

 **EUGENE 5160 CLUB ~ JULY 20WTF20** 

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

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



**THE MEETING GOES CYBER
JULY 2ND 6:00PM – ON ZOOM**

“Zoom” is the hot platform for on-line meetings, and **Edward Davis** has graciously offered to host a Zoom meeting for the 5160 Club this Thursday – July 2nd – at 6:00pm! If you have not used Zoom I highly recommend downloading the app and setting it up ahead of time. It runs on most phones, tablets, and up-to-date computers (but not so good on Linux in my experience). The more generous the screen size the better to view what others are presenting. Here's the download site:

https://zoom.us/download#client_4meeting

I will send out an email Wednesday with the link to join the meeting Thursday. Think about what you want to share in the meeting and how to position your phone/tablet/computer/web cam to show your stuff!

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



NOTES AND REMINDERS

Northwest Timber – I have not done business with them but what they show on their website is drool-worthy so I'm adding them to the web links at the end of the newsletter. They're located between Albany and Salem in Jefferson, Oregon. Large pieces (from a knifemaker's perspective) but highly figured.

<https://nwtimber.com/>

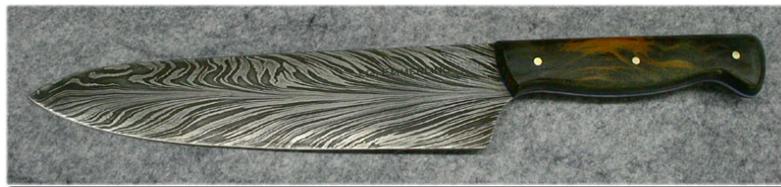
Erik Groomer mentioned his “cyclone” dust collection system at the last meeting – and sends along the website link with how-to instructions:
<http://www.jpthien.com/cy.htm>



BLASTS FROM THE PAST

From the May 2013 newsletter:

JOHN EMMERLING occasionally makes the long drive from Gearhart on the Northern Oregon coast over to our Eugene-area meetings and hammer-ins – and is always a welcome guest! Here's some of his earlier chef knives from the April 2013 meeting:



The top 2 knives (feather pattern & wandering feather) are 1095/L6. The bottom one is made from 1095/L6/5160.

John then passed around a couple of Damascus billets. He says it takes about a day to make a billet – unless there's a lot of layers or extra manipulation. John uses Ferric Chloride for his etchant to bring out the pattern. Crushed Ws and wandering feather:



He's given some local chefs plain carbon chef knives to get feedback – which tends to be “make 'em thinner.” 1/16” spine is his current thickness.

Thin blades are more likely to warp in heat treat. There was lively discussion about correcting warpage. Martin Brandt and John shared their experiences with the 3-point method – the welders glove hand straightening out of the quench – and paying more attention to normalizing and annealing. John prefers salt pot to heat treat oven since there's no problem with scale. Martin wipes on leftover motor oil before heat treat – which carbonizes and creates a layer that makes the scale flake off.

John heat treats in salt baths in a 3” pipe, heated with a couple of venturi burners. John mentioned that he ordered a thermocouple from Omega (<http://www.omega.com/>) and a couple of days later got a call from them asking if he was a bladesmith & going to use it in a salt pot. When John said “yes” the Omega guy said “you ordered the wrong one – send it back for full refund and I'll send you the one you should use...” talk about proactive customer service! John said “Thank you! Send two.”

Ben Tendick then passed around a 1095 stag handled blade. He's been trying out hidden tang design. Fittings are mild steel treated with plum brown.



From the June 2013 Newsletter:

Wayne Goddard opened the meeting with a review of his process for the mustard finish. This is a forced patina that protects the blade and provides a mottled camo finish – as exemplified by Wayne's “Edwin Forrest” and classic clip point style Bowie knives which he shared with the group.



For the mustard finish, you daub on spots with your finger – let it sit overnight – clean the blade and lightly steel wool it in warm water – then apply another coat – repeat until you have the effect you want – maybe three coats.

The mustard finish is not just decorative but also protects the blade. As it is applied, each layer is scrubbed lightly with steel wool and warm water. Wayne noted that as the last step he treats a mustard finished blade with WD-40.

Wayne has run into one cheap mustard that don't work. Albertsons and French's were brands that were cited as working well. It is the salt and vinegar that does the work – prepared mustard is just a mode of delivery.

Wayne noted that the steel's finish is key – a hand-rubbed finish (*I'm guessing 400 to 600 grit from his comments*) then take a fine stone to the bevel surface and do some irregular markings on it. This probably helps the salt and vinegar in the mustard interact with the steel to create the patina.

Here's a photo of how Wayne spaces the dollops:



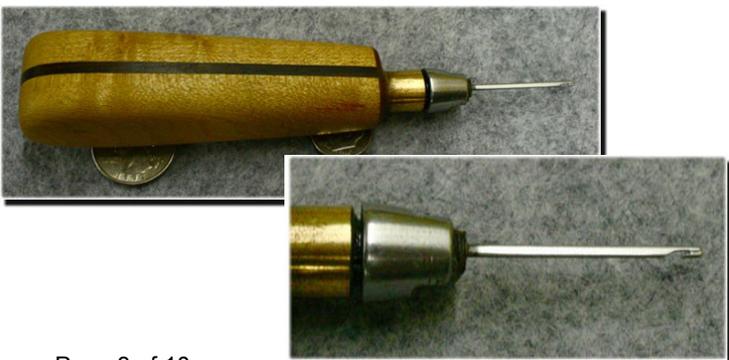


Wayne moved on to sheath making. He leaned a lot from a saddle maker who had a business on West 11th. He taught Wayne an efficient way to stitch up his sheaths. Wayne brought a wooden jig to the meeting. You sit on with a vertical clamp so that you have the work at belly height.

The method that Wayne showed us was a hand version of how a sewing machine works. You use two threads – one down each side of the sheath – have your holes made first and a line pressed in the leather for the thread to lay in (made with a bone tool or some such) – the 1st thread will always be pulled through a hole, leaving a loop – the other thread will go through that loop – then pull the 1st thread tight (keeping tension on the 2nd thread) until the “knot” is in the center of the leather.

(I have to note here that a “saddle stitch” is generally regarded as more durable than a “machine lock stitch”.)

Wayne used an American Sewing Machine standard #2 needle for his hand tool – tempered to blue by setting it on a metal plate on the kitchen stove. It looked to me like Wayne had ground open one side of the needle's eye (which is in the point) and turned it into a hook – and blunted the tip and thinned down the sides. This is used by passing it through the hole empty, then pull the 1st thread back through the hole. He set the needle in a nice big wood handle grip:



You want to use a thread meant for leatherwork – like you can get at Oregon Leather. Their local store is at 810 Conger in West Eugene – they also have a Portland store. <http://oregonleatherco.com/>

Wayne uses a reloading press (but you could also use a drill press) to punch the holes – he makes his punches out of spare Allen wrenches, grinding the tip to his desired shape for the holes.

Wayne has also used copper nails as rivets in sheath making. Here's a copper nail riveted sheath:



And here's a shot of hand file work on a button stud he got from Oregon Leather... and the Spacer-man Bowie sheath it belongs to:



Wayne shared the story of the rediscovery and the revealing of the Edwin Forrest Bowie. This knife was the inspiration for Wayne's Bowie that is pictured at the top of this newsletter. This is quite different from the modern idea of a Bowie knife. It is now accepted that the Sandbar Fight Bowie knife was essentially a butcher's knife of this simple style.

Wayne compared the Edwin Forrest Bowie to a lengthened version of an artifact dug up in Missouri – a fur trader's blade. He noted that the lack of a guard is actually a positive if you think about going through the woods with the knife on your belt – one less thing to get caught on a branch or bramble. You don't want to get to camp and find that a vine has lifted you knife out of its sheath somewhere back in the forest.

Back on knife design Wayne reemphasized his preference for “no straight lines on a knife” and his use of custom platens to achieve that. He shared one of his garage sale finds – a clothing pattern maker's “french curve” that gives you an almost infinite variety of progressive curves to select from.

Wayne then cleaned off the mustard patina example he'd started earlier in the evening. The pattern was light (only an hour rather than overnight) – but the start of the daubed-mustard pattern was obvious.

At the end of that newsletter I wrote out my understanding of steel phases and heat treating. Rather than paste that in here I'll just link to the spiel on my web site:

http://elementalforge.com/tips_notes/?page_id=87



Have fun, keep well, and work safe – and maybe we'll see each other in Zoom-space!

Your Scribe ~ Michael Kemp



WEBSITE LINKS

5160 CLUB

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

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

OREGON KNIFE COLLECTORS ASSOCIATION (OKCA)

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

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

Go to the “Knewslettter” link and scan a recent newsletter for a membership form and contact info.

FORUMS

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

<https://lambowie.com>

Bladesmith's Forum aka Don Fogg Forum

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

Knifedogs Forum (USA Knifemaker)

<https://knifedogs.com/>

American Bladesmith Society

<http://www.americanbladesmith.com/ipboard/>

Usual Suspects Network

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

Blade Forums

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

Hype-Free Blades

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

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

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

REFERENCES

Wayne Goddard's books are available at Amazon:
<http://www.amazon.com/Wayne-Goddard/e/B001JS9M10>
And you can email the Goddards directly for his DVD at
Sg2goddard@comcast.net

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

Verhoeven's Metallurgy For Bladesmiths PDF – this is a very deep dive, not an introduction. I no longer see the original free PDF – but here's the updated book on Amazon:

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

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

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

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

Tempil Basic Guide to Ferrous Metallurgy
[http://es.tempil.com/assets/5/31/Basic_guide_to_ferrous_metallurgy_\(2\).pdf](http://es.tempil.com/assets/5/31/Basic_guide_to_ferrous_metallurgy_(2).pdf)

From the Heat Treating Society of the ASM – the Heat Treater's Guide Companion for Android devices.
<https://play.google.com/store/apps/details?id=com.pfiks.mobile.heattreaters&hl=en>

My own “Knife Info” has musings and cheat sheet charts – plus Oregon and Eugene knife laws:
http://elementalforge.com/tips_notes/

CLASSES FOR KNIFE MAKING, ETC.

Erik Olson is teaching intro to forged knives in Eugene. I don't have a business contact but his personal Facebook page is:
<https://www.facebook.com/erik.olson.77715>

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

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

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

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

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

Origin Blade Maker – aka Oregon Blade Maker [Portland, Oregon] – affordable chassis and accessories, good reputation – with or w/out motor
<https://originblademaker.com>

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

Northridge Tool [Ohio] – precision manufactured belt grinders <http://www.northridgetool.com/>

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

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

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

The “No Weld Grinder” plans can be purchased from <http://usaknifemaker.com> either as a booklet or as a download – just use the search box to enter “no weld grinder”

Wayne Coe [Tennessee] – grinders, motors, VFDs...
<http://www.waynecoeartistblacksmith.com>

Contact Rubber Corp – wheels etc.
<http://contactrubber.com/contact-wheels.asp>

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

Anyang [Texas] – air hammers from 20# to 165#
<http://www.anyangusa.net/>

Meyer Machine Tool [Ohio] – treadle hammer
<http://www.meyermachinetool.com/Blacksmith-div-.html>

Spencer/Clontz tire hammer plans/workshops
http://www.alaforge.org/Trading_Post.html

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

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

FORGE & REFRACTORY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BLACKSMITH

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

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

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

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

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

LOGO/ETCHING/STAMPS

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

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

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

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

Steel Stamp, Inc.
www.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 Farnar. Highly reputable. Post Falls, Idaho:
<http://www.buckknives.com/about-knives/heat-treating/>

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

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

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

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

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

WOOD & HANDLE MATERIAL

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

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

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

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

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

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

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

Crosscut Hardwoods at 2344 W 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.