

THE HOT IRON SPARKLE

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



Volume 33 Number 3

Third Quarter 2014



Under the big tent in Harrington, Delaware at the bi-annual ABANA Conference

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A Message from our President

Greetings All,

1st SEP 2014

Millers Creek, NC

Strange times here as the Dog Days have gone out but we've had some of the hottest weather of the summer in these parts. As the calendar turns to September, one can see October peeking out from the corner and that means The Dixie Classic Fair is in sight with the NC State Fair closely following. Marshall Swaringen will have an item in this issue regarding the operation of the forge in Winston and Eric Campbell will have an update on the operations in Raleigh. It is definitely time to start making salable inventory for the State Fair as we want to keep the sales area well stocked for the duration of the fair. Last year's record sales fell short of opportunity as we ran out of some items towards the close of the fair.



Cindy Alexander will be closing out her representation of NCABANA at the SBA conference next May and is looking to bring someone along as her replacement. She has done an excellent job for many years and it is time for her to hand this responsibility off. We have received the preliminary design for the conference project. It will be a seven panel room divider/screen with each state making one of the panels. This project will be started at our Q4 meeting at the Spencer Forge at JCCFS the first weekend in November, Contact Paul Garrett for information on this as well as the opportunity to group-work on a piece for the Blacksmith's Auction that Saturday evening.

The Q3 meeting is set for Roger Barbour's shop in Clayton, NC for Saturday the 12th of September. Jerry Darnell will be the demonstrator and will wow us as he always does. Jerry will also have copies of his second book available for signing and sale.

As the days get shorter, and hopefully cooler, we can stand a little closer to the fire while waiting to create useful and decorative objects from hot iron. Hammer on!

Lyle Wheeler, President NC ABANA

Join NC ABANA

Annual dues are \$25 (inside USA), \$35 (outside USA). 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: ncabana.org

NC ABANA Reports

Treasurer's Report



Finances as of Sept 30, 2014

<u>Business Checking Account</u>	2014 YTD	2014 Budget
Dues	\$4,435	\$5,875
Heritage Forge Net	(\$1,353)	\$2,800
SBA Madison Conference Net	N/A	N/A
Newsletter Printing & Postage	(\$579)	(\$2,390)
Newsletter Editor Fee	(\$300)	(\$1,200)
Insurance	(\$1,460)	(\$1,500)
Statewide Quarterly Meetings	(\$820)	(\$1,000)
Other	(\$727)	(\$100)
Net	(\$804)	\$2,485
Balance	\$15,360	

<u>MMA - Scholarship Fund</u>	2014 YTD	2014 Budget
Income	\$1,283	\$1,560
Scholarships	(\$250)	(\$1,400)
Net	\$1,033	\$160
Balance	\$5,698	

Jim Kennady, Treasurer of NC ABANA

Secretary's Report



The business meeting of the NC ABANA chapter was held at the second quarter chapter meeting at the Dixie Classic Fairgrounds in Winston Salem, NC on June 28th, 2014. The meeting was led by Treasurer Jim Kennady.

Nominations were opened for the positions of president and treasurer. Lyle Wheeler was nominated for president and Cindy Alexander accepted on his behalf. Jim Kennady was nominated for treasurer and accepted. Nominations will be opened again at the 3rd quarter meeting in September.

Raffle tickets announced for the upcoming ABANA Conference in August 2014.

If you would like to get in on a coal purchase, please contact Richard Howard of Advance, NC (email rrrhoward@yadtel.net).

Bernd Mergener is selling a 185 pound Trenton anvil for \$675. His contact information is berndm@bellsouth.net and he lives in Winston Salem, NC (for transportation purposes).

Cindy Alexander proposed that the fourth quarter meeting be some place that is not Brasstown, NC. Discussion will continue on this topic.

Jennifer Phillips announced the opting-out option for the "to be published" membership list. The members suggested publishing email addresses the next time around.

New Members

David Blackley	Charlotte
Tim Byrd	Lexington
Joseph D. Chasteen	Inman, SC
Matthew Clark	Morganton
Gray George	Trinity
Adam Lipshay	Charlotte
James Marty Norris	Hendersonville

Steven Parrisher	Tarboro
Michael J. Reynaud	Parkton
Morris J. Reynaud III	Fayetteville
Thomas Seamon	Mocksville
Daniel "Victor" Vicarel	Cleveland, OH
Don Walker	Burnsville

Summary of publication and meeting dates for NC ABANA

<u>Quarter</u>	<u>Submission</u>	<u>Publication</u>	<u>Meeting</u>	<u>Location</u>
4	29 November	15 December	1 November	Brasstown
1	31 January	9 February	14 March	Morganton
2	16 May	25 May	27 June	Winston-Salem

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

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Phone: (910) 464-3888 (Shop)

(910) 464-2636 (House)

Dixie Classic Fair 2014

Article by Marshall Swaringen, Jr.

Below are the rules for the 2014 Dixie Classic Fair. If you would like to demonstrate at the fair, please contact Keith Roberts of the Triad Area Blacksmiths.

1. Our main purpose is to entertain and educate the public. As representatives of Triad Area Blacksmiths, we need to be polite and courteous. No foul language will be tolerated.
2. Keith Roberts is the lead demonstrator. Coordinate and schedule your time on the anvils with him. There will be no working behind the forges; only the two front anvils will be used during the fair.
3. Billy Phelps will come in each morning to open the shop. Except for Billy, PLEASE do not arrive more than thirty minutes before the gates open to the public.



4. If you plan to eat with the blacksmiths, please be kind enough to bring some food to share (cake, cookies, something for the open fire, etc.).
5. Rules for selling: if you make items at the fair, using TAB materials, the selling price will be split 80% to the club and 20% to the member. If you make blacksmith items at home and bring to sell, you will receive 80% while the club will collect 20%. Also, the club is not responsible for your items.
6. The only items allowed outside the blacksmith shop will be the fire pit and two tripods to protect the fire pit.
7. We enter through gate 8. Free parking is a privilege; please do not announce this privilege to the public! Identify yourself to the guards as a member of TAB.

Tool Steel for Sale

After supplying the materials for a recent tire hammer & tool build, I am now offering competitively priced tool steels to the local blacksmithing and horseshoeing communities. I have a small inventory of S-7 and H13 rounds in stock. Other sizes, shapes, and tool steel types can generally be delivered in about a week.

Contact *Walt Beckwith* for a quote or more information c/o

Woods Edge

3745 Swarthmore Rd.

Durham, NC 27707

1-919-309-5667 or by e-mail at: wbeckwith@mindspring.com

NC State Fair 2014

Article by Eric Campbell

I just wanted to remind everyone that the state fair is coming up on October 16th-26th, 2014 and I for one cannot wait. The fair opens at 3:00pm on Thursday. Al Andrews will once again be Master of the Forge for the 2014 edition. Please give Al your full cooperation in working at the fair.

Please email me if you are interested in volunteering at solvarrsforge@gmail.com. You may also call my home phone between 5-9pm on weekdays; the number is (919) 264-7868. Eric Campbell will continue to be in charge of the sales area and scheduling the demonstrators. Please contact him directly to arrange demonstration time(s) and delivery of work to be sold. Two considerations for demonstrators. The forge is fairly well equipped but if you are planning a demo which requires specific tooling please bring your own to assure a good demonstration. The same goes for steel. While there will be some general sizes and quantities available, if your demo requires a specific size of material, bring it with you.

I would also like to encourage anyone who wants to produce materials for sale at the state fair to get busy if you aren't already. This past year we sold out of most of our stock by the second Friday with a total sales of over 33 thousand dollars.

For members whom the drive to Raleigh is unfeasible there has been an interest in a group transport of stock for sale. I will be doing a pickup at the September statewide meeting in Clayton NC and if there is interest I am willing to arrange a pickup from Winston Salem as well.

We will be continuing with the following sales agreement for consigned items to be sold at the fair. 20 % consignment fee for demonstrators and 25 % fee for non-demonstrators. This amount will be deducted from your total sales. Out of this amount will be paid the sales tax at 6.75% and any transaction fees including a credit card fee of 2.85%. The remainder will be retained by NC ABANA to cover building rental, insurance and operating expenses. After all this, any remaining funds will be retained by the chapter for the general fund. For example, a \$10 sale with demonstration would receive \$8.



We will have limited parking passes and entrance tickets, which will be made available as supplies allow.

Saturday, October 4th will be a work day at the shop for some minor repairs that Al Andrews will be organizing. We will also be installing the new sign. Saturday, October 4th, will be set-up and safety review day. Everyone demonstrating at the fair will need to attend this safety review or be checked out by with the Master of the Forge prior to demonstrating. The only exception to this is if you have previously and recently demonstrated at the Dixie Classic Fair. To this end there will be no double striking and no forge welding as part of any demonstration. **SAFETY FIRST!**

The fair is an excellent chance to educate the general public about the value of the handmade object and the effort it takes to create it. Please consider this opportunity.

Please feel free to email me if you have any questions, would like to volunteer, or send stock.

The following rules for operation of the Heritage Forge during the NC State Fair were adopted by the NC ABANA Board of Directors on March 24, 2001 and revised on July 30, 2004:

1. The Board of Directors and the President of the Chapter shall appoint a member to be responsible for the management of the shop for each year of the State Fair. The management of the State Fair shall be given a letter signed by the President designating a Shop Manager for the year.
2. It shall be the responsibility of the Shop Manager to insure that the shop is in good repair, tools are available, sufficient coal is available, and the shop and surrounding area is clean and ready to open on the first day of the State Fair.
3. It shall be the responsibility of the Shop Manager to seek out members of the chapter for the daily demonstrations. In the demonstration area only members in good standing may demonstrate. The Shop Manager shall set up a schedule of demonstrators as to time and date. Any changes to this schedule shall be made no less than 24 hours in advance. Members should not assume that they may show up at any time and other scheduled demonstrators will step aside. Those who assume this will be asked to leave.
4. The Shop Manager will provide to the demonstrators a gate pass, truck pass, and a parking pass for the days on which they are scheduled to work.
5. All displays of work shall be shown to the Shop Manager prior to the State Fair, where practical. It is the responsibility of the Shop Manager to only judge whether the work submitted for display or sale is the product of the member's shop. The Shop Manager shall make no judgments on the quality of the work submitted.
6. No photographs or drawings will be displayed without the prior approval of the Shop Manager. If they are approved, the Shop Manager will designate where they will be displayed. Any written materials to be given to the public shall be approved in advance by the Shop Manager.
7. All members who have work in the shop for sale or display areas shall be required to work for at least one shift during the State Fair or if they do not work then they will be assessed an additional 5% on their sales.
8. Sale of items made by the membership in their own shop or at the State Fair shall be sold only in the display/sales area. All items offered for sale must be labeled by the seller prior to being made available for sale (at time of drop off), with their name and price of the item in whole dollar amounts.
9. Members are responsible to get their items to and from the fair at their expense. There are to be no other sales made in any other area of the shop or in the immediate area outside of the shop. All sales are to be made at the cashier's location. Under no circumstances shall any member take any money for the sale of any item displayed in the shop. The Shop Manager shall designate the cashiers. Items made in the course of demonstrations can be given as a gift to individuals watching the demonstration or taken to the sales area to be sold.
10. All sales are subject to have 20% (25% for those members who do not work at least one full shift) this includes current sales tax and credit card fees. The current Sales Tax percentage is to be collected and paid after the State Fair. The State Chapter shall receive the remainder of the 20 or 25% after fees are paid. (see example in article). Members who bring items for sale are urged to adjust their prices to take into account the percentage that will be deducted.
11. The cashier shall keep a log of each sale. Each item sold shall be written down with the purchase price, number sold, and the maker of the item noted. At the end of the State Fair and within one week following the State Fair, each member having sales in the shop shall be paid for those items sold and receive a list of items. At the same time NC Sales Tax collected shall be paid to the NC Department of Revenue. To insure the safety of money collected the cashier and shop manager shall maintain a bank account for the purpose of daily deposits and for the final disbursement to close out the shop books for the year. All other times of the year, this account shall be maintained with enough money to keep the account active until the next year and to provide money for needed expenditures for the maintenance of the shop.
12. The cashier shall keep records of individual sales and daily sales for the shop, and total sales for the whole State Fair. Copies of these records shall be given to the Shop Manager and the Chapter President. Under no circumstances should individual sales records be made public or to the general membership of the Chapter. The original handwritten records of the cashier shall be made available for an audit if requested by the Shop Manager or the President of the Chapter.
13. There shall be no alcoholic beverages or any intoxicating agent consumed at the State Fair by any member of the Chapter. Individuals who violate this rule shall be asked to leave, and take all of their tools and display items that they may have brought with them.
14. Safety in the operation of Heritage Forge. Any member working in Heritage Forge during the fair that feels that anyone is working in an unsafe manner should report this to the Manager of the shop or the Cashier. The Manager of the shop is OSHA certified and shall make any final determination on whether any work practice is unsafe or not. (9-25-09)

Need representative to the SBA

We need to identify a new NC ABANA member to serve as our representative to the Southern Blacksmiths Association. (SBA) This role has traditionally been performed by the NC ABANA President, but the Board would like to seek others that have an interest in representing our organization.

Every other year on the third weekend in May the Southern Blacksmiths Association holds their conference in Madison, GA. Historically, this was one of the original conferences that revived blacksmithing. There are seven groups in the SBA; Alabama Forge Council (AFC), North Carolina Artist-Blacksmiths Association (NC ABANA), Appalachian Area Chapter of Blacksmiths (AACB), Ocmulgee Blacksmith Guild (OBG), Alex Bealer Blacksmith Association of Georgia (ABBA), Philip Simmons Artist-Blacksmith Guild of South Carolina (PSABG) and the Florida Artist Blacksmith Association (FABA). Last year Cindy Alexander finished serving as NC ABANA's representative and we need to identify a new SBA representative. Many thanks to Cindy for all her years of dedicated service!

The SBA's Madison Conference involves participation by all seven groups. Each year one group is designated as the 'host', who is responsible for organizing the overall conference. The next Madison Conference is being planned now and will be held May 2015. NC ABANA is scheduled to be the 'host' group in 2025. Until 2025, the general duties for the NC ABANA representative include:

- Participate in phone conferences to plan the Madison Conference. Typically phone conference last 1-2 hours and are held every 6 weeks.
- General conference assignments which can change each year; for example, grounds keeping and organizing the auction, registration, t-shirt sales, catering, gallery, tailgate/vendor sales, green coal or demonstrations.
- Work at the conference in Madison, Tuesday through Sunday.
- Independently performing various conference activities, dealing with last minute changes and being able to handle multiple tasks in an efficient and professional manner as requested by the conference chair.

No prior experience is necessary, but flexibility and a willingness to work are required. The ideal representative will be familiar with organizing public events and work as an effective and proactive team player. Travel reimbursement is available. This is an exciting opportunity to interact with a fun-loving group of blacksmiths from throughout the Southeast.

The SBA website has some additional information: <http://www.sbaconference.com/>

Those who are interested or want additional information please contact Jim Kennady, NC ABANA Treasurer. jimkennady@gmail.com 919-528-5636.

A Community workshop coming to the Triangle in 2015

Shop Space will initially be a full-service metal shop with access to a wide variety of tools and educational opportunities. The long-term goal is to create a state-of-the-art community shop offering a wide range of tools for many trades and materials, including wood, glass, and plastic. Shop Space will also have a library, classrooms, short-term fabrication spaces, and long-term lease studios. We'll offer a wide variety of classes in a number of subjects (such as blacksmithing and woodworking) to further student's skills and interests, along with introductory courses to teach students safe and proper use of the machinery. Please visit www.shopspace.org for more information, or contact Lucas House at (919) 345-6359 or at www.ironhouseforge.com.

Open house is Saturday, October 11th, 2014
from 11:00am to 4:00pm at
303 Kinsey Street, Raleigh, NC 27603

SHOP SPACE
est. 2014 n.c.
COMMUNITY WORKSHOP
INITIATIVE

Regional Reports

Wilkes Teaching Forge

Report from Lyle Wheeler

The Wilkes Teaching Forge (WTF) has met consistently during the past three months and reports as follows.

The group met on June 10th at the Wilbar Forge, hosted by Gary Roath. A general discussion of forge welding was commenced and drop the tongs welds were made and attempted. Various scarfing techniques were debated and tried. WO Scroggs advanced from hooks to leaves. The Q2 meeting at the Dixie Classic Fairgrounds was announced and directions given. David Baker requested some salable inventory to take to his ongoing demonstration at Ghost Town in the Sky in Maggie Valley.

The group met on July 8th at Mulberry Creek Forge, hosted by David Baker. David demonstrated making horse heads on the power hammer including a knife-edge mane out of ½" square. He also showed his adaptation of tongs to hold a railroad spike by the head. Gary Roath gave a short report on the Q2 meeting and David gave a report on his ongoing demo at GTITS. An industrial punch lubricating solution (SR 920) was tried.

The group met at the Wilbar Forge on August 12th (dog days +1), hosted by Gary Roath. Lyle Wheeler demonstrated his new fire tending tool rack to slide onto a ¾" diameter upright out of ¼ x ½ to hold a shovel, poker and rake. A general discussion on hot rolled versus cold rolled steel was interesting. Lyle then demonstrated a drop the tongs weld in ½inch square using a new scarfing technique that Charley Orlando was perfecting towards the end. This new way forms opposing scarfs on the "outside" portion and the weld is struck on the flat sides, a very innovative adaptation to a very old element of hand forging. The Stone Mountain and Apple Festival demos were announced. Gary gave a more detailed report on the Q2 meeting and discussed the forging with charcoal by Jason Lonon.

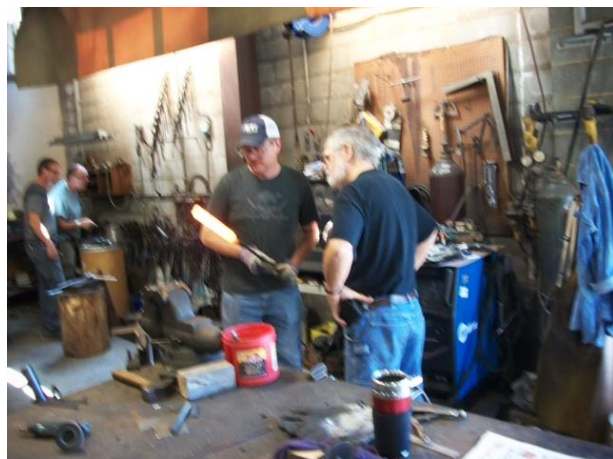
Southern Foothills Blacksmiths

Report and photos from Ray Clontz

As usual we had a good turnout for the meetings. Everyone brings their project and works on them at Steve Barringer's shop, the 2nd Sunday of each month. Our meeting lasts about all day and members can use the coal forge or up to 3 propane forges. The 3 anvils and 2 Big Blu hammers are shared. We have all kinds of projects going on such as hooks, leaves, knives, and tomahawks. Sometimes we have members making Damascus billets. Tomahawks are usually being forged from ball pein hammers. Below are some pictures of members working on their projects:



Big Blu power hammers work large stock



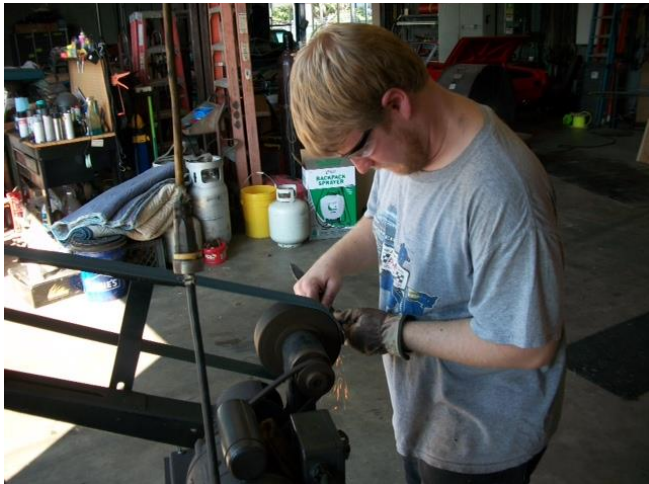
Members provide input on each other's projects



Propane forges are set up around the shop



Sometimes a helping hand is appreciated



Belt sanding a knife



Hand hammer work is encouraged as well

Triad Area Blacksmiths

Report from Marshall Swaringen

The third quarter was very busy for our club. We demonstrated at the Honeybee Festival in Kernersville, NC in August. The Wake Forest Maintenance Department held an outing in the Yesterday Village. They had game and music. We opened the blacksmith shop and entertained about fifty people for a couple of hours. When food was served, they all were more interested in eating. There was a couple of gentleman that tried their hand at hammering. One made a drive hook. He was so proud that he was walking around and showing to everybody that would stand still.

Our meetings are going strong. Both meeting are averaging above twenty attendees. Some of the Saturday meetings are close to thirty attendees.

Individual members have been busy with Demonstrations. I need to remind them to take pictures so they can share in the HIS.

Well it is Dixie Classic Fair Time. I am sitting in my truck at the fair writing this article. We have been open for four hours and already had 10 demonstrators here ready to work. I will take pictures and have a DCF article ready for the fourth quarter HIS.

Triangle Area Blacksmiths

Report from Randy Stolz

The Triangle area meetings this year have focused on hands on blacksmithing and making tools. We have had a lot of new and novice members coming to the meetings so this lets them practice and take home a blacksmithing tool.

The April meeting was held at Allan Greens shop in Hillsborough, NC with almost 40 people coming out. Eric Campbell demonstrated the steps to making a rounding hammer. We had a supply of 1.5 inch diameter steel from J & D Recyclers in Durham which looked to be like 1050 or 1060 cut to 2 – 2.5 pound pieces for everyone to make their own hammer. Even though we had a lot of new people at this meeting and making a hammer is not considered a beginning project, the day went well. We set up multiple forges (primarily propane) with 3 or 4 people at each forge working as a team. More experienced members guided and assisted the teams. Heating two or three hammer blanks in the forge, the team members would, either hold the blank, hold the drift, or swing a hammer in rotation. As the work piece cooled off it was put back in the forge to reheat and the next blank. This process continued until the eye had been drifted in each hammer blank. Then the teams worked on shaping the faces of the hammers, first by forging and then finishing with an angle grinder and flap disc. As usual Allan and his wife fed us an excellent lunch. Following lunch we continued to work on hammers until late afternoon. At the end of the day most people had their hammers nearly complete and ready for heat treating and several even completed their hammer. Many of the novices were amazed and thrilled they could punch a big hole through a 1.5 inch piece of steel.

The June meeting was held at Jim Kroeger's shop in Apex, NC with about 25 people attending. As part of his NC ABANA scholarship requirement, Paul Tooley demonstrated making a tapered vase from a section of pipe using a power hammer. We had the forges and tools set up for people to continue working on their hammer from the April meeting. Jim had his shaving horse and hickory handle blanks set up for everyone to carve a handle for their hammer. Jim demonstrated using the draw knives and spoke shaves to carve a handle. I continued the handle carving demo by making a handle for an old hand forged ball peen I bought at the State Fairgrounds flea market. We also had several beginners at the meeting so we had experienced work with them to start learning the ba-

sics. After lunch, Jim demonstrated how to turn a wooden bowl on a lathe. Open forging and working on hammers continued into the afternoon.



Pictured above is Paul Tooley

The August meeting was held in Raleigh at Colin Eckhart's house with about 30 people attending. Again we had the tools and supplies for people to continue work on their tongs and hammers from earlier meeting. With the NC State Fair coming up, Dick Snow and I demonstrated making finials and leaves. I demonstrated making a number of different finials and how to shape and texture a leaf using just a cross peen hammer. Dick demonstrated making a leaf using a chisel to vein the leaf. He then demonstrated making a leaf keychain using the same technique. After a delicious lunch (Mexican), we had open forging with people working on various projects. At earlier meetings we had used vegetable oil to quench the hammers which did not harden the steel enough. So while the forge was hot we put the hammer in to heat it up while people continued to work on other projects. To prevent de-carburizing the hammer as it heated up, I put a piece of tape on the wind screen to make the propane forge pull in less air and burn richer. After about 20 minutes or so, the bright orange hammer was quenched in water. Rotating the hammer each face of the hammer was quenched repeatedly until the center and eye cooled to black. Then the entire hammer was submerged in the water and cooled. This hardens the faces of the hammer and leaves the body much less so. Final tempering was done by placing the hammer on top of the forge near the burner mount (450 degrees or so) for about 20 minutes. After tempering, we let the hammer air cool so we could put in a handle and test it. Testing showed the hammer faces to be sufficiently hard this time with good rebound.

Event Reports

Observations from 2014 ABANA Conference

Report & Photos by Andy Phillips

A few weeks ago I was tasked with standing by and assisting with two of the demonstrations at the national ABANA conference in Harrington, Delaware. There were two demonstrators working under the tent on several projects back and forth. Big Blu Hammers (the company I work for) had provided this tent with two power hammers and it was my job to start up and maintain the hammers throughout the day as well as assist the demonstrators as they needed it. While I wasn't needed all the time, I didn't want to stray far from the tent and in staying put, it gave me a chance to do something I rarely do at one of these shows.



Big Blu arriving at the fairgrounds

National conferences are really good at packing 10 lifetimes worth of information into three or four days of a high intensity subversive experience. The conference in Delaware was no exception. Every tent house had breathtaking work by master smiths and the gallery only confirmed the fact that our organization isn't full of your granddaddy's blacksmiths with the bar of what is common being constantly raised due to the writhing sea of peer review and cultural exchange that the internet provides. In order to absorb as much of this information as possible, I normally race from tent to tent like a brain-dead

zombie trying to soak in the bits of wisdom as they come. But ours it not a trade of bits a pieces, rather it takes an understanding of the bigger picture to do the work we all dream of and the work that the masters under the tents in Delaware were proving possible.

However, for this conference I had the chance, and the obligation, to sit still under one tent and watch each of the demonstrations from start to finish.



Sitting still watching demos

Painful as it is to sit and wait for the next nugget of information, I think there is a hidden advantage in watching a demonstration from start to finish. Much of art is based not around the process of creating but rather the observation of the artist. Observing another person work is much different than doing the work yourself. When you are the one making something you have a lot on your mind: how hot is the fire, is the fixture set correctly, do I have the right dies in the hammer, and where the &#@\$ is my hand hammer. But the critic in the stand only sees the bird's eye view and has little to worry about and thus the critic can make observations that the doer of deeds may not be able to see offhand.

For me, from the time I light the forge until I dig out the fire at the end of the day, my mind is racing. As smiths, there is no downtime. When the steel isn't hot, then there is preparation work to be done. You only get so much time once that steel comes out

of the fire and then you have to be ready. And once it goes back in, then you only have so much time to get ready before it all starts again. While this is a great way to work, it is a hard way to make the observation that is required to advance your art.



Demonstrators using Blu power hammers

Sitting and clearing your mind without rushing or worrying about what's going on in the next tent and just focusing on the work being done in front of you, it is with this type of leisurely scrutiny that you can observe in a different way. Whether the demonstrator is above or below your skill level, there is always something to be learned when you turn your full mind onto what they are doing.

So I got to thinking, which is better, and which way do you go? Do you find a comfortable seat on the front row and sit through an entire demonstration or do you bounce from place to place, peeping over the crowd from the back and nudging your way through when something cool is going on?



Blus side by side



2014 Quadstate Conference

Report & Photos by Jim Kennedy

Each year one of the largest Blacksmithing Conferences in North America occurs on the fourth weekend of September at the Miami County, Ohio Fairgrounds in Troy, Ohio USA. QuadState is organized each year by Southern Ohio Forge and Anvil and grew out of the early gatherings that founder Emmett Studebaker held on his farm. About a thousand smiths come from all over the U.S. and other countries for four days of demonstrations, vending, tailgating, forging contests, and the fellowship. If you can only make one blacksmithing conference this year, this is the one to attend! Quadstate provides an educational and fun event for everyone, with a wide variety of demonstrations providing an interesting opportunity for every skill level and interest. This year's theme was to showcase the relationship between Mentor and Student. Patrick Nowak started the conference off, hand forging a large striking hammer for the Friday evening demonstration. The conference offers a wide variety of demonstrations on Saturday and Sunday. This year there were four demonstrations as well as a nice green coal area. Heather McLarty and Jan Aijian demonstrated high relief and chasing in copper. Clay Spencer and Dave Custer forged a grille with traditional joinery, rivets and collars. Dan Nickels and Derrick Bliss demonstrated European themed architectural work. Mace Vitale and Sam Salvati demonstrated on knives. The conference also offers a huge tailgate area with almost everything you can imagine and great camping. I am already looking forward to next year's conference. Check out their website for more details on the 2015 conference. www.sofablacksmiths.org



Clay Spencer's forged grille



Punching an eye in a Damascus hammer on 1000lb anvil



Collar detail of the window grille



Setting a rivet



Crowd is filling the stands

2nd Quarter NC ABANA Meeting

Report & Photos by Andy Phillips

The second quarter meeting for NC ABANA was held at the Dixie Classic Fairgrounds in Winston Salem, NC on June 28th, 2014. There were about 75 people coming and going throughout the day with practically everyone present giving their attention to the demonstrators while they were going.

The first demonstrator for the day was Richard Howard from Advance, NC. He used jigs to make tripods, S hooks, D-handles, and a piece of a trivet. Then he put three of those pieces together using a mig welder and collars to assemble the whole trivet. He used a special collar tool to clamp the collars. During his demo, Richard stressed the importance of a fixture in your work being about to repeat a shape accurately. All three pieces of his trivet went together smoothly and sat evenly after completion.



Lunch was provided by Marshall Swaringen, president of the Triad Blacksmiths, and was his amazing barbeque. I think he also ended up selling a bunch of it by the pound too; it's that good! More good news during the lunch break in that my wife, Jennifer, won Richard's trivet during the Iron-in-the-Hat raffle. I guess I won't be needing to make her one after all.

The afternoon demonstrator was Jason Lonon from Marion, NC. He used a primitive forge burning charcoal to show that anyone on a budget can still be a blacksmith. He also taught how to make coke from wood if you can't afford coal or charcoal. Jason opened his demonstration by forging a rudimentary set of tongs in record time. His focus re-

volvled around making tools that you need work first, then replacing them with fancier tools later. Function first, then polish. Lenny Moore also provided a helping hand to Jason during his demo and even used a sledgehammer for a while.

Looking forward to the second quarter meeting again next year at the Dixie Classic Fairgrounds.



Featured Articles

Photo Gallery

Assembled by Jennifer Phillips

After seeing so many great pictures of members' work on social media, I wanted to start some sort of gallery to showcase what members are doing between quarterly meetings. This is the first photo gallery of work from around the social networks. Some of the pictures are from members and some are just inspiration from other blacksmiths in the communities. If you would like to have some of your work featured, you can message my Facebook account (NC ABANA) or send an email to northcarolina.abana@gmail.com. I can also scan and upload any pictures mailed to my address (on Page 2). I hope you enjoy these first few and I look forward to more centerfolds in the future.



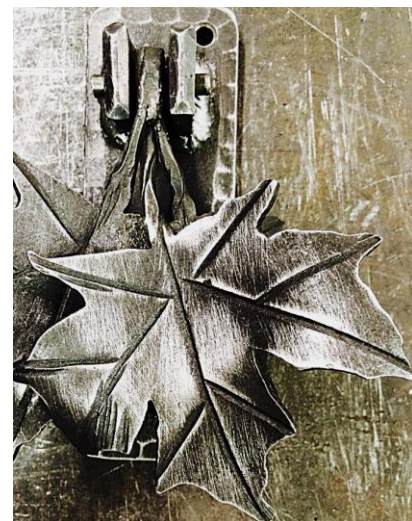
This first picture is from Oak Hill Iron (makers of the Big Blu Hammers). These are canned lights with textured steel and copper trim on the tops & bottoms.



This picture better illustrates the flow of the track lighting that the cans are a part of.



These gold door knockers are also created by Oak Hill Iron. See the resemblance in their oak leaf logo on the top set? The bottom middle leaf is a ginkgo leaf, which have been very popular with clients who favor their hand-crafted sinks.



Here is a close up detail of a silver-polished maple leaf. A great door knocker for any season but perfect for this time of the year in the mountains.



This last piece from Oak Hill Iron is an elaborate wall-mounted candleholder. You can barely see the tiny teacup candles on the tips. Also, to the right of the candleholder is a ginkgo leaf sink like I mentioned on the previous page.



Next are is a bicycle windvane created by Blue Mountain Metalworks out of Banner Elk, NC. The owner, Dirk Brown, is a mountain bike enthusiast and lots of his work includes bicycle themes.



The above fireplace screen is also by Blue Mountain Metalworks. Lots of the mountain homes they work on have fireplaces for the cold winters. The textured steel around the frame makes the doors stand out.



These are the detailed handles for the fireplace screen above. I know many smiths will appreciate the complicated twist that went into them.



This picture comes from Carley Eisenberg, owner of Iron Mountain Forge. It's a giant hop made for the top of a beer tap for a local microbrewery, Appalachian Mountain Brewery. The stamp at the bottom is the AMB logo.



Next is Iron Mountain's top seller: batman bottle openers. While the shape is cut using a plasma table, the opener part in the center has to be forged to function.



This last item by Iron Mountain Forge is an incense burner. The center flower holds the incense while the groove down the middle catches the ash.



This next piece is by Oak Hill Iron as well but hand forged by their own Andy Phillips. The finished product is pictured above and is a rider on a horse. A small desk statue but with a lot of detail.



Here is a picture of the horse during the forging process. This picture better illustrates the details on the horse's legs.



Sometimes it takes a lot of trial and error before you get the finished product as pictured in these multiple horse heads.



This pumpkin patch is from the forge of Tom Willoughby. Most of you will remember Tom from his amazing demonstration of anvil vultures at the NCABANA first quarter meeting. These pumpkins are created from multiple horseshoes with beautifully detailed leaves forged on top.



Here is a more close up picture of the horseshoe pumpkins. Look at the detail on those leaves! Perfect for October and fall.



Anvil surfing pumpkins! Enough said.



These lovely hearts also hail from Crown Pointe, Indiana and the forge of Tom Willoughby. At first glance, I thought they were made from horseshoes like his pumpkins but you have to look a lot closer to see how gifted Tom truly is at forging.



Give up yet? They're forged from old files! I think I might need one of these for Valentine's Day.

Thank you for all your contributions with this first photo gallery. I really think it was a huge success and I appreciate all the hard work everyone put into it. Remember to send submissions if you would like to get in the centerfold next time.

Membership Roster

Maintained by Jennifer Phillips

Years ago, NC ABANA used to publish its list of members every year to help each other stay in contact. With the presence of social media, most members have liked each other's Facebook pages or stayed in contact via email groups. And yet, there are many more blacksmiths out there to network and associate with in the real world. Because of the high demand, NC ABANA started to talk about posting the membership list in the newsletter again over a year ago and the decision was finally made to do so at this past January's Board meeting. There was a lot of discussion as to what was going to be published but in the end, the chosen categories were name,

address, and phone number. Since we plan to make this an ongoing publication, we are still in discussion about adding email addresses and are open to more talk amongst members as to what they would like. We tried to give members enough time to respond to the "opt-out" option of not being published and I'm sorry if anybody was included that didn't want to be. Please let me know for next year. With all of this being said, over the next few pages is the membership list, **organized by last name**. If you would like to make a suggestion for next year, please contact Jennifer Phillips, secretary for NC ABANA (contact info on page 2).

Full Name	Address	City, State, Zip	Phone
Roger Abrahamson			
Laura Abt			
Donald W. (Don) Adams			
Greg Ainslie			
Cindy Alexander			
Joe Allen			
Charles (Andy) Anderson			
Casey Anderson			
Al Andrews			
Amanda Avery			
Gil Aybar, Jr.			
Matt Balent			
Ellen Ball			
Roger K. Barbour			
Jesse Barfield			
Steve Barringer			
George Basinger			
Rod Bates			
Scott Beam			
Chuck Beattie			
Randy Bechtel			
Walt Beckwith			
Norm Bedwell			
David Billings			
Dannie Bingman Sr.			
David Blackley			
Bill Bradshaw			
Rob Bratton			
Jason Brewer			
Susan & Perry Broome			

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Full Name	Address	City, State, Zip	Phone
John Broughton, Jr.	Content Deleted for Online Version		
Darryl W. Brown			
Bill Brown			
Henry Bunn			
James Burdorf			
Dave Buterbaugh			
Tim Byrd			
Gordon Cable			
Marty Campbell			
Marion & Eric Campbell			
Joshua Cauthren			
Randy Cauthren			
Colin Ceckhart			
Andrew Chapman			
John Charvat			
Joseph D. Chasteen			
Joe Chockley			
Matthew Clark			
David Clement			
Ray Clontz			
Al Cody			
Willie Comer			
Thomas G. Como			
Donald Covalt			
Edwin Crane			
Jackson Crawley			
Jim Crew			
Larry D. Crews			
Dean Curfman			
Jared Dahl			
Jerry Darnell			
Dennis David			
Jeff Davis			
Chris Dietz			
Adrian Down			
Garret Dunn			
Stuart Dyer			
Richard "Rick" Earl			
William M. Elliot			
Shawn Emmons			
Elton Etheridge			
David Fenner			
Kent Flowers			
John C. Fluke			
Trevor & Joel Foster			
James L. Freeze			
Maria French			
Steve Frey			
Doug Galloway			
Jim Gallucci			
	Content Deleted for Online Version		
	Content Deleted for Online Version		

Full Name	Address	City, State, Zip	Phone
Paul Garrett	Content Deleted for Online Version		
Gray George			
Bill Gintert			
Nick Glass			
Kenneth Gordon			
Jacob Gore			
R. Paul Gove			
John Gove			
Max Gray			
Allan Green			
Steve Guilmette			
Rick Hartline			
Chip Hastings			
Earl Ray Hatley			
Greg Helms			
Amy S. Hinson			
John Henry Hnatow			
Randy Hodges			
Liam Hoffman			
Jay & Lisa Holeman			
Robert M. Honeycutt			
Don Hopkins			
Don Hoss			
Richard Howard			
Ron Howard			
Jack Hurley			
Matthew Hux			
Jacob Isaacs			
Kirt Jarrett			
Thomas E. Johnson			
Chad Johnson			
Jerry W. Jones			
Allan Kahkonen			
Steve & Shirley Kayne			
James M. Kennady			
Jacob King			
Robert Kinney			
Ricky D. Knight			
Jim Kroeger			
Jerry Langdon			
Dexter Langley			
Justin A. LaQuay			
Alan LaQuay			
Robert Larrick			
Chris Lee			
Adam Lipshay			
Jason A. Lonon			
Jeannette Low			
Parks Low			
Kay Lyerly			
	Content Deleted for Online Version		
	Content Deleted for Online Version		

Full Name	Address	City, State, Zip	Phone
Martin Lyon	Content Deleted for Online Version		
Jackie MacLeod			
Christian "CJ" Magro, Jr.			
John F. Maloy			
Carl Marlowe			
R. Dale Mashburn			
Michael Matthews			
John Matthews			
Larus Maxwell			
Ted Mays			
Bob McCuiston			
Cuinn McDermott			
Donald McDunnah			
James "Mac" McIntire			
Christopher McKeen			
Harold E. McKinney			
Tommy McNabb			
John McPherson			
Bernd Mergener			
Doug & Suzy Merkel			
Julie L. Merrill	Content Deleted for Online Version		
Daniel Miller			
Don Mills			
Chris Moore			
Lenny Moore			
Jim Moore			
Matthew Morin			
Rick Morrison			
Alex Moss			
Scott Mundorf			
Joe Myers			
Leo Nailor			
Brian Nalley			
NC Tool Co. Inc.			
Chris Neal			
Allan Neuenfeldt			
Albert Ronnie NiFong			
Tom Norman			
James Marty Norris			
Randy Outland			
Thomas Pangborn			
David S. Pardue			
Steven Parrisher			
Gene Pease			
Carl Peoples			
Larry D. Perry	Content Deleted for Online Version		
Billy Phelps			
Jennifer & Andy Phillips			
Mike Poythress			
Erika Price			

Full Name	Address	City, State, Zip	Phone
Johnny Thacker	<h2>Content Deleted for Online Version</h2>		
Ian Thomsen			
Bob Thornburg			
Mark Thornburg			
L. Richard Tillett			
Robert Timberlake			
Daniel Tito			
Paul Tooley			
David A. Tosi			
Chris Towles			
Robert Triplett			
Daniel "Victor" Vicarel			
Michael Vickery			
Thomas W. Wagoner			
Don Walker			
Mike Walkup			
Gail Wall			
Tom & Gwen Watkins			
Don Waugh			
Jody J. Wetta, Jr.			
Lyle Wheeler			
John Whitener			
Joseph E. Whitford			
Paul Whitty			
R. Larry Wiles			
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Laura & Ryan Williams			
Christopher Williams			
Julia Wilson			
Doug Wilson			
Jerry O. Wolfe			
Russell Wrye			
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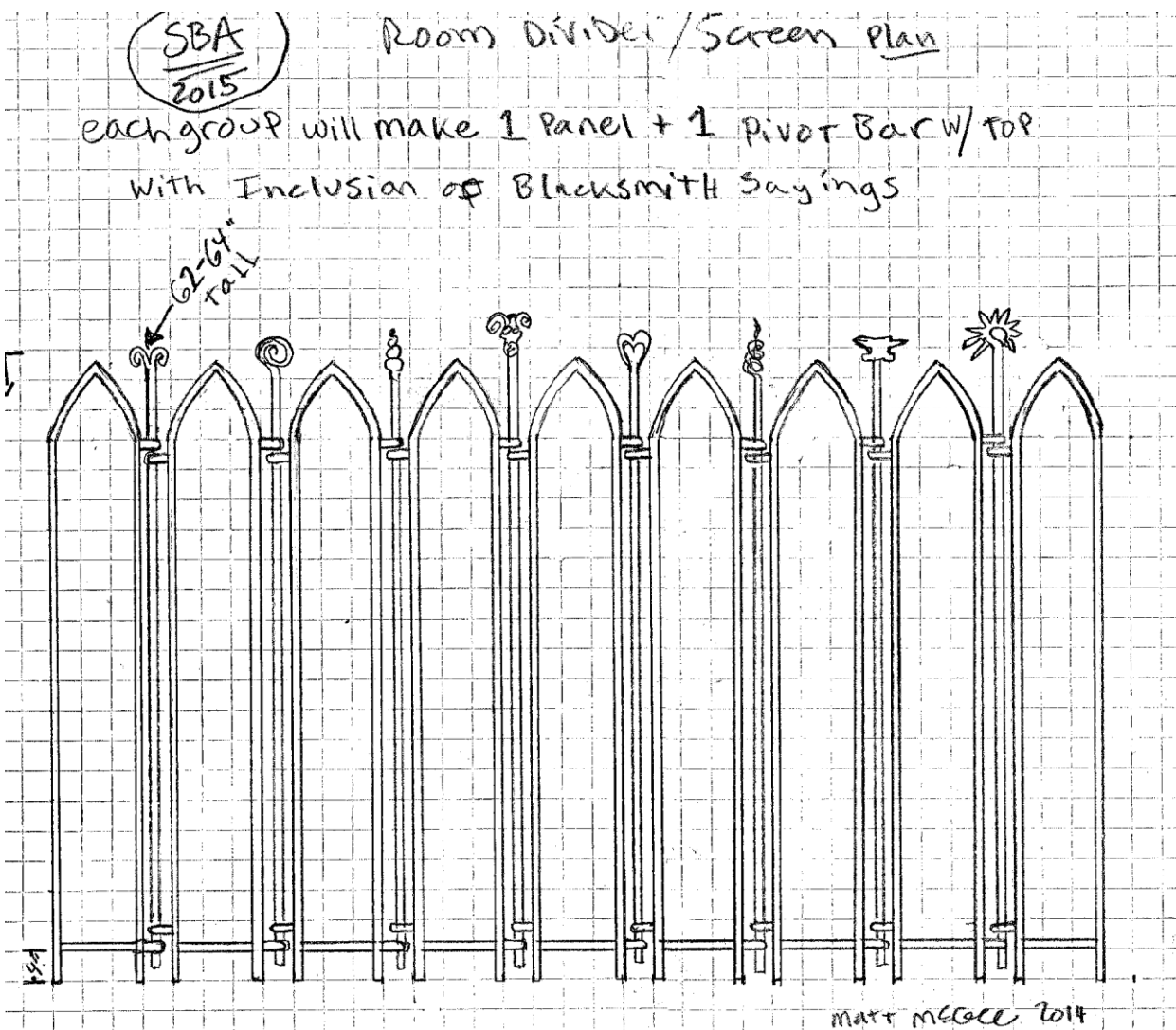
SBA Project Details

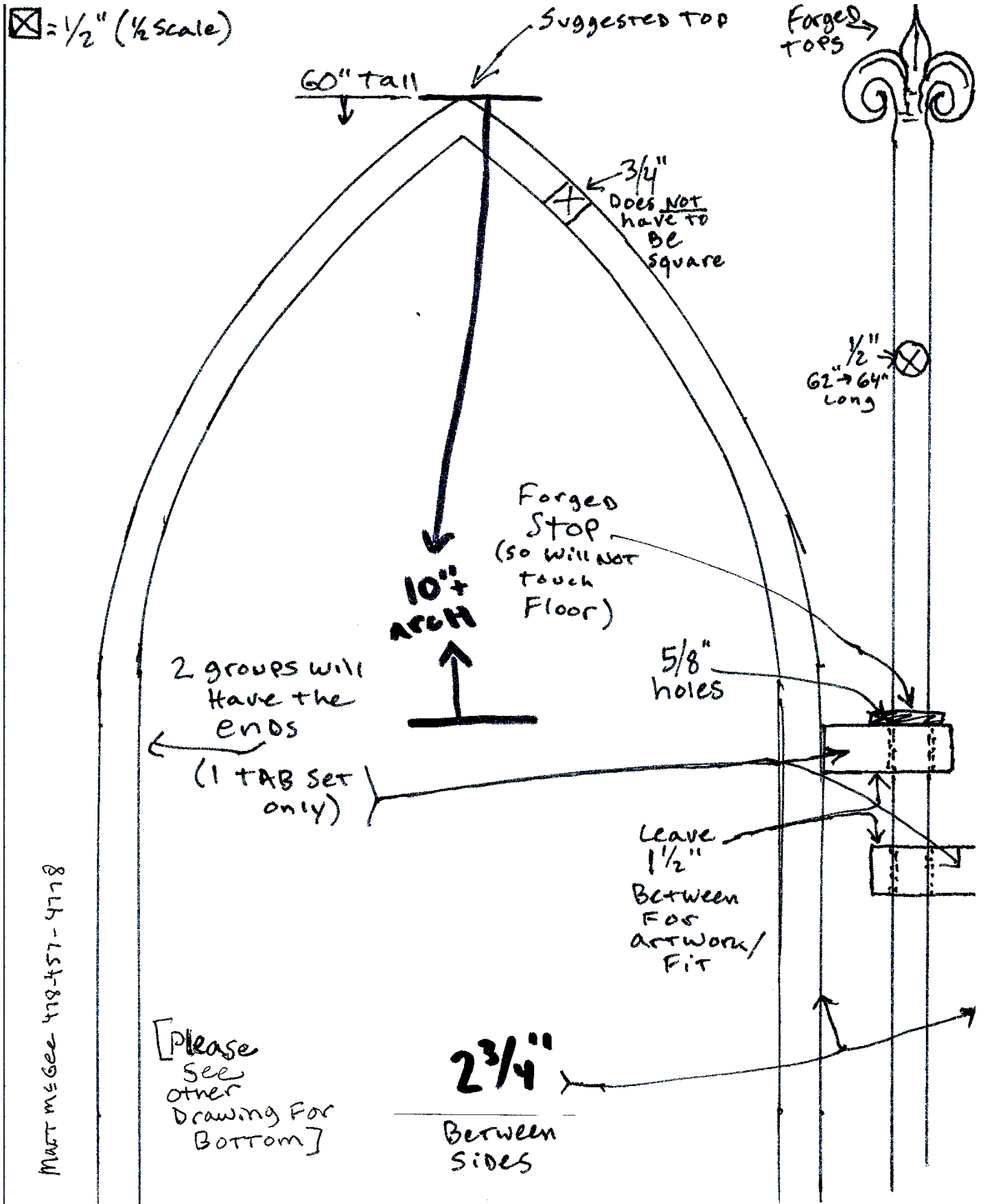
Written by Cindy Alexander

I finally have drawings of the Southern Blacksmith Association (SBA) Conference project. This is the conference that is in Madison, GA every other year and of which, I am currently the representative. The project for SBA 2015 is an indoor panel screen with each chapter hosting the conference creating a panel, the pivot bar with decorative top, and the inclusion of a blacksmithism on the panel. The blacksmith idioms, termed "blacksmithisms", will be sent in a week or two to each individual chapter. The hosts are trying to keep the entire list of idioms a secret until the conference so please don't share our idiom with our Southern

neighbors. This project needs to be completed before the conference May 13-17th, 2015. Our president, Lyle Wheeler, has suggested that we work collaboratively at the upcoming Hammer-In in Brassstown, NC to make some progress. This is the Hammer-In that will be the night before the fourth quarter meeting at the John C. Campbell Folk School in Brasstown, NC on Saturday, November 1st, 2014. (The Hammer-In being on Friday, October 31st, 2014.) Below and on the next two pages are the drawings I have for the project and anyone who wants to help is welcome to come to the Hammer-In. I will forward our blacksmithism as soon as I get it.

Forge safely, Cindy.





Vertical Tanks for Cleaning Metal

Article by Randy Stoltz

I frequently use muriatic acid to clean rusty steel, remove zinc or galvanized plating, and to remove scale from forged pieces that are going to be painted. Since many of the pieces of steel are long I made a tall vertical tank using 3 inch PVC pipe. I also made a shorter tank with a plastic basket for smaller pieces like bolts, nuts, screws, and other assorted hardware.

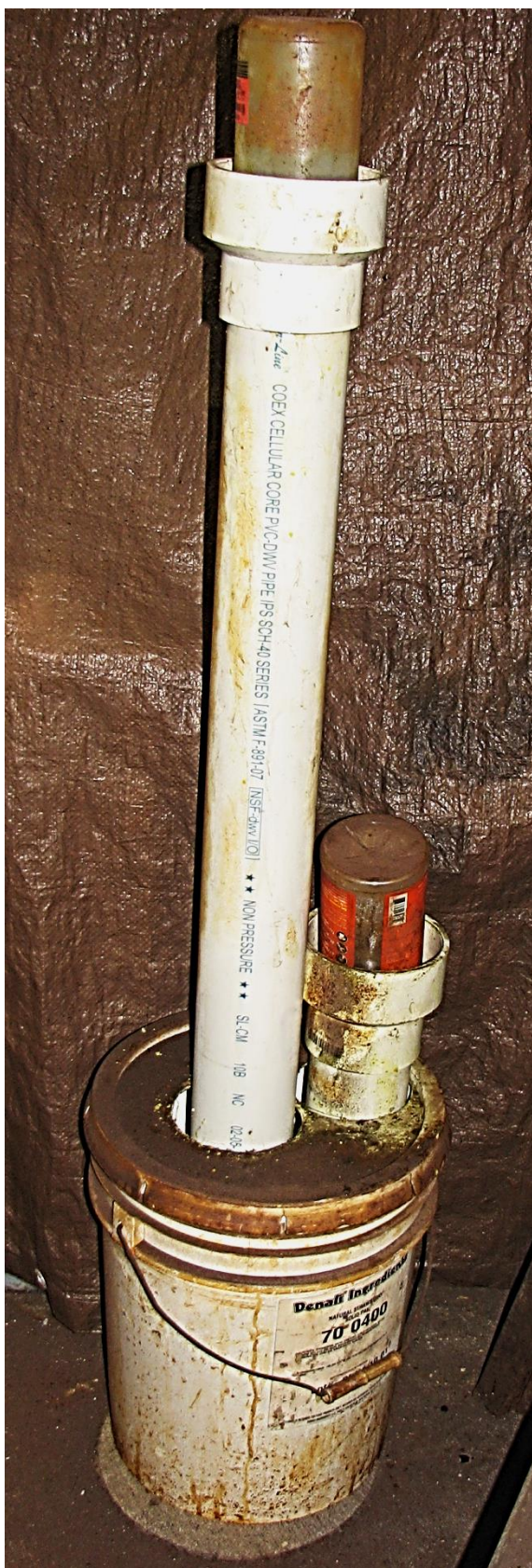
Warning, muriatic acid can be dangerous if not handled correctly and safely. Wear safety glasses (splash proof goggles are best) and observe all the safety information on the container. All of the uses listed above generate heat and fumes so use in a well-ventilated area or outside. Insert galvanized pieces slowly, a little bit at a time, to avoid a violent reaction that will spew foaming acid all over the place.

To hold the tanks securely, I used a 5 gallon bucket with holes cut into the lid filled with perlite. Sand or gravel will also work also but I had several bags of perlite sitting around. I also added some sodium carbonate (washing soda) to the bucket to neutralize any acid overflow. The next time I clean the tanks and recycle the acid, I will replace the perlite with marble chips (like used in landscaping) Marble chips are heavier and primarily made of calcium carbonate which can also neutralize any acid overflow. The holes in the lid are larger than the pipe so any overflow is captured by the lip on the lid and flows into the bucket.

The bottom of the pipe is closed off with a PVC cap glued into place. To keep from punching a hole in the bottom of the pipe when you accidentally drop a piece, I filled the bottom with concrete. On the top I placed a 3 inch to 4 inch adaptor which provides additional room for the acid, which can be displaced when you insert a large piece or bubble up when removing zinc or galvanizing coatings. Note that the fill level of the tall tank is about 1 foot from the top and 6 inches for the short tank.

Time to clean the metal can vary from a few minutes for small or lightly rusted pieces to a day or two for heavily encrusted steel. Once the metal is clean you need to rinse it with water thoroughly to neutralize the acid. Add washing soda or baking soda to the water to completely neutralize the acid. The clean metal will flash rust quickly so paint or put a protective coating on ASAP.

← The vertical tanks set up for use. The plastic bottles are used as stoppers to reduce and contain the fumes given off by muriatic acid which reacts to moisture in the air.

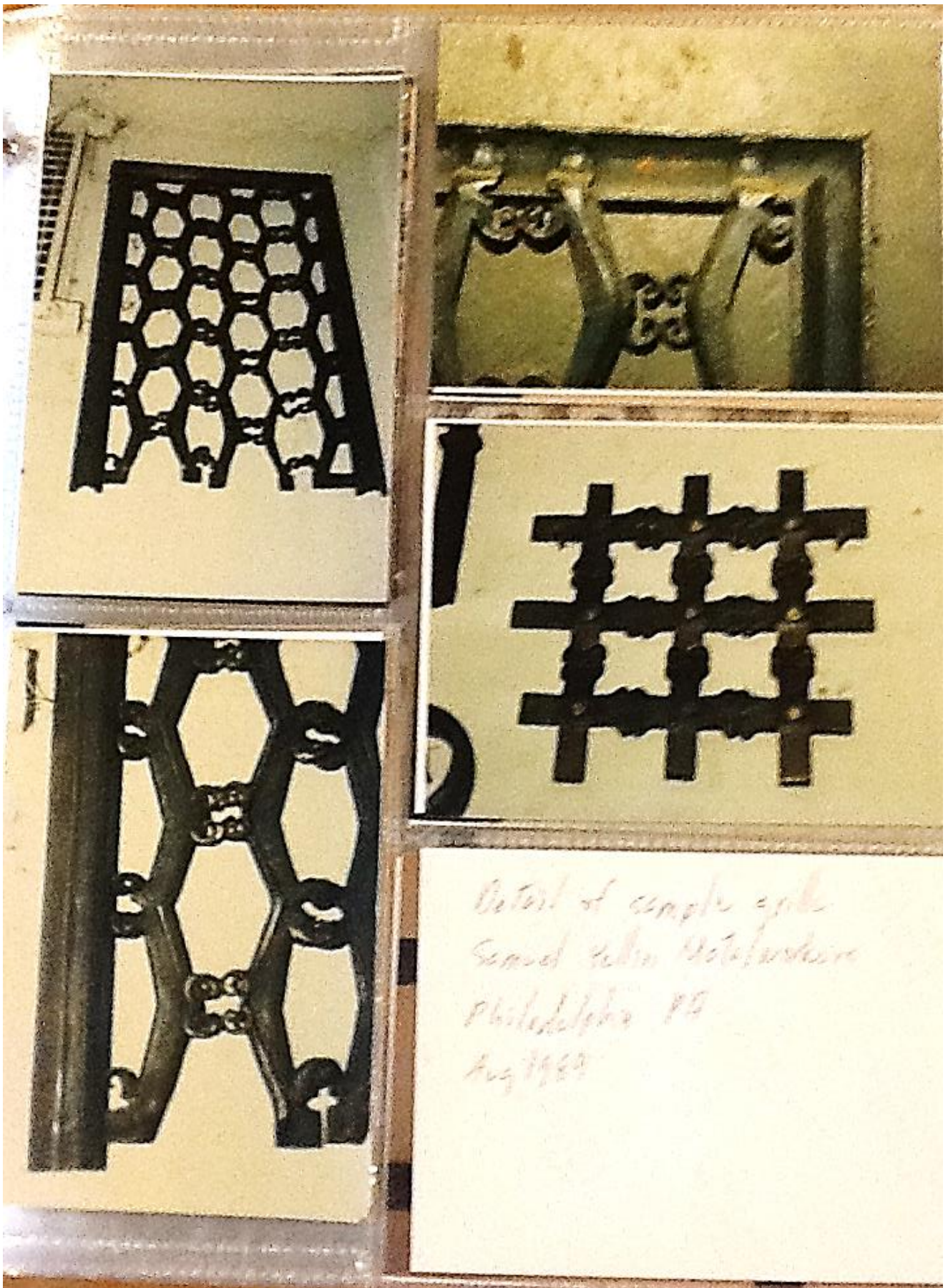


From the Shop of Samuel Yellin

Article by Doug Wilson, Photos provided by Clay Spencer

Recently, 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.

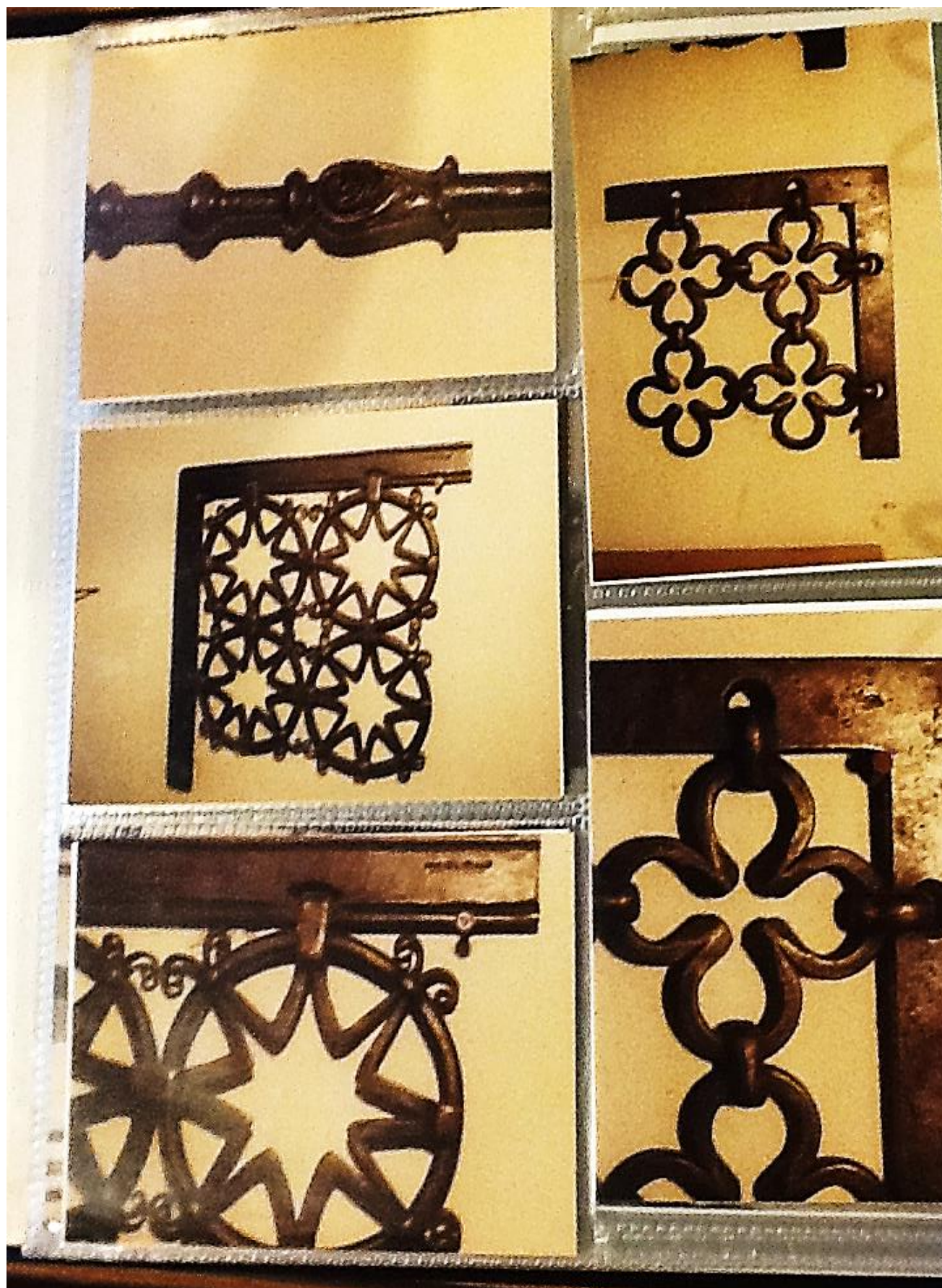












Ten Tips for Beginners

Written by Henry Bunn, *pictured*

I was 15 and wanted to learn to blacksmith. But the only blacksmith I know is my cousin, who is just starting out like me, and lives in King, NC. How would I do this? Fortunately my Aunt gave me a membership in NC ABANA for Christmas and I have yet to look back.

So I thought I would provide my Top Ten Tips for helping a young person get involved in blacksmithing.

1. Start with a simple inexpensive forge. My first forge was a sink I bought at the flea market, some aluminum tubing from an old soccer goal, my mom's blow drier and charcoal. Total cost \$75. It got hot enough to soften rebar, and that was good enough to start with.
2. A small cast iron made in china anvil is a good temporary solution too, just make sure you attach it to something sturdy and heavy like a six by six section of lumber, this way the anvil will not jump around on you as much.
3. Start with a few good quality tools. These do not have to be blacksmith specific. A large set of Channel Lock pliers and a ball peen hammer works just fine to start out with.
4. Get good gloves and safety glasses. Trust me.

5. Hit the flea markets and estate sales. It is amazing what you can find. My first hardy tool was from an estate sale and cost \$2.50.
6. Don't be afraid to ask the more knowledgeable NC ABANA members questions. It's better to get their help so you don't pick up bad habits.
7. If you don't think you can do a project by yourself because you are not experienced in doing three things with two hands ask for help. Just ask anybody. Whether it be adding veins on a leaf or driving a hole through a hammer ask for help when you think you need it.
8. It is great to have a less knowledgeable person, like a younger sibling or friend to help you. If you can teach someone how to do something you probably really know how to do it.
9. Practice makes progress. Nothing is perfect there are always ways to improve, but you can get better. After learning to make something try and make it until you are satisfied, then you will learn how to make it your own.
10. Join NC ABANA and go to as many demonstrations as possible. I learned 90% of the things I know about blacksmithing just from going to the meetings and demonstrations.





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Recycling Beeswax

Article by Randy Stoltz

To help keep the shop floor cleaner and to keep from wasting beeswax, I bought a stainless steel bowl and used it to catch the beeswax drippings as I applied the wax to hot metal. It is amazing how much beeswax is wasted by letting it drip on the floor. To recycle this beeswax, along with all the pieces of wax too small to use, I melt the wax, and use an aluminum corn stick pan to mold it back into usable pieces. This process allows me to capture

and reuse more beeswax than is consumed.

The aluminum corn stick pan releases the wax easily and molds the wax into a long half round with a flat side that keeps it from rolling off the work bench. Tin candy molds should also work well but cast iron corn stick pans do not. Cooks generally do not like aluminum baking pans like this as they often heat unevenly, so you can find them cheap at flea markets and thrift stores.



The stainless steel bowl, purchased at the local Goodwill store for a \$1, will not rust and will not break if dropped. Additionally the bowl can be set on top of the propane forge, while I'm working, to

melt the wax utilizing otherwise wasted heat. Any dirt or scale in the used wax will sink to the bottom of the bowl when the wax melts and can be discarded.

New Book Release: *Hydraulic Forging Press for the Blacksmith*

Written by Randy McDaniel

Award-winning author and blacksmith, McDaniel has brought together an international group of collaborators to assemble *Hydraulic Forging Press for the Blacksmith*, a useful and inspirational resource for anyone forging hot metal. McDaniel addresses the comparison between a Power Hammer and a Hydraulic Forging Press, and focuses on the full potential of the Hydraulic Press.

The Hydraulic Forging Press is becoming an increasingly important resource to blacksmith shops across the globe. It allows more creativity and detailed work when melding hot metals, which is perfect for blacksmiths, knife-makers, and even jewelers.

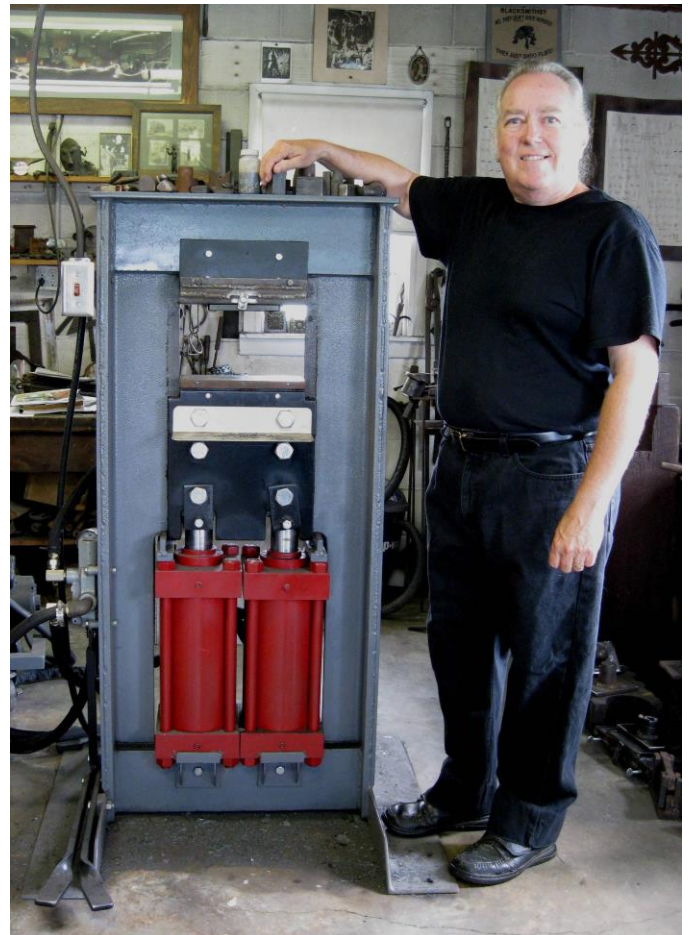
Hydraulic Forging Press for the Blacksmith documents the journey of McDaniel's passion for blacksmithing, which led him to the Hydraulic Forging Press. McDaniel walks his readers through the history, usability and versatility of the press for the blacksmith. A contributing group of artists provided their work for a gallery that is featured within the book in full color.

ABOUT THE AUTHOR: McDaniel has been a blacksmith since 1972 and gained recognition for writing and illustrating *A Blacksmithing Primer*, *A Course in Basic and Intermediate Blacksmithing*. Blacksmiths, blacksmithing organizations, and schools around the globe are using this book to teach basic to intermediate forging. He has written articles for *Fabricator Magazine* and *The Anvils Ring Magazine*. Randy now creates all of his own tooling and dies which he uses to produce a line of unique items.

Hydraulic Forging Press for the Blacksmith was officially released on August 14, 2014 and is available through on-line and local booksellers, www.astragalpress.com or by calling Skipjack Press at 866-543-3045.

"Lots of great information in there. If you have a press or are thinking about one in the future this book has some really great ideas with good photos in it. I could have used this book years ago. Thank you Randy."

-John Perilloux



Quarter Corner

Steel of the Quarter

The steel for this quarter is S7. When people talk about using S7, they are usually referring to making tools. American Iron and Steel Institute (AISI) S7 is an air-hardening tool steel with shock resistance and is high impact. At high temperatures, it will soften a little but overall has good resistance. These two main reasons cause S7 to work well as a tool for forging hot or cold. Generally, it is really tough and has great strength. There is also an added size stability when air hardened. Blacksmiths and metalworkers typically use S7 to make riveters, power hammer dies, cold forming dies, bending dies, chisels, drifts, punches, and some fullering tools.

Most blacksmiths know that steel is made when carbon is introduced to iron, the good blacksmiths anyways. S7 has quite a few elements in it besides carbon that help give it its strength like manganese, silicon, molybdenum, chromium, and vanadium. The chromium in it thus gives it a lot of properties that are similar to stainless steel.

If you would like to forge S7 into a tool, the best temperature is between 1950-2050°F, just don't go below 1700°F and you should be fine. To anneal S7, keep it at around 1500-1550°F with a rate of cooling of about 25°F per hour. After you have annealed the steel, S7 can have a Brinell hardness between 187-223. If you are going to go the quenching route for hardness, heat the S7 up slowly to about 1700-1750°F again for around 15-45 minutes, then oil quench it or air cool it. For tempering, you only need to get S7 up to 400-1150°F and this will produce a Rockwell C hardness of 45-57, which is about 427-576 on the Brinell hardness system.

Overall, S7 is great tool steel, mostly due to price. It also doesn't wear out too quickly and has really high levels of toughness. You can also grind it and machine it while it rarely distorts during heat treating. To the right are some examples of tools created using S7 (all or in part):



Tool of the Quarter: Mandrel

When most blacksmiths think of a mandrel, they think of a large metal cone that sits in the corner of their shops collecting dust and taking up space. Mandrels can be over 5 feet tall and weigh a lot more than you would like to move on a daily, weekly, or monthly basis. However, not all mandrels are huge dust-collecting cones and can be quite useful even in everyday applications like jewelry making. Let's start with the large ones though.

The all-too-familiar cone mandrel can be used for a variety of purposes but the best is for making perfect circles. It would be incredibly difficult to build jigs from scrap every time you needed a new size circle; this is what the mandrel is for. *The Art of Blacksmithing* by Alex. W. Bealer suggests the following: "Another piece of equipment which stands on the floor near the forge is the 'mandrel.' it is no more than a cone of cast iron some 2- to 4-feet high on which the smith shapes circular objects such as nose rings for oxen and hub bands for wagon wheels. The better mandrels have a slot running from point to base on one side into which tongs can be inserted while holding the piece of work. Some also have a removable tip with a shank that can be taken off the mandrel and placed in the leg vise or Hardie hole for convenience."



This brings me to my next type of mandrel: the Hardy hole mandrel. I know a lot of blacksmiths that think the horn of their anvil is the best tool for making rings and circular ironwork. But, how many times have you seen a smith adjust, then readjust, then over-correct, then throw the piece across the room to the scrap pile? This happens because the horn of the anvil isn't usually perfectly round. Most anvils have a flat part on top and just getting down on your knees to be eye level with a piece of work as you try and swing your hammer against gravity can be downright frustrating to say the least. Here comes the Hardy hole mandrel. As a big fan of Hardy tools in general, I like the mandrel for this type of forging since it is *relatively* light in weight for picking up at a moment's notice and is round the whole way around so I can work at the best possible angle for me.





she was skinnier than she really was will help in the long run when you're trying to explain why it took you so long to make her a ring to begin with.



Speaking of best possible angles, even better still is the hand-held mandrel. Used mostly by jewelers, this type of mandrel works best for sizing rings. I don't know how many times I've seen a blacksmith create a beautiful ring only to misshape it by trying to resize it on the horn of an anvil. It is almost impossible to get the size right when you are working on the aesthetic quality of a ring during the forging process so this is when the hand held mandrel works best. And let me warn you now that when you are making a pretty ring for an even more beautiful woman, you better underestimate the size of her "skinny" finger and just use a mandrel to resize it. Bumping up the size of a ring because you thought

So while some of these giant and small chunks of metal can cost a fortune, *Complete Metalsmith* by Tim McCreight has some practical suggestions for those blacksmiths on a budget to use as a real mandrel substitution: "drift pin, drive pin, machine shop rejects, chair or table leg, machine parts, and baseball bat". I know Jason Lonon would approve of these economical mandrels after his demonstration at the second quarter meeting as a "blacksmith on a budget".

Concluding with mandrels, whatever size you chose to use, there is a mandrel for the job.

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Hammers



Spring Swages

Anvil Surfing Pic of the Quarter

Here is a little bit of fun to end this issue. Pictured below is Mia Persson from Braxsele, Västerbottens Län, Sweden. In these pictures, she is doing a bit of yoga on her anvil to help break in her new shop. Enjoy!



From Amos Tucker: Coal for Sale

I now have coal for sale. It's the pea size sewell coal Fred Pugh used to sell. It's \$10.00 per 5 gallon bucket, you bring the bucket, or \$100.00 per 55 gallon barrel, you bring the barrel. Delivered and dumped is \$110.00 per barrel plus \$2.00 per mile from my shop to yours. I have a source for metal barrels with lids and easy open latches for \$25.00 each should you want to keep the barrels.

"I bought 6 buckets from Amos about a month ago. Top notch coal! High heat output, low ash, very few clinkers – even after a long day on the forge." –Jonathan Whatley

Amos Tucker's cell is (252) 289-7317 and his address is 8172 Renfrow Road, Kenly, NC 27542.

From Amos Tucker: Complete Blacksmithing Set Up Rental

Complete Blacksmithing set up for rent. \$75.00 a month. Offered to those who want to scratch the itch of forging but don't want to invest a lot up front. Comes with forge w/blower, anvil w/hardie, leg vise, and bucket of tools. I sell the coal as well, by the bucket or the barrel. Have 4 of these to rent out.



4th Quarter Meeting at John C. Campbell

Saturday, November 1st, 2014

9am until about noon, lunch & auction afterwards

1 Folk School Road

Brasstown, NC

****Hammer-in on October 31st, 2014**

Additional 4th Quarter Meeting at Peter Ross's Shop

Saturday, November 15th, 2014

Starts at 9am

2232 White Smith Road

Siler City, NC

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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

1st Saturday in even # months at various locations

Brasstown Blacksmiths (Brasstown, NC)

Paul Garrett
pdg86@hotmail.com (828) 835-8441

1st 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

4th Quarter 2014 – November 1

John C Campbell Folk School
 Brasstown, NC

Additional 4th Quarter 2014 – November 15

Peter Ross's Shop
 2232 White Smith Road
 Siler City, NC

1st Quarter 2015 – March 14

Oak Hill Iron
 Morganton, NC

Other Events

Dixie Classic Fair

Winston-Salem, NC
 October 3 - October 12, 2014
www.dcfair.com

North Carolina State Fair

Raleigh, NC
 October 16-26, 2014
www.ncstatefair.org

For the most current meeting and event information go to the NC ABANA website,

ncabana.org

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 10am-5pm

SUN. OCT. 12
 1pm-5pm

North Carolina Artist-Blacksmith's Association of North America

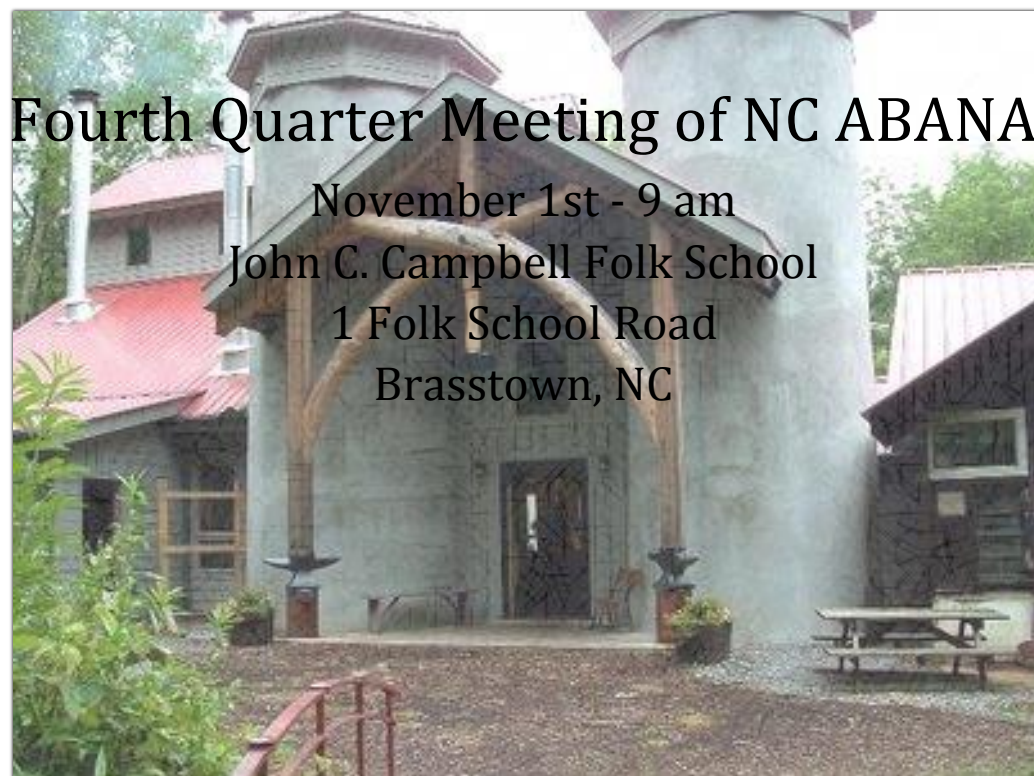


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Fourth Quarter Meeting of NC ABANA

November 1st - 9 am

John C. Campbell Folk School

1 Folk School Road

Brasstown, NC