

B. Holmberg

Vista 2017 CBA Spring Conference

Hands-on Workshops *The Complete Details...*

We've got 3 ½ days of teaching (and a dozen projects) planned for The Big Barn! Hands-on blacksmithing workshops are open to all registered conference attendees. Workshops include a full demonstration of the project, and time with helpful coaches for you to give it a go. With one exception (tong kits‡), we provide all the metal you need- you just bring your tools and safety gear, and a willingness to learn!

Be on time to each session, or you'll miss out on the actual instruction!

Hands-on learning continues in our **Open Forge Tent**, down on the big green. Didn't get that workshop project finished? Want to try out something you saw at a demo? Feel like collaborating with a new forging buddy? Jump on a forge anytime! The Open Forge Monitors are also happy to provide coaching- bring your projects and dive in.

Bring your own hand tools and safety gear! We will have some tools available, but we *cannot* promise to have all you need to complete a project- Please try to bring the tools needed, and be patient when tools are shared. The best way to have what you need is to attend the tool-making sessions on Thursday- tools taught that day are marked* on the project tool lists.

Mark Your Tools! Many tools look alike: mark your tools with at least 2 colors before you come. Bring your colors along to mark the new tools you make and buy during the conference, too!

Safety Gear (*required by CBA at all demos and active forging areas!*):
Safety glasses (worn at **all** times!)
Closed-toe shoes (leather or canvas; pref. high-topped)
Full leg covering
Natural-fiber clothing **ONLY** (cotton, wool, linen- no fleece, poly-cotton, etc.)
Also recommended: hearing protection, aprons
NB: gloves, if worn, *must* be natural fiber only, and loose enough to shake off

Be Safe, and help those around you to be safe. We're all here for fun. Anyone who can't (or won't) follow safe forging practices will be asked to leave the forge area, and may be removed from the conference.

‡**Tong kits** will be available for \$15- please bring cash (exact change appreciated). We will teach their assembly and adjustment (and jaw variations) during the Thursday Tool-Making Workshop.

Hands-On Workshops Master Schedule

	Thursday	Friday	Saturday	Sunday
8:30 am	Stone Kit Tongs; Diff. Tong Jaws	Folding Trivet	Chest Hinges	Hanging Candle Holder
2 pm	Chisels, Punches Heat Treating	Forged Tongs	Braided Bracelet	
7 pm	Drill and Tap!	Cloak Pin		

N.B. All workshops subject to change!

NOTE: Coal-fired forges are used for the workshops. If you don't have good coal fire management skills, please make a point of attending our **daily 8 am coal use tutorial** *before* you attend a workshop!

Skill Level 'Hammer Index':

These indicate who will be well-prepared to succeed with each project. **All skill levels are welcome** to all workshop sessions! You're sure to learn *something...*



Newbie!: Little or no previous experience



Beginner: 2 or 3 previous classes; some basic skills



Seasoned Beginner: 6+ classes; good heat-and-hammer understanding



Level I graduate (or nearly): Solid fundamental skills; tool maker and user



Intermediate: Variety of skills; accurate hammering; move around anvil well

Thursday All-Day Tool Making Workshop

We all have tools we keep meaning to make, but just haven't made time for... All day Thursday, you'll have a chance to fill in those holes in your tool bag. Most of the tools you'll want for our other 6 projects can be made today! Bring your tooling to-do list, and crank some out.

The **morning** will be focused on **tongs**- first, a super-simple, highly adaptable design made from a kit of pre-cut blanks; later, some ways to modify the jaws for different metal shapes and needs (v-bits, chain tongs, etc). We have to charge you for the tong kits, but they're only \$15 each- please bring exact change!

In the **afternoon**, we move to **heat-treating and top-tools**. We'll start with a hot-cut chisel, then move onto center punches, round punches, and other variations. We'll go over hardening and tempering *at least twice*...

After dinner, there will be coaching available as you finish up your new tools. We'll also have a bonus session on how to properly **drill-and-tap** a screw hole!

Project: Stone Kit Tongs‡

Skill Level:



Thursday 8:30 am

Kevin Lauritsen

Tools Needed:

1 ¾- 2 ½ lb. forging hammer
ball pein hammer (may be the same hammer...)

‡ \$15 for the tong kit



Project: Tong Jaw Variations‡

Skill Level:



Thursday 10:30 am

Beth Holmberg

Tools Needed:

1 ¾- 2 ½ lb. forging hammer
hot cut chisel or slitter
scrap of stock you'd like to fit
bottom swages (various) if ya got 'em
‡ \$15 for each tong kit

Project: Hot Cut Chisel**Skill Level:****Thursday 2 pm**

Ken Kuhn

Tools Needed:

1 $\frac{3}{4}$ - 2 $\frac{1}{2}$ lb. forging hammer
hot rasp and/or file
abrasive: piece of grinding stone or
wad of sandpaper
 $\frac{3}{4}$ " V or round tongs

Optional: flashlight or headlamp for
help seeing the colors run



Project: Punches (center, round...)**Skill Level:****Thursday 3:30 pm**

Ken Kuhn, Beth Holmberg

Tools Needed:

1 $\frac{3}{4}$ - 2 $\frac{1}{2}$ lb. forging hammer
hot rasp and/or file
abrasive: piece of grinding stone or
wad of sandpaper
 $\frac{3}{4}$ " V or round tongs

Optional: flashlight or headlamp for
help seeing the colors run

Project: Drill-and-Tap screw holes**Skill Level: ???****Thursday 7 pm**

Van Watt

Optional: bring your own tap set if
you'd like to learn to use it better!

Folding Cooking Trivet

Friday 8:30 am Chris Ruiz



This clever trivet design (from Dave Carroll) folds up neatly to pack with your camping gear, but is sturdy enough for big dutch ovens! Made with tall legs, you can push charcoal under it for cooking; made with scrolled legs, it keeps the hot pot off the table; made extra small, it turns a dutch oven into a cake-baking-oven! The joint requires some careful forging for a smoothly overlapping hinge. Make more than one- everyone who sees it will want to buy it off you!

Skill Level:



Tools Needed:

1 $\frac{3}{4}$ - 2 $\frac{1}{2}$ lb. forging hammer
measuring stick of some kind
 $\frac{3}{8}$ " sq. tongs*
ball pein hammer (or narrow cross pein)
center punch*
small round punch (~ $\frac{3}{16}$ ")*
hot cut chisel* or hardy OR hacksaw
soapstone
hot rasp

Joinery Skill(s): Riveting

Additional Skills Taught: Simple (movable!) rivet joints, forging to measure, controlled tapers, half-face set-downs.

Forged Blacksmiths Tongs

Friday 2 pm

Grant Loper

Have you forged proper blacksmiths tongs- no kit, no twists? Do you know how to form a good boss and jaws that will actually work? Can you head a rivet in place from straight bar stock? Grant will teach you all this, and more. Expect to use some heavy hammering (gotta draw out those reins!) and a fair bit of 'braining' to get all the turns working right.

Note: Tong-making, like this, will be a Friday night competition... get ready!

Skill Level:



Tools Needed:

hot rasp
forging hammer
measuring stick of some kind
3/8" flat tongs (or Bill Stone Kit Tongs, adjusted)*
soapstone
center punch*
round punch (~3/8")*
Hot cut* or hacksaw

Optional: heavy hammer for drawing out
ball pein hammer
5/8" sq. tongs
round file
flat (mill/bastard) file

Joinery Skill(s): Riveting, fitting moving parts

Additional Skills Taught: Aspery 3-turn method for forging tong bosses; rivet making from bar stock; methods for efficiently drawing out; tong jaw options and adjustments.



How does a braveheart keep his plaid pinned on? With a stunning forged iron penandular! Variations on the circular cloak pin show up in lots of mighty cultures, from Celts to Vikings and beyond. Both parts of the pin use the same basic technique for scrolling a neat circle without needing a mandrel, and the pin body is a chance to use heat-controlled reverse twists in excess.

Skill Level: 

Tools Needed:

1 $\frac{3}{4}$ - 2 $\frac{1}{2}$ lb. forging hammer
small wolf jaw tongs or Bill Stone kit tongs*
measuring stick of some kind
hot cut chisel* or hardy
flat file
twisting wrench

Optional: $\frac{1}{4}$ " sq tongs (pref. with chain-bit)*
wood/hide mallet

Joinery Skill(s): sliding collar

Additional Skills Taught: Controlled tapers, S-O-R, reverse twists, scrolling closed round eyes, scrolling circles without a mandrel.



Based on some of the chests found on the spectacular Oseberg ship find, these handsome and functional hinges are a great introduction to connecting two bits of iron in a functional way. And, as an historic twist, we'll learn how to mount hardware with forged staples and 'deadened' spikes (vs. screws...).

Skill Level: 

Tools Needed:

- 1 ¾- 2 ½ lb. forging hammer
- small wolf jaw tongs or Bill Stone kit tongs*
- measuring stick of some kind
- center punch*
- hot cut chisel* or hardy OR hacksaw
- soapstone
- hot rasp
- spring fuller/guillotine tool, if you have one

Joinery Skill(s): Loop-through-loop

Additional Skills Taught: Controlled tapers (and avoiding cold shuts), two different ways to shoulder a neck (paired fullers; half-face), accurate hammer blows, scrolling round, scrolling a connection shut.



Make handsome wearable iron jewelry from old scraps! You'll learn to forge weld solid ends, then do lighter welds to keep the armbands comfortable and stable after twisting. Lots of design options to play with- do you want to go contemporary, steampunk or RenFaire; beefy or delicate?

Skill Level:



Tools Needed:

Light hammer (1-2 lb., maybe with a rounded face)

Small wolf jaw tongs or Bill Stone kit tongs*

Measuring stick of some kind

Hot cut chisel* or hardy

hot rasp or flat file

twisting wrench

wire brush

your favorite borax container

IR-reducing eyewear *strongly recommended* (shade 2-3 welding, dydimium, ACE/glass blowing, or gold-coated)

Optional: wood/hide mallet.

Joinery Skill(s): Forge welding

Additional Skills Taught: fire management for forge welding, twisting; QC adjustments for wearability; design variations.

Hanging Candle Holder

Sunday 8:30 am

Beth Holmberg



Get an introduction to collaring while forging this olde-fashioned lighting fixture. It'll give your patio that Gothic look! We'll also cover how to use your cross pein to forge bar stock into a sheet metal blank, and how to scroll a round socket through intelligent hammer use (the same method used for making arrowheads, spear, chisels, etc...). Lots of design variations possible, including making it a sconce instead!

Skill Level:



Tools Needed:

cross pein hammer (not too sharp!)
tongs: scrolling, wolf jaw, or Bill Stone kit tongs*
measuring stick of some kind
center punch*
hot cut chisel* or hardy
hot rasp

Optional: wood/hide mallet
scrolling fork/wrench

Joinery Skill(s): Collars

Additional Skills Taught: Controlled upsets, peening to shape, forming a socket, making two sides match, bending with forks, design variations.
