

THE ONE AND ONLY MONTHLY NEWSLETTER OF THE
EUGENE 5160 CLUB – FEBRUARY 2011



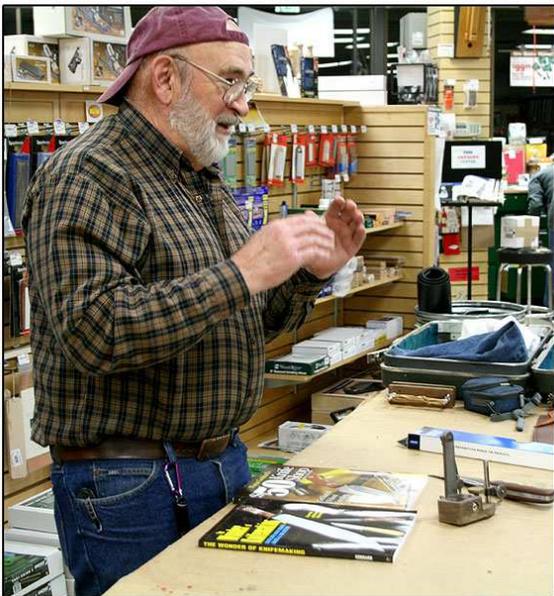
February Meeting will be Thursday the 3rd at 6pm at the Woodcraft store in Sheldon Plaza on Coburg Road, Eugene. Informal Steering Committee meets at McDonald's at the North end of Sheldon Plaza at 5pm.

I opened with a summary of the Informal Steering Committee meeting: There are a bunch of workshop ideas on the table (pewter casting, mokume gane, leather-working, handle inlay, etching, engraving, Spring hammer-in) and several ideas for speakers.

Then I shared my “fun” experience getting grinder grit stuck in my right eye socket and there was general discussion of face masks, shields, goggles. Wayne Goddard is happy with his “dork hat” solution: wear a hat with a brim all around. I went from separate goggles and respirator to an all-in-one face mask that seals all around and has a built-in respirator.

I turned it over to Wayne who proceeded to give away chunks of bandsaw steel.

Wayne let us know it's pretty certain that he has Parkinson's disease. The medication he's been taking controls the physical symptoms and also makes him feel mentally sharper. There has been a lot of progress in controlling Parkinson's over the last couple of decades, so I'm keeping my fingers crossed.



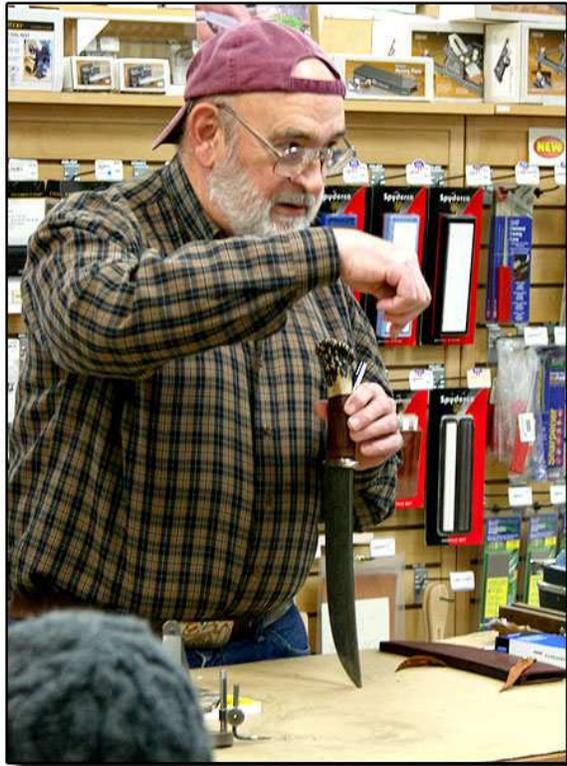
He has completed work on the 2nd edition of **The Wonder of Knifemaking** which is now in the editing and layout process. It is due to come out the 1st of June and is 80% rewritten! 60,000 words. 200 photos. Outdated information has been removed – new knowledge and practices have been put in. It turns out that a “revised” edition like the **\$50 Knife Shop** means you worked it over a little. A 2nd edition means you *really* re-wrote it!

Wayne showed a couple of tools he uses to ease the edge of cut leather. And showed a vice grips with the jaws ground out on the inside so that the mouth will accommodate a wider variety of items – and as usual he has padded the actual vice surfaces – this time with leather. He shared another type of center-line scribe (to set up a line to grind up to on the knife edge – it's hard to see but it's in the photo at left, on the table).



He also talked about truing up flat blade bevels by using a strong magnet attached to the opposite face of the blade – lay the should-be-flat face of the knife down on a 6x48 (or such) belt grinder just enough to see some sparks. That will mark any high spots on that face – which you can clean up on the 2x72 grinder.

Wayne noted what I've heard from multiple Master Smiths: Use the ricasso as your reference for truing up the blade and tang. I'll just note that only applies to knives that have a ricasso – not to a Western chef's knife or a Japanese tanto.



When you are ready to fit the assembled and glued handle onto the tang, glue a couple of pieces of wood (such as tongue depressors) to the sides of the tang and gradually sand them down until the tang-and-wood combination *just* fits into the hole in the assembled handle. You want a close fit with as little filler glue as possible and no air pockets after gluing the handle to the tang.

Protect the blade by wrapping it in toilet paper or some such – clamp it in a vice or jig - glue the handle to the tang with a wet epoxy and drip extra epoxy in. Wayne will use a thin wire to poke the epoxy in and get any air bubbles out before the it sets.

Use rubber bands to keep the handle snug up to the guard while it cures. Here's a shot of the jig Wayne uses: the wood clamps to the blade, and the rubber bands are stretched from the jig over the butt of the handle to keep it snugged up while curing.



Then Wayne launched into a description of his process for making stacked handles.

Wayne likes to start out having a “reference” handle on hand as a guide for aligning the materials for a new stacked handle.

A “shoulder filing jig” out of hard tool steel can be helpful in getting the back of the ricasso trued up for the guard – but you have to be vigilant that the jig itself doesn't slip on you while you are filing!

Wayne prefers a pressure-fitted guard to the style where the ricasso is shouldered all the way around the tang. This method reduces stress risers and he feels it simplifies the fitting process.

He noted that one of the advantages of using leather for spacers (when using wood sections in the handle) is that when the wood expands or contracts with changes in moisture these spacers can take up the slack where a rigid spacer material won't.

The hole for the tang should be slightly oversized. Glue up the stacked handle independently of the blade. Use a very wet (runny) slow cure epoxy. Wayne warms it up to 70°f or 80°f.

Wayne shared that as you shape the handle you can use a block/platform to clamp the blade to and raise the handle parallel to the work table. Note the distance of the handle from the flat table top. Flip the blade over and clamp it on its other side. Again note the distance of the handle from the table top and you should be able to spot any areas where one side of the handle is not symmetrical with the other side.

Wayne prompted a question and answer session. Someone asked him how many of his own knives he's kept. He thought about it and said about six.

He noted that he was winning prizes for his stock removal blades before he started making forged knives. He made folders. Lots of folders. Then got into using Damascus for the folders.

He waffled for a while about joining the ABS because of all the rules – but went for it and became the 14th ABS Master Smith, and the 3rd Master Smith to go through the official testing process. The first batch of Master Smiths were the founders of ABS. For awhile I guess if you showed up with a blade that you'd made the out of your own Damascus you were declared a Master Smith on the spot. Those days are long gone!

Wayne liked forging so much he dropped doing the folders and concentrated on forged fixed blades.

There was general discussion of forging and heat treating. Wayne related the story of a student of his at the ABS school who made a practice journeyman test knife from mild steel (by mistake) – sharpened it up and it cut hanging rope cut just fine – but the edge rolled when trying to cut the 2x4 and that's when they discovered he'd used a bad piece of bar stock! Edge geometry will serve you just so far, then you need some hardness to see you through.

Speaking of torture tests: I follow a couple of young whippersnappers back in the Midwest on-line (MadDwarfWorkshop.com) – here's a fun video of testing a short sword made of 1075 hacking through sheet steel and doing a springy bend past 180°:
<http://www.youtube.com/user/MADdwarfWorkshop#/p/a/u/0/JR02KKNhyq8>

Back to the meeting: we discussed the types of stainless steel that are high performance enough to be used in cutting competitions. And *that* led into stories of accidents at such competitions and we got off into general safety issues again and all the noxious materials that you got exposed to in THE OLD DAYS.

Wayne walked us through how the progression of heating and fast cooling transforms steel – and how some Austenite will be retained if the cooling is not fast enough, but can be transformed into Martensite, and how the tempering process brings back some toughness into a hardened blade.

As I understand it, Austenite is the Face Centered form of steel that can dissolve up to 2% carbon by weight. If cooled fast enough some of that carbon gets “caught” in the lower temperature Body Centered steel and transforms into Martensite. Martensite is hard but brittle. Tempering allows some of the carbon

trapped in Martensite to migrate out, transforming just enough Martensite into Bainite to bring back some toughness without sacrificing much of the hardness.

Wayne talked about getting wood really dry in a drying box so that when you bang pieces together it doesn't just “clack-clack” it's more of a “bing-bing” sound - and beware thinking that the inside is dry just because the outside is dry!

Wayne mentioned he'll be selling an oxy-acetylene torch setup come June. “Victor” brand, medium size. John Priest was selling a 6” piece of ivory – but you missed it – Lynn got it!

Lynn Moore passed around the new Bob Loveless book for everyone to get a taste of.

Brooklyn (Jessie's son) showed off his hand-made cleaver assembled from some extra metal they had on hand – he looked proud and he *should* be proud!



Looking forward to next week's meeting, we have Ron Lake as our guest speaker!

Ron is a nationally known knife maker. Called the “Father of the Modern Day Folding Knife,” he has designed numerous knives for CRKT as well as his own work and collaborations. He's taught seminars around the globe as well as co-authoring **How To Make Folding Knives**.

This is gonna be good! See you there – Michael Kemp.