

## Toward a Greener Bench

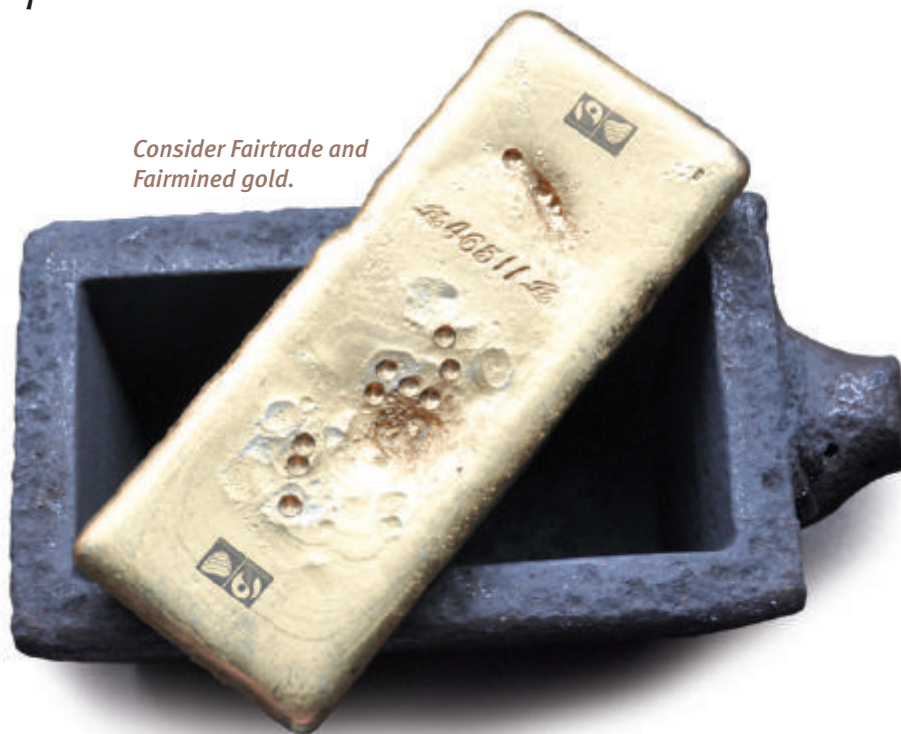
*Tips for improving shop practices*

**BY CHRISTINE DHEIN** There are some key issues to consider when running a jewelry business that is sensitive to the environment and upholds high ethical standards. Green shop practices begin with an analysis of the precious materials supply chain, considering where your materials come from and the impact that mining those materials has on both the environment and the people who mine them. You must then act responsibly when working with those materials in the shop, using careful collection methods and reducing your use of chemicals. These issues are complex, so it can be difficult to know where to start. The following is an outline of some simple steps you can take to improve shop practices.

### CHOOSE FAIRTRADE AND FAIRMINED GOLD

Regardless of how much recycled metal jewelers use, precious metal will continue to be mined. Purchasing Fairtrade and Fairmined gold ([fairgold.org](http://fairgold.org)), which is certified by a joint effort between Fairtrade International and the Alliance for Responsible Mining, contributes to improving the lives of artisanal and small-scale miners. To become certified, the miners must fulfill a set of standards for responsible mining, including democratic organization, safe working practices, management of toxic chemicals, and respect for the environment and women's rights.

*Consider Fairtrade and Fairmined gold.*



Currently available in Europe and Canada, Fairtrade and Fairmined gold is targeted to arrive in the U.S. by June 2012. If you are interested in learning more about purchasing the gold, contact Marc Choyt at Fair Jewelry Action ([reflective@cybermesa.com](mailto:reflective@cybermesa.com)) or Christina Miller at Ethical Metalsmiths ([cmiller@ethicalmetalsmiths.org](mailto:cmiller@ethicalmetalsmiths.org)).

### KEEP PRECIOUS METALS IN THE SUPPLY CHAIN

Once precious metals have been extracted from the earth, jewelers are the stewards of these materials. The following are tips on how to implement shop practices to col-

lect more scrap, which will reduce ecological impact and increase profits.

- **Install a sink trap.** A sink trap can be purchased or made economically from a five-gallon container. The trick is to extend the sink drain (inlet) below the tank drain (outlet) so that precious metal pieces will settle to the bottom instead of floating across the top of the water and out into the sewer.

- **Use floor mats and carpets.** Vacuum regularly, and use a dedicated vacuum to collect gold scrap. Add full vacuum bags to your floor sweeps.



Install a sink trap.



Cast an ingot with collected bench scraps.

• **Use two separate wastebaskets.**

Use one for regular trash and one for rags, emery paper, floor sweeps, polishing dust, and buffs. Almost anything used in the manufacture of jewelry contains precious metal dust and can be refined. Use a wet paper towel to clean your hands before washing them in the sink, and save the towel to re-use throughout the day to capture particles usually washed into the sewer.

• **Collect scraps to cast an ingot.**

Any solder-free scrap large enough to be picked up with tweezers can be recycled in the shop by casting it into an ingot to make sheet and wire.

**REDUCE TOXINS AND CHEMICAL USE**

To protect the health of both workers and the environment, it is important to reduce chemical use and find less toxic alternatives. The most commonly used studio chemical is pickle. Lessen your environmental footprint by modifying your pickling habits with the following tips:

• **Choose a less toxic alternative.**

Options that are less toxic to jewelers include citric acid pickle (available from major suppliers) and vinegar and salt. For the latter, mix one cup of vinegar to one teaspoon of salt or slightly more, if required.

Use either solution warm with proper ventilation and follow proper disposal procedures, which are outlined here.

• **Use a small pickle pot.** For most jewelers, the volume of pickle required is very small. Try using a small (2 to 3 cup) pickle pot to reduce chemical use.

• **Extend the life of your pickle solution.** To keep solution strong, avoid introducing baking soda. Rinse tongs, baskets, and jewelry from a neutralizing bath before returning them to the pickle. As the water evaporates, add more water. If the pickle is weak, add more acid. With care, pickle solution can be used for many months to a year before requiring replacement.

• **Practice proper disposal.** Each region is governed by different federal, state, and local requirements for hazardous waste disposal. After being used in

**GREEN JEWELRY WEB RESOURCES**

- Find *Green Jewelry News* on Facebook for news, tips, events, and resources
- View green jewelry fact sheets at [ute.decker.com/ethical\\_jewellery.html#tips](http://ute.decker.com/ethical_jewellery.html#tips)
- Download free publications on sourcing ethical jewelry materials at [fairjewelry.org/publications-page](http://fairjewelry.org/publications-page)
- Find green bench tips from the Revere Academy at [revereacademy.com/about/bench-tips/](http://revereacademy.com/about/bench-tips/)
- Find less toxic alternatives for the shop at [silversmithing.com/1altern.htm](http://silversmithing.com/1altern.htm)



**umicore**  
Jewellery &  
Industrial Metals

Your Sustainable Choice.

Platinum Wire, Sheet, Tube and Grain

Umicore's business unit Jewellery and Industrial Metals serves the precious metals industry with refining services and fabricated products for jewelry and industrial applications. All of its manufacturing sites around the world are ISO9001 (quality) and ISO14001 (environment) certified. In 2011 Umicore was ranked 5<sup>th</sup> in the top 100 most sustainable companies and was designated as one of the most ethical companies in the world.

Umicore Precious Metals USA

527 Pleasant Street  
Building 11  
Attleboro, MA 02703 USA

PH: 1-877-795-5060  
Fax: 1-877-455-0651

[umicorepreciousmetals.com](http://umicorepreciousmetals.com)



Booth #631 in the Holiday Show

Huge selection of basemetal chain in stock

Over 50 styles

6 platings

**Rings & Things**

1 (800) 366-2156  
www.rings-things.com

Visit us in Tucson or at one of almost 100 Bead Shows across the USA



Use a small pickle pot.

jewelry manufacture, even less toxic pickle alternatives contain copper, which is considered hazardous and must be disposed of properly. (Neutralizing pickle will not remove the copper.) All oxidizers, including liver of sulfur and other proprietary oxidizing solutions, are also hazardous materials. Collect hazardous materials in clearly labeled plastic containers with tight lids for storage in the studio and during transportation to a disposal facility.

Consider evaporating liquid from pickle to reduce storage volume. ♦

*Jeweler, author, and educator Christine Dhein (christinedhein.com) is the founder of Green Jewelry News. She is the assistant director and an instructor at the Revere Academy of Jewelry Arts in San Francisco. To receive a free subscription to Green Jewelry News, e-mail green@christinedhein.com with "GJN subscribe" in the subject line.*

## MJSA EXPO NEW YORK

Christine Dhein will share additional tips for becoming more responsible and environmentally friendly in the shop at a free seminar during MJSA's Expo New York, March 11-13. For more information about all of the Expo seminars, see page 12.

Ready For  
Valentines & Mother's Day?

TRY OUR NEW REPAIR SOLDERS  
14Y, 14W, 18Y, 18W  
EXTREME EXTREME EASY FLOW  
FOR THE MOST DELICATE REPAIRS  
FOR CUSTOM WORK USE OUR  
CASTING GRAINS, PLUMB  
SOLDERS, LASER WIRE

GOLD, PLATINUM, PALLADIUM, SILVER

February Is Refining Season-Be Ready for April 15th

PRECIOUS METALS WEST/FINE GOLD  
REFINERS AND FABRICATORS TO THE TRADE  
(800)999-7528 FAX(213)689-1654

MJSA WWW.PMWEST.US  
PROUD MEMBER