

EUGENE 5160 CLUB ~ APRIL 2019

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

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



NOTES AND REMINDERS

OKCA April Show – this is the big one: knives, swords, axes, etc. - custom made, handmade, factory made, collectibles, budget, books, supplies, demonstrations, museum-quality displays along the walls, come to buy -or- browse for daze! April 12th is OKCA members only. April 13th & 14th are open to the public – admission is \$6/day – members enter for free. 360 tables at the Lane Events Center.

<http://oregonknifeclub.com/okcashow.html>

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.

NWBA 40th Anniversary Conference – May 24-26 at the Cowlitz Expo Center, Longview WA. They'll have demonstrations, hands-on workshops, food, contests, auction, displays... Onsite camping available. Here's the website:
<https://blacksmith.org/events/nwba-40th-anniversary-conference>

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.



APRIL MEETING

Thursday April 4th – 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.”



MARCH MEETING

MICHAEL KEMP (*once again, that would be me*) called the group to order – and offered up 4 more of the industrial circular saw blades that Ben Tendick donated to the group – free for the taking.



MIKE JOHNSTON was first up. “People keep coming up to me and saying 'How long does it take to make a knife?' So just for grins and giggles I decided to video myself making a knife – just the blade. I started with a piece

of trailer leaf spring that was 8 inches long – and in 90 minutes it went to that [*he held up a fresh forged blade*] including 3 normalizing cycles and a quench. And it got nice and hard.”



Please note that this does not include final grinding, finish sanding, or hafting the blade – which can take hours to days to weeks depending on the blade finish, handle style, and care taken at each step.

Next up Mike showed us a work-in-process straight razor. “I was seeing if I could hollow grind with my new belt sander.” The steel is a small coil spring (maybe finger thickness) a couple of inches long – forged and ground. Mike tempered it to 60-61HRc rather than his usual 58-59HRc that he prefers for his hard use working knives.



Typical of Mike – he made the contact wheel for his grinder himself – from a couple of pieces of epoxy laminated together and turned on a lathe.

Next he shared that he'd been asked to make a representation of a Scagel knife “that I would never have assumed was a Scagel.” Which Mike forged out of spring-tooth harrow tine that “seems to test out to be close to 1080” from a harrow from the 1920s or 1930s. Brass guard – soldered on. Elk antler scales.



RAY ELLINGSEN came to the front saying “I'm not a knifemaker, but I am a user, abuser, and collector of knives...” and he wanted to share a few Wayne Goddard knives from his collection (like father like son!).



Ray noted that the 1st one was a typical Goddard camp knife/butcher knife. When he got this a couple of years ago it was “in not-good shape” and the blued finish looked like someone had tried to remove it with a pumice block. He had Mike Johnston refurbish it, and Hannah Morgan refurbished the sheath.



“The 2nd one is a really great example of a Wayne Goddard Bowie knife with crown stag on the handle... a very simple and beautiful design...” Some

time back he got into an argument about whether the handle (with the orientation and curve of the crown stag) was a left- or right-handed design. "I'm left handed and it fits really great."

Martin Brandt chimed in that Wayne liked a crown hafted knife "Full rosette – without any funky boogers on it, and if you're right-handed it went on the left side [cross-draw] with the crown angled out so you could see the rosette."

Ray's the 2nd owner of this knife – and when the original owner sent it he sent the wrong sheath. Hannah Morgan [Grey Leather Company - <https://www.facebook.com/GreyLeatherCo>] to the rescue again – with a custom sheath.



The 3rd pass-around was a "great, simple fighter design... that a lot of people have copied... cable Damascus, a perfect example and really well-preserved, and the original sheath..."



Ray confided that when he was in college he hung out at Wayne's house a lot "I should have been getting an education in knifemaking but I was just there to get free food from Phyllis... Wayne was smart enough to put me to work every time I showed up..." and on one occasion Wayne handed him a hatchet and they went to work dismantling a lilac tree

in the yard. When they got to the bottom trunk Wayne saved that section aside saying "I can make 3 or 4 good handles out of this." *Good lord – that is so Wayne.* One handle being on Ray's 4th pass-around. Decades later Wayne had it on his tables at the OKCA show. Ray went to get money to buy it but his dad beat him to it! But Ray eventually regained it. "I think it's a beautiful design – camp knife/chopper..."



Once again, "someone used a Brillo pad to clean it" so Ray had Mike refurbish the blade finish. Craig Morgan refurbished the handle and put in 16d nails for the pins.

The last of Ray's pass-arounds was classic Wayne. Back in the '80s or '90s Ray was over at the shop and saw one of the \$50 Knife Shop knives on the workbench and was haggling with Wayne to buy it for \$40. The blade was made from a blade off a garden shear.

"Phyllis came out and said [to Wayne] 'Is that the knife that you stole my broom to make the handle with?' and it was. And he got some radiator hose from Steve's '58 Pontiac truck."

Steve chimed in that he'd bought extra length of replacement hose and dad said "oh, don't throw that away..." and eventually used some to cover the broom handle.

"I went through Outward Bound Instructor Course and I used this. This was my carry knife for years. I abused it and re-sharpened it – but it has been one of the best knives I've ever owned" Ray said.

"... so we went in to the kitchen table where all business was conducted... Wayne said 'I said \$60 didn't I?' and when I started to say something my dad

(who was there too) shook his head – so I gave Wayne \$100 and he gave me a \$20 bill back. It was the best \$80 I ever spent. And by the way it came with a high-speed low-drag super-high-quality cardboard sheath wrapped in very rare electrical tape. I think the most expensive part of this knife is the paracord...”



So there it is – the quintessential \$50 Knife Shop knife.

STEVE GODDARD got up next – with a knife from his dad's workshop – one of the friction forged DiamondBlade series. The sheep horn handle had a flaw in it which Steve repaired.



Steve liked that knife so much that he re-purposed another blade – with a bocote handle for the next knife he passed around.



... after which Steve passed around several knives of similar style with tanto-esque tips and various handle materials and slight handle profile variations. A couple in Micarta:



... and a couple with wood handles:



“Dad said to always have something on your table that someone could afford to buy...” This little knife is in that category. The blade is from high-speed paper perforation knives and the handle is acrylic from Woodcrafters.



It's an import... but I was impressed by how well it was made.”



Next up he pulled out a brush knife that he had re-handled in Micarta. He noted that the Micarta was not died a consistent color (if I understood correctly). I never got closer to that knife than in the photo of Brome holding it – at any rate I sure didn't get a picture of it that night.



CRAIG MORGAN came to the front with a couple of classics. The first “was one of Wayne's shop knives.” The blade is from another maker. Bamboo handle, copper ferrule, mokume-gane butt cap by Wayne.



The other was “a 5160 differentially heat treated by my friend Bill Siegle. It makes a hard user camp knife.”

There were a *lot* of knives going around that evening and sadly the Siegle was one of the ones that I never got a photo of (except with Craig holding it above).

ALAN FARMER came forward saying “got some propane, got some horseshoes from a barn up in Christmas Valley. Decided to see what I could do with that” and passed around a knife. “But before I made a knife I had an art project...” that had something to do with a wagon wheel – and was associated with the Coburg hills – so he decided to forge some over-sized iron representations of native arrows.



In response to questions he described forging the arrowhead piece and his use of a hatchet to “feather” the fletching (made from some strapping material).

I didn't get any photos of the knife, but here's one of one of the 3 arrows he passed around:



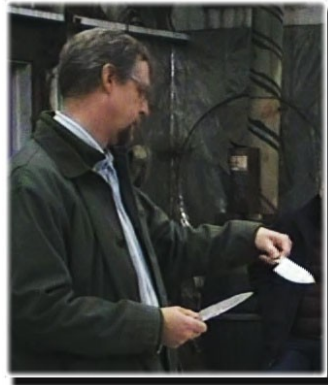
BROME MCCREARY came to the front next. “I like to buy tools. I'll buy something because of the way it looks. I was at a gun show and bought this... for \$10.



PAUL HAINES shared with us that a customer had requested a Scottish black knife (sgian-dubh). Paul's interpretation is in cable Damascus with a walnut handle and brass pins.



After a lull (so many great knives being passed around and examined, and I was too busy trying to catch up to attend to my MC duties!) **EDWARD DAVIS** said “OK, I'll go next then. I've got a couple of kitchen knives in progress here...” and passed around a couple of ground knife blades – a chef and a kitchen utility knife – both made from industrial bandsaw steel Dennis Ellingsen supplied.



On another tack, Edward's mom found a 1977 knifemaking book for him at a used book store. One thing that caught his attention was a photo of a maker grinding – both wearing gloves and using a push

stick... because Edward slipped when grinding the chef knife and his glove kept the belt from getting anything but the top of one fingernail. He also noted that some folks refuse to wear gloves when grinding out of concern that the glove could catch in the grinder and suck your hand in where it should not go.

This started quite a discussion on when, and what type, of gloves different folks use when grinding... or glove substitutes. Opinions were often strong – one direction or the other. The extra sensitivity of bare hands versus the accidental grind protection of gloves. One compromise is nitrile gloves – Frank Bobbio then wraps the most vulnerable fingers in Gator tape, protecting the gloves from getting torn while the nitrile keeps his hands dry. More than one person talked about wearing protective gloves for rough grinding – going glove-less for finer grits.

In response to Edward's query, some folks make occasional use of a “push stick” - generally for rough grinding or profiling.

“So... most people don't use gloves” Edward noted “how often do you get your finger in the belt?”

“Only once!” someone replied. “Yep, only once – then you don't have to worry about that finger any more!” and other snide remarks.

AARON was back with more of his creations. He started with the draw knife he'd brought back in November. “I've used it now on a little hatchet – it worked pretty good!”



I should have put a quarter down for scale – it's only 9 or 10 inches wide at the handle tips.



Aaron also passed around a couple of spatulas he'd made.

“All with a hammer – no power hammer?” someone asked.

“Correct... about an hour-and-a-half on one, two hours on the other” Aaron responded.



LYNN MOORE himself came forward next with a couple of current projects.

The 1st one was a leather head knife made from the industrial bandsaw steel with myrtle handle and copper pins. This is one he made for himself.

The next one Lynn got the

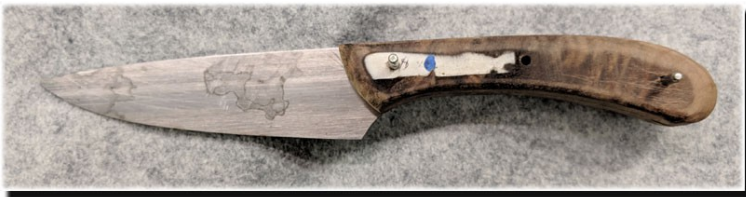


stainless steel blade from Merle Spencer – who hadn't gotten around to hafting it – and Lynn put an ironwood burl handle on it with copper bolster and pins. Merle had done the filework on the spine.



The next person up was showing his “first ever knife” a work-in-process, noting that Lynn Moore had had him out to his shop. It's made from the industrial bandsaw blade. Walnut handle.

Looks like another skilled knife maker coming up – with outstanding mentoring by Lynn.



FRANK BOBBIO was next up, starting with a new cell-phone case – and the mold he used to form the leather (not shown).



Frank noted that the leather was “fine for my own use” but not high quality. In answer to a question he said that he attached the

Velcro loop on the back with Shoe GOO. He noted that if Shoe GOO is too thick for your application, a fabric glue called Aleene's Original Super Fabric Adhesive is the same sort of glue but in a thinner formula.

In response to questions Frank said that for a leather sheath he will use Barge's cement or Weldwood contact cement. He said the Aleene's dries a "clearer, more hard, rubber."

He noted that he's tested everything from "white glue" to CA glue to contact cements. "Any of 'em will pull the fibers out of the leather – so there's nothing that's far superior... you're gonna stitch it anyway... the contact cement is better just because you put it on and in 5 minutes it's dry – you press the pieces together and it's 90% stuck..."

He noted that Shoe GOO and Aleene's can also be applied in a thin coat and let both sides dry a few minutes (until no tackiness) to be used as a contact cement.

Frank then took 2 pieces of leather that had been glued with Aleene's 24 hours prior. The leather pulled apart no problem. 2 pieces of metal pulled apart easily. 2 pieces of wood were really stuck – he had to use a vice.

He also shared a brown CA glue from Starbond that he's found useful for filling small voids in stabilized dark wood handles.

Frank then gave away some wood handle blocks.

He then showed his new "stone" for his diamond sharpening block. The block came with 400 and 1,000 grit. The new plate is 1,500 grit – on a very thin plate. He glued it to a thicker aluminum plate so that it would fit in the sharpening block:



"OK – we're going to break some steel!" led into one more experiment from **Frank's Testing Institute!**

First he passed around a ring with examples from his testing of the circular saw steel that Dennis supplied the group with. The individual pieces were quenched in various mediums and tempered only to 250°f. They showed some bending before breaking, demonstrating a good tough/hard trade-off.

"I've got 3 more pieces" of circular saw blade. He introduced this test by noting that it is generally advised to normalize bar stock before using it for stock removal – except for steels that are pre-processed and would be damaged by heating, such as particle metallurgy steels, O-1, etc.

His test was to find out if circular saw blade (which should already have been normalized) shows any benefit from re-normalizing before being made into a knife using stock removal. The pieces were heated above critical (around 1,600°f) and quenched in peanut oil – the 1st with no prior treatment; the next was normalized 3 times before heat treat; the 3rd piece was normalized, heat treated, then tempered at 300°f for 1 hour.

Wrapping the 1st piece of steel in a towel before breaking it in the post-vice Frank shared that years ago he has had a "watermelon seed" of steel hit him in the chest when bending a piece of steel towards himself to break it. He was wearing a sturdy leather apron at the time, so he remained un-punctured. *I really have no idea why women live longer than men...*



It was impressive how tough this circular saw steel is at 65HRC! When the 3 pieces were broken, the grain structure looked virtually identical, and the breaking point were the same for #1 & #2 - #3 bent maybe 15° more before breaking. Conclusion: no need to normalize the circular saw steel if you use stock removal to make a knife out of it. Just grind-to-shape, harden, and temper.

Frank then passed around a couple of knife blades that he made just to prove that his advice for making a knife without investing in a 2x72 grinder would work – an using angle grinder, 3 flap disc grits, and a drill for the tang pin holes. Truly a “\$50 knife shop” type setup. You would have to cut or grind the knife profile before beveling or purchase a knife blank from on-line – and have a torch and a bucket of canola or peanut oil for heat treating – then sneak into the kitchen to temper the blade in the oven.



The top one is just profiled, drilled, and heat treated. These came out 62HRc after a quick temper. Frank paired them up with pins and madrona scales and offered these rough “kits” free to a couple of lucky folks who guessed closest to the numbers Frank had in his head.

Frank then passed around a bird-n-trout knife of 15N20 with stabilized maple and African blackwood handle:



And again passed around a RR spike knife. *Yah, yah you regular readers have seen it before, but it's just too cool not to show it again:*



And his last 2 pass-arounds for the evening were a couple of multi-layer “san mai” - so not *really* san mai (3 layers) – but maybe “low layer Damascus”

with excellent edge steel in the center and dramatic and tough layers on the sides.

The top one in this photo Frank had brought in for the January meeting - 8670 core clad on each side with 10 layers of pallet strapping (1050/1060) and a nickel steel, gun-blued. G-10 handle.

The bottom one is his encore - with a core of Cru Forge V sheathed in high contrast steels, stabilized maple burl handle and African blackwood handle. The contrast in the blade was brought out just with ferric chloride using Frank's special process (maybe the same process he shared in the 2018 April/May newsletter – page 6: <http://www.elementalforge.com/5160Club/201804Newsletter.pdf> but knowing Frank it wouldn't surprise me if he's made improvements on that method).



... and with that we broke up into small groups – musing about knifemaking mysteries and life, the universe, and everything.

Also – I find this photo among the others from that evening, and I am clueless about where it fit in! Darn nice knife & sheath. Maybe this is Craig's Siegle?





Have fun 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 “Knewsletter” link and scan a recent newsletter for a membership form and contact info.

FORUMS

Bladesmith's Forum aka Don Fogg Forum
<http://www.bladesmithsforum.com/>

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

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

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

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

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

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

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.

<http://www.feine-klingen.de/PDFs/verhoeven.pdf>

Verhoeven's updated book:

<http://www.amazon.com/Steel-Metallurgy-Non-Metallurgist-J-Verhoeven/dp/0871708582>

ZKnives – Knife steel composition/comparison/etc.
<http://zknives.com/knives/steels>

Kevin Cashen's Bladesmithing Info
<http://www.cashenblades.com/info.html>

Knife Steel Nerds – a metallurgist's blog on the technical details of steel
<https://knifesteelnerds.com>

Tempil Basic Guide to Ferrous Metallurgy
http://www.tempil.com/wp-content/plugins/download-monitor/download.php?id=Basic_Guide_to_Ferrous_2010.pdf

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

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

My own “Knife Info” has some of my knife 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 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

MSC Direct

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

McMaster-Carr

<http://www.mcmaster.com>

Grainger

<http://www.grainger.com>

Surplus Center

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

Victor Machinery Exchange
<http://www.victornet.com/>

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

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/>

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

Sandvic – stainless steels – Texas & Pennsylvania
<http://www.smt.sandvik.com/en/products/strip-steel/strip-products/knife-steel/sandvik-knife-steels/>

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

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>

Oregon Blade Maker [Oregon] – affordable chassis and accessories, good reputation – you supply the motor
<http://stores.ebay.com/oregonblademaker>

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>

FORGE & REFRACTORY

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

<http://oregonblademaker.com>

Grinder-In-A-Box – grinder kit, assembly required

http://www.polarbearforge.com/grinder_kit_order.html

The “No Weld Grinder” plans can be purchased from

<http://usaknifemaker.com>

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

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

<http://www.waynecoeartistblacksmith.com>

Contact Rubber Corp – wheels etc.

<http://contactrubber.com/contact-wheels.asp>

Sunray – drive wheels

<http://www.sunray-inc.com/drive-wheels/>

Renaissance Metal Art [Mulino, Oregon] – 80# ram air hammer

<http://www.rmetalart.com/tools.htm>

Anyang [Texas] – air hammers from 20# to 165#

<http://www.anyangusa.net/>

Meyer Machine Tool [Ohio] – treadle hammer

<http://www.meyermachinetool.com/Blacksmith-div-.html>

Spencer/Clontz tire hammer plans/workshops

http://www.alaforge.org/Trading_Post.html

Appalachian Power Hammer plans

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

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

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

True Grit – under “Machines & Accessories”

<http://www.trugrit.com>

Chile Forge

San Marcos, Texas

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

Mankel Forge – Muskegon, Michigan

<http://mankelforge.com/forges.html>

Western Industrial Ceramics Inc.

All things refractory – Tualatin, Oregon

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

High Temp Tools (scroll down the page for the category buttons) Tuscaloosa, Alabama

<http://www.hightemptools.com/supplies-mainpage.html>

High Temp Inc. has also been recommended for Kaowool etc. Portland, Oregon

<http://hightempinc.net/>

Omega – thermocouples & measuring equipment

Stamford, Connecticut

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

Auber – more thermocouples and controllers, etc.

Alpharetta, Georgia

<http://www.auberins.com>

Hybridburners – home of the venturi T-Rex

Smithville, Georgia

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

Pine Ridge Burners – for ribbon burners and all associated fittings, blowers, valves, etc.

Conway, Massachusetts

<http://www.pineridgeburner.com>

Zoeller Forge – low cost venturi & parts: Z Burners

Lanesville, Indiana

<http://zoellerforge.com/>

Here's the original article on making a ribbon burners that John Emmerling wrote back in 2005 for the NWBA Newsletter:

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

You can download the PDF from that site. John's article starts on page 11.

BLACKSMITH

Farrier Supplies 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 Gropitch – Blue Lightening Stencil
<http://www.erniesknives.com/>

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

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

Steel Stamp, Inc.
www.steelstampsinc.com

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/cutlery.html>

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

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

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

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

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

WOOD & 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://bambooasis.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
I've purchased stabilized blocks from them at the
April show. They tend to be heavier, presumably
more durable/stable but less wood-feel than others.
<http://www.galleryhardwoods.com/stabilized.htm>

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

Alpha Knife Supply – 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 – your mileage may vary.
<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>

Cherry City Metals – Salem, Oregon – metal
recycling and useful objects
<http://www.cherrycitymetals.com/>

Burcham's Metals – Albany, Oregon – recycled metal
of all sorts. Very good pricing.
<http://www.burchamsmetals.com>

Amtek – tool steel & cutting tools
<http://websales.amtektool.com>

Rio Grande – jewelry tools/supplies
<http://www.riogrande.com>

Otto Frei – jewelry tools/supplies
<http://www.ottofrei.com>

M3 Composite – space age mokume & other
<http://www.m3composite.com/>

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

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

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

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