

 **EUGENE 5160 CLUB ~ JUNE 2017** 

<https://www.facebook.com/5160Club>

newsletter archive: <http://www.elementalforge.com/5160Club/>



*Photo: Defense.gov – by Sgt. Jason L. Jensen USMC*

In memory and respect for those who wrote a blank check to our nation – and had it called in.



## JUNE MEETING

June 1<sup>st</sup> – 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](mailto: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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**Northwest Blacksmith Association** – Blacksmith Week: August 17-20 Government Camp on Mount Hood. See <http://blacksmith.org/events/> for all 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>

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**Portland Vintage & Custom Knife Show** – October 28 & 29 – Portland Expo Center – for info check Chris Palmer's web site: <http://christinepalmer.net>

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**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/>

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**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.

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## MAY MEETING NOTES



**MICHAEL KEMP** (*that would be me*) started off the meeting - “I've decided that I'm basically lazy – I haven't done much in the shop...” but I did bring in a little show-n-tell. For all our talking about stabilized wood, most of the knives I've made have had un-stabilized wood

handles – treated with a wax-oil combo. Over the last couple of months I'd selected some of my stock of handle material to be sent off to K&G for stabilizing. Maple, oak, and hawthorne blocks from trees on our property that I'd saved promising rounds from – cured for years, slabbed, and selected a few handle sized blocks from – plus un-stabilized blocks I've purchased over the years. All the blocks that I selected for stabilizing went through a final drying process before being sent off.

I brought in a few of the blocks to pass around.

The maple came back from stabilizing a lot darker – but the oak stayed about a light as it was before stabilizing. I was wondering if the maple might have picked up pigment from some of the deep red wood blocks I had sent in the same batch. Frank Bobbio noted that when he stabilizes maple he gets about a 70% increase in weight – whereas oak gains only in the 20% range... if that. So the darkening might have to do with a greater uptake of resin by the maple.



- Top: Oak from my place
- 2<sup>nd</sup> Row: Curly myrtle, spalted myrtle – from Lynn Moore (the curly is visible only on the edges <sigh> that's the way the plank was cut)
- 3<sup>rd</sup> Row: 2 maple blocks from my place, then 2 oak blocks from my place (see note below), and hawthorne from my place.

You can sort of see that of the 2 oak blocks in the 3<sup>rd</sup> row, the one on the right has a better glow to it. It's the only un-stabilized piece pictured and it's finished with my wax-oil mixture. For about 30 blocks postage & stabilizing at K&G ran about \$5 per block.

Craig Morgan chimed in that the first time he used stabilized wood it was with birch burl that he purchased stabilized. He used it on a knife with a brass guard and had it to “a perfect fit... you couldn't feel the joint at all. I put it in a drawer in my dresser. About six months later I pulled it out and the wood had shrunk at the back of the guard and had pulled away from the back of the guard.”

In talking it over with Wayne Goddard, Craig learned that Wayne put even stabilized wood under a drop light and weighed it on a powder scale until it stops losing weight.” There was discussion of stabilized wood being still more wood than resin – and needing to treat it as such – even to using wood glue when gluing two pieces of stabilized wood together.

Craig asked me how long I dried the wood before sending it in for stabilizing. “At least a month.” And I relayed how I started the drying in a vertical box with air holes and a 60 watt bulb at the bottom. Part way

through I changed over to using the “dehydrate” setting on our new kitchen oven. The oven heats to 150°f and has a convection fan running in dehydrate mode. That worked great for most of the woods – but the oak and a piece of burl both developed checking. I experimented with some oak, boiling it for an hour (it was about 1” thick) to release internal stresses and tried drying that... it still checked when in the oven on dehydrate mode... so for the oak and burl I finished the drying in the 60 watt bulb setup. That worked. I will say that two or three hours in the oven equaled a day in the 60 watt bulb box.

Your mileage may vary.

Frank Bobbio noted that he's been drying his wood blocks at 200-210°f for 24 hours and didn't have any problems.

The conversation drifted to ways to finish stabilized wood. Ending with a buffer got high marks. Frank has settled on sanding to 600 grit then buffing with pink compound – which he had on hand for Plexiglas. Jantz sells it as Pink Scratchless and recommends it for everything from steel to bone. “It goes up to a mirror polish within a minute” Frank noted. Then he finishes the handle off with wax.

Frank noted that “wipe-on” polyurethane stands up better than waxes, but where waxes fade gracefully he is concerned that the poly will eventually crack and chip.



**CRAIG MORGAN** was up next – showing his bushcraft every-day-carry knife. “I wanted to make a hard use knife that people could afford.”

Craig noted that if you want (or need) to set up a fire bow you can unwrap the handle cord for the bow string. Use the large recessed hole at the

butt of the handle for the drill socket and the sheathed knife can be used to hold the drill.

He made this design as a neck knife, but with the Tech Lock you can carry them anywhere. He is

selling them for \$80.00. The blade is CPM S60V hardened and tempered to 58Rc for optimal edge holding and durability. You can catch Craig on Facebook at:

<https://www.facebook.com/Craig-Morgan-Handmade-Knives-616684375166396/>



**LYNN MOORE** came to the front saying that he'd made a batch of kitchen knives “for some late Christmas presents for some friends of mine.”

All have been delivered except one that is awaiting delivery – which Lynn passed around. The handle is walnut burl with wipe-on poly finish. Lynn based the design on a knife that Jove Lachman-Curl gave Lynn a year ago. The blade is from the lumber mill bandsaw steel that Dennis Ellingsen gave the group.



Lynn tried an edge quench but the back was too flexible for his liking – so he went to full quench.

Lynn noted that in straightening one of the tangs it snapped on him. He made a jig to hold the tang pieces together and silver brazed it together. The jig kept the pieces flat and aligned – with an opening below the joint so that he could heat it from below to draw the silver solder through the joint.

Lynn's next pass-around was a chef knife he'd made some time ago – and has back from the owner for sharpening and cleanup. Maple burl handle with silver wire inlay that Lynn has re-finished with wipe-on poly. Brass guard. CPM 154 blade.



His final pass-around was a Chinese chopper (factory made) that he is gifting to a friend with Chinese ancestry.



**FRANK BOBBIO** started off with some of his tips about finish grinding. He uses a ventilation fan by his grinder and keeps a square container of water right under the grinding wheel to catch the majority of the grinder dust. Frank uses this also as a water bath to keep the blade cool when doing finish grinding (grind-dip-grind-dip-etc.). He uses 5mm nitrile gloves to keep his hands dry – plus “gator tape” on the outside of the gloves for the fingers in contact with the blade – to protect the gloves from getting torn up.

To keep the water clean he sprays it every-so-often with diluted Simple Green – which sinks any grinder dust floating on the surface. If you get that grit on the

blade you can wind up contaminating finer belts with courser grit dust from previous belts.

There was some discussion of respirators. Craig Morgan championed a 3M quick release respirator that allows you to instantly open the mask (to answer the phone or sneeze or whatever):

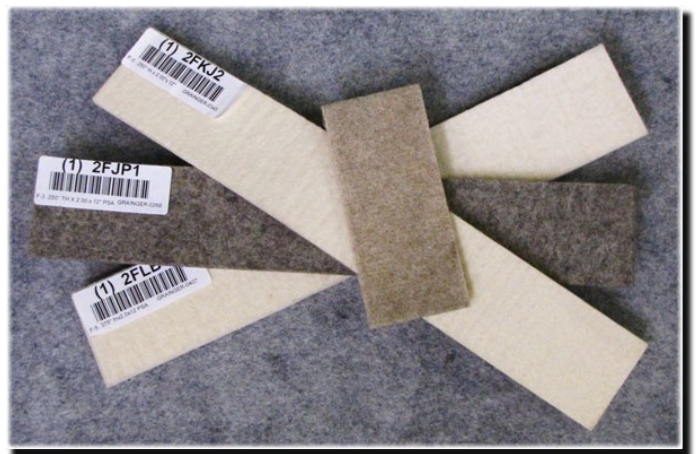
<http://www.homedepot.com/p/3M-Medium-Quick-Latch-Half-Face-Piece-Respirator-6502QLHA1-C2/205227208>

Another tip was that Frank uses 1-oz “eye dropper” bottles for acetone and denatured alcohol so that it's easy to just use a few drops rather than a splash out of the big bottle. So far the dropper bulbs are not being rotted out from the solvents.

Others chimed in that they use eye-drop bottles and small bottles and a Q-tip.

There was discussion of using fireplace glass for platens (available through Gene Martin

<http://www.customknife.com/>) for a more wear resistant surface - or using a stiff felt pad on the platen to get a smoother finish on fine grit belts.



Lynn noted that he has his felt mounted on a kind of metal clip that can be snapped on and off of the metal platen. It clips on the top and sides of the platen – the pressure and direction of the belt holds it firmly in place.

There was discussion of using wood or metal platen attachments shaped as a section a circular arc – to be used for concave grinds.

Frank tested “RapidFuse” glue against Elmer's wood

glue. RapidFuse not only sets in less than a minute – it seems to be stronger than Elmer's wood glue:



*One thing that we didn't discuss at the time was that faster drying adhesives tend to have shorter bond life. E.g. 5 minute epoxy has a bond life of about 5 years while the much slower curing Acraglas has a bond life of 50 years.*

Frank had some test results from his research into making paring knives from the bandsaw blade steel. These were differentially hardened so that the edge is 60-62Rc but the back is still tough. In bend testing he gets to around 60° before the edge cracks. Frank gifted me a “kit” of one of his paring knife blades, his seated bolster, and a handle block! Thanks Frank!!



*See the May 2017 newsletter for a description of Frank's process for seating the tang on these knives.*

Then Frank passed around examples of the wood stabilizing he's been doing with a “Cactus Juice” home setup.

The maple burl on the bottom left of the photo tripled in weight from stabilizing! This is a piece that Lynn Moore purchased from a guy in Salem.



There are a couple of sycamore blocks and a myrtle block. The myrtle did not absorb much resin.

The spalted piece was from a slimy black piece of maple burl that had been left out in the rain. Once Frank cleaned it up and dried it, it was so soft that you could pulverize it like lightweight Styrofoam. “This is probably 80% plastic at this point.” One piece with clear resin – one dyed green. Frank had some stabilized wood blocks for sale at the meeting.

In answer to a question Frank said that you could use CA glue (superglue) to fill in any pits left in stabilized wood once it is shaped for a handle.

Frank passed around a couple of Japanese style kitchen knives with wood blocks from these batches.



The “temper line” on these bandsaw steel knives is from selective heating into a full quench. Typically you'd use a torch to get the edge up to critical temp – holding the knife right above the quench tank so that you can instantly quench the blade.

Frank considers the next knife a “fail” because he wanted a more pronounced I beam look to the handle, but with the process he used it drew out the handle longer than he'd intended.



The knife below is inspired by the David Boye Basic 3 knife. The blade is from the circular saw steel the Dennis Ellingsen gave to the group. “That circular saw steel polishes up real fast.” Even with the edge around 60Rc Frank says it polishes up much faster than other steels. Stabilized black walnut handle.



... and then he passed around another beautiful knife:



Frank said he'd briefly entertained the idea of making batches of knives so that he could have at least a part-time knife business... but half way through the first batch he realized that there was no way that he could make a knife to sell for \$150 and make it anywhere close to being worth his time.

“I was in and out of the knife business before the knives were even halfway done!”

The above knives were part of that experiment – and the Wharncliffe style below was another part of it. These handles are stabilized maple – the bottom one died a teal color. Frank said that on both Etsy and eBay the natural color version has lots of views and watchers – but the dyed version has no watchers.

“So while I think the green is cool, and I got lots of compliments [on the dyed handle] at the knife show – but of the people that may want to buy: this [the dyed handle] hasn't appealed to anybody.”



*Of the helpful suggestions offered were “Just post it with #ZombieKiller” and also “call it Toxic Green and put it on USN.”*

“You know how to make a million dollars as a knife maker, don't you Frank?” called out Craig - “Start with two million.”

**EDWARD DAVIS** came to the front “I'll go next... This is a knife Frank cut out with his CNC machine and had the raffle for back in February... it's also that 8670 circular saw steel...” Edward noted that he's been climbing the heat treat learning curve and has lost some knives along the way. *(Welcome to the club, as they say!)*



He made the pancake sheath and the mosaic pin. “I already had one of those vacuum pumps that you use for bleeding the brakes on a car...” for doing the pin.



Edward then mentioned that he's tired of not being able to take a multi-tool on the plane when he flies. “Leatherman makes a tool that they say you can take on the plane – it's a tool with no blade in it.”

So Edward used the TSA Twitter account to ask “If I take a Swiss Army Knife apart, take all the blades out, and put it back together – can I take it on an airplane?” TSA Twitter said “Yes.” Edward had an old “Tinker” Swiss Army Knife that had seen better days – so he took it apart and rebuilt it without the blades.

At the Eugene airport he dropped it in the bucket with his change and keys etc. and it went through the X-ray no problem... but when he was flying back from Gainesville the TSA lady said he couldn't take it on board. Edward responded “No, no – see, it doesn't have any blades.” Thinking *am I setting myself up for the cavity search?* “They told me that I could have a tool that doesn't have any blades.”

In rebuilding the tool Edward had moved some tools around such that the nail nicks were hard to get to. The TSA lady wearing thick nitrile gloves had a heck of a time getting everything open – but once she did she let Edward go through without the cavity search.

Edward's final pass-around was a folder. “Back in November Steve gave me some blades that his dad had started... and handle material...” and he's been gradually figuring out how to turn them into a slip

joint folder. The scales are DymondWood, and the back spring is some of the industrial bandsaw steel.



Next up I got a big surprise!

**JIM JORDAN** started out saying “I don't know if some of you know...” that Wayne Goddard was the local grand old man of bladesmithing in Eugene – and was the one with the pull, passion, and persistence that got the 5160 Club up and running. “The OKCA had 50 of these Wayne Goddard tribute

knives made for sale... I thought it would be a fitting tribute to another person – **the** other person who's kept this group going...”

*I had my back turned at that time – taking photos of some of the pass-arounds – but my ears started burning so I swung around to pay attention...*

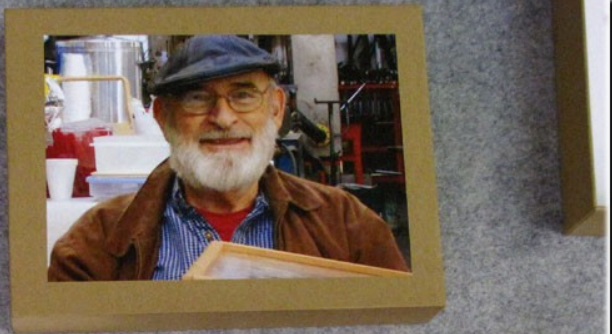
“We took up a collection and bought a Wayne Goddard tribute knife for Mike.” Jim explained – and everybody applauded.

“Very cool! Thank you!” was all I could say.

Jim went on “I can pretty much guarantee that if you hadn't kept the club going with your newsletter and all the things you've done – the club probably would

have disintegrated long ago. It's just a thank you from all of us to you.”

*And thanks again! I spend 2 or 3 days a month on the newsletter – which is my main contribution to the club (plus an occasional nudge here or there) – and it's both a pain in the butt and a labor of love. Thanks for the recognition!*



THANK YOU FOR ALL THE WORK YOU PUT IN ON BEHALF OF THE 5160 CLUB

(4) Thank you Mike for holding us all together again  
Bill  
Bob  
Frank  
John  
Mike  
Tom  
Wayne  
Zoe

Frank  
Bill  
Mike  
John  
Zoe



The photo of Wayne on the front of the box was taken by Craig Morgan in the same shop where 5160 Club holds our meetings.



Our host **DAVID THOMPSON** then got up to share a thing or two.

“I have a beautiful custom engraved pocket knife here – gee, I wonder who did this?” Dave said with a wry grin and a wink toward Jim Jordan.

At the previous meeting Jim offered to engrave David's Kershaw folder - “Sure!” was the obvious response. “I'm pretty proud of this” Dave said as he passed it around.



**MARTIN BRANDT** started out by passing around a block of “mystery wood” - “I know what it is, but I was wondering if somebody'd catch it.” I think it was Steve Goddard who called it as English walnut right off the bat.

Next Martin passed around a puukko knife that he'd gotten finished up for the OKCA show. This style is “considered their Summer knife or their farm knife... not fancy – it doesn't have a lot of spacers or horse heads or anything.” Martin used Wayne's classic mustard finish. Birch handle and birch bark sheath. He found a YouTube on how to do “an old antique birch bark sheath – he had a quick how-to-do-it that left a few gaps!”



**DAVID THOMPSON** got back up to share how he'd rescued an old grinding wheel from his grandfather's farm. David passed around the shaft he pulled out and replaced. “You can see how far these farmers pushed this stuff!” The shaft had roller bearings “kind of the wrong thing to use with all that water and grit...” and you might see from the photo how worn the shaft got – and the bearings are about half worn through and useless at this point.





... but it is a hansom old beast – and now it runs smoothly if not exactly true. Well it's true on it's new axis, but a bumpy ride along the grinding edge.



Steve Goddard let us know that he was over at Oregon Blademaker (Marinus Kuyl – see the link in the Knifemaker Tools section at the end of the newsletter) and he picked up parts to put together several grinders for about \$250 for a single speed two wheel grinder.

Frank brought up the idea of a sharp-off where he would provide identical knives to several of us. We would each put an edge on the knife using our preferred process. Then the knives would be tested using a standardized set of materials. Stay tuned.

There was a lot of informal discussion – some on knifemaking – some on family stories – and we drifted into the night...



Have fun all – and work safe!

~ ~ ~ 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](mailto:Michael@ElementalForge.com)

No for-sale notices this month.

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OKCA members: knifemaker items are often put up for sale in their classifieds – so remember to check their newsletters: <http://www.oregonknifecub.org/>

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## 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 the big knife show in April – if you haven't seen it you've been missing something special!

<http://www.oregonknifecub.org/index.html>

Go to the “Knewsletter” 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/forums/forum.php>

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](mailto: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](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.heattreaters&hl=en>

My “Knife Info” has some knife musings and cheat sheet charts – plus Oregon and Eugene knife laws:  
[http://elementalforge.com/tips\\_notes/](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](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>

## **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.

<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/>

Zoro

<https://www.zoro.com/>

## **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

<http://www.smt.sandvik.com/en/products/strip-steel/strip-products/knife-steel/sandvik-knife-steels/>

Pacific Machinery & Tool Steel – Portland, Oregon

<http://www.pmtSCO.com/tool-die-steel.php>

## **KNIFEMAKER EQUIPMENT**

Beaumont (KMG) [Ohio] – the industry-benchmark  
2x72 belt grinder

<http://www.beaumontmetalworks.com/shop/>

Travis Wuertz [Arizona] – premium versatile grinder

[http://www.twuertz.com/Home\\_Page.php](http://www.twuertz.com/Home_Page.php)

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/>

Northridge Tool [Ohio] – precision manufactured  
belt grinders <http://www.northridgetool.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](http://www.polarbearforge.com/grinder_kit_order.html)

The “No Weld Grinder” plans can be purchased from

<http://usaknifemaker.com>

either as a booklet or as a download – just use the search  
box to enter “no weld grinder”

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](http://www.alaforge.org/Trading_Post.html)

Appalachian Power Hammer plans

<http://www.appaltnet.net/rusty/index.htm>

Helve Hammer and Quick-Change Dies Video – from  
a BladesmithsForum.com thread.

<https://www.youtube.com/watch?v=uzruqYkKGNM>

True Grit – under “Machines & Accessories”

<http://www.trugrit.com>

## **FORGE & REFRACTORY**

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:  
<http://blacksmith.org/2005-1-hot-iron-news/>  
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**

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

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

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

## **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](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/>

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

North Woods Figured Wood – Gaston, OR  
<http://www.nwfiguredwoods.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

<http://customknife.com/index.php?cPath=13>

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.