

# EUGENE 5160 CLUB ~ SEPTEMBER 20WTF20

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

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



## SEPTEMBER 5160 CLUB

### THE MEETING WILL BE ZOOMED

**Edward Davis** will host the Zoom meeting this Thursday – September 3<sup>rd</sup> – at 6:00pm. If you have not used Zoom I highly recommend downloading the app and setting it up ahead of time. It runs on most phones, tablets, and up-to-date computers (but not so good on Linux in my experience). The more generous the screen size the better to view what others are presenting. Here's the download site:

[https://zoom.us/download#client\\_4meeting](https://zoom.us/download#client_4meeting)

You do not need to create a “Zoom account” to participate in the meeting.

The recurring “join meeting” link is:

<https://uoregon.zoom.us/j/96183250858?pwd=blpkOTIVMXdINIV0YW4wb2NRRjBMZz09>

I doubt if you'll need them but the meeting ID is:  
961 8325 0858  
and the passcode is:  
098053

Think about what you want to share in the meeting and how to position your phone/tablet/computer/web cam to show your stuff!

And remember Facebook “5160 Club – The Group”:  
<https://www.facebook.com/groups/5160ClubTheGroup/>  
as a place to share your questions, insights, or photos.



## AUGUST'S ZOOM MEETING

**Edward Davis** was out of town, staying where the WiFi don't roam – so the start was a little bumpy and it took a bit before I got the recording started so I missed the first few minutes... but here we go!

**Martin Brandt** started us up showing a 14” french chef knife made from industrial bandsaw steel. He quenched in Parks 50 but noted that it warped during tempering (multiple tempers done in the 325-375°f range). He had a heck of a time getting the warp out but finally did a soft back draw (keeping the edge in wet sand) and used a peening or body-and-fender hammer on the spine area to get the warp out.

The 3 contact point vice straightening method was discussed. Martin noted that when he does that he will put a little pressure on – note the “clock hand” position of the vice handle – take the pressure off – and if the warp is still there apply just a little more pressure the next time based on the last attempt's “clock hand” position of the vice handle.

He also showed a beautiful 5160 broken back seax blade. He noted that making the authentic grind was a challenge. The “distal taper” goes from the point to the “broken back” point – the thickest point in the blade – then the thickness of the blade tapers evenly into the stick tang (no ricasso). Here it is held edge-up like they carried them on a belt sheath.



When I caught up with recording the meeting Martin was extolling the benefits of a full blade quench with a soft back draw. This is the recommended heat treat for the ABA Journeyman bend-test-knife.

Years ago Wayne Goddard passed out some small round stock chunks of O7 steel. Martin forged this puukko blade from one of his pieces. "It's some tough stuff and gets quite hard!"



This one is out of heat treat with the edge bevels cleaned up. "It's fairly thin – just under 1/8" – because I pushed the piece I had out quite a bit..." Martin noted that the puukko has a rhombic (diamond) cross section – tapered to the edge and also tapered to the spine.

Martin and Rachelle talked about an online group "The Seax Files" (sp?) that is very historically correct only. They have posted the criteria for a true seax. "I was glad I took my time [to post]" said Martin "because my first seax like object doesn't meet any of their criteria! It had a full tang (a no-no) it had a forged-in finger guard which doesn't occur on any of the [archaeological] seaxes..." He noted that archaeological seaxes are flat grind from spine to edge – or slightly convex – no saber grinds. Martin also said that any recoverable handles were ground smooth: if from antler then all the texture was ground off. Few had bolsters – maybe of horn or bone. The stick tangs were usually drilled or burned in. There might be a wire wrap to strengthen the handle. There were no handle pins – just "glued in" with a tree resin/dust/bee's wax concoction.

"I've followed a lot of native bladesmithing around the world and very seldom are they [the tang/handle] held with a pin. They are usually held with a native glue – some type of resin – and those people live

with their blades – they don't just use them when they go on a camping trip. So apparently it holds well enough and if it gets loose you just go back to the fire, pull the tang out, heat it up good and hot – put a little more resin on it and shove it back in."

He also noted that traditional seaxes do not have a pommel or hook at the end of the handle. And no guard. The typical handle is hand-and-a-half size.

*In my experience the weight-forward from having the thickest point at the "broken back" makes a seax chop a lot like a hatchet.*

Martin observed that – like any other age or culture – archaeological seaxes range from simple and plain to pattern-welded steel and ornate construction and decoration.

Martin said that the 1/4" thickness that he has at the "broken back" section of his seax is thin by historical standards.

*It should be noted that, while common in the archaeological record, the "broken back" is just one form of seax. Some were spear-point or drop point, and in sizes from camp knife to short sword. FWIW my understanding is that the word "seax" or "sax" meant "cut". So a seax blade is a cutting blade. And the Saxon people of my Anglo-Saxon ancestry were basically "cutters". Well OK – I've got a good dose of Celtic in my veins too but you get the picture.*

**Billy O** has been working on another chef knife with his Damascus pattern welded "seascape pattern".



1080/15N20 – a little over 6". "It went OK on the straightening. I had to do about 4 tempers on it [Billy uses an in-the-tempering-oven jig for straightening]."

This is a 2 bar construction with 15 layers on the edge piece and a san mai construction on the spine with the 15N20 in the center – manipulated to create “clouds” when ground flat where the inner layer is revealed.

There was some discussion about products to protect from scaling during heat treat. Martin just puts a thin layer of 10W-40 motor oil on the blade before putting it in the forge for heat treat – which drastically reduces scaling.



**Frank Bobbio** was in his shop to show some of his latest work and tools. He started with a stainless san mai billet for a bushcraft knife. He sandwiches a high carbon core with stainless cladding. “The

first stainless san mai I did I was using 52100 – this one is 1075 – with a 300 series stainless.”

On the last pass on the power hammer he worked in a ripple. He will saber grind leaving “brut de forge” at the spine. The ripple should also create a more interesting line on the finished blade between the outer and inner layers.

In response to a question Frank said that he has had some issues with welding stainless and high carbon steel. The forge welding of layers goes well, but the differential in expansion/contraction during the heat treat quench “can tear itself apart and sometimes right down the middle of the core.”

Frank has tried several stainless steels and core steels. He feels that the best thing is to be sure your layers are clean - “bright clean”. He MIG or TIG welds the billet before forge welding. He liked the results from TIG welding.



He is still trying to find “the right combination” and testing to get good repeatable results.

Next he showed off his latest piece of second hand equipment: a die filer. “If you're wondering what to use a die filer for...”

*Why yes, Frank, what (besides filing dies) do you use a die filer for???*

It turns out that it can make a precision hole for the tang to pass through the guard. Better than a milling machine.

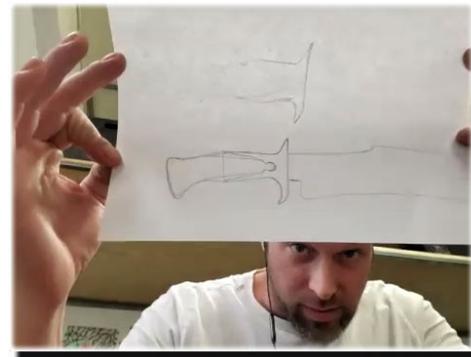
*Who knew? Frank knew.*



The machine holds a file vertically, using a reciprocating motion. Frank grinds one side of the file smooth so that he can control the cut better.

*Your scribe needs to eat crow for a moment – I've called the next presenter “Adam” in past newsletters. I have no idea where I got confused but: Tyler Aldrich – my apologies!*

**Tyler Aldrich** is looking into doing a version of the “keyhole” handle construction on a newer style Bowie.



Next up he showed us a modified platen that he created after seeing something like this

being used by Jason Knight. The roller bearings at the bottom of the platen serve as a “small wheel” attachment. The combination of this with the flat platen makes it perfect for doing the transition cut going from the blade to an integral bolster! He took 7/8” bar stock – drilled it for the bearing axle – assembled the bearings – and welded that to a 2x1/2”



piece of plate for the platen. “For efficiency sake this tool has been astronomical!”



Tyler noted that Broadbeck Ironworks has this tool available with 3 sizes of wheel bearings for \$300. But it's made to attach to their grinders.

<https://www.brodbeckironworks.com/attachments>

Frank then showed the press dies he uses to rough in the transition to the bolster for his integral blades. He wanted more control for getting the tang and blade perfectly aligned when forging an integral bolster knife. He made matching upper/lower press dies with a built-in notch radiused gently on the blade side and radiused more tightly on the tang side.



Here's a mild steel test knife. If I understood correctly, he forges the integral knife first, then uses these dies to true it up and set the radiused blade/bolster transition. Then off to the grinder.



Frank noted that when he makes matching top & bottom dies for his press he will make the bottom die first. He assembles the top die parts on top of the bottom die and presses them in place and welds the top die together right in the press so that it is properly mated to the bottom die.

Tyler then talked about his learning curve with an “S” grind. *Scribe's note: This is a modern grind primarily for kitchen knives – designed to enhance food release from the blade. The goal is the same as grinding in vertical scallops in the side of a graton style kitchen knife. The idea is to get air on the inside of the slice being cut so that it won't cling to the blade after the cut. The “S” grind goes the length of the blade. It is like having a wide shallow fuller down the center of the blade.*



“It's extremely difficult. Do not use a 36 grit belt... Here's a practice run on a broken knife...” Tyler said that a 36” radius platen cuts about 0.025” depth over 1.25” width. He noted that grinding this wide shallow S grind is very difficult to control perfectly.

Frank noted that on single beveled Japanese kitchen knives they also have a wide shallow grind like this on the side of the knife that is not beveled. *I looked it up and it's called the Urasuki. But in the case of the S grind the blade is dished on both faces.*

In response to a question Tyler noted that he got his radiused platen as a birthday present – sourced from Bill Behnke:

[http://www.billbehnkeknives.com/available\\_items.html](http://www.billbehnkeknives.com/available_items.html)



Frank has made top & bottom dies to set flat stock to a 24" radius for making himself a radiused platen. He offered to work with 5160 Club folks to help them make their own copies of his platen. BYO 1/4"x2" stock and have a shop day with Frank!

Tyler finished up his show-and-tell with an integral K-tip chef knife S-grind work-in-progress. He's playing with facets on the bolster transition. The knife is at the hand sanding stage "so I hope to be cutting some tomatoes and watching them fall off – somewhere in the next week or so!"



In answer to a question he said that he is using a wood sandpaper block radiused to match the shallow dish. He noted that he was not able to keep a crisp line at the edge of the dished area – and maybe that's OK too.

Frank stepped back in to show another glue test that he is setting up – and ask for feedback on a couple of options for performing the test.

He's glued up Micarta strips onto sanded steel angle iron. He's testing "standard" Superglue against Loctite Superglue against Gorilla Glue Clear against

Bob Smith Superglue (which hobby stores re-brand under their own labels) against a couple of 5 minute epoxies against G-Flex against standard JB-Weld.

Frank noted that while he has poo-pooed 5 minute epoxies in the past, they have improved significantly over the years and are worth testing.



He plans to attach the angle iron to the wall, then hang weights on the end of each Micarta strip, adding 1 lb weights until the strip breaks off the steel.

He will do a Youtube video of the testing. He asked for opinions about visually setting up the test. He also got brainstorming ideas on how to attach the weights to the ends of the Micarta to ensure consistent testing from piece to piece.

**Steve Goddard** took us out to his shop (in a virtual way) to show what he's working on. His youngest daughter was getting married soon, so he was making bushcraft style knives for the groom's party.



The blades are 1095 – acid washed which brought out the temper line nicely. Steve said that they were in Montana in July and visited ABS Journeyman Don Bell who questioned why Steve was edge hardening rather than using his oven for full hardening - “well, because I can't get the line like that.”



*That got discussion going on the relative (de)merits of full hardening, edge hardening, edge quenching, clay backing, and soft back draw. Yes, I suspect you've heard it all before – if not you can drop the question in an on-line group and stand back!*

He said that some maple that he's stabilized with a little red dye came out “looking almost like koa” but I'm afraid the cell phone/Zoom conference video does not do it justice.



He also shared some aqua-stain stabilized pieces:



Here's a 6-1/4” knife Steve finished earlier. He noted that this was a bit long for the edge hardening technique (where you heat just the edge with a torch). The trick is to have the entire edge non-magnetic and austenitized for the quench.



Discussion about avoiding overheating the tip of the blade segued into issues with how easy it is to grind the tip too thin.

After that the meeting wrapped up...



Have fun, keep well, and work safe – and see you in the Zoom-verse!

Your Scribe ~ Michael Kemp



## WEBSITE LINKS

### 5160 CLUB

Check out Facebook “5160 Club – The Group”:  
<https://www.facebook.com/groups/5160ClubTheGroup/>  
as a place to share your questions, insights, and photos.

5160 Club Newsletters are archived at:  
<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

**Lambowie** – Check out this new on-line marketplace. It's billed as a low-overhead alternative to eBay for forged knives, swords, etc. as well as bladesmithing equipment and materials. If you have feedback on this site – let me know!

<https://lambowie.com>

Bladesmith's Forum aka Don Fogg Forum

<http://www.bladesmithsforum.com/>

Knifedogs Forum (USA Knifemaker)

<https://knifedogs.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/>

Hype-Free Blades

<http://www.hypefreeblades.com/forum>

Peter Newman of Bent River Forge/Farrier Supplies has a closed Facebook group: Blacksmiths of Oregon

<https://www.facebook.com/groups/blacksmithsoforegon>

## REFERENCES

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 [Sg2goddard@comcast.net](mailto:Sg2goddard@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. I no longer see the original free PDF – but here's the updated book on Amazon:

<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>

Knife Steel Nerds – a metallurgist's blog on the technical details of steel

<https://knifesteelnerds.com>

Tempil Basic Guide to Ferrous Metallurgy

[http://es.tempil.com/assets/5/31/Basic\\_guide\\_to\\_ferrous\\_metallurgy\\_\(2\).pdf](http://es.tempil.com/assets/5/31/Basic_guide_to_ferrous_metallurgy_(2).pdf)

From the Heat Treating Society of the ASM – the Heat Treater's Guide Companion for Android devices.

<https://play.google.com/store/apps/details?id=com.pfiks.mobile.heattreaters&hl=en>

My own “Knife Info” has 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.

Erik Olson is teaching intro to forged knives in Eugene. I don't have a business contact but his personal Facebook page is:

<https://www.facebook.com/erik.olson.77715>

Farrier Supplies aka Bent River Forge offers intro and advanced blacksmithing classes – and supplies. 26729 99W, Monroe, Oregon  
Coal, coke, forges, parts, tools, classes...  
<https://www.facebook.com/FarrierSuppliesOR>  
(541) 847-5854

Anvil Academy in Newberg has various classes now including a knifemaking class:  
<http://anvilacademy.info/schedule/>  
<http://newbergdowntown.org/whats-happening/knife-making-class/>

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

Bear Iron in Cottage Grove offers blacksmith classes through Lane Community College.  
<https://www.beablacksmith.com/sign-up>

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/>

White Hart Forge offers intro to blacksmithing classes plus some advanced classes and some intro to knife making classes. Oak Grove, Oregon (just south of Portland). <https://whitehartforge.com/classes/>

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

David Lisch is an ABS Master Smith who teaches classes in Washington.  
<http://www.davidlisch.com/>

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)

Keep an eye out on California Blacksmith Association for workshops and events:  
<http://calsmith.org/CBA-Events>

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**

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

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/>

Widget Supply - Dremel tools, needle files, craft knives, drill bits, etc – Albany, Oregon.  
<https://widgetsupply.com>

And of course there are the local hardware stores like Jerry's, and chains like Harbor Freight and Woodcraft.

## **KNIFE MAKER GENERAL**

Lambowie – a low-overhead eBay alternative for custom knives and knifemaking equipment.

<https://lambowie.com>

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 – Cedar City, UT

<http://www.alphaknifesupply.com/>

True Grit – Ontario, CA

<http://www.trugrit.com>

Especially Abrasives – lower cost 2x72 belts

<http://www.especiallyabrasives.com/>

## **STEEL SOURCES**

New Jersey Steel Baron

<http://newjerseysteelbaron.com/>

Coyote Steel – wide variety of new steel, scrap, copper, brass, bronze – Garfield & Cross St. Eugene

<http://www.coyotesteel.com>

Martin Brandt – 5160 Club member in Springfield who always has some knife steel and supplies on hand. 541 954-2168

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/>

Sandvic – stainless steels – Texas & Pennsylvania

<https://www.materials.sandvik/en-us/products/strip-steel/strip-products/knife-steel/sandvik-knife-steels/>

Burcham's Metals – Albany, Oregon – recycled metal of all sorts. Very good pricing.

<http://www.burchamsmetals.com>

Cherry City Metals – Salem, Oregon – metal recycling and useful objects

<http://www.cherrycitymetals.com/>

Swift & McCormick Metal Processors Inc.

3192 NE Sedgwick, Terrebonne, Oregon

541 548 4448

Everything from big chunks of steel to railroad spikes. Very good prices. They can torch-cut big pieces down for a small fee.

Amtek – tool steel & cutting tools

<http://www.amteksteel.com/index.html>

Pacific Machinery & Tool Steel – Portland, Oregon

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

Alpha Knife Supply – Cedar City, UT

<http://www.alphaknifesupply.com/>

## **KNIFEMAKER EQUIPMENT**

Pheer [Gresham, Oregon] – affordable grinder made in Oregon

<http://www.2x72beltgrinder.com>

Origin Blade Maker – aka Oregon Blade Maker

[Portland, Oregon] – affordable chassis and accessories, good reputation – with or w/out motor

<https://originblademaker.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.  
<https://originblademaker.com/>

Broadbeck Ironworks LLC – [Maryland I think] – Grinders, attachments, belts, leather sewing machines  
<https://www.broadbeckironworks.com/attachments>

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)

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  
<https://www.sunray-inc.com/products/wheels/>

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)

Helve Hammer and Quick-Change Dies Video – from a BladesmithsForum.com thread.  
<https://www.youtube.com/watch?v=uzruqYkKGNM>

True Grit – under “All Products”/“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>

Mathewson Metals – forges, burners, anvils...  
Tacoma Washington  
<https://mathewsonmetals.com>

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. for Kaowool, castable refractory, fire brick up to 2,600°f, etc. Portland, Oregon  
<http://hightempinc.net/>

Omega – thermocouples & measuring equipment  
Stamford, Connecticut  
<https://www.omega.com/en-us/>

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  
<https://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 aka Bent River Forge  
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 Lightning Stencil  
<http://www.erniesknives.com/>

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

Marking Methods, Inc.  
<http://www.markingmethods.com>

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

Steel Stamp, Inc.  
[www.steelstampsinc.com](http://www.steelstampsinc.com)

LectroEtch – Ohio  
<https://lectroetch.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/?s=cutlery>

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/>

## **WOOD & HANDLE MATERIAL**

Burl Source – handle blocks/scales – So. Oregon  
<http://burlsource.us/>  
<https://www.facebook.com/BurlSource/>

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

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

Bamboo Oasis – wide variety of bamboo –  
Beaverton, OR phone 503-703-1345  
<https://bamboooasis.com/>

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

Atlas Billiard Supplies – Wheeling, IL – cue blanks  
of Micarta and exotic woods – with some sizes  
suitable for knife handles. <http://www.cuestik.com/>

For Eugene area boards, planks, etc. there's:

Crosscut Hardwoods at 2344 W 7<sup>th</sup>, Eugene  
<http://www.crosscuteugene.com/>

Tree Products Hardwoods at 150 Seneca, Eugene  
<http://treeproductshardwood.com/>

Northwest Timber has larger pieces of figured wood.  
In Jefferson Oregon between Albany and Salem.  
<https://nwtimber.com/>

and it doesn't hurt to check Mike's Bargain Center on  
Hwy 99 just south of Beltline, Eugene  
<https://www.facebook.com/MikesBargainCenter/>

## **WOOD STABILIZING**

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

Gallery Hardwoods – Eugene, OR  
<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 – Cedar City, UT  
<http://www.alphaknifesupply.com/>

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

## **OTHER GOODIES**

Grey Leather Company – Eugene – Hannah Morgan  
does custom leatherwork, including sheaths.  
<https://www.facebook.com/GreyLeatherCo/>  
<https://www.etsy.com/shop/GreyLeatherCo>

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/>

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/>

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.