

∞ EUGENE 5160 CLUB ~ OCTOBER 2014 ∞



OCTOBER MEETING

The 5160 Club will meet at Woodcraft of Eugene in the Delta Oaks shopping center – Beltline & Delta Hwy. Thursday October 2nd 6:00 pm.



SEPTEMBER MEETING

I (Michael Kemp) gave away a used (but in good condition) short apron at the beginning of the meeting – something a family member was passing on. Craig Morgan took me up on it.

I don't know if it's still up for sale, but there was a Grizzly belt grinder on the Woodcraft bulletin board for half the original price – low usage.



LARRY CRITESER was first up – showing a handsome knife he made for a buddy. Desert Ironwood handle with red liner. He searched around for a nice wood bead to put on the

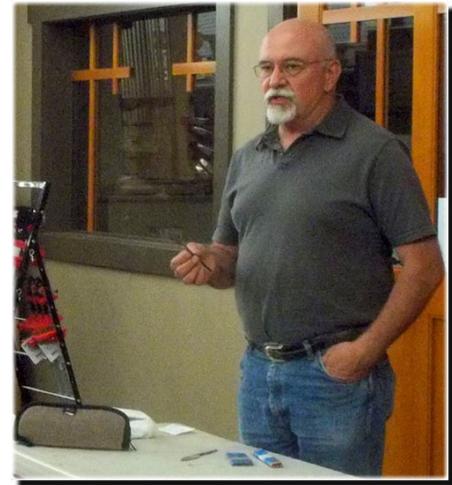
lanyard but could not find one he liked. So he mounted a piece of Ironwood by drilling and tapping a hole for a 1/4” bolt... cut the head off the bolt... and chucked that up in a hand drill. Take that to the belt grinder and as the belt is turning toward you, run the hand drill the other way “and you just move the bead back and forth until you get it the shape you want it... then unscrew it and screw the bolt into the other end of the bead and work it that way until you get the

shape you want. That's a really nice use for a small piece of wood that has nice grain.”



So there's a way to make use of those little scraps of leftover wood that always hurt to throw away.

MIKE JOHNSTON was up next. He had a couple of knives-in-process – forged out of the coil spring of a Jeep. He worked on these in a “one brick forge” (see Wayne Goddard's books) because he didn't feel like heating up the big forge for such a small piece of material.



He used a 4 pound sledge to do the standard process – distal taper and pre-form – forge the bevel and the plunge line – then finish up with 2 pound hammer. Next he cleaned them up on the 2x72 grinder (60 grit). He set the transition to the tang with a guillotine fuller – forged out the tang with the 4 pound hammer, then smoothed with the 2 pound hammer.

Next he cleaned them up again (60 grit). Then Mike normalized three times. He brought them up to non-magnetic again and quenched them in his ATF (automatic transmission fluid) and bacon grease mix at about 110f. “It came out really nice and hard.”

Mike cleaned them with alcohol and ground them to 120 grit on one side so he could see the color when he put them through the toaster oven at 395f.

“It had a nice light bronze color. That's always seemed to give me 58-59 Rockwell (RC). Tempered them three times in the toaster oven for an hour each.”

One of the blades he belt sanded to 400 grit, then hand sanded down to 1000 grit using sandpaper fixed to a board (moving the blade against it).

The other blade was only ground to 120 grit at the time he showed them to us.



Larry asked how Mike hand sands the plunge line. *(that's always been a tricky part for yours truly)* Mike demonstrated using hand motions – you had to be there...

Then Mike offered up 5 pieces of the Jeep spring he used. “I can't tell you that it's 5160 ... but when I grind it and harden it it sure acts like 5160.” He had plenty of takers!

As Mike sat down we got into a discussion of catching your clothes on fire at the forge (I'd posted a photo of a burn hole in a cotton t-shirt I'd gotten working on a Damascus billet).

There was lively discussion of whether synthetics are as dangerous as generally believed. Most folks are sold on the idea that a bit of burning cotton or smoldering wool is better than a chunk of melting synthetic burning into your skin. But career welder Keith Johnson stuck to his guns that he'd rather wear synthetics since in his experience they may get little burn hole specs but won't flame up like cotton. After mulling this over for a couple of weeks I'm

wondering whether sparks typical of welding act differently on synthetics than the chunk of scale that burned a hole in my cotton t-shirt. I don't think I'm brave enough to wear synthetics at the forge.

CRAIG MORGAN offered a “starter anvil” to anyone interested. He's just obtained a 100lb Trenton so he's letting his old anvil go for \$50. The anvil is one Wayne Goddard made from a rail-car coupling.

FRANK BOBBIO was up next. He's been making RR spike knives for years, but at the first of the year he decided to do some laminated with O1 steel. He's made a series of five so far – he brought the first of the series (the rest are sold). This first one is a little shorter than he usually makes. *Unfortunately I didn't seem to get a photo of the knife?!? It was a handsome RR spike knife with twisted spike grip.*



He hand-sawed a slot down the spike. On the first knife he spread the slot open in a V shape, and shaped the O1 to seat into the slot. On the following knives, instead of spreading the slot open he just beveled the O1 and used it as a chisel to open up the spike. Then forge welded and shaped the knife.

He brought the grind line up in a way to be sure to highlight the transition between metals and also edge hardened the blade. An acid etch finished the highlighting of the metals.

The O1 he had on hand was 1/8” but it seemed to thin more than the spike in forging &/or heat treatment. In the future he's going to go to 3/16” or 1/4” thick.

MARTIN BRANDT got up to share a “sort of knife related” item. Marty loves Scandi knives – and noted that one of the ways they finished the traditional ones is with Birch tar. “I can't find places around here to buy Birch tar” he said – tongue in cheek. So he looked up some YouTube videos on it. “Birch tar and Pine tar were used for a lot of things – mixed with turpentine or linseed oil. The Russians used to make a leather that was waterproofed in birch tar and had that classic smokey smell to it.”



“I'd picked up some Birch logs after the winter...” from the ice storm. He saved wood for handle and wood sheath material. He noted that old rotten Birch logs will leave behind a tube of the un-rotted bark. “There's so much tar in the bark that the early settlers would put it on top of the foundation to build on – like 9lb felt.”

Martin band-sawed off the bark – put the chunks in a paint can (holes punched in the bottom). He dug a fire pit, buried a soup can in the base to catch the drippings, put the paint can with the bark on top of that. “I build the fire, pulled up a chair... and when it all got burned down in a couple of hours I pulled out the little can...” and here's what he got:



“I'll probably warm this up, pour some out, combine 1 part of tar with 1 part of French (artist's) turpentine and one part boiled linseed oil.”

“Traditionally the tar was used for waterproofing, soaps, medicine – it's a bacteriostat – and for smoke flavor too – but I didn't remove all the liner in my paint can so I'm not gonna do that!”

There was a general discussion of tanning – Martin said that the tar was not used for tanning itself.

Here's the trailer for the documentary I mentioned: Happy People – A Year in the Taiga. It's a great documentary of current life in Siberia. Making their

own skis from planks split from logs. Running trap lines. And yes – rendering Birch tar for a variety of uses – including smearing on yourself and your dogs so the mosquitoes don't suck you dry.
<http://www.youtube.com/watch?v=V1pOjj49d9Y>

Martin talked about traditional methods for rendering tar – using natural materials rather than paint and soup cans.

Martin mentioned Nanook of the North – both that and Happy People are available from Netflix. And the full Nanook movie is also on YouTube:
<http://www.youtube.com/watch?v=JxKmEY1U4uE>
A truly classic 1922 silent movie documentary.

In the same vein, Mike Johnston highly recommends a First Nations museum on the North edge of Anchorage, AK if you ever get up there – with exhibits of native tools, lodging, etc. “They used a lot of slate for their ulus, which they'd sharpen on sandstone...”

I believe this is the center Mike was referring to:
<http://www.alaskanative.net/en/para-nav/home/>

Frank Bobbio solicited suggestions about insulation for his shop area and got a variety of suggestions. Frank noted that treated cellulose insulation seems to stand up better to a blowtorch than other options. *That matches what my dad (an architect) used to say about wood frame versus metal frame building - “Yah, wood will burn – but slowly and it will keep its strength for a long time. Metal beams and struts won't burn, but if there's a fire they'll fail pretty fast.”*

I shared that a friend's shop had sustained smoke and water damage after somebody in her neighbor's shop threw a bunch of linseed oil soaked rags in a pile. It used to be taught in shop class that you were asking for spontaneous combustion if you don't put finishing oil rags in a water bucket... but they don't seem to fund many shop classes in school any more.

Martin shared that a single rag soaked in Watco finishing oil had combusted at a home remodel that he was involved in.

Mike Johnston then changed the subject to sandpaper: He's had really good experience with

Norton Black Ice wet-and-dry sandpaper. The 220 to 2000 grit lasts “forever – I've never had anything last like this.” He puts the paper on a block in a vice, sprays it down with 3-to-1 water/Simple Green, and moves the blade across the sanding block. “I can get both sides of a knife off of one strip of sandpaper... it will last 'till you see the blue backing paper.” That's compared to less than half that from other papers. He buys it through TruGrit – or it's available at Woodcraft.

Conversation wandered to how folks feel about belts from various manufacturers. Klingspor got mixed-to-unfavorable reviews. Norton's Orange Blase got good reviews for the course grits. Some of us (*yours truly included*) like 3M Trizact for finer grits.

There were reports of Trizact belts' splice not holding if the tension was very tight. I have not had that problem even though I tighten more than Mike Johnston said: “I had two of 'em break – until I listened to Wayne and held the drive wheel so it wouldn't move and [increased tension on the belt until I] couldn't move the belt – just barely – and I've never had a problem since.”

Mike Johnston looked up in his notes and relayed from the 1/1/2012 meeting that Wayne Goddard noted his preference for Norton SG R981 belts for course grits. Mike is running those in 60 and 80 grits. For instance, 60 grit model R961 Y weight, and 120 grit R981 Y weight. For Trizact, Mike noted A90 (220 grit) model 307EA.

I've been using the “Gator” Trizact as opposed to the smooth version and I'm happy with it. And FWIW here's a grit size cross reference crib sheet I printed out and hung on my shop wall:

http://elementalforge.com/tips_notes/?page_id=30

Mike and Larry Criteser both commented that they would not use 36 grit belts for anything but profiling as they leave scratch marks on the blade's sides that take too much work to get out.

The question came up about resurfacing the platen when it gets worn. Larry puts on a Pyroceram face that you can get from Gene Martin – and JB Welds it to the old platen after rounding the top edge of the glass plate with the belt sander.

It was also brought up that you can put a hard felt face on the platen. *The newsletter from June 2012: <http://www.elementalforge.com/5160Club/201206Newsletter.pdf> has Wayne's favorites noted at the bottom of page 2.*

Mike Johnston shared that he has been making radiused platen faces made from Doug Fir without any felt on it. Just notch the ends and clip it on the metal platen. This way you can make the profile of the platen to suit the desired curve of the grind. He also uses a soft 1/2” wool felt to get a slack grind.

There was discussion of taking the excess grit off of the splice on a new belt before using it so you don't get the dreaded “belt bump” and the deeper scratches that come with it.

Mike Johnston also reminded us of the NW Knife Collectors Kelso show October 4th & 5th (that's THIS WEEKEND folks):

<http://www.nwkc.org/show-information.html>

“Nice show – 150 tables...” and impressive collections on display. Especially one of Ruana knives – the collector can't get all of them in the displays – which covers three sides of one room.

There was some general discussion about grinding accidents, past shows, and equipment that's available around town.

Somehow, discussion wandered off to explosion forming for submarine nose cones and metal art?!? And from that to the corrosion that occurs when aluminum contacts stainless steel. Like steel rivets in aluminum plate. Many stories were shared.



FROM MY EMAIL BOX

Dan Hines mentions using cooking renderings from the BBQ grill for quench goop “they work great and are collected fast and easy.”

Jove Lachman-Curl sent me an 8 meg PDF of photos from a cutlery museum from his latest China trip. I'll figure out how to set those up and will send an email link when I have them posted.



Wear your safety gear – no loose hair or clothing in the shop – and have fun!

Keep Well ~ ~ ~

Your Scribe

~ ~ ~ Michael Kemp



FREE DE-CLASSIFIEDS (IN NO PARTICULAR ORDER)

Email me a brief description of what you are selling/buying/looking for with your preferred contact (phone/email/...). Unless you let me know you want a shorter run, I'll run the note for 3 months and then send you an email to see if it's still valid.

Help Wanted: I am looking for help here at the coast (Gearhart, OR). The job will most likely work into a full time position depending upon the individual. The state has a job training program which I hope to take advantage of as they will pay 50% of the base salary for several months. Applicants need to know how to MIG, and hopefully TIG weld. Blacksmithing knowledge would be a plus. Contact John Emmerling ironwerks@iinet.com

For Sale: I live in the Riddle Oregon area and have two large squirrel cage fans - I'd take \$25 each. They would work great for making forges. This is wildernessman Dan Hines saying keep the steel hot and making those hammer blows work good. wildernessman56@yahoo.com or by phone at 541-817-6215.



WEBSITE LINKS

5160 CLUB

5160 Club Newsletters are archived at:
<http://www.elementalforge.com/5160Club/>

Hint: to Google the archive for a specific knife style or presenter name, use a search like this:
sami site:<http://www.elementalforge.com/5160Club>
or this:
ron lake site:<http://www.elementalforge.com/5160Club>

FORUMS

Knifedog Forum
<http://knifedogs.com/forum.php>

Bladesmith's Forum aka Don Fogg Forum
<http://www.bladesmithsforum.com/>

American Bladesmith Society
<http://www.americanbladesmith.com/ipboard/>

Usual Suspects Network
<http://www.usualsuspect.net/forums/forum.php>

Blade Forums
<http://www.bladeforums.com/forums/forum.php>

REFERENCES

Many of the sites linked under “Knife Maker General” have book & video sections.

Our own Wayne Goddard's books are available at Amazon:
<http://www.amazon.com/Wayne-Goddard/e/B001JS9M10>
And you can email Wayne directly for his DVD at wgoddard44@comcast.net

Verhoeven's Metallurgy For Bladesmiths PDF
<http://www.feine-klingen.de/PDFs/verhoeven.pdf>

Verhoeven's updated book:
<http://www.amazon.com/Steel-Metallurgy-Non-Metallurgist-J-Verhoeven/dp/0871708582>

ZKnives – Knife steel composition/comparison/etc.
<http://zknives.com/knives/steels>

Kevin Cashen's Bladesmithing Info
<http://www.cashenblades.com/info.html>

Tempil Basic Guide to Ferrous Metallurgy
http://www.tempil.com/wp-content/plugins/download-monitor/download.php?id=Basic_Guide_to_Ferrous_2010.pdf

GENERAL TOOLS & SUPPLIES

Woodcraft of Eugene – special thanks to Joe & the crew! 1052 Green Acres Rd Eugene, OR 97408 (Delta Oaks Shopping Center) 541 685-0677
<http://www.woodcraft.com/stores/store.aspx?id=515>

MSC Direct
<http://www.mscdirect.com/>

McMaster-Carr
<http://www.mcmaster.com>

Grainger
<http://www.grainger.com>

Surplus Center
<http://www.surpluscenter.com/>

Victor Machinery Exchange
<http://www.victornet.com/>

OREGON KNIFE MAKING CLASSES

Gene Martin offers personal instruction at his shop south of Grants Pass for a daily rate.
<http://www.customknife.com/>

Michael and Gabriel Bell offer a constant series of small group classes in Japanese style sword forging and fittings. Located on the southern Oregon Coast.
<http://dragonflyforge.com/>

Murray Carter offers small group classes in a variety of subjects, primarily focused on traditional Japanese cutlery. Located in Hillsboro.
<http://www.cartercutlery.com/bladesmithing-courses/>

KNIFE MAKER GENERAL

Knife kits, steel, tools, machines, supplies such as handle material, fasteners, belts, glues, finishes, etc.

Jantz Supply
<http://www.knifemaking.com>

Texas Knifemaker's Supply
<http://www.texasknife.com>

USA Knife Maker's Supply
<http://www.usaknifemaker.com/>

Knife and Gun (K&G)
<http://www.knifeandgun.com/>

Alpha Knife Supply
<http://www.alphaknifesupply.com/>

KNIFE STEEL SOURCES

New Jersey Steel Baron
<http://newjerseysteelbaron.com/>

Niagara Specialty Metals
<http://www.nsm-ny.com> (click Products/Knife Steels)

SB Specialty Metals
<http://sb-specialty-metals.com/products/knifesteels>

Bohler Uddeholm
<http://www.bucorp.com/knives.htm>

Pacific Machinery & Tool Steel – Portland, Oregon
<http://www.pmtsc.com/tool-die-steel.php>

2x72 BELT GRINDERS

Beaumont (KMG) – the industry standard
<http://www.beaumontmetalworks.com/shop/>

Travis Wuertz – premium brand, versatile machine
http://www.twuertz.com/Home_Page.php

Pheer – affordable, satisfied customers on the forums
<http://www.2x72beltgrinder.com>

AMK – affordable, quick-change between platen & contact wheel
<http://amktactical.com/>

Coote – affordable, reliable – you supply the motor
<http://www.cootebeltgrinder.com>

Grinder-In-A-Box – low cost – assembly required
http://www.polarbearforge.com/grinder_kit.html

Wayne Coe – grinders, motors, VFDs, etc.
<http://www.waynecoeartistblacksmith.com>

Contact Rubber Corp – wheels etc.
<http://contactrubber.com/contact-wheels.asp>

Sunray – drive wheels
<http://www.sunray-inc.com/drive-wheels/>

True Grit – grinder belts
<http://www.trugrit.com>

FORGE & REFRACTORY

Chile Forge
<http://www.chileforge.com/>

Mankel Forge
<http://mankelforge.com/forges.html>

High Temp Tools (scroll down the page for the category buttons)
<http://www.hightemptools.com/supplies-mainpage.html>

Omega – thermocouples & measuring equipment
<http://www.omega.com/>

Auber – more thermocouples and controllers, etc.
<http://www.auberins.com>

Hybridburners – home of the venturi T-Rex
<http://www.hybridburners.com/>

Pine Ridge Burners – for ribbon burners and all associated fittings, blowers, valves, etc.
<http://www.pineridgeburner.com>

Zoeller Forge – low cost venturi & parts: Z Burners
<http://zoellerforge.com/>

BLACKSMITH

Blacksmith Depot
<http://www.blacksmithsdepot.com>

Pieh Tool
<http://www.piehtoolco.com>

Centaur Forge
<http://www.centaurforge.com>

Quick and Dirty Tool Co.
<http://quickanddirtytools.myshopify.com/>
<https://www.facebook.com/QDTool>

LOGO/ETCHING

Ernie Gropitch – Blue Lightning Stencil
<http://www.erniesknives.com/>

IMG International Marking Group
<http://img-electromark.com/>

Electro-Chem Etch
<http://www.ecemmi.com/products.html>

OTHER GOODIES

Sally Martin Mosaic Pins – So. Oregon
<http://customknife.com/index.php?cPath=13>

Burl Source – handle blocks/scales – So. Oregon
<http://www.burlsales.com/>

Gilmer Wood – N.W. Portland
<https://www.gilmerwood.com/>

Oregon Leather – 810 Conger Eugene and 110 N.W.
2ND Portland
<http://www.oregonleatherco.com/>

Coyote Steel – misc., scrap, copper, brass, bronze –
Garfield & Cross St. Eugene
<http://www.coyotesteel.com>

Cherry City Metals – Salem, Oregon – metal
recycling and useful objects
<http://www.cherrycitymetals.com/>

Amtek – tool steel & cutting tools
<http://websales.amtektool.com>

Rio Grande – jewelry tools/supplies
<http://www.riogrande.com>

Otto Frei – jewelry tools/supplies
<http://www.ottofrei.com>

M3 Composite – space age mokume & other
<http://www.m3composite.com/>