

Heat Treating by Bruce Bogust

Why of interest for woodworkers?

The cutting tools we use are all metal.

If you are willing to do some work you can make tools for a fraction of the cost of a store-bought tool.

Equipment you will need:

A Torch

A bucket of water!

Steel

In order to harder steel it must have carbon in it.

A common steel will have the number 10-90. The 90 is 0.09% of a percent Carbon.

To harden steel you have to heat it up to the Critical or the Austenite Temperature.

Martensite – the hard stuff.

10-20 or 10-30 has to be quenched in water.

10-95 is almost A2 tool steel. The “A” stands for air hardened. No quenching required. Almost 1% carbon.

W2 is Water quenched.

When you heat up spring steel red hot – it will become non-magnetic when it is ready to quench. So you test it with a magnet.

After hardening it will be brittle.

There is a difference between hardness and toughness. A very thick piece of metal may not harden all the way through if air cooled, so even air-cooled steel may get quenched if thick enough.



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Membership

104

Raffle Prizes

February

FastCap Box

- Lowell Logerwell

Irwin Chisels

- Nasif Majeed

Ryobi Moisture Meter

- Cliff Tucker

Irwin Pipe Clamps

- Warren Johnson

Rotary Tool Kit with Flex Shaft

- Mark Greene

The CWA raffle could benefit from your donation. If you have any tools (old or new) or shop supplies you would like to donate to be raffled, please bring them to the meeting.



When you quench you *MUST* move it around in the water or a barrier will form from the water boiling away.

- Temper

Tempering is not hardening. When you heat up the metal the carbon will come out of the metal. So clean off the surface with sandpaper.

Put the flame lower on the metal and have the color work its way to the top. Quench it right away to lock in the hardness for that color. You get multiple shots at it.

Annealing:

Making it as soft as you can.

You have to do this before you can re-harden it.

You do this if you get it too hard the first try. Anneal it and then start over.

Heat it up until non-magnetic. Cool it slowly. Usually in sand.

Oil is very forgiving for quenching.

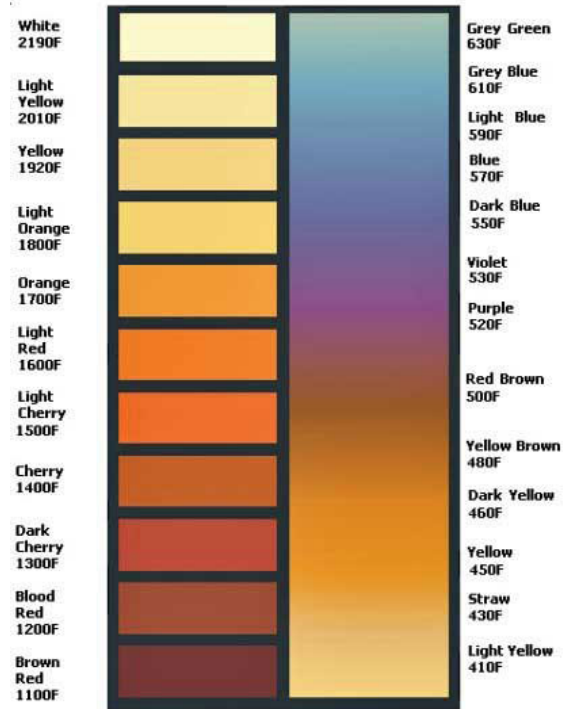
When you have cut-outs and 90-degree angles you get stress. Quenching in water is too fast a quench.

If you grind your chisel and you blue the tool, it doesn't matter if you quench it or air cool it.

You have just made the chisel a little bit softer. The tip will also be less-brittle. It is tempered.

You may have to sharpen it more.

TEMPERATURE GUIDE



Safety Tip of the Month:

Wood Toxicity by Dr. Randy Hock

Be careful, especially when turning exotic woods!

A safety sheet was passed out listing for most woods: the reaction, site, potency, source and incidence.

A tree has to be able to defend itself. It produces chemicals to defend against insects.

An Irritation – a brief poison ivy type of reaction. Sensitivity goes up with each following exposure.

Direct Toxicity

Chemicals (called) extractives) in the wood are

Systemic Reactions – are not confined to a specific body part Nasopharyngeal cancer – particularly nasty

Know the type of wood you are dealing with.

All wood dust is potentially injurious

<http://www.wood-database.com/wood-articles-wood-allergies-and-toxicity/>

Safety Waivers:

Must be filled out and on for all CWA Members!

You can download the waiver on our web site, scan it and e-mail to John Bregan

(jrnurse2005@yahoo.com). We also have blank ones available at the monthly meeting.



Additional News

ANNOUNCEMENT!!!!!!!

A New Shop for CWA

- *We are still looking for a new site for the CWA shop if the airport asks us to move - CWA East is located off of Independence and Rt. 601. 11 miles south of Independence and I-485. Address is 1402 Miller Street Monroe, NC*
- *This building is 6,000 sq ft.*
- *There is an outside pole barn.*
- *600 sq foot office and bathrooms*
- *Fully a/c, fully heated, 3-phase power*
- *Fully equipped.*
- *Will be there all-day Saturdays.*
- *Available to the club, but the club has “liabilities” for this facility*
- *Best guess for opening: April 1st.*
- *How much will it cost for the club to use it? May have a nominal contribution for utilities...*

Learn & Build Class

We try to choose skill sets that the project will develop.

Everybody sets up the machines for their project each time. We don't gang-rip the parts. You will learn how to do it yourself.

A table project will be starting in the Spring

Steve Wall Lumber puts together a lumber package for the project. Ships it to you!

Direct Tool:

New location on Independence Blvd

Reconditioned Tools: Rigid, Ryobi, Milwaukee

25 – 75% less than retail such as Home Depot

Open 10 – 7 Mon – Thurs; 10 -8 on Fri; 8 - 8 on Sat; 12 – 6 on Sun.

Also potential meeting place when weather is too cold or hot.

Show & Tell



*Jim Slomba:
Small walnut box with a
maple top.
Medium Box – walnut with
pecan*



*Anwar Sinno: Three legged
tea party chair
Dewaxed shellac , five coats*



*Bruce Bogust
Shaker Revolver Chair
All Cherry, except spindles are steam-
bent horn beam*

Show & Tell



Bob McElfresh: Jewelry Box Mahogany box with bubinga top Design from wood magazine



Bob McElfresh: Tray All walnut book-matched boards.

Not Pictured:

Christian Bettendorf

Art Flower pot with a painted wood flower –based on Mario Brother’s video game “power up!”

Mostly a lathe project.

Mike Smith

Scroll Saw projects for Christmas Manger scene. Three pieces glued together. A scroll saw cut cross

Google the web site: “scroll saw workshop” for great plans and ideas.

From Randy Hock:

*The hardest & densest wood in the US – is Osage Orange
Hedge Apple is a nickname*

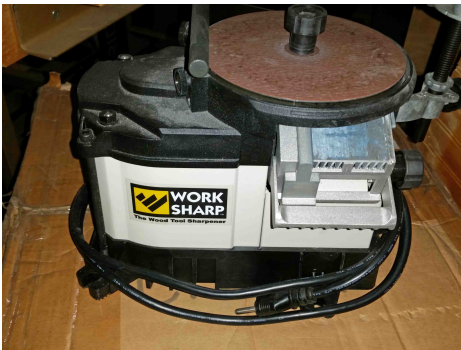
OTHER CLUB NEWS

Did you know that the club has items that you can rent instead of buying?



Drill Doctor for sharpening regular and spade bits

Magnetic Planer Knife Setting Jig



Work Sharp 3000 (you will need to supply your own sandpaper)

Each item rents for \$5.00 a month - see any board member if you are interested.



CWA Google

Groups

Communicate with other CWA colleagues on Google

With a single email you can let others know what's happening, share some information or get an answer to a question.

Note: You Can Join This Group on Your Own!

To join:

- Create a Google account, if necessary (requires name, email and password).
- Please save your password in a secure place for future use.
- Paste the entire line below in your web browser's address bar
- <http://groups.google.com/group/charlotte-woodworkers>
- "Sign in" Click the link "Join this Group" (on the right).
- Once "signed in" select the radio button "Email" at the bottom and enter a nickname.
- Send an email out to the group to introduce yourself!
- Use "charlotte-woodworkers@googlegroups.com" as the "send to" in an email to send a communication to all members of the group.

Find CWA Online @



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



<https://www.facebook.com/pages/Charlotte-Woodworkers/244821488888300>



<https://groups.google.com/forum/?hl=en#!forum/charlotte-woodworkers>

Help Wanted

Shop Tours Coordinator - Responsible for coordinating one to two shop tours each year. Mike Smith currently holds this position and is looking to have somebody completely take it over.

Name Badge Coordinator - Responsible for making the paper name badges that each member has and for ordering the wooden name badges. Mike Smith also currently hold this position and is looking for somebody to take it over.

Snack Team Person - A shared responsibility. Once every several months, this person responsible for purchasing and setting up the snacks for our meeting. The club reimburses for the snacks and you only have to do this once every three to four months depending on the number of persons we have participating for this. Please contact Greg Smith if you can help. (elgrego7@yahoo.com)

Registration - Look at the CWA website to register interest and sign up for the projects; as information details appear on the website.
<http://www.charlottewoodworkers.org/>

From John Bregan:

As an benefit of my company, you can access to a nurse advice line. There is no charge, no one will try to sell you anything or place you on a mailing list.

To use the service, call 210-595-2273. The company is Carenet Healthcare Services. Tell them you are a friend of mine (I am a Care Advisor).

Wood For Sale: Nathan Rose

Run a shop in Belmont
Collecting trees and lumber
for 20 years.

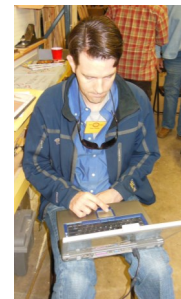
Probably 10,000 board feet
of air-dried lumber. Thick
stock.

Most of it is live-edge or
natural-edge lumber Stick,
slabs, turning blanks,
everything!

This Fri, Sat and Sunday will
be open and for sale!

No exotics.

Located behind the Haunted
Mill on Wilkinson Blvd, just
past Main Street in Belmont.



**NEWSLETTER
PICTURES AND NOTES:**
Thank you!
Pete Stoffel, who takes notes
Mike Smith, for the pictures



Currently Mike Smith organizes club membership shop tours periodically.

However, Mike would REALLY like for someone else to pick up coordinating the tours.

If you are interested please contact Mike.

The goal is to have shop tours scheduled in the same geographic area to reduce distances traveled between shops and permit adequate time to tour several shops in a day.

To put your shop on the shop tour list, contact Mike at: mikececilsmith@gmail.com

Note: Shop tours are for active CWA members only—no guests

CWA MEETING PRESENTATIONS

All members are asked to keep an eye out for anyone that might make be a suitable program presenter for our CWA club meetings. Who knows, it might even be you!

Recent presentations have included:

- Spoon Carving
- Fitting a Drawer
- Power Carving
- Bandsaw Boxes
- Hide Glue
- Tuning up a Wide Board
- Workbenches
- Intarsia Lidded Wood Boxes
- Turning a Peppermill
- Using SketchUp
- Log Cabin Building
- Cutting Ogee Style Feet on a Bandsaw
- Building a Mantle Clock
- Tools and Changes in the Industry
- Workshop Design
- Dust Collection 101
- Saw Blades 101, Freud Blades and Router Bits
- "Easy Wood Tools" for Woodturning
- Small Shops
- Finishing
- Product Development Presentation (by Stanley Black & Decker)
- Thomas Day Furniture Presentation
- Tool Sharpening
- Marquetry
- Wooden Flute Making
- Spoke Shavers
- All About Wood
- Inlay Stringing
- Fixing Your Mistakes (Parts 1 and 2)
- Cutting and Drying Lumber
- Making Banding Inlay
- Jigs & Fixtures
- Chairs
- Mortise & Tenons
- Project Planning

Monday Night Open JPM Shop Use

Any current CWA member who would like to use the shop is welcome to do so. CWA members are there on Monday nights at 5:30 pm if you need any advice or assistance with a project.

Ensure you have completed the CWA 'waiver form' before you use any of the tools and equipment and follow the "Shop Foreman's" directions and safety procedures.

Please share your woodworking knowledge, interesting experience and/or a useful tip with your CWA colleagues by writing an article for the CWA Newsletter.

**Send your article to
jrnurse2005@yahoo.com**

If you know of someone with a woodworking skill that would be of interest to CWA members please contact Warren Johnson @ warren-jo46@gmail.com.

CWA FRIENDS AND SPONSORS

Please thank them every time you use their services.

Woodcraft

1725 Windsor Square Drive
Matthews, NC 28105
(704) 847-8300
[Charlotte Store](#)

Wholesale Tools

4200 Barringer Drive
Charlotte NC 28217
1-800-438-3580 (Service)
[www.wttool.com](#)

5% - 20% discount with current membership card.

Klingspor's Woodworking Shop

[www.woodworkingshop.com](#)
800-288-0000

Irwin Tools

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

Farris Belt & Saw

235 Foster Ave.
Charlotte, NC 28203
[www.farrisbelt.com](#)
704-527-6166
Complete sharpening services and abrasives

Horizon Forest Products

Greenville, S.C.
<http://www.horizonforest.com/>
Local Charlotte Salesman Chad Mitchell, 704-401-6426

The Woodworking Source

184 Azalea Road
 Mooresville, NC
<http://www.thewoodworkingsource.com>
Phone: 704-662-9663

Whiteside Machine Company

4506 Shook Road
Claremont, NC
<http://www.whitesiderouterbits.com>
Phone: 828-459-2141

Woodworking Suppliers & Resources

Below is a list of various "local area" businesses that sell woodworking supplies that CWA members have used.

- **A&M**
3300 Woodpark Blvd
Charlotte, NC 282056
704-598-7272
- **Advantage Trim & Lumber**
2520 Blacksburg Rd
Grover, NC 28073
704-471-9991
- **Asheville Hardware**
10 Buxton Ave
Asheville, NC 28801
828-252-8088
sales@ashevillehardware.com
- **Blume Supply**
3316 South Blvd
Charlotte, NC 28209
704-523-7811
- **Buddy Aultman (CWA Member)**
www.aultmansawmill.com
704-242-4849
- **Hardwood Store**
106 V East Railroad Ave
Gibsonville, NC 27249
336-449-9627
- **Klingspur Abrasives, Inc**
2555 Tate Blvd SE
Hickory, NC 28602
800-645-5555
- **Queen City Lumber**
2501 Weddington Ave
Charlotte, NC 28204
704-333-3939
- **The Sawmill (Kyle Edwards)**
5048 Reinhardt Cir
Iron Station, NC 28080
704-258-8985
- **Steve Wall Lumber Co.**
PO Box 287
Mayodan, NC 27027
800-633-4062
woodsales@walllumber.com

- **TCI Supply**
1442 Castle Court
Gastonia, NC 28052
704-917-0490
- **Woodcraft**
1725 Windsor Square Dr
Matthews, NC 28105
704-847-8300
Charlotte-retail@woodcraft.com
- **Woodworking Source**
184 Azalea Rd
 Mooresville, NC 28115
704-662-9663
- **Wurth Wood Group**
4250 Golf Acres Dr
Charlotte, NC 28208
704-394-9479

From Woodworkers Supply concerning Club Discount Procedures

Please also note that any members who are also a "for profit" business should let us know this and supply their business name & type.

The quickest, most efficient way to get them all setup is if they will do the following:

1. Those who are NOT new to Woodworker's Supply & have received catalogs from us in the past should contact me for setup so I can make sure we don't inadvertently create a duplicate customer file. It's not the end of the world if we do but I can convert folks over much more easily than they can themselves.
2. Those who are NEW to Woodworker's Supply can visit www.pro.woodworker.com and signup as a New customer.
 - a. They will be including their email address & a password
 - b. In Business Name field – enter "Charlotte Woodworking Club Member"
 - c. In Business Type field - choose "Woodworking Club"
 - d. Fill in the rest of the required information
3. Have them give me a call or email me and I'll double check / verify that their setup is complete.

Any of the folks who are intimidated by the above steps can call me and I'll do the setup for them & send them an email.

Buddy Warner's contact info is:

Local NC: 336-578-0500 ext. 3054

Toll Free: 800-352-0182 ext. 3054

buddyw@woodworker.com

Directions to Jackson Park Ministries



From the intersection of I-85 and Billy Graham Parkway:

Take Billy Graham Parkway South.

Turn Right on Paul Brown Blvd / West Blvd. (this will be after the main entrance to the airport)

Turn Right on Airport Drive.

First left on Sentry Post Drive.

At the end of Sentry Post Drive there is driveway on the left. Enter here. Using the photo above, drive down the driveway and around to the warehouse with the "x" on the top.

From the intersection of South Tryon Street and Billy Graham Parkway (where Woodlawn turns in to Billy Graham). Also exit 6 from I-77.):

Take Billy Graham Parkway North.

Turn Left on Paul Brown Blvd / West Blvd. (this will be at the light after the Tyvola Road exit)

Follow from Step 3 above...

CLASSIFIEDS

Buy—Sell—Trade—Look For

FOR SALE

LOOKING TO BUY

Do you have some woodworking related items to sell or items you are looking to obtain?

Send an email to the CWA Google Group
charlotte-woodworkers@googlegroups.com

or

Just email me at
jrnurse2005@yahoo.com

Regular CWA Meeting Time and Place

Meetings of the Charlotte Woodworkers Association, Inc are held the third Tuesday of each month, **except for December**. Meetings are held at Jackson Park Ministries Woodshop at Sentry Post Drive, Charlotte, NC.

A social and refreshment time starts at 5:30pm; our meeting starts at 6:15pm. Come to the meeting early and get to know your fellow woodworking enthusiasts! See map on previous page.

CALENDAR FOR FEBRUARY:

Monday 2nd - Open Shop

Monday 9th - Open Shop and
Board Meeting

Monday 16th - Open Shop

Tuesday 17th - Meeting

Monday 23rd - Open Shop

CALENDAR FOR MARCH:

Monday 2nd - Open Shop

Monday 9th - Open Shop and
Board Meeting

Monday 16th - Open Shop

Tuesday 17th - Meeting

Monday 23rd - Open Shop

Monday 30th - Open Shop

2015 CWA Board Members



David Powles
President
(704) 506-0403
dpowles42@gmail.com



John Seaman
Board Member at Large
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jseaman170@gmail.com



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warrenjo46@msn.com



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980-207-1226
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