble polish for 1 to 2 hours depending on your tumbler type and amount of shot.
3. Place about 1/2C hot water (coffee temperature) into a container. Add a small chunk of liver of sulphur to the water (the size of a large pea). The water should be dark lemon yellow. Drop your pieces into the solution and allow them to turn black.
4. Remove the excess patina using a 3M polishing paper. Start with 400 grit and move through the grits to obtain the desired polish.

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2. Open the ring, twisting side to side, and use a Cut 4 flat file to file the jumpring ends flat and remove any burs from cutting.

3. Place the heart and the connector on the jumpring and twist the jumpring closed. Be sure your parts are correctly oriented before closing the loop.

4. Mix 2 part epoxy and place some into the inside of the connector, then insert the rubber cord into the connector.

5. Give the piece a final polish with a polishing cloth.

