





Daisy Earrings, earrings  
Gold granulation with pink tourma-  
lines, 1 3/4" x 1" x 1/2"  
Photo: Marilyn O'Hara

**PATRICIA TSCHETTER**  
Silver Granulation Flower Pendant

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Untitled, sculpture  
Rutilated quartz with lapis,  
aventurine, and black chalcedony  
Photo: Derek Levin  
**DEREK LEVIN**  
Custom Cabochons  
page 28



Brick Wall Bracelet, bracelet  
Silver metal clay, copper, brass,  
bronze, and sterling, 7.5"  
Photo: Hadar Jacobson  
**HADAR JACOBSON**  
Metal Clay Lock & Key

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Untitled, bracelet  
22K gold granulation bangle  
with pearls and sapphires  
Photo: Dell Fox  
**DELL FOX**  
Granulated Gold Earrings  
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# SILVER GRANULATION FLOWER PENDANT

Modern design from an ancient technique

PROJECT BY

PATRICIA TSCHETTER

Opening Photo: JIM LAWSON  
Project Photos: MARILYN O'HARA

Granulation has been around since 2500 B.C. As a jewelry artist my goal has never been to perfect granulation, but to push its design possibilities and add my signature to it. I hope to explore all of granulation's possibilities.



## SKILLS YOU NEED

- fusing
- basic stone setting
- strong fabrication skills

## MATERIALS AND TOOLS YOU NEED

### MATERIALS

4mm-5mm round cabochon

26-gauge fine silver bezel wire; about 1"

28-gauge-30-gauge fine silver sheet;  
about 1.5" square

22-gauge fine silver round wire;  
a few feet

22-gauge-24-gauge sterling silver  
sheet; about 2" square

Elyr-Fine® or organic glue

### TOOLS

Saw & saw blades 0/4

Dividers

Steel bench blocks

Charcoal block

Tile shard

Flex shaft; small drills

Small bowl for water

Small bowl for granulation  
solution

Small oval, pear, or marquise-shaped mandrel

Round mandrel (for bezel and ring)

1/4" round mandrel

Sandpaper (220, 400, 600+)

Files: round, barrette

Pliers: round nose, flat nose

Flush cutters

Snips

Scribe

Small fine-tipped brush (0-000)

Flat metal spatula  
(dental or wax tool)

Yellow ochre; brush

Paste flux; brush

Yellow, self-pickling flux; brush

Paper towels

Distilled water

Pencil & paper; Sharpie, masking tape

Thick scrap of leather, sheepskin,  
or several layers of paper towels

Small dipping tools

Rounded burnisher or wooden orange stick

Optional

Optivisors®

Ultrawright® kiln (optional)



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underneath to dry flux, adjusting any movement until granulated piece lines up with solder. Heat evenly from both underside and top. When flux turns glassy, soldering temperature is near. Be careful not to over-heat granulated piece to avoid collapse of repoussé. Cool, rinse, dry.

Place bezel into ring - it should "pop" into place. Flux and solder in place with easy solder against inside of bezel. Evenly and gently heat piece. Watch solder flow around base of bezel. Cool, pickle, rinse, dry.

(Photo 15) Drill ring at top and file inside of hole.



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Place spatula on top of piece of cool tile. Move to hot metal kiln cover. Allow solution to dry fully, about 30 minutes or longer, depending on kiln, to avoid displacing granules.

(Photo 12) Carefully place dried piece into kiln using tweezers and holding bent corner. Kiln cover may have to be placed back on before fusing to achieve glowing red. Wait until piece is glowing red, then heat with bushy torch flame. Brush flame over entire piece until it starts to shimmer - close to fusing temperature.

Look for flash where granules contact piece. Ensure entire surface of granules have fused. Remove piece from kiln and allow to air-cool to prevent shocking piece and displacing granules. Once piece is cooled and all granules are checked for fusion, remove ochre.

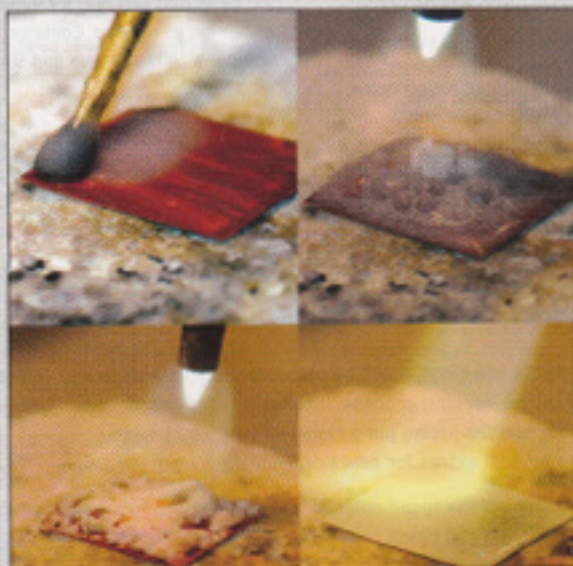
Pickle, rinse, dry.

(Photo 13) Trim piece with either snips or flush cutters. Sand bottom using 320 grit sandpaper. Using a 1" or 2" square piece of 22ga-24ga sterling sheet, sweat solder medium solder over surface. This becomes backing for granulated piece. Pickle, rinse, dry.

(Photo 14) Flux sweat-soldered piece and underside of granulated piece. Place on screen with a tripod. Gently heat from

## SOLUTION RECIPES

- Add water to yellow ochre to make a solution about the consistency of 2% milk - too thick and the paste won't dry, too thin and the solution won't protect the silver from sticking to the kiln. There is no need to re-ochre the surface if a second fusing is necessary.
- To remove the yellow ochre, place piece on a soldering pad and generously apply paste flux to the ochre, being careful not to cross contaminate your flux supply with the ochre. Heat the piece with the torch to the point where the flux bubbles, turns red to black, and then to clear. When all the black is gone, the ochre is gone. Quench the piece. Warm water will remove the flux residue. Dry completely.



- Make a solution of Klyr-Fire, distilled water, and yellow flux. This consists of mixing 2 drops of distilled water, 2 drops of yellow flux, and 4 drops of Klyr-Fire with a brush. This solution is used for granulating.