

THE ONE AND ONLY MONTHLY NEWSPAPER OF The Eugene 5160 CLUB

July meeting is on Thursday the 1st 2010 6pm at the Woodcraft store on Coburg Road

The big (July) event for the Eugene 5160 Club is our space at Bohemia Mining Days in Cottage Grove. July 15-18, that's Thursday, Friday, Saturday and Sunday. We're supposed to have the same space as last year. Tomo-wayne is going to be there on Friday and Saturday, he'll have his portable outfit and be available for tutorials for those who want to forge their first blade. We had a great time last year and expect this year to be better yet. There will be a sign-up sheet at the meeting.

Jeff says we can store our stuff overnight at his place. I believe we will have a table for a display and selling knives is OK. Please mark with the price and stay there if you have knives for sale.

Dave Rider is a genius when it comes to figuring out tools. He made the Midnight Special the night before the Bohemia Mining Days started last year. The ingenious base anvil base holds all the necessary tools for doing real work.

Did you notice that the header says Eugene 5160 Club, that's because there is now an Appalachian 5160 Club. Contact James Covert at [www.bladesmithing2000@yahoo.com](mailto:www.bladesmithing2000@yahoo.com)

The program this month is care and



Dave Rider's "Midnight Special" anvil and tool holder at its inauguration at the 2009 Bohemia Mining Days.

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mainance of sharpening stones and sharpening files and if needs be a refresher on sharpening. Tomo-wayne will demonstrate the process of lapping a sharpening stone to get it back to being flat. While someone else is sweating over the lap table Tomo-wayne will talk about sharpening files.

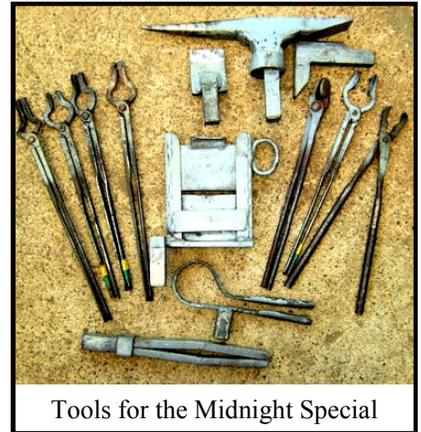
Michael brought it up and I think it will be good that we all have nicknames. Therefore I will be *Tomo-wayne* and Michael will be known as *Mossy Mike*. I went through a Japanese style period years ago and adopted Tomo as my blade makers name. I looked through a list of names and picked it for its meaning and I liked the rhythm and sound of it. At the time I knew the hash mark for it.

That's it from Tomo-wayne.

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Mossy Mike's report on the June meeting.

There is no such thing as an "off night" for a 5160 Club meeting. I'm convinced.



Tools for the Midnight Special



June 3, 2010

Wayne Goddard opened by announcing that his mystery guest would have to remain mysterious until September - since he was unable to make it to the June meeting. And then Wayne launched into a demo/discussion of Everything That Went Wrong At The Hammer-In. Which I thought was an amusing way to put it - since everybody at the hammer-in had a great time. Wayne himself extolled the virtues of the fresh-baked cinnamon rolls and the general good time had by all.

But Wayne has been doing this for a year or two and saw some things we were doing that made him cringe. He explained that - while there are many ways to get results - he hates to see wasted effort. So without further ado, here are Wayne's pointers on Things That Went Wrong:

Drawing out the blade. He observed several of us using inappropriately shaped hammers, and not using the-best part of the anvil for drawing out steel. A basic flat headed hammer will move steel out in all directions - so if you are trying to get the steel to move in ONE direction use a straight-peen, cross-peen, or diagonal-peen hammer as suits your grip on the steel and the direction you are drawing to. The steel will move perpendicular to the line of the peen and hardly expand at all in the other direction. Wayne used hammer, clay (to simulate hot steel), and a wooden block (anvil)



with a radiused edge to show how to move steel quickly in only one direction by holding the "steel" on the radiused edge at a slight angle and striking it so that the line of the peen in the hammer matches the line of the radiused edge of the anvil:

\* Sharp edged dents become cold shuts. If you have a hammer face with sharp edged sides you stand the chance of getting a sharp dent in the steel - and the further danger of folding that edge over when you flatten out the dent - creating a cold shut in the blade. I ground a hammer with one face like that for "pinching the choil" - I believe I'll go back and slightly radius those edges.

- Fast Quench/Slow Quench and Tempering. The quench goop I had at the hammer-in was slower than Wayne's goop.
- Wayne said he was going to experiment with some vegetable oils - particularly soy oil - and report back. Anyway - the pearl of wisdom that I got was that if you took identical blades and quenched one in slower quench to, say, 60R - and the other in faster quench to, say, 64R - then tempered them both back to 58R - the one that had been fast-quenched would still hold an edge better - due to more martensite having been formed. I'll try speeding up my goop by adding animal fat. He also admonished us to have a cover at hand to put out a fire in the quench before it gets serious. You might also use a separate set of tongs (at room temperature) to grip the tang when quenching so that the tongs themselves don't help ignite the quench. Wayne uses vice grips for this. There was some discussion about peoples' favorite quench. For instance Mike has had good results with 2/3 automatic transmission fluid & 1/3 bacon grease.

There are enough of us Mikes in the group now that I think we need nicknames. I could be Mossy Mike - I'm always coming into the house with bits of moss and lichen on me. Either that or Lichen Miken. Hmmmm Liken Mike has a nice were-wolfy thing going for it - but Mossy Mike is probably a truer nickname.

\* Scale. Wayne recounted how his one-brick forge setup that day had run too hot and produced a large amount of scale on his blade. The sen would not bite into it due to the scale. So he heated the blade back up to low red and wet-hammered it to pop off the scale - so the sen could get at the bare steel. He noted that the ideal sequence would be to do this as part of the forging process. Each heat should be slightly lower than the last - so you might do your initial heat at 2200F, next heat at 2150F and so forth - brushing or using a little wet-hammering along the way if necessary to get the scale off - and by the time you are finishing you will be working at a lower temperature where much less scale forms. And there was some discussion about pulling the sen at a 45degree angle versus 90degrees. I suppose it is like the difference between slicing and chopping with the same edge: a slicing motion presents a thinner edge angle. It's one of those geometry things.

\* New Tempering Gizmo. Wayne has had varying results with his new tempering gizmo design possibly related to the size of the blade (not working properly for large blades). He will continue experimenting and let us know how it works out.

\* Mossy Mike's broken JS test blade. Wayne critiqued the Journeyman Stamp practice blade that I broke a few weeks back. He will do a write up on it. These pointers are for JS test blades only - making a blade that will pass the JS test has requirements

that differ from what you want in other blades. That said, the critique points that I've caught so far are: Distal taper the entire blade so that the bend area will be spread out; The back of the blade was not tempered enough - which surprised me since I drew it to dark blue three times; Point geometry should be a spear point rather than the clip point I used. While none of these alone might have been fatal - the combination of weaknesses led to a broken blade. Live and learn.

\* Daily Cup of Coffee. Wayne highly recommends a daily internet trip to Don Fogg's website and blog: <http://www.dfoggknives.com/> and <http://www.dfoggknives.com/wordpress/> ... oh man - I don't know what it is about a broken back saex that lights up my eyes - and this one is a beauty: [http://www.dfoggknives.com/wordpress/?attachment\\_id=50](http://www.dfoggknives.com/wordpress/?attachment_id=50) Don Fogg's forum too: <http://forums.dfoggknives.com/>

\* Last but somehow first: Elements Of Design. Wayne held forth on the importance of proper design. I bet five people would have five ideas about what "proper design" means - but Wayne sure is right that we need to focus on it. Wayne enjoys natural lines (I know - that's not much of a revelation) and considers it his hobby to incorporate the natural curves of horn and antler into his handles and carry those lines into the blades. It sounds like he takes his time trying various materials/pieces/shapes until he finds a combination that speaks to him - or lives up to his vision for what the blade should be. He illustrated his points as he talked with several of his blades. This was a treat.



On to other topics - the donations at the hammer-in at Jim Jordon's will more than cover the regis-



The inspiration for this folder by Tomo came from the elk antler tip with the unusual curve. The Sable horn and deer antler crowns were added as he got a mental picture of what he worked into the organic overall appearance.

tration for Bohemia Mining Days. I think fate has duped Jim into being our treasurer heh heh heh.

I've been using a vertical cylinder of watered-down bluing based on a hint from Wayne last Summer - and I like the way it works! He mentioned this again at the meeting and I believe the ratio was 1 gallon of water plus 1/3 bottle of Birchwood Casey Super Blue and heating it to around 80-90F. Hmm I haven't been heating mine. It's in a PVC pipe. I'll have to think about that.

Keith shared with us all his travails in heat treating a very nicely shaped dagger he has been working on. The darn thing warped during the quenching and will not come back to straight! Part of the problem

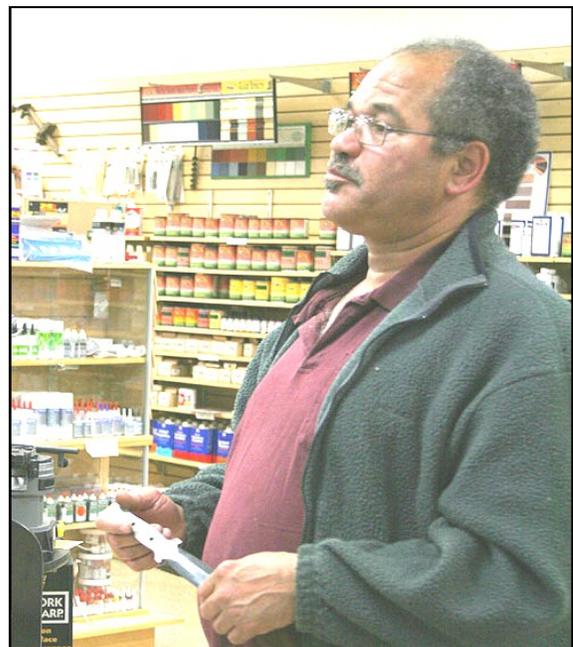
(according to talk around the room) may have been using a water quench.

He first quenched in goop - then tried again a couple of times in water.

But another probable cause that several folks noted was that the blade is asymmetrical in that one face has a deep fuller



Lynn's horizontal belt grinder.



Keith with his "Travail" dagger.

down the center of the blade. The thought was that this could be what caused the blade to warp towards the fullered side. (Tomo thinks that a straight-in point first quench is the best for double edged blades.)

There was the usual swapping of tales - tall and short. Wayne talked about spending a week at Ed Fowler's place playing with forging and having way too much fun. Including the invention of Pennzoil Damascus. Quite entertaining.

One thing that was NOT a tall tale was Lynn Moore's new horizontal grinder. He brought photos - hopefully we can get one into this newsletter. In the meantime here's the site where he got his inspiration: <http://www.beaumontmetalworks.com/> (click on the link to "EF-48 Horizontal Belt Grinders")

And that wraps up my notes from the June meeting. So that was an "off night" for the 5160 Club. Coulda fooled me.

Mossy Mike

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