

∞ **EUGENE 5160 CLUB ~ SEPTEMBER 2012** ∞

The September Meeting will be Thursday the 6th at 6pm at the Woodcraft store in Delta Oaks Shopping Center just off Delta Hwy and Beltline Hwy in North Eugene.



SEPTEMBER MEETING

LYNN MOORE will demonstrate the art of silver wire inlay into maple. Wire inlay, like engraving, adds a level of finish to a knife that turns a knife into an heirloom **WAYNE GODDARD** will be there to provide additional perspective and guidance.

If you have recent work to share with the group, bring it on in!



KEN SWADER WON THE GREAT 2012 BAMBOO HANDLED KNIFE CONTEST!

First up at the August meeting was Judgment Day for the Great 2012 Bamboo Handled Knife Contest!

Wayne roped in our August guest speaker – Dietrich Podmajersky – for judging. There were five entrants – see the accompanying photograph: from top to bottom – Lynne Moore's Bowie, my paring knife, Blair Goodman's short utility, and Ken Swader's miniature Kukri.



The judging quickly narrowed to Lynn's Bowie and Ken's miniature Kukri. You could see that both Wayne and Dietrich were having a tough time choosing. But in the end, they both firmly declared Ken's Mini-Kukri the winner!



I apologize for not getting a beauty shot of the winner, and for that matter – for getting this newsletter out late – between family, Summer chores & recreation, and a couple of programming projects going live – I've let things “go” a little. I'll still be in the thick of it for a few more weeks – but I'm loving life & keeping my nose above waterline. Hope you are too! And now... on with the show:



AUGUST MEETING

DIETRICH PODMAJERSKY was our presenter at the August meeting. He drove all the way from Seattle to share with us and have a short visit at my place.

You can tell I'm really off my feed because in that entire time I did not photograph his set of knives that clinched the American Bladesmith Society's Journeyman Stamp for him in Atlanta this Spring.

Here's the beauty shot from SharpByCoop.com of the knives he brought to our meeting:



MAKER ~ DIETRICH PODMAJERSKY, JS ABS TEST KNIVES IMAGE ~ SHARPBYCOOP.COM

According to Dietrich there are three ways to go for the American Bladesmith Society's Journeyman Stamp. The easy way. The hard way. And the wrongheaded way.

The easy way is to work with a Master Smith – show your work to multiple JS and MS folks and take heed of their advice.

The hard way is to get a little feedback and then ignore it anyway.

He says that the wrongheaded way is to do it the way he did.

He's spent his whole life making useful objects. I've only known him since he married a cousin of mine, so I can only vouch from then on. You should see the laminated wood dingy he built in his garage. Dietrich has an Industrial Design degree from the Art Institute of Seattle, so he has formal training in practical and appealing design. I can vouch that he's meticulous, driven, and something of a perfectionist.

So his wrongheaded way to the ABS JS stamp was to make a perfectionist oriented set of knives based on his own aesthetics and knifely desires. Being sure to abide by the JS judging guidelines and sweating blood to make the best knives he could make.

I know this guy. He obsessed over them. But in his wrongheaded way, he never showed them to a Master Smith (although he consulted with at least one Master Smith during the process). And remember: Dietrich does not recommend the wrongheaded way.

So while the set of presentation knives displayed his skill and dedication, they sure don't look like a normal set of JS blades.

Friday morning in Atlanta – before the Blade Show – all the JS applicants took their knives to the judging room. Dietrich was giving himself a 45% chance of passing as he laid out his knives. Then, looking around the room at all the other applicants sets of knives – he dropped his chances down to 20%.

The applicants were shooed out of the room to mill around in the hallway – I gather it was more of a balcony-walkway around a central atrium. One and

one half hours ticked by. No air conditioning. Atlanta. In June. The ten applicants and some significant others milled around. Then word started to come out – one applicant at a time. When Dietrich's turn came he was not sure he'd heard correctly. Yes. He was now a Journeyman Smith in the American Bladesmith Society.

Of the seven judges, two had voted no pass. One because he felt the set did not display enough variety and failed the written requirement for no more than two knives of a particular style. The other because he felt that the bolsters were not up to JS level.

August 28th this announcement was posted on the the ABS forum:

Changes to requirements for JS Presentation Knives

"Effective immediately, applicants for the JS stamp must have a minimum of two (2) knives among the five submitted with at least six (6) inch blades, and all of the knives submitted must have guards or bolsters."

James Batson, ABS Chairman
August 28, 2012

I gather it is harder to be a judge for JS blades than the Master Smith judging. In JS judging there is a bit of leeway for flaws. The clearer the written requirements are the easier it is on everybody involved – both the applicants and judges.

There have been running discussions about these rule changes on a couple of the forums I read. I think the ABS side of it is best expressed by one sentence from Master Smith Mike Williams: "The rules are there to help you succeed."

*ABS is not a general knifemaker's society. It is a **forged carbon steel blade** society. ABS explicitly states that they do NOT restrict their members from other forms of knifemaking, but the ABS is all about forged carbon steel. If you want their stamp of approval, then obviously you go through their process, judged by their rules. The more transparent the rules are the better I like it!*

The ABS did the honorable thing. They passed Dietrich's set based on the rules that were in place at

the time. Then they had their internal discussions and clarified the rules for future applicants.

But enough of that – back to our "big tent" knifemaker's club meeting right here in river city: Eugene, Oregon.

Dietrich got his industrial design degree at the Art Institute of Seattle in the mid '90s. You weren't supposed to make any weapons for your projects there, but somehow no one challenged his sword project. Dietrich says that before his design training he could not draw. After design training he could not *not* draw. I gather his meeting notes in following years were peppered with unrelated images. Many of them being knife designs.

After the Art Institute there were a couple of years of moving around the country... ending up in the high-tech industry in Seattle.

Dietrich's interest in knifemaking got rekindled in 2002 when he attended a hammer-in. In 2003 he joined the ABS and took their introduction to bladesmithing workshop in Old Washington, Arkansas.

I took that same workshop a few years later and if you are a beginning bladesmith and have the time and the money – it is well worth it.

The high-tech job allowed Dietrich to purchase and stockpile tools for both forging and small run stock removal production. In 2011 he quit his "day job" to make knifemaking his full time occupation.

There was some discussion around the room of carbon steel preferences at this point. Dietrich mentioned W1 drill rod that he likes. Also 1080+ and I believe he also cited 80CrV2 (when I looked this one up it is used for everything from big circular saws to dentist drills).

But for his JS performance blade he went with the tried-and-true 5160. Fully hardened. Soft back draw past blue, twice, to get Rc 43 to 45 on the back (one of his tool investments was a Rockwell tester). The blade edge was left at 59-60 Rc. I assume he did tempering cycle(s) between hardening and the soft back draws but I do not have that in my notes.

After the 90° bend in the presence of Master Smith Michael Rader, the blade returned to 20° on its own.

And yes, Dietrich had done some test runs until he was confident he had the performance blade down and would not be wasting a Master Smith's time.

Knowing that some of our members are making hard use knives in stainless, I prompted Dietrich on the subject of heat treating stainless steel. High alloy steels can be very tricky to heat treat. A forge, a magnet and eyeballing the color, and quenching in a bucket of canola oil may work fine for carbon steels, but not for stainless.

Dietrich's advice: A digital kiln and a Rockwell tester are required. Each high alloy steel has its own heat treat process. Some steels have two temperatures from which you can quench to harden – but not between those two. Missing a temperature by 50°F can mean you've missed the mark.

Dietrich got his digital kiln from Seattle Pottery Supply. The hardest piece of equipment to obtain for stainless heat treat was the dewar. A dewar is like a giant vacuum thermos bottle – for liquid nitrogen. Minus 320°F. Don't stick your hand in it.

Walking through his short run production process, Dietrich might start with CPM154 from Crucible or Aldo (The New Jersey Steel Baron).

He has a plasma CNC cutting machine in his garage (don't we all?) that he has programmed with knife blank profiles (much gnashing of teeth and rending of garments was involved in the programming, I believe).

He takes the blanks and “grinds the snot off the edge that's left from the plasma cutting” and does a stress relief heat soak.

He drills whatever holes will be needed, wraps the blades in stainless foil and soaks them in the kiln for 20 to 40 minutes at 1975°F.

He has a supply of aluminum blocks that (if I got it right) are 1.5” thick by 4” wide by 12-24” long. These are used to quench the blanks. Remember at this point the blanks are not beveled – just profiled –

and the sides are parallel and in full contact (through the stainless foil) with the quenching blocks. The blanks are pulled from the kiln by the edge of the stainless steel foil and sandwiched between layers of aluminum block. Let them cool to room temperature – go do something else – he remarked that he has warped “too many” by pulling them out too soon.

At this point the stainless is through the first phase of hardening. Now the blades are suspended in liquid nitrogen in the dewar and left overnight. My understanding is that this forces remaining Austenite to form Martensite, completing the hardening process. The resulting Rockwell is around 64 with outliers up to 67. Two tempering cycles at 700°F for two hours each brings the Rc down to 61 or 62 and toughens the blade.

Now all you have to do is grind you bevels into a fully hardened blank!

Norton Blaze Orange belts (for about \$10 a pop) are Dietrich's choice for this job. He does the stock removal grinding on a serrated contact wheel, using 36 grit, then 60, then 120 – swapping sides of the knife to keep the grinds even. Using the serrated wheel keeps heat buildup down and he prefers the cutting action as opposed to working on a platen. He brings the edge down to 0.060” (about 2 credit card thicknesses) then goes to other finer belts for cleanup – finishing with a Scotch Brite belt.

Other than for special purposes such as the ABS JS presentation set – Dietrich does not favor a mirror polish. Such a polish is useful in the JS set to allow the judge to see the applicant's skill level – but for a knife that is going to be used, well, in Dietrich's words “any scratch shows up like a keyed Lamborghini in the parking lot.”



As usual there were other discussions and sharings.

Wayne Goddard spoke about his ABS JS in 1985 and MS in '87. The Nicholson Diamond file blade that he used for his JS performance blade that went 90° and came back to so near straight that it would fit back in the sheath (edge quenched in water 1/2 way up the blade then blue back draws). And how the quality of

knives and expectations of the judges has changed over the years.

New folks introduced themselves.

Marty Brandt brought in a blacksmith's knife that he'd started at the Spring hammer-in. He left the back fully hardened as a spark striker. His advice when you want to tackle a knife like this is to make a leather template of the straightened-out shape. This will give you the template you need to forge to before wrapping the tail around to form the handle.



Wayne Goddard brought in this sweet little folder to pass around:



And Ben Tendick brought in one of his recent creations. Ben is a full time maker who started with stock removal and is working into other areas. Including plans to do his own stainless heat treat.



And speaking of full time. I hope to get there next month. We shall see. I just sent off an email reminding the marketing guy I work with that: no, I should not go to that sales prospect meeting – like I said last December – I'm not taking on new projects – and I hope to be semi-retired by the end of September. Supporting legacy work only.

Wish me luck on that one – these last two projects have had a way of calving off new mini-projects... but I'm working through them.

And the go-lives on these last two projects have been “interesting.”

I'm looking forward to focusing on blades rather than blade servers. Cutting rope rather than code. Grinding steel rather than grinding out computer programs!

Anyhoo – apologies for the lateness of this newsletter.

Hope to see you Thursday for Lynn's demo on silver wire inlay into maple.

Keep Well!

Your scribe

~ ~ ~

Michael Kemp