The front of each earring is impressed with a slightly different pattern than those used on the sides and backs. 1¾ in. (44mm).

METAL CLAY EARRINGS

Pendulum Triangles

Construct **earrings** *from carefully* **fitted panels.**

by Kim Otterbein

Dangling from handmade curvilinear ear wires, these earrings provide visual interest from several angles. Each triangular drop is constructed of textured front and back panels and three supporting side walls. You'll use templates to cut the five panels that fit together to make each drop. Precise sanding and shaping ensure that you can securely join all the pieces using metal clay paste. To complete the project, you'll make a wrapped-loop link that connects the drop to the ear wire.
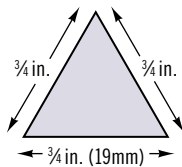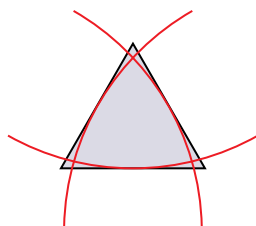
¾ in.   ¾ in.

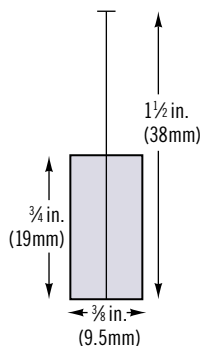¾ in. (19mm)

Figure 1

Figure 2

1½ in.
(38mm)

¾ in.
(19mm)

⅜ in.
(9.5mm)

Figure 3

Figure 4

cut   cut

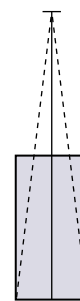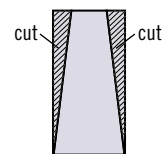**Figure 5**

materials
- Metal clay: 10g
- Metal clay paste
- Sterling silver wire:
  - 22-gauge (0.6mm), round, dead-soft, 6 in. (15.2cm)
  - 20-gauge (0.8mm), round, dead-soft, 4 in. (10.2cm)

tools & supplies
- Cardstock
- Circle template
- Olive oil or natural hand balm
- Acrylic roller
- Flexible Teflon sheet
- 2 texture plates or stamps
- Playing cards
- Craft knife
- Emery board
- 2 paintbrushes: fine tip
- Needle file: round
- Kiln, kiln shelf
- Finishing items (choose from):
  - Brass brush
  - Tumbler, steel shot, burnishing compound
  - Liver of sulfur
- Pliers: chainnose, roundnose
- Steel block
- Hammer: planishing
- Wooden dowel: ¼-in. (6.5mm) diameter
- Sandpaper: 600 grit

suppliers
- Metal clay (Art Clay World, USA, 866.381.0100, artclayworld.com; Precious Metal Clay, pmcguild.com for suppliers)
- Sterling silver wire and tools (Rio Grande, 800.545.6566, riogrande.com)

1

Make the templates. Draw an equilateral triangle on a piece of cardstock, making each side of the triangle ¾ in. (19mm) long **[Figure 1]**. Use a circle template to give the triangle a symmetrical, slightly curved profile **[Figure 2]**. Cut the curved triangle template from the cardstock. This is the template for the earrings' front and back panels.

Draw a ⅜ x ¾-in. (9.5 x 19mm) rectangle on a piece of cardstock, and cut it out. This is the template for the earrings' bottom panels.

Draw another ⅜ x ¾-in. (9.5 x 19mm) rectangle on cardstock. Draw a 1½-in. (38mm) vertical line bisecting the rectangle **[Figure 3]**. Draw a line to connect the bottom left corner of the rectangle to the top of the vertical line. Repeat to connect the lower right corner to the top of the vertical line **[Figure 4]**. Cut out the tapered rectangle **[Figure 5]**. This is the template for the earrings' side panels.

Make the front and back panels. Lightly oil an acrylic roller, a flexible Teflon sheet, and two texture plates or texture stamps. Roll 10g of metal clay to 3 playing cards thick. Texture the clay with the plates or stamps. Use a craft knife and the curved triangle template to cut out four panels from the textured clay. Set the panels aside to dry completely (See "States of Dryness for Metal Clay," *page 3*).

Make the bottom panels. Using the ⅜ x ¾-in. (9.5 x 19mm) template, cut two bottom panels from the clay. Set them aside to dry completely.

Make the side panels. Using the tapered rectangular template, cut four side panels from the clay. (I cut out two extra in case of breakage.) When the side panels are almost semi-dry, slightly bend each panel to follow the curve of the front and back panels **[1]**. Place the panels on their edges and allow them to dry completely.

States of dryness for metal clay

Wet	Clay contains a lot of moisture and is very pliable
Semi-dry	Clay contains some moisture, but is firm and holds its shape
Mostly dry	Clay is nearly devoid of all moisture and is rigid
Completely dry	Clay contains absolutely no moisture and can be fired
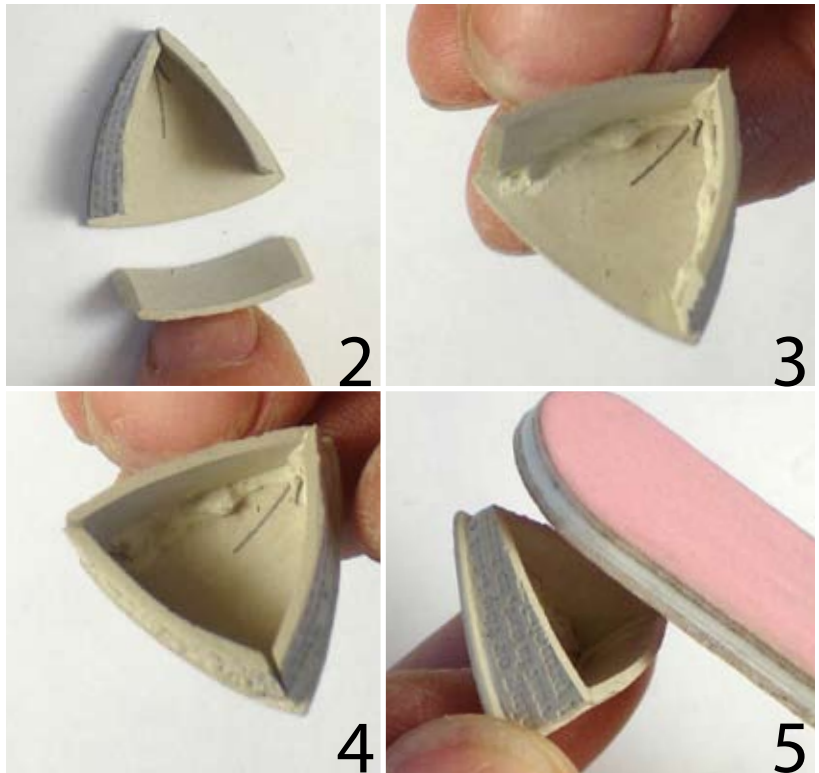
▲ Fragments of text add intrigue and texture to the sides of the earring drops.

Pre-position the panels. When all the panels are completely dry, use an emery board to smooth their edges.

Place a back panel texture-side down on your work surface. Use a pencil to lightly mark one of the panel's corners to indicate the top of the earring.

Place the side panels on their edges so their tapered ends meet 1mm (1/32 in.) below the top of the earring. Leave a 1mm (1/32-in.) lip of the back panel exposed beyond each of the side panels.

Place the bottom panel below the side panels, leaving a 1mm (1/32-in.) lip of exposed back panel. Repeat to pre-position the remaining back, side, and bottom panels.

Refine and fit the panels. Use an emery board to bevel the ends of the side and bottom panels 45° to create mitered corners that fit tightly against one another **[2]**. Repeat to fit the other bottom and side panels.

Assemble the back, bottom, and side panels. Use metal clay slip or paste that is thin enough to spread with a fine-tip paintbrush.

Use the fine-tip paintbrush to apply slip to one edge of one side panel and carefully place it, slip-side down, onto the back panel. Use your finger to apply gentle pressure to ensure a solid bond. Use a clean paintbrush to remove excess slip that is visible from the outer side of the join. Set the assembly aside to dry completely.

Hold the second side panel and apply slip to the beveled edge of its tapered end and to the edge to be joined to the back panel. Carefully position the second side panel onto the back panel so the tapered ends of the side panels fit snugly **[3]**. Remove any excess slip from the join, and allow the assembly to dry completely.

Hold the bottom panel and apply slip to its beveled edges and to the edge to be joined to the back panel. Fit the bottom panel between the side panels **[4]**. Fill any gaps with slip. Use a clean paintbrush to remove any excess slip, and allow the assembly to dry completely.

loop

Use the tip of your chainnose pliers to grasp the wire. Bend the wire into a right angle **[a]**.

Use roundnose pliers to grasp the horizontal portion of the wire near the bend. Then bend the wire over the top jaw of the pliers **[b]**.

Reposition the pliers so that the lower jaw fits inside this half loop. Curve the wire around the bottom jaw of the pliers to make a complete loop **[c]**.

Keep the lower jaw of the roundnose pliers in the loop and wrap the tail around the wire stem **[d]**. Trim the excess wire, and use chainnose pliers to press the cut end close to the wraps.

a

b

c

d

6

7

8

9
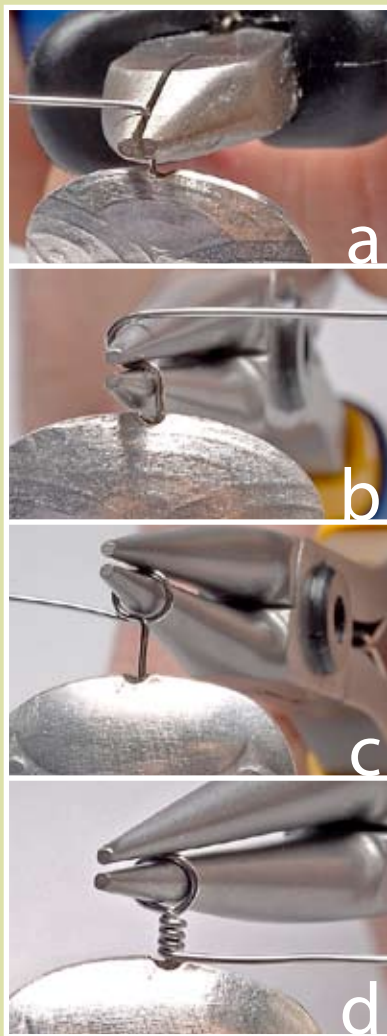
Complete the drops. Use an emery board to refine and level the exposed edges of the bottom and side panels **[5]**. Apply slip to the leveled edges, and attach the front panel to the assembly **[6]**. Remove excess slip, and allow the drop to dry completely.

Repeat the assembly steps with the remaining panels to make the second drop.

Make holes in the drops. Measure ⅛ in. (3mm) from the top of a drop, and use a pencil to mark one of the side panels at this point. Use a round needle file to drill a hole at the mark. Keeping the needle file level, drill straight through the opposite side panel **[7]**. Repeat to drill a hole in the other drop.

Fire and finish. Fire the drops according to the manufacturer's instructions. When the drops are cool, polish them with a brass brush and soapy water. Or, place them in a tumbler with steel shot and burnishing compound. To accentuate the textures, add a liver of sulfur

patina according to the manufacturer's instructions. See Basic Techniques at artjewelrymag.com for tips on these finishing techniques.

Add a wrapped-loop link. Cut a 3-in. (76mm) piece of 22-gauge (0.6mm) sterling silver wire. On one end of the wire, make the first half of a wrapped loop (see "Making a Wrapped Loop," *left*) large enough to allow the earring to dangle. Insert the loop through the two holes at the top of one drop **[8]**, and finish the wraps. Make a smaller wrapped loop at the other end of the wire **[9]**. Repeat to make a wrapped-loop link for the second drop.

Add ear wires. Cut two 2-in. (51mm) pieces of 20-gauge (0.8mm) sterling silver wire. Place one end of each wire on a steel block. Use a planishing hammer to flatten the ends.

Use the tips of your roundnose pliers to grasp the flattened end of one wire. Make one complete wrap around the top jaw of the pliers. Keeping the wrapped end of the wire in the top jaw, bend the working wire

10

11
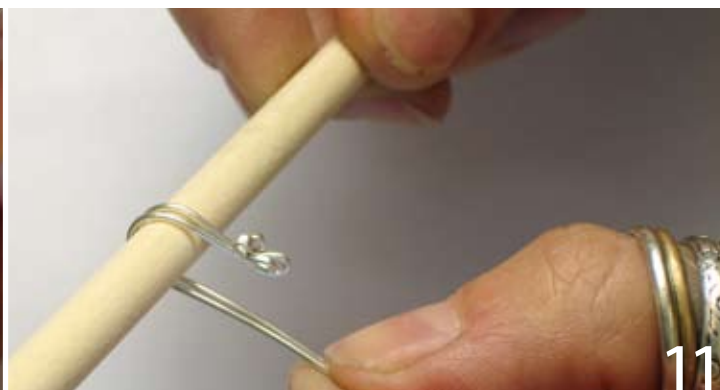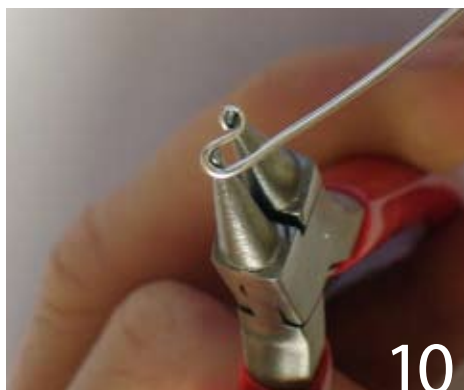
around the bottom jaw, creating an S **[10]**. Repeat with the other 2-in. (51mm) wire.

Hold the two ear wires parallel to each other and bend them around a ¼-in. (6.5mm)-diameter dowel to create identical curves **[11]**. Place the large curves on a steel block, and use a planishing hammer to flatten and work-harden them. Cut the ends of the wires to the desired length, and use 600-grit sandpaper to smooth the ends.

Open the S bend of an ear wire. Attach a wrapped-loop link of one drop, and close the S. Repeat to complete the second earring. **AJ**

▲ **A liver of sulfur patina accentuates the patterns on the surface of the earring drops.**

Kim Otterbein *teaches beading, metalsmithing, and working with polymer and metal clay at her store, The Bead House, in Bristol, Rhode Island. She credits Celie Fago for teaching her the metal clay techniques she uses on a daily basis. Contact her at kimodesign@msn.com.*

Make jewelry that makes a statement . . . your statement

Looking for projects that use different materials such as metalwork, wirework, stone, glass, polymer, and enamel? Then *Art Jewelry* is the magazine for you! Discover the secrets you need to create breathtaking pieces that express your own distinctive style like never before! Whether you want to learn a new technique, try a different material, or get ideas for your own jewelry projects, there's something for you in *Art Jewelry*!

ART Jewelry magazine

Ideas to spark your imagination

ART Jewelry

PREMIER ISSUE!

NOVEMBER 2004

Texture a METAL BEZEL for a colorful STONE

WEAVE WIRE through chain for an easy any-day RING

HAMMERED SILVER PINS from a real pro

Tips, techniques, & STEP-BY-STEP PHOTOS

CHAINMAIL: It's not just armor anymore

Make this metal clay and resin pendant *page 44*

Subscribe Today!

Order online at
www.artjewelrymag.com/promo
Enter code: I4XZ1

or call 800-533-6644
Monday-Friday, 8:30 a.m. - 5:00 p.m. Central Time.
Outside the U.S. and Canada, call 262-796-8776, ext. 661.

05X1017

I4XZ1