

EUGENE 5160 CLUB ~ DECEMBER 2016

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

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



DECEMBER MEETING

December 1st – 6:00pm at David Thompson's shop. If you didn't get the directions in the meeting notice, email me for them: michael@elementalforge.com.

Bring your show-n-tell! I won't be there but Frank and Jove have stepped up to facilitate & document the meeting.

Note from the Thompsons:
“Please **drive very slowly** down our lane. The maintenance is all ours. Thanks.”



NOTES AND REMINDERS

Oregon Knife Collectors Association (OKCA) – December Mini-Show – Saturday December 10th in the Wheeler Pavilion at the Lane Events Center.
<http://www.laneeventscenter.org/EventCalendar/DisplayEvent/b1853e57-5972-4bd1-9ba2-328e926dcd8d?ticks=636169248000000000>

Willamette Valley Arms Collectors Association Gun Show - March 18th-19th at the Lane Events Center. OKCA will have two knife tables.
http://www.wvaca.org/show_dates.html

OKCA Knife Show – April 7th (OKCA members only) – 8th & 9th (public) at Lane Events Center.
<http://www.oregonknifeclub.org/okcashow.html>

Bent River Forge aka Farrier Supplies – ongoing intro to blacksmithing and other classes:
<https://www.facebook.com/FarrierSuppliesOR/>

Northwest Blacksmith Association – see <http://blacksmith.org/events/> for all events.



NOVEMBER MEETING

Before the meeting started, **DAVID THOMPSON** put a few of his blacksmith knives on the front table for folks to view (photo at end of newsletter).

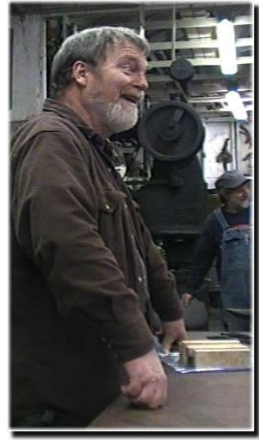
We started the meeting with **DENNIS ELLINGSEN** sharing some of his Wayne Goddard knives.

“One of the things about Wayne was that he did so many variations of so many things... he was constantly experimenting.”





MICHAEL KEMP (yours truly) was up next. Through the last decade or so I've been chainsawing out chunks of hardwood trees that have been felled on our property for one reason or another. I've mainly taken burls or crotch areas of the trunks. I coated the first batch with a thick layer of Johnson's floor wax and set them on pallets to "dry" in my open-air shed.



"Air-dry" in Western Oregon is an oxymoron.

But still – even with the ends sealed with floor wax there was some checking and splitting – especially of the oak – so as years went by I changed over to coating the ends with some roofing tar I had left over from another project. That worked much better!

Martin Brandt spoke up recommending using a couple of layers of old latex paint – or Elmer's glue – or if you cut handle-sized blocks: Superglue – or a latex emulsion that you can buy from Woodcraft.

Martin also reiterated that (if you have handle blocks or some reasonable size) you can pretty much eliminate checking and cracking by boiling the blocks [in something like an old crab cooker] – about an hour per 1" thickness.

August and September were just too darn dry for me to want to make any sparks in my wood frame shed [surrounded by forest] where I forge – or for that matter in my log-and-wood constructed shop where I do my grinding. So this was a good time to tackle my "cured" rounds... as long as I quit chainsawing by the 10am fire season restriction.

I slabbed up maybe 1/3 of my stockpile. About 75% of the slabs were immediately discarded due to lack of interesting grain or rot or insect damage.

I bandsawed up the remaining slabs and discarded 80-90% of that – so I have a lot of well cured firewood. Some of the maple and oak had worthy grain. I'm a sucker for the color and chatoyance of even straight grained cherry so I have some of that too. I wound up with around 50 handle blocks for all my trouble. Here's a few...



As he sat down Dennis added "Don't forget the December 10th mini-show [at the Wheeler Pavilion – Lane Events Center] it's free admission unless you mention my name, then it'll cost you \$5!" he jibed. Tables are \$40 for members of OKCA.

<http://www.oregonknifeclub.org/>

Dennis also reminded us of the Willamette Valley Arms gun show in March at the Lane Events Center http://www.wvaca.org/show_dates.html

"Admission is free for OKCA members" he noted – OKCA and WVACA have an agreement that their members get into each others' shows free of charge.

Dennis will have 2 tables for knives. He invited 5160 folks to join him at the tables with their knives for sale, if they so desire. Contact Dennis at

ibdennis@ibdennis.com

This is a generous offer! And if you are a WVACA member I believe there are tables available for purchase – but you'd have to contact them.

The top piece is hawthorn, the two on the lower left are oak, and the three on the lower right are maple.



I mentioned that I'll might send them off to K&G for stabilizing when I get ready to use them. That sparked quite a discussion about stabilizing.

We'll see what the state of my liver is when the time comes. We've used some of my wood handled knives in the kitchen for years. They are NOT stabilized but are treated with a 50/50 mix of beeswax and carnauba wax, thinned down with food grade mineral oil to the point that it is solid at room temp, but if you warm the wood handle it will melt and soak in. Those knives are doing fine with an occasional re-treatment every year or two to brighten them up.

In my testing this wax/wax/oil mixture was equal to a "Dragon's Blood" mix (which stains reddish), better than linseed oil and other food grade treatments, and as good as the gunstock treatments Permalyn and Tru-Oil.

But I'm sure that professionally stabilized wood is even more protected against swelling/shrinking/cracking from changes in humidity. And if the wood is soft (can be easily dented with your fingernail) or has soft areas (like most spalted wood) then stabilizing is strongly advised.

OTOH I've heard tales of even stabilized wood swelling and shrinking with changes in humidity.

I guess I'd better add a "Wood Stabilizing" section to the links at the end of the newsletter.

Martin Brandt warned that if you are trying a new stabilizing provider, send a few blocks that you can lose first to be sure you like the result. He tried a new guy a few years ago and sent him good blocks that all got ruined. He got his money back but the blocks were a total loss.

"Since I haven't finished any knives recently I thought – well they haven't seen this one in awhile..." I said, unsheathing my final pass-around. This is my favorite brush knife ever. It also happens to be the only custom made knife I've ever purchased.

Jeff Crowner – a firebrand kind of a guy who encouraged Wayne Goddard to start the 5160 Club – made this out of D2 with canvas Micarta handles and Kydex sheath. I added the leather belt loop. I love the form and balance of this knife and while D2 is not officially stainless it does a damn good imitation... and it holds an edge like nobody's business. D2 is a bear to forge however (speaking from experience).



I love the balance on this blade. It's great for small limbs and saplings; blackberries; brush. What I forgot to mention until it was being passed around and someone joked about it was "Oh yah, you might be cautious of the blade – I've used it to hack down those thick poison oak vines that grow way up the trees at our place."

"Thanks for the warning!" someone called out.

LYNN MOORE came forward, saying “I brought my chopper. Michael and I were thinking on the same wavelength...” Lynn showed us a blade he made from a piece of stock that Jeff Crowner had given him.



Lynn finished the blade and a put horse mat handle on it. A friend had been redoing their horse stalls and had strips of the mat left over “It's real nice – it's really good to hold on to. It takes a bit of work to get 'em shaped. I used some marine epoxy. I've used it in blackberries and a lot of ivy when I had my place up on Fall Creek... it doesn't slip in your hand when it gets wet.”

Someone asked what weight of hammer he was using. “About a 3 pounder.”

The other factor would be how hot Tim was getting the coil before hammering it – there's a lot of difference in workability between say 1800°f-ish red-orange and bright yellow-orange 2100°f-ish.



The next blade he cut out of a piece of industrial bandsaw. “I put some wood on it that I got from the mill – I put a sealant on it but now I hear you guys telling me about [stabilizing] so this wood is probably not going to be very good.”



“It not required that a wood be stabilized” replied Martin, “I've got old butcher knives from the 1800's and the wood's still there.”

“This knife is one that Michael Raider made. It's all hand forged – he doesn't do a lot of forging... I like the shape – the handle's got a pretty nice feel to it” said Lynn as he passed around a blacksmith blade.

There was some discussion of linseed and other oils and wood hardeners that folks use instead of stabilizing.



TIM was up next. “I've got three knives that I've worked on... this is the one I made last time – I hammered it out of a coil spring out of a car” indicating that he'd gotten the material from one of our members. “A friend of mine gave me some elk horn [for the handle]. I'll tell ya that coil spring is a *!^# to hammer on... took days to beat that thing into shape.”



Years ago our alumnus Eric Ochs did some tests of various wood treatments:

http://ochsworx.com/index_files/Page513.htm

... and yours truly did some testing of my own:

<http://elementalforge.com/blog/?p=53> – scroll down to the color coded chart for the short version. This is where I settled on the beeswax/carnauba wax/food grade mineral oil combo... but yah, professionally stabilized wood should hold up best.

“I'm havin' fun with it. This is another knife – one of the guys at work – a millwright – gave me a piece of the Hyster fork. I told him if he gave me some steel I'd make him a knife. I don't know how well that steel's going to work.” Tim said.

“Forklifts [tines] are about 4140” offered Martin “it’ll harden but it’s a little on the low end.”

“Water quench it and don’t draw a temper” was advice from another person.

4140 (0.40% Carbon) would have more carbon than a railroad spike (which are very tricky to harden – see prior newsletters), but less carbon than the low end of regular knife steels like 5160 (0.60% C).



Tim then asked “how you get those angles on the blades?” Meaning clean edges between one bevel angle and another. The response was that it just takes lots of practice on the belt grinder. Lynn offered to have him out to play in Lynn’s shop. Tim is using a 1” belt which would also make it harder to control angles than the industry standard 2”x72” belt grinder.

There was discussion about homemade 2”x72” grinders out of wood or other simple construction.



DAVID THOMPSON came to the front with a handful of hoe blades.

“You know me, I don’t make blades – but I’ve been getting into making hoes. I picked these up – I call ‘em a plantation hoe” he said.

He showed us a couple of examples he picked up here

and there. He’s been puzzling for years over a good way to make them.

“But it’s just a whole lot of die work... there’s something kind of healthy about making agricultural tools.”



“Then Dave Rider showed up with one he picked up at a garage sale. I wouldn’t let him take it home because I wanted to look at it! And last time he was out here he was ‘Hey Dave, you gonna get around to making one of these things?’ so I started working on it.” David noted that the hoe looked like it was factory made in a sloppy fashion. “It’s a great idea but it’s a piece of \$#!t.”

David explained how this shape could be made pretty simply out of flat stock. You’d split and fold the handle end; forge weld the back of the handle eye; draw out the front of the blade. “I tried it with a piece of 2-1/2” x 1/4” – I did the fold – I had something like a mandrel [for shaping the eye] – then used a guillotine fuller on either side of the mandrel [to pinch the ridge in front and the poll in back]...” then forge weld the poll together. Here’s David’s version:



Then he was thinking about a longer poll forged into a thin blade for getting into tighter spaces. *Maybe like a Pulaski aka grub axe?*

There was some discussion about a shorter handle or a long handle – where to purchase a “standard” handle and what diameter it would be (to make an appropriate eye size).

“This was 9 inches of stock. I’m going to go 10-1/2 to put more stock out their [in the poll – to make that 2nd thin blade].”



Our next presenter has told me his name twice and it hasn't stuck in my feeble old brain – my apologies [your scribe].

“I started making things back in May and what I've discovered is that I'm going more into sheath making than knives.” But he proceeded to pull several knives

out of his backpack. “I haven't made anything from scratch yet so everything here is from a kit – or an old knife that I re-posed.”

“This is the first knife I made – it's from a kit that I bought at the knife shop that's over on W 11th.” [Edge-N-Knife <http://www.edgenknife.com/>] “I got maple handles and built it over a week with hand tools in the garage.”



Next up: “This was an old Pakistani knife that I bought when I was in high school... it had a chintzy plastic handle on it and a chintzy leather sheath that was only tooled on one side – so I threw the sheath away and cut the handle off...”

He wound up with DymondWood handle. He noted that it is a lot like Micarta to work with.

DymondWood is alternating stained layers of veneer saturated with phenolic resin and solidified under pressure – the manufacturer, Rutland Plywood Corp suffered a catastrophic fire in August 2014, so DymondWood is no longer being produced, although other manufacturers now produce similar products.

“I'd been looking at KA-BAR's sheaths so I made this sheath after that design.”



He also made this belt sheath for his flashlight:



The next one is folder kit from Jantz. “It came out way nicer than I expected it to. I took measurements of everything before I built it and I'm hoping I can make one from scratch... The wood on the handle is Kingwood I believe – very resinous so I didn't have to put any finish on it.”



“This is actually the one I like the best – this is a pouch I made for the Leatherman.”



This one you have to see and hold to appreciate how tightly it's molded to the multi-tool. He was asked what the process was.

“I soaked it for about an hour. I had the tool down on a board ... the wet leather was kind of like clay at that point – I stapled it down on the board [over the multi-tool]” and used wood tools to form it exactly to shape. Then he put the whole thing into the oven at the lowest setting (~100°f). He took it out at 20 minutes and re-formed it to the tool and baked it for another 20 minutes. It's lined with pig skin.

“I'm making another kit knife right now that I got scales from Knife & Gun that has Kirinite that's like pearl so it should look pretty nice when it gets done.”

After that he's going to use a friend's forge to do some forging with 1095.

There was discussion about using set-up pins – take something like a piece of welding rod and put an L bend in it so you can easily test assemble the folder (or a fixed blade handle). “But you don't want that anywhere near a grinder or buffer” advised Lynn.

JIM JORDAN recalled that old saw “How do you get to Carnegie Hall? Practice, practice, practice.” And he passed around a protractor that he practiced engraving on – see the photo at the top right of this page – gotta love it!



Next Jim pulled out his OKCA display award knife-in-process. At the April knife show each year the folks who set up display-only tables are judged and awarded 1st, 2nd, 3rd... choice of these award knives. And each year identical award knife blade blanks are given to selected custom knife makers to finish the blade and handle in their own style. “It's 90% there... a little paring knife... it's got snakewood scales... I did a little engraving on it... at least I didn't wait 'till a week before the show like last year.”



DAN BROCK of Plowshare Forge was up next. “I sell mainly to reenactors so here's a standard flavor Clements Knuckle Knife – WWI nastiness.”

“Do you cast those handles?” Someone asked.

“Yah”



“This is also a Clements knife – although Clements was just a retailer of cutlery in London. Completely useless knives.” This is from an Acura coil spring.



“And this is my cash cow, my nemesis, the horror of my life. Completely inauthentic reproduction of a Mark I 1918 that people can't seem to get enough of. It's inaccurate because the original was a hollow handle with a screw-on pommel and truth-be-told was a piece of production crap. I cast solid handles on mine – and this is a *#\$@! awesome casting for the amount of cleanup that has to be done. This one still needs cleanup and a pommel to be made.”



“And **this** is a silly-ass thing. D guard Bowie knives have been a biiiig cash cow for me and that's pretty much how I got started... There's a YouTube video where the guy... was so happy with it – he has a 2-1/2 minute video... and everybody wants one.” The blade is 5160. The photo does not convey what a big monster this one is!



The D guard is forged from flat stock – using swages and grinding to get the knobs and valleys.

DONKEY brought in a KA-BAR hunting knife set he inherited from his dad – and asked for advice on how to dismantle/repair the handle. I didn't get a photo.

And that was the end of the “official” meeting.

Sometime earlier **DAVID THOMPSON** had muttered something about having made a “sword” when he was a kid and passed around a short rapier (épée de schoolyard?). Here it is along with a couple of impromptu knives and four of his cable blades:



David fired up his big coal forge to do his next version of a hoe blade. I'd put my camera away by then but snapped a couple of shots from my phone.





WEBSITE LINKS

5160 CLUB

5160 Club Newsletters are archived at:
<http://www.elementalforge.com/5160Club/>

Hint: to Google the archive for a specific knife style or presenter name, use a search like this:
sami site:<http://www.elementalforge.com/5160Club>
or this:
ron lake site:<http://www.elementalforge.com/5160Club>

OREGON KNIFE COLLECTORS ASSOCIATION (OKCA)

The OKCA hosts monthly dinner meetings where you are guaranteed to see treasures from the wide world of “things that go cut!” OKCA also puts on the big knife show in April – if you haven't seen it you've been missing something special!

<http://www.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>



Have fun all – and work safe!

~ ~ ~ Michael Kemp



FREE DE-CLASSIFIEDS

Email me a brief description of what you are selling/buying/looking for with your preferred contact (phone/email/...). Unless you let me know you want a shorter run, I'll run the note for 3 months and then send you an email to see if it's still valid. No charge – just email me at Michael@ElementalForge.com

Lynn Moore is setting up a new shop and has these “extra” items from the old shop for sale:

Propane forge \$50

DeWalt 12” abrasive wheel chop saw \$40

Heavy duty vice \$25

Contact: beeblues26@msn.com or 541 554-5294

Blade Forums

<http://www.bladeforums.com/forums/forum.php>

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

Julious Griffith's knife groups on Facebook:

- Custom Knives For Sale by Maker - Available now
- Knifemaking - Works in Progress (w.i.p.'s)
- Knifemaking Equipment Buy, Sell, or Trade (used only)
- Knifemaking - Masters to paying Students connection
- Knife shop photos
- Knife Calendar - Events, shows, hammer-ins, schools, misc.

These are all closed groups – to keep them focused – so if you want to join one of the groups, click the “+ Join Group” button and also message Julious and give him some info on yourself so he knows you have real interest in the group.

REFERENCES

Our own Wayne Goddard's books are available at Amazon:

<http://www.amazon.com/Wayne-Goddard/e/B001JS9M10>

And you can email the Goddards directly for his DVD at wgoddard44@comcast.net

Most of the companies in the “Knife Maker General” links (below) have a section for how-to books and DVDs.

Verhoeven's Metallurgy For Bladesmiths PDF – this is a very deep dive, not an introduction.

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

Verhoeven's updated book:

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

ZKnives – Knife steel composition/comparison/etc.

<http://zknives.com/knives/steels>

Kevin Cashen's Bladesmithing Info

<http://www.cashenblades.com/info.html>

Tempil Basic Guide to Ferrous Metallurgy

http://www.tempil.com/wp-content/plugins/download-monitor/download.php?id=Basic_Guide_to_Ferrous_2010.pdf

From the Heat Treating Society of the ASM – the Heat Treater's Guide Companion for Android devices. Look up heat treating details on hundreds of steels in the palm of your hand.

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

My “Knife Info” has some knife musings and cheat sheet charts – plus Oregon and Eugene knife laws:

http://elementalforge.com/tips_notes/

CLASSES FOR KNIFE MAKING, ETC.

Gene Martin offers personal instruction at his shop south of Grants Pass for a daily rate.

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

Michael and Gabriel Bell of Dragonfly Forge offer an ongoing series of small group classes in Japanese style sword forging and fittings. Located on the southern Oregon Coast.

<http://dragonflyforge.com/>

Murray Carter offers small group classes in a variety of subjects, primarily focused on traditional Japanese cutlery. Located in Hillsboro, Oregon.

<http://www.cartercutlery.com/bladesmithing-courses/>

David Lisch is an ABS Master Smith who teaches classes in Washington. I've heard rave reviews from his students. Lisch is very skilled at blacksmithing in general and bladesmithing in particular.

<http://www.davidlisch.com/Learn.html>

Jim Hrisoulas now offers both formal classes and mentoring sessions in 2 hour blocks at his shop in Henderson, Nevada:

<http://www.atar.com/joomla/> and click the “Bladesmithing Classes” link.

The ABS (American Bladesmith Society) offers classes in Washington, Arkansas and elsewhere – if you are up for traveling across the country to take classes, check out their “Schools” link:
<http://www.americanbladesmith.com/>

James Austin offers forging classes in Oakland, CA – axes, tongs, viking anvil, etc.:
http://forgedaxes.com/?page_id=148

Blacksmithing classes at Farrier Supplies aka Bent River Forge
26729 99W, Monroe, Oregon
Coal, coke, forges, parts, tools, classes...
<https://www.facebook.com/FarrierSuppliesOR>
(541) 847-5854

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

USA Knifemaker has a lot of fun & informative videos on their YouTube channel:
<https://www.youtube.com/user/USAKnifemaker/videos>
... and hey - “free” is a hard price to beat!

Nick Wheeler also has a good YouTube channel with a lot of how-to videos:
<https://www.youtube.com/user/NickWheeler33/videos>

GENERAL TOOLS & SUPPLIES

Woodcraft of Eugene – thanks to Joe & the crew for six years of hosting 5160 Club meetings – we've had to move on, but the hospitality was appreciated.
<http://www.woodcraft.com/stores/store.aspx?id=515>

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

McMaster-Carr
<http://www.mcmaster.com>

Grainger
<http://www.grainger.com>

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

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

KNIFE MAKER GENERAL

Knife kits, steel, tools, machines, supplies such as handle material, fasteners, belts, glues, finishes, etc.

Jantz Supply – Davis, OK
<http://www.knifemaking.com>

Texas Knifemaker's Supply – Houston, TX
<http://www.texasknife.com>

USA Knife Maker's Supply – Mankato, MN
<http://www.usaknifemaker.com/>

Knife and Gun (K&G) – Lakeside, AZ
<http://www.knifeandgun.com/>

Alpha Knife Supply – ?Everett, WA?
<http://www.alphaknifesupply.com/>

True Grit – Ontario, CA
<http://www.trugrit.com>

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.pmtsc.com/tool-die-steel.php>

KNIFEMAKER EQUIPMENT

Beaumont (KMG) [Ohio] – the industry-benchmark
2x72 belt grinder
<http://www.beaumontmetalworks.com/shop/>

Travis Wuertz [Arizona] – premium versatile grinder
http://www.twuertz.com/Home_Page.php

Pheer [Gresham, Oregon] – affordable grinder made
in Oregon
<http://www.2x72beltgrinder.com>

AMK [Ohio] – affordable grinder, quick-change
between platen & contact wheel
<http://amktactical.com/>

Coote [Port Ludlow, Washington] – affordable,
simple grinder – you supply the motor
<http://www.cootebeltgrinder.com>

Marinus Kuyl [Hillsboro, Oregon] – another
affordable grinder made in Oregon – and parts – you
provide the motor.
<http://oregonblademaker.com>

Grinder-In-A-Box – grinder kit, assembly required
http://www.polarbearforge.com/grinder_kit_order.html

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.appaltree.net/rusty/index.htm>

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

True Grit – under “Machines & Accessories”
<http://www.trugrit.com>

FORGE & REFRACTORY

Chile Forge
San Marcos, Texas
<http://www.chileforge.com/>

Mankel Forge – Muskegon, Michigan
<http://mankelforge.com/forges.html>

Western Industrial Ceramics Inc.
All things refractory – Tualatin, Oregon
<http://www.wicinc.com/>

High Temp Tools (scroll down the page for the
category buttons) Tuscaloosa, Alabama
<http://www.hightemptools.com/supplies-mainpage.html>

High Temp Inc. has also been recommended for
Kaowool etc. Portland, Oregon
<http://hightempinc.net/>

Omega – thermocouples & measuring equipment
Stamford, Connecticut
<http://www.omega.com/>

Auber – more thermocouples and controllers, etc.
Alpharetta, Georgia
<http://www.auberins.com>

Hybridburners – home of the venturi T-Rex
Smithville, Georgia
<http://www.hybridburners.com/>

Pine Ridge Burners – for ribbon burners and all
associated fittings, blowers, valves, etc.
Conway, Massachusetts
<http://www.pineridgeburner.com>

Zoeller Forge – low cost venturi & parts: Z Burners
Lanesville, Indiana
<http://zoellerforge.com/>

Here's the original article on making a ribbon burners
that John Emmerling wrote back in 2005 for the
NWBA Newsletter:
<http://blacksmith.org/2005-1-hot-iron-news/>
You can download the PDF from that site. John's
article starts on page 11.

BLACKSMITH

Farrier Supplies
26729 99W, Monroe, Oregon
Coal, coke, forges, parts, tools, classes...
<https://www.facebook.com/FarrierSuppliesOR>
(541) 847-5854

Blacksmith Depot
<http://www.blacksmithsdepot.com>

Pieh Tool
<http://www.piehtoolco.com>

Centaur Forge
<http://www.centaurforge.com>

Quick and Dirty Tool Co.
<http://quickanddirtytools.com/>

LOGO/ETCHING

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

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

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

HEAT TREAT SERVICES

Here are some folks who provide heat treating
services for blades. While all of these have been
recommended by one reputable person or another I
have not had experience with them. If you use one,
let us know how it went!

Paul Bos Heat Treating at Buck Knives. Paul Bos has
retired and handed the torch to Paul Farner. Highly
reputable. Post Falls, Idaho:
<http://www.buckknives.com/about-knives/heat-treating/>

Peters Heat Treating is another highly reputable
operation. Meadville, Pennsylvania:
<http://www.petersheattreat.com/cutlery.html>

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

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

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

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

It's my understanding that Chris Reeve Knives uses ACE Co in Boise Idaho – which is enough for me to add them to the list:

<http://www.aceco.com/heattreat/index.html>

WOOD SUPPLIERS

Burl Source – handle blocks/scales – So. Oregon
<http://www.burlsales.com/>

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

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

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

WOOD STABILIZING

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

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

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

Alpha Knife Supply – ?Everett, WA?
<http://www.alphaknifesupply.com/>

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

OTHER GOODIES

Sally Martin Mosaic Pins – So. Oregon
<http://customknife.com/index.php?cPath=13>

Oregon Leather – 810 Conger Eugene and 110 N.W. 2ND Portland
<http://www.oregonleatherco.com/>

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

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

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

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

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

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

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