Blades íllets



The Official Publication of The North Carolina Custom Knifemaker's Guild Dedicated to the Art & Craft of Custom Knifemaking

Bíllets & Blades

Billets and Blades is the official publication of the North Carolina Custom Knifemaker's Guild. It is compiled and published in four issues annually with two additional special publication dates possible each year. Compiled, published, and distributed by The Knifemaker's Guild.

The North Carolina Custom Knifemaker's Guild was formed to meet the needs of a growing body of custom knifemakers 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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Webmaster:

Please address correspondence about this newsletter to the President or the Editor at the above addresses. Please direct requests for information about the North Carolina Custom Knifemakera' Guild to the President, Tommy McNabb, at the above address.

From The President:

For those of you who were not at our last meeting there is word of three separate parties interested in starting a new custom knife show in North Carolina. Indications are that these shows are in the planning stages, and news of any developments will be included in our Newsletter. It's good to know that there is such a strong interest in custom knives and a desire to have top notch shows in our area. We will be keeping an eye out for new developments.

Our last meeting was very well attended and did not disappoint. There was a broad range of demonstrations and many members brought knives to share. James Poplin of Pop's Knife Supplies came for the meeting and set up a wide variety of knife making supplies. It always helps when you can pick them out yourself and save a few dollars on shipping. Thanks Pop!

Our next meeting will be held on April 23 - 24, 2005 at Montgomery Community College located in Troy, NC. There will be **Elections** for two positions on the Board of Directors. One position is for Secretary and the other is for Board of Director Member. The duties for these positions are as follows:

Secretary: The secretary shall keep records of the acts and proceedings of all meetings of the members and officers. The secretary will be responsible for the custody of corporate books, records, contracts, and other documents. The secretary shall perform whatever additional duties and have whatever additional powers the Board may assign from time-to-time.

Board of Directors Member: The director shall in the absence of the secretary or treasurer, respectively perform the duties and exercise the powers of those offices, and shall, in general perform such duties as shall be assigned by the Board.

These Board positions are currently held by Marge Gervais and Barry Jones respectively. Nominations will be taken right up until the elections at the beginning of the Guild Meeting. Please let your interests be known to a current Board Member.

We're looking forward to another great meeting. Bring a knife and a friend. We hope to see you all there!

Andrew McLurkin President North Carolina Custom Knifemakers Guild

On The Cover:

At the January meeting, Andrew McLurkin gave out some great information on knife photography. He set up his "light box" and took some shots of some of the knives a few of the members brought. The specs on the knives shown on the cover are:

Tim Scholl: This beauty of a Damascus Dagger is very striking with the Mosiac Damascus blade and guard, Snakewood handle, and buffalo horn back cap. The overall length of this dagger is approximately 13".

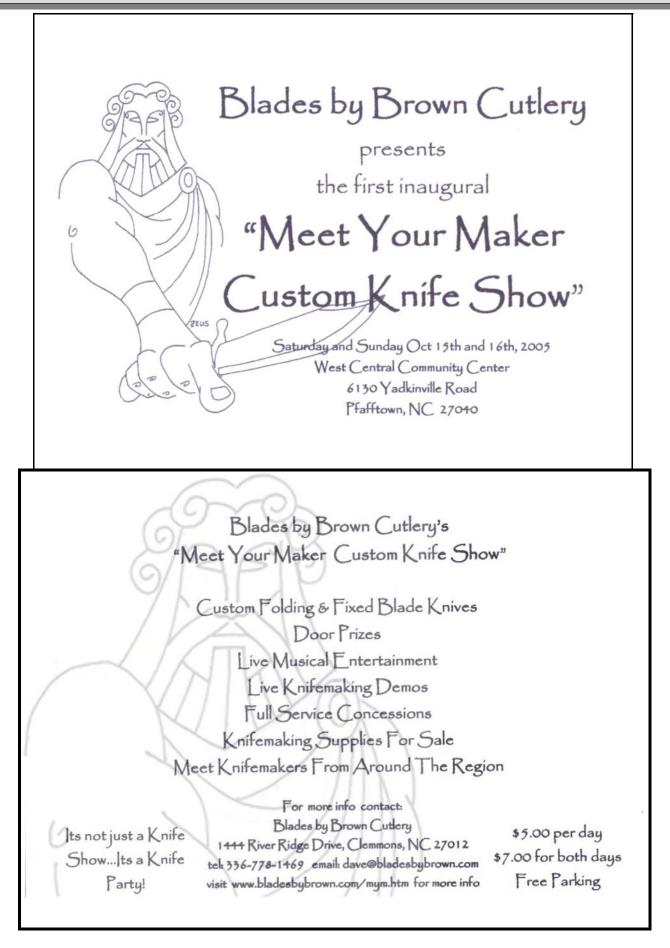
Chuck Staples: The neat liner lock folder is 3 3/4" closed and 6" open. The blade is 440 and the handle is red jigged bone. This folder also sports titanium liners anodized blue and has vine file work down the spine of the knife.

Tommy Johnson: This sweet hunter is constructed with an ATS34. The handle is red jigged bone. The overall length of the knife is 7" with the blade length being 3/12" blade.

Bob Ham: This Gentleman's Folder is a slip joint and is approximately 4 1/4" long open. It has a 2" blade with Madrone Burl handles.

Editors Note:

As announced at the last meeting, my time as Editor of Billets and Blades is ending. This will be my last issue. I began this venture as a way to support John in his knifemaking but have come to enjoy the meetings and you guys as much as he does. We will continue as members and will attend as many meetings as possible. We will always hold you guys in our hearts as family.



Exhibitor Registration Form

	Blades By Brown's "Meet Your Maker" Custom Knife . 1444 River Ridge Dr. River Ridge Shopping Center Clemmons, NC, 27012 (336) 778-1469 Phone (336) 778-1409 Fax http://www.bladesbybrown.com dave@bladesbybrown.com	Show
NAME:		
COMPANY NAME (IF APPLICABLE):_		
MAILING ADDRESS:		
EMAIL:	PHONE: ()
Tables at BLADES BY BROWN'S "MEET YOU	R MAKER" CUSTOM KNIFE SHOW are \$100.00 eac	ch. Table coverings will not be provided.
NUMBER OF TABLES DESIRED:		
PAYMENT METHOD: Check one	Credit Card – Visa, Mastercard, or Debit	t. Please circle card of choice.
	Credit/Debit Card No.:	Exp. Date:
	If you prefer, you can register via telephone	or fax at the above numbers or the Internet
	Personal Check – mail to address above,	, please include this form
Check here if you signed up for the 200:	5 S.E. Custom Knife Show but had your check ret	turned. Your registration fee is \$85.
Check here if you would like to donate a	a knife for our custom knife raffle.	
We are looking for exhibitors who would be cate what your specialty is. We will contact	interested in conducting a live demonstration, one you at a later date to arrange details.	e per show day. If you are interested, please indi-

Thank you for your interest in exhibiting at Blades By Brown's "Meet Your Maker" Custom Knife Show and for assisting us in making this show a success. Should you have any questions please feel free to contact us anytime.

Show Hours: October 15th 2005: 9am to 5pm October 16th 2005: 10am to 4pm

> Exhibitor Set Up: October 14th 2005 12pm to 9pm

CREATING A BLADE THAT WILL PASS THE ABS JS PERFORMANCE TESTS

Ed Caffrey, ABS Mastersmith has this article posted on his website, www.caffreyknives.net. A link to this article can also be found at www.knifenetwork.com. Mr. Caffrey was very gracious in allowing the printing of this article for Billets and Blades. "The Montana Bladesmith" Copyright 2004

Choosing the proper steel is a must in order to pass the ABS JS test. I highly recommend 5160. Don't be fooled by it only having 0.60% carbon. With proper heat treating it will easily pass all phases of the test. I will take you through step by step, explaining the manner in which I would produce a blade to pass the ABS Journeyman Smith test with 5160 steel.

FORGING: Either 1 $\frac{1}{4}$ or 1 $\frac{1}{2}$ X $\frac{1}{4}$ is the best size to start with for a test blade. Begin forging with the highest heats you intend to use. Then progressively reduce the heats throughout the forging process. Pay close attention, and do not let yourself be distracted from the forge! This is where most people let their mind wonder and without realizing it, let the blade overheat, which causes the grain to grow dramatically. The reducing heats are intended to refine grain structure as you go through the forging process. Ensure you leave extra "meat" at the edge as "sacrificial" material that will be ground away after the heat treat process. Remember that you may use either a full or hidden tang blade for the JS test, but for safety sake, I recommend forging a full tang unless you feel supremely confident that you can make a hidden tang that will pass the bend test.

<u>NORMALIZING</u>: This is a critical step in a high performance blade. Once forging to shape is complete, and using a magnet to determine critical temp, heat the blade to just critical, and allow it to COMPLETELY cool in still air. This has the effect of relaxing all the internal stresses that have been built up during the forging process, and will eliminate 90% of warpage problems. Multiple cycles are of great benefit, and should be experimented with to achieve optimum results in your shop.

<u>ANNEALING:</u> Once the blade has completely cooled, it is time to anneal. Bring the blade to a lit-

tle past non-magnetic, and place in a slow cooling media. I recommend vermiculite. Sand is not a good insulator, and ashes draw moisture, which can result in hard spots (something you certainly DO NOT want at this point). I usually do my annealing in the evening, and allow the blade to cool overnight. Routinely it takes a test blade sized piece of steel 6-10 hours to fully cool in vermiculite. This step reduces grain size within the steel, and may be accomplished multiple times for added benefit. Like normalizing, multiple annealing cycles are of added benefit to both 5160 and 52100.

<u>ROUGH GRINDING</u>: This is simply where the blade is profiled and refined prior to the heat treatment. Distal tapers can be refined or added at this point. Ensure you leave enough extra material in the edge so as not to overheat it during hardening. I recommend about the thickness of a nickel. I choose to call this extra material "sacrificial", as it acts like a protective shroud to what will be the working edge of the blade. After rough grinding is complete, ensure you go over the entire blade with at least a 120 grit to eliminate the possibility of stress risers that may be caused by large scratches that are left from the course grit belts.

HARDENING: Keep in mind that we are talking about 5160 steel. I recommend edge quenching ONLY on a blade that will be used for something as important as the ABS JS test. If you don't already have one, make a "limiter plate" for your quench tank. This is nothing more than a $\frac{1}{4}$ " to 3/8" thick piece of aluminum that is chocked full of 3/8" holes. At each corner drill and tap a $\frac{1}{4}$ " X 20 hole and use carriage bolts with the heads facing the bottom of the quench tank, and screwed into the holes at each corner of the plate. This will allow you to raise and lower the quench depth to fit any Once the limiter plate is set to the proper blade. depth (about 1/3 of the blades width), pre-heat the quenching oil (I use vet grade mineral oil, and like to quench in the 130-160F range. Be careful here; DO NOT quench when the oil is 180F or higher. At this temp the oil will not cool the steel fast enough to achieve full hardness and your blade will not pass the chopping portion of the ABS JS test.

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Using approx. a #3 tip on an Oxy/Acty torch, and with a SOFT flame (a flame that does not roar, but has a very mild hiss.), start heating the ricasso area near the edge, and as soon as it starts to turn color, then work the blade back and forth until it is just past non-magnetic. Once the entire edge is an even heat, quench by placing the tip into the oil first, for a slow count of 7, and then rock the rest of edge into the oil for another slow count of 7. Continue rocking the blade back and forth in this manner until all the "fumes" have ceased. At this point slide the blade off the limiter plate, and allow it to cool COMPLETELY in the oil. Repeat the process twice more for a triple quench. Once the final quench/cool cycle is complete, grind off the scale with a 120 or 220 grit, and get ready to temper.

<u>TEMPERING</u>: Pre-heat your oven to 350F. If you are using a kitchen oven, don't trust the dial! I strongly suggest an oven thermometer (I use two just to make sure). Let the oven cycle for 20-30 mins. to achieve a level, even heat, and place the blade on the middle rack for AT LEAST TWO HOURS. Allow the blade to cool to room temp between tempering cycles, and repeat for a total of three tempering cycles.

FINAL GRINDING: This is where the rubber meets the road. To this point you have set everything else up for a fine convex grind, and a nice flowing, distal taper. This can be a slow process since your dealing with a blade that has been heat treated, and you should be grinding bare handed. If the blade gets too hot to hold, then it is too hot pe-I start with a fresh 50 grit belt, cleaning up riod! the tapers and then remove excess material from the flats of the blade. I usually will flat grind with the 50 and then a 120 which will reduce weight and thin down the area just above the edge. Once I hit 220 I go to a convex grind. I do this through a modification I made to the grinder platen, where there is approx. a 2" area that is slack just below the platen, and above the lower contact wheel. Your goal at this point should be for the edge to be sharp by the time you finish with a 400 grit belt, as well as having the spine rounded and all sharp corners removed. (sharp corners can, and often do cause blades to fail in the 90-degree bend test).

Just to make things easier when hand sanding, I often go over the blade with a 600 grit belt to get as many 400 grit scratches out as possible. Once you have completed with the belt grinder, go to the bench and hand sand out all the scratches with 400 grit paper. Even though the ABS rules state that the blade need not be highly finished, DO IT! I can usually tell when a potential JS walks into my shop to test, as to whether or not they will pass, based on the outward appearance of their test blade. This is an outward and immediate indication of how careful an individual has been with the overall process. Especially if I have not met with the person before. To date, my initial predictions have not been proven wrong.

<u>HANDLES/GUARDS/BOLSTERS</u>: The test blade is not required to be a fully finished piece, and therefore guard and bolster are not necessary. A couple of tips that will help with the bending test are.....

1. Choose some type of micarta or phenolic for the handle slabs. Both of these materials are very tough, and will lend support to the tang area during the bending phase of the test.

2. DO NOT use large handle bolts that force you to drill large holes in the tang! This will only serve to weaken the tang, and could cost you dearly during the test. I suggest holding the handle material in place with epoxy, and at the maximum, a couple of 1/8" pins. Maybe even just a couple of 1/8" brass pins that are piened to hold the handles.

NOTE: The thing that will get you through the test easily is paying close attention to details! Superior heat treatment, proper distal tapers to distribute the bending stresses, a fine convex grind, and rounding all sharp corners. I personally like to see a test blade that has been etched lightly in ferric chloride to reveal the temper line and the grain structure. This is also key, in that if the blade is not finished to the point where a light etch will show the temper line and grain structure, I believe it is not finished enough for the test.

Many may insist on using another type of steel, and that is fine. As long as enough experimentation has

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taken place to ensure all the desired characteristics are there. In the past, individuals have passed the JS test with other types of steel such as O-1 or 1095. However, these individuals had taken the time and effort to work out the "kinks". More aspiring JS applicants have passed the test with 5160 than with any other steel......that should speak volumes!

This article is intended as a general guide to creating a blade that will pass the ABS JS tests, and is in no way a guarantee of success. Much depends on the individual bladesmith's understanding of proper blade design in relation to function, and applying the concentration necessary throughout the EN-TIRE process of creating a test blade. These are proven methods from 20+ years of bladesmithing experience, and should be of much value to anyone interested in achieving their ABS Journeyman Smith rating.

Good Luck!!

Directions to Montgomery Community College

From Winston-Salem:

Take Hwy. 52 South to Lexington; then take Hwy.64 East to Ashboro; from Ashboro take 220 South to Bisco Exit; turn right & go approximately 9 miles until you see Montgomery Community College sign on the right; turn right at the sign, and go approximately $\frac{1}{2}$ mile to the college entrance. Look for marked parking.

From Fayetteville:

Take Hwy. 24 & 27 West through Bisco, go approximately 9 miles until you see Montgomery Community College sign on the right; turn right at the sign, and go approximately ½ mile to the college entrance. Look for marked parking.

From Charlotte:

Take Hwy 24 & 27 East through Troy, go approximately 2 miles until you see the Montgomery Community College sign. Turn left and go approximately ½ mile to the college entrance. Look for marked parking.

Guild Demonstration Schedule April 23-24, 2005 Montgomery Community College

Saturday:

8:30 am	Board meeting	
9:30 am	 Guild business meeting Elections for secretary and director Bring some of your work - a Table-Top Gallery will be set-up to display it. 	
10:30 am	Mike McRae – Carved Handles	
12:00 pm	Lunch – will be provided on-site	
1:00 pm	Iron-n-the-Hat	
2:00 pm	Mark Hazen – Soldering Guards	
3:30 pm	Cutting Competition – Tim Scholl Bring your blade and see how it holds up: must be your own work, it must have a thong hole in the han- dle, and any length is allowed.	
5:00 pm	End of the day's program	
Sunday: 9:00 am	Bob Ham – Making a Sheath	
10:30 am	Tim Scholl – Coffin Handle Bowie	
12:00 pm	Departure	

Area Hotel Accomodations

Days InnComfort InnBiscoe, NCAlbemarle, NC910-428-2525704-983-6990Holiday Inn ExpressSleep InnAlbemarle, NCAlbemarle, NC904-986-2100704-983-2770Uwharrie Mountain Lodge
Troy, NC

A Profile In Steel



Madison High School Senior, Nathan Allison, from Marshall, North Carolina has completed his first knife under the watchful eye of his mentor, Lester "Red" Banks. Red is a member of the North Carolina Custom Knifemakers' Guild.

The remarkable thing

about his first knife is that instead of starting off with your basic fixed blade hunter, Nathan took on a task that knifemakers with many years of experience under their belt have yet to try — a folder.

Nathan's interest in knives is not something he just "came into". He received his first knife as a gift before he was 13 years old. His mom had her moments of concern when he was given the Swiss Army Knife but Nathan has proven himself to be responsible in his ownership of such items. Nathan's father can take some of the credit for the responsibility this young man has shown. An accomplished gunsmith, Mr. Allison has help define the character in Nathan that putting your utmost into an item is the best way to ensure quality of workmanship and safety in the operation of the piece.

Nathan's decision to make his first knife came from the requirements the North Carolina Board of Education for graduation. This project requires a minimum of an eight page research paper, a power point presentation, and the "hands-on" project. The project had to be approved before he began and at completion will be taken to Raleigh for judging.

For Nathan to choose to make a knife for his senior project is no surprise. Last year, for his junior project he shadowed accomplished Knifemaker, Randall King. King's work has been featured in several of the knife magazines, including The Blade Magazine. He also has had his work be commission for the "silver screen". King was selected to craft the knives seen in the movie, The Last Of The Mohicans" and "The Crow". These days Mr. King stays busy with his contract making knives for Paragon.



The folder completed by Nathan is a slip joint Trapper style. He choose ATS34 steel for the blade and nickel silver for the bolsters. He choose brass to make the liners out of. The handle material is Desert Ironwood. The closed length of the piece is 3 3/8".

There are other things young men can choose to do to fill five Saturdays of their life, but not many that would be any better than to learn to create an item with their hands.

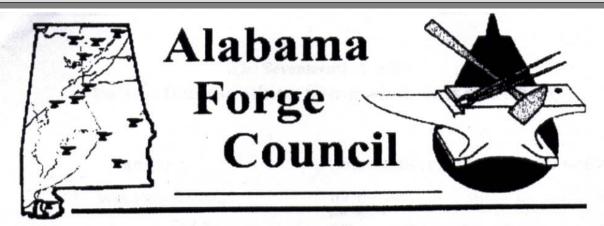
Poythress win Best Folder 2005 Flint River Knife Show Atlanta, GA



The knife blade is made from 440C, the scales are Mastodon Ivory

At the February 26-27, 2005 Flint River Knife Show in Cummings, Georgia, John Poythress won the "Best Folder" award with his first double bladed folder.





April 1-3, 2005

The Seventeenth Annual Batson Bladesmithing Symposium & Knife Show

at

TANNEHILL IRONWORKS at Exit 100 off I-20, 11 miles West of BESSEMER, ALABAMA

featuring

OLD WORLD INTREGAL BLADE FORGINGCHRISTOPH DERINGER	
FORGE WELDING TITANIUM LAMINATE DAMASCUS MARDI MESHEJIAN	
A CADILLAC BLADE FINISH & SCAGEL KNIFE EXHIBITDR. JAMES LUCIE	
BUCKSKINNER'S KNIFE & TOMAHAWK FORGING BUTCH SHEELY	
BLADE FORGING & HEAT TREATINGRED ST CYR	
LOCKBACK FOLDERS & BLADE GRINDING ALEX DANIELS	
HAWK, AX & ADZ FORGINGSCHUCK PATRICK	
HANDLES & GUARDSJAMES R COOK	
MOSAIC DAMASCUSSTEVE SCHWARZER	
SAMUEL BELL KNIVESMARK ZALESKY	
ENGRAVINGBILLY BATES	
CUTTING COMPETITIONJERRY FISK	
ABS KNIFE JUDGING & MARKETINGB R HUGHES	
FANCY LINER LOCKS & COMPUTERSMELVIN PARDUE	
SILVER WIRE ENLAY & FANCY FILEWORKJOSEPH KEESLAR	
JIGS, FIXTURES & PIQUE WORKKEN DURHAM	
HANDS-ON BLADESMITHINGHARRY BROCK, DALE HUCKABEE & GLYNN HOLMES	
YOUTH HANDS-ON FORGINGLARRY & RICHARD HARLEY & WESLEY BYRD	
BASIC ENGRAVING TOOLS & GOLD WIRE INLAY JESSE HOUSER	
LEARN TO SCRIMSHAWMARY BAILEY	
RENDEZVOUS SHEATHSTOM STERNS	
LEATHER SHEATHSKENNY ROWE	
BADER GRINDERSDAN JOHNSON	
AUCTION COLONEL TIM RYAN	
TAIL GATE & KNIFE SUPPLY SALES	

These artisans will demonstrate their craft and teach hands-on Mini-Seminars.

Bring examples of your work or collection for the KNIFE SHOW & AUCTION. Plan to participate in the CUTTING COMPETITION. Bring a knife for the RAILROAD SPIKE KNIFE CONTEST.



The North Carolina Custom Knifemakers' Guild Video / DVD Library

Check Here	Title	Check Here	Title
	GRS Engraving Methods & Tech- niques Tapes I & II		Kydex Sheathmaking - Blade Cutlery (Allen Blade)
	Intermediate & Advanced Engraving Lynton McKenzie		Hollowing Grinding - Blade Cutlery (Allen Blade)
	Focused Listening Skills		Flat Grinding - Blade Cutlery (Allen Blade)
	The Woodsmaster Vol. 9—Primitive Knifemaking		
	Take Your Time and Enjoy Your Forg- ing Dr. James Batson		
	An Introduction To Knifemaking		
	Forging Damascus - Jim Hrisoulas		
	Carbon Steel Heat-treating - Blade Cutlery (Allen Blade)		
	Knifemaking (actual title unknown) - Ron Newton		
	Knifemaking (actual title unknown) - Gene Osborne		

Videos and DVD's must be returned within 3 weeks of checkout time (Date noted below).

There will be a penalty of \$40.00 per item incurred for loss or damages sustained during the checkout period. The person or persons check out the videos or DVD's is responsible for said loss or damages.

Name	Check out Date
Address	Due Date
	Return Videos / DVD's to:
	Barry Jones
	221 North Avenue
Phone	Danville, VA
	(434) 793-5822
	Jknives@gamewood.net
E-mail	
Signature	

Calendar of Events

April 2005

NCCKG Meeting: April 23 - 24, Montgomery Community College, Troy, NC

May 2005

Trackrock Hammer-In: May 21, 2005, Trackrock Camp Grounds, 4887 Trackrock Campgrounds Rd., Blairsville, GA **Custom Folding Knives:** May 12-15, 2005, Montgomery Community College, Troy, NC Instructor: Ed Van Hoy **Basic Knifemaking:** May 19-22, 2005, Montgomery Community College, Troy, NC, Instructor: Tommy McNabb

June 2005

The Blade Show: June 03-05, 2005, Cobb Galleria, Atlanta, GA

July 2005

*****Date & Location TBA NCCKG Meeting:**

Metal Engraving: July 23-August 01, 2005, Montgomery Community College, Troy, NC, Instructor: Howard Peacock August 2005

Precious Metal Inlaying: August 1-5, 2005, Montgomery Community College, Troy, NC, Instructor: Jesse Houser September 2005

Forged Blades: Sept 15-18, 2005, Montgomery Community College, Troy, NC Instructor: Mark Sentz, Mastersmith Grinding Knife Blades: Sept 29-Oct 02, 2005, Montgomery Community College, Troy, NC, Instructor: Geno Denning October 2005

*****Date & Location TBA NCCKG Meeting: Forged Tomahawks:** October 28-30, 2005, Montgomery Community College, Troy, NC Instructor: Wayne Whitley

**Tentative Dates and Details.

Complete details on classes at the guild website at <u>www.ncknifeguild.org</u> (Directions and meeting details will be sent in the Newsletter preceding each meeting) Register for elegan at Mantgomer: Community College legated in Tray, NC, Lodging is guildebe class b

(Register for classes at Montgomery Community College; located in Troy, NC. Lodging is available close by.)

MEMBERSHIP APPLICATION FORM

Date:		
Name:		
Address:		
City:	State:	Zip
Phone:		
Email:		
Website:		
Choose One:	New Member:	Renewal:
Choose One Membership Category:	Collector:	Student

Membership / Renewal fees are: \$50.00 per year Collector membership fees are \$25.00 per year Student memberships are \$10.00 per year

Please send this form with a check or money order to: NC Custom Knifemakers' Guild Attn: Tony Kelly 348 Bell Road Kinston, NC 28504 http://www.ncknifeguild.org