December MEETING

December 7th – 6:00pm at David Thompson's shop. If you didn't get the directions in the meeting notice, email me for them: michael@elementalforge.com.

Bring your show-n-tell!

Request from the Thompsons:
“Please drive very slowly down our lane. The maintenance is all ours. Thanks.”

NOTES AND REMINDERS

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OKCA December Show – Free admission – Wheeler Pavilion at the Lane Events Center, Eugene OR. Saturday December 9th – 8am-4pm. Current OKCA members can get a table for $40 – setup 7am-8am) http://oregonknifeclub.com/shows2.html

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Pendray/Verhoeven Wootz Video – Frank Bobbio alerted us to this video featuring the late Al Pendray, JD Verhoeven, and a couple of smiths from Jordan smelting wootz from “Saladin's Mine” in Jordan: https://youtu.be/OP8PCkcBZU4

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SAFETY FIRST! – News last week of dozens of buildings damaged or destroyed by fire in upstate New York by a Forged-In-Fire inspired wannabe might make you think “that can't happen to me, I know better.” Over the few years that I've been absorbed in the bladesmithing world several shops run by very experienced blacksmiths or bladesmiths here in the Pacific Northwest & Alaska have burned down. Above and beyond the normal cuts, burns, and abrasions one receives in this sort of work, a number of experienced smiths around here have been seriously injured (one killed) by the buffer grabbing a blade and flinging it. So be careful and have fire extinguishers on hand. ~ ~ ~ Michael Kemp

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Northwest Blacksmith Association – Intro Blacksmithing classes (Portland, OR & White Salmon, WA) etc. http://blacksmith.org/events/

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California Blacksmith Association puts on a slew of events to the south of us. Check out their list: http://calsmith.org/CBA-Events
Bent River Forge aka Farrier Supplies – north of Monroe, OR has blacksmithing tools and supplies and ongoing intro to blacksmithing and other classes: https://www.facebook.com/FarrierSuppliesOR/

David Thompson – has coke and coal for sale (near Jerry's in Eugene, OR) – Talk to him at one of our meetings or call 541 688-2348.

OKCA April Show – Table-holders remember that December 15th is the cutoff to reserve your 2017 table for the 2018 show! Members only April 6 10am-7pm – Open to the public Saturday the 7th 8am-5pm, Sunday the 8th 9am-3pm $6/day (free to members) http://oregonknifeclub.com/okcashow.html

DiamondBlade Knives (the friction-forging company that Wayne Goddard worked with) – Lynn Moore gives us a heads up that they will have an episode on Discovery Channel's “How It's Made”. The date is unknown so keep an eye out for it.

I (Michael Kemp) opened what must have been the smallest 5160 Club meeting of the year by confessing that I have not done any metal work in quite a while... however I have been “processing” over a decade's worth of tree rounds, looking for worthy knife handle material. I've collected short sections of oak and maple that have fallen or we've taken down for safety reasons. I've mostly kept sections where the tree forks and the grain can go crazy. Danita teases me about my “crotch wood fetish.”

I got some good handle blanks out of the process – but I can't recommend doing it. If I value my time at minimum wage, I'd be better off just buying handle material at the OKCA shows! But if I make knife handles from this stuff I'll have the satisfaction of knowing it came from our property.

Since the November meeting I've finished off my stash of tree rounds – I'll bring more examples to the December meeting show-n-tell. In chainsawing slabs from the rounds, most of it just got tossed into the woods. When you're slabbing up oak the phrase “chain smoking” takes on a whole new meaning. Then the selected slabs went to the table saw where most of that wood became kindling.

Here are a few of the keepers:
I noted that when I chainsawed up slabs from the rounds, many were still quite wet – despite having been under cover for at least 5 years. Martin Brandt noted that the general rule is that wood air dries at about an inch (in thickness) per year. And I'm betting that means cut lumber – not tree rounds with the bark still on. So a 2 or 3 foot diameter tree round would take at least 12 or 18 years to dry.

Martin noted that one way to slow dry the cut handle blanks is to stick 'em in a plastic bag – seal it – let it sit until you see moisture condensing on the inside of the bag – then take the blocks out, turn the bag inside out, put the blocks back in and seal it – and repeat until dry.

To reiterate from previous newsletters: Some woods – Oak and Madrone in particular – love to crack and check. Martin recommends boiling oak for an hour per inch of thickness before drying to release the stresses in the wood.

I'd mentioned that my motivation for processing my stash of tree rounds was to make room for a new forge build. That led into a discussion of forge design - past present and planned.

**Martin Brandt** was up next with a potpourri of give-away odds and ends: golf balls for quick-n-dirty handles for files etc.; plastic dropper bottles and oiler bottles...

“I took apart one of those cheap treadmills thinking I was going to get a nice variable speed motor out of it [for making a belt grinder] – what a piece of &@@p – it's so open and wires hanging on the outside of it and 16 wires going to the controller...” and he had a couple of metal rollers left over that he was giving away. Plus he had a slow speed motor from a commercial coffee grinder – miscellaneous hand tools...

Then Martin passed around a couple of blades in process that he's making from files. He put the blade edges in water and torched the backs to make them tougher. Rockwells range from mid 56 to 60.

Martin noted that areas that got to a purple color when tempering were around 59 HRc – parts that got to blue were still 56 HRc.  

**David Thompson** (our host) got up next to show some new (used) hammer finds he'd come across. The ones with a hole in the head are old Bell Telephone lineman hammers – they would use the standard head end of the hammer to pound in foot hold spikes – then if they decided to remove the (threaded) spikes they would use the hole in the head to grab the “L” end of the spike and unscrew it from the phone pole.

There was discussion about the pedigree and uses of the various hammers. A standard head is great for general shaping. Straight, cross, and diagonal peened hammers are great for moving metal in one direction (at right angle to the peen). Folks have different preferences depending on their forging style and the type of work they are doing. Some folks swear by
dog face hammers. My favorites are a standard head and a diagonal peened hammer — where both heads have their peens in the same 45° plane. With the diagonal peen hammer, the way I hold a knife blade on the anvil the peen lines up either lengthwise or width-wise depending on which way I flip the hammer. That lets me draw the blade longer or wider with a quick flip of the hammer.

Then David said “I'm a real slut for kitchen gadgets...” and he passed around the most extreme meat tenderizer I've seen. The hammer head is slotted to allow a set of spring retracted blades to pierce the meat with each blow! Tip-o-the-day: Be nice to the cook!

Paul Haines was up next and passed around a neck knife from cable Damascus:

Paul Haines

He passed around a dagger-in-process. “Also Damascus... but I'm really not happy with the handle... the way it looks...” and asked for suggestions on modifying the outline of the handle.

There were suggestions going in two opposite directions: either make the transition to the pommel more dramatic — or else make the transition more of a smooth arc. A longer grip or a larger pommel were also suggested. Ask a group of knife makers for design suggestions and you're guaranteed to get a group of different ideas!

Martin said when he's doing a new handle or blade shape he will mock it up with in cedar. A quick cedar model will let you try out the shape and modify it before committing it to steel & good handle material.

In answer to a question, Paul said this Damascus was from 1-1/4” cable.

There was a wide-ranging discussion about cable Damascus. One note was to test the end of the cable before going to all the work of making Damascus out of it: heat the end of the cable to critical (past magnetic) and quench it in water. If the hardened end of the cable shatters on the anvil when struck with a hammer you have some high carbon in the cable — if not you have low carbon cable — not suited for an edge-holding knife.

Edward Davis got up front to ask for advice about cobbling together a dovetail backsaw for use in (non knife related) joinery. The consensus seemed to be that if you didn't want to pony up for a new one, make the rounds of second hand shops. Buy-n-Sell was mentioned. Jeff Berkey (of OKCA) was mentioned as a source — apparently he's opening a second hand store near Willamette Graystone in the Glenwood area.

That inspired a lively conversation about the road construction in that area including a “double roundabout”?!?
I don't think Bring Recycling was mentioned, but that might be worth a look in their tools area.

Another suggestion was to cut the saw from a larger garage sale blade and have Carson's Saw Shop put teeth on it. I guess it depends on how much you want to do-it-yourself!

What followed was far-ranging informal discussions about recent blacksmith events, shop projects, and tools and anvils for sale. Especially the recent NWBA get-together.

The best story was that there was a guy selling hammers for $5 – whereas Dave had hammers for $10. Blair noted that a gaggle of folks drooled over the $5 hammers and even pulled a bunch of them aside – but then left without buying them. Dave goes to the other vendor – buys all his hammers and moves them to his display. The same gaggle of folks comes by later and gets excited about the same hammers and buys them for Dave. “Buy low, sell high. The only time I've really made money from blacksmithing!” Dave joked.

~ ~ ~ in other club news:

Edward is going to help me sit the 5160 Club table at the OKCA December show. It is free to the public 8am-4pm Saturday December 9th. There will be a toys-for-tots collection table – if you bring a donation it should be a new unwrapped toy.

I've signed up for our same 2 tables at the big OKCA April show.

Have fun all – and work safe!

Your Scribe ~ Michael Kemp

**Free De-Classifieds**

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. No charge – just email me at Michael@ElementalForge.com

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Knifemaker equipment and supplies are often put up for sale in the OKCA classifieds – so remember to check their newsletters: http://www.oregonknifeclub.org/

**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

**Oregon Knife Collectors Association (OKCA)**

The OKCA hosts monthly dinner meetings where you are guaranteed to see treasures from the wide world of “things that go cut!” OKCA also puts on a small show in December and the big knife show in April – if you haven't seen it you've been missing something special!

http://www.oregonknifeclub.org/index.html
Go to the “Knewslettter” link and scan a recent newsletter for a membership form and contact info.
Forums
Bladesmith’s Forum aka Don Fogg Forum
http://www.bladesmithsforum.com/

Knifedogs Forum (USA Knifemaker)
http://knifedogs.com/forum.php

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

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

Blade Forums
http://www.bladeforums.com/

Hype-Free Blades
http://www.hypefreeblades.com/forum

Peter Newman of Bent River Forge/Farrier Supplies
has a closed Facebook group for Oregon Blacksmiths
https://www.facebook.com/groups/173156733117832

Julious Griffith’s knife groups on Facebook:
• Custom Knives For Sale by Maker - Available now
• Knifemaking - Works in Progress (w.i.p.'s)
• Knifemaking Equipment Buy, Sell, or Trade (used
  only)
• Knifemaking - Masters to paying Students
  connection
• Knife shop photos
• Knife Calendar - Events, shows, hammer-ins,
  schools, misc.
These are all closed groups – to keep them focused –
so if you want to join one of the groups, click the “+
Join Group” button and also message Julious and
give him some info on yourself so he knows you
have real interest in the group.

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

Most of the companies in the “Knife Maker General” links
(below) have a section for how-to books and DVDs.

Verhoeven's Metallurgy For Bladesmiths PDF – this
is a very deep dive, not an introduction.
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

From the Heat Treating Society of the ASM – the
Heat Treater's Guide Companion for Android
devices. Look up heat treating details on hundreds of
steels in the palm of your hand.
https://play.google.com/store/apps/details?
id=com.pfiks.mobile.heatreaters&hl=en

My “Knife Info” has some knife musings and cheat
sheet charts – plus Oregon and Eugene knife laws:
http://elementalforge.com/tips_notes/

Classes for Knife Making, Etc.
Gene Martin offers personal instruction at his shop
south of Grants Pass for a daily rate.
http://www.customknife.com/

Michael and Gabriel Bell of Dragonfly Forge offer an
ongoing 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, Oregon.
http://www.cartercutlery.com/bladesmithing-courses/

David Lisch is an ABS Master Smith who has taught classes in Washington. He recently moved his shop and has not restarted classes yet – keep an eye out on this page:
http://www.davidlisch.com/Learn.html

Jim Hrisoulas now offers both formal classes and mentoring sessions in 2 hour blocks at his shop in Henderson, Nevada:
http://www.atar.com/joomla/ and click the “Bladesmithing Classes” link.

The ABS (American Bladesmith Society) offers classes in Washington, Arkansas and elsewhere – if you are up for traveling across the country to take classes, check out their “Schools” link:
http://www.americanbladesmith.com/

James Austin offers forging classes in Oakland, CA – axes, tongs, viking anvil, etc.: http://forgedaxes.com/?page_id=148

Blacksmithing classes at Farrier Supplies aka Bent River Forge
26729 99W, Monroe, Oregon
Coal, coke, forges, parts, tools, classes...
https://www.facebook.com/FarrierSuppliesOR
(541) 847-5854

Blacksmithing and some bladesmithing workshops are hosted regularly by the Northwest Blacksmith Association: http://blacksmith.org/

USA Knifemaker has a lot of fun & informative videos on their YouTube channel: https://www.youtube.com/user/USAKnifemaker/videos … and hey - “free” is a hard price to beat!

Nick Wheeler also has a good YouTube channel with a lot of how-to videos:
https://www.youtube.com/user/NickWheeler33/videos

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**GENERAL TOOLS & SUPPLIES**

Woodcraft of Eugene – thanks to Joe & the crew for six years of hosting 5160 Club meetings – we've had to move on, but the hospitality was appreciated.

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/

Zoro
https://www.zoro.com/

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**Knife Maker General**

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

Jantz Supply – Davis, OK
http://www.knifemaking.com

Texas Knifemaker's Supply – Houston, TX
http://www.texasknife.com

USA Knife Maker's Supply – Mankato, MN
http://www.usaknifemaker.com/

Knife and Gun (K&G) – Lakeside, AZ
http://www.knifeandgun.com/

Alpha Knife Supply – ?Everett, WA?
http://www.alphaknifesupply.com/

True Grit – Ontario, CA
http://www.trugrit.com
Especially Abrasives – lower cost 2x72 belts http://www.especiallyabrasives.com/

**Knife Steel Sources**

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

Kelly Cupples (High Temp Tools) – Alabama
http://www.hightemptools.com/steel.html

Niagara Specialty Metals – New York
http://www.nsm-ny.com (click Products/Knife Steels)

SB Specialty Metals – New York & Texas
http://shop.sbsm.com/

Bohler Uddeholm – numerous U.S. locations
http://www.bucorp.com/knives.htm

Sandvic – stainless steels – Texas & Pennsylvania

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

Alpha Knife Supply – ?Everett, WA?
http://www.alphaknifesupply.com/

**Knifemaker Equipment**

Beaumont (KMG) [Ohio] – the industry-benchmark 2x72 belt grinder
http://www.beaumontmetalworks.com/shop/

Travis Wuertz [Arizona] – premium versatile grinder

Pheer [Gresham, Oregon] – affordable grinder made in Oregon
http://www.2x72beltgrinder.com


AMK [Ohio] – affordable grinder, quick-change between platen & contact wheel
http://amktactical.com/


Coote [Port Ludlow, Washington] – affordable, simple grinder – you supply the motor
http://www.cootebeltgrinder.com

Marinus Kuyl [Hillsboro, Oregon] – another affordable grinder made in Oregon – and parts – you provide the motor.
http://oregonblademaker.com

Grinder-In-A-Box – grinder kit, assembly required
http://www.polarbearforge.com/grinder_kit_order.html

The “No Weld Grinder” plans can be purchased from http://usaknifemaker.com

Wayne Coe [Tennessee] – grinders, motors, VFDs...
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/

Renaissance Metal Art [Mulino, Oregon] – 80# ram air hammer
http://www.rmetalart.com/tools.htm

Anyang [Texas] – air hammers from 20# to 165#
http://www.anyangusa.net/

Meyer Machine Tool [Ohio] – treadle hammer
http://www.meyermachinetool.com/Blacksmith-div-.html

Spencer/Clontz tire hammer plans/workshops
http://www.alaforge.org/Trading_Post.html

Appalachian Power Hammer plans
http://www.appaltree.net/rusty/index.htm
https://www.youtube.com/watch?v=uzruqYkKGNM

True Grit – under “Machines & Accessories”
http://www.trugrit.com

**FORGE & REFRUCTORY**

Chile Forge
San Marcos, Texas
http://www.chileforge.com/

Mankel Forge – Muskegon, Michigan
http://mankelforge.com/forges.html

Western Industrial Ceramics Inc.
All things refractory – Tualatin, Oregon
http://www.wicinc.com/

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

High Temp Inc. has also been recommended for Kaowool etc. Portland, Oregon
http://hightempinc.net/

Omega – thermocouples & measuring equipment
Stamford, Connecticut
http://www.omega.com/

Auber – more thermocouples and controllers, etc.
Alpharetta, Georgia
http://www.auberins.com

Hybridburners – home of the venturi T-Rex
Smithville, Georgia
http://www.hybridburners.com/

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

Zoeller Forge – low cost venturi & parts: Z Burners
Lanesville, Indiana
http://zoellerforge.com/

Here's the original article on making a ribbon burners that John Emmerling wrote back in 2005 for the NWBA Newsletter:
You can download the PDF from that site. John's article starts on page 11.

**BLACKSMITH**

Farrier Supplies
26729 99W, Monroe, Oregon
Coal, coke, forges, parts, tools, classes...
https://www.facebook.com/FarrierSuppliesOR
(541) 847-5854

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.com/

**LOGO/ETCHING/STAMPS**

Ernie Grospitch – Blue Lightening Stencil
http://www.erniesknives.com/

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

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

Steel Stamp, Inc.
www.steelstampsinc.com
HEAT TREAT SERVICES

Here are some folks who provide heat treating services for blades. While all of these have been recommended by one reputable person or another I have not had experience with them. If you use one, let us know how it went!

Paul Bos Heat Treating at Buck Knives. Paul Bos has retired and handed the torch to Paul Farner. Highly reputable. Post Falls, Idaho:
http://www.buckknives.com/about-knives/heat-treating/

Peters Heat Treating is another highly reputable operation. Meadville, Pennsylvania:
http://www.petersheattreat.com/cutlery.html

Texas Knifemaker's Supply offers heat treat services. Houston, Texas:
http://www.texasknife.com/vcom/privacy.php#services

Tru-Grit provides heat treat services. Ontario, California: https://trugrit.com/index.php?main_page=index&cPath=34

K&G also provides heat treat services but I can't find a reference on their web site – you'll have to contact them for details. Lakeside, Arizona:
http://www.knifeandgun.com/default.asp

Byington Blades heat treat service is in Santa Clara, California: http://www.byingtonblades.com/

It's my understanding that Chris Reeve Knives uses ACE Co in Boise Idaho – which is enough for me to add them to the list:
http://www.aceco.com/heattreat/index.html

WOOD SUPPLIERS

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

Shelton Pacific – stabilized wood – Shelton, WA
http://stores.sheltonpacific.com/

WOOD STABILIZING

K&G (Knife and Gun) – Lakeside, AZ
Good reputation with everybody.
http://www.kandgstabilizing.com

Gallery Hardwoods – Eugene, OR
I've purchased stabilized blocks from them at the April show. They tend to be heavier, presumably more durable/stable but less wood-feel than others.
http://www.galleryhardwoods.com/stabilized.htm

WSSI (Wood Stabilizing Specialists International, Inc.) – Ionia, IA – some folks have had issues with them, some folks are totally happy.
http://www.stabilizedwood.com/

Alpha Knife Supply – ?Everett, WA?
http://www.alphaknifesupply.com/

Turn Tex Woodworks – San Marcos, TX
“Cactus Juice” and pressure chambers etc. for the do-it-yourself folks – your mileage may vary.
https://www.turntex.com

OTHER GOODIES

Sally Martin Mosaic Pins – So. Oregon

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

Coyote Steel – wide variety of new steel, 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/

Voodoo Resins – striking resin handle material  
http://www.voodooresins.com/

Minarik automation & control  
http://www.minarik.com/

The Engineering Toolbox (formula & info reference)  
http://www.engineeringtoolbox.com

Valley Stainless (that does water-jet cutting) is one of Craig Morgan's customers. They told Craig “bring in a pattern” and they'd work with you on small batch cutting. They don't have a website yet. 29884 E Enid Rd, Eugene, Oregon 97402 (541) 686-4600.