

THE HOT IRON SPARKLE

NEWSLETTER OF THE NORTH CAROLINA ARTIST-BLACKSMITH'S ASSOCIATION OF NORTH AMERICA



Volume 34 Number 4

Fourth Quarter 2015



Triad Area Blacksmiths Joe Allen and Keith Roberts demonstrating team forging

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A Message from our President

Greetings All,

1st DEC 2015
Millers Creek, NC

With the harvests in and the hunting and gathering nearly done it is that time of year when standing next to a forge fire has a certain appeal that only a blacksmith could appreciate.

With just one more meeting on the schedule set for Saturday the 6th of December at Roger Barbour's shop in Clayton, NC and Tal Harris on deck to wow us, we have had a very successful run of chapter activities this year. In the last newsletter, Jennifer put together a calendar that shows just how active we are. It is a good representation of our efforts to maintain and sustain blacksmithing as a trade.

The Q3 meeting at The Island Farm in Manteo was well attended for the distance traveled. Thanks to Randy Hodges and his group for the effort. Things started early with two working forges set up for use. The side trip to Bodie Lighthouse was of particular interest. The afternoon session was interesting in the use of alternative fuels for forge work and Randy's demonstration in how to demonstrate. The business portion of that meeting yielded affirmation of Garrett Dunn as VP and Jennifer Phillips as Secretary of our chapter for another two years by acclamation.

I was fortunate enough to make a stop at the Dixie Classic Fair and visit the forge there in full operation. With two work stations there was plenty of activity to entertain and interest the public. Marshall was keeping the members well fed and I can see why his waistline might could expand a bit during that time.

The Heritage Forge at the North Carolina State Fair had another very successful run this year. Look for Eric's report for the details. While at the fair I had a very interesting meeting with the powers that be at the Department of Agriculture and it is official; the fair will be relocating the forge there in the coming year. The details have yet to be worked

out but by all intents and purposes, we will end up with a much better opportunity for demonstrating and sales in the new location. I have formed an ad-hoc committee to work on this transition and work has already begun to prepare for the renovations. The fair will be responsible for erecting the new forge and we will be responsible for setting up the demonstration and sales areas.

Our annual planning retreat is set for 9th January, 16 once again to be hosted by Steve Barringer at his shop in Mooresville. If you have anything of concern for consideration by the board, please contact your local group leader or me directly. These sessions have been very beneficial to our overall operation as we get to plot and plan yet another year's worth of activities.

From the Q3 newsletter, I really liked what Andy Phillips had to say in his article, Iron Concepts. Keeping it simple and identifying as a blacksmith is paramount to our existence.

I look forward to Paul Spainhour's report and demonstration as a result of his scholarship responsibilities. He is the only one to take advantage of this opportunity this year and I highly encourage others to take advantage of this benefit. The scholarship program is funded by the generous offerings and support from iron-in-the-hat at meetings and is sustainable on that basis.

In closing, I am truly thankful for the team effort that guides our chapter throughout the year. Keep those hammers moving!



Lyle Wheeler, President NC ABANA

NC ABANA Reports

Treasurer's Report



<u>Business Checking Account</u>	2015 YTD
Dues	\$6,599
Newsletter Printing & Postage	(\$3,008)
Newsletter Editor Fee	(\$1,500)
Insurance	(\$1,460)
Statewide Quarterly Meetings	(\$1,750)
Postage	(\$773)
Other	(\$523)
Heritage Forge Net	\$2,438
SBA Madison Conference Net	\$61
Net	\$23
Balance	\$17,161

<u>MMA - Scholarship Fund</u>	2015 YTD
Income	\$1,879
Scholarships	(\$1,000)
Net	\$879
Balance	\$6,701

Jim Kennady, Treasurer of NC ABANA

Secretary's Report



The business meeting of the NC ABANA chapter was held at the third quarter chapter meeting at the Island Farm in Manteo, NC on September 12th, 2015.

Nominations were opened for vice president and secretary. Currently Garret Dunn is the only nomination for vice president and Jennifer Phillips the only nomination for secretary. No new nominations happened so the positions were filled by acclamation.

The fourth quarter chapter meetings have already taken place at the time this article was written. NCABANA will have its 1st quarter meeting at Oak Hill Iron in Morganton, NC on March 19th, 2016.

Jennifer Phillips, Secretary of NC ABANA

Opting Out of a Hardcopy

Due to increasing prices of postage and printing costs, NCABANA would like to make receiving a hardcopy of the "Hot Iron Sparkle" optional. Some members have expressed an interest in the preferred online copy because it is in color and better for the environment. If you would like to download your "Hot Iron Sparkle" newsletters from www.ncabana.org instead of receiving one in the mail, please email Jennifer Phillips the secretary for NCABANA at:

northcarolina.abana@gmail.com

New Members

Angela & Brett Stiles	Smithfield
Braxton Tessheer	Shelby
Brian M. Jones	Goldsboro
Chris Taylor	Louisburg
Daniel Christensen	Morrisville
Jacob Reavis	Booneville
James Bunton	Raleigh
James V. Asbill	Raleigh
Jeff Bubar	Cary
Jeff Goldman	Durham
John R. Davis	Raleigh
Joseph Price	Belews Creek
Landen Bain	Winston-Salem
Lastinger Family	Clayton

Mike LaMarre	Mineral Bluff, GA
Randy Flye	Battleboro
Seth Farmer	King
Tim Patton	Monroe
Tommy Faulkner	Fuquay Varina



**NC
Whisper
Low Boy**



**NC
Whisper
Momma
w/Open
End Ports**

*Minimize fuel consumption when you're forging **small hooks, leaves, flower parts and ornamental pieces** from bar stock. Place the bar stock through the end ports, leaving front door closed for quick heat recovery.*

NC **NC Tool Company Inc**
6133 Hunt Rd, Pleasant Garden, NC 27313
800/446-6498 www.nctoolco.com

Join NC ABANA

Annual dues are \$30 (inside USA), \$40 (outside USA) starting January 1, 2016. Make check or money order payable to NC ABANA and send it to:

NC ABANA c/o J. Phillips
97 Trinity Ridge Lane
Banner Elk, NC 28604

For more information email: northcarolina.abana@gmail.com

or visit the NC ABANA website: www.ncabana.org

Iron Pour and Tri-State Board Meeting

Tri-State event at Jim Gallucci's studio:
499 Industrial Avenue
Greensboro, NC 27406

Saturday, February 6th, 2016.

He will be doing an iron pour and BBQ dinner. There will also be a Tri-State board meeting to elect new officers and hear updates on many of our activities. Here is the schedule for the day:

Times:

10-2 molding/scratching
2-4 Pour
5-8 Dinner

Prices:

Sand Scratch Block \$15 each (iron included)
Own Mold \$0.20 lbs for iron
BBQ Dinner \$10



Hammerstock

Location: Grayhaven Winery
4675 E Gray Fox Cir
Gum Spring, Virginia 23065

Saturday, May 21st, 2016
11 AM - 5 PM

Our third annual festival celebrating metal art and fine wine in Virginia! Live Music - Artist-Blacksmith Demonstrations - Fine Wine

A Benefit for the Banton-Smith Center for Blacksmith and Metal Arts

Featuring Special Guest Demonstrator:

Carley Eisenberg!

Hosted by Central Virginia Blacksmith Guild

www.hammerstock.org



Dan Boone's Pasture Party 2016

Louisa, VA

Date & Time: February 27th, 2016

9:00AM - 4:00PM.... There seems to have been some confusion about the date this year, but as always it's the LAST Sat in Feb!

Requirements: Come prepared to have a good time! Bring something for Iron-in-the-Hat and be prepared to buy tickets.... this is how we pay for the day without charging you an arm and a leg.... so PLEASE do your part.

Details: This year we have multiple featured demonstrators. There will be craft programs for spouses and kids. There will be LOTS of tailgating, you are welcome to participate.

Food: Lunch will be provided, as always.... you pay for it with the Iron-in-the-Hat!

Lodging: If you need a place to stay, rooms have been reserved Friday and Saturday nights (2/26 & 27) for "Blacksmith Pasture Party" at - Best Western Inn & Suites, 135 Wood Ridge Terrace, Zions Crossroads (used to be Gordonsville, VA) call them directly to reserve a room 540-832-1700.

IMPORTANT - If you think you need a room, reserve it quickly... they tend to be full most nights lately.

MetalFab 2016

National Ornamental & Misc. Metals Association Annual Conference

March 16-19th, 2016

Hyatt Regency

Greenville, SC

Keynote Speaker

Sam Wyche

Team Building

Workshops Include: Selling a Product or Selling Yourself?; CAD/BIM 3D Drawing; History of Metalwork; The Company; Estimating; Women in Business; How to Win The Great Game of Business; RTV Rubber Mold Making and White Metal Casting; Driving Team Performance with Mini-Games Part 1 & Part 2; Coatings and Painting Equipment; Collaboration in a Connected World; Great Game of Business Production; Code Update; Contingency Planning, Growth & Innovation Workshop; A Stake in the Outcome: Designing a Great Bonus Program; Introduction to Foundry and Pattern Methods: Traditional and Modern; Create More Value in Your Company in Order to Produce More Profit

Other Events Include: Special Day at The Heirloom Companies; Copper Light Fabrication; Manufacturing of Curved Staircases; Welding Competition; Demonstration by Phil Heermance; Fabrication of Kitchen Hood Vents; Vendor Demos

Forging Colonial Ironwork

Jerry Darnell's new book *Forging Colonial Ironwork* is finally here. It is a compilation of over 22 years of teaching notes at John C Campbell Folk School and various conferences throughout the US. The book is about 120 pages both sides and divided into 4 chapters; Colonial Lighting, 18th Century Hearth Equipment, Early American Hardware, and Hooks and Hangers. There is a mix of 63 different projects from simple to advanced.

The cost is \$20.00 plus 6.75% tax and \$10.00 for shipping and handling. Order by phone, e-mail or visit the salesroom M-F from 10 to 5 and on Sat. 9:30-5.

www.millcreekforge.com

Mill Creek Forge

Jerry Darnell

4512 Busbee Road Seagrove, NC 27341

E-mail forge_on@rtmc.net

Phone: (910) 464-3888 (Shop)

(910) 464-2636 (House)

Regional Reports

Wilkes Teaching Forge

Report from Lyle Wheeler

Photos courtesy of Dave Baker

WTF has met consistently for the past few months with good turnout at the Wilbar Forge graciously hosted by Gary Roath, Master of the Forge.

The September meeting began with a show and tell with Ben Lane showing a progression of mastery of the spade end for a hook finial. He had mounted seven pieces he recently made that showed good progress in learning that element. Josh Cooper showed a series of knives he had made from his "Summer of Knives" with the real show-stopper being a pattern Damascus beauty with sheath.

Lyle led the demonstrations with a 6" door pull from 8" of 3/8" square in five heats followed by Dudley with a quick leaf demo. Announcements were made and plans made to attend the Dixie Classic and NC State Fairs. The group agreed to mentor Colton Baker for his senior project as required for graduation from North Wilkes High School.

The October meeting was centered around a group project of two hand rails commissioned to be placed adjacent to stairs leading from a newly reconstructed prayer chapel. The project was broken down into significant elements and all in attendance had ample opportunity to pitch in with some team striking taking place and three anvils in action. The proceeds from this project have been retained by the group to purchase more coal and materials. John Freas also made 6 coat hooks in amongst the bedlam.

The November meeting was centered around "leaf making by the young guns", with Colton Baker completing his senior project with a demo of a leaf key fob.

Show and tell consisted of a 5 hook utensil rack made by Joe Franklin featuring 1/4 x 1 bent the hard way with spade finials and texturing and copper rivets. Gary Roath showed a nice companion set he recently finished while teaching at JCCFS for his son's new fireplace insert. David Baker showed several pictures from a recent trip to Bramwell, WV showing the ironwork from the late 1800's featured on prominent houses and buildings in that town built by coal barons. Joe gave a report from a recent trip to Macinac Island, Michigan and the ironwork to be seen there.



Blacksmith working the forge and demonstrating at WTF



Details of the 5-hook utensil rack

Southern Foothills Blacksmiths

Report and photos by Ray Clontz

There is always a lot going on at our meetings. Members are either working on their projects, discussing projects they are working on in their shops, or picking each other's brains about blacksmithing techniques.



Shawn Emmons discussing the class he took with Jerry Darnell on early lighting



Matt Morin forging a camp knife.



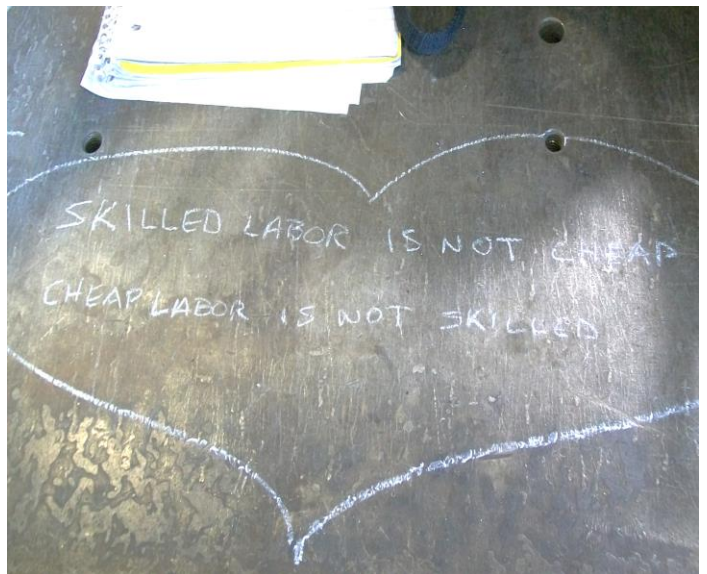
Shawn Emmons at the coal forge



Shawn with items he made in Jerry's class



Close up view of Shawn's hard work



"Skilled labor is not cheap. Cheap labor is not skilled."
-truth written by Foothills member



Matt Morin forging on the camp knife



Matt with the camp knife



Matt cleaning up the knife shape



David Stitt with a firepoker he forged out of rebar for his home firepit



Lauren Madison using the treadle hammer



Lauren Madison forging a veggie-chopper out of a hoof rasp



Ben Andrews and Butch Silver sketching a design for a wine bottle holder

Triad Area Blacksmiths

Report & Photos by Marshall Swaringen:

The Dixie Classic Fair was a great time despite the rain and below average attendance. The TABs still had a 10 day party! Good food, good hammering and good times. It was highlighted by a special treat on Sunday afternoon with 12 year old Sarah Wrye playing the violin and Sandy Roberts playing the mountain dulcimer. See the 2015 DCF story for more details about the events at the 2015 DCF.

The weather wasn't great, but the spirit of Blacksmithing was. Thanks to all the Blacksmiths who entertained the crowds with hammering and cooking. A special thanks everybody (Mostly wives) who provided most of the sweets and other goodies. I think Marshall Swaringen sums it up best "you can work hard for 10 days and gain 10 lbs."

Since the fair, our smiths have been demonstrating at Spencer Transportation Museum, a 3 day Tractor Show, Heritage Days at Bethabara Historical Park, Horne Creek Farm, 2 schools, 100+ Years of Progress Festival, and Greensboro Homeschool group. Can we say BUSY?

The fair usually brings a lot of new people to our meetings. The meetings since the fair have been full with new people. Thanks to Joe Allen, Keith Roberts, and Lenny Moore for the extra effort put forth to show them the ropes. Some of them may be new NC ABANA members in the near future.



Keith Roberts and Joe Allen doing some amazing team forging!
Teamwork is always a good demo idea.



Marshall Swaringen working hard at the Spencer Train Museum in Spencer, NC



Keith Roberts working the horn of the anvil



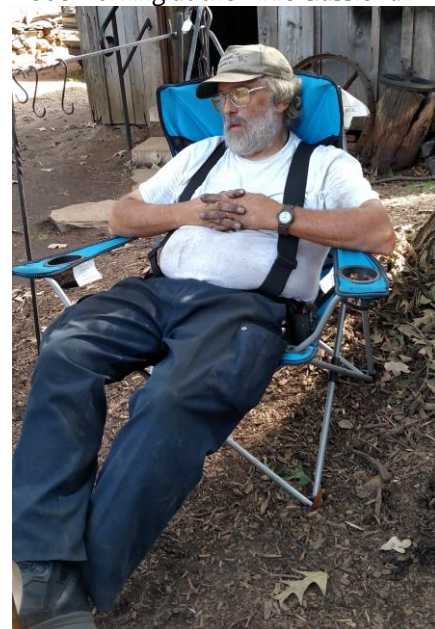
Joe Allen and Keith Roberts taking a break from working at the 100+ Years of Progress Festival in Carthage, NC. Those smiles indicate that they may be enjoying their breaks too much.



Joe working at the Dixie Classic Fair



Joe Allen can really swing a hammer



We seem to always end the Dixie Classic Fair with a picture of someone sleeping in a camping chair. Thanks again for all your hard work Keith!

NCABANA Member Classifieds

Clay Spencer Power Spare Tire Hammer

¾" base plate (larger than standard specs)
7" anvil (also larger than standard spec)
2 sets of dies
Runs on 120V or 240V (currently set for 120V)
Asking for \$2,700

Set of tools made in a Clay Spencer workshop

Asking \$700

Contact Tom Watkins for questions or to purchase
tomw5712@gmail.com
(919) 604-2336

Retired blacksmith has a shop full of tools for sale

Including:

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Power hammer	Scroll jigs
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Welding equipment	Sanders
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Contact Ed Crane of Lake Ridge Forge
262 Blands Knob Road, Little Switzerland, NC 28749
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OAK HILL IRON is an award-winning metalworking shop unlike any other. We are one of the largest artist blacksmith shops in the country and we take on projects from around the world. Built on a firm foundation, our business has been in operation for over thirty years. Over that time we have built a crew and shop that is the envy of our competitors. We build and manufacture our own line of blacksmithing tools that are used by thousands of other blacksmith shops.

Our team consists of a hand full of choice-picked artists and craftsman, many of which came to us with little or no experience. We have a solid work structure with many opportunities for advancement through exposure to world class metalwork, on-the-job training, and even after-hours opportunity for self-training and group workshops. You don't need to have a lot of experience, we

just want all of our employees to show up to work on time with a good attitude and have the passion to create with them every day.

If this sounds like a place you might want to work, then email your resume and a brief description of yourself to O.H.I.agent@gmail.com and let us know why you want to be part of the Oak Hill Iron family. Be sure to include the serial number in your email found at the bottom of this advertisement and your phone number as well as the best way to contact you so that our hiring agent will get back to you within 48 hours. Thanks!

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Telephone: (____) _____

Email Address: _____

Item Code (If Known): _____

Title/Author: _____

Email this request form to John McPherson trollworks@hotmail.com with NC ABANA in the subject.

Return Items To: NCABANA C/O John McPherson
3031 Chenango Drive
Charlotte, NC 28212

Event Reports

Dixie Classic Fair 2015

Report & Photos by Marshall Swaringen

The 2015 Dixie Classic Fair started as a DUD for the fair goers. It was rainy and cold Friday, Saturday, and most of Sunday. There were less than a couple of dozen people Friday and Saturday. Sunday was a little better. But the weather did not stop us. We worked on projects, tuned up our shop tools and did a lot of cooking and eating.

Monday was school kid's day. Boy was there a lot of teachers and students. There were coal samples and leaves in zip lock bags for each class. Keith Roberts had everything ready and produced a great demonstration for each group of students. He explained coal, coke, and clinker to the groups then walked them through making a leaf. He even was able to answer their questions.

Tuesday was senior's day. If the kids could learn to behave like the seniors, the world would be a much better place. The high moment of the morning was a visit by a World War II Normandy veteran, 99 years old. When Keith completes his leaf demonstration, he asks if there are any veterans in the crowd and if so, he presents the demonstration piece to them.

Keith Roberts built a photo ops board. It has a forge and anvil with a blacksmith hammering away. There is a cut out circle for the kids to place their face in and have a picture taken. It was used all day long by the crowds. And it was not just kids with their faces in the circle.



Keith in his blacksmith cut-out

The weather turned great and the fair goers were elbow to elbow for the rest of the fair. We started using two forges for demonstrations. Most of the time one is Keith's demonstration and a project on the other. But with Keith talking and two blacksmiths hammering out the same demonstration on two different anvils at the same time make a great display! There were at least sixteen different demonstrators each day and thirty five for the week.



Marshall with his grandson
"We start them young"

As always, we did a lot of cooking. We have added a few members that like to cook. Instead of cooking just dinner, we cooked a lot of lunches also and a couple of breakfasts. The french fry machine was in use almost every day. Here is a list of some of the foods we cooked: BBQ; pork tenderloin with potatoes, carrots and onions; deer roast with potatoes, carrot, and onions; chicken stew; fish fry with crappie, shrimp, hush puppies and slaw; Brunswick stew; fresh pinto beans; biscuits; country ham; hot dogs; BBQ tenderloin pork sandwiches. I am sure that I missed a couple of the items. Now for the sweeter things supplied by the wives and some of the blacksmiths: pound cake; black walnut pound cake; pecan pie, cobbler – apple, peach, strawberry, blueberry, and pineapple; cookies of all kinds; brownies; door knob peppers and cabbage; about

twenty cases of water and drinks and a pot of coffee on the fire most days.

Special thanks to all who helped make this a great experience for the fair goers. Special thanks to Keith Roberts of all his work keeping the forges full and blacksmiths rotated in and out, and all of the stories. Thanks to Billy Phelps for opening each day and having the forges ready (even when he was sick). Thanks to Ronnie Nifong for all the cooking and five to six more years and you may get off probation.

Tire Hammer Plans

Send check/money order for \$30 to

Clay Spencer
73 Penniston Pvt. Drive
Somerville, AL 35670-7013

Includes postage to US and Canadian addresses. Other countries e-mail clay@tirehammer.com for price. **256-558-3658**.

Tire Hammers for sale contact me for current price.

Beverly Shears Sharpened

\$41 includes return shipping in US. Remove blades and ship to address above. Extra cost for deep nicks or blades sharpened at wrong angles.



And to end the Dixie Classic Fair, we have a picture of a worn out Billy Phelps in a camping chair.

BLACKSMITHS DEPOT




Anvils



Gas Forges



Tongs



Hammers



Spring Swages

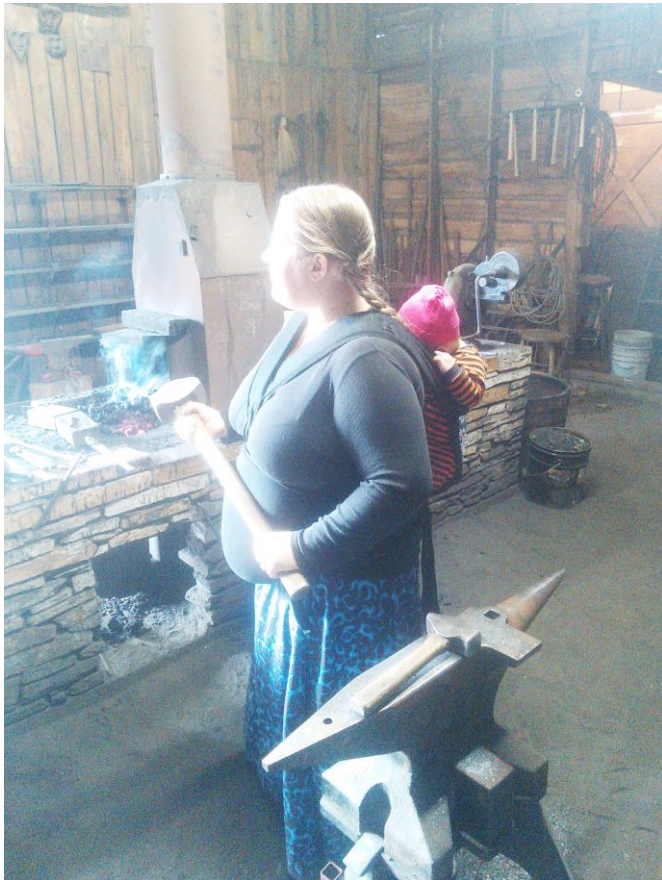
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Christmas Gift Making Workshop

Article & Photos by Andy Phillips

It was another fun year at our annual Christmas gift-making workshop held on the Monday, Tuesday, and Wednesday before Thanksgiving at the blacksmith's shop at the Dixie Classic fairgrounds. While we didn't have quite as many people this year, we still had a good time forging with the handful of brave souls that joined us.



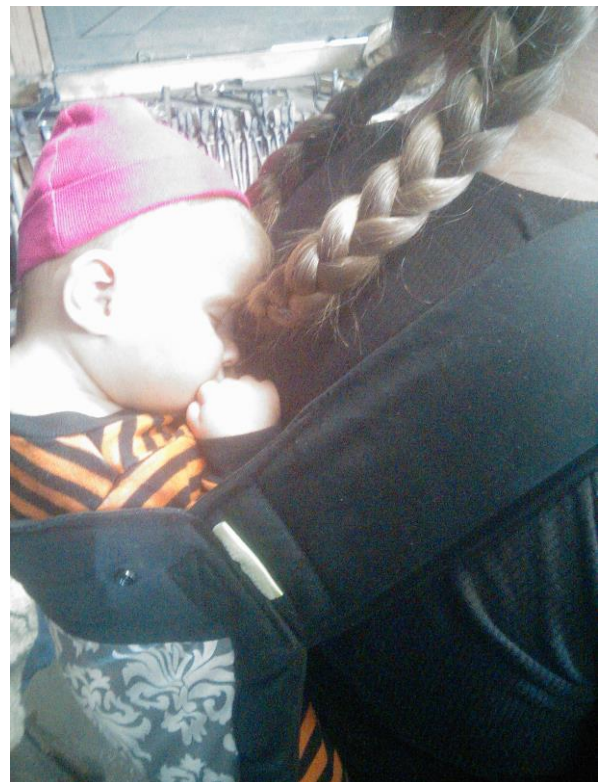
Jennifer working hard team forging while Argenta Phillips hangs back.

The main focus for the workshop this time was Christmas tree decorations. A small scroll on the end of some 3/8" round bar can make your own hanger for the decoration. We had a lot of variety for ornaments with some done as pure scrolls and others shaped into 2-dimensional balls. There was even a popular thorny pattern. Some were just a bunch of scrolls looped together.



Some of the Christmas tree ornaments

Jennifer and I wanted to thank everyone for coming again and hope you all join Keith when he opens up the shop on New Year's Day. We look forward to seeing you next year!



Seems like everyone needs a nap after a long day of blacksmithing.

Adventures in Education

Report & Photos by Marshall Swaringen

Triad Area Blacksmiths Marshall Swaringen, Lenny Moore, and Jay Amburgey hosted a demo for the NC homeschooled group, 'Adventures in Education', on Friday 13th this November. Despite the superstitious beliefs associated with the date, all went well.



Students packed around the blacksmith shop

The demo opened with an explanation of shop safety, fire management, a description of the metals used for the demo, a brief history of the early American blacksmith as well as a description of the iron used in their day.

Marshall wowed the students with the shop's nail header, the orange metal, hot out of the forge, and the nails that magically appeared from the quench tub. His leaves were also a hit with the students.



Marshall showing the students some of the shop's completed work.

But that was the warm up. We then went into a full blown demo on fire strikers.

Lenny started his striker demo with a description of the item and how it is used. Then began the forging. Heating the metal up to a proper heat so as not to get it too hot and the 1095 steel crumble under the heat and the hammer. Drawing, forging, scrolling, planishing and shaping and once the desired shape was achieved; hardening and explaining to the students the importance of achieving a large crystalline grain by quenching in oil at just above critical heat. After that, came a demo and explanation of how the sparks fly when, hardened, 1095 high carbon steel strikes flint.

After a short break and a show and tell of examples of our work, we started a second demonstration.

With help from Marshall and Jay, Lenny was able to begin his demonstration of how to forge a Tomahawk from a farrier's rasp.



Lenny Moore demonstrating for the students

We began with normalizing the rasp by bringing it to a nonmagnetic heat and letting it cool. But only once for the audience. (For demo purposes, this was done in Lenny's shop, already. As this procedure is repeated three times and is somewhat timely.) Lenny, then, proceeded to reheat and fold the rasp on itself to shape the eye of the hawk. He then heated the rasp to a high orange color, fluxed it and reintroduced it to his clean fire. Carefully cover-

ing it completely with coke, not coal, so as to raise the heat evenly to its welding temperature. At welding temperature, the rasp was removed and the forge-welding commenced.



Tomahawk welded & starting to form

After a few more welding heats, a small fuller was demonstrated at the bottom of the blade and shaping the Tomahawk began. Once the hawk blade had been spread, drawn, tapered and aligned with its eye; the demonstration was ended with a brief description of how the tool will be cleaned, filed, hardened and tempered.



Finished tomahawk head

Marshall and Lenny then chose three students and instructed them at the forge, resulting in three happy, newly inspired, future blacksmiths and, if I dare to say so myself, three pretty nice drive hooks made by the apprentices.



Future blacksmith in training



Student starting a drive hook



Working hard on that hook

Featured Articles

Viking Axe Construction

Written by Jason Lonon
Photos by Hazen Alward

This is a photo essay of the construction of a small Viking style “bearded” carving axe. A number of good articles have been published recently on the construction of forged axes so this will not be a complete how-to, but rather will build on a basic knowledge of wrapped eye axe construction. This axe was forged by Jason Lonon and Josh Cooper as a demonstration piece at a small gathering of blacksmiths studying axe construction and use. Photos are by Hazen Alward.



The raw material. Two pieces of wrought iron, $\frac{3}{8}$ " x 5"; and one piece of steel, $\frac{3}{8}$ " square x 5". One piece of wrought iron will become the eye, the other along with the steel will become the blade.



The steel is welded to one of the two pieces of wrought iron.



After drawing out the cutting edge, the blade is smoothed with a flatter.



The blade is trimmed with a curved chisel.



Moving to the second piece of wrought iron, a small round rod is used to mark the location of the poll and the extent of either side of the eye.



The marking is done.



Edge view of the eye.



Using the marks as guides the eye is set down.



Outside view of the eye. The raised section in the middle is the poll.



A top fuller is used to spread what will become the "ears" or "lugs" of the eye.



Side view of the eye after folding.



Edge view of the eye after folding. Notice the scarfs.



The eye sandwiches a scarf on the upper back side of the blade.



The eye and blade are welded together.



The horn of the anvil and a large top fuller are used to profile the joint between eye and blade.



The eye is drifted.



The lower end of the blade known as the "beard" is trimmed to length with a curved chisel.



The finished axe head with the maker's marks. The IAL in a scalloped box is Jason Lonon and the C inside an anvil is Josh Cooper.



Final profiling of the blade.



The axe with its hand carved ash handle. Ready for work.

NC State Fair Reflections

Article & Photos by Henry Bunn

Growing up in North Carolina, I can barely remember a year I did not go to the blacksmithing demonstration at the North Carolina State Fair. Like most people, this was the only exposure I had to the art and skills involved with blacksmithing at any time during the year. About four years ago, one of my best friends introduced me to the art of blacksmithing. I joined NCABANA about 3 years ago and didn't start volunteering at the fair until 2014. This past year was my second time volunteering. Although I can't yet demonstrate on account of not being old enough, I enjoy the ability to learn more about the art and being able to observe the reactions people have toward the red hot metal.

While I have a basic understanding of the chemistry, physics, and skills involved with blacksmithing, and I enjoy being able to answer some questions about the art; I have only scraped the surface of what I could learn. It is not possible to spend time at the blacksmith shop and not learn something new. That's the whole point of having the Blacksmith Shop at the fair, it exposes people to an art that otherwise they wouldn't be exposed to in normal everyday life while simultaneously teaching about history. Just looking around at the different pieces in the shop gives me new ideas on how to improve my works.

Watching people's eyes light up while they watch the demonstrations is so amazing. It brings to life a skill that you normally wouldn't see unless it was in a movie set during the Renaissance or the Dark Ages but that isn't nearly as accurate as the real thing. The artwork the various members of NC ABANA have created brings to new light the infinite possibilities of human creativity. The ability to warp and reshape metal into new objects using intense heat and precision hammer blows along with other techniques is almost a lost art.

The demonstrations are very accurate historically speaking. The forge is powered by coal and air pumped from a blower and periodically has to be cleaned out. Every demonstrator is very good at describing what they are making and how they make it. Occasionally, someone will come into the shop with a specific item in mind that isn't currently in the shop. So a request is made and a demonstrator will make said item in their demonstration.

Next year I anticipate being able to demonstrate because I will be old enough by then. I hope that it will add a whole other layer of appreciation for what the NC ABANA does for the State Fair. I'd also like to experience selling items in the store. I

can think of almost no other way of feeling more accomplished at the State Fair than being able to contribute my skills and wares of blacksmithing to the North Carolina community.



Blacksmithing in Africa

Article & Photos by Allan Green

Last month my wife, Christine, and I spent three weeks in East Africa. The first two weeks as missionaries teaching dairying in Kenya and Uganda, and the last as tourists (but still missionaries!) in Tanzania. It was quite a trip!

During the last week in Tanzania, one of our visits was to a remote Tindinga family that provides metal working services for the surrounding population - arrow and spear points for the local bushman remnant; aluminum and bronze smelting for various purposes - primarily jewelry for the tourist trade (us).



Tindinga Family - these 4 women are the wives of only two husbands

*Pictured above is the Tindinga Family.
These 4 women are the wives of only 2 husbands!*

Their forge is a charcoal-fired pit with a bellows constructed from two cow stomachs blowing air through some scrap pipes into the fire. Their anvil is a beauty - a gift from a cultural development agency. They have one pair of homemade tongs, a hot chisel made from a truck spring; hammers made from odd chunks of steel with branches for handles. The anvil sits on the ground and they work sitting down on a split log.



The family shop

I watched an arrow point being made, and I know it is authentic because we also visited the bushmen and that's what they were using when they hunted for baboons. It is made from a common steel nail, worked cold, with the barbs all cut precisely (and very quickly!) with the chisel. The picture

doesn't show it, but the point has been filed to a cutting edge.



Authentic arrow point

When making jewelry, these smiths melt down scrap copper and aluminum in a crucible (possibly) made by sawing the safety cap for an oxygen tank in two. Then they pour the molten copper into a form made from a piece of angle iron (or some such remnant) and then work it into beautiful bracelets. Amazing what you can learn on a mission trip!



Closer view of the forge

Dogwood Blossom How-To

Article & Photos by Allan Green

This dogwood blossom was created by Lance Zeigler of Burnt Whisker Forge in Ellijay, GA at www.burntwhiskerforge.com and is shared here with permission of Philip Simmons Artist Blacksmith Guild via the *On the Anvil* newsletter. This could be done with a treadle hammer, press, or with team forging sledgehammer style.



First step is always in the material. This looks like a 1" square that's a 1/2" thick.



Mark the square into 4 smaller squares with a piece of soapstone.



A circular punch like an eye punch can make the center mark and a straight-edged chisel for the lines.



Now heat that metal up!



Use a ball fuller to move the material on the petals in place.



This variation has beautiful dimples on the petal edges.



Now repeat over and over and over.



Anvil Arts Studio Update

Reprinted from *Anvil Arts* Newsletter

One of our own NCABANA blacksmiths was recently honored at the Blowing Rock Art and History Museum. Bill Brown was honored to be the Guest Curator for "Sculptors Voice", BRAHM's first retrospective of contemporary sculpture.

The exhibition showcases work by five leading and rising sculptors across the south, including John Acorn, (mixed media), Rick Beck, (glass), Tinka Jordy, (clay), Hanna Jubran, (cast bronze), and Corrina Sephora Mensoff (steel & mixed media).

Bill Brown also had a featured piece of his own in the museum. Pictured to the right is Bill, standing very festively, next to his sculpture "Fulcrum". A very proud congratulations to NCABANA's own Bill Brown on his artistic display. Thank you Bill for your continued work in the blacksmithing community. We can't wait to see what comes from your shop next!

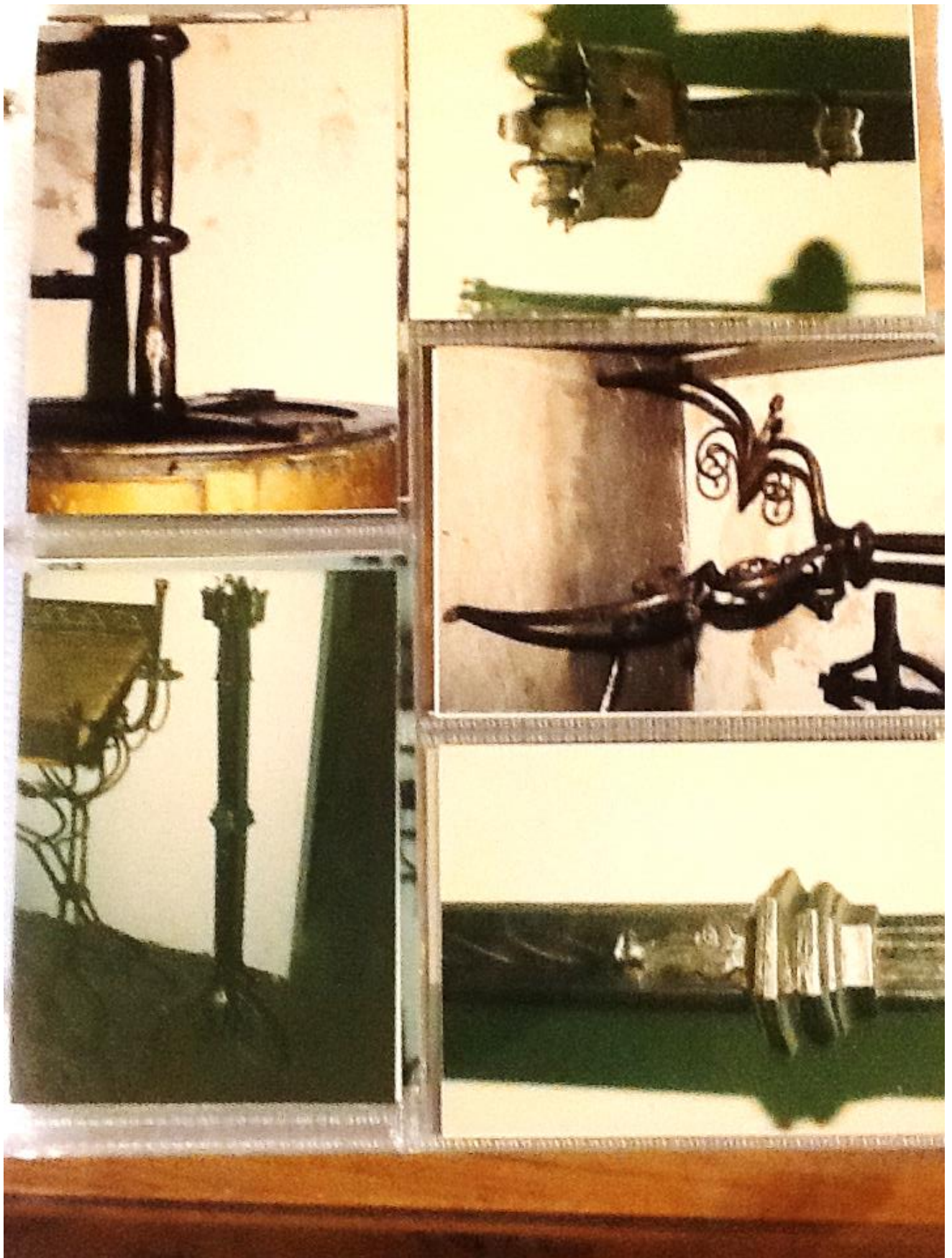


From the Shop of Samuel Yellin

Article by Doug Wilson, Photos provided by Clay Spencer

I received a CD of images from Clay Spencer. On that CD, were over 2000 photos of works from Samuel Yellin's shop. These had been taken in the early 1970s by Jeff Graves who was apparently working for a summer with George Dixon in the last days of the Samuel Yellin Metalworks shop. I will be sharing these photos in the coming issues of THE HOT IRON SPARKLE. The quality of the photos is not always the best. However, they are in many cases the only available documentation of Samuel Yellin pieces.

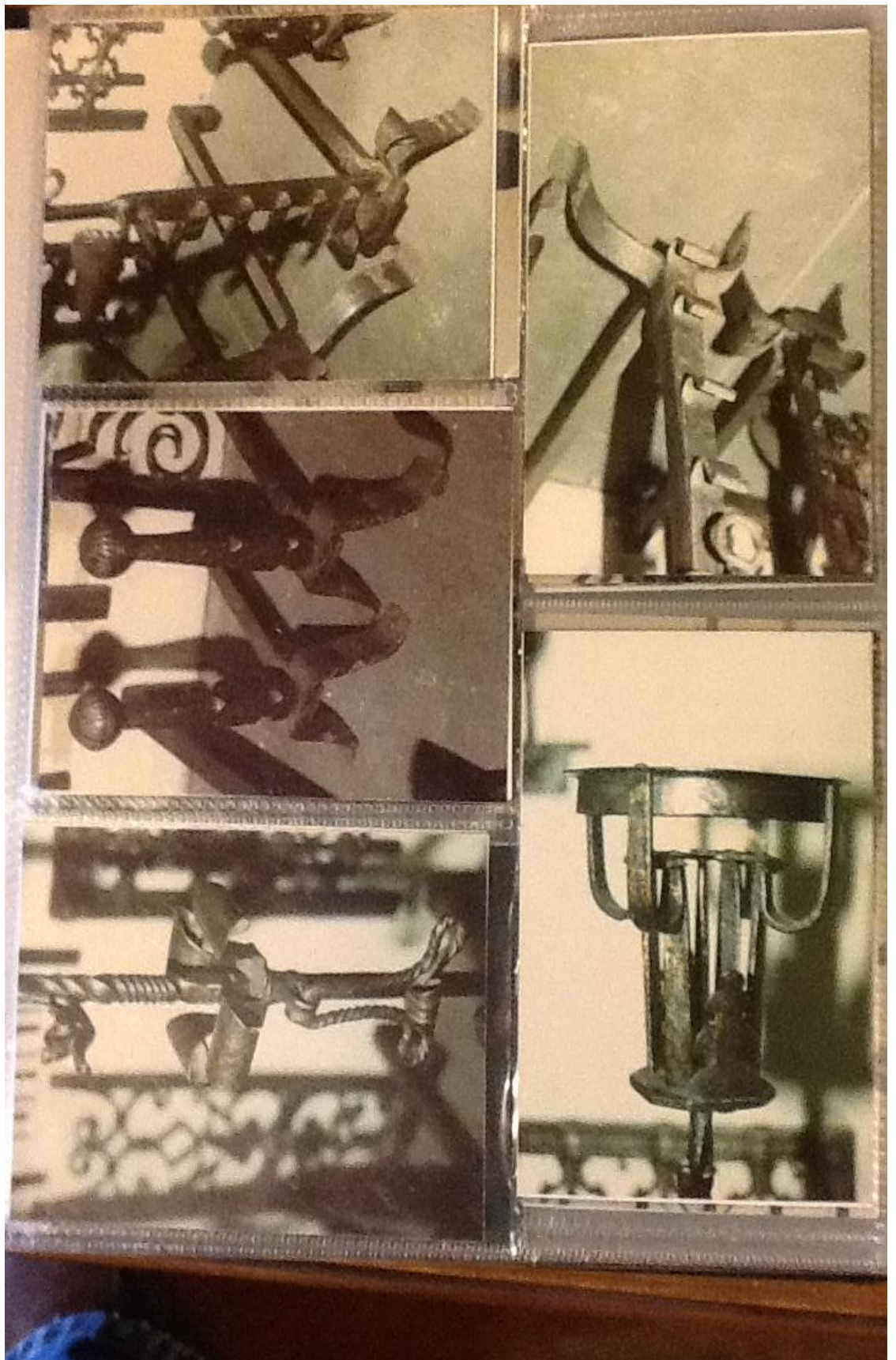












Quarter Corner

Metal of the Quarter: L6 Steel

The metal for this quarter is L6 steel, one of the best metals for making knives. I chose this metal because the first quarter demonstration in 2016 might be by a bladesmith and I know that is why many youths get into blacksmithing in the first place. L6 tool alloy steel is mostly iron with 0.65-0.75% carbon, which is what gives it the toughness needed to be a good metal for forging knives. L6 also contains chromium, manganese, molybdenum, nickel, phosphorus, silicon, and sulfur. The nickel, chromium, and molybdenum help to make L6 a good combination of tough and hardenable. Because of its strength, it is used in bearings, springs, rollers, or chuck parts. This is why you see blacksmiths straightening out springs to make knives. It is also important to point out the high nickel content since this is the steel in Damascus that makes it shiny. For blacksmiths, L6 is commonly used for punches, dies, and cold forming tools.

If you would like to forge L6, the best temperature is between 1600-1975°F, just don't go below 1550°F and you should be fine. To anneal L6, keep it at around 1450°F followed by slowing cooling it at a maximum of 40°F per hour. Temper L6 between 350-1000°F for a Rockwell C of 45-62 range. Lastly is heat treating, where you want to slowly heat L6 to 1500°F and hold it at temperature for 10-30 minutes followed by oil or water quenching. Oil hardening is the recommended method by most manufacturers of L6 and they also endorse keeping the oil at 125-150°F. This alloy is both weldable and readily formed; machinability is also good at a 90% rating.

While NCABANA is an organization for blacksmiths, I think it is important to acknowledge the overlap with bladesmiths. So please, next time you get in the mood to make a knife or try and make your own Damascus, I recommend using L6. See the pictures to the right for examples made with L6.



Knife made by Wolf Creek Forge out of L6.



Ring made with Damascus. Note the shininess of the L6 in it.



The Caption reads: "Howard Clark L6 with Foundation Polish; Nakago showing Bladesmith's Mei; Photograph by Fred Lohman, September 2001"

Tool of the Quarter: Treadle Hammer

The tool for this quarter is a treadle hammer. Yet again gaining inspiration from Ian's second quarter demonstration, the treadle hammer is every solo blacksmith's best friend. And let's face it, I know many a solo blacksmiths. Below is a picture of the one at the Dixie Classic fairgrounds.



Using the foot pedal, the blacksmith pushes down and the top part of the hammer swings down and strikes your piece upon the little anvil. This tool is one of the best for the blacksmith working by himself because it is like team forging with yourself. Using this tool is a lot smarter than holding a hot piece of metal between your legs, a ball fuller in a set of tongs in your left hand, while trying to swing as hard as possible with a heavy hammer in your right hand to make the process go as quick as possible. I guess I could have just stopped with holding a hot piece of metal between your legs but you get the point.

Anyways, having an "extra smith" in the shop so to speak opens up a whole new set of tools that you can use with ease in your right hand while switching to hold hot metal with your left. Some good examples are all of the fulling tools, punches, chisels, or even just fine cutting a hot piece of metal instead of using the less accurate Hardy hole hot cut. It is also a lot cheaper option than a power hammer.



Treadle hammer in use with fulling tools

Another get use of a treadle hammer is to switch out the standard dies for some bowl dies. If you need any how-to's, check out last quarter's tool article.

My personal favorite use for a treadle hammer is detail work. Whether you are making leaf veins or making the petals of a flower blossom, the treadle hammer can help.



Feather made by Oak Hill Iron. Also a good use for a treadle hammer as long as you have steady hands (& feet).

Sometimes you need a treadle hammer to really move metal on a large piece or stock but other times you can use it for small etchings or even as a modified press to make your touchmark on completed work. However you use a treadle hammer, just remember to practice that footwork because it takes time to get the control you need.

Anvil Surfing Pic of the Quarter

As promised, here is a little bit of fun to end this issue. This picture comes via the Anvil Surfing Facebook page at Weihnachtsmarkt Stolberg in Stolberg, Germany. This group set a world record for most people anvil surfing at once with 16 blacksmiths! I think NCABANA might need to challenge that record.

Thank you for all your submissions and please keep them coming. Now enjoy!



Calendar for 2 Quarters

October 2015						
Sun	Mon	Tues	Wed	Thu	Fri	Sat
				1	2 ^	3 ^*
4 ^	5 ^	6 ^	7 ^	8 ^	9 ^	10 ^
11 ^*	12	13 *	14	15 ^	16 ^	17 ^*
18 ^	19 ^	20 ^*	21 ^	22 ^	23 ^	24 ^
25 ^	26	27	28	29	30	31

* Local Chapter Meeting
 + Statewide Meeting
 ^ Special Event

2 - 11	Dixie Classic Fair <i>Winston Salem, NC</i>
3	Triangle Blacksmiths <i>Raleigh-Durham, NC</i>
11	Southern Foothills Blacksmiths <i>Mooresville, NC</i>
13	Wilkes Teaching Forge 7pm <i>Millers Creek, NC</i>
15-25	NC State Fair <i>Raleigh, NC</i>
17	Triad Blacksmiths 9am <i>Winston Salem, NC</i>
20	Brasstown Blacksmiths 5pm <i>Brasstown, NC</i>

November 2015						
Sun	Mon	Tues	Wed	Thu	Fri	Sat
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15	16	17	18	19	20	21 *^
22	23 ^	24 ^	25 ^	26	27	28
29	30					

* Local Chapter Meeting
 + Statewide Meeting
 ^ Special Event

3	Triad Blacksmiths 6:30pm <i>Winston Salem, NC</i>
6-7	John C. Campbell Folk School NCABANA 4 th Q Extra Meeting <i>Brasstown, NC</i>
8	Southern Foothills Blacksmiths <i>Mooresville, NC</i>
10	Wilkes Teaching Forge 7pm <i>Millers Creek, NC</i>
21	Triad Blacksmiths 9am <i>Winston Salem, NC</i>
23-25	Christmas Gift Making Workshop <i>Winston Salem, NC</i>

December 2015						
Sun	Mon	Tues	Wed	Thu	Fri	Sat
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13 *	14	15 *	16	17	18	19 *
20	21	22	23	24	25	26
27	28	29	30	31		

1	Triad Blacksmiths 6:30pm <i>Winston Salem, NC</i>
5	Roger Barbour's Shop NCABANA 4 th Q Meeting <i>Clayton, NC</i>
8	Wilkes Teaching Forge 7pm <i>Millers Creek, NC</i>
13	Southern Foothills Blacksmiths <i>Mooresville, NC</i>
15	Brasstown Blacksmiths 5pm <i>Brasstown, NC</i>
19	Triad Blacksmiths 9am <i>Winston Salem, NC</i>

January 2016						
Sun	Mon	Tues	Wed	Thu	Fri	Sat
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10 *	11	12 *	13	14	15	16 *
17	18	19	20	21	22	23
24/ 31	25	26	27	28	29	30

* Local Chapter Meeting
 + Statewide Meeting
 ^ Special Event

1	New Year's Day Open Shop <i>Winston Salem, NC</i>
5	Triad Blacksmiths 6:30pm <i>Winston Salem, NC</i>
9	NCABANA Board Meeting <i> Mooresville, NC</i>
9	Triangle Blacksmiths <i>near Raleigh, NC</i>
10	Southern Foothills Blacksmiths <i>Mooresville, NC</i>
12	Wilkes Teaching Forge 7pm <i>Millers Creek, NC</i>
16	Triad Blacksmiths 9am <i>Winston Salem, NC</i>

February 2016						
Sun	Mon	Tues	Wed	Thu	Fri	Sat
	1	2 *	3	4	5	6 ^
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14 *	15	16 *	17	18	19	20 *
21	22	23	24	25	26	27 ^
28	29					

* Local Chapter Meeting
 + Statewide Meeting
 ^ Special Event

2	Triad Blacksmiths 6:30pm <i>Winston Salem, NC</i>
6	Iron Pour at Gallucci's shop 10am <i>Greensboro, NC</i>
9	Wilkes Teaching Forge 7pm <i>Millers Creek, NC</i>
14	Southern Foothills Blacksmiths <i>Mooresville, NC</i>
16	Brasstown Blacksmiths 5-8pm <i>Brasstown, NC</i>
20	Triad Blacksmiths 9am <i>Winston Salem, NC</i>
27	Dan Boone's Pasture Party 9am <i>Louisa, VA</i>

March 2016						
Sun	Mon	Tues	Wed	Thu	Fri	Sat
		1 *	2	3	4	5
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13 *	14	15	16 ^	17 ^	18 ^	19 ^+
20	21	22	23	24	25	26
27	28	29	30	31		

1	Triad Blacksmiths 6:30pm <i>Winston Salem, NC</i>
8	Wilkes Teaching Forge 7pm <i>Millers Creek, NC</i>
12	Triangle Blacksmiths <i>near Raleigh, NC</i>
13	Southern Foothills Blacksmiths <i>Mooresville, NC</i>
16- 19	NOMMA's MetalFab 2016 <i>Greenville, SC</i>
19	Oak Hill Iron 9am NCABANA 1 st Q Meeting <i>Morganton, NC</i>

April 2016						
Sun	Mon	Tues	Wed	Thu	Fri	Sat
					1	2
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10 *	11	12 *	13	14	15	16 *
17	18	19 *	20	21	22	23 +
24	25	26	27	28	29	30 ^

* Local Chapter Meeting
 + Statewide Meeting
 ^ Special Event

5	Triad Blacksmiths 6:30pm <i>Winston Salem, NC</i>
10	Southern Foothills Blacksmiths <i> Mooresville, NC</i>
12	Wilkes Teaching Forge 7pm <i>Millers Creek, NC</i>
16	Triad Blacksmiths 9am <i>Winston Salem, NC</i>
19	Brasstown Blacksmiths 5-8pm <i>Brasstown, NC</i>
23	Peter Ross's Shop 9am NCABANA Extra 2 nd Q Meeting <i>Siler City, NC</i>
30	Fire on the Mountain <i>Spruce Pine, NC</i>

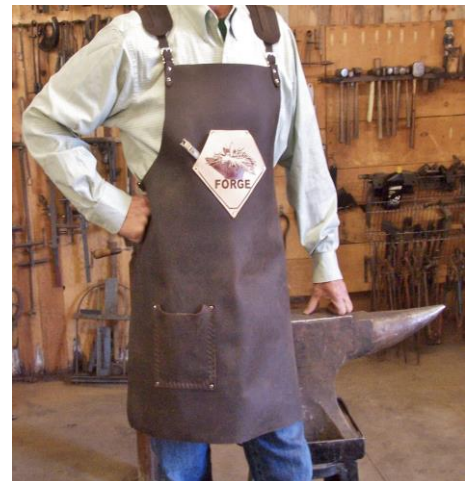
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1st Quarter Meeting at Oak Hill Iron

Saturday, March 19th, 2016

Starts at 9am

Oak Hill Iron

Morganton, NC

Come join NCABANA at the Oak Hill Iron shop in Morganton, NC for our largest quarterly event. Morning & afternoon demonstrations with one of which rumored to be a bladesmith. Vendors galore & tailgating welcomed. BBQ lunch (cash only). Iron-in-the-Hat raffle to benefit NCABANA scholarship recipients. There will also be a showcase table for displaying member's work. See you there!

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Local Group Meetings

Triad Area Blacksmiths (Winston-Salem, NC)
 Marshall Swaringen
marshall@swaringen.com (336) 998-7827

1st Tuesday at 6:30PM for demos
 3rd Saturday at 9AM for business and all day forging
 Dixie Fairgrounds, Winston Salem, NC

Southern Foothills Blacksmiths (Mooresville, NC)
 Steve Barringer
steve@powerhammerschool.com (704) 660-1560
 2nd Sunday each month

Triangle Blacksmith Guild (Raleigh - Durham, NC)
 Randy Stoltz
rhstoltz@gmail.com (919) 481-9263
 2nd Saturday in odd # months at various locations

Brasstown Blacksmiths (Brasstown, NC)
 Paul Garrett
pgarrett286@gmail.com (704) 604-1777
 3rd Tuesday in even # months; 5 to 8 PM

Wilkes Teaching Forge (WTF) (Millers Creek, NC)
 Lyle Wheeler
ncchairmaker@gmail.com (336) 838-2284
 2nd Tuesday of each month, 7:00 PM

Blue Ridge Student Blacksmith Guild (Flat Rock, NC)
 John Matthews
john.knox.matthews@gmail.com (828) 645-2109

You are welcomed to attend any of the local group meetings. Please contact the host to confirm date, time and location.

NC ABANA Meetings

1st Quarter 2016 – March 19
 Oak Hill Iron
 Morganton, NC

2nd Quarter Extra 2016 – April 23
 Peter Ross's Shop
 Siler City, NC

2nd Quarter 2016 – June 25
 Dixie Classic Fairgrounds
 Winston Salem, NC

Other Events

Dan Boone's Pasture Party
 Louisa, VA
 February 27th, 2016

NOMMA's MetalFab
 Greenville, SC
 March 16-19th, 2016

Fire on the Mountain
 Spruce Pine, NC
 April 30th, 2016

Hammerstock
 Gum Spring, VA
 May 21st, 2016

ABANA Conference
 Salt Lake City, UT
 July 13-16th, 2016

For the most current meeting and event information go to the NC ABANA website,
www.ncabana.org

North Carolina Artist-Blacksmith's Association of North America



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