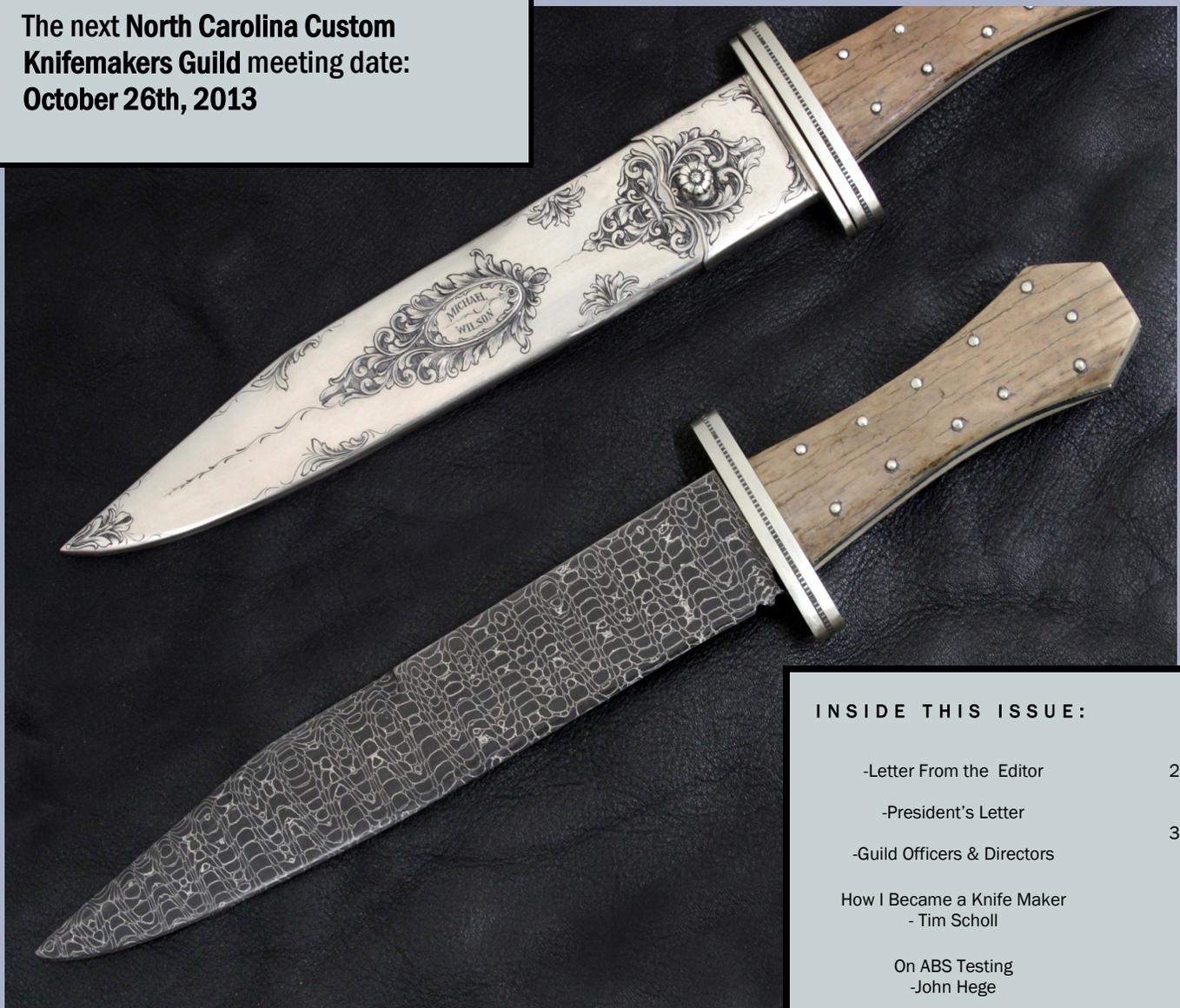


Billets & Blades

THE OFFICIAL PUBLICATION OF
THE NORTH CAROLINA CUSTOM KNIFEMAKERS GUILD

SPECIAL POINTS OF INTEREST:

- **The next North Carolina Custom Knifemakers Guild meeting date: October 26th, 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

There are quite a few things to cover in this month's president's letter, so here goes. First, congratulations are in order for John Hege who achieved his Journeyman smith rating with the American Bladesmith Society at this year's Blade show. I know from my own experience that a lot of work goes into this and it's quite stressful especially Friday morning of the judging. Way to go John!!!

Now for Guild news. There have been several changes. First, Tommy Johnson has stepped down from his position as Secretary/Treasurer. He is being worked like a pulp wood mule at his job and can no longer devote time for his duties with the Guild. Thanks for the great job Tommy. Art Summers has agreed to fill the position until the next election in 2014. Next, from this point forward the Guild news letter will be published three times annually. This will mean a bigger issue with more photos and articles etc. However, this still depends a great deal on YOU!! WE NEED ARTICLES. When you do a demo an article is to be submitted hopefully with photos. If you go to a show take photos. Any how-to do..., special jigs, shop tour photos, special recognition you have received, a good deal on supplies, or equipment for sale etc. send it in. You don't have to be a professional writer to write something. Heck look at the stuff I send in. Just sit down at the keyboard and type like you are talking to someone about an experience and before you know it you have an article. The news letter's success depends on you.

Wayne Bernauer gave us some scary news at the July meeting about the school. It's possible we could lose our room at MCC. At this time the school is waiting to here about a grant from the state of NC. If it is received there will be a new building built on campus. If not they may knock down the wall and expand the welding department. Let's all hope and pray this does not happen. We have a tremendous thing going at the school and I would hate to see it end.

Speaking of school, we need all of the support we can get for the continuing education classes. The classes must have a minimum of 5 students or it will be canceled. If we don't fill the classes, the school does not make money which is another reason to let us go.

The next Guild meeting will be October 26th. at the city park just down the road from the school. This will be a cook out for Guild members and their family. Members are asked to bring a desert or a covered dish. There will be a flint knapping demo by Steve Randall, a round table discussion, and back by popular demand another cutting competition. The rules are the same as before, blade no longer than 11" no wider than 2" and must have a lanyard. Bring a knife and join the fun.

2014 dues are due the first of October. They are still \$50.00 and may be submitted to Art Summers any time. Art will be sending a reminder so watch your mail box.

Well that's it for this time. Stay sharp and see you in October.
Tim Scholl

2013 GUILD OFFICERS & DIRECTORS

President

Tim Scholl
1389 Langdon Rd.
Angier, NC 27501
910.897.2051
tschollknives@live.com

Vice President

Steve Randall
3438 Oak Ridge Cr.
Lincolnton, NC 28092
704.732.4542 steve@ksrblades.com

Secretary/Treasurer

Tommy Johnson
144 Poole Road
Troy, NC 27371
910.572.3230
tommy@tjohnsonknives.com

Director

Michael Wilson
P.O. Box 1971
Jamestown, NC 27282
336-202-1695
michaelwilson@triad.rr.com

Director

Bill Bisher
blackturleforge@wildblue.net

Editor & Webmaster

Michael Wilson
P.O. Box 1971
Jamestown, NC 27282
336.202.1695
ncckg@triad.rr.com

On ABS Journeyman Testing John Hege

To be sure, we have some excellent knifemakers in the NC guild. Their work is tight and clean and their design is excellent. Some of them market their knives at shows and their work commands a good price. We also have some ABS members in the guild and just a few of them have taken part in the ABS testing program to earn a Journeyman Smith or a Master Smith rating. They also make excellent knives, with or without their rating.

So why bother? Why should you bust your nuts to make a handful of knives to impress the ABS guys when you know you can do good work and you can sell whatever you make? Why go to the trouble and expense?

Everybody has to come up with their own reason for that, and at first I didn't think I'd bother, but after I'd spent some time at the ABS events in Waynesville, I noticed a consistency of excellent work among the guys with the ABS ratings and I saw the value of the program. I would go to these events feeling pleased with the work that I had been doing until everybody spread their stuff out on the table. That was always an exercise in humility.

I think it's easy to fall into a routine and be satisfied with the work that you do unless you have something to shoot for and the ABS testing gives me just that. I sat in on several of their judging classes at the Smokey Mtn Hammer-In where they explained what they were looking for...or not.

A good friend of mine was annoyed with the class because he remarked that they spent an hour telling him what they didn't want to see but not what they wanted to see. That wasn't an inaccurate statement. They did dwell on the negatives, but that helped me a great deal because practically every picture they drew on the board to describe something they didn't want to see looked like one of my knives. Aside from some style features, they emphasized straight, square and clean.

Of course most guild members are by now familiar with the testing process... Build a performance test knife that can do all the required cutting and hacking then be bent 90 degrees without breaking. Once this demonstration has been successfully completed, you have three years to submit five knives for judging at either the Blade show or the San Antonio Expo. There you'll either get the thumbs up, or be told to go back to the shop and work some more.

The performance test seems scary at first. It's not as much a test of a good knife as it is one that can prove you understand heat treating. A knife that you don't plan on bending is usually made with a stronger back than one that is intended for the test. Tricks like rounding off the back corners of the spine that are done to strengthen the back are left off in the construction of the performance test knife.

5160 is almost the universal choice in the performance blade, if its not overheated during the forging of the blade, it will probably give you what you want. At the bladesmithing class in Waynesville, I saw 8 or 9 blades put to the test and about half of them broke. Those that broke had a large grain in the center that the instructor said was probably from overheating the blade during the stress relieving part of the process. I've heard many formulas for treating a test knife but when I made mine I fell back on the old school. I forged the blade and heat cycled it three times before heat treating. I hardened the blade on an overcast day in relatively low light, heating it up to about the color of an orange I quenched it in warm peanut oil because that is what I had. I tempered it three times at about 325 degrees and then softened the spine with an acetylene torch while the cutting edge was submerged in wet sand. Nothing fancy but it worked.

On heat cycling: once the blade has been forged to shape, it needs to be heated and cooled a few times to relax the stresses built up in forging and also to reduce the grain structure. Heat the knife slowly to critical temp (check with a magnet) and allow it to cool in still air until all the color has gone out. It helps to have a dark place to look at the blade and make sure its cool enough. This should be done three times, heating the blade to a lower temperature each time. The third time the blade should only be heated to a point where it is just barely showing some color, then buried in vermiculite or some other insulating material until it's completely cool. Heat it evenly! This is where many of the knives made

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at the bladesmithing school were ruined. If you're heat cycling in the forge, keep in mind the mass of the piece that's being heated. I watched several of the guys heat cycling their blades and the ones that failed put the whole blade in the fire and waited until it was fully hot. By the time the massive ricasso-tang area had come up to temp, the rest of the blade had been overheated. Put the tang in first, then when it's hot, turn the knife around and heat the blade. That way you won't have to leave any part of the blade in for too long to bring the whole thing up to temp.

The judging knives were much harder. Keep it simple, these knives are not judged for being unique. In fact the judges tend to be very conservative and they don't want to see a lot of fancy work at the journeyman level, Just good clean well made knives. They'll tell you that many of the failures occur in the area around the ricasso, blade to guard joint area. Any knifemaker knows that is a tough area to get right. Clean, even plunge cuts, square corners, and a tight guard fit are very important. The knife has to be straight, which turned out to be one of the hardest things to achieve. When viewed from either end, the center of the handle, guard and the tip of the knife have to line up perfectly without any waves in between.

No doubt, anyone with any experience in forging knows about the heartbreak of hammering out a good blade, grinding it well, heat treating it and then coming back to it an hour or two later to find it bent. This happened to me over and over again. I discussed the problem with Steve Randall because he had recently passed his journeyman judging and he passed on to me a method described by Kevin Cashion where he heated the blade to below critical (about 1100 to 1200 degrees) and allowed it to cool slowly in the oven before heat treating. This was supposed to relieve the stresses in the blade so that it wouldn't react to the quench. It helped some, but I only had limited success.

What did finally work was when I built a small box on top of my forge out of firebrick and heated up the interior with a hot piece of steel. I had decided that my warpage was taking place while the knife cooled down *after* the quench. So I put my blades in my little hot box after I'd quenched them to keep them warm and out of the breezes for a couple of hours and let them cool to room temperature slowly. So far that has solved my problem with blade warpage. I still do everything else I had been doing, but that last step of keeping the blade warm after the quench seems to work well.

If, after heat treating, you still have a good straight blade (about 50% of the time it went into the scrap pile at this point) Its time to finish it up. If you don't have a good holding fixture for finishing your blade, this is the time to make one. I made one by gluing some cork to a board and attaching a couple of toggle clamps from woodworker's supply. The bottom of my jig has a boss that can be clamped in a bench vise. The finishing step takes Hours! Pulling sandpaper lengthwise down the blade is tedious and takes a toll on the shoulders but it produced the Zippo lighter kind of finish that the judges like to see.

Of the blades that I fully finished, some of them still didn't make the cut. The scrap pile grew larger and better looking as the job went forward. I even finished one knife and decided two days before leaving for the blade show that I didn't like the fit at the guard well enough. By now I had a pile of forgings that I had already done so I picked one out and made another knife at the last minute. It helped that I was getting faster, the last knife I finished at 7:00 the night before we left for Atlanta.

I don't really have anything to compare the judging experience to. We (the 19 applicants) laid our knives out in the room then they asked us to leave. The judges went in and the applicants had to cool their heels in the hallway for about an hour, then the judges called them in one at a time. It wasn't hard to read the faces of the individuals as they came out and the next applicant called in. When they finally invited me in, I was the last one, I was sure I hadn't made it, but mercifully they set that to rest right away and told me I had passed...but. Then came the critique.

During the ABS classes, Greg Neely liked to tell about all the dumb things the applicants said in response to the critiques so I had resolved to keep my mouth shut. They mostly beat me up on design. Basically they said my knives were well made, but they weren't pretty. When they pointed out some of the details I had to agree with some of it. Design is hard for me. Often I don't know where I'm going until I get there and that's not really the way to make a great knife. I'll be working hard on my design in the future.

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So the whole trip was worth it, making the knives and spending all day in the shop for about six weeks seriously sharpened my skills and helped me work on my methods. My experiences with the warping blades helped me with my heat treating, and the critique of the judges will help me with my design. Overall, I feel the process took me a long way forward in developing my craft. Go for it.

Randall's Ramblings

I'm Steve Randall the current Vice President of the North Carolina Custom Knifemakers Guild. I thought I'd start a VP corner to share interesting nuggets of information. Mostly knife related, but not required.

DID YOU KNOW??

HAMON:

Pronounced: Ha-moan



KNIFEMAKER ~ STEVE RANDALL, JS

IMAGE ~ SHARPBYCOOP.COM

Wikipedia says:

In sword smithing, **hamon** (from the Japanese meaning "blade pattern") is a visual effect created on the blade by the hardening process. The **hamon** is the outline of the hardened zone (which contains the cutting edge. Blades made in this manner are known as differentially hardened, with a harder cutting edge than spine.. This difference in hardness results from clay being applied on the blade prior the cooling process (quenching). Less or no clay allows the cutting edge to cool faster, making it harder but more brittle, while more clay allows the spine to cool slower and retain its resilience.

The **hamon** outlines the transition between the region of harder martensitic steel at the blade's edge and the softer pearlitic steel at the center and back of the sword. This difference in hardness is the objective of the process; the appearance is purely a side effect. However, the aesthetic qualities of the **hamon** are quite valuable—not only as proof of the differential-hardening treatment but also in its artistic value—and the patterns can be quite complex.

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 27th-29th

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.

How I Became a Knife Maker

by
Tim Scholl

I have always had a fascination with one of man's first tools, the knife. Knives, swords, axes/hatchets, machetes, it didn't matter anything sharp I liked it. My brother was the gun fanatic of the family and I was always the knife nut. I always saw the old Tarzan movies and saw him dispatch any thing from mad charging rhinos to 20 foot long crocodiles with his knife so I was convinced that's all I needed. My brother and I were lucky to have parents who trusted us to let us have these at an early age. (maybe they were trying to get rid of us) I can still remember snapping the switchblades in my dad's tackle box when I was four years old. My dad owned a dry-cleaners and knives would always be missed when pockets were searched. They went in a box and if no one claimed them they were mine. Mostly cheap stuff with broken blades an occasional good one or two but mostly ones you don't mind losing. One of my brothers friends and later one of mine had swords their dad's brought back from WWII, whenever I visited we had to take them out and gaze at them. That's when the bug bit hard when I was young and impressionable.

My dad and granddad always said " You always need a knife in your pocket. You never know when you are going to have to open something, remove a splinter or clean your nails etc." Good advice! I've always had some type of blade in my pocket or on my belt. We could still carry knives in school until I was in the 8th grade until the principal came by one day to every class room and made everyone go in the hall and empty their pocket or purse so they could confiscate everyone's knife because a couple of idiots decided to do a little carving on some desks and window sills. Buzz kill!!

Now let's fast forward to 1987 or '88. Peterson's Outdoor Journal had a special edition on knives which I ran across at the news stand. There were stories on the usual factory cutlery Buck, Case, Kershaw and Gerber but there was something there I never knew existed, Custom Knives. Something else was also in those pages that blew me away, and that was Damascus steel. A short time later I discovered Blade and Knives Illustrated and subscribed immediately. More books and magazines would come for the next two years and one day in 1990 I told my wife Kathy (I'm going to make a knife). She just cocked her head and said a hesitant O-K . Little did she know.

I had read Loveless and Barney's book on How to Make Knives so I got a piece of O-1, a hack saw, some files, sand paper, and some handle material. After a lot of muscle work I had a reasonable facsimily of a knife. It was and still is ugly and a few of you have seen it. That May, I attended my first Blade Show which was in Knoxville TN at the time. Holy Mackrill all the people I had been reading about were right in front of telling me to pick up there knives. It was heaven. Inspired, I returned home and made a couple more each improving. A couple of months later I went to the Tarheel Cutlery Club Show in Winston-Salem NC and met a gentleman by the name of Bob Livingstone. He had a news letter (a couple of pieces of paper stapled together) that had an ad for a fellow named Keith Kilby an ABS journeyman smith at the time from Georgia who taught forging classes on the weekend. That September I was on my way to Keith's shop where I forged my first blade and got my first experience on a bader grinder. When I got back home Monday, Kathy said I looked like Moses when he came down from the mountain. I immediately said "I must have a grinder" and ordered one Tuesday. The NC State Fair was next month and little did I know fate would rear it's head. There I met Jim Moretz from Boone NC who told me of a group of guys who had met with the intention of forming a Guild for knife makers in North Carolina and wondered if I was interested. Absolutely, was my reply where and when. The next meeting was at the shop of Robin Eans in Lexington NC where I met Tommy McNabb among others. The instructor at the demo that weekend was none other than Jim Batson who forged a composite damascus steel blade. I joined then and there.

Then along came a fellow by the name of Bruce Turner. Bruce happened to be the Dean of Continuing Education at Montgomery Community College in Troy NC where he allowed us to set up shop and the North Carolina Custom Knifemakers Guild was chartered. By-laws were drawn up a board of directors was elected and all in attendance were considered "founding members". This was the beginning

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of an extensive exchange of knowledge that continues today. Knife making classes soon followed along with Guild meetings. Bill Moran, George Herron, Jim Batson, Don Fogg, and Errett Callahan are some of the instructors I've had the privilege to study under. I have attended most every Guild meeting since it's beginning and have learned something from each and every one of them.

In 1995 I joined the American Bladesmith Society and started attending "hammer-ins" where master smiths conduct various demos over a two or three day period. In 1998 I received my journeyman smith rating. Two years later I tested for master smith but knew I was not ready I just wanted to test the waters. Several years passed and I tried again and was rejected for a couple of minor infractions. Now I know exactly what the judges want to see and 2014 will be the year for victory. I already have the blade destruction test out of the way (that's the easy part) and have started on the most difficult task of the five knives for the judges to look at under a microscope.

Knife makers are a great group of people who have no secrets as to how they do things. Being invited to another knife makers shop to exchange knowledge is a regular occurrence in this business. I have only met one maker in all these years who would not share information. Next year will mark my 24th year as a knife maker. I consider myself extremely fortunate to have met so many wonderful individuals and made such good friends along the way.

UPCOMING GUILD MEETING

Saturday October 26th, 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:

Lunch will be around Noon. You're on your own.

As always, friends and family are welcome.

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.



P.O. Box 1971
Jamestown, NC 27282

Phone: 336.202.1695
ncckg@triad.rr.com