

# Billets & Blades

Official Newsletter of the North Carolina Custom Knifemakers Guild

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Welcome to the summer edition. I hope that the heat has not been running you out of the shop. It sure is difficult to do that straight grind with the sweat running in your eyes. I've come to really love those cool dry mornings when you can get all the hot work done early and save the afternoon for detail work at the bench.

Tim and Kathy plus several other people helped to put on a great knife weekend. There were lots of great demos and we even had time to just sit around and talk about knives and related things. Just sitting and swapping notes produced some great ideas and tips. We should probably schedule one of these roundtables at every meeting.

I also hope that everyone got a chance to see Jack Hyer's article in "Carolina Adventure." Yeah, they misspelled his name, but that's the price for fame. I sent in an article, but haven't seen it yet. Who knows? If anyone does see it, let me know. I want to see what they do with my name.

## New Bern

Just in case some people have not heard, New Bern has canceled the Wildlife show. They could not have the building ready for this year and decided not to irritate a lot of people with sharp pointy objects. Tommy McNabb is looking into this for more info. Will keep you posted.

## Fall Meeting

Mark off October 1st and 2nd for a meeting down at Harlan Simmons' place in Grantsboro. All the

particulars are not in yet, but Tim and Harlan say that they should have a scrimshaw demo and a casting demo. When all the facts are in you will get a mailing with the details. Harlan is putting the finishing touches on a shop extension for his new 100# finger masher. Should be a good time. As a further enticement to plan early, there is also going to be a Pig-Pickin' at this soiree. Fall by the coast is usually beautiful.

## New Members

Since the last newsletter Jim Batson, Charles Ray Knowles and Ellis Sawyer have joined the Guild. If I have missed anyone, I apologize and please let me know.

## Calendar

### July 23

NC ABANA Chapter meeting at Penland School.

Demos by J. Kierbow and R. Smith

\* NC ABANA holds local group meetings around the state 4 times a month so you don't have to drive all the way across the state. If you want info get in touch with the NC ABANA newsletter editor Kim Harris at 1-704-843-5586 or give me a ring (Ed.)

### July 25- August 10

Advanced Bladesmithing with Scott Lankton at

Penland School of Crafts, Penland, NC

1-704-765-2359

\* Call for the course catalog. Many classes offered that would be of use to knifemakers.

### July 29-31

25th International Silver Anniversary Knifemakers' Guild Show at Marriott's Orlando World Center

1-615-442-5767

August 5-7

George Herron, Advance Knifemaking,  
Montgomery Community College, Troy, NC  
(910) 576-6222

August 12-16

Damascus Steel with Daryl Meier at Peters Valley.  
Layton, NJ  
(201) 948-5200

September 4-10

Bladesmithing with Chuck Patrick at Campbell  
Folk School  
1-800-FOLK SCH

September 9-11

19th Annual Tarheel Cutlery Club Show  
Winston-Salem, NC  
1-910-725-1016

September 16-18

16th Annual American Edge Collectors Assoc.  
show, Chicago Il. 1-708-969-5394  
Jim McNally

September 24,25

CANCELLED... WILDLIFE SHOW AT NEW  
BERN

Spring Meeting

The first order of business was to hold a Guild meeting. A letter was sent by Jack Hyer stating that he was stepping down as Vice-President due to his job obligations. Tim Scholl will fill in till elections. Alan Patterson will fill the vacated Directors spot.

Jim Batson sent word that he sold the knife with a blade he made at a Demo at Robin Eanes' shop back in '92. He sent the Guild \$300.00 from this sale which covered the cost of having him out to the demo. Jim also asked if he could join the Guild. After some discussion it was OK'D. Welcome Aboard Jim.

There was some explanation about New Bern and their problems that lead to cancellation of the show. One alternative that is being looked into is hooking up with the boat show in March. No further info as of yet.

Tim Scholl also will be taking up the job of program director. If you have any demos that you would want to see or give, let him know. He is helping organize the get together at Harlan's.

Some of the other topics discussed were scheduling the meetings for a full three days. This may or may not have some advantages and will need to be discussed further. Inviting the public to our demos was also mentioned. It was suggested in order to try and educate the consumer and get some publicity for the group. In the same vein, going to talk to students at career day or putting together a video for public access TV are avenues to explore in getting the word out for Custom Knives.

Someone brought up the ideas of mini meetings around the state for 1 day. Held for the members that were in the local area. This sure is a long state to drive across.

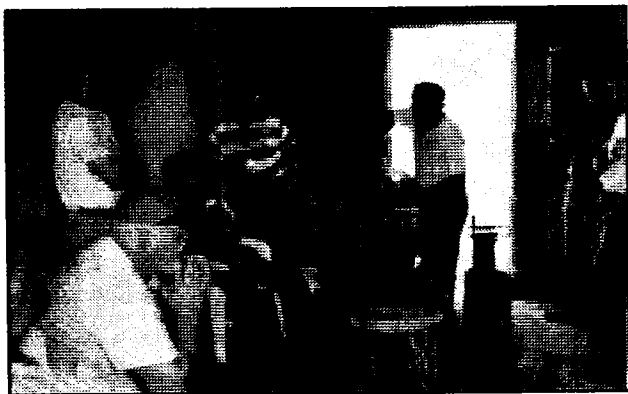
Tim talked some more about raffling off a knife. He said the money from the sales of donated knives would go back to the Guild to be used for advertising or something similar. The idea was presented that it would be just 2 or 3 knives that were a collaborative effort between several members. Members could take pictures of the knives to shows and sell tickets. Call Tim if you want to get involved.

Two other topics were trying to get Guild members seated together at shows and getting a copy of our membership list to the editor of "Knives 95".

Alan Patterson: Forging Guards

After the dreary business meeting was over the forge was stoked and Alan proceeded to go through the steps of forging a large knuckle guard out of mild steel. First thing is to make a drawing of the finished item. This will allow you to get you design

balanced and work out the sequence of fabrication. Cut your metal and add a little extra to account for finish trimming and grinding. You want to break down the corners when you start to avoid cold shuts and keep you work square and flat while working. Don't let the work start winding or twisting on you. Decorative indentations were put in using a spring fuller and the raised metal from fullering was worked back into the surface of the guard. The square hole for the tang can either be hot-punched



or milled in cold.

If you are working with Damascus you need to remember several things. First, is not to work it too cold. Just below a welding heat would be good. If you work down below the red/ cherry range you risk shearing the layers. [ED. I don't have the exact temp in my notes so the above is an educated guess.] When welding up your Damascus, flux it and bring it up to welding heat all in one step.

Before putting the final curves in the guard get it all square and flat. You might want to also clean it up a bit to get some of the major imperfections out that could be tough to get to after the curves are in. Alan Also suggested that you know what the various measurements are on the anvil so you can take quick readings for layout. Some one also suggested grinding several different radiuses on the anvil edge to give you a choice without extra tooling. The above tips would be handy when fullering the guard to stretch it over the horn.

#### Bill Maynard: Blade Serrating

Bill then proceeded to show us how to serrate a blade. While the blade is still soft use something like a chain saw file. Lay out the spacing so that by filing less than 50% of the files diameter you can get the points to meet up nicely. For a flat or combat grind use a 25 degree angle to the side of the blade. On a hollow grind decrease that to 20 degrees to adjust for the thinness of the blade. This is done by eye and you can walk the file around to compensate for some slight error in layout. Buff the filed area with a loose floppy loaded with 240 grit. After heat treating use a worn 220 belt to put a sharp flat on each tooth give you an extra bit of a cutting edge. Bill suggested starting with a small section of the blade, maybe 5-8 teeth and match the tooth size to the blade. When it is time to resharpen use a 220 white compound loaded on a hard buff. The teeth will wear in matching grooves so that all surfaces are sharpened. J. D. Sams mentioned laying the knife at the proper angle with a piece of micarta as the back stop. The micarta acts a depth gauge when filing. [ED. I'm not quite sure how this is set up. If JD will drop me a sketch I will run it next issue.]

#### Tommy McNabb: Mosaic Damascus

Tommy had brought along a piece of mosaic that he had made during Daryl Meier's class at J.C. Campbell Folk School. For the most part the process involves basic Damascus welding skills and the ability to break the design down into components. The pattern is built up in sections and then welded together to reach the final pattern. To achieve maximum material strength a good weld is needed and the billet needs to be stretched to seven times it's starting length. If the pattern calls for twisting it must be done at a welding heat after fluxing. Make sure to knock the corners down before twisting. The billet might start to shear at the sharp corners. A twisted blade pattern should not be forged to shape. What happens is that forging straightens out the twist at the tip of the blade and ruins the layer orientation of the pattern.

## Alex Moss: Pewter Casting

Alex showed us how he decorates his blades by casting pewter directly onto semi-finished knives. He first starts out with a really dry handle material such as antler that he has had drying in a hot box [box with a light bulb] for 6 months to a year. The tangs are held in with JB Weld or some type of liquid steel. Pins can also be used. For wide tang knives drill or notch so them so that the pewter can flow thru and mechanically lock the blade in place. Holes should be at least 1/8th inch diameter. The decorations are cut into the wood or horn and filed to get smooth edges. Next shape the casting area up so that you can get a good seal for pouring. The molten pewter will find the smallest leak. Alex used worn out cloth backed sandpaper for the dam material and duct tape to hold it in place. You need to make the dam higher than the finished surface to allow for shrinkage and clean-up



Alex grinding Pewter Bolster

Pewter melts at 460F and should be melted to about 500F for pouring. Using a forge for melting would be overkill. If the metal is too hot it will melt the glue, burn the handle and possibly draw the blade temper. Most of the epoxies start to melt at 400F. So clamp the blade into a vise and preheat the area of the casting with a gentle flame to dry out the area. When the metal is ready to pour, gently skim the surface and pour at a steady rate till the collar is full. Watch for leaks. Tap the blade to dislodge air bubbles and as soon as the pewter has solidified, quench the knife.

A few other tips. Handle material can be dried in the microwave. [ED. Did not get any further info on this.] If you get a hole in the casting, drill it out and pour in more pewter to fill the void. Cut off the top of the pour with a wood blade in a coping saw. The blade is soft enough that it won't mark the blade. A good source of pewter can be found at yard sales. Look for old drinking glasses or plates. If possible, it is a good practice to undercut the design by about 1/16th" to lock in the design.

**SAFETY NOTE:** Make sure you are not using a lead-based material. Leave solder to the plumber. Wear non-flammable clothes, long sleeves and pants. No sneakers. Face shields along with safety glasses are recommended. Keep all water away from casting area and make sure everything is dry. Water makes molten metal spray in all directions. Use caution when doing this operation. If you don't know ...ASK!!!

## Tim Scholl: Pinning Bolsters

Tim gave us a quick demo on dovetail bolsters. He first put a dovetail bevel on a piece of material and then cut them to length. Then he clamped them together and finished the fronts which would be hard to get to after they were pinned to the knife. He drilled them and placed on the knife to get holes set on blade. Next he cut the pins, pointed the pins and slowly upset them to fill the holes. Tim was very careful not to hit the dovetails while peening the rivets. One interesting tip was to use a platen that was tipped up to dovetail stag. Tipping the platen up allows you to have the flat side of the stag against the platen instead of trying to work on the curved surface.

## Tim Scholl: Handle Wrapping

Tim also showed us how to do a traditional Japanese wrapped handle. It is impossible to describe the demo and if anyone wants, I will send then a copy of a handout on how it is done. The article came from the Spring 1990 issue of Knives Illustrated. Send me a SASE and I'll get one to you

[ED.]. Using a shoelace some superglue and a couple of homemade tools, Tim wrapped a handle in about 20 minutes while explaining the process. The handle has a nice feel and the diamond pattern is very handsome. The main point is to keep the lacing tight as you work.

Introduction to Knifemaking:

By  
Christopher Merriman



Tommy explaining a grinder adjustment

I decided to take the class because I have always had an interest in the art of Knifemaking. The class was kept small, approximately nine people, so we had the opportunity to work one-on one with the instructor. This class concentrated on the stock removal method although other methods were discussed. I felt the class was very informative and well planned out by Tommy. I enjoyed learning about the art that most of you have chosen as your career and I am looking forward to exploring new techniques. For more information on this and other, more advanced Knifemaking classes, please feel free to contact the Continuing Education Department at Montgomery Community College. [PO Box 787, Troy, NC, 27371 or call (910) 576 6222.]



Hydraulic Forging:

Jim Batson and several other Bladesmiths have started using souped up hydraulic logsplitters for forging Damascus billets and blades. It offers some advantages over the mechanical hammers and air hammers in the areas of noise, foundations, lack of need for heavy wiring and other things not yet apparent. Interested people should get in touch with Jim. He plans to have a complete construction/info packet available soon. Cost for this will be \$25-\$30. Looks very interesting and seems to cost less than other power hammers. There is also the point that parts will be easier to come by. See membership list for contact information

## Selling Knives

The knifemakers that I have talked with in the last few months tell of real sparse sales at both large and small shows. If anyone has any good ideas on improving sales, let's hear them and get them printed and out to the Guild. The quality of knives has never been better, but prices are low and even so there seem to be few customers. What's Happening?

## Final Cut

It was reported that the Department of Defense budget for its 102 military bands has been larger in each of the past five years than the budget for the National Endowment for the Arts.

An exhibition of woodworking tools from the 18th Century will run through June 1995 at Colonial Williamsburg. The exhibit contains 1,500 woodworking tools and related items from collections at Williamsburg and other museums and private collections. The Early American Industries Association held a symposium at the opening of this show. Further information can be gotten by calling (804) 220-7724.

"Not only strike while the Iron is hot, but make it hot by striking." Cromwell

In 1988 NIOSH [National Institute for Occupational Safety and Health] did a survey at a glass blowing factory in Weston, West Virginia. The purpose was to determine proper safety glasses for the furnace workers to help with both UV and IR protection. Results were welder glasses in shade 3 or 4. Darker glasses did add more protection, but increased hazard level due to impaired sight. [Couldn't see where they were going.] Furnace temperatures were in the 2200F range and the duration of viewing was short. Blacksmiths were not mentioned, but similarities are there. If much forge welding is being done a permanent dark shade might be installed for extra eye protection. Watch

out for signs of heat-stress related problems. Didymium lenses probably are not dark enough and should be supplemented with a dark lenses. Didymium is made to filter out the yellow soda flare that happens during the working of glass in a gas-oxygen flame. The report number is 88-299.

Movie recommendation of the month. Kurosawa's Samurai Trilogy. Beautifully photographed and great swordfight scenes. It is in subtitles which can be tough to read.

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This Newsletter is mailed to members of the North Carolina Custom Knifemakers Guild four to six times a year. Dues are \$50.00 per year and are due by October 1st every year. Make check payable to NCCCKG.

The purpose and policy of this newsletter is to serve as a medium of information exchange for members of the NCCCKG, related organizations may copy the information used herein as long as credit is given.

This organization has been formed to help meet the needs of a growing body of custom knifemakers in the Southeastern region. In addition, The Guild seeks to provide a training forum and educational resource for new and veteran makers alike.

Knifemaking and it's related crafts are inherently dangerous occupations. Therefore the North Carolina Custom Knifemakers Guild, its officers and the Editorial committee specifically disclaim any responsibility for damages or injuries that occur as a result of the use, in any way, of any information contained in this newsletter.

## MEMBERSHIP APPLICATION FORM

**NORTH  
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GUILD**

Please send to: NC Custom Knifemakers Guild  
\$50 Attention: Gary Gaddy • P.O. Box 2574  
Washington, NC 27889

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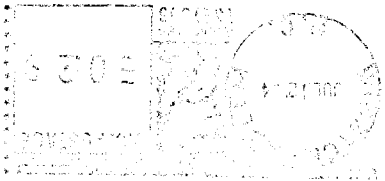
In which category would you be interested in applying: Knifemaker \_\_\_\_\_

(How long have you been making knives?) \_\_\_\_\_

Collector \_\_\_\_\_ Just Interested \_\_\_\_\_

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**CUSTOM**  
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**KNIFEMAKERS**  
G U I L D

## MEMBERSHIP APPLICATION FORM

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Please send to: NC Custom Knifemakers Guild  
\$50 Attention: Gary Gaddy • P.O. Box 2574  
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ADDRESS \_\_\_\_\_

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