

EUGENE 5160 CLUB ~ JUNE 20WTF20

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

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



MEETINGS SUSPENDED

After consulting with our meeting site hosts, 5160 Club meetings are suspended for the time being. If you have photos or notes to share, I encourage you to post them at Facebook "5160 Club – The Group": <https://www.facebook.com/groups/5160ClubTheGroup/> or email them to me for the next newsletter at: michael@elementalforge.com



NOTES AND REMINDERS

Dan Klug writes saying he has access to Oregon wild cherry staves: 8'x4"x2" - very hard wood. If interested, write to him at whitehartforge@yahoo.com

Oregon Knife Collectors Association – The 2020 April show will not be held this year – the 2021 dates are April 9 (members only) 10 & 11 (general public). Watch the OKCA website for updates: <http://oregonknifeclub.com/> or like them on Facebook to get notifications of updates and enjoy postings from knifemakers and collectors: <https://www.facebook.com/groups/OregonKnife/>



BLASTS FROM THE PAST

From the October 2012 newsletter:

LYNN MOORE demoed the process of inlaying silver wire into maple for our September meeting.

Along with his on-the-spot demonstration, Lynn gave us a lot of information on tools and techniques. I'll try to do his presentation justice – if you notice that I get something wrong in this or any newsletter, email me and I'll post corrections in the next newsletter.

Lynn draws out designs ideas until he gets a pattern he likes – then he will draw that on the wood. Include existing handle pins and such in your design.

Once the design is laid out you cut a single line into the wood where you want to inlay the silver wire. This line should be straight in at 90°.

In the photo below you see Lynn's cutting tools on the left – created from X-ACTO knives. You want a tool that you can apply force through, and that you can work along the curves of your design.

On the right are Wayne Goddard's cutting tools made from feeler gauges. Wayne likes to shape a shoulder on his cutting tools so that he has a visual depth gauge while cutting the lines into the wood.



Lynn was using a vice bolted to 1/2 of a bowling ball, set in a circular metal collar so that the ball-and-vice can be turned as needed to follow a curved design with the cutting tool. Lynn noted that a carving chisel can also be used to cut the curves.

Someone noted that you can even mount a cutting tool in a drill press chuck (don't turn it on!) and with the depth gauge stop on the press, use the up/down control of the press while moving your work piece to follow the lines of the design.

The idea is to cut the line such that the wire you are using will be set into that slot flush or with just a little above the surface – which will be sanded down when finishing the piece.

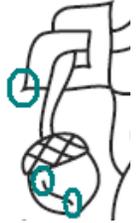
Lynn noted that you generally wind up with three thicknesses of silver wire to give your design a dynamic look. Heavier wire for areas like plant stems, medium for branches and leaf edges, and finer wire for grace lines etc.

Here's a shot of Lynn cutting into his sample block to add lines to some existing inlay.

If I caught it right, Lynn mentioned that a couple of the wire thicknesses he was using on this piece were 0.008” and

For this sort of work you want the medium (half hard) wire.

To set wire into the cut slot, bend the wire to the shape of the slot and cut to length. If this wire goes to the end of a line – or one end of it lays next to another wire – you might hammer or sand that end of the wire flat so that it blends smoothly rather than with a square shoulder.



The areas I've circled in green in this clip of knotwork and an acorn would be good to flatten before inlaying the wire:

Hold the wire at 90° with fine needle nose pliers or similar clamp – and pressing straight down – gently tap into place with a jeweler's hammer. The wire does not have to be flush, it can stick up a little. Try not to deform the wire or you may wind up with a fat spot in the lines.



0.013”. Which the chart says is about 33 gauge and 29 gauge.

Square silver wire like you would probably want for inlay comes in dead soft, medium (or half hard), and hard.

You might notice in the above photo that the wood is held on top of the vice jaws by metal knobs that Wayne set into the top of the vice. Two on one jaw and one on the other. This configuration allows firm gripping of non-rectangular pieces.

When you are done, get the wood to pinch the wire by spraying the wood with alcohol. The wood will expand – then the alcohol will dry off.

At this point you can finish the piece. I would expect that you would need hard backing on sand paper to keep the metal and wood surfaces flush.

Here's the sample piece that Lynn demoed for us:



Lynn warned that you might want to clear off your work surface before starting on wire inlay, as a dropped piece of silver can be a <bleep> to find.

Craig Morgan mentioned Fire Mountain Gems <http://www.firemountaingems.com/> as a source for supplies and also GRS Tools <http://www.grstools.com/> for engraving tools and supplies.

Lynn mentioned T.B. Hagstoz & Son <http://hagstoz.com/> as his source for silver – but they also supply other metals in wire, rod, and sheet as well as findings and tools.

Wayne Goddard talked a bit about inlaying ovals, rectangles and such, which use much the same technique.

You lay the inlay piece on top of the wood block, mark the edge with a very sharp knife, cut the edge in as with wire inlay, then clean out the material inside the outline with a Dremel or other tool. If you plan to do



a lot of the same shape inlay it pays to make a die to cut the outline with.

In the discussion that followed it was mentioned that some woods are better suited for inlay than others. One aspect I had not realized was that you need a wood that will swell up (to pinch down on the wire) such as maple, alder, or even black walnut. Woods that are oily or heavy like ebony or rosewood will not swell properly and will not secure the wire in place. Synthetics like Micarta or stabilized woods are also unsuited for these techniques.

Lynn referred us to an on-line tutorial on wire inlay by gunsmith David Price:

<http://davidpriceflintlocks.com/id30.html>



From the February 2013 newsletter – Wayne Goddard used to give the group homework assignments, one of which was:

Four of us had our “finish-the-blade-blank” knives done and put our blades on the table at the front at the start of the meeting for folks to peruse.

From top to bottom the knives were made by:

- Martin Brandt
- Mike Johnston
- Michael Kemp
- Wayne Goddard
- Jim Jordan



The blade blanks we started with had a short, split tang – like a tuning fork. Some of us hid the tang, others let the tang show on the surface of the handle.

Martin Brandt came in later in the meeting – so his knife wasn't on the table when the winner was being chosen. It's a beautifully done handle in Sami style (not quite finished at the time of the meeting). It has a small bolster with birch wood and antler handle. The spacers are birch bark. Martin's answer to the “tuning fork tang” issue was to wrap the blade in wet paper towels – put that in a vice – use a torch to heat up the twin tang and then pinch the two branches of the tang together. He V'd the end and silver brazed in an extra piece of steel to extend the tang so it could be a through-tang.

Mike Johnston's knife has filework along the spine, mokume gane guard from our workshop at Gene Martin's place which is silver soldered in place. The handle is cocobolo and stag crown with a six petaled flower carved into the end. Mike described the jigs he used to cut kerfs into the wood and antler – and the challenges he ran into during construction. He used a Dremel to carve the flower.

My contribution has a handle of three layers of Kingwood – the middle layer “keyed” to fit between the forks of the tang and the three layers just glued together. I'm using this in the kitchen to see how well the wood treatment and glue stand up to repeated wet/dry use.

Wayne Goddard's took a different approach to the forked tang. If I understood right, he filled the gap between the forks with paper/epoxy and ground the whole thing thinner. I dare you to find any flaw with Wayne's ivory inlay.

Jim Jordan carved his matching handle and sheath out of ebony – a really masterful piece of work. The knife and sheath snap together in a satisfying fit that makes the whole piece look like one long wrap. Jim said he wanted it to look like a paracord wrap. He certainly succeeded.

Wayne then asked if there was any objection to declaring **MIKE JOHNSTON** the contest winner. There was a general murmur of approval – and it was so.



Have fun, keep well, and work safe -

Your Scribe ~ Michael Kemp



WEBSITE LINKS

5160 CLUB

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

Hint: to Google the archive for a specific knife style or presenter name, use a search like this:

sami site:<http://www.elementalforge.com/5160Club>

or this:

ron lake site:<http://www.elementalforge.com/5160Club>

OREGON KNIFE COLLECTORS ASSOCIATION (OKCA)

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

<http://www.oregonknifecollectors.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 Gropitch – 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

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/>

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.