



Balcones Forge Dispatch

President's Corner

November 2013



Changes; for me that was the theme of the last meeting. I saw a lot of changes going on all around some happy, some sad, some scary. Ok, so the scary one really only pertains to me stepping into the role of President of this tremendous organization. I have some big shoes to fill, but I have lots of great people around me to help, so I have a great feeling about this next year.

The sad is obvious, we have lost a lot of wonderful people this year. The anvil ring was a very sobering event. While I didn't know Ellis Burges or Mirra Calhoun personally, I've heard their names mentioned many times and both were important in making Balcones Forge what it is today. I did know George, and feel great pain at his loss. George had a ready wit and a quick smile. Jim Elliot mentioned the time George bought the forge for the kids, I too remember that event. It was a great time with George bidding on items left and right. He was sitting a bit in front of me, I started bidding on a item and quickly reached my limit as George started to drive the price up. He knew I was bidding on the item, and as I stopped he turned in his seat looked at me and waved his arm, telling me to keep going, so I did and when he won the item he turned and gave it to me. That was typical George, he gave a lot to this group and he will be greatly missed.

While I'm missing people, I'm also encouraged by the many new smiths coming into the group. People like Jeff Shockley, Robin Ream, and Troy Smiddy are all stepping up and helping out where they can. It's that "how can I help" attitude that makes Balcones Forge what it is a "Family".

Meeting Date is November 23

President's message continued on page 2



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President's message continued from page 1

So lets start making this "Family" stronger, by doing what we can. Volunteer to host a meeting, be a mentor to a new smith, help out at meetings, bring items for auction, bid on items, and most of all have fun.

Remember our next meeting is at Gary Hilton's in Hunt. Gary will be demonstrating how to forge a Viking bearded axe. I look forward to seeing you all there, and if you have ideas for meetings please let me know.

Matt Czosnek
President, Balcones Forge



SECRETARY'S NOTES FOR OCTOBER

The change over from Jerry Whitely to Matt Czosnek as President is official, and the Board also met to discuss other positions in need of filling.

The meeting was held at the home of Jerry Whitely and attendance was high. The loss of several members over the past year was commemorated with the traditional anvil ringing ceremony and a touching outpouring of personal remembrances from those who were there.

Kainon Baumer provided a tong making demonstration using the techniques he has learned from Brian Brazeal and his trip with the Young Smiths this last year. Jerry Whitely demonstrated several techniques for texturing and coloring metal work

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Secretary's notes continued

while making several crosses. Jeff Lee created a wonderful elephant head hook to rival his famous fish sculptures. He promised to demonstrate more animal oriented iron works in the meetings to come.

Vince enlivened the proceedings by providing his usual dry humor to the Iron in the Hat auction. Everyone dug deep to help provide funds by bidding and winning an amazing variety of items on sale. As always, our membership is ready and willing to step up and provide for the future of the group's activities.

We also enjoyed a delicious meal provided by the Whitely clan, BBQ brisket and pork and all the fix-ins'. Overall, it was a very enjoyable day with many new memories to treasure.

Laurie Wicker
Secretary, Balcones Forge

THE NEW BALCONES FORGE BOARD OF DIRECTORS

Matt Czosnek, President
Jerry Achterberg, Vice President
Rudy Billings, Treasurer
Laurie Wicker, Secretary

John Crouchet
Jim Elliot
Vince Herod, Editor
Alan Lee
Jeff Lee
Jerry Whitley

FINANCIAL REPORT

Just to let you know, Balcones Forge is not only an outstanding organization promoting the craft of blacksmithing and metal arts, it is also successful financially, thanks to generous donations and enthusiastic bidders at our auctions. Here's some details on how our money comes and goes.

Yearly expenses include insurance, library books and DVDs, website hosting fees, t-shirts/caps and newsletter printing/ mailing. Proceeds include t-shirt/cap sales and Iron-in-the Hat auctions. Dues collected this year to date total \$2,220.

Our 2013 Bluebonnet event after expenses yielded \$5,068.

As of this newsletter, our cash-on-hand balance is \$9,564.

We are investing in equipment and space to expand our yearly hands-on workshops/classes which will benefit more members. Your continued generosity to meet these extra expenses will be needed more than ever.

Note: Balcones Forge is an all-volunteer non-profit organization with no compensated offices.

Respectfully submitted,

Rudy Billings
Treasurer

Directions to November
meeting on page 14
Look at map on page
15!

Attention Centaur Forge Customers

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Centaur Forge is on the left.

All New and Existing Customers will receive 10% off all purchases during their first visit at the new Austin location.
Good through December 31st

NON-PRESIDENT'S MESSAGE

I was honored to be able to “Ring the Anvil” for those that have gone before us, especially George. I feel like we had a really good turnout of members, a few came out to see what we were doing and some family members of those being remembered. They started arriving about 8:30 and the last ones left on Sunday so, it looks like everyone had a good time.

Kainon making tongs and Jeff with his animal head were both great demos. Thank you for stepping up and doing that for the group. We must have had plenty to eat (or it wasn't very good) because we are still dealing with the left overs. I would like to thank those that helped with this, especially Marsha and Mom (Marian) and Dad (Leo) that helped. It would have been very difficult to get everything done without them.

I want to thank you for the opportunity to serve as the Board President for the past year. The support of the board really makes the president's job much easier than it could be. The only sad thing is, that with an organization as large as ours, we do not have more people willing to step up and give us a hand. Believe me, I know how life can get in the way but, in order for us to have the “Great Organization” that we want and expect, we might have to make that extra effort to be there for the group. Currently this organization is running on the core group. We need to grow this core to take some of the weight off of their shoulders. Vince needs articles every month for the Newsletter (I didn't say bulletin), we need demonstrators. To demonstrate you don't have to provide the location. We need venues. We need members to step up and demo for groups when the request is put out.

Thank you again for the opportunity to be here, the experience has been great.

Just Me,
Jerry Whitley

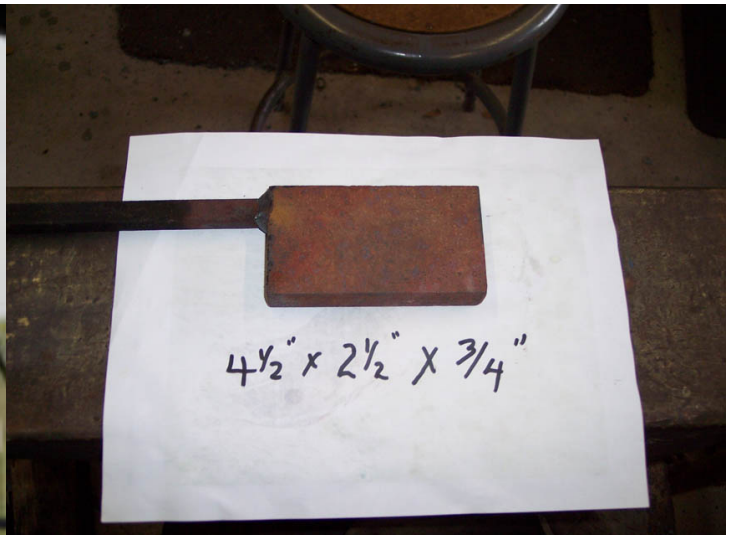
photo by Vince Herod





SCENES FROM THE OCTOBER MEETING.

photos by Vince Herod



Our host and demonstrator for the November meeting is Gary Hilton. He will teach us the steps for making a Viking Axe. His demo is based on the article on the next five pages as well as the video available online and (for more detail) on DVD.

photos by Vince Herod

The blank, the tools and the steps to completion.

photos by Gary Hilton

JIM AUSTIN'S

The Bearded Viking Axe

(Part One - Forging the eye)

Jim Austin
Oakland, California

This forged axe head was undertaken to explore how such historical axe heads may have been made in the past. There are other methods of construction to achieve the same result when using wrought iron. This particular method of construction was used so that I could match a similar style Viking era axe, held in my possession.

The axe was forged using a block of cold rolled steel ($\frac{3}{4}$ " x 2" x 4") with a high-carbon steel insert (1075) forge welded in, forming the blade's edge.

I tried to treat the cold rolled steel as it were wrought iron in terms of method of construction.

Tooling

I used a piece of 1-inch diameter round bar welded to a handle as a fuller (fig 4), together with an anvil block with one edge ground to a $\frac{1}{2}$ " radius (to match the 1-inch diameter fuller). (fig 7)

A handled hot-cut was used to split the stock. (fig 9)

A succession of fuller sizes, starting with a $\frac{1}{8}$ " hand fuller and culminating in a $\frac{5}{8}$ " round top fuller, were used in opening the eye (figs 11 to 14). It is important that the root of the cut be converted to a half-round shape before continuing on with opening the eye.

The fuller used in spreading the eye (fig 15) is crowned with rounded corners.

A tapered round mandrel was used to help shape and weld the eye. (figs 23 to 25) The size and shape of the mandrel reflects the size and shape of the wooden handle to be used on the axe.

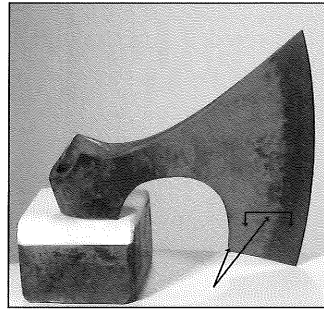


Fig 1. The corner & the extension of the blade make this a 'Bearded Axe'

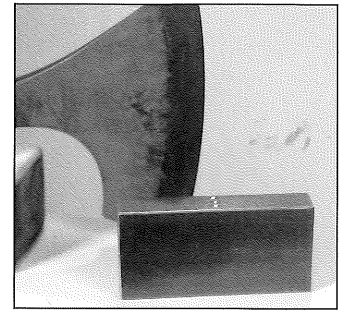


Fig 2. A block of .75" x 2" x 4" cold rolled steel was used for this portion of the project

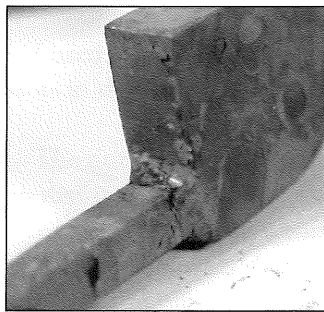


Fig 3. A steel handle was welded onto the block for convenience

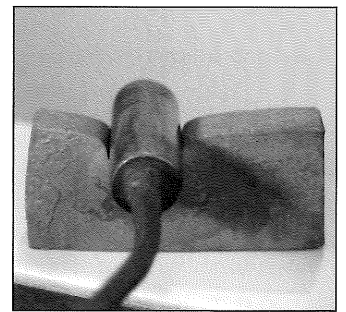


Fig 4. A 1-inch fuller was driven into the bar at one side of the half-way mark

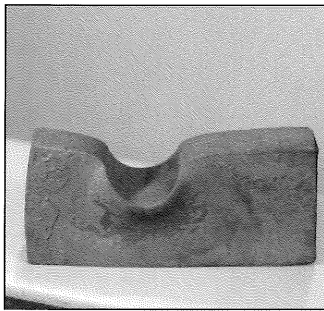


Fig 5. The fuller was driven in a little less than half way

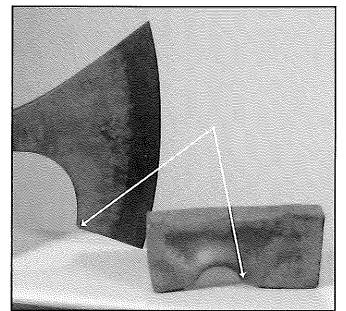


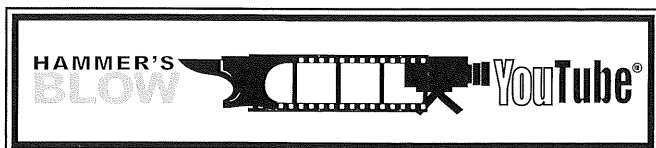
Fig 5. One side of the fullered groove will make the corner for the beard



Fig 6. The short side of the fullered groove is drawn down to 1-inch square



Fig 7. An anvil block with a $\frac{1}{2}$ " radius edge was used to protect the curved transition



BEARDED VIKING AXE

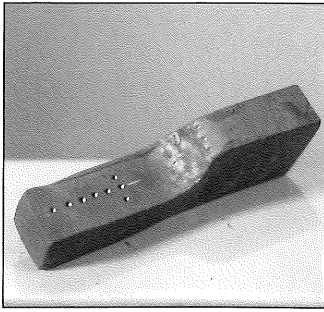


Fig 8. Mark either side of the bar to a depth of 1½" in preparation for splitting

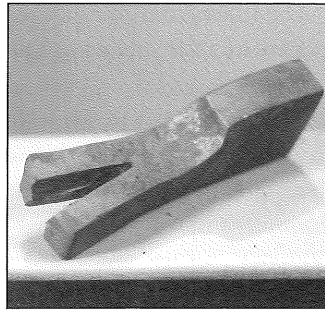


Fig 9. Cut from both sides of the bar to evenly distribute the mass of the bar

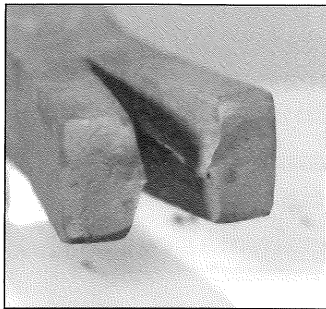


Fig 10. Here is the result of cutting from both sides of the bar

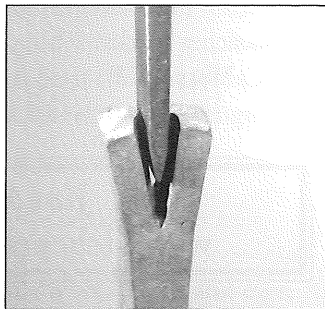


Fig 11. The base of the cut will need to be levelled and made half-round in shape



Fig 12. Open out the sides to help prevent cold shuts from being formed

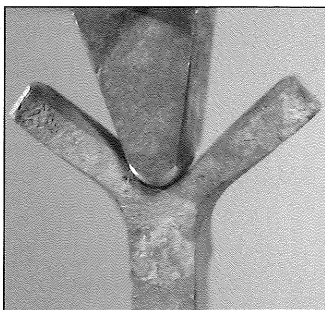


Fig 13. With the sides open use successively larger fullers to open the root of the cut

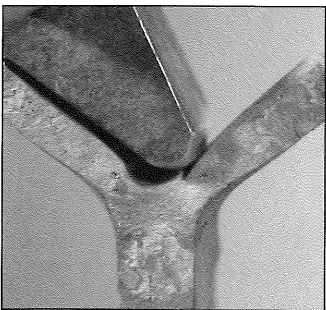


Fig 14. Walk the fullers up the edge a little to further round the base of the cut

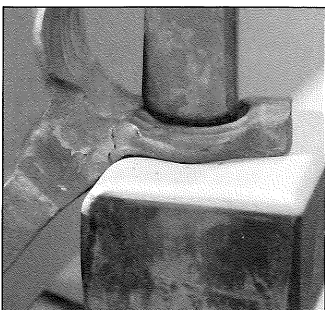


Fig 15. Using the round edge of the block to protect the transition; spread the eye

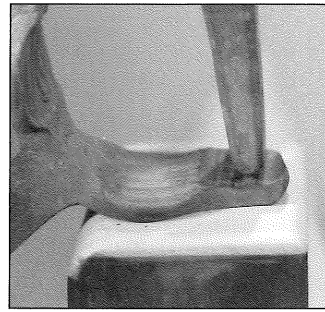


Fig 16. Fuller in the opposite direction to prepare the eye for forge welding

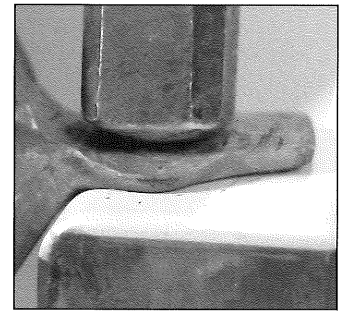


Fig 17. Smooth out the fulling marks with a rounding hammer



Fig 18. Draw the outside of the eye down to form a tapered scarf



Fig 19. The scarf is tapered and ready for welding

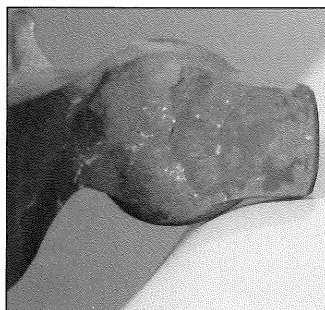


Fig 20. Clean up the sides of the scarf now, prior to welding



Fig 21. Roll the eye over the bick or a suitable mandrel

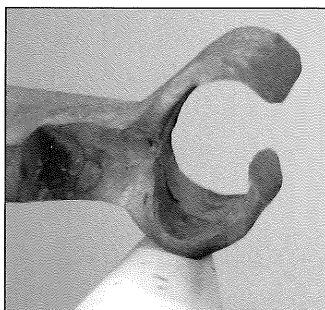


Fig 22. The lower side is complete, with the upper side needing more work



Fig 23. The axe will fit onto the tapered mandrel with the top held downwards

JIM AUSTIN'S VIKING AXE



Fig 24. The eye is fitted to contact the mandrel at the weld site

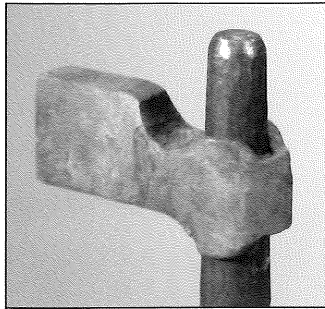


Fig 25. The weld is made at the mandrel

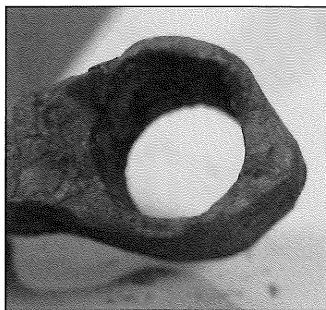


Fig 26. The welding blows were focused on the outside and inside scarfs



Fig 27. A short mandrel was used to protect the eye as the throat was drawn out

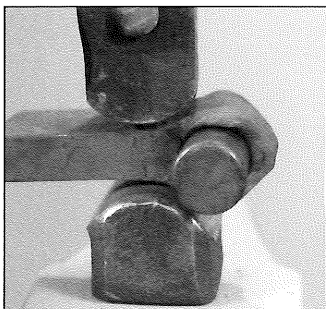


Fig 28. Draw out the throat using top and bottom fullers. Work from both sides

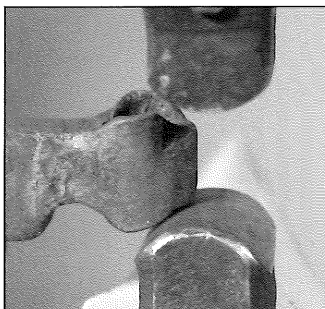


Fig 29. Refine the shape of the eye and define the langets

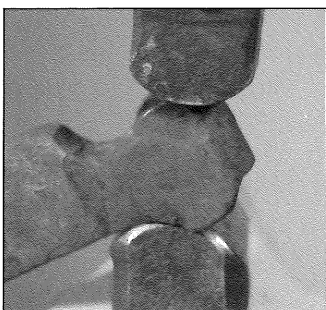


Fig 30. Work from top to bottom as well as diagonally to shape the langets



Fig 31. The pointed langets are near completion

The fullers used in shaping the langets and refining the eye are of a 1½" radius. (figs 28 to 31)

The anvil face was painted primer gray (As per Mark's instructions) and lit with two fluorescent worklights as described in the video article within the Winter issue of the *Hammer's Blow*.

Jim, who is an American smith, is a certified journeyman who qualified in Germany after serving a three-year apprenticeship. Jim continued his European studies for a further three years after certification.

Jim teaches blacksmithing classes out of his shop in Oakland, California. □

Jim Austin
www.alchemymetalworks.com

Håvard Bergland

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JIM AUSTIN'S VIKING AXE

The Bearded Viking Axe

(Part Two - Welding the blade)

Jim Austin
Oakland, California

In the previous issue we looked at forging and forming the eye and poll of this axe. In this issue, we will turn our attention to the blade.

Using a $\frac{5}{8}$ " top fuller (or the cross peen of your hand hammer) start to spread the material that you isolated earlier for the blade portion of your axe. Fig. 32

Remember that the material will spread 90° to your fuller or peen. I place my fuller in such a way that the depressions are scribing the outside of a large circle and as such are not parallel to one another. See Figs. 32 & 33. This action will cause the blade to curve as you work.

As you spread the blade, the outside edge of the blade will become misshapen. Dress the front of the blade while supporting the back of the blade, and the curved transition, over a suitable section of the anvil horn. Fig. 34

Draw the blade edge down to about $\frac{1}{4}$ -inch in thickness, sufficient to rest a chisel on and support a chisel cut.

Mark the chisel cut lightly first. You can use a hacksaw to assist you if you wish. I support the stock in the vise while I cut. It is important that the cut be a constant depth as the steel can only be driven in as deep as the shallowest portion of the cut, possibly leaving gaps behind the blade. Fig. 35

Cut the blade to about $\frac{1}{2}$ -inch in depth. This should leave the sides of the cut at about $\frac{1}{8}$ " in thickness. Close the sides together and draw down the area around the cut to thin the sides. Be careful not to weld the sides together again. I thin the edges to about $\frac{1}{16}$ -inch in thickness.

This progression is show in Fig. 36 with the initial cut on the bottom of the blade and the finished, drawn-down and opened-out sides at the top of the blade.

An example of the finished chisel cut is shown at Fig. 37

File or grind the edges to a smooth curve. Fig. 38.

The axe is steeled with a piece of 1080 or better, carbon steel. The high-carbon blade is drawn down on one side and curved to fit in the chisel cut. Fig. 40

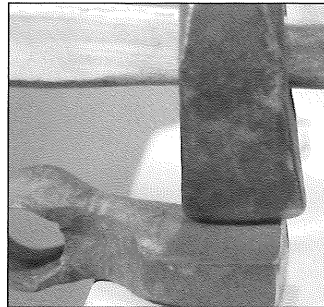


Fig. 32. Spread the blade using a top fuller

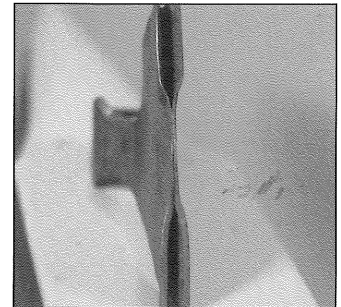


Fig. 36. Three stages of the cut. Cut (bottom) draw down (middle) open (top)

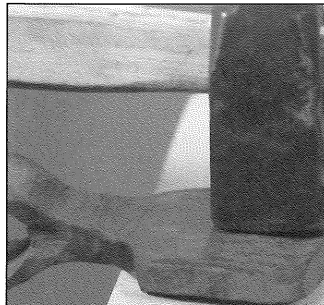


Fig. 33. Position the fuller as if making your way around a large circle

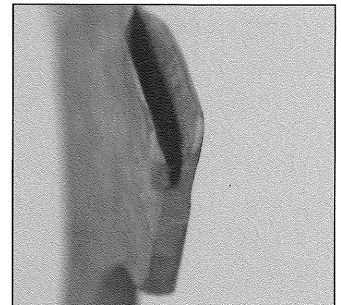


Fig. 37. Edges are drawn down to $\frac{1}{16}$ " thickness and smoothed

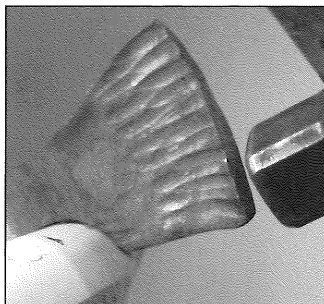


Fig. 34. Correct for any deviations, supporting the back of the blade on the horn



Fig. 38. The finished cut ready to be steeled

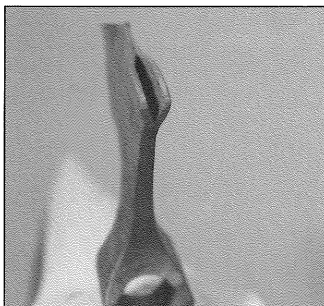


Fig. 35. Chisel cut to a depth of $\frac{1}{2}$ " deep. Make sure the cut is a constant depth across the whole blade

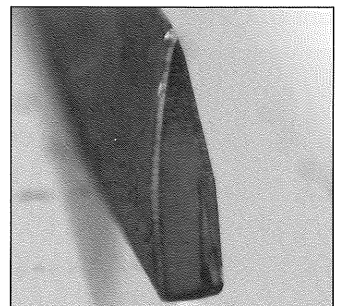


Fig. 39. High-carbon steel drawn down and shaped to fit in chisel cut

JIM AUSTIN'S VIKING AXE



Fig. 40. Steel matches blade curve

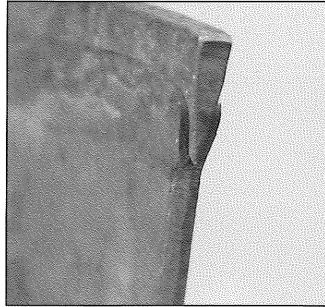


Fig. 41. Make sure there are no gaps behind the steel

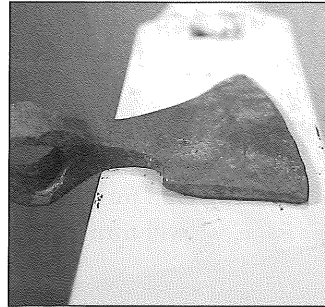


Fig. 43. Draw the blade down as you weld

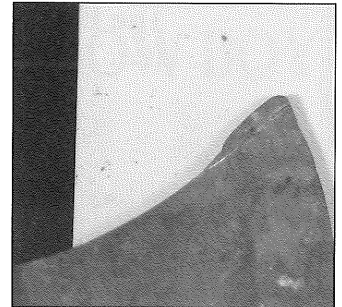


Fig. 44. Cut the excess material away from the blade

Make sure that there are no gaps behind the steel as these are difficult to close during the forge-welding process. Fig. 41. The steel must protrude out from the edges $\frac{1}{16}$ ". Fig. 42

If you chisel cut some sharp tabs similar to a hacksaw blade in the back of the steel, it will stick into the chisel cut better (in the fire) as you take your welding heat.



Fig. 42. Steel and blade shown before forge welding. The blade protrudes out from the sides by $\frac{1}{16}$ " to help prevent cold shuts from being formed during welding

Heat the main body of the axe and drive the carbon steel in cold. Return both to the fire or forge as quickly as you can and bring to a forge-welding heat.

Flux using your flux of choice and return to the heat source to re-heat the axe.

Work from both sides of the blade as you forge weld the blade into position. You can begin to draw down the blade as you finish the weld. Fig. 43

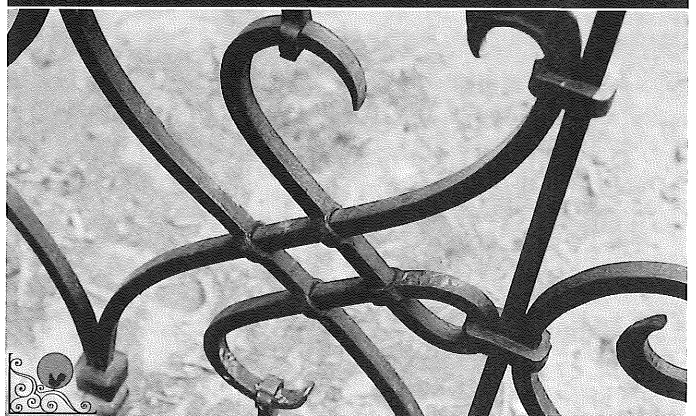
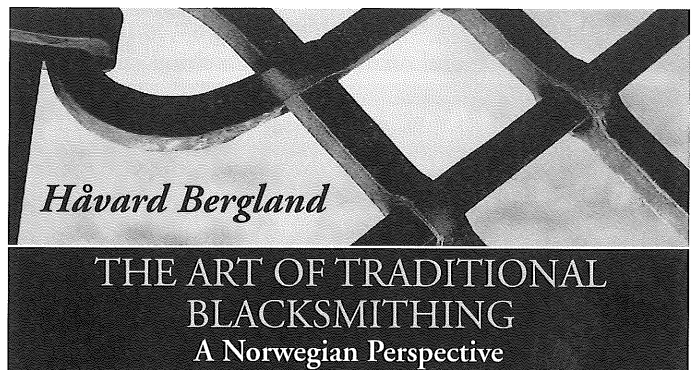
Do not take the axe to a performance-edge thickness until after you have heat treated it or you risk de-carburizing the outer surface of the steel.

The final shape of the blade is chisel cut as in Fig. 44.

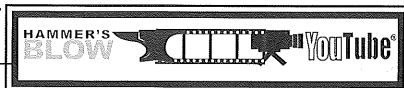
Flatten the blade and normalize or anneal in preparation of benchwork.

Jim teaches blacksmithing at his own shop in Oakland, California. Jim has produced and sells an instructional DVD on the Viking Axe.

Jim Austin
www.alchemymetalworks.com



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Bringing Back *Iron in the Hat*

Iron in the Hat is an old blacksmith tradition and it looks like its time has come again! At meetings of iron bangers across the country, expenses are often paid by auctioning off small tools, interesting bits of iron or tool steel, or even finished iron work, all donated by the very same blacksmiths who are bidding! Yes, it's a an odd tradition, but blacksmiths have never been known for doing things like everybody else does them!

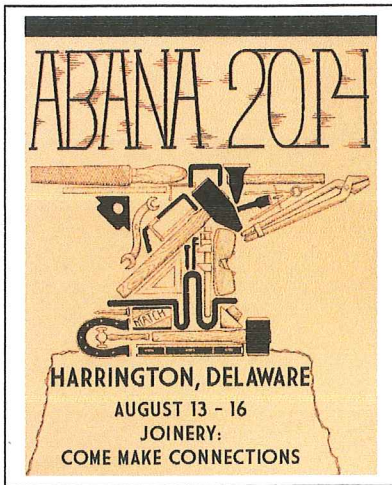
If you have been to any Balcones Forge meetings lately, then you are well aware that our major focus has been on building up a set of ten coal forges, anvils, leg vises, and hand-cranked blowers to use for our annual Bluebonnet Demo hands-on seminars and for teaching and demonstrating anywhere and everywhere throughout the year. Our immediate goal is to have ten coal forges ready to go in time for the triumphant return of Mark Aspery this coming April.

Mark has graciously agreed to conduct all-day, hands-on blacksmithing classes in the days before the big demo, teaching the fine points and techniques of joinery and coal forge operation. Of course, this is a fantastic opportunity for us all to learn from a true master!

Ten new forges is a tall order. We expect to spend some serious money in the next few months in order to get this done. We have a plan, and now we need some MONEY!

Oh, yeah, that brings us back to Iron in the Hat. Please bring something for the auction to each meeting. (Yes, we will do this every meeting.) Also, bring a little pocket money. You never know what goodies may appear! If we all get behind this, we can raise some real cash and make some of these blacksmithing dreams come true. Keep us in mind and THANKS!

John Crouchet



2014 CONFERENCE REGISTRATION

August 13-16, 2014, Harrington, Delaware

Registration for the ABANA 2014 Conference is now open! Use this form or call 423-913-1022 to register. **Until 1/15/2014**, full conference registration is \$125 for current ABANA members. Non member registration is \$175.

I plan to tailgate * yes no *The Central Office will contact you with more information.
 I plan to camp * yes no

Name: _____ ABANA ID # _____
 Street: _____
 City: _____ State/Prov: _____
 Zip/Postal Code: _____ Country _____
 Phone: _____ E-mail (confirmation only) _____

2014 REGISTRATION (PER PERSON): BEFORE 1/15/2014 \$175-NON MEMBER, \$125-MEMBER
2014 REGISTRATION (PER PERSON): 1/16 to 6/30/2014 \$225-NON MEMBER, \$175-MEMBER
2014 REGISTRATION (PER PERSON): AFTER 7/1/2014 \$275-NON MEMBER, \$225-MEMBER

Family Conference Passes: Allows family members to accompany a full conference registrant at a much-reduced rate. A family is defined as a head-of-household plus his/her partner living at the same address and their children up to age 17.

Conference T-shirts included in registration fee, and can be picked up at the registration desk at the Conference. Shirts are **adult only**, pocket, in the following sizes: Small, Medium, Large, Extra-large, 2-X large, and 3-X large.

T-shirt Size _____ (S,M,L,XL,XXI,XXXL) \$ _____

NAME OF FAMILY MEMBER: _____ **Size** _____ **(\$40 EACH)** \$ _____
NAME OF FAMILY MEMBER: _____ **Size** _____ **(\$40 EACH)** \$ _____
NAME OF FAMILY MEMBER: _____ **Size** _____ **(\$40 EACH)** \$ _____

Conference Day Passes: Good for all activities on a specific day. ABANA membership not required.

Color-coded passes at \$75 per day will be available at the Registration Desk.

Total Price includes Saturday Evening Dinner and Conference T-shirt **TOTAL** \$ _____

ACKNOWLEDGEMENT AND ASSUMPTION OF RISK REQUIRED

Each Person will be required to sign an Acknowledge and Assumption of Risk in order to be admitted to the Conference (including minors through a parent or guardian).

I acknowledge that blacksmithing and related activities are inherently dangerous and involve risks and dangers to participants and spectators that may result in serious injury or death. In deciding to attend the ABANA 2014 Conference, I have considered these risks and I knowingly assume them. I agree that I am responsible for my own safety during the Conference, including wearing appropriate clothing and protective gear and remaining a safe distance from all dangerous activities. I agree to hold ABANA, Delaware State Fairgrounds, and others involved in the Conference harmless from liability and expenses arising from my own actions or omissions. I agree that my admission to the Conference constitutes consideration for this acknowledgment.

SIGNATURE: _____ **DATE:** _____
SIGNATURE: _____ **DATE:** _____
SIGNATURE: _____ **DATE:** _____
SIGNATURE: _____ **DATE:** _____

EVERY REGISTRANT MUST SIGN THIS FORM!

Credit card orders (Visa/MC/Disc) can be faxed or mailed; be sure to sign this form. Fax: 423-913-1023

Credit Card Number _____ Exp Date ____/____ CVVS _____

Directions to Gary Hilton

From San Antonio take I-10 to Kerrville and take Hwy 16 exit. Turn left (south) on 16 and follow directions as below.

Take 16 from Fredericksburg to Kerrville until it crosses 27 in Kerrville. Turn right (west) on 27 and continue on 27 until you get to Ingram, TX (about 7 miles).

In Ingram take Hwy 39 (left at the fork of 27 and 39) and drive to Hunt (about 7 miles).

Just before you get to Hunt and before you cross the Guadalupe river (at Schumaker crossing) there is an entrance to Canyon Springs Ranch Subdivision on the right. Take this entrance into the subdivision and the first Y intersection that you come to take the right fork and come up a hill. You will come to two more Y intersections. Take the right fork each time. The 3rd one will put you on Ranch Rim Drive West. We live at 550 Ranch Rim Drive west and there is an anvil silhouette at the entrance to our place.

Parking is not at a premium but if folks would park in the road around the shop starting behind my pickup we could park quite a few folks but some would be locked in until we all go. If this is a problem for anyone there are some spots behind the house on the cement drive. In any event there should be plenty of parking.

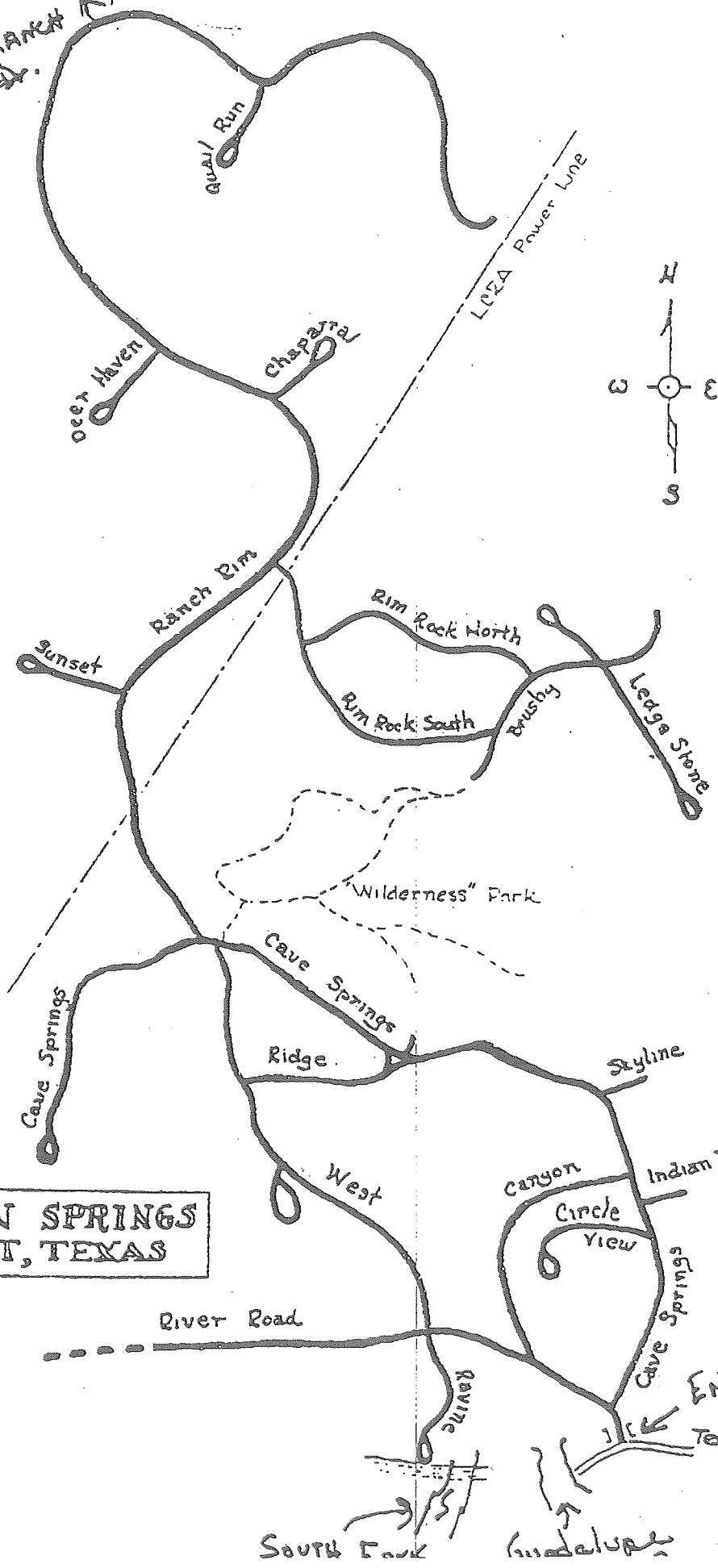
Regards,

Gary Hilton
Consulting Petrophysicist
Cell: 830-459-4015
Off: 830-238-3406
email: gwhilton@hotmail.com

550 HILTON RANCH RIM DRIVE WEST

Gary & Sue MILITON
P.O. Box 728
550 ~~261~~ RANCH RIM DR WEST
HUNT, TX, 78024
Phone: 830-238-3406
or " " " 3405

Direction on Rail



CANYON SPRINGS HUNT, TEXAS

ENTRANCE CANYON SPRINGS RANCH Sub Division



START SAVING YOUR MONEY NOW! THIS TRELLIS BY SUE MURRAY IS SURE TO BRING BIG BUCKS AT THE BLUEBONNET DEMO AUCTION.

photos by Vince Herod

Return Service Requested

Vincent Herod
Spotted Dog Forge
166 Granite Road
Paige, TX 78659-4922

