

EUGENE 5160 CLUB ~ DECEMBER 2019

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

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



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.

Check out the “Classes for Knifemaking, etc.” section at the end of the newsletter for offerings around the region. Let me know if there's more that I should add to this list.



DECEMBER MEETING

Thursday December 5th – 6:00pm at David Thompson's shop. Please do not arrive before 5:45pm. 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.”



NOVEMBER MEETING

MICHAEL KEMP (me) opened the meeting by soliciting a couple of folks to share table-sitting with me at the OKCA December show.



LYNN MOORE was up first with a work-in-progress. The blade is from some of the circular saw steel provided through Dennis Ellingsen. Prepped for putting on the handle.



NOTES AND REMINDERS

OKCA December Mini-Show

December 7th at the Lane Events Center in Eugene (in the Wheeler pavilion). Tables go for \$40. Public gets in free. Toys-For-Tots collection table to donate new, unwrapped toys. Around 80 tables full of knives and knifemaking supplies! Table-holder setup 7-8am, open to the public 8am-4pm.



Lynn's next pass-around was an old RR spike knife he'd made for his parents. He was in Florida helping his mom relocate and came home with it.



The sheath was originally made for a different blade but got reassigned to this one.



ERIK LAND came to the front with a couple of things to share. First up was something thrilling: sandpaper. No, seriously. Those who have not made a knife may think it's all forge and fire and hammer and anvil. Knife makers spend an inordinate amount of time using – and

obsessing about – sandpaper. So when there's some new improved formulation – it will get tried out. Amazon has Rhynowet for \$0.70 a sheet and up so it had better do something special.

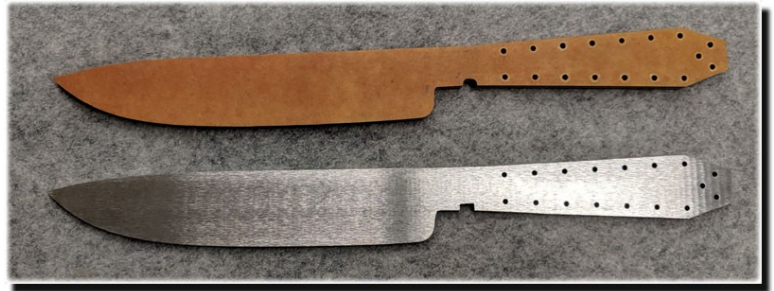
Erik had been using 3M purple – and the pro for the Rhynowet is that the backing holds up better when wet – a con was that it is more prone to making “J hooks” in the sanding pattern on the blade. Erik is still up in the air as to whether Rhynowet is worth it.

Then Erik talked about his creative process in working out a new knife design. First he starts making freehand sketches on a pad that lays on the workbench so he can refine and re-doodle it as he walks past. “Once I get something I kind of like then I'll pull that in and do a CAD drawing of it” so he can get precise dimensions, bolt sizes, etc.

“... then I'll cut myself a pattern” out of back-splash offcuts using his CNC machine “for two reasons. Number one: I want to hold it in my hand and say 'I like that' or 'I don't like that' or 'blade's too long' or 'blade's too short' because frankly seeing it in a

drawing is about as good as, well, seeing it in a drawing. There's something about the translation into a real three dimensional object...”

Once he's happy with the pattern he bandsaws it out in steel. Erik is a stock removal guy (no forging) and has learned to heat treat the blade blank before grinding bevels etc. This has eliminated any warping in his experience. He currently uses CPM154 and does plate quenching using aluminum blocks for 10-15 seconds, then into the deep freeze, then tempering.



It was noted that plate quenching is not effective on all steels or all thicknesses of steel.

Erik then passed around a work-in-process knife with the guard and handle block fit to the through-tang.



“I had a set of knives go up to Alaska and they wanted Kydex so...” as is his predilection he bought a sh!tload of Kydex to get wholesale pricing. The pass-arounds were a nice skinner and a Loveless style knife both in CPM154 with satisfying snap-in fit to their Kydex sheaths. White oak handle on the skinner, Brazilian Cherry on the Loveless.





finished shape before grinding in order to preserve the chevron pattern of two oppositely twisted billets. If anyone has experience preserving the chevron pattern for this sort of a blade please email me the info for the next newsletter!



On his next pass-around Tristan described how he had blued the guard using brass shavings from previous projects – putting the shavings in a cast iron pan with the guard. *If I understand properly you heat the steel and brass shavings and bluing pieces in the pan until you get the desired color – no liquid or other agent is involved.* “It was super-easy to do.”

Tristan remarked that he has tried liquid bluing and has always had trouble with splotchy results. *I heartily agree – the only way I got close-to-good results was to use a bath of thinned down bluing after meticulous cleaning of the steel to remove **any** trace of oils – and using multiple immersions.*



His next pass-around sported a spalted wood handle. He noted that this is a departure from his usual practice of using wood from cherry or walnut from where he lives – that he dries himself.



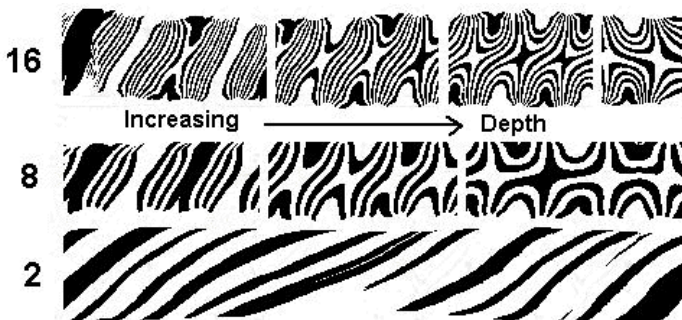
TRISTAN came to the front next with a number of show-n-tells.

First up was an impressive dagger blade he created from two billets of twisted Damascus. He wanted to get a chevron pattern out of. But

instead – when he'd ground in the bevels – he got a star type pattern on each side. He was wondering what he'd done “wrong” to lose the chevrons.

Scribe's note: I've only worked with twisted Damascus a couple of times – but if you look in Wayne Goddard's books you'll find a series of line drawings showing how the star pattern gets revealed when grinding into a twisted Damascus billet. A quick Google search turned up this informative page:

https://www.tf.uni-kiel.de/matwis/ammat/iss/kap_b/backbone/rb_3_1.html ... including this illustration:



... which leads me to think that with more than 2 layers you would have to forge very close to the

There followed a discussion of using a microwave for force-drying wood blocks. This is tricky – it was noted that blocks need to be put up on runners to raise them off the tray – and done in short bursts so as not to cause popping. Frank Bobbio uses an infrared heat sensor “gun” to make sure he doesn’t get too much above 200°f. He follows the microwave sessions with time in a toaster oven. He cycles back and forth between a toaster oven and microwave.

Here's another good looking knife Tristan sent around:



In response to a question, Tristan told us about his Forged In Fire experience. He said that – at that time – the tools available at Forged In Fire were noticeably different from what he'd been using – a bigger grinder, a power hammer, so forth. “But you did make it to the finals” someone commented. “By some odd stroke of luck, yah” Tristan replied. He was prompted to talk about his process for the knife he made there and he responded in detail – you had to be at the meeting...

“The thing is” Frank chimed in “when he went back to his home shop because he won the first round – it was a 1,000 layer sword he did by hand with no power hammer!”

Tristan said “I bought a 12 pound sledge hammer though, and I made it into a straight peen hammer so that I could stretch it [the billet] out and fold it over again as fast as possible...” – *he seems rather modest to yours truly – that's quite an accomplishment.*

The next pass-around “is really similar to that sword as it's 15N20 and 1084...” He's been experimenting with patinas on this one – cutting onion or lemon and letting it sit for awhile to see what happens.

“Everything to try to have as many problems as

possible...” to see how resistant (or not) the steels are to corrosion. Edward Davis recounted his patina/corrosion experiences with blood, gore, and their bug farm – and recommended carving the Thanksgiving turkey and letting it sit awhile.

Tristan then showed us a foraging bag he's been working on that you can silkscreen your name or some pattern on. He puts a sheath and belt ties on the top of the bag – and his “shopsmith knife” that he makes for it. This is for mushroom hunters. Waxed cotton bag. The knife on this one was from the butt end of a billet he made for an Arkansas Toothpick.

This blade was etched in coffee rather than ferric chloride. This is definitely “shroomin' in style!”



Tristan asked what other folks do with leftover ends of Damascus billets – and how to remove the inevitable scale you get when forge-welding.

Dropping pieces into a “can” with steel powder for random mash-up was suggested. Some folks have used these leftovers to make miniatures.

To remove scale (given the jagged shape that an offcut end usually has) soaking in vinegar for a day or three with occasional wire brushing sessions was recommended.



FRANK BOBBIO

was next up, noting that he hasn't made any knives since June – but (as well as motorcycle rides and mentoring of Tristan) he's been working on stabilizing wood blocks.

With some heckling from the group Frank said he was taking a sabbatical from making knives – that he was done making cheap hunting knives but would make knives for himself in the future.

“He's finally come to the realization he can't make any money making knives so now he's gonna make money selling wood to us!” joked Erik.

“I'll make even LESS money!” retorted Frank. “No, I just want to make fun stuff.”



He passed around some nice burl blocks – stabilized with Cactus Juice – sanded to 220 and buffed. One had a couple of layers of superglue finish on top and is marked “SG” in the photo.

Some of these are from wood advertised on Craig's List in the greater Salem area. Lynn and I have some wood too from the road trip we took with Frank when he went wood-hunting. At one of the places we stopped the guy had slabs in his garage – and a heap of castaways outdoors against the fence.

“He had this big piece of burl – just covered with black mold and slime and he was asking too much for it...” Frank recalls – but Frank decided to go back for it the next week – by that time he'd cut the best parts out of the burl but Frank picked up the offcuts for \$10. “It's the best wood for stabilizing because it's so pithy that – as long as it's really dried – it'll just pull in the resin...”

Frank gets his resin coloring die (which is designed for casting resin) from Hobby Lobby.

There was a discussion on home-stabilizing versus somebody like K&G. Their professional setup does a 3,000 psi pressure cycle rather than maybe 65 psi for home stabilizing.

The trade-off is that with the lower psi a colored resin will give color patterns that are more striking than the higher psi. The dense parts of the blocks don't pick up the colored resin as much at lower psi – which results in more dramatic patterns.

On the other hand – while home-stabilized wood has resin all the way through – Frank thinks it is still a bit

porous in the tiniest wood pores. “If you took a home-stabilized block and put it in warm soapy water after you [sanded and] buffed it – and you did the same with K&G's – within 5 minutes the home block will soak in three thousandths on the surface. It's going to look like wet wood and the buffing sheen will be gone in one soaking. Leaving it overnight it doesn't soak in more than a couple [more] thousandths, so there is enough resin that it's not going to ruin the wood but it's going to look like wet wood and it's going to look dull instantly. That block from K&G at high pressure has resin forced into the micro-pores and it doesn't wet the surface – at all.” So Frank is good with the home-stabilized block for his personal knives – but if he was selling a thousand-dollar kitchen knife he'd want the K&G type stabilizing so that the wood keeps its surface sheen. “From K&G I've got some stabilized maple and it looks pretty darn good a year later with no top coating on it.” *I'm presuming he meant a year of use in his kitchen.*

Lynn shared a cautionary tale about a local stabilizer who had someone building him a pressure tank. When the guy building the tank tested it, the door blew off and killed him.

I think it was Erik who had noted that the pressure tank at K&G had 4 inch thick walls.

Frank relayed another story about someone who over pressurized a pot that was rated for 65 psi – when they pushed it to 75 psi it blew the lid off.

Changing the subject, Frank pulled out a gnarly bent knife. “This looks like a failure – it's all Tristan's fault actually...” Two years prior, Frank was testing how well glue alone would hold in a stick tang. Frank has felt that a stick tang should have a pin in it to ensure that the blade doesn't come loose from the handle. On the other hand, some makers only use glue. Plus traditional knives from puukkos to kukris and beyond have been made, for millennia, with glue-only stick tangs and have seemed to hold up just fine.

For a test he made this knife out of mild steel, with a very thin stick tang. He notched the tang and used the quick-set version of JB Weld – so not the **very** best adhesive available but not shabby. He let it set for one month and then started banging on a log with it to see if the stick tang would hold.

When Tristan tried his hand at it two years later, “within 30 seconds he bent the blade, but because it was mild steel he put enough force pounding on the log that he stretched the metal and bent it up – but the glue joint did not break.”



That the metal stretched without breaking the glue joint makes a strong statement. The line drawing on the handle shows the profile of the tang.

There followed some discussion about long term durability of various adhesives. In general the faster an epoxy sets, the shorter its bond-life. The bond-life of 5-minute epoxy is only a few years. If memory serves, Acraglas has a 50 year bond life, for instance.

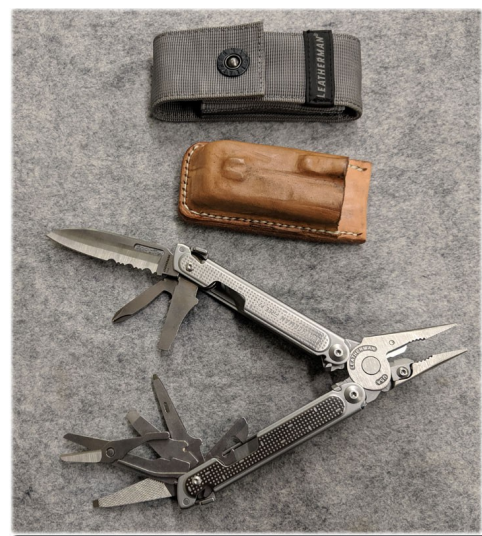
There was a general discussion about Damascus patterns.



Next up was **EDWARD DAVIS** “I went to the Blade Show West... and found this new Leatherman tool...” Called Free which opens up like a balisong and has spring closures when in pliers mode – a magnet setup to secure it when closed – and one-hand

opening so instead of nail nicks there's a lock on the end.

“It came with this Leatherman sheath made out of ballistic nylon – that wasn't going to do it for me so I made myself a friction fit...” out of a scrap of 6oz leather.





Last up was **CASEY** – new to our group. “I’ve been forging for about a month, and I’ve made a lot...” out of reclaimed steel. Camp knives, kitchen knives, fun knives, big knives, a little mushroom picker's knife.

“I made a coal forge out of a Weber and some old fireplace bricks. I got a little Harbor Freight anvil and made a stand for it...”



Casey asked for and got a lot of advice about where to go from here with tools and knifemaking.

... and from there we broke up into informal discussions and drifted into the night...



Have fun, keep well, and work safe -

Your Scribe ~ Michael Kemp



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)
<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

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/

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

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

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

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 – 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/>

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/>

Sandvic – stainless steels – Texas & Pennsylvania
<https://www.materials.sandvik/en-us/products/strip-steel/strip-products/knife-steel/sandvik-knife-steels/>

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

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

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/>

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> 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

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.steelstampinc.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

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://www.burlsales.com/>

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 7th, Eugene
<http://www.crosscuteugene.com/>

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

Coyote Steel – wide variety of new steel, scrap, copper, brass, bronze – Garfield & Cross St. Eugene
<http://www.coyotesteel.com>

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>

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.