



# St. Louis Woodworker's Guild

# NEWSLETTER

May 2008

Our 24th Year

Visit us at:

//www.stlwoodworkersguild.org

Number 280

## Guild Officers Sponsors

### President

Scott Wunder 314-731-7550

### Vice President

Kurt Herrmann 636-395-4517

### Secretary

Matt Laposi 636-294-0844

### Treasurer

Jim Hoeller 314-721-2245

### Directors

Bob Colegate 636-239-8910

Don Snyder 314-780-5443

John Wetter 314-965-1097

Mark Koritz 314-579-0401

### Newsletter

John Wetter 314-965-1097

### Librarian

Mark Gezella 314-647-4546

### Web Master

David Brown 314-821-3130

### Membership Committee

#### Co-Chairmen:

Bill Hobson 314-863-6437

Rich Weitzman 314-872-7866

### Toy Committee

#### Chairmen:

John Patton 314-843-0616

Steve Briner 636-922-1947

### Corporate Sponsors . . .

#### Woodcraft

Maryland Hgts - 314-993-0413

#### The Wood & Shop

New Address: 2650 Metro Blvd  
Maryland Heights - 314-731-2761

#### St. Charles Hardwoods

St. Peters - 636-926-2000

Fenton - 636-717-1770

#### Rockler Woodworking & Hdwr

Bridgeton - 314-209-1116

#### Hydraflow Equipment Co.

St. Louis - 314-644-6677

#### Hibdon Hardwood Inc.

St. Louis - 314-621-7711

### Meeting Room, Mailing Address

Courtesy of Woodcraft



## Next Meeting

### Sculpturing Art Objects

Lawrence Oliver, a Springfield, Missouri Artist, will present a program on sculpturing solid wood to art objects. Lawrence's sculpturing is accomplished by scoping the wood away from a solid block of wood using a pen router. Lawrence sells his sculptures through galleries. He will bring examples and discuss the entire process. Don't miss this program if you have ever dreamed of producing and selling an artistic product.

## Last Meeting

### Making Metal Hand Planes

Guild Member Mike Sitek did an outstanding job of presenting his research into the process of building a hand plane. He then went through many more steps to determine what type of plane to build, locating a source of raw materials, and establishing a method to build a metal plane without machinery. His investigation quickly brought out the question, why would anyone consider or even attempt to make a metal hand plane from scratch? You could buy a kit for \$425. Of-course at that price you might as well buy a completed plane. Also, the most economical solution, you could look around the antique outlets, you will find there are many good quality planes available at a fraction of the cost of a new plane. With careful selection and a little cleaning, adjusting and sharpening, you could have a plane that is far superior to any one you could build. In Mike's case it was purely an opportunity to step out of his comfort zone and learn something new.

Once deciding to make a metal plane, he had to get into the details of the type of plane and the process it takes to build one. After reviewing bench planes, specialty planes built from scratch or in kit form, he selected a shoulder plane for its basic simplicity. The materials for the plane are mostly brass and non ferrous steel.

Locating a source for the materials produced two logical solutions, local metal suppliers or mail order. Shapiro Supply on Natural Bridge Road was the most logical and had every thing he needed for little cost. You could obtain materials on the web at McMaster-Carr Company [www.memaster.com](http://www.memaster.com).

Building the plane required a number of construction approach decisions. The basic body of the plane consists of a base and two sides. The sides

## Next Meeting

Thursday 7:00 PM

May 15, 2008

Wood Craft Supply Store  
2077 Congressional Dr.  
Maryland, Heights, MO

could be joined to the base by bending from one piece, casting, welding, soldering (using 60/40 metal solder) or by dovetailing the sides to the base. Without the equipment to accomplish most of these Mike selected the double dovetail method.

After the trip to Shapiro's, Mike was loaded down with enough metal to make several planes and surprisingly spend very little money. He was now ready to start the first major step, that being layout. He painted the metal with metal dye for the three major body parts of the plane (two sides and the bottom). Then using a sharp scribe he marked off the parts in detail including the dovetails. The dovetails were laid out at 14degrees with about 1/16 of an inch extra material extending beyond the dovetail ends. At this point you must consider where the mouth of plane will be and locate the dovetails accordingly.

The next major effort was to cut out the pieces with a hack saw and remove all waste. Cut-out was followed by filing all parts to fit as desired. Filing is by far the biggest effort in building a plane and to accomplish that, you will need a variety of files and a good secure vice. The goal is to file all parts to produce as tight of fit as possible. The dovetails are filed with a secondary bevel to enable locking the sides and bed together.

The next step is to make a peening block out of hardwood with stout fasteners to secure the plane to the block with no movement. The goal here is to peen on a hard surface using 8 and 16oz hammers and one or more square bottom punches to "flow" the dovetail tongue material into the gaps to lock the pieces together.

Finally you remove all excess material by filing and sanding off the waste. To save your hands, you will need files with handles on both ends as you will be doing a lot of filing. Using chalk on the files will help prevent the teeth from loading up. You have to be patient and keep at it until the job is done.

Next the plane is filled with an infill material, which is used to support the blade. The infill can be most any hardwood such as beech, rosewood, ebony or a man made material. When the infill is in place, it is adjusted to the desired blade slope.

Assuming all peening is done, the next step is to adjust the mouth of the plane. This adjustment is accomplished by cutting the opening with a hacksaw and files. The goal here is to have the opening as tight as possible. Now you are ready to set the blade by finalizing the infill slope and opening. At this point you are ready to fit the wedge in the plane and make the adjuster for the blade. The final finishing the plane includes any final filing or sanding. The infill is finished with oil and the remainder of the plane is waxed. Now you are ready for a test run.

As for lessons learned, as with any new venture, there were many. Mike's major lessons were:

- Select a simple design for your first plane
- Spend more time fitting plane sides and bed together

- Pay a lot of attention to the mouth of the plane and slope angle
- Have all the parts before starting
- Purchase a blade, you could make your own out of tool steel and temper it, but that is pretty well beyond the capabilities of most home shops.

Building a metal plane was a good learning tool; it took Mike well out of his comfort zone. Unfortunately it is not a very good plane to use, particularly when compared to commercial planes. Maybe he will have better luck next time.

To build this plane from scratch took Mike about 10 hours spread over several days. Most of the effort was filing. The tools Mike used to completely build the plane were all hand tools such as hacksaw, files, vice, anvil, hammers, drills, taps, die, punches, anvil and measuring tools. There was no welding and no machine tools used other than a drill press. A couple of good metal sources are: Web: McMaster-Carr in Elmhurst, Illinois (800) 833-0300, [www.mcmaster.com](http://www.mcmaster.com). Local: Shapiro Supply 5617 Natural Bridge Rd. St. Louis, MO (314) 382-7000.

Some of the plane building references that Mike found on the internet include: Hand plane Central [www.handplane.com](http://www.handplane.com), Jim Yehle's website - [www.xmission.com/~jry/](http://www.xmission.com/~jry/), Legacy Planeworks [www/legacyplanes.com](http://www/legacyplanes.com), Sauer & Steiner Planeworks - [www.sauerandsteiner.com/news/](http://www.sauerandsteiner.com/news/), Shopnotes

issue #88 - [www.augusthome.com](http://www.augusthome.com). Great job Mike! A well organized, well documented, and very well presented program. There is probably a line at Sharpiro's right now of guys getting their pieces of steel to get started.

## Last Event

### Weekend of Woodworking Instruction

The Guild sponsored this two day weekend seminar on the process of designing and building unique furniture to fit a customer's needs. Local woodworker and furniture builder Ron Diefenbacher was selected and he did a fine job of presiding over the seminar. About 25 attended on the weekend of May 3-4.

Ron spent some time discussing what it is like being in the independent furniture building business. Ron's niche is in the high end custom furniture that furniture stores cannot compete with. Rich customers have specific needs, want unusual high end furniture and are willing to pay for it. The problem is how can you make contact with these customers. Tapping your relatives, ads, yellow pages and the like usually doesn't work. You get mostly requests for repairs. Selling through galleries is also not profitable as they want 50% of the sale. Teaching woodworking solved the problem for Ron. It brought a steady stream of contacts and commissions. Once you have made contact, then what are the elements that surround the process of interpreting a customer's needs and requirements. Ron went on to discuss some of the methods for making it happen, such as, designing a unique solution, building mockups and models to convince the customer that you can produce the perfect solution for his or her needs. The class performed an exercise on how some unique designs are derived.

Ron moved on to some of the more advanced elements of woodworking such as those that deal with joints that are not straight and flat as in a Sam Maloof style chair. He also discussed the use of inlays to draw elements together, as well as the effect of repeating form, elements, lines, texture, surfaces, focal points, visual interest items, etc. Ron showed several pieces of unusual furniture with slides and some of the actual pieces he has built that illustrate these design elements. Constructing this type of unique furniture requires unique methods. The plain old mortise and tendon joint often is not enough. Ron spent some time discussing use of dowels in odd locations and other joinery solutions, as well as: solutions using bent



## **President's Article May, 2008**

Spring has sprung and it seems like everything is starting to kick into gear. Now it is time for me to do the same. This is the first month for me to be president of the guild and I finally feel ready. We have been talking about it for a while - now it is time to get to work.

Let me start off by thanking Mark and Don for their prior service. They did a great job and will not be an easy act to follow. Mark was an especially good front-person for the group. He was always able to promote the guild without making it seem like work. I only hope to do half as well - after I get over my fear of public speaking. Don always kept things in order and had the future perfectly planned (notice how none of us ever had to worry about that). I think Kurt Hermann, our new vice-president, has his work cut out, but he is ready to go as well. Thanks again Mark and Don.

We have a few plans for the future - mostly on the communication side. They include ways to get more information about the guild, the events and the members. I know there are still a lot of faces that I recognize, while their name escapes me. I am sure that happens with everyone and that will be my first area of focus. I think it will only make the group stronger if we know more about each other.

We also plan to have more small events like factory tours and shop tours. I am also sure that our printed materials will receive some sort of assistance from our new secretary Matt Laposa who works full-time running a pre-press department for a local printer (this is the kind of stuff that is good to know about other members).

As far as overall changes to the guild, I think they will be small. As I said, Mark and Don and the rest of the board did a great job and I am in no hurry to ruin it (I'll take my time).

May every board you cut be a little too long,

Scott Wunder

## Library Corner

### Metal Hand Planes

Various Publications

Mike's presentation on hand planes was quite inspirational last month, and really got me fired up. So, I hit the websites he recommended and blew the dust off some books I have at home to conjure up some additional information towards making your very own metal hand plane.

When pondering metal tools for woodworking, the author I first think of is Jim Kingshott, an Englander who published several books and videos on making tools, sharpening, and joinery for furniture. I bought Mr. Kingshott's *Making and Modifying Woodworking Tools* years ago, and to this day find it fascinating. I think anyone even remotely interested in making a tool for themselves would do well to peruse this book. Published in 1992 by the Guild of Master Craftsmen, it contains 20+ chapters on how to make tools for working wood. Open it to the beginning, and you find his instruction starts with a sanity check, asking why even bother to make or modify a tool? Once he convinces you that you're not nuts, he offers recommendations on materials and finishes, describes tools used to make tools, and explores how to build many quality items such as;

- A Chariot Plane (from scratch)
- Bronze Thumb Plane (from a proprietary casting)
- British Dovetailed Steel Plane
- Norris Pattern Smoother, Norris Blade Adjuster
- Stanley #52 Board & Plane (a cast shooting board and fitted plane)

Mr. Kingshott also describes how to fashion cabinetmakers screwdrivers, build marking gauges, modify bench vises, and produce marking knives. I tell ya, he's a pretty serious metalworker for a woodworker! Illustrations are all black and white, except for a few center pages in lustrous full color. There are many infill planes pictured in the color showcase, and all crafted by the Author. In addition to the book, I came across a website that's devoted to the talents of Mr. Kingshott (his "shrine" if-you-will), at [www.nonesuchtools.com/kingshott.html](http://www.nonesuchtools.com/kingshott.html). I'm sorry to report he died in February of 2002 at 70 years of age, but his legacy lives on in beautiful furniture and tooling passed down to his grandchildren.

Another book I'm fond of is *Planecraft: A Woodworker's Handbook* by John Sainsbury. Mine is a paperback copy from 1984, the third printing of a fully revised version based on the original by C.W. Hampton from 1959. This book contains over seventeen chapters that consider a history of tools, maintenance and use of tools, and describes quite a variety that includes plow planes, multi-planes, circular planes, spokeshaves and scrapers. While no focus is given to anything specific, there is definitely a bias towards metal planes. My attention rests on Chapter 16, as it describes "contemporary" planemakers whose works are based on 19th century vintage planes of Spiers and Norris;

- Jamestown Tool Company (US) produced planes with machined soles soldered to bronze castings which were machined and infilled with mahogany (the company was later sold to The Mechanick's Workbench, who may also be out of business now?)
- Henley Plane Company (UK) produced what the author believes to be the best planes ever, with steel soles and naval brass sides surrounding rosewood infill
- R.H. Wood (UK) copied Norris panel planes commercially, with sides dovetailed to a steel sole, which was subjected to a final cold-forging
- Geoff Mather (UK) produced hand-made infill planes of solid drawn brass, considered "...beautiful working sculptures...". These include rather unique varieties of carving-, arching-, and curved scraper-planes.

While this does not qualify as a how-to book, it does provide much in the way of descriptions, pictures, and some dimensional information to make it a valuable resource for metal woodworking tools.

A third reference I have is a group of magazines from *Home Shop Machinist*. I heard about this publication years ago, and more recently began to see it made available at bookstores such as Borders and Barnes & Noble. A three-part series on building a metal-bodied hand plane can be found in the last half of Volume 18 (#4, #5, #6) from 1999. It provides a highly detailed approach to all required metal work, albeit intensely mechanized; i.e., it pretty much assumes you have access to a metal lathe, milling machine, shaper, etc. Not having a background in metalwork or machining, it's mostly lost on me. Reading this series can be overwhelming, and prior to Mike's presentation last month I felt building a metal plane was pretty much hopeless! However, the machinist-cum-writer proves it can be done, and ends up with a stunning reproduction of a Norris infill plane. Incidentally, his bibliography references *The Handplane Book* by Garrett Hack (Taunton Press) which we have in our library.

To witness those with the skill and energy necessary to craft a fine tool is exemplary of our ingenious ability to create. It boggles the mind to cogitate what can be accomplished when a person wills it. I find this level of creativity remarkable - how about you? Think you would like to see material of this sort in our library? If so, drop me a line or mention it to me at a future meeting and I'll see what I can do. Thanks!

**Mark Gezella - Guild Librarian**

laminations, steam bending and other techniques. Ron didn't quite make it all the way through his agenda, but it was a great seminar. We will have to do this again soon.

Thanks Ron for a job well done; Many thanks to Matt and his wife for the great lunches; and thanks to Don, Mark, Kurt, Wood Craft and the others that helped make this seminar happen.

### Toys

#### Toys for Hospitalized Kids

Please find following the toy activity report for the period ending April 30, 2008 as compiled by Toys Co-Chairmen John Patton and Steve Briner.

We delivered 124 items to the hospitals during this past month. Deliveries will be regular from now on if we continue to make items. Our toy supply is now depleted. We need everything. Please start up the machines again.

We collected 47 new items in April thanks to O Coughland and J McKenna. Our grand total is distributed is 25749 toys delivered since 1994.

Please look at the Guild's WEB Calendar (all dates should be advanced at least one month to be delivered when appropriate). See web site:

//www.stlwoodworkersguild.org to select a pattern or you may call and we will send you the patterns by mail.

If you need patterns, wheels, axles (dowels) or need suggestions, please call (see below). We have wheels available in four sizes: 1-1/4 OD, 1 OD for the Whimsy Car, 7/8 for the PT Mini car and 1-1/2 OD for the large racer. You may call John at 314-843-0616 or Steve at 636-922-1947 for any of the above or to arrange pickup.

### Other News

DeWalt has announced that they are recalling Job Site Table Saws DeWalt Model DW744X and DW744XC. The saws have a laceration hazard. You should stop using the saw at once and contact the DeWalt recall hotline at (888) 742-9178 .



### Guild Change of Command

From Left to Right -

- Mark Koritz - Outgoing 2007 President**
- Don Snyder - Outgoing 2007 Vice President**
- Kurt Herrmann - Incoming 2008 Vice President**
- Jim Hoeller - Treasurer 2007 -2008**
- Matt Laposa - Incoming 2008 Secretary**
- Scott Wunder - Incoming 2008 President**



**Furniture Construction Class - May 3 - 4**  
**Instructor: Ron Diefenbacher**

## St. Louis Woodworker's Guild Membership Application

Name \_\_\_\_\_ Date \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_ Phone \_\_\_\_\_

Occupation \_\_\_\_\_

Types of woodworking  
you enjoy \_\_\_\_\_

Amateur, Intermediate  
or Expert \_\_\_\_\_ E-mail Address \_\_\_\_\_

Where did you obtain this application  
and learn about the Guild? \_\_\_\_\_

Mail this application with your check for \$25.00 for one year's dues to: St. Louis Woodworker's Guild, 2077 Congressional Drive  
St. Louis, MO 63146. You will start receiving this Newsletter, which will keep you informed of the time and place of meetings and  
other events.



St. Louis Woodworker's Guild  
2077 Congressional Drive  
St. Louis, MO 63146

