

Billets & Blades

THE OFFICIAL PUBLICATION OF
THE NORTH CAROLINA CUSTOM KNIFEMAKERS GUILD

SPECIAL POINTS OF INTEREST:

- The **SouthEastern Custom Knifemakers Show** is back for September 21st-22nd 2013!
- The next **North Carolina Custom Knifemakers Guild** meeting date: April 20th, 2013



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ABOUT THIS PUBLICATION AND OUR GUILD

Billets and Blades is the official publication of the North Carolina Custom Knifemakers Guild. It is compiled and published in four annual issues, with two additional special publication dates possible each year.

The North Carolina Custom Knifemakers Guild was formed to meet the needs of the growing body of custom knife makers in the southeastern United States. The purpose of this newsletter is to serve as a medium of exchange for the members of the NCCKG.

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Advertising Policy:

The NCCKG accepts no paid advertising as a matter of policy. From time to time, advertisements may appear that are deemed by the officers to be in the best interest of the Guild. Space for advertisements is offered free to Guild members who wish to promote a service or offer specific items for sale. The officers and editor reserve the right to edit advertisements for brevity.

Members, please submit ads to the either the president or the editor at one of the addresses shown to the right.

FROM THE EDITOR

If you are a new member, please make sure that I have your correct email and physical mailing addresses. You may send this information to me via email or the address listed on the right.

If you are currently receiving *Billets and Blades* but are no longer interested in receiving it please let us know. You may contact Michael Wilson (see contact list on page 3) to have your name removed from the mailing list. Thank you.

If you know of someone who may be interested in becoming a member, please let Tim or Michael know and we'll be happy to mail a copy of the current newsletter to that person.

Existing members, please check the website to verify that we have your correct information. Especially your correct email address so you may be contacted should the need arise. I am also always in need of pictures, articles and ideas on how to make the website and newsletter better. Please contact me with any suggestions.

nckkg@triad.rr.com
www.ncknifeguild.org

STEP UP. BE SEEN.

Featured Knifemakers are needed.

Don't be a wallflower!

Please let us get to know you and your work.

Contact Michael at nckkg@triad.rr.com

LETTER FROM THE PRESIDENT

Spring is time to start anew, and for the Guild that means elections. As I mentioned in the last edition of the news letter the positions of President (held by me) and Director (held by Barry Jones) are to be filled. President is a 2 year term Director is a 3 year term. We need new faces with fresh ideas to step forward and keep the Guild moving in a positive direction. If you would like to put your name in the hat of have someone in mind that you would like to nominate let it be known at the meeting.

The SouthEastern Custom Knife Show is only 6 months away. The Guild will be responsible for the door, relief personnel, and to help vendors/suppliers load and unload. We will have a sign-up sheet at the April meeting for volunteers. If you do not have a table at the show, we need your help. You and any family member's help will be appreciated.

That's about it this time. As usual if you have any ideas for a demo or would like to do one, contact Steve Randall and he will be more than happy to accommodate you. Also send your articles for the news letter, items for sale, etc to Michael Wilson. See you in April.

-Tim Scholl-

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The ends of the wire will be wrapped around the end of the handle and pushed into these holes. Put a drop of super glue in there for insurance. The washers that make up the transition pieces on the knife handle should squeeze the wire ends down into the handle material to hold them in place.

There's nothing like doing the job to get the hang of it, so even if you don't have a knife in mind right away, get a piece of easy to work wood and give it a try. It took me three attempts to make an acceptable handle the first time, so use inexpensive materials for your first examples. Stay with it and don't get discouraged if the first few don't shape up right.

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South Eastern
Sept. 21 & 22, 2013
CUSTOM KNIFE SHOW

The South Eastern Custom Knife Show Returns to Winston Salem

by John Hege

In 2003, the South Eastern Custom Knife Show changed my life. I was working in a garage conveniently located next to Tommy McNabb's studio when he came over carrying an old Volvo transmission. He was working on an old MG TD that he had owned since the 1960's and had at some point fitted with a Volvo engine and transmission. Since I was the only one in the shop old enough to have seen an M40 transmission, they passed the job to me.

As I worked on the project and Tommy and I talked, I learned about his background as a knife maker. I later found out about the classes that he occasionally taught at Montgomery Community College, and I told him that I was going to sign up for one. He suggested that rather than doing that, since we were practically neighbors, I should visit his shop and he'd show me how to make a knife. I took him up on his offer and over two days he coached me and turned me loose on his equipment (I thought that to be a particularly brave gesture) and I made a simple, full tang drop point hunter with a cocobolo handle. From that point I was hooked.

I'd always been a metals guy; working in the garage for 35 years, I'd acquired a few metal working and fabrication skills and I particularly liked it when my job called me to fabricate some old,

unobtainable part. But the knife making seemed to bring it all together. That summer, I took a few months off of work and spent several days a week at Tommy's shop learning various new skills. Tommy showed me a range of knives from simple stock removal trout knives with slab handles to Damascus steel fighters with multi-piece guards and carved stag. It made me see just how far into the craft a person could get.

In the fall of 2003, he gave me a pass to the 10th SouthEastern Custom Knife Show at the Benton Convention Center in Winston Salem. The show was stunning! It was my first exposure to the full range of the knife maker's craft. I recall seeing Jim Batson's knives made from meteorite, Bill Bisher's period pieces, slick folders by Daniel Warren and the jewelry-like work of Murray Sterling. I didn't know the names of the other makers because I hadn't been in the field for long, but if I had, I would have realized that over its ten year run, the show had developed a roster of world-class knife making talent.

When Tommy asked me what I thought of the show, I told him, "I think I've found the answer to my mid-life crisis." I'd bought a handful of supplies: bars of steel and handle material, various bits of hardware, and even a Bader grinder and attachments from Dan Johnson. I took my booty home and set out to become a knife maker. I built a shop in an old tobacco barn that we had moved onto the property a year before and started filling it with whatever equipment I could buy, salvage, or scrounge.

Since then I've been enjoying the Hammer-in events in Haywood County and Alabama. I've been a member of the NC Knifemakers Guild where I watched and then began giving various demonstrations. And I've been studying and observing new skills wherever I can. My experience at the SouthEastern Show showed me what an incredibly deep craft knife making could be. No matter how skilled you became in one area, there was always something new to learn, some new technique to try. With the help of a grant from the NC Arts Council, I was able to attend the basic knife making class put on by the ABS at the Haywood County Community College. My notebooks from these events are taking over the bookshelves in my office at home, and I don't see it ending.

Back in 2005, as I was anticipating the '05 SouthEastern show, I learned that there wasn't going to be one. Tommy had produced the show for ten years and passed the responsibility for it on to someone else, thinking it would continue, but unfortunately, it fell by the wayside. It wasn't just a disappointment to me. When I would travel to other shows and Hammer-ins, when people learned that I was from Winston Salem, they would inevitably ask what happened to the show? When were we going to have it again? And they followed up by describing what a good time they had as a table holder or as a visitor.

I retired from the garage a couple of years ago. We all know that the usual definition of a full time knife maker is a knife maker who is not otherwise gainfully employed, so you could say that I'm a full time knife maker. And somehow it seemed like the time was right for somebody to bring the SouthEastern Show back to Winston Salem. Following some brainstorming on the trip back from the 2012 BLADE show Michael Wilson and I with sponsorship by the North Carolina Custom Knifemakers Guild, have secured the space in the old location, the Benton Convention Center, and will be holding the show on the weekend of September 21 and 22, 2013. We've had lots of positive response from people who are excited about the show's return and are anticipating a great time! It's a fantastic environment for a weekend show, two hotels are attached to the venue and one block north is Winston Salem's entertainment district and one block west from the arts district, so there's plenty to do in the evening after the show.

I'd like to encourage knife makers to join us in bringing the only exclusively custom knife show in the Southeast back to the area. We want and need the support of as many guild members as possible, not just to hold a table but to spread the word to friends, customers and knife collectors. We're sure that with your help we can make this a successful show that will continue for years to come, making it the show that guild members can call their own and look forward to every year. Bringing a show back after nine years will not be easy, there is a lot of inertia to overcome and this first year is the most important one. So please make plans to be part of the show this year to ensure that it we can continue to be there for everybody in years to come.

UPCOMING GUILD MEETING

Saturday April 20th, 2013

Location: Montgomery Community College

Events Include:

Board Meeting begins at 8:30am, to be followed by our General Business Meeting & Iron in the Hat

Demos:

- Marketing and Sales Demo - Mark Carey with Spartan Blades
- Leather Sheath Demo (Part 1 of 2) - Travis Daniels
- Anatomy of a Knife - Gene Smith

Lunch will be around Noon. You're on your own.
As always, friends and family are welcome.

SouthEastern Custom Knife Show



**September
21 & 22
2013**

**Saturday:
9 am - 5 pm**

**Sunday:
10 am - 3 pm**

**Present this coupon
for \$2 off
regular admission**

**NORTH
CAROLINA
CUSTOM
KNIFEMAKERS
GUILD**

Wandering through steel-land.....

First and foremost.....a disclaimer. I am not an expert on steels and do not even come close to being a metallurgist. What I will do and feel competent to comment on is my own experiences. I was the first professional knife maker in NC and have been at it since 1972. I have most likely made more knives than anyone in NC.....but totally agree with my friend Bob Dozier when he said: most knife makers know little or nothing about metallurgy and should only comment on their own limited experiences.

I would also like to make a suggestion that there isn't a huge difference in performance if we're talking about dressing out an occasional whitetail deer, cleaning a mess of fish or opening cardboard boxes. The key factors are proper heat treating and honing a proper edge.

Someone asked me long ago why I was using D2.....and I went into a lengthy description of my reasons.....but failed to mention that it was just about all that I had in my shop at that time. I am one of the few knife makers in the world still using bg42. This is a fine steel, much like ats34 and at one time, I had 310 lbs. of 3mm sheet stacked up in my shop. This was the only 3mm sheet available to me in 2006 unless I wanted to order 5 tons. 3mm is superb for my small slip joint folders.

Back when I started making knives in 1972, my mentors in the Knifemaker's Guild were all using D2, 440C, 1095 and 01. Blackie Collins wouldn't use anything but 440C, Frank Centofante, Bob Dozier, and Ted Dowell were all committed to D2, and a few mavericks like Corbitt Sigman occasionally tried steels such as F8, M2 and A2.

Bob Loveless blasted on the scene with his superb designs and a new steel that he had Crucible manufacture for him.....CM154. Big problem for most of us is that CM 154 was only available to us in .211 thickness and 1" wide. Availability in larger bars was limited.

Hitachi/Japan came on the scene and offered their version of cm 154 and called it ats34. Most of us were in hog-heaven. We had a fine steel available to us in a wide range of sizes and we could buy in smallish quantities with minimal penalty.

All good things usually have an end.....and in one year, HITACHI doubled their steel prices. There was a flurry of activity as many of us scrambled to find alternatives here in the USA. Latrobe once again was making their cutlery grade D2 and Crucible found new life and aggressively marketed CM154 as a cutlery steel.

The American Bladesmith Society started getting some attention with their steel consumption and absolutely gorgeous work. Steels like 1095, 1084, W-1 and W2 were readily available and relatively easy to forge and heat treat.

Steel is forged in the mill and we will be arguing till the cows come home and Hell freezes over as to whether forging the steel AGAIN creates a better blade. Chances are whatever the maker you're talking to does will always be "the best".

Powder metallurgy came on the scene in the 90's and won't go away. Much of this "new stuff" allegedly performs quite well but the cutting contests are still dominated by forged blades. Need to mention that most cutting contests are ABS sponsored and exclude anything but forged blades!!!

Here are my experiences and comments in no particular order:

O1.....grinds like butter, fair edge holding, easy to sharpen but has too little chromium for me (toughness and resistance to stain). Can also be hardened and tempered with a torch.

1095..... same as above

1084 & 1084 Modified are two of the blacksmith's favorites. You'll often see these blades winning the cutting contests and gracing tables at shows. Just not enough chromium for me.....

A2.....has almost a cult like following, made famous by makers such as Hartsfield and as of late, Mike Snody. Easy to sharpen and seems to hold an edge well 4 knives I've made from this steel were way too easy to stain or tarnish.

D2.....for me, a step above A2. Partially due to higher chromium content. D2 is tough and makes a fine cleaver or hatchet blade. D2 must be double tempered and finished with sub-zero quench for optimum performance. How many of us have liquid nitrogen in our shops ?

I used this steel for just about anything for several years with fine results.

440C.....the clear best of the 400 series for knife blades. Hi-Chromium content made this one of the first real stainless steels that could be hardened. Many makers still use this steel for use in corrosive situations. Much of the ultra low price crap imported from Asia is either 420 or 440A, or maybe even 440B.....none of which are suited for decent cutlery. 440A often pops up in the metal market. This used to be a very popular steel with knife factories in the USA.

VASCOWEAR.....I tried and it threw me down and beat me up. Edge holding is superb but it's ugly with large pores when finished and edge holding is too good ! It's a bitch to sharpen

ATS34.....essentially the same as BG42 in terms of performance and alloy content. I've been using BG42 for many years and have never had a knife returned due to any degree of dissatisfaction with BG42. Needs to be mentioned that I use a commercial heat-treater for ALL of my heat treating.

Comment.....I listened as makers debated the qualities of a vast multitude of exotic steels alleged to be the best ever for knife blades. I sought out to learn as much as I could about these new steels with assistance from CARTECH and with inputs from a new friend who was an outfitter in Wyoming for many years. Right about this same time, my stack of BG42 sheets was very thin and I was going to have to find another steel

S30V.....allegedly the tactical knife collectors darling.....the best steel ever for a knife blade, impossible to improve. OK, I bought 1 sheet and made a few blades. Each blade required 3 times as many belts/discs to grind and finish as any other steels I've used, and my customers complained that they couldn't sharpen my blades to a razor edge. I and many other makers have had trouble with alloy streaking that shows up when you hand rub a blade to say 800 grit. I continued looking and found:

S35VN.....simple addition of a reactive metal (Niobium) to the S30V formula works wonders. I use a lot of belts and discs grinding but can't imagine a better steel for knife making. The ductility of this steel is amazing. This is a huge concern for me because most of my folders have thin grinds and slender blades.

Heat treaters talk in terms of batches and it would help most of us to focus on one steel and stick with it. The per blade cost for 3 blades is much more expensive than the per blade cost for 30.

I hope that these personal comments on my experiences are of help and interest to you. I can always be reached at tim@timbritton.com or I'll look forward to seeing you in person at our Winston-Salem show in 2013.

2013 Montgomery Community College Knifemaking Schedule

Basic Knifemaking with Travis Daniels

August 22nd-25th Cost:

Cost \$375

Learn knife-making by designing and making a knife under the guidance of the instructor. Each student will grind, heat and finish a knife using the stock removal method. This class is for beginners to intermediates who want to perfect their knife-making talents.

Introduction to Tactical Knifemaking with Barry & Philip Jones

September 5th-8th

Cost \$375

Learn fixed-blade design using the basic principles and methods of knife construction, including how to grind and heat treat knife blades, as well as fitting and finishing handles.

Custom Folding Knives with Ed Van Hoy

September 19th-22nd

Cost \$375

Design and craft a custom liner-lock folding knife. The instructor will show the basic principles and methods of construction required to make a folding knife. Design, machine work, drilling, tapping, grinding the blade and finishing will be covered. Each student will complete a knife using both machine shop and common hand tools.

Basic Knifemaking with Travis Daniels

October 3rd-6th

Cost: \$375

Learn knife-making by designing and making a knife under the guidance of the instructor. Each student will grind, heat and finish a knife using the stock removal method. This class is for beginners to intermediates who want to perfect their knife-making talents.

Introduction to Tactical Knifemaking with Barry & Philip Jones

October 10th-13th

Cost \$375

Learn fixed-blade design using the basic principles and methods of knife construction, including how to grind and heat treat knife blades, as well as fitting and finishing handles.

Fluted Handles by John Hege

If you're into making "period" knives there's nothing that lends the old world look like a fluted handle. Whether it's a spiral flute or straight, it's an appropriate look for the old medieval style daggers and short swords as well as Persian and Mediterranean style weapons.

A fluted handle is beautiful, but also functional. Deep flutes with clean (but not sharp) edges cut into the handle provide an excellent gripping surface and a path for sweat to escape under the grip without making things slippery. Putting a spiral cut into the flutes can add an even greater dimension to the grip by giving the grip a kind of screw-like action that can seem to tighten as you twist your hand.

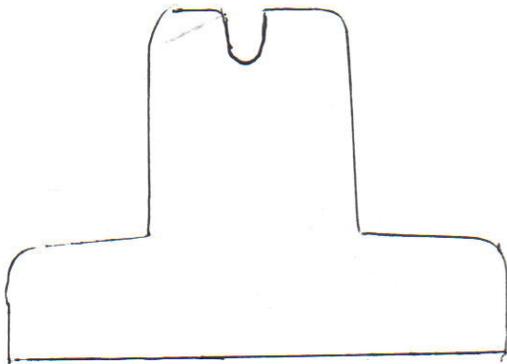
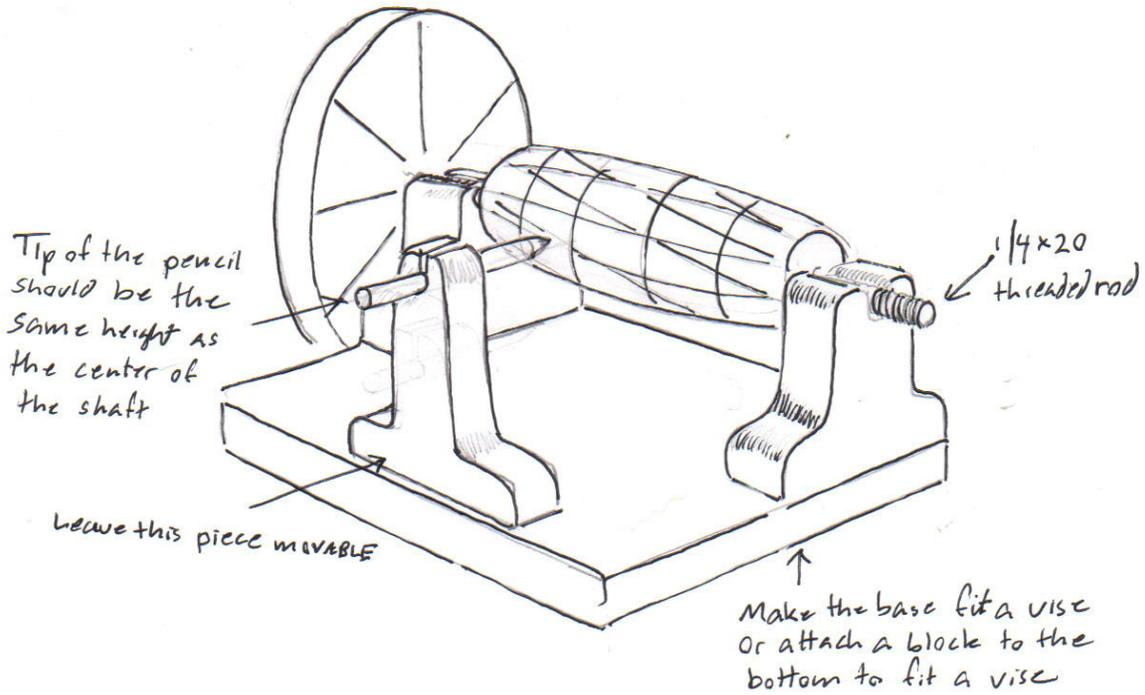
The ABS requires that the Quillon Dagger test knife have a spiral fluted handle with a twisted wire inlay. This is more than a beautiful handle, it's patterned after a medieval short sword that was meant for left or off handed use. The dagger was the defensive weapon used in combination with the offensive sword. The sword made the thrust, and the Quillon dagger was used to parry the opponents thrust. A weapon used this way is repeatedly struck with powerful blows intended to strike the dagger from the hand, so it's clear that it has to have a powerful gripping surface. OK, so nobody's defending themselves with swords these days, but the Quillon dagger, and any other edged weapons from medieval times are exceptionally beautiful knives and making a good fluted handle should be in any good knife makers toolbox.

As with many techniques, a good account of making a twisted flute handle can be found in Joe Keeslar's excellent book *Handles and Guards* marketed by the ABS, but I'll add a few tips that I picked up around.

It's good to start with a nice round piece, or at least a symmetrical piece. I have cut them out by hand, but find it's far easier to work with a piece that was turned out on a wood lathe. If the piece is round and the hole is centered, everything falls into place easier. Drill the hole before turning the piece. That way the hole will be centered on the finished piece. Working the other way may result in an off-centered hole.

Marking the piece for carving is the first real challenge. In Keeslar's book on page 93 is a neat little jig that makes referencing the marks easier. Here I have a drawing for a similar jig that I copied from

jig I borrowed from Tommy McNabb. It takes about an hour to make and you'll be glad to have it.



Stack up 3 pieces of $\frac{3}{4}$ wood and cut and drill them all at the same time. Glue 2 of them to the base, use the 3rd as a pencil holder.

Woodworker's Supply
Graham NC

		800 352 0182	
riffler sets	-	fine	- 864 654 \$ 22.49
		course	- 864 661 22.49
round rasp	-	8"	864 465 23.89
		10"	864 479 23.89

John Hege

The biggest difference between my jig and Keeslar's is that I made the wheel much larger. That way the marking jig can also be used for carving. The jig can be mounted in a bench vise and the work piece mounted tightly on the shaft. When carving the flutes you can hold the wheel by hand and rotate it with the stroke of the blade or the cutter to follow the pattern.

Another neat way to mark a spiral flute is with rubber bands. Use washers with a ¼ inch center and the outside diameter a little bit larger than the piece. Divide the washer up in sections depending on the number of flutes planned and put small notches at the edges for the rubber bands to fit into. With a washer at either end of the piece, string the rubber bands through the notches to run the length of the handle. At this point you can twist the washers and stretch the bands into a spiral pattern to whatever degree you want. A thin coat of light colored spray paint will leave a nice pattern on the piece to work with.

If you plan to do a wire inlay, it's best to cut the grooves for the wire first along the lines marked. The first cut is done with a sharp knife, this is the easiest one to screw up. When the first cut is done, follow up with a hacksaw blade or similar tool. The blade should just drop in the slot and practically guide itself at this point. ABS likes for half the twisted wire to stick above the surface. Keep a sample strip of twisted wire to continue testing the depth of the groove. With the wire grooves cut, it's time to start the flutes. My favorite tools for this are riffers and chain saw files. The riffers are wood carving tools available at Woodworkers Supply part number 864661 is a nice six piece set for less than 25 dollars. I start the flutes the same way, with a knife, then a hacksaw blade, but don't cut all the way to the ends of the handle. Once the hacksaw blade cut is there, the riffers just drop right into the groove. Cutting the flutes is not difficult, it's just a question of taking the time. It takes me about two hours to cut the flutes out on a whole handle if it I stay with it start to finish, but it's boring work, so I recommend going after it in several sittings. Finishing the handle is done with sandpaper rolled around pieces of wooden dowel.

Silver wire is the usual choice for the inlay, I get my round silver wire from an outfit called wire sculpture.com. But for first attempts I recommend buying nickel silver wire for a lower cost from the same source. Cut slots in the ends of the handles across the flats, effectively connecting the wire slots to each other, then drill 1/16 inch holes straight down into the handle in each of the grooves you just cut.

The **North Carolina Custom Knifemakers Guild** was founded in June of 1992. Our goals are to:

- Promote the craft of custom knife making
- Seek to constantly improve the craftsmanship of its members
- Provide an educational resource to anyone interested in the craft
- To encourage new makers and provide a forum for their training

Through public knife making and forging demonstrations by a group or individual members, we try to display the craft and to educate the public. It is our intent to raise the general awareness of custom made knives and the people who create them. That is why there is no cost to attend one of our meetings, and we welcome anyone with an interest in knife making.

Our quarterly meetings are organized around speakers and various demonstrations of activities important to our craft. These speakers and demonstrations are from our members or experts in the field who come as our guests. As a training resource, our Guild is prepared to present any aspect of our craft to organizations that feel it would be beneficial and informative.



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