THE MOSTLY MONTHLY NEWSLETTER OF THE

# EUGENE 5160 CLUB ~ AUGUST 2021

https://www.facebook.com/5160ClubTheGroup newsletter archive: http://www.kempclan.com/5160Club/

## 5160 CLUB MEETING
## THURSDAY, AUGUST 5TH – 6PM
## HENDRICKS BRIDGE PARK

We will be meeting in the open-air shelter at Hendricks Bridge Park – East of Springfield.

**Parking Fee:** A one-time day pass of $5 can be purchased at the park. An annual parking pass for all Lane Co. parks can be purchased at Bi-Mart, Cabela's, REI, and a scattering of other stores. The annual cost is $40, or $20 for folks 62+ and for disabled veterans.

From I-5, take Hwy 126 East. At the stoplight on Main Street in Springfield, take a left to stay on 126. From that point it's around 5 miles to the park. Just over the bridge across the McKenzie River, take a right into the park. We will probably be in the shelter (the shelter is first-come-first-serve). See you there!


And remember Facebook "5160 Club – The Group": https://www.facebook.com/groups/5160ClubTheGroup/ is a place to share your questions, insights, or photos.

The Eugene 5160 Club newsletter is for information only. Do not try anything mentioned here without hands-on training. Neither the folks mentioned in the newsletters nor the newsletter scribe are responsible for your actions or liable for any repercussions. If you are good with that: read on!

## END OF AN ERA, NEW BEGINNING?

**Michael Kemp** (that would be me, your scribe for the last decade) is going to be backing off. I'm giving my two months notice.

I sincerely hope that someone (or someones) will step up to take over my responsibilities. That's putting out the newsletter, MCing the meetings, getting the word out about meeting time/place each month, and minimalist oversight of the Facebook group. To wrap it up in a single phrase: **group facilitator**.

I will be at the August meeting, but I'll miss the September meeting due to a schedule conflict. I will put out the September newsletter (reporting on the August meeting) – and if someone takes notes and photos at the September meeting and gets them to me, I'll put that out as the October newsletter. And that's all folks!

Maybe I should say I'm giving my one month notice with an extra newsletter thrown in if someone gets photos and notes of the September meeting to me.

So there are two challenges: who will be the next group facilitator, and will there be winter quarters for the meetings (or go back to Zoom for the winter).

The 5160 Club is a great resource and support for experienced and aspiring knifemakers. I really hope that someone will step up to be the new facilitator for the club. I'll provide that person with the email list, admin rights to the Facebook page & group, and whatever tips I can think of.

When the Grand Poo-bah (sometimes known as Wayne Goddard, RIP) asked for someone to take over the newsletter for him, I was more than happy to do

my bit to support this awesome group. That was back in 2010. It's been a great ride. I have made some knives that I'm really proud of — and many that found their way quietly into my "Oops" drawer. Well, OK, some were accompanied by curses and sharp remarks as to my mental and physical abilities.

But seriously, it has been a privilege. I hope to maintain friendships that I've formed in the group. But I have not made knives in years, and it's time for me to move on.

I'm letting my Elemental Forge LLC and website expire by the end of the year. I have duplicated the 5160 Club newsletter archive to my personal site: https://kempclan.com/5160Club
… and if someone steps up as the next 5160 Club facilitator and continues to put out newsletters, the newsletter archive should get migrated to somewhere that they can maintain it.

But enough of that — on with the newsletter!

## JULY MEETING IN PERSON!!!

I arrived a few minutes late for the meeting at the lovely pavilion at Hendricks Bridge Park. After more than a year of Zoom meetings (THANK YOU Edward!) folks were happily swapping stories and munching down on whatever supper they'd brought with them.

We watched a coyote cross the far side of the park, heading for the river. Then I got my "stenographer" (an aged video camera) set up. After that was set up, I prompted for the start of our usual share-n-tell meeting. What a pleasure to meet in person!

*Scribe's note: The knife photos were taken in variable natural light. They came out better than I expected, but with some color tint and contrast issues. I plan to bring an old light box and a couple of lights, powered by a new Jackery power station, for the August meeting. We'll see if that makes for better knife photos.*

**Brome McCreary** jumped up first. "Most people know that I spend a lot of time in the bush, so one of the things is 'how do you sharpen your knife when you're out there?'"

Brome noted that he has an Edge Pro sharpening system. That gizmo features interchangeable sharpening "stones" — and he takes those along with him. "I just throw 'em in an old sock, and throw it in my pack..." taking along a medium and a fine grit, and one that is a leather strop. At least that's what he used to do.

But recently he decided to give Work Sharp another try. He has mixed feelings about some of the sharpening systems out there because "I have so many clients bring me knives that they clearly have sharpened on those things, and it's a belt driven thing... and their tips are all rounded off... and there's a big groove at the heel where you drop [the knife onto the belt]..."

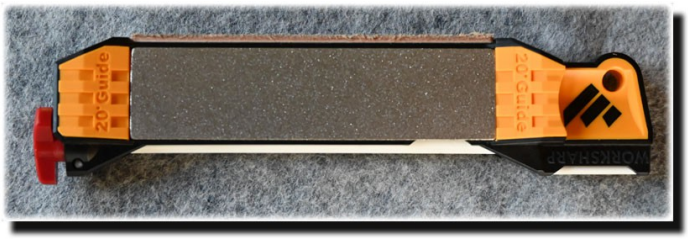
*Another scribe's note: From my years of hand sharpening knives at a little grower's market, I second Brome's comment. I saw so many knives damaged in this manner. I took to bringing a double-cut bastard file and a table vice with me so that I could file down the bolster where it meets the heel of the knife (in some kitchen knife styles). Otherwise the first inch or two of the blade was unusable because the customer had ground a huge dip into the edge where it meets the bolster at the heel. Well, OK, I also made use of the file & vice to put a new point on knives that had been used as pry bars.*

"... so I have this huge irritation with 'em. But they were paying me [to fix their knives] so I don't know what my problem was... and it has nothing to do with the [belt sharpener's] design, it had to do with how they were used..."

At any rate – Brome took to keeping one of these belt sharpeners with him when he went visiting, so that he could re-grind knives for folks in a reasonable amount of time. Of course, he fabricated a bunch of specialized platens for his sharpener. We would expect no less. “I can do my whole knife shop thing in this little kit...”

He's also invested in specialized sharpening tools, like a horizontal disk sharpener for things like high end chisels.

… but back to his hand-sharpening-in-the-woods thing, he picked up a Work Sharp “field sharpener” at Bi-Mart for $21. Dual, replaceable diamond faces. Plus a ceramic rod. Plus a leather strop. Talk about all-in-one! The ends are angled to get your stroke started at a 20° angle.




As a take-off from talking about a leather sheath there was discussion about the Muir & McDonald tannery. Their operation closed in 2007. Several folks shared fond memories of this last family run tannery in Oregon.

**Frank Bobbio** got up next, and although he tried his best, he was unable to foist off a bottle of Carolina Reaper hot sauce that he'd been gifted at a family reunion. But, moving right along...

“I've only made one knife in the last six months... it's patterned after a [Japanese] hori hori garden knife...” Frank noted that his first version had a cupped blade, like a garden trowel. Brome took that one out in the bush, using it for fire-craft, general camp use, and abuse. Frank has since gone with a flatter blade design. His design combines a one-side sharpened edge, a saw on the spine, a dagger point, a square edged radiused transition to the minimal bolster/ guard area which can be used against a ferro fire starter rod, the full tang extends slightly beyond the handle scales for batoning or use as a hammer. It also sports a hole that can be used in binding the knife to a staff to make a spear.

He's making these out of 8670 steel — what's used for industrial circular saws. Tough stuff!

Frank uses Brome's idea for using schedule 20 PVC pipe to make sheaths for these knives.

More for strict garden use, Frank has continued to improve his garden-trowel-out-of-rebar series. These are truly Ultimate Trowels. These are strong enough to use a pry bars. He has experimented with various finishes. Powder coated versions go for a premium. The arched handle allows for forceful digging. The main part of the handle is rubberized.

He also passed around a couple of dual-powder coated forged skull bottle openers. Open your beer with attitude!

**Lynn Moore** was up next. He brought in a knife that he'd shown in Zoom as a work-in-progress. CPM 154 blade. The handle has dovetailed scales made with green Micarta and stabilized and dyed maple burl from Gallery Hardwoods. Copper pins.

*Scribe's note: the name Micarta, is a trademark of Industrial Laminates/Norplex, Inc. However, in the same way that "Kleenex" is used as a generic word for any facial tissue, Micarta has become a generic word for any layered fiber/resin material. So I'm going with the flow and using the word "Micarta" instead of some more cumbersome description.*

Lynn has a batch of four of these blades, cut in pretty much the same profile. This one has handle scales of black Micarta, red liners, and redwood burl that Tyler Aldrich stabilized. Copper and brass pins.

Next up he passed around one made from industrial circular saw blade. Myrtle burl handle. Copper pins.

Lynn's next knife was "made a long time ago." The handle is stabilized deer antler. The blade was forged at Jeff Crowner's place in the early days of the club.

We did a clay finish/hamon workshop there.

The bolster is a Thomas Jefferson dollar coin. Lynn shares his birthday with the third president of the United States.

His next pass-around was also from circular saw steel. Canvas Micarta handle with copper pins.

Another blade was one that he'd made years ago and gave to his parents. Now that they have both passed away, the knife came back to him. It's a railroad spike knife. Lynn explained the handle pattern: (1) use a chisel on the cold metal to put a line down all four sides (2) heat the steel and follow those lines to make deeper cuts (3) hot-twist to create the final pattern. "These things aren't high carbon, but they make great letter openers."

Lynn's last pass-around was one with ironwood burl handle. Copper pins. Circular saw blade steel.

**Martin Brant** came to the front next. “Way back at the first [OKCA] show that got canceled, the theme was going to be the seax... everybody thinks about a broken-back seax, but there are a lot of other types of seaxes... double edged ones, single edge ones that don't have a break [in the spine] that are seaxes too...” Gene Martin made the blade blanks for volunteer knifemakers to create the award knives out of, with his take on a handsome broken-back pattern. Martin was not signed up to make an award knife, but he loves traditional Northern European knives and could not resist getting a copy of Gene's pattern and cutting a blank for himself out of 5160.

Martin noted that one online group he frequents focuses on historically accurate seaxes. He forged out his blank to be a little more historically influenced profile. He noted that the historical broken-back seaxes are thickest at the “break” in the spine. The distal taper goes both ways, not only narrowing to the point but also narrowing toward the handle. “And there's not a straight line on 'em. Even though it may look straight, there's always just a little bit of curve on it. A lot of the fantasy seaxes... have perfectly straight lines [on the spine]...” but archaeological seax profiles never had a straight line. “Another thing they never had was a stag handle!”

He also noted that, for the most part, historical seaxes were stick tang affairs, glued into the handle with a pitch based paste. Pins were almost unheard of. “Very few had a bolster. They might have a wire wrap or a sheet metal ferrule.” He also noted that broken-back seaxes had hand-and-a-half length handles. This would be useful for choking up on the blade for slicing work, and sliding back on the handle for chopping. *The weight-forward nature of the blade would also facilitate chopping.*

Martin also noted that for a soft back draw he used wet sand to protect the edge, which he could sculpt up to protect the point of the blade while he heated the spine — giving the spine toughness while preserving the hardness of the edge.

His next pass-arounds were a couple of puukkos. On the first one Martin forged the blade he from a broken Black Diamond file that Steve Goddard gave him from Wayne's shop. Wayne liked to forge knives from Black Diamond files. Martin left the Nicholson/Black Diamond mark on the blade. “It's nice to have a story with the knife.” He noted that he tempers file-knives around 425-450°f which gets you a Rockwell of 60-61 HRc.

He silver brazed on a 1008 extension on the tang. A common 16p nail will do. On the other hand Martin has plenty of 1008 if anyone's interested.

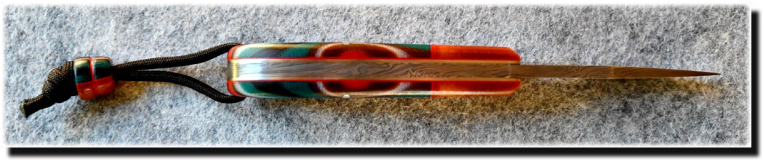
The second puukko was out of 1084. The cross-section of a puukko is often a rhomboid, like a saber grind that tapers not only toward the edge, but also tapers slightly to the spine.

He also had a couple of go mai puukkos (five layers of steel). The cores are 1095, clad in nickel shim stock, with an outer layer of 1008. Tough on the outside and hard in the middle. “I've got a little river going there with the nickel shim.”

"Something I learned doing san mai stuff; don't try to forge it all the way to shape. [it's too easy to get the core off-center] Forge spatulas and then grind 'em! … Try to keep your forging as even as possible. Once you get it big enough to encompass the knife you want, then grind away anything that isn't the knife."

**Brock** started out with a slip-joint folder. "This one doesn't have a half-stop. It's Erik's design... made off one of the fixed blades that I've made a couple of limited runs of. I hate the word 'tactical' but it's a duty blade. Something that I would have worn on my vest, back in the day when I was young." So Erik Land used his CAD expertise to translate the fixed blade profile to a slip-joint blade. Brock's pass-around is his prototype. He likes how it came out, but he's going to tweak the design slightly. The blade is AEB-L at about 62 HRc. The spring is AEB-L also. The scales are Crazy Fiber Micarta.

His next pass-around was another slip-joint, in a pattern he calls "The Vicky" after his mom. It's the largest slip-joint that he makes at this time. The blade is out of Tyler Aldrich's "lazy twist" Damascus. The scales on this one are industrial Micarta and Gcarta.



Brock talked to other knifemakers with a lot of experience in folders, asking why they don't use Damascus for the back-spring. The answers were, on the one hand, to conserve the expensive Damascus — and on the other hand, "it is mind-numbing to try to get the patterns lined up [with the blade's pattern]. You are never going to match the pattern."

In answer to a question, Brock related that he's done a three slip-joints in go mai (five layer) "and that was even more of a pain." At least with Damascus there's always a bit of randomness with the pattern, and the eye is a little more forgiving if the blade and spring steel patterns don't precisely mate up.

His next pass-around was a slip-joint inspired by the gun stock handle pattern. "I like to take familiar profiles and the put my spin on them." The blade is more of Tyler's Lazy Twist Damascus. The handle is Masur birch with black Micarta and G-10.

Next was a chef knife in san mai; 52100 core with 410 cladding. The handle is black Micarta, G-10, and Brazilian cherry.

Then a slicer or carver. "It could be a short brisket knife..." The blade is san mai. The handle has some "surf-ite" that is over-pour of surfboard resin, so it's a wild combination of random colors — plus the handle has reconstituted agate, black palm, and G-10.

Brock has a buddy who makes surfboards, and when they pour the resin outer shell, the excess drains into a five gallon bucket. That bucket fills up with a crazy quilt of colored resins. Brock slices it up with a chain saw to get slabs that he can trim down further in the shop. He brought some chunks of this “surf-ite” to give away. He warned that the adhesion between layers leaves a bit to be desired, so it should be used as a liner, a bolster, an inner segment of the handle, or with a knife that won't be subjected to hard use.

**KC Brooks** came to the front next. “I really want to thank you guys for even having this group...” And he expressed appreciation for the sharing of experience that is a hallmark of this club.

His first pass-around was a chef knife made with canister Damascus “made with all the bits and pieces... drew it out in a bar, cut and stacked it, and drew it out again.” He noted that he gets most of his handle wood from Gallery Hardwoods in Springfield.

KC is the owner of the Sammitch food trucks, you've probably seen them around town, with the crazy squiggly line art all over 'em. Anyway, he recently participated in a food truck challenge. The show was filming an LA food truck making its way up the West Coast doing one-on-ones with local vendors. KC made the knives that he used in the filming, so he was jazzed about that! Look for this show on Discovery+. *I'm assuming this is part of “The Great Food Truck Race” series.*

He passed around a medium layered Damascus nakiri style chef knife. Amboyna burl and maple handle.

“I've been having fun learning how to do mosaic...” KC likes the accordion cut rather than the 35° tile cut *[the Ferry Flip, I presume]*. He's done six or seven times with the accordion cut “and it's turning out with an awesome look...”

Next he passed around one of the chef knives he used in the videos. “It's got a little rainbow patina going, which I find absolutely awesome.”

He has been using a log splitter converted into a forging press. He plans to tear it apart and reconstruct it as a vertical press.

His last mosaic pass-around was a commission for a friend who's wife loves tiger and zebra stripes. He constructed the billet using a low layer twist bar in a patchwork with 15N20 spacers. “How Salvador Dali and abstract can I get?” *Somehow, it doesn't look like I got a photo of that one.*

In response to a question KC said that he uses 80CrV2 rather than 1084 in his Damascus. Plus your standard 15N20 for the contrast.

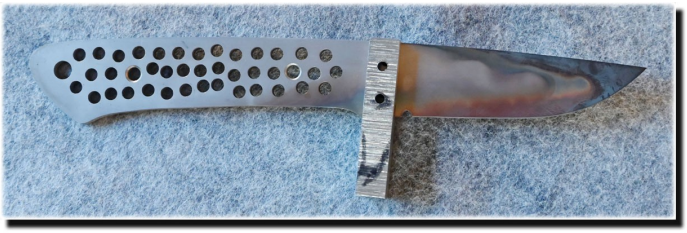
From another question he noted that he uses a surface grinder to fine tune the thickness of his blades. He generally takes them down to match a favorite knife that he got from a family of knifemakers in Osaka, Japan. But he'll adjust the thickness, depending on the planned use of the finished knife.

**Erik Land** started out by thanking myself and Edward Davis for holding the group together through our COVID challenge.

*Thanks Erik, we appreciate that. OK kids! I've done my bit, now it's someone else's turn!*

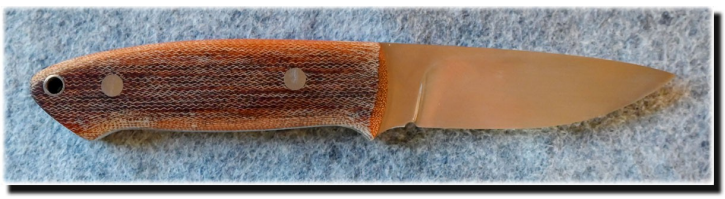
"I've been making knives" Erik went on "but I've also been really lazy! And all my finished ones are out the door." So he brought some work-in-progress.

First up was a Loveless style fixed blade.



Next was a hunter.

"I did a few hunting knives for a family, and I always do one extra, just in case..." He noted that he is using CMP 154 pretty exclusively these days. He finds that it performs well and is easy to heat treat. "My first 50 folders were out of O1 and it makes great folders..." but his customers wanted something in stainless. So he changed over to CMP 154.



"My big love is really the slip-joints. I make all my own patterns..." He'll start with inspiration from a knife that he likes, the draw it up in CAD with his own design.

"On my bucket list are two things, a two blade folder... then I also want to do a three or four blade folder... The two blade folder is easy because they both have independent springs... but you get into a three blade folder, well two of those blades, one on each end, operate off the same spring. So everything I know about setting the tension of the spring and stuff goes right out the window!"

Erik passed around a two blade model work-in-progress.

Last up was **Edward Davis.** He's been doing various leather projects, watch rebuilds, you name it. "I'm trying to be passable at 10,000 things! My attention span is only about two inches wide. I thought what might get me fired up about knives again would be if I had something really pretty..." So, Billy Ottaviani offered to sell him a large thin billet of Damascus. "We met in front of the [Portland] art museum like we were doing a drug deal. I handed him a wad of cash and he handed me this piece of Damascus." Billy offered to size the billet to Edward's specs, which turned out to be thin and WIDE. Billy may put a limit on how wide he does future billets!

A recent project that Edward tackled was to take a cheap Pakistani Buck knife knock-off and re-handle it. In deconstructing it, he found that the blade lock area was so sloppy that Edward could not bring himself to reuse it. He plans to use some of the Damascus billet for a new blade. "So I'll have a Pakistani knife, the only thing that will be left over from the original will be the brass bolsters and liners and back-spring!"

After Edward was through, we went back to visiting and swapping stories for awhile, until we drifted into the night.

Keep well, work safe, and see you on the 5th!

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.kempclan.com/5160Club/

## Oregon Knife Collectors Association (OKCA)

The OKCA is putting out their newsletter, but the monthly dinner meetings and the knife shows are COVID canceled for the time being. We are all hoping that their big knife show in April might happen in 2022 – sign up for their newsletter to stay in the loop:
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

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

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

## 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

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.brodbeckironworks.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

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 Lightening 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

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

Gallery Hardwoods – Eugene, OR
http://www.galleryhardwoods.com/stabilized.htm

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/

Crosscut Hardwoods at 2344 W 7th, 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.