

# Metals

John Cogswell

*May 30-June 4, 2021*

## COURSE DESCRIPTION

### CUPS: A HOLLOWWARE WORKSHOP

Until the advent of the Industrial Revolution and the introduction of mass-production, all hollowware (metal drinking vessels; bowls; ewers and pitchers; etc.) was produced by hand. Each individual piece was unique, and reflected a 'marriage' of the artistry of the maker and the needs of the consumer. Each piece was designed to fulfill a specific function, to please the eye and to feel good in the hand. The quality and individuality of the designs, coupled with the beauty and value of the material, made these pieces treasured heirloom items. Many quality historic hollowware pieces survive, in public and private collections, passed down through the generations.

With the introduction of machine technology, the commercial hand-production of silver hollowware, for all intents and purposes, ended. The studio silversmith could not compete, on the basis of cost, time or volume, with large-scale machine production. The use of sterling silver as the material of choice, in similar fashion, declined dramatically, replaced by low-maintenance stainless steel and inexpensive glass. But at what cost? Rather than unlimited stylistic choices, today we are presented with a relatively small selection of monotonous, mass-produced patterns, designed for ease of manufacture and low-cost production. Instead of unique pieces of hollowware designed for specific usage and individual tastes, we have a meager selection of generic 'plated, multi-use forms. This mass-produced hollowware is often too fragile to endure the rigors of normal usage, and is seldom treasured enough to pass along to our children.

Fortunately, in spite of the seemingly overwhelming competition of mass industrialization, the handwrought fine crafts tradition survives. This cherished legacy of over 5,000 years of cumulative knowledge is still passed along, now as then, by word of mouth and demonstration. The skills, tools and techniques we employ today have been shaped, refined and handed down, little-changed, through countless generations.

Learn the traditional hammer and forming techniques by which silversmiths shape, or 'raise', two-dimensional flat sheet metal into three-dimensional volumetric forms such as cups. A metal blank is subjected to a series of sequential hammering operations. In the initial stages, the plasticity (malleability) of the metal is exploited as the desired silhouette is evolved. In the final stages, the form is refined and finished off, ('planished'). All stages of the raising operation, from initial design to finished object will be covered. The various hammers, stakes (metal forms) and their specific usage, as well as other forming and assembly techniques, are covered as well. Competent basic metalworking skills required.

## MATERIALS LIST

Note: IMPORTANT REMINDER - Although Arrowmont has a remarkably well-stocked studio and store, what you bring with you is what you can count on having to work with. I have listed below suggestions for tools and supplies that you should try to bring with you. With regards to hammers and stakes, in particular, I encourage you to bring your own. The hammers and T-stake listed in the 'Useful Optionals' section below are basic for silversmithing (and for many jewelry applications, as well). At the very least, if at all possible, your own T-stake, and raising and planishing hammers will prove most useful. In the case of metal, I strongly advise you to try to anticipate your needs and bring what you can. Do the best you can!

- \*earplugs or other hearing protection!!! THESE ARE A MUST!
- \*safety glasses
- \*pens, pencils, \*sketchpad, \*note pad
- A piece of illustration board approx. 6" x 6"
- Your own basic tool kit which should include:
  - \*ruler

- \*center punch
- \*scribe
- \*saw frame & assorted \*saw blades
- assorted \*pliers
- diagonal cutters
- \*needle files
- ring clamp
- 6" or 8" flat hand file #0 cut
- pencil compass
- 3" (or larger) spring dividers
- soldering tools and supplies:
  - crosslock soldering tweezers
  - pointed tweezers
  - flux brush
  - solder shears
  - \*silver solder (H, M, E)
  - Handy paste flux

- \*Exacto knife or scalpel
- indelible markers: wide-nibbed and fine- pointed laundry marker
- brass hand brush
- assorted \*abrasive paper (#320, #400 & #600 grit)
- Metal: (Note: The actual amount of metal you will need will be determined by the project that you undertake. The dimensions mentioned below are for a small cup. You may use commercial bronze (Nu-gold) or copper if you prefer, but these metals have a distinct taste and cannot be used as drinking vessels. Try to anticipate your needs. We'll be a long way from suppliers. *The Arrowmont Supply Store stocks limited Brass and Copper Sheet, please call ahead for availability.*)
- \*4.5X 4.5' X 18ga.or 20ga. (or, 4.0" x 4.0" for a smaller cup) x 18 or 20 gauge disk (silver; copper; or nu-gold)
- \*additional sheet and wire, if desired

#### Useful Optionals:

- T stake (Allcraft #070-02)
- Mushroom stake (Allcraft #074-07 and/or #074-08 and/or #074-10)
- your own stake holder (eg Allcraft #069-11), mounted on a stump or other sturdy base (There are vises at Arrowmont which can also be used).
- raising hammer (Allcraft #078-01)
- planishing hammer (Allcraft #077-01)
- collet hammer (Allcraft #37.422 or #080-06)
- rawhide mallet
- sandbag
- safety glasses or goggles
- \*flex shaft accessories
- triangular scraper
- nylon scouring pad
- pair of cotton work gloves
- \*Flash drive (to protect and save data to and from Library computers)
- \*Padlock for your studio locker, if desired (For rent in the Supply Store for the week)

#### Suggested Suppliers:

Allcraft Tool & Supply Stakes, Hammers & General Supplies  
 (Tevel Herbstman)  
 (800) 645-7124

***All Items marked with an "\*" are available for purchase in the Supply Store***

## **COVID-19 UPDATE**

In accordance to Arrowmont's COVID-19 policies, Arrowmont recommends that all students bring multiple face coverings in accordance to the CDC guidelines (2-ply, cloth face covering). Along with additional masks, students should consider bringing additional PPE that they may need personally, including but not limited to hand sanitizers and gloves. When asked to bring a respirator or N95 for class, please consider the best option for the supply in your area with health care workers in mind.

In addition to the new operating policies due to COVID-19, Arrowmont is providing additional information to students about materials and tools that will be provided in classrooms. If a student already owns the below items and can travel with them, the student can choose to bring these additional items. Arrowmont will provide these items to students but wants to ensure that all students feel comfortable while on campus as some of these items will be shared amongst a class and are not guaranteed to be one per student.

### **SUPPLIES**

- *See highlighted above*

If a student chooses to mail tools and supplies to Arrowmont prior to the class, the packages will be placed in the student's classroom.

Please label packages clearly, including student's name and class week.

Students can mail packages to:

Arrowmont  
C/O Student Name and Class Week  
556 Parkway  
Gatlinburg, TN 37738

### **MATERIALS FEES: \$20.00-\$50.00**

**Materials fees** will be charged for materials used in the studio and/or provided by instructors for use in the studio by the entire class. In order to keep these fees as low as possible, fees are assessed on an individual class basis and may vary from class to class depending on the amount of materials used and the number of students in the class. Materials fees are paid on the last day of class.

**Please be advised that above course description and materials list is written and approved by the instructor**

If you have any additional questions about this class, below is the contact info for your instructor:  
entdolf@aol.com