In an attempt to spawn eloquence at the awards ceremony for the 14th Annual Northern Woods Exhibition, our celebrated Master of Ceremonies, Tim Johnson, imposed a new requirement. He informed the 'Woodie' winners that they should not, as they accept their awards, mumble something into the microphone like 'I built it in my shop, I brought it to the show, and now I gotta go home.' Rather, they would be required to relate something of interest about the design and construction of their piece. Nice try, Tim! Unfortunately; however, at least for me, speaking into a microphone in front of a crowd spews little more than unintelligible babble and misspeak.

Enter Tom Caspar with a coercive air about him. "Say, Ross, did you know that it is a tradition for the 'Best in Show' winner to write an article for the newsletter?" Realizing it was hopeless to argue tradition with Tom, I dutifully agreed. Well, I procrastinated long enough to allow Peter Ribotto, Rich Gotz, and Glenn Gordon to use up all the good retrospective angles in the December newsletter. Finally, when Rick Berland called to remind me that they were still expecting an article from me, I thought, "Well, I built it in my shop..."

To begin with, the overall dimensions for the sideboard were dictated by the bay window beneath which it would stand. I drew up some sketches and arrived at what I thought was a well-proportioned form. I refined this sketch to a simple drawing with enough dimensions to allow me to build a very crude, but full-size, mockup made of scrap wood and sheetrock screws. Comfortable with how it looked, I went back to the drawing board to add details.

The relatively long, narrow carcass posed the first design problem. If the top and bottom rails on the front were made as wide as they ought to be for their span, the doors would become ridiculously small or the bottom of the cabinet would have to be lowered. No good. So I decided to go with a thick top, a beefy back frame, and then build a truss-like affair in the center between the doors to help carry the weight of its future contents.

Now the problem became one of dealing with a top that was thick and heavy, and a wide, featureless center mullion that immediately drew one's eyes to it.

The repeating tapered, curved rabbet detail that I used to 'thin out' the top and add interest to the legs and mullion was a synthesis of interesting techniques I had seen used by two other woodworkers. In one case, the builder had flared his table top to direct the eye to an ebony inlay in the edge. (I have since seen this table again in Fine Woodworking's Design Book Seven. It was built by Stephen Hendry of Middlesex, England.) The repeating rabbet detail is often used by Stephen Harris, a woodworker from Ontario, Canada. By combining elements of these two techniques, I came up with the repeating, tapered, curved rabbet. With this technique, I now had a detail that would help unify the design. At the show I noticed that people liked to feel those repeating rabbits. This is good. The medallion in the center mullion came from an idea I once had to inlay some thompsonite from Lake Superior into a piece. 'Since I didn't have any thompsonite, I made a 'gem' from a piece of hop hornbeam that had gem-like figure. Here I must give some credit to Gary Rogowski and his 'Cloud-Rise Bed' in Home Furniture #8 for showing me a wooden 'gem.'

The curves in the piece were there partly to tie in with curves in a table near which it would stand but mostly to make the sideboard more challenging to build. As far as how I arrived at them, it was just a matter of springing battens between points A & B until I had a curve I liked. These curves also affected the shape of the legs. The legs were originally square, and after several mockups it finally dawned on me that the whole stupid piece was curved and to this curved piece I was trying to add square legs! A simple rounding of the outside corners of the legs did wonders.

Next, I messed around with hot-melt glue and scraps to decide how to size and align the door frames. Thanks to James Krenov for cluing me in to the fact that there is more than one way to frame a door. His Technique of letting the rails stand proud added interest to the doors.

Aesthetics addressed, I did full-scale plan-view drawings of the door hinge area because the stepped rabbet caused a substantial offset at the top of the door, and I was afraid that even offset knife hinges would not allow the door to swing clear of the leg. These full-scale plan-views also proved helpful in figuring out how all of the double mortise and tenon joints would come together in such a small leg.

After that, it was just a matter of slapping it together.

So that's it. In my humble opinion, a design is an expression of one's 'aesthetic memory.' A person likes some things and dislikes others and will use that store of knowledge, consciously or unconsciously, when creating a design. I was able to identify several specific influences that affected the design of the sideboard and I am sure there are others of which I am unaware.

Now a note of caution to future 'Woodie' winners. You may want to consider leaving some glue blobs or tear-out on your piece to avoid humiliation at the microphone or, worse, the dubious honor of writing an article for the newsletter. (If you're really worried, though, I have an idea involving a velvet Elvis painting and bar top finish.) On second thought, go for it! Being honored by the judges and your peers at the awards ceremony is very exciting. It makes one proud to say 'I built it in my shop.'

Ross Peterson is the 1996 Northern Woods show winner of the Best in Show and Peer Award.
The Guild

President
Rick Gotz
(612) 884-3634

Vice President
Willis Bowman

Treasurer
Douglas Perlick

Members at Large
Rick Berland, David Boulay.
R. W. Kurtenbach, Allan Furber,
Richard Lagerstrom, Pat Juettner,
Max Golden Moon, Peter Ribotto

Newsletter Editor
Dennis West (612-377-5985)

Next issue deadline is March 20th.

Website Update

I would like to thank Jeff Zinsli and Ken Hortsch for volunteering their time toward the eventual creation of the Minnesota Woodworker's Guild website. Jeff, Ken, Willis Bowman and I met on January 9th to plan the initial effort. It is anticipated that our home page would contain the guild's logo, the guild's purpose, and perhaps some animation such as a plane moving across the screen. From the home page, the viewer will be able to click on one of five buttons which will contain the following:

* Selected articles from the current and past newsletters,
* Northern Woods posters along with the award winners from October 1996 and perhaps previous years,
* A member's gallery containing photographs taken at the Northern Woods Exhibition
* Technical data such as drill bit charts, wood movement charts, etc
* Links to other woodworking related websites

This effort will take several months to complete and we will make the announcement in a future newsletter. Stay tuned!

Note: If anyone does not want their photographs published on the website, please contact me before February 28th.

Until our website is ready, check out www.ronan.net/woodwork/. This site contains linkages to almost every other site related to woodworking.

Rick Gotz

Electronic Mail

If you would like to receive electronic mail concerning woodworking related events or exchange information with some of your fellow guild members, then send me an email at rgotz@empros.com and I will get you on the list.

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Baker; Ken kenneth.baker@guidant.com
Beard; Travis brdt07@nspco.com
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Rick Gotz

Welcome to New Members

During the past several months, many new woodworking enthusiasts have joined our guild and some have introduced themselves at our monthly meetings. I would like to extend a very warm welcome to all the following members who have joined the guild since October 1996: Olester Benson Jr., Ken Bergee, Arne Boberg, Gerald Bratt, John Cummings, Bob Dubiel, Michael Ekhaus, John English, Steve W. Erickson, Yana Frank, Bruce Gill, Marc Halmaier, Bryan Hart, Rick Kathan, Jon Kuenstling, Peter Kulczyk, David Munktittrick, Larry Okrend, Al Olme, David Plantier, James Randall, Mark Sabbann, Patrick Scanlan, Stan Schmidt, Dwight Speh, Stephen Speltz, Linda Tauber, David Teater, Terry Trooien, Chuck Watson, Chris Westby

Rick Gotz

Quick Tip

There have been several occasions when I have needed only a few lineal feet of wood to finish a project because I ran out of wood at the end of a project, the project was small, or the wood was expensive. Instead of buying an entire board, Youngblood lumber will allow you to purchase small quantities of wood as long as you follow these two rules: The wood you cut from a board must be in one foot increments and that you leave a board long as you follow these two rules: The wood you cut from a board has saw benches and a very dull handsaw to make your cut. There is also a skilsaw but they frown on you using it (liability!). I sometimes take the saw to the wood stacks and cut to make carrying easier.

I used this "short board" method when I bought many different species of wood to make the Northern Woods awards.

Willis Bowman
A Special Letter Box for a Young Lady
by John Nesset

Three years ago, the Northern Woods committee sent photographs from the exhibition of that fall to several prominent woodworking periodicals. Thanks to their effort, HOME FURNITURE, among others, contacted me requesting more slides, and from them, ear-marked two pieces for articles. The first, a three page presentation of my "Writing Box in Apple", generated a number of calls and letters that included over half a dozen requests for similar boxes.

An originally conceived, thoroughly realized box has never taken me less than one hundred hours, even with assistance where possible from power tools. My rate is the standard $30 an hour. Each of those inquiring just loved the boxes, of course, and had to have one — at a price they would expect to pay for a production piece. Let's face it, we woodworkers have a good deal of educating the public to do, about the things we offer, as opposed to production work.

One man was willing "to go" $2000. I thanked him for his interest but explained that I had to be able to make a living.

A letter also came from a New York City man who thought one of any writing boxes would make a perfect graduation gift for his daughter, who kept a journal and loved to write. In a subsequent phone conversation, he was surprised to hear that a box like he wanted would run two hundred hours. But he said he regarded my boxes as works of art and told me to go ahead. A week later he returned my contract signed and accompanied by the initial one third payment of $2000.

Over the next nine months we carried on a delightful correspondence as work on the box proceeded: me in hand written letters and he in succinct computer generated letters or in comments written on reproductions of my letters. Our contract called for a second payment of $2000 upon completion. It also stipulated that all payments were non-refundable unless I failed to deliver. His checks arrived promptly and in full. He asked that the secret compartment to be lockable in some integral way but insisted that I otherwise have a free hand in what form the piece took. He wanted an original. From my wood samples he selected spalted silver maple. Trying to resolve the highly figured wood into a coherent form was a challenge I had not expected. The box took not two hundred hours but four hundred. Matching up pieces for the cover panel alone took almost forty hours. But if I may say so, what a panel.

I managed to finish on time and even held a little showing for a few friends and woodworkers I could contact at the last minute.

In New York, my client, who wanted to buy me dinner, had me meet him at a prominent French restaurant. As it turns out, he had been as charmed by our correspondence as had I — though he thought I looked younger and different from what he had expected (not a fit, I guess, for the quaint stereotype). I let him give the signal when he wanted to see the box. Half way into our meal, he could not wait any longer. And half way through my presentation, he stopped me to call over several friends. He was the only one who managed to open the cover. And no one could figure out how to get into the secret compartment. Some didn't even realize it was there. My client was delighted.

I didn't reveal how much time the box actually took but I'll be doing so in a follow up letter so that in the future he doesn't have false expectations. Since our contract was explicit I couldn't really ask him to cover the extra hours. However, this box marks the last time I'll contract for a fixed amount. There are many uncertainties in doing the kind of work we do and I feel that a client should be willing to stand behind the project. My experience has been, clients that do, value your work. Those that don't, only value scoring a bargain. It gets down really to a matter of responsible stewardship — of our time and talents and of woodworking. How will woodworking flourish if we give away our time?

Three new opportunities now lie at hand. Two are for boxes, though the details are not yet worked out and the third has committed to yet unspecified piece - probably a bench or a table and maybe both. The money is there, it's a matter of expecting it!

John Nesset has been active in the Minnesota Woodworker's Guild for several years as a writer, exhibitor in the Northern Woods show, and seminar presenter.
November's Bentwood Boxes Meeting with Otto Leonardson

The November 19, 1996 meeting of the Minnesota Woodworkers Guild was held at the Woodworkers Store, 3025 Lyndale Avenue South, Minneapolis MN. On the program was a demonstration of the making of bentwood boxes by Otto Leonardson.

What is a Bentwood Box? Three pieces of wood must be shaped and fitted to make a bentwood box; lid, bottom and body. The body is made of a wood that bends well, such as ash, finished 3/32 to 1/8 inch thick. The lid and bottom can be made from any wood, finished to a thickness of 1/4 to 1/2 inch for small boxes.

Some history: In Europe, boxes made of bent wood have been used for at least 3000 years. The earliest example of bentwood boxes in Norway dates from about 840. Bentwood boxes of the style Otto makes originated in Norway in the 18th century. Norwegian immigrants brought the design and art of making them to this country in the 19th century. Bentwood boxes can be made in any reasonable size and were originally used for all types of household storage and carrying containers. Today they are usually used as display pieces. The Norwegian American Museum in Decorah, Iowa has collections of Norwegian artifacts and anyone interested in examples of historical items should visit the museum.

Making the body: The body shape is typically oval, although round boxes are also made. A bending form must be built first in order to form the body piece. The bending form is usually made of plywood or MDF and is the same height or higher than the final box. The outside of the bending form has the shape on the inside of the bentwood body will adopt. The center of the form is drilled or cut out so one pad of a clamp (a C-clamp or short bar clamp works well) can be inserted into the form to hold the body piece while it dries.

When the form and a caul shaped to the curve of the form have been made, the thin body piece is soaked in hot water for 30 to 90 minutes and quickly bent around the form. The caul is clamped to the overlapped ends of the body piece while it dries. Drying time depends on many factors so anything from overnight to four or five days might be needed. Before removing the clamp, mark the overlap on an edge so the piece will be glued to the same size it was on the form.

When the body piece is dry, a decorative pattern is cut into the overlapped body piece and the overlap is glued. When the glue dries, decorative bamboo lacing is woven into the joint. Drill a row of holes with a 3/32 drill bit spaced 3/16 inch apart and put in the lacing. The lacing originally held the box together but modern glues make the lacing purely decorative.

Making the lid and bottom: The lid and bottom are rabbeted to slip inside the body piece. The rabbet must be cut to accommodate the overlap in the body where the ends are glued together. The top of the lid is convex and Otto often makes a carving in the lid. The bottom is glued onto the body and when dry, the box is sanded and finished. These boxes do not usually experience very heavy use so any oil, wax, shellac or other finish that looks good will work.

For more information: “Norwegian Bentwood Boxes” by Johann Hopstad in Fine Woodworking No. 69 (March/April 1988), pages 84-87. In this article boxes of a different design are shown, but there are good pictures of building a box plus some nice overlap patterns. A videotape of the demonstration is available and can be borrowed from the Guild. Contact a board member at the next meeting.

The Guild thanks Otto Leonardson for preparing and presenting an interesting demonstration. We also thank the Woodworkers Store for providing space for the meeting and equipment for the demonstration.

Other tips from the meeting

Rick Berland and his wife designed a custom shop apron. It has shoulder straps rather than a neck strap so if you carry a ton of stuff in your apron pockets, your neck does not get sore. The apron is based on Simplicity pattern 9333. Contact Rick at a meeting for information.


Richard Lagerstrom
Send questions or comments to the author at the Guild address or
E-mail: richardl@acm.org

Otto Leonardson holding Bentwood Box
The December 10, 1996 meeting of the Minnesota Woodworkers Guild was held at Performax Products, Inc., 12257 Nicollet Avenue South, Burnsville MN. This program covered sanding techniques and equipment. Wayne Wenzlaff and Warren Weber from Performax presented.

Facts about abrasives: Warren opened with a large amount of information about abrasives. The statements below pertain to abrasive sheets and belts.

Comparing abrasive characteristics: Paper will deliver a smoother finish than cloth of the same grade but cloth is stronger and lasts longer. A closed coat label means abrasive covers nearly 100 percent of the surface while open coat means from 50 to 75 percent of the surface is covered. Closed coat abrasive develops a better finish quality than open coat but will load up and require cleaning or replacement more often.

Abrasives are made from a variety of materials, aluminum oxide being the current standard. Other materials are superior to aluminum oxide in various ways, but generally cost more. Silicon carbide has a uniform scratch pattern and is very hard. This material is excellent for use on metals but has a shorter life when used on wood. Ceramic and zirconium (diamond-like) are also used to make abrasives since these materials have a longer lasting and sharper grit. Selection of the correct abrasive can be complex but premium abrasives generally have a more uniform grit pattern and higher quality backing than bargain brands. Premium abrasives last longer than lower quality materials and are cost effective when the work does not load the material before it is worn out.

Cleaning loaded abrasives is possible and there are a number of approaches. Cloth-backed abrasives can be soaked in paint thinner, mineral spirits, Simple Green or soap and water for an hour or less. Plexiglas or MDF will remove narrow bands of loading from a cloth belt. Cleaning sticks can increase the life of a belt up to seven times. Be sure to remove the residue from the cleaning stick, however, since it can affect the performance of the abrasive. Reversing a bi-directional belt is also helpful since it exposes different sides of the abrasive grains to wear. This cannot be done with directional belts, though.

Grading systems offer a trap for the unwary. The CAMI system originated in this country and is used on most domestically manufactured abrasives. The P-System is European and is used on some imported abrasives. A P-System grade number always has a "P" prefix so watch for it. The grade numbers have a similar range of values but the numbers do not have the same grade meaning.

Sanding. Belt sanders are fastest at stock removal if used at a 60 degree angle to the material. The angle provides a shearing action so the fibers are cut rather than worn away. Stroke, wide belt and wide drum sanders can also be used at an angle to the material with the same effect.

When hand sanding or sanding with a powered pad sander, it is important to select an appropriate backing. It is not necessary to purchase backing pads since sponges, rubber pads, dowels, Scotch-Brite pads, felt, wood blocks and other materials at hand work well. Some sort of backing is necessary, however, or the life of the abrasive will be drastically reduced. A fairly rigid backing is necessary to avoid rounding corners if sharp edges are desired on the sanded object.

Dust control is very important. Clouds of sanding dust are both a nuisance and a health hazard. It is possible to become sensitized to sanding dust of certain wood species which may result in annoying or dangerous side effects when the dust is breathed. Consider using a two-strap or cartridge filter mask when hand sanding or working where effective dust control is difficult. The single-strap masks are not considered adequate.

Tips from the experts:

- Hardwood will clear softwood resins from the paper or belt.
- Burnishing can occur with worn or glazed paper. Burnished wood will not take stain uniformly.
- If more than a few passes are needed to remove enough stock, switch to a coarser grade. Use grades up to 80 for wood removal; grades above 80 are used to remove scratches. Using too fine a grade wastes time and abrasives and increases the possibility of burnishing the surface.
- Do not skip more than one grade when sanding. Start with 80 from the planer.
- Grades 24 to 36 shear rather than grind. Use these grades for removing paint or finish.

Performax Drum Sanders: We were given a demonstration of the Performax drum sander and a packet of product information as well as all the useful information on abrasives and sanding. We are not promoting the product here, but the machine is efficient and quiet, compared to the small, portable universal-motor planers that many of us use, and is similar in size, but wider of course. Performax drum sanders are built in 25 or 37 inch width, which certainly exceeds that of a 10 or 12 inch portable planer. For some workers this is a valuable feature. If you are interested, see your local dealer or contact Performax at 800-334-4910 or 612-895-9922.

For more information: A videotape of the presentation is available and can be borrowed from the Guild. Contact a board member at the next meeting.

The Guild thanks Wayne Wenzlaff and Warren Weber for preparing and presenting an interesting talk and demonstration. We also thank Performax for providing space for the meeting, equipment for the demonstration and holiday snacks.
**Small-Scale Underwater Logging of Virgin Timber**

by Tim McCabe

Hello fellow woodworkers! As a self-employed professional diver, I spend a lot of time doing underwater work at hydroelectric plants and NSP power plants in Minnesota and Wisconsin. It was only natural, then, that I would be intrigued by a book titled *Underwater Logging*, which I came upon about five years ago. In it were some interesting tales about salvaging operations of logs that had been submerged for many years. One story told of some divers who had salvaged a 72-foot Norway Pine out of the Penobscot River. It had been branded with the King’s Broad Arrow and selected for use by the Royal Navy. Although this tree was cut before the Revolutionary War, it was still in excellent condition. Another story was about some 300-year-old spruce pilings that had been removed from the Royal Palace in Amsterdam, Holland. Mechanical and physical tests done to the spruce indicated that it was still in excellent condition.

The book started me thinking about all the virgin timber that had been cut here in Minnesota. However, I didn’t act on those thoughts until one day when I was fishing on the St. Croix and noticed something floating in the water. I grabbed a rope and lassoed what turned out to be a deadhead, a log that had broken loose of the mud and that was now partially visible on the surface of the water. I hauled the old log home and called Adleman’s Sawmill in Farmington to cut it. When we made the first cut, I knew it was some beautiful wood (as the old loggers only tried to cut first class logs). The stump on the log had been axed into the side of the log. I later learned that the stamp was issued in 1858.

Well, that was the start of my underwater logging. My neighbors must have thought I was nuts, what with my coming and going with old moss-backed logs on my trailer one day and sawn lumber the next. I never knew a man could become so intimate with wood! First coaxing the logs out of the mud, then out of the water, and then through the Woodmizer. From there onto a trailer for a trip to the kiln, then out of the kiln, back onto the trailer, and, finally, back home to stack. After two years, I have a pretty good stockpile!

Of course, I’m not the only one doing this type of thing. December’s *Northern Woods* newsletter contained an article about another harvester of underwater logs, Scott Mitchen, who is harvesting old-growth logs from the floor of Lake Superior. My wife and I attended an open house at his mill in Ashland, Wisconsin last October. It was interesting to note that we are salvaging the same types of logs from the same era.

While I don’t have any hardwoods yet, the white pine, red pine, hemlock, spruce, and tamarack that I have is beautiful! The boards range from six to thirteen inches wide and from 13 to 16 feet long, and I am selling them for $2.50 per board foot. If you are interested, call me in Hastings at (612) 437-4928.
Announcements

Trimon Lumber Liquidation

The Trimont Wood Products company, Trimont, MN, is liquidating their entire inventory of lumber and they have contacted our guild to determine if there is any interest. Approximately 50,000 board feet are available. Any guild member interested in purchasing all or a portion of this lumber should offer a price to either: Fred Weir, Trimont Wood Products, Inc. (507) 639-9921 or Michael A. Mulder, Farmers State Bank of Trimont (800) 499-7564. If you want to review a list of the entire inventory (4 pages), please call me. Trimont Minnesota is located approximately 120 miles southwest of Minneapolis.

The following species are available in varying grades and thickness:

Dinner & Toys

The February Guild Dinner is only a couple of weeks away and it is not too late to sign up! Although we are encouraging attendees to create a wooden toy that will be donated to a children’s hospital, don’t feel obligated to do so. Just your presence is welcome! On the other hand, if you can not be at the dinner, but wish to make a try and enter it into the competition, please call me and I will pick it up. Thanks for your support in this very worthwhile project. Also during the February Guild Dinner, we will be announcing the winner of the annual Bruce Kieffer Award. Rick Berland will be the Master of Ceremonies for this year’s banquet. The event is planned for February 22, 1997.

New Yankee Workshop

Norm Abrams will start his 9th season on PBS beginning on January 18th. This year’s projects were inspired while he was on location in Georgia and Nantucket taping, a segment for This Old House. Some of the upcoming projects include: a planter’s desk, turkey table (1/25), Nantucket settee, club table, dough box table (2/15), washstand in tiger maple (2/8), seven drawer mahogany chest, greenhouse, a garden gate for the Victory Garden series (2/22), a steam box for bent wood, and a carousel table.

New Member Profile

by Larry Okrend

Moving to a new city can make one feel a little lost, so I was pleased to learn about the Minnesota Woodworkers Guild. That’s because I’ve pursued woodworking seriously for more than 20 years and have been an active member of the Kansas City Woodworkers’ Guild since it’s inception in 1984. I knew that I’d find some kindred spirits by joining the Minnesota guild.

Last June, I began a new job as Managing Editor of American How-To, a Minnetonka-based DIY home-improvement magazine. (I like to tell people I moved to Minneapolis because I couldn’t deal with the mild Kansas City winters.)

The focus of my career has never strayed too far from woodworking: I have a BFA degree in industrial design (with an emphasis on furniture design) and photography from the Kansas City Art Institute and worked as a photographer for the University of Missouri for several years after graduating. In the early ’80s I started a woodworking business specializing in an odd mix of cabinetry for photographers and photo labs, and in residential furniture. While I made dust, I also edited the KC Woodworkers’ Guild newsletter and took on some free-lance writing and photography assignments from various woodworking publications. That eventually landed me an editorial position with Workbench magazine in 1988 where I was responsible for the woodworking side of the magazine until I left last May. My switch to American How-To was timely because two weeks after I left, Workbench was sold to August Home Publishing and moved to Des Moines. I understand that the winters there are almost as mild as Kansas City’s!

I am looking forward to meeting the members of the Minnesota Woodworker’s Guild and to your many functions.
March 18, 1997 Tuesday 7:30 P M

Location: Woodcraft Supply Store, 9741 Lyndale Avenue South, Minneapolis, MN. The store is south of I 494 on Lyndale Avenue.

FURNITURE DESIGN: Mel Turcanik, guild member and professional woodworker, will discuss furniture design.

April 15, 1997 TUESDAY 7:30 P M

Location: Fourth Street Guild, 2625 SE Fourth Street, Minneapolis. The shop is west of Highway 280 and on block north of University Avenue.

RECLAIMED LUMBER: Rick Sturtz from the Waterlogged Lumber Company will discuss their efforts to reclaim sunken logs in Lake Superior.

Mark Your Calendars
February 22, 1997
Fabulous Dinner
Annual Dinner
The Minnesota Woodworkers Guild
Saturday, February 22, 1997

Current plans call for hors d'oeuvres and cocktails followed by a buffet featuring prime rib, salmon, ham, shrimp and much more. All this in a private setting with lots of space, great views, and a very reasonable price.
A Fabulous February Feast
by Richard Lagerstrom

Saturday, February 22, 1997 - More than 55 staunch Guild members and friends made their way on this snowy evening to Coffman Union on the Minneapolis Campus of the University of Minnesota to participate in the annual Minnesota Woodworkers Guild Dinner. Worries about snow disappeared quickly, however, as we gathered over cocktails and a tempting array of snacks to renew acquaintances with old friends.

Everyone was anticipating an exciting evening as the Guild opened a new year of activities and we remembered the achievements of the past year. Newsletter publicity had promised this event to be a break with past practice and offer a better setting, more food choices and a larger gathering than in prior years. In my opinion, the promise was more than fulfilled. As in prior years, the program committee sponsored a toy making competition and also hinted that the recipient of the Bruce Kieffer award would be announced.

After the food had been eaten in generous portions, Rick Berland announced that there would be two Bruce Kieffer awards given this year. Both recipients had been encouraged to attend without letting them know about the award. From their reactions it was clear that neither had anticipated their selection.

The first Bruce Kieffer award winner was Kurt Kurtenbach. It is Kurt's role to arrange speakers for every regular Guild meeting. Quoting from Rick's announcement, "Kurt has been planning our meetings for so many years that we have forgotten the number. He has done an excellent job. It takes significant effort to find varied topics, accept member input, plan for locations and guide the speakers to appropriate presentations. Fortunately Kurt has continued to excel in all these. Kurt has held the interest of our members over all these years while making sure that all the details were well implemented". All of us in the Guild are indebted to Kurt for an outstanding job of keeping our meetings fresh and interesting.

The second award winner was Tom Caspar. Again quoting from Rick's award announcement, "Thanks to Tom's excellence as a teacher as well as a woodworker, many members have had the opportunity to sharpen their woodworking skills and creative and problem-solving abilities. Tom has also presented many meetings, hosted meetings in his shop, encouraged others to share their skills and ideas and suggested many great meetings. He has spent countless hours working tirelessly on the annual Northern Woods show and is very important to its continuing success as well as being instrumental in helping many to enter the show and profit from the experience".

(Continued on page 2)
The Guild Board Members

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Richard Gotz</td>
<td>544-7278</td>
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<tr>
<td>Vice President</td>
<td>Willis Bowman</td>
<td>689-0140</td>
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<tr>
<td>Treasurer</td>
<td>Doug Perlick</td>
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Members at Large:
- Rick Berland
- David Boulay
- Allan Furber
- Rick Kathan
- Richard Lagerstrom
- Maxwell Golden Moon
- Peter Ribotto

Next issue deadline is May 20th

(Continued from page 1)

All of us in the Guild greatly appreciate the efforts of these award winners and encourage them to continue to help us be better woodworkers. I can say that seeing the quality of the work done by Tom has challenged me to become more skilled in my own work. Tom has helped me to see what makes quality and how to start on the road to achieve it.

Toy Competition: There were six toys entered into competition this year. The toys will be on display at the Northern Woods show in October. After the show, all the toys will be given to a children's benefit prior to the holidays. The toys entered were:
- Zykk made by Willis Bowman
- Dinosaur made by Rich Gotz
- Clock made by Pat Juettner
- Puzzle made by Chuck Pitschka
- Teddy Bear puppet made by Mark Sabbann
- Top made by Don Wattenhofer

Rich Gotz was the winner of the competition with his articulating, green dinosaur. The winning toy was chosen by popular vote of those attending the dinner.

The Guild offers its thanks to Allan and Felicity Furber for their great job arranging the 1997 Minnesota Woodworkers Guild Annual Dinner. We also want to recognize the six entrants in the toy competition. Some children will be very lucky to receive these examples of excellent woodworking. Finally, the winners of the Bruce Kieffer award make it clear that the success of this Guild rests on the shoulders of its members. More than 350 members are fortunate to have access to the skills and creativity of people such as these. Even though only a few individuals are singled out for awards, all Guild members contribute to the success of the Guild. The number of members has been slowly growing over time and, as we grow, we are able to do more for our members.

Encourage your woodworking friends to become members of the Guild and participate in our activities. More members represent more skills and ideas which must benefit us all. Plan now to attend our next annual dinner. Watch the newsletter for announcements of future events.
President’s Notes

It seems that I’ve spent most of March in front of my computer instead of in the workshop, but it has resulted in my first attempt at publishing a newsletter! I hope you like the new format and pictures. With our new “tools”, Microsoft Publisher 97 and Hewlett Packard ScanJet 5p, we will be able to create a better newsletter and we encourage you to submit your articles, including drawings, sketches and pictures. The June issue will include a CAD article by Don Wattenhaffer and a Glue article by Larry Okrend.

Publisher97 also provides a capability to output the newsletter more easily to our website and thereby eliminating a lot of manual effort. The Guild’s website is still under construction and we are still experimenting with picture quality versus speed. Jeff Zinsli, Ken Hortsch, Willis Bowman and Rich Gotz have been very busy making the website a reality. If you would like to check on our committee’s progress, please enter http://www.wavefront.com/~jzinsli/

In the June 1996 issue of Woodwork Magazine, Glenn Gordon wrote about the Northern Woods Exhibition and the Minnesota Woodworker’s Guild. As a result of that article, the guild received a most engaging letter from a Boston gentlemen named George Donelan. I hope you find his article as delightful as I did (please see page 6).

I would like to thank Richard Lagerstrom who continues to describe each month’s activity in great depth and interest. It is articles like his that make the newsletter much more entertaining to read. I encourage all of you to submit your articles or “letters to the editor” and join the fun.

Thanks.

Richard J. Gotz
President, Minnesota Woodworker’s Guild

Letters to the Editor

Dear Editor,
I sent my new membership fee to you last week and promptly received the Northern Wood newsletter. Thank you.

I am a woodworker wannabe currently taking Tom Caspar’s “Un-plugged Workshop” class. I enjoyed the newsletter articles, including Ross Peterson’s article about his show winning sideboard. In my mind’s eye, I tried to picture it as he described it, but this was hard for me. No problem, because in the same day’s mail came the April edition of AMERICAN WOODWORKER, page 99, in all it’s cherry and hop hornbeam glory, the Best in Show sideboard. Beautiful!
Thanks, Tim Vignos

Dear Editor,
Thanks and congratulations to Ross Peterson for his interesting, informative, and entertainingly written article in Issue 48. Not only did we get to enjoy and marvel at his design and implementation in the actual piece; Ross has been good enough to share some of the detail of the design process and has provided additional insight to those of us still trying hard to improve our design techniques.
Thanks, Ross! Rick Berland

Tim & Rick,
Thanks for your letters. Here’s a closer view of the Hop Horn beam faux jewel and tandem fading rabbets.

Richard Gotz - ED
The August 20, 1996 meeting of the Minnesota Woodworkers Guild was held at Studio L, 1101 Stinson Boulevard, Minneapolis MN. Burt Levy demonstrated professional photography methods.

**Camera Equipment:** Professional photography is often done with a 4x5 view camera or a camera using 120 roll film. The view camera exposes a large negative which can be greatly enlarged without suffering from visible image grain. This advantage over smaller formats, such as 120 or 35mm, is perhaps less significant today than in the past because of the great advances in fine-grain film for the 35mm format, but when very large prints will be made a view camera is usually used. Beyond image quality issues, the perspective control offered by a view camera can significantly improve the photograph of a woodworking project by eliminating perspective distortion caused by the point of view of the camera and the optical system.

You can use a 35mm camera to photograph woodworking projects and even professionals sometimes use this format. A view camera is not very convenient to use outside a studio, so when the work cannot come to the photographer, a 35mm camera with the proper lenses and a tripod can provide excellent results.

A 35mm camera for photographing projects should have interchangeable lenses manual exposure control and a cable release or self-timer. You also need a tripod. For general work a 70 to 100mm lens is adequate, but for detail pictures a 200mm lens is useful. Longer lenses reduce perspective distortion but make the subject appear less deep. A longer lens needs more space between the camera and the subject than a shorter lens for a similar size image. Greater working distance can be an advantage if it helps get the camera in the proper position for the desired composition.

**Film:** Transparency (slide) film is often used by professionals for two principle reasons: Many publications require a transparency for publication and a transparency allows the photographer to maintain a degree of control over the image impossible with negative (print) film.

For tungsten lighting, transparency film balanced for tungsten must be used for proper color balance. Color negative film in 35mm format is not available with tungsten balance, so filters on the lens are used to correct for the color temperature of studio lights. Color balancing filters can also be used with transparency film but the loss of film speed may be objectionable. It is possible to correct color balance when a print is made, but using a corrective filter on the camera is a good idea anyway.

Film can be processed correctly just about anywhere because of the automated equipment commonly available. Printing color, however, is not fully automated but relies to a large degree on the experience of the operator of the printing machine. Everyone has experienced poor prints from a “drugstore” film processor, but for proof prints that class of processor is probably adequate and economical. A professional quality printer should be found for final prints since they can usually crop and color correct a print to your order. Professional printers can be found in the Yellow Pages.

**Background:** The background of your subject is of vital importance. Professionals use seamless paper available in a variety of widths, colors and patterns, painted or dyed muslin, or painted canvas. Paper is lowest cost and can do a fine job. Muslin, being a fabric, can be draped to form patterns and textures impossible with paper but muslin is more costly and requires ironing or steaming to remove wrinkles if it has been folded. Canvas can be stretched on a frame (Continued on page 5)
(Continued from page 4)
to create large, flat surfaces if that is needed.

It can be helpful to examine professionally made pictures and see how backgrounds are used to enhance the subject.

Lighting: Lighting creates the mood of the picture and emphasizes or hides aspects of the subject. Successful work can be done with two lights and some reflectors made from white paper or plastic foam. The color of the reflectors can modify the color of the reflected light, so creative coloring is possible along with inadvertent color casts. Burt used an overhead white reflector (which can be thought of as a ceiling) about eight feet from the floor to bounce light down on the subject. This can soften shadows and bring diffuse lighting to the subject.

Modern lighting is either tungsten-halogen or strobe. Tungsten light has a lower color temperature than a strobe and appears reddish or warm while a strobe light is daylight balanced so appears blue or cool. Strobe lights are very bright and allow fast exposures but can be tricky to set up, even with modeling lights. They are also quite expensive. For general woodworking subjects there is little need for very fast exposures, so tungsten light is adequate. Exposure of up to a few seconds is fine although very long exposures (depending on film type) can lead to color and contrast shifts. Long exposures require a sturdy camera support and a cable release or some other way to trigger the camera without moving it or inducing vibrations.

It is not necessary to spend a fortune on lighting since a few lights, some reflectors, creativity, duct tape and some spring clamps make it work. Creativity and experiment are vital, along with a vision of the desired result. Even modest equipment today is the equal of professional gear of a decade or two ago, so the ability of the photographer still makes the difference between a stunning and a mundane photograph.

My own attempts at lighting subjects for photography has been a bit frustrating, even with articles that attempt to explain how to do it. Burt goes to some length on the video to demonstrate how lighting changes the mood and appearance of the subject. I recommend reviewing that portion of the video a few times to get a better feeling for what can be done.

There are books written just on lighting which may be helpful, too.

For more information: A videotape of the presentation is available and can be borrowed from the Guild. Contact a board member at the next meeting.

The article “Photographing Your Work” on pages 92-95 of Fine Woodworking Number 36 (September/October, 1982) is recommended along with “Watching a Professional Shoot a Chair” on pages 96-97 of the same issue. Although lighting technology has changed a bit since 1982, the techniques of the art are timeless.

The article “Photographing Your Work” on pages 64-67 of Fine Woodworking Number 119 (July/August, 1996) deals with color rather than black & white and may be easier to find.

The Guild thanks Burt Levy for presenting an interesting talk and demonstration. We also thank Burt for providing space for the meeting.

12 January, 1997
Richard Lagerstrom
Send questions or comments to the author at the Guild address or E-mail: richardl@acm.org

Welcome to New Members
During the past several months, several new woodworking enthusiasts have joined the guild. Welcome to the following: Steve Dosdall, Ben Golecki, Scott Hauck, Ralph Hunt, Alan Lacer, Karl Lieder, Derrick Phillips, Paul Silseth, Kevin Southwick, William Swanson, Lee Toman, Tim Vignos, Reed Wagner, Charles Wallgren

1996 Northern Woods
The December newsletter listed the 1996 Northern Woods winners but several awards were missing or incomplete. We apologize for these omissions:
⇒ Best Carving - Harvey Langseth & Stephen Speltz for the Secretary
⇒ Judges’ Award - Elizabeth Barnard for the Dining Table
⇒ Top Drawer Award - Peter Ribotto for the End Table
⇒ People’s Choice Award - Ross Peterson for the Sideboard
NOTE: With apologies to the author, the following excerpt is from an interesting and entertaining letter recently received by the MWG. Peter Ribotto

A Letter from George Donelan

Dear Ladies & Gentlemen of the Minnesota Woodworkers Guild:

I took great pleasure in reading June’s issue of Woodwork Magazine and learning of your fine organization and the marvelous projects your members produce. I too, I brazenly boast, am a woodworker, but, alas, more by my craving to be one rather than by any discipline. While ogling the masterpieces displayed in the magazine I kick myself for not having taken up woodworking sooner.

Thumbing through Woodwork’s June issue, the title of one of its articles leaped out at me. As I studied the photos of the Guild’s entries and read the descriptions below them, a shiver went through me when I learned that Paul Lee, the artist who fashioned those incredibly handsome Queen Anne chairs, is a graduate of Boston’s North Bennett Street School! ‘North’ and ‘Minnesota’ go together like Ham and Eggs and Rodgers and Hammerstein, don’t they. I’ve known about the North Bennett Street School since I was a little shaver during the Roaring ‘20s but I had never actually (or perhaps “consciously” is a more accurate word) seen it. I knew its neighborhood intimately and I can’t imagine how I could have missed it. The school is located in a very historic area of Boston, one referred to as The North End. It’s our Little Italy, a unique neighborhood which, if you should miss it during your visit to Boston, you’ve missed out on the treat of treats.

One morning a few years back while ambling around Boston, a frequent indulgence of mine, I left the Copp’s Hill Cemetery after studying the ancient headstones therein. Passing by Old North I turned a corner and found myself staring at a windowful of what I assumed were doll houses in various stages of construction. Being curious if not downright nosy, I asked two youths, who were puffing away in the vile act of smoking, the identity of the building in front of which they were loitering. They regarded me as though I were a creature from Mars, or beyond, simply because I happened to be unaware of the fact that I stood before North Bennett Street School, the oldest Trade School in America! Observing that I was crimson with shame and mortification, the lads took pity on me and asked if I’d care to have a tour of their school, an invitation I leaped at. No longer did I consider the young men churls (or worse), because the pride they harbored for their school was palpable. I was shown a number of tool boxes in a variety of designs, all truly works of art. Many boxes bore inlays of exotic woods that, while incredibly beautiful, initially struck me as a trifle excessive in a piece so utilitarian as a tool box. I was informed, however, that the tool box is the very first project a North Bennett School student is obliged to complete, and they are judged on it just as they are judged on all items they make.

During my tour I was informed that a student’s first week is devoted to learning the art of sharpening tools. That would be a class for which I’d never dare play truant because the ugly truth is, I can’t sharpen my lathe chisels worth a Tinker’s damn. Could I but get them sharp for the turnings on the clocks I build, perhaps I would not have to spend outrageous amounts of time sanding, only to achieve decidedly indifferent results. In any event, after an hour or more that raced by like seconds I bade adieu at last to the young men, giving

(Continued on page 7)

“Two Chairs from a Set of Six” by Paul O. Lee
voice to my profound thanks for the generosity and kindness they showed this old hulk in presenting me with a day I shall always recall with heart-warming pleasure. An interesting piece of trivia, which I later learned, concerns one Mr. Bennett, whose name graces the school as well as the street upon which it is located. It turns out he was one of the builders of nearby Old North Church!

Well, it's been fun sharing stuff with the Minnesota Woodworkers Guild, and, by the way, thanks a million for the loan of Kevin McHale and Steve Nelson. Our Boston Celtics and New England Patriots are certainly beholden to your great State of Minnesota for providing us with these athletes who have played their respective sports of basketball and football every bit as magnificently as their Minnesota neighbors produce treasures in wood...in native northern wood at that! If you have a few more lads who can help our Red Sox, be nice and give them passes to come to Boston.

My warmest regards to you all,

George Donelan

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**Guild Members in Print**

Congratulations to Charles Weise and Ross Peterson for having their pieces selected for publication in the AMERICAN WOODWORKER, April 1997.

Congratulations to Greg Wood for having his Split Mortise Bench article published in Today's Woodworker, Jan/Feb 1997, issue 49.

Congratulations to Doug Perlick for having his Marking Gauge article published in ShopNotes, issue 28, July 1996.

Chris Inman and Ted Wong, both former members of the Minnesota Woodworker's Guild have joined the staff of Workbench magazine located in Des Moines Iowa. Chris is the Editor and Ted is the Project Designer. A Northern Wood Exhibition article is featured in the “Over the Fence” section of the May/June issue. It should be on the newsstands about April 10th.

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**Buy & Sell**

**THICK Macassar Ebony.** Most boards 8” wide, 80” long, nominal 2” thick (actual approx. 1-1/2”). $30/BF. ($25/BF if you buy over 50 BF). Can cut or sand to any size. Also, Watco Danish Oil Finish, pints $3, quarts $4, gallons $12, many flavors! Call Wayne Wenzlaff 895-0642 (days), 496-2330 (nights)

Twenty to two-hundred pound **walnut burls from Oregon.** Call Scott Bodine at 827-1041

**Bedrock Planes for Sale!** No 602, 603, 604, 604 1/2, 605, etc. Call Allan Furber 759-7600

**Freud JSI00 biscuit jointer with biscuits,** $75 Call Allan Furber 759-7600

**Wanted:** Guild members who work for, or have “connections” with a printing business that would be interested in printing the guild newsletter in color at a reasonable price! Call Rich Gotz 544-7278(h) 536-4198(w)

**Guild shirts** with the MWG logo, green or white, $29. Call Allan Furber 759-7600.

Reclaimed **submerged old-growth Red Pine, White Pine, Hemlock, Spruce, and Tamarack.** Tim McCabe in Hastings at (612) 437-4928 Also, call about air dried oak for $1.50/bf.

**AUTOCAD (Release 13) drafting services** are available from Don Wattenhofer at $25/hour. Typical projects may require one or two hours to produce scaled 11x17 drawings. Don encourages the designer to be present. (612) 572-1045
Guild Meetings

May 20, 1997 Tuesday 7:15pm
Location: The Woodworker’s Store, 3025 Lyndale Avenue South, Minneapolis. The store is located on Lyndale Avenue just south of Lake Street.
JUDGING: The judges from the last Northern Woods Exhibition will lead a discussion regarding the quality of woodworking projects. This will be a good meeting for any members considering entering this year’s exhibit. Show & Tell / Buy & Sell starts at 7:15pm. Educational program starts at 7:30pm.

June 17, 1997 Tuesday 7:15pm
Location: Fourth Street Guild, 2625 SE Fourth Street, Minneapolis. The shop is west of Highway 280 and one block north of University Avenue.
DRAWBORE MORTISE AND TENON JOINERY: Tom Caspar, guild member and professional woodworker, will demonstrate mortise and tenon joinery with wooden pins. Show & Tell / Buy & Sell starts at 7:15pm. Educational program starts at 7:30pm.
The New Glue
Get a grip on poly's unique personality!
by Larry Okrend

Until recently most of us mixed two-part epoxy if we needed to create a water-proof wood joint or join different materials such as plastic and metal. Now we can reach for a one-part/one-step glue. Although European Excel- and Gorilla-brand polyurethane glues arrived here about four years ago, the explosion of domestic brands in the past year has made polyurethane the most hotly contested adhesive category around. Claims are ricocheting everywhere, with some makers going after serious woodworkers and others targeting homeowners with general-purpose gluing needs. Here's what I've found.

Polyurethane glue is amazing stuff. It can bond wood, metal, ceramic, glass, many types of plastic and any combination of these materials. It's water-proof (although generally not recommended for submersion), and it accepts stain almost as readily as wood itself. But don't think about abandoning epoxy or yellow or white glues that are polyvinyl acetate (PVA). While polyurethane glue can do many things well, it isn't necessarily the best choice for every application. Polyurethane's working characteristics are unlike any other type of glue. It's a moisture-cured adhesive that relies on the moisture in the air or in the mating materials to cure. In fact, more moisture accelerates the process - just the opposite of PVA.

As the glue cures, it releases carbon dioxide bubbles that cause it to foam and expand. Because the glue expands and spreads, you can apply as little as one-third the amount you would use with a PVA wood glue.

The expansion allows polyurethane to fill gaps like epoxy. However, it is not a structural gap filler like epoxy. You can't use polyurethane to successfully bond loose-fitting mortise-and-tenon joints, rough surfaces such as stone or most structural breaks in plastic. On the other hand, polyurethane can successfully bridge small gaps. So if a joint is a bit loose in one spot the poly glue will span the gap and bond the surfaces.

Working properties
You don't use polyurethane glue like other glues. For instance, you only apply it to one of the mating surfaces because the glue spreads to the other surface.

(Continued on page 3)
The Guild's website has "gone public" and in the first eight days we received about 271 hits. Announcements were posted on several bulletin boards such as rec.woodworking, rec.crafts.carving, rec.crafts.woodturning, and on the Woodworking Mega Links website. Thanks to Jeff Zinsli and the crew that made our site a reality and allows anyone in the world to view "Minnesota woodworking at it's best!"

Guess who's back in Minneapolis? After living a while in Texas, Paul Lee has returned to Minnesota and is working in Steve Dosdall's workshop adjacent to the Fourth Street Guild. If you don't know Paul, you may have seen his work in previous shows, such as the Queen Anne chairs featured in the George Donelan article (issue 49), the Grain-Elevator-inspired jewelry boxes, and the Ladies Writing Desk. Welcome home Paul!

One master woodworker returns and another leaves! Craig Jentz has accepted a two year assignment in Germany starting in July. His family is already learning Germany as I found out while listening to his home telephone answering machine! Craig has been the Northern Woods Exhibition coordinator extraordinaire for several years and he will be missed by the committee. Wir hoffen Du machst viele gute, neue Erfahrungen, Auf Wiedersehen!

As you may have noticed, this is the Guild's 50th issue and perhaps this is a good time to thank Bruce Kieffer and Dennis West for getting us this far. Willis Bowman is assuming the editorship with this issue and, judging by his past furniture design concepts, I am sure that we can expect many new and different ideas from Willis. For example, the background next to this column was created from a real piece of curly maple that Willis found by poking around the dark dusty corners of the 4th Street Guild! The last page of the newsletter used a piece of spalted birdseye maple that was left over from my 1995 Hallway table. This newsletter contains an article about renting a Woodmizer to harvest a St. Paul Oak tree and, in an effort to get ready for the Northern Woods Exhibition, the next issue of Northern Woods will have an article on taking furniture portraits on a budget. Thank you Willis for accepting this very time consuming effort.

The Northern Woods Exhibition "call for entry" postcards were mailed to all members in mid-May. Please take a moment, to review the card and send it back as soon as possible. This information helps the committee determine how many pieces of furniture will be in the show and also provides us with a list of members who are willing to help. This show requires a lot of effort so we need volunteers to help out in the booth, process our mailings, solicit advertising, and transport various show items to and from the show. Just fill out the blue card and send it in. If there is a task that you would be interested in, please indicate that on the card. Thank you for your support.
when it expands.

Polyurethane glues have a much longer open time than PVA glues - typically 20 to 40 minutes versus 5 to 10 minutes - depending on the brand, materials and environmental conditions. This makes polyurethane better suited for complex assembly work such as furniture but not for jobs where you need the glue to grab and cure quickly.

Be prepared to work faster if the materials you are joining already have a high moisture content, such as pressure-treated lumber. Conversely, you may need to clamp something longer if the relative humidity is very low and the pieces are waterproof, such as plastic.

*TIP*: To accelerate curing, you can mist the mating surface with water before you apply the glue.

Polyurethane has no tack (stick) during its open time. Unless you use mechanical fasteners to align work-pieces, they'll slide around until the glue begins to set. When using fasteners that don't provide clamping force such as biscuits and dowels, you'll also need to use clamps because the glue's foaming action can force pieces apart. Light-duty clamping techniques such as using masking tape aren't sufficient.

Most consumer-grade polyurethanes cure in 24 hours, but the time can vary depending on temperature and humidity. Don't try to remove excess glue or squeeze-out by wiping it off; you'll just spread the mess. Instead, let the cure fully, then remove it with a chisel or a scraper and sand the surface smooth. When cured, most brands of polyurethane are easy to tool and won't dull your chisels. It's not too hard and its foam-like structure is easily cut. The one exception is the PL-brand glue, which is rubbery when it cures and takes a bit more force to cut than the other brands.

There's no good solvent for removing uncured glue because polyurethane isn't solvent-based. Mineral spirits or rubbing alcohol will do in a pinch, but you should check the instructions for each brand.

Once it expands and cures, polyurethane becomes stable. It doesn't continue to creep like PVA glue, so you don't have to worry about glue lines becoming more prominent over time. What's more, polyurethane is much better than PVA glue at accepting stain. Once sanded, the glue forms a lattice of bubbles that hold small amounts of stain like the pores in wood. However, you still want to be neat because poly glue will obscure the wood grain.

**Brand characteristics**

The color and viscosity of polyurethane glue varies by brand. While products look very different right out of the bottle, glue lines appear fairly similar once they cure. Probond is the thinnest, with a viscosity that resembles 30W motor oil. Franklin Titebond is the thickest; it flows more like honey.

Each brand also expands at different rates. Gorilla Glue and Loctite Wood Wizard expand the most, followed closely by Excel and Franklin Titebond. Elmer's Probond and ChemRex PL expand the least. But this characteristic probably has little effect on the glue's ability to bond; the glue joint still needs to be tight.

Shelf life is a concern with any glue, but it is particularly important with poly glue because it costs about four times more than PVA glue and doesn't keep as long.

When buying polyurethane glue, remember that a little goes a long way. Buy no more than you expect to use in six months and keep the bottle capped.

**Precautions**

Polyurethane can cause temporary respiratory problems, particularly for people with asthma, so try to open windows (or do whatever it takes) for good air exchange when you use it. You should also wear gloves because it stains skin black and is nearly impossible to remove for several days. Request a material safety data sheet (MSDS) from the manufacturer for more detailed handling instructions.

Because most of these glues are fairly new to our market, I can't say that one is better than another. However, we experienced glue-joint failures on two projects using a bottle of the PL product. One project was the sink-mounted maple cutting board we featured in January/February WORKSHOP. We made
an identical board from the same stock using a different brand and those joints still are tight.

We also glued up cocobolo blanks and turned them on a lathe to make carver’s mallets. They, too, delaminated. Cocobolo is difficult to glue because it’s oily, but we wiped the surfaces with naphtha prior to gluing to remove the surface oils. ChemRex says that it hasn’t tested its glue with oily woods, but other manufacturers claim that their products work well on oily woods.

We don’t know why the glue failed on both projects, but there is a lesson here: Experiment with any new glue before you try it on an important project.

SOURCES

AmBel (Excel), (800) 779-3935; ChemRex (PL), (800) 243-6739 technical information or (800) 433-9517 customer service; Elmer’s (Probond), (800) 848-9400; Franklin International (Titebond), (800) 347-4583 technical information or (800) 669-4583 customer service; Gorilla Glue, (800) 966-3458; Loc-tite (Wood Wizard), (800) 562-8483

This article first appeared in the May/June 1997 issue of American How-To. Larry is a co-managing editor of American How-To magazine and a member of the MN Woodworkers Guild.

Web Sites Review

For those of you that have access to the Internet, you no doubt know that there is a myriad of woodworking sites to visit. The following are reviews of interesting? useful? woodworking (and sometimes non-woodworking) sites for you to visit.

Woodworking Mega Links
http://nespal.cpes.peachnet.edu/scripts/redirect.dlltarget=%2Fwood%2F

This is a large and complete index of woodworking related web sites including for example: finishing, old tools, publications - books and magazines, plans/projects, cabinet/furniture makers. All sites listed there are accessed through links. The

Welcome new members! Tom Bailey, Tim Cason, Amy Diesen, Sylvester Fernandez, Keith Johnson, Rick Judd, Mathew Kindy, Todd Laubach, Joe Mamer, Hans Mouritzen, Roger Rutt, Virgil Spiczka, Todd Stotz, Hugh Swift, and Gene Thompson. As of May 6th there are 385 current

(Continued on page 5)
Computer Aided Design
by Don Watenhofer

Computer Aided Design (CAD) has done for manual drafting what the cordless drill has done for the screwdriver. Except in very small shops, it has virtually eliminated the T-square and drafting table, and it is used extensively in just about every industry throughout the world. Modules can be added to fit the software to a specific industry, or the software itself can be customized for a given purpose. The kitchen cabinet industry, for instance, has available to it several CAD packages that offer pick-and-choose arrangements. All you need to do is input room dimensions, style preferences, and appliance locations.

Everything in CAD is drawn full size (no more using a scale). You can zoom in to the smallest detail or back out to the full drawing, and the drawing format has no size limits. The drawing itself can be printed out to scale using just about any standard printer or it can be plotted on a large format pen or inkjet plotter.

Following are some of the tools within CAD that make the task of drawing even easier. Some of these may sound familiar because they use the standard Windows lexicon.

- **Draw**: line, rectangle, circle, oval, arc, polyline, array, offset, hatch, and text.
- **Edit**: erase, move, copy, fillet, rotate, stretch, scale, trim, extend, text edit, and mirror.
- **Dimension**: linear or angular, this tool allows you to pick the points and the software inserts the dimension.
- **Block**: stores details for later use in a drawing.
- **Insert**: places called-up blocks into a drawing.
- **Attribute**: prompts for specific text when using block and insert.
- **Undo/Redo**: similar to what is used in most Windows-based software.
- **Snap**: picks a specific point such as the end or midpoint of the line, the center of a circle, or the quadrant of a circle.

Although CAD systems will run on most computers, the best performance will only be realized on the faster machines. At the very least you need a 486 with lots of memory. A high resolution printer will provide good quality drawings, and a color printer offers even more possibilities.

Of the CAD programs on the market today, the most widely used is AutoCAD by Autodesk. However, it is prohibitively expensive at about $3,500 per license. Fortunately, there are other, albeit less powerful packages available at more reasonable prices. The drawing below was drawn using AutoCAD.

![AutoCAD drawing of the author's headboard](image)

(Continued from page 4)

Congratulations to Tom Caspar for his article in the June issue of *Woodwork* magazine titled “Chairmaker’s Scraper”. Also featured in the June issue of *Workbench* magazine are Pat Jueettner, handcarved stool; Ross Peterson, cherry side board; and Don Grandbois, aspen stripped canoe. Check out the guild’s website for a comprehensive listing of articles by and about guild members.

**VIDEOS by THE GUILD**

Each month the guild presents a monthly meeting which is video taped. If you missed a meeting and would like to see what you missed or would like to review what was shown, please contact Peter Ribotto at 448-5080 or e-mail Pribotto@aol.com Please read, understand, and follow all the rules for checking out the videos.

(Continued on page 6)
Letters to the Editor

One t, not two please

What a super newsletter. My old firm's Monthly Newsletter, into which they poured untold thousands, can't claim to be one whit better. I'm thrilled that you've honored me with inclusion into such a fine periodical.

Now I must confess to and apologize for an error which, unknown to me upon writing it, I was guilty of in my original letter. My gaffe remains to haunt me for it appears in the edited version of the letter, so the very least I must do is make you aware of it.

When I first read of your fine organization in the June '96 issue of Woodwork Magazine it stated that Paul Lee was a graduate of Boston's famous N. Bennett St. School, spelled with 2 "t's". I wrote you that the school derived its name from a Mr. Bennett who was indeed a factor in the building of the fabled "Old North Church". That the street and thus the school was named after him was an assumption on my part, partly because Woodwork Magazine misspelled N. Bennet St. which as you can see bears but a single "t". But that's no excuse, for as a Bostonian I should have known better, having dallied on and near N. Bennet St. since I was a lad in knee pants. That the renown school bears the name of N. Bennet St. rests only on a geographical happenstance. The street was called N. Bennet in the 1600's, long long before the Old North Church was built or Mr. Bennett with 2 "t's" could swing a hammer! In Colonial days many streets took the name of a household they headed to or passed by. That was the case of N. Bennet Street when two brothers, George and Richard Bennet who had been servants to a wealthy merchant received property from the expired merchant's widow for faithful services rendered. The brothers set up a homestead on the property and ultimately when custom and familiarity took over, voila, N. Bennet St. came into being. The school came later. Mea culpa, mea culpa, mea maxima culpa.

Heartiest congratulations on your newsletter and thanks again for the honor you've done me by including me.

Warm regards,

George D.

George Donelan's article appeared in the April '97 Northern Woods - ed.
COMPLEMENTS wants you

Minneapolis' unique furniture makers' showroom is looking for a new associate. If you seek the opportunity to offer your woodworking services as well as the things you make directly to the public, this situation may be just right for you!

Join Tim Johnson, Tom Caspar, John Stumbras, Greg Wood, and Dave Munkittrick in the battle against poorly made furniture. Call Tim or Tom at 378-2605.
"Why is the sky blue?" I asked that question as a kid. I'm sure you did, too. Everybody gets a chance to, once, before they grow up and feel foolish wondering about such things. I don't remember hearing a good story in answer - there isn't an easy answer. But, I moved on. The sky stayed blue and I didn't worry about it.

I began teaching woodworking a number of years ago without realizing that I would learn more than my students. Based on the use of hand tools, my "Unplugged Woodshop" course has opened a lot of doors, for me and for others. It's been a pleasure to walk through them with a group of fellow students in a friendly atmosphere. But every once in a while I recognize a certain look on someone's face. A certain childish look. An innocent question comes out of the blue, a question whose answer, if I know it, takes me even deeper into the rich and arcane traditions of woodworking.

The craft of furniture making has been largely an oral tradition reluctantly passed down by conservative artisans. There isn't much left now of that shop talk. I had the devil of a time learning from the older generation of woodworkers I apprenticed with. Oral traditions don't go too deep. Any apprentice questions about why things were the way they were was met with the same shrugged shoulders that once explained a blue sky.

A few good books helped me to figure out what tools and machines might do, but I learned more by watching what those old timers actually did, then trying it myself at home, at night. In however haphazard a manner, I thought I was climbing up the ladder of the craft. It wasn't until I began teaching that I started digging my way down to the fundamentals and discovered how little I really knew.

I've got more than a few questions that still need answers. I'm looking for the equivalent of graduate students to help look into them. At the annual Guild dinner this winter I sat next to a University professor who asked me in jest if I had found any graduate assistants yet. (He had been through both of my classes.) "They do all the hard work, you know," he said.

The thought of assistance took me by surprise, but it made sense. There we were, seated in the Campus Club dining room at the University's Coffman Union, surrounded by research labs. I had learned woodworking at the school of hard knocks, myself, not in a collegial atmosphere like this. But that's what I want my class to be.

So, I'm looking for help. Any volunteers? I've got one historical and two technical questions to tackle, just for the heck of it. You don't need to be an expert to make a difference. The historical question has to do with shop sketches made by craftsmen a long time ago. The technical questions are about adhesives: design an experiment measuring glue creep; knock on doors looking for a reversible, gap filling glue.

Blue skies are about possibilities. I think we ought to know something about where we came from as woodworkers in order to become good craftsmen. But I also think there's a lot more inventive work to be done. I'd like to know why the sky is blue. And to go fly in it.

Tom Caspar is a member of The Fourth Street Guild cooperative, teaches woodworking classes at Woodcraft Supply, and writes for various publications.
Award Sponsorship

Have you ever thought it would be grand to be the namesake of a prestigious award? Imagine something like the “Alice B. Putney” Award for the best beveled edges or the “George R. Chizler” award for the best wooden andirons. The Northern Woods Exhibition is now accepting sponsorships for both named and anonymous awards. Typical awards are $100 or $200 gift certificates to local area woodworking-related stores or the same in check or cash. Other awards may be tools, books, subscriptions, etc.

You may sponsor an existing award or develop one. One example of a newly created award, sponsored by Complements, is the “Top Drawer” award which is given to the piece at the show sporting the best designed and constructed drawer. For your donation, the award will be listed in your name or as “anonymous” in the show’s brochure and be presented along with a “Woodie” during the awards ceremony. The sponsor’s award will also be mentioned in the newsletter following the show as well as on our website. A link to a sponsor’s website, if they have one, can be provided at no cost.

If you or your employer would like to sponsor an award please contact Rich Gotz at 544-7278 or 536-4198 or Willis Bowman at 869-0140. Anonymous donor’s names will be held in strict confidence!

Wanna Be Famous?

The guild board of directors is in the last stages of polishing an Internet web site to promote the fine works and activities of the guild. We would love to have you star in our Member’s Gallery and Members-in-Print pages. If you have photographs of pieces that you would like the rest of the world to see please send them in. We request that you send in high quality (studio quality) photographs and attach a description of the piece so that it may be described on the site. We reserve the right to jury the photos.

If you have published an article or have had your work featured in a magazine or book, please tell us about it. To view the Minnesota Woodworkers Guild website point your browser to http://www.wavefront.com/~jzinsli/

Buy & Sell

Record bench vice #62, $35. Call Rich Gotz 544-7278

Wanted: Guild members who work for, or have “connections” with a printing business that would be interested in printing the guild newsletter in color at a reasonable price! Call Rich Gotz 544-7278(h) 536-4198(w) or Willis Bowman at 869-0140

THICK Macassar Ebony. Most boards 8” wide, 80” long, nominal 2” thick (actual approx. 1-1/2”). $30/BF. ($25/BF if you buy over 50 BF). Can cut or sand to any size. Also, Watco Danish Oil Finish, pints $3, quarts $4, gallons $12, many flavors! Call Wayne Wenzlaff 895-0642 (days), 496-2330 (nights)

Twenty to two-hundred pound walnut burls from Oregon. Call Scott Bodine at 827-1041

Bedrock sold 3 for Sale! No 602, 603, 604, sold 5, etc. Call Allan Furber 759-7600

Freud JS100 biscuit jointer with biscuits, $75. Call Allan Furber 759-7600

Guild shirts with the MWG logo, green or white, $29. Call Allan Furber 759-7600

Reclaimed submerged old-growth Red Pine, White Pine, Hemlock, Spruce, and Tamarack. Tim McCabe in Hastings at (612) 437-4928 Also, call about air dried oak for $1.50/bf.

AutoCAD (Release 13) drafting services are available from Don Wattenhofer at $25/hour. Typical projects may require one or two hours to produce scaled 11x17 drawings. Don encourages the designer to be present.

Newsletter of the Minnesota Woodworkers Guild
Harvesting Our Own Tree
by Peter Ribotto

leaning against the pickup, we watched the truck rumble down the narrow alley, diesel fumes hanging in the air, trailer rattling and clanking in tune to the potholes. A few more pieces of wood to sort through, a little more cleaning up, and we would be on our way as well...

Turn the calendar back six months to a phone call we received from a homeowner in St. Paul. A 100-year old white oak tree in her back yard had to be removed, and if we were interested in taking it down, we could have the wood for lumber. With equal parts apprehension and excitement, we told her we would take a look at it. Arriving at her home, Rich Gotz and I walked around the back of the house and saw what was essentially a 12-foot high stump, roughly 30" in diameter, with a small bend about half-way up. The limbs had already been removed. Unsure what it would take to convert this tree into lumber, we told her we would talk with some sawyers before making a decision about whether we would do the job.

There were several potential problems. To begin with, the entire back yard was enclosed by a chain link fence, a fence the homeowner wanted to keep. The only access to the front yard was along the west side of the house, where a 65" opening between the house and a fence would have required us to cut the tree into two pieces. Then, upon reaching the front yard, the ground dropped off to the road at a slope which, if we weren’t careful, could result in a runaway log. Additionally, since the tree had a kink in it, the sawyer said it would be difficult to manage on the saw rig. For that reason, he advised us to cut it into two pieces anyway.

For various weather-related reasons, however, we were unable to get back to the tree until spring. Finally arriving at the house on a Saturday afternoon in April, we felled the tree, cut it into two sections and put them up on blocks. Now it was time to contact the sawyer and arrange to have him mill it up. Alas, the floods of ’97 interfered with our plan. Our man was out in Grand Forks fighting floods and was unable to mill our tree. Fortunately for us, however, we were able to obtain the services of another sawyer, Greg Adlemann, who agreed to meet us at 7:30 the following Saturday morning.

Clear skies and cool air greeted us that Saturday morning as Rich, Willis Bowman, and I arrived at the site. Greg arrived a few moments later, walking around to the back yard where, coffee mug in hand, he surveyed the situation and announced that the only way we could work these logs was through the back alley. Thankfully, the homeowners agreed, and we proceeded to dismantle the fence and move it aside. Greg, meanwhile, hauled out his chainsaw with a 36" bar, and, like he had been born with it in his hands, proceeded to knock off all the high spots on one log so we could roll it. Then, with cant hooks and poles, we muscled the logs closer to the alley while he moved his Woodmizer into position. Bracing the trailer, he unlocked the carriage and set up the ramps used to winch up the logs. With the first log at the base of the ramp, he connected the cable and started winching it up. When it was in position, he went around to the business end of the rig and fired up the 24 hp engine. Lining up the cut, he engaged the blade and moved the carriage towards the log, the sharp teeth of the bandsaw moving effortlessly through the dense wood. To my surprise, there was very little sawdust and even less noise. Accustomed to the noises of the old sawmills, with their big diesel engines and 36" circular blades, I was completely amazed at how clean and quiet this operation was.

Newsletter of the Minnesota Woodworkers Guild
April 1997 Guild Meeting at the Fourth Street Guild
Reclaimed Lumber with Rick Sturtz

By Richard Lagerstrom

Rick Sturtz representing Superior Lumber of Ashland Wisconsin visited the Fourth Street Guild on April 15 to present some very interesting information on the recovery of sunken logs from the floor of Lake Superior in Chequamegon Bay.

One hundred years ago the Bayfield area of Lake Superior was the site of a large number of sawmills. Forests along the shores of the lake were being cut at the maximum possible speed to produce lumber needed to build the cities of the midwest and to fuel industry. The logs were made up into rafts on the lake and towed to sawmills to be processed into marketable lumber products. Up to ten percent of the logs never completed the journey, but instead ended up on the bottom of the lake. They remain on the bottom today very well preserved by the combination of the low oxygen content and near-freezing water temperature at the bottom of the lake.

To appreciate the amount of timber that may lie on the bottom of the lake, Bayfield sawmills alone processed 500,000 linear feet of logs in one year.

A number of theories explaining why some of the logs sunk have been offered. One theory is that logs were forced underwater by the weight of other logs riding over them, became saturated and sank to the bottom. Another theory is that the most dense logs were vulnerable to sinking and did so after floating in the lake for enough time to absorb a small additional amount of water. Why logs sank is not very important to the story, but it seems clear that the denser logs seem to have survived over 100 years on the bottom.

Superior Lumber has reclaimed yellow birch, hard maple and red oak for processing. Hemlock is also present but does not have much market interest. Since pine was the primary species in the northern forest of the nineteenth century, it seems odd that pine logs do not dominate the reclaimed species. One explanation is that pine was harvested first and other species were ignored until pine was no longer available in sufficient quantities to keep the lumberjacks busy. Perhaps pine will be found at the bottom of the sunken log piles after the more recently deposited logs have been harvested.

Logs are recovered one by one by divers who attach an airbag which lifts the log to the surface. To keep the logs wet to avoid damage to the wood, the raised logs are towed to a shallow water holding area where they sink again. When a sufficient number of logs have been moved to a holding area, they are loaded onto a barge and taken to the mill. At the mill the logs are cut with bandsaw-type mills while saturated with water. The boards are dehumidified and dried in standard kilns.

What is this wood like? Reclaimed wood grew under the pine forest canopy where lack of water and light made the trees grow very slowly. Trees harvested today may have five or so growth rings per inch. Reclaimed logs have 30 to 50 growth rings per inch. Another consequence of growing under a uniform canopy is that tree growth was usually symmetrical because of uniform light levels. These environmental conditions lead to very dense and uniform wood. Slow growth also seems to enhance the figure of the wood. Some wonderful examples of birdseye maple and other beautiful figures were on display.

Instrument makers are excited by the opportunity to use this wood in musical instruments since wood
with the density and uniformity of that grown more than 100 years ago is no longer obtainable. Centuries ago, famous instrument makers in Europe are supposed to have selected wood with high density and uniformity and then soaked the selected pieces in water to improve tone quality. If uniform and dense wood is good for tone quality and water somehow improves the tone, the assumption that more is better argues that wood soaked for 100 years should be as good as it can be.

**Can you get any of this wood?** Yes, you can. Rick said that lumber with average characteristics might be priced $15 and up per board foot. However, unusual figure or other highly desirable characteristics can raise the price beyond $50 per board foot.

The story behind this wood attracts the cost-is-no-object buyer who can bid up the price of unusual wood to almost any level. This is good for the profits of Superior Lumber, but makes it expensive for individual woodworkers to participate in the excitement. It seems that the company is sensitive to this issue and is trying to help by developing woodworking residencies and cooperative marketing arrangements to make it possible for people with a proven record of creating pieces with market potential to be able to use this wood for their creations. Rick said that anyone with a proposal should contact the company to find out what sort of opportunity might be available.

**Scott Mitchen,** who discovered the logs and was influential in creating Superior Lumber, believes that harvesting this resource is an opportunity to make a high quality product available without further damaging valuable old-growth forests. The trees represented by sunken logs were harvested during a period when concern over the impact of clear-cutting thousands of square miles of forest was minimal. Perhaps his efforts can help reduce the economic attraction of cutting living trees and instead reclaim a resource otherwise lost.

Lost logs are not reserved to this small bay in Wisconsin. Other areas of the Great Lakes also had logging concentrations and logs have been found in rivers and lakes elsewhere in the US. Scott is also exploring Caribbean islands and South America for further treasures in the form of sunken logs.

The guild thanks Rick Sturtz and Superior Lumber for an interesting and informative presentation. We also want to thank the Fourth Street Guild for providing a place for us to meet.

Send questions or comments to the author at the Guild address or E-mail richardl@acm.org

A video tape of this meeting is available.

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Since the log was bigger than the capacity of his saw, it was necessary to trim and rotate it several times to get it down to a workable size. Then we had him quartersaw as much of the log as possible. As the freshly cut planks came off the mill, we stacked them upside down to maintain their position.

As one might expect, our little exercise in the alley drew a bit of a crowd. People wandered over to see what was going on, leave, then return with friends or spouses. They appeared to be enjoying this operation as much as we were.

By mid-morning, we had the first log reduced to lumber. We eagerly muscled the second one into position so he could start cutting what we figured would be the better log of the two, since it was straighter. Imagine our disappointment then, when, barely into the log, we came upon a veritable colony of carpenter ants! Millions (well, hundreds) of them! Tossing the affected pieces aside, we continued cutting what we could, making great progress until -- uh oh-- a telltale purple stain on a newly cut piece -- a nail. Fortunately, we were able to dig that one out, but unfortunately we hit several others. In all, the ‘good’ log required two blade changes due to nails, and a third of it was lost to ants, so our yield wasn’t what we had hoped.

It was almost noon before the last board was milled. The sawyer checked his watch, mentioned he was running late, packed up his stuff, and was gone. Putting the rake in the back of the truck, my back reminded me that I had subjected it to too much for one day. But for half a day’s work and $60 apiece, we each wound up with about 70-90 board feet of white oak, much of it quartersawn. Not bad. My share is now stacked and stickered in a shaded area of my yard, where it will stay until late fall when I will move the whole stack into an unheated shed. Next spring it will go into the garage for a couple more months and then it will be ready for use. Meanwhile, if you know of any trees that need to come down...

*Peter Ribotto is on the board of directors of the MN Woodworkers Guild and was a former sawyer.*
July 15, 1997 Tuesday 6:15pm

Location: Minnehaha Falls Park, 4825 Minnehaha Ave, Minneapolis. The park is east of Hiawatha Ave on Minnehaha Ave. We will meet at the shelter near the falls.

SUMMER PICNIC: You and your guest are invited to come early for a pot-luck picnic beginning at 6:15 p.m. Please bring the following food for six people based on the first letter of your last name. A-H dessert I-L hot-dish M-Z salad
The guild will provide soft drinks, paper plates, and napkins. Please bring your own silverware.

TOOL SWAP: Bring your used tools, wood, books and ? to buy, sell, or trade.

SPRING POLE LATHE: Roger Abrahamson will demonstrate turning green wood on a spring pole lathe. This will be interesting for both woodworkers and non-woodworkers alike.

August 19, 1997 Tuesday 7:30pm

Location: North Oaks, MN The entrance to North Oaks is at the intersection of Highway 96 and Rice street. From there take Pleasant Lake Road north to East Pleasant Lake Road. Turn right (east) on East Pleasant Lake Road. Follow East Pleasant Lake Road past the North Oaks Golf Club where the road becomes East Oaks Road. Follow East Oaks Road to North Oaks Road (directly across from tennis courts). Left (north) on North Oaks Road to Bent Tree Lane. Right (east) on Bent Tree Lane to Black Lake Court. Right on Black Lake Court to end of cul de sac. The bridge is on the trail at the end of the cul de sac.

TIMBER FRAMED BRIDGE: Brent Brager will discuss his techniques for constructing a timber framed bridge.

NOTE!! Parking space is very limited. To avoid congestion PLEASE CARPOOL!
On the Subject of Risk

by Willis Bowman

Every year I spend April scoring my annual "hippie" fix of building giant puppets and large, wildly decorated floats for the annual May Day parade in Minneapolis. I enjoy catching up with people I have met over the years and drinking in the imagination swirling around me.

At one workshop a dear friend, whom I'll call Carla told me in passing that she was thinking about building a fence in her yard for privacy. Always the adventurer, I thought out loud that someday I would like to build one myself and that if she needed any help I would be happy to lend a hand. She, having never had worked on major project such as a fence, immediately took me up on my offer, though I'm sure she could have managed none-the-less.

We met for dinner one night to figure out a fence design and to scope out how much work lay before us. Carla brought plenty of how-to fence building books for ideas but I think she had already decided what she wanted. She had a real yen for cedar and with two words from her, "cedar slats", she asked me to fill in the details. We spent the rest of the evening measuring her back yard to the inch negotiating my fee. Fortunately for me, Carla was very open to trying some interesting ideas so I went home and scribbled out some unique designs on my drafting board.

Returning days later I plopped a blueprint in front of her expecting to hear, "What the hell is this?" but to my surprise she smiled and chirped, "let's build!!" My trepidation was because my design incorporated copper tubing (lots of $) as detail and a curve (lots of work) from the side of the yard to her house. The fence would be made of straight sections of cedar slats on two sides of the yard. The third side would start off straight but then form a graceful curve to the front of her house. I designed the sections of the curve to have slats that opened up, that is, the slats would be slowly and successively turned away from the plane of each section to form vents for air. That area of the yard was very hot during the summer and this feature would allow a cooling wind to flow through the fence.

The copper tubing would be held up above the fence with 2 x 2's to form lattices on which vines could grow.

Before us in the blueprint lay some two and a half months of hard work and, unbeknownst to me, every

(Continued on page 3)
One of the unexpected delights in being the guild president, is that you become the focal point for a variety of interesting inquires. I'd like to share a few of these encounters with you.

Several months ago, Scott Bodine called to say he was making a timber-buying trip to Oregon and wondered if any guild members would be interested in obtaining spalted big-leaf maple. I indicated that many members might be interested, and so Scott headed west and returned a few weeks later with three logging trucks worth of cants (10" x 10" x 18")! While watching the Woodmizer unveil nature's beauty, Scott couldn't contain himself, and called me at work on his cell phone to express his marvel at how beautiful the wood was. Each new cut revealed more beautiful figure than the previous. Judging by the excitement in Scott's voice, I can't wait to see this wood. Scott can be contacted at 827-1041.

Another interesting call came from Brad Beisel, who was looking for a large capacity bandsaw to resaw some old timbers. "Old" is an understatement. These timbers were used by the Romans to build a bridge over the River Thames in London in 63AD. See the December 1996 issue of Fine Woodworking (page 126) for more details. The color of the oak ranges from a very dark brown to jet-black. To finance the archeologists' efforts, a limited amount of wood is being sold for $34 per board foot. If you are interested in obtaining some of this wood, call Jim Campbell in London at (+44)17178217992.

A few weeks ago, Tom Schrunk, sent an email indicating that he was buying a load of walnut and cherry lumber that has been air drying in Iowa since 1947. When he returned, I visited Tom's shop on Central Avenue to check out the well-aged walnut, but I was instantly drawn to Tom's three-dimensional refractive parquetry artwork on almost every wall. If you would like to buy some 50-year-old walnut AND view some beautiful veneering, give Tom a call at 789-3624. Tom is planning to have one or more pieces in this year's Northern Woods Exhibition.

Speaking of which, the Northern Woods Committee is working hard in preparation for this year's exhibition in October. The committee meets monthly at Pracna at St. Anthony Main and any new volunteers are always welcome. This year, we will very likely have a national woodworking magazine editor as one of our judges, so let's show him our best stuff. If you are a potential "first time" participant and are wondering whether your piece is sufficient for show, please don't hesitate to call me or Willis Bowman and we would be happy to review your piece. Being a show participant is a great experience, so please give some thought to entering your best effort this year.

In May, Tom Farrar was surfing the web and found our MWG website. Tom is a metallurgist who makes replacement plane blades similar to the Hock blades. Tom sent samples of his plane blades and turning scrapers, which were exhibited during June's general meeting. Tom's article on his manufacturing process appears in this newsletter. If you would like to buy any of Tom's products or get a price list, call him at (716) 657-7663.

P.S. About ten percent of the questionnaires have been returned so far. If you have not submitted yours yet, it is not too late to do so. Your opinions are valuable to us.
For those of you that access to the Internet, you no doubt know that there is a myriad of woodworking sites to visit. The following are reviews of interesting? useful? woodworking (and sometimes non-woodworking) sites for you to visit.

**Fibonacci Numbers and the Golden Section**
http://www.mcs.surrey.ac.uk/Personal/R.Knott/Fibonacci/fib.html

If you have taken Tom Caspar's "The Unplugged Workshop" or attended Mel Turcanik's Furniture Design meeting in March, perhaps you heard them talk about the Golden Section or Golden Ratio. The unique number 1.6180339887... consistently pops up in furniture, architectural design, art, and music. The University of Surrey in the United Kingdom, has created a very interesting website entitled Fibonacci Numbers and the Golden Section. It provides everything you ever wanted to know about the golden section, and more! See how the Fibonacci number can help your furniture design.

**Lash-It**
http://www.concentric.net/~Bkieffer

Guild member Bruce Kieffer is owner of Kieffer Outdoor Company which manufactures and sells products for the canoeist and angler. One versatile product sold by his company is called Lash-It. It has two self-adhesive backed plastic cleats which can be stuck to any surface of a canoe. Between the cleats is strung an elastic cord to hold all kinds of lightweight gear for portaging, organizing, and keeping stuff out of the water that accumulates on the bottom of a canoe.

**North Star Lumber Company**
http://www.ainop.com/northstar/

The North Star Lumber Company claims it is in the heart of the Bird's eye maple and curly maple country. The more I explored this web site the more I became amazed by what the mill can offer. It sells the before mentioned maples and Spanish cedar and other woods that can be used in a humidor. They even have a humidor FAQ section. NSLC also offers many exotics such as Grandillio, Chechen, English Lime, Panga Panga, and Chakte Kok. Most species can be purchased as rough sawn, planed, veneer or half log form. It sports a wood chat and message board and has a good link list. Only two items bothered me: you can't see what you're buying and the NSLC is a terrific place to buy your VERY exotic woods.

(Continued from page 1)

I wasn't particularly worried about the complexity of the design and how to carry it out— I had built decks, stairs and walls for friends before. Even a two room, fully livable tree house complete with a 20-foot hand crafted spiral staircase is on my resume. What bothered me was Carla's inexperience with tools. This meant I would be doing most of the work. I was pretty busy with my own business (self-employed engineer) and would have preferred to supervise. It was apparent that the fence would go nowhere unless I machined the wood for her. We decided that I would teach her the ins and outs of woodworking to lessen my time burden, letting her cut and assemble the cedar as much as possible. I also thought that letting her take part in the building process would increase her sense of pride in ownership. She gladly accepted.

Cleaning up the blueprints, I made a cut list and gave it to her, which in turn she gave to one of her friends at Knox Lumber. I decided to make the panels between the fence posts at my house since I wanted to use my shop and make an assembly line of sorts to speed the work. A few days later a huge stack of beautiful tan Inland red cedar was unceremoniously dumped in my back yard.

I introduced Carla to my wood shop with a once over of the machines that we would be using—demonstrating how they would work with sample cuts, and a talk about safety in the shop. I hammered the point home that anything with a blade required the utmost respect. Because she had never used any power tools before, I told her that she should never use any of the tools unless she felt comfortable doing so.

In the next few days we cut all that needed to be and assembled all the straight panels. She became proficient with the radial arm saw and the table saw and appeared to be experiencing the joy of cutting wood—especially soft cedar. The panels were moved to her house on a flat bed truck and the construction started.

Midway through, Carla decided that a gate at the front side entrance to the garden and another near the alley would be needed for this backyard. I designed two gates that I thought would match the fence, one of which is shown in the photo above. Because we
kept moving the posts and panels to miss trees, plants, and rocks I decided to leave the gates to the last for only then would I be confident the pathways and walls into the yard would be fixed.

The curved section of fence was a bit tricky to make but it had such visual appeal that I wanted to reflect that curve in the front gate. I sketched up the gates and again sought her approval. She liked the concept. I told her that a gate with an oval window would be a challenge to build but also quite fun.

Having never had made an oval window before, I groped for ideas for making one until I recounted making ovals (ellipses) in grade school with thumbtacks, string, and a pencil. Heck, it worked then, why not now? I drew out an ellipse the size I wanted on tempered hardboard and bandsawed it out to make a router template. After cleaning it up with a spoke shave we tacked it to bricklayed wooden blocks glued up in the rough shape of the ellipse. My plan was to use a router to remove the portion of the glued up blocks that stuck out beyond our brand new template. I showed Carla a router and how to use it, including its theory of operation and of course, where the business end was.

To show her the proper method of holding the router and its movement, I shaved off the overhang of about half of the template while she watched and then let her cut the rest. She cut cautiously yet comfortably. For an instant I looked away to check the time and like a lightning bolt had hit, she dashed up the stairs out of my shop. She had let go of the router which now was dancing on my workbench like a Tasmanian Devil, daring me to stop it. I was petrified to grab it to prevent it from damaging something or hurting me but it was spinning out of control. Perhaps Hephaestus, the lame and ugly craftsman god,* stabilized it for a second allowing me to grab it and turn it off.

I breathed a sigh of relief believing it hadn’t done anything. Looking up, I found out I was dead wrong. Blood was spattered everywhere and I ran upstairs to find Carla clutching her wrist with one hell of a cut. The router had obviously pulled from her hands and the bit raced across her wrist. I wrapped up in a towel and applied pressure. We jumped in her car and headed to the hospital.

37 stitches later we left the hospital—she with a mangled wrist and me with a depleted ego. What on earth had happened? Didn’t I show her enough about the router? Should I have ever let her use a tool in my shop? Was the router not working right? These and a hundred other questions thumped in my head.

You must be wondering: why on earth I’m writing about this? For shock-value? Not in the least. The lessons from this accident go far beyond woodworking, but are very applicable to our trade. I have always prided myself for being very safe in my shop and I promised myself that NO ONE would ever be hurt in my shop, as long as I was present. After this incident, I felt as if I had failed myself and not kept my word. I suffered from post-traumatic stress for weeks, but what kept eating at me most was that I had let myself down.

It wasn’t until a wise friend of mine told me two simple words that infuriated me at first but then made a lot of sense later: “sh*t happens.” What he was talking about is that we (humans) are constantly taking risks; it’s part of our nature to involve ourselves in activities that may put us in harm’s way, but we seem do it for the sake of a reward. Sometimes the reward is emotional and sometimes it is physical. Every time we (woodworkers) step into our shop and toggle the power switch on any machine we are taking a big risk with large whirling blades. No matter how well we prepare ourselves mentally and with safety gadgets, we still expose ourselves to a risk. Why do we take this risk? We do it for the reward, be it to finally finish off the project you’ve been struggling with, or to cut the straightest, smoothest edge you can obtain, or to let your creativity flow in a terrific medium.

After this is published, I no doubt will get a call or a passing comment from someone to the effect that I am a careless woodworker and never should have allowed any one to use my tools. Perhaps so, but then we never would have received our reward of a beautiful fence had we not tried, would we? This had been a clear demonstration of the Chinese proverb “no risk, no prize.”

I went back into my workshop to clean up and to understand how this happened. I couldn’t find a clue.

* Maybe even Athena, the goddess of handicrafts and protector of civilized life had a hand in this as well.
The Oldest Tree
By Tom Caspar

On a bluff overlooking the Mississippi, about a mile downstream from the falls of St. Anthony, stand the battered remnants of a once proud tree. It is a Northern Bur Oak. Resting at the base of its huge trunk lies a rock with a plaque on it that reads "The Oldest Tree In Minneapolis." But this monarch of the forest may have to give up its crown before long.

Much of the actual crown of the tree is missing. Barely half of what must have been an imposing canopy remains to shelter the rock and an occasional shrine of twigs and grass erected by an anonymous admirer. The oak is hollow as well. Squeezing through an opening at the base, you can actually stand inside the heart of this tree and look up at the gnarled branches spreading overhead. Trapped inside those wooden walls, it's not too hard to imagine being a tree yourself.

I've passed this tree for years without knowing it was there, a short bow shot from the bicycle path leading to the

Remember that I told you that I had designed in some copper tubing as accent pieces? Carla really wanted the copper to have the green patina of the green roofs of the Minneapolis Basilica so I set out to research how that happens. I found a great book on artist finishes for metal in which the author listed many copper oxiding recipes for chemicals of resin uric acid, drying and then waxing. Hmmm, uric acid sounded very familiar but I couldn't recognize from where I knew it. A few phone calls to fellow engineers lead to an easy and abundant source: Urine! Trying it out on a small piece of copper tubing was successful. I rushed the sample over to Carla and we both laughed about it, knowing this would make a good story and that it was an effective chemical for the green patina. I collected my urine for a week and built a trough out of a three-inch PVC pipe with capped ends to hold the urine. We dunked the pipes in the alley behind her house having to explain to her neighbors and passer-bys that this was an ok process and no, we didn't enjoy this very much!

Newsletter of the Minnesota Woodworker's Guild
A woodworker’s dream?

Bill Gates, the richest man in the world and founder and CEO of Microsoft, Inc. is building a 40,000 ft², $50 million house for he and his wife. Mr. Gates has spared no expense in the poshness of his house of which the woodworking details are said to be flawless. Below is a list of some of those details.

- Wood columns from main floor to roof in entry area are over 70 feet long.
- Theme throughout main floor is high tech lodge. Primary structure is all exposed similar to large logs in a lodge except the logs are PERFECTLY finished.
- All timbers used inside and out are finished the same -- 3 inches have been removed from the exterior of the wood and then sanded to a satin finish.
- All timbers are nearly perfect in that there are almost no knots.
- All connectors are structural grade stainless steel.
- All bolts throughout the house are stainless steel and oriented the same direction.
- All woodwork is flawless. Much of the woodwork is of various rare species from all over the world-imported especially for the Gates'.
- Some of the interior passage doors weigh over 800 lbs., but are balanced for easy use.
- Accoustics are a concern throughout. Various woods and fabrics are being used. Accoustic panels in the Ballroom move out of sight on their own.
- Existing cedar tree was determined by Gates to be in the wrong location and moved 6 inches.
- Gates insisted on saving a 140 year old maple adjacent to the driveway. The tree is monitored electronically 24 hours per day via computer. If it seems dry, it gets just the right amount of water automatically delivered.
- Many doors are blended so well with the walls that it is hard to see them.
- Very old antique cabinets from China have been brought in and built into the walls with adjacent paneling built to match the cabinets exactly.
- All work is virtually flawless.
- Master bathtub can be filled to the right temperature and depth by Gates as he drives home from work.
- If you wish, your music will follow you throughout the house, even at the bottom of the pool.
- 52 miles of communication cable in the building.
- Shower curtain next to the spa is a 4500 LB slab of concrete.
- Security system (automated and personnel) is redundant. Hidden cameras everywhere including interior stone walls. Sensors in the floor can track a person to within 6 inches. System is monitored at the Microsoft campus.
- Construction likely complete in September 1997, 3 months behind owner’s schedule.
Franklin Avenue bridge. The city's oldest citizen belongs to a huge family of oaks that line the bluffs on both sides of the river. The Northern Bur is a commonplace enough tree in Minnesota: the lone sentinel that stands in a cleared field is often such a Quercus Macrocarpa. This oldest oak is not particularly tall, nor particularly grand. It's venerable. Some day it's reign will end, and it will be cut down. As a woodworker, I know that it's life may continue in another way. Transformed into a piece of furniture or sculpture, the oldest tree in Minneapolis can speak to city residents for years to come if a conscientious person may have the chance to give it voice. The weathered wood on the inside of the tree offers some intriguing possibilities. From living tree to living furniture, wood such as this delights us in a profound way. Standing underneath this oak, I see it as both a tree and a table, a canopy of branches and a sweeping crown molding. I'm glad to be a woodworker.

*Long live the oldest tree! May it rest in peace some day, resurrected by some artisan's hands.*

The author has intentionally left the exact location of the oldest tree in Minneapolis a mystery. Why not take a hike and try to find it? The first guild member to describe its exact location to the author will receive a free color copy of this issue. Call Tom Caspar at 378-2605.

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**Buy & Sell**

**Keen Kutter Bedrock-style planes:** #4 1/2C, #5, and #6C. Also motorized Japanese water grinding wheel with 3 stones and jointer knife attachment. Call John Walkowiak at 824-0785.

**Stanley #113 circular plane** dated 9/25/1877, $130. Type 2 probably manufactured between 1880-1891. Call Rich Gotz at 544-7278.

**Wanted:** Guild members who work for, or have “connections” with a printing business that would be interested in printing the guild newsletter in color at a reasonable price! Call Rich Gotz 544-7278(h) 536-4198(w) or Willis Bowman at 869-0140.


**Sears Craftsman Power Planer** with 3.5" wide blade, $35. This is a portable hand held power planer (110v). Call Rich Gotz at 544-7278.

**THICK Macassar Ebony.** Most boards 8" wide, 80" long, nominal 2" thick (actual approx. 1-1/2"). $30/BF. ($25/BF if you buy over 50 BF). Can cut or sand to any size. Also, **Watco Danish Oil Finish**, pints $3, quarts $4, gallons $12, many flavors! Call Wayne Wenzlaff 895-0642 (days), 496-2330 (nights)

Twent to two-hundred pound **walnut burls from Oregon.** Call Scott Bodine at 827-1041.

**Record bench vice #62,** $35. Call Rich Gotz at 544-7278.

Reclaimed **submerged old-growth Red Pine, White Pine, Hemlock, Spruce, and Tamarack.** Tim McCabe in Hastings at (612) 437-4928 Also, call about air dried oak for $1.50/bf.

**AutoCAD (Release 13) drafting services** are available from Don Wattenhofer at $25/hour. Typical projects may require one or two hours to produce scaled 11x17 drawings. Don encourages the designer to be present. 572-1045

Do you want to buy old hand tools to use but can’t find them? Join the **Mid-West Tool Collectors Association.** For information call John Walkowiak at 824-0785.

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Newsletter of the Minnesota Woodworker's Guild
June 1997 Guild Meeting at the Fourth Street Guild
Drawbore Mortise and Tenon Joinery with Tom Caspar
By Richard Lagerstrom

Tom Caspar, Guild member, woodworker, writer, and teacher demonstrated making mortise and tenon joints locked with wooden pins. Tom talked about the tools and adhesives commonly available when this type of joint came into wide use. He also gave examples of taking calculated risks to speed and reduce the effort of making these joints.

A drawbore mortise and tenon joint is any of the usual variations of the joint with a wooden pin added to keep the joint tightly together throughout its life. Tom demonstrated making one of these joints on the frame of a panel door.

Making the joints: The rails and stiles of the frame are first grooved to accept the panel. Plowing grooves with a plane takes practice as well as cooperative wood. Since it is really only practical to plow the groove with the grain, it is likely that grain direction was a key factor in selecting and orienting the frame pieces in antique work. Tom showed that when plowing a groove it is best to work backward from the far end of the groove while gradually making the groove deeper. While it seems natural to start at the near end and plane all the way to the other with one stroke, Tom's method works much better and also guides the plane more accurately.

With the grooves made, the next step is making the haunched mortise and tenon joints. The thickness of the mortise is matched to the groove and its width is marked. The mortise can be chopped with a 35 degree mortise chisel or drilled and cleaned up. Tom believes that an experienced joiner could chop a joint as fast or faster than the time it takes to drill and clean up a joint. In reality, both methods were used depending on the wood, size of joint, tradition and other factors.

Now the haunched tenon is marked with a cutting gauge. As Tom has demonstrated before, the cut lines on the shoulders are improved with a chisel so they become the visible shoulder lines. A saw is used to cut the remainder of the shoulder. Usually a slight undercut is made to assure the shoulder lines pull tightly together. If the lower part of the shoulder slopes the wrong way, it will prevent the visible shoulder joint from closing creating an unsightly joint. Now the cheeks are cut. We always see the cheeks cut with a Japanese saw or a backsaw but Tom introduced "joinery of risk" to make cheek cuts faster. If the grain at the cheek area is straight or runs to the outside, the cheek can be split off with a chisel in no time. This technique needs good judgment because the risk is a destroyed tenon.

Inserting the pins: In earlier times the poor long term reliability of hide glue made some sort of mechanical locking joint a necessity. A locked joint keeps the piece from falling apart if the glue fails and also protects the joint from stresses that cause the joint to fail. The pinned mortise and tenon joint is obviously mechanically locked. But what is not obvious after the joint is assembled is that the hole through the tenon is offset from the hole through the mortise slightly closer to the shoulder. This makes the pin snake through the offset holes so its bending force pulls the tenon into the mortise. We need to know the answers to three questions before putting in the pin: Where should the hole be drilled?; how big should the pin be?; and what is the offset of the hole in the tenon?

Tom has examined many original joints and determined that the hole was usually placed about one pin width from the shoulder. The pin in original joints was about 1/4 inch in diameter. It is important that the pin not be too big or too stiff. It must be flexible enough to bend through the hole in the tenon and reenter the mortise hole on the far side. If that does not happen, the joint will blow out when the pin is driven in.

The hole for the pin is first drilled through the mortise with the tenon removed. Then the tenon is inserted and an awl or other marker is used to mark a point "slightly closer" to the shoulder than the center of the mortise hole. How much to offset depends on the flexibility of the pin and the hardness of the wood. About 1/3 the radius of the pin might be a good starting point. Tom makes pins from stock milled 1/4 inch square. He makes the square into an octagon and slightly tapers the pin. In most cases pins must be made since commercial dowel stock is usually unsuitable in quality or species.

More information: A videotape of this meeting is

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available and can be borrowed from the Guild. Contact a board member at the next meeting for a copy of the tape.

The Guild thanks Tom Caspar for another interesting and informative presentation. We also want to thank the Fourth Street Guild for providing a place for us to meet.

Richard Lagerstrom is on the Board of Directors of the Minnesota Woodworkers Guild. Send questions or comments to the author at the Guild address or E-mail richardl@acm.org

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ACROSS

7. Horizontal component of a raised panel door
8. Location of the Northern Woods Exhibition
10. Plaid shirt model
11. The other Furniture Guy
12. A once plentiful tree in Minnesota
13. Where wood once was
14. Drawn and ______
16. 1996 Best in Show winner
17. Manual drill bit
18. Northern Woods Exhibition host
22. The icon on some Stanley plane blades is named for this person
23. Owns the Complements store on 50th & Xerxes

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DOWN

1. Style of furniture prevalent in England during first half of 18th century
2. High grade shellac
3. MPLS store that sells handmade furniture
4. Cut a board parallel to the grain
5. Interlocking drawer joint
6. Wilt can destroy this tree
7. Formerly popular tool handle wood
8. Evergreen that strips in the winter
9. A manual drill
10. Baseball bat wood
11. MPLS-based contributing editor to Woodwork Magazine
12. Board straightener
14. A joint made by cutting two pieces at an angle
21. Guild president

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see pg. 10 for solution

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Newsletter of the Minnesota Woodworker's Guild
Shop Dust- Hazard or Hype?
by Mel Turcanik

Because of my history as a health care practitioner, I was somewhat surprised by the announcement by the International Agency of Research on Cancer (IARC) that wood dust is a human carcinogen (cancer causing agent). According to the Occupational Safety and Health Administration (OSHA), any facility that produces wood dust and any company shipping or receiving wood material must revise its warning labels to indicate that wood dust is a human carcinogen. The last shipment of wood that I received in 1996 had a Material Safety Data Sheet that had still not been revised.

The reason for my surprise is that the IARC charge is based on studies done prior to the 1990's, many performed over 20 years ago! In addition, the only form of cancer mentioned by the IARC announcement is nasal adenocarcinoma: a rare, and when caught in time, a 90% curable cancer. I need to stress that these studies were carried out in woodworking plants, factories, and sawmills where the average worker was likely to be exposed to significant amounts of airborne dust. There is likely no risk for the small amount of exposure in the home workshop, however, there is no data to support this claim. In recent years the air quality in woodworking plants has improved considerably due to OSHA and union demands.

I'm not saying that we should ignore wood dust. We should look at all dust as a risk and take appropriate measures to limit dust inhalation.

The only entry sites where wood dust could cause carcinogenic effects are through nasal deposition (wood dust particles becoming lodged in the nasal cavities and sinuses) and orally. It is important to note that wood dust finer than 5-10 microns* will not cause cancer. The nose filters only the larger dust particles by straining the particles with the nose hairs. Those missed by the hairs are ultimately drained from the nasal cavities and sinuses and swallowed where they cannot cause harm. Therefore, the people marketing devices to filter the very fine dust from the air are not doing anything special to help protect you from the cancer caused by wood dust. An ordinary furnace filter will do the job. The dust that is visible, e.i., larger than 5-10 microns, is the dust most likely to cause nasal cancer but only if a worker is continuously exposed for a long time to that dust. Wood dust of a particle size smaller than 5 microns can be drawn deep into the lung where it will be removed by the lungs' natural defense mechanisms without causing damage. If an individual has an allergic or chemical sensitivity to a particular wood dust, it may cause irritations or other problems no matter where the dust ends up, be it the nose, throat, eyes, or lungs. Among the woods likely to cause irritations are walnut, cocobolo, and cedar. Sensitive individuals should always take maximum precautions. Asthmatics will, of course, have greater reactions than free breathing people and smokers can have ten times the adverse reaction of non-smokers to environmental insults.

The most familiar condition that occurs from inhaled particles is probably pneumoconiosis. This condition shows up with a variety of causes but is usually diagnosed (but not limited to) to crystalline fibers forming around inhaled particles which ultimately damage the lung tissues. Another cause is the inhaled particles are picked up by the body's natural defense system and transported to lymph nodes where a concentration of particles can destroy the lymph node. Included in this category of disease is silicosis and asbestosis.

In order to develop silicosis a person has to be breathing in an environment with a high concentration of silica (the same material of our grinding and sharpening wheels) of particle sizes less than 10 microns for an extended period, typically for more than ten years. This environment traditionally occurred in areas processing various kinds of stone or where metal was machined with grinding wheels. Today in modern industrial sites, there are adequate precautions against breathing sufficient quantities of silica to cause disease. It is highly unlikely to create enough silica dust in

* one micron = one millionth of a meter = 0.0000394 inches
the home shop to pose a problem.

Asbestosis, similar to silicosis, is caused by the inhalation of hydrated calcium-magnesium silicate or what is commonly called asbestos. Today this substance is illegal to use where humans live or work so it should not be of concern. In smokers I have seen severe damage after rather short exposures, even in young individuals. This material also predisposes oneself to a very dangerous form of cancer.

Woodturners are now turning talc, also known as alabaster or chemically: hydrous magnesium silicate. Because deposits of talc contain silica it is difficult to differentiate damage to the body caused by either asbestos or talc. It appears to take approximately 10 years of inhalation of large amounts of silica dust to create clinically significant symptoms. Again, this is unlikely to occur in the home shop.

The only dust borne disease that is immediate and serious to woodworkers involves woods with fungal spores or spalled woods. Maple and birch tend to spalt easily after the tree has died. A fungus invades the tree upon death and resides in between the grains of the wood depositing the characteristic black streaks. The fungus produces spores in its reproduction. These woods are best handled outside where they can be cleaned and the bark removed without contaminating the shop air. Most spores are found just under the bark. Spores from fungus infested woods can cause saprophytic spore sensitization; a syndrome similar to an allergy in which the infected becomes sensitive to the spores. The symptoms can mimic the onset of flu producing a fever, chills, cough, and shortness of breath. If it produces headache and profound weakness it could be serious. The body often resolves the spore infestation on its own. Unfortunately, once exposed, subsequent encounters could cause even more severe illness or allergic reactions.

Mel Turcanik served as a Pulmonary Function Technician, Certified Respiratory Therapy Technician, and Registered Respiratory Therapist from 1974-1984. He is a member of the Minnesota Woodworkers Guild and the Woodturners Association.

If you think spores were transferred into the shop via a piece of green or just cut spalted wood, it is recommended wearing a mask filtering all spores in the 5-10 micron range. For further filtering, high volume, ambient air HEPA filters should provide sufficient protection to prevent illness. In selecting the proper ambient air filter, be sure that all the air in the shop can be filtered approximately every 10 minutes.

For the commercial shop, the OSHA standards should provide more than adequate guidance for creating a safe work environment. For the hobbyist shop there is the possibility and sometimes the necessity to compromise in order to arrive at an economic solution other than an expensive plan specified by OSHA. I personally am not worried about the amount of airborne dust in my shop since I wear an “Airstream” helmet (a visor and helmet that supplies fresh filtered air to the wearer’s face) when the dust level is high. This would not be allowable under strict interpretation of OSTIA standards because the OSTIA requires the surrounding air to be clean, not just the worker’s personal (closest to the mouth or nose) air. Ventilation is still the simplest and most effective way to clear the air.

The most important defensive mechanism available to the craftsman is to never smoke cigarettes. Tobacco smoke disables the fragile defense mechanisms of the nose, throat, and lungs that would otherwise protect the individual against inhaled particles. A smoker is FAR MORE LIKELY to succumb to dust particle problems than a non-smoker.

In the average one-person shop the adverse affects of airborne dust can be easily eliminated or held to a minimum with the proper use of a mask or filter capable of removing particles of 5-10 microns. If you develop a rash or have difficulty breathing after working with a certain species, discontinue working with that wood and consult your physician.

Nasal Adenocarcinoma Symptoms

Should you experience any of the following symptoms you should contact your doctor for a physical exam. Low grade chronic infection with discharge, obstructions or minor intermittent bleeding, sinus trouble and intermittent anterior headaches (sinus headaches), and/or, Symptoms that mimic those traditionally associated with nasal polyps such as chronic nose bleeds, blockage, swelling, or lumps.

Mel Turcanik served as a Pulmonary Function Technician, Certified Respiratory Therapy Technician, and Registered Respiratory Therapist from 1974-1984. He is a member of the Minnesota Woodworkers Guild and the Woodturners Association.

Newsletter of the Minnesota Woodworker's Guild
September 23, 1997 Tuesday 7:15pm
Location: Bruce Kieffer Custom Furniture, Inc. 2242 University Ave. W., St. Paul. Take I-94 to Cretin/Vandalia exit. Drive north to University Ave. Turn left on University Ave. to next stoplight (Hampden Ave.) Enter building on corner through rear red door. Shop is in basement. SOLID EDGING VENEERED PANELS: Bruce Kieffer will demonstrate cutting and applying a solid wood edge to a round veneered panel. Show & Tell / Buy & Sell starts at 7:15pm. Educational program starts at 7:30pm.

October 16-19th, 1997
Location: Center court, Southdale Center, Edina
15th ANNUAL NORTHERN WOODS EXHIBIT: Come and display your woodworking talents at the Midwest’s best woodworking show. See entry form inside.
How to Photograph your Work
by Glenn Gordon © 1997

Photography shows people who might never see your work in person what that work looks like. Although a photograph can never have the tangibility of the work itself, it still has a tremendous power to communicate -- or miscommunicate -- what the thing is like. If you've done a piece you're proud of and want to try to publish it or to have a print of it in your portfolio, you owe it to yourself to get decent photos. If your pictures are out-of-focus, their colors sickly, the lighting harsh, the perspective distorted, the backgrounds distracting, magazine editors won't print them, even if you've just built a masterpiece.

You do not have to be a hot professional photographer in expensive sunglasses to pull this off. You can take studio-quality photos of your work with a modest investment in equipment, some of which you might actually already own. Based on my experience with shooting for magazines on a shoestring, this is the equipment that I've found is needed:

- a 35 mm. single-lens-reflex, or SLR, camera body with a built-in exposure meter
- a "short telephoto" lens and lens shade
- a tripod
- a cable release
- a pair of lights, light stands and umbrellas or reflectors
- a backdrop of unobtrusive, neutral material.
- the proper kind of film

The camera can be either a manual or an autofocus type. The lens should be from somewhere in the "short telephoto" or "portrait" range of focal lengths, because these give pictures the most pleasing, natural perspective -- 85 mm., 90 mm., 100 mm., or 105 mm. are the most common sizes. You can use a longer (which is to say, a higher magnification) focal length, 135 mm. to 200 mm., but these will force you to stand further back from the subject than may be practical in most rooms, and may increase the difficulty of keeping every part of the work in sharp focus. Zoom lenses will also work, though they might be a little harder to focus. Some lenses, in addition, have a "micro" or "macro" feature that enables you to shoot details closer in. Whatever lens you use, it

(Continued on page 3)
President's Notes

What does the Minnesota Fishing Opener have in common with the Northern Woods Exhibition? Well, for me, they both stir a great deal of anxiety and anticipation on the night before the "opening". The committee members are never quite sure what kind of show it's going to be, until the pickups and vans slowly rumble down the tunnel beneath Southdale, and the guild members begin to carefully unload the pieces that they have worked on meticulously for months. As we scurry around the loading docks, we take a peak at what is being unloaded and "size up" our colleague's best effort. Then we begin to wonder if we should have spent more time in the design phase or rubbing out the finish! Or maybe you sneek a look at Ross's new creation and say, "dang, why didn't I think of that". A quick survey of the faces, indicates that about half the entrants were in the show last year, but there seems to be many new faces as well, and the "new blood" is very welcome. After everything is piled on the dock, a show meeting is held to inform everyone of the procedures, while we try to ignore the smells radiating from the nearby dumpsters! When the mall closes at 9:00 p.m., each member moves their pieces up to the main floor and then the show arrangement takes place. It is not unusual for key members of the committee to still be arranging and re-arranging and re-arranging pieces until 2:00 a.m. or later! And you thought they were just placed randomly!! 😃

I hope you are getting the picture that this is a pretty exciting time for those that participate. If you haven't participated as yet, come to the show and talk with the artists. Ask questions. Get inspired. Then take that inspiration home and start designing your own piece for next year's show. You'll be glad you did.

While scanning the plethora of woodworking magazines on the market each month, I usually look for Minnesota woodworkers that may not be guild members, and then invite them to join the guild and enter their work in our show. For example, the Gallery section of October's issue of WOODWORK magazine, contained pieces by a Northfield woodworker. By using the Internet white pages, I was able to find Joe Aldrich's phone number and he is delighted to be in this year's show. You may be interested in talking with Joe at the show to find out more about Peter Korn's Maine workshop that he attended this summer.

Hopefully, you have noticed the color 1997 Northern Woods poster inserted into this issue of the newsletter (my little home laser printer will never be the same 😃). To further advertise the upcoming Northern Woods show, we ask that you put the poster in a prominent place at your employer's workplace or local shopping mall. You may want to spray some 3M adhesive on the back and apply it to foam board for a better poster. Thanks for your help.

Congratulations to many of last year's Northern Woods participants for appearing the August 1997 WOODWORK magazine, pages 67-69, including Dwight Speh, Ron Betcher, John Nesset, Greg Wood, Pat Juettner, Allan Lacer, David Munkttrick, Dale Suidman, and Charles Wise. Also, congratulations to Tom Caspar for his fine cabriole leg article in the same issue and for being the "cover boy"!

Within increased membership and extra processing required by bulk mailing, Allan Furber will assume the responsibility of Membership Director. Please call Allan (759-7600) with all your membership questions including change of address, new phone numbers, e-mail address, etc. Look for a new guild directory in the December newsletter.

The 1998 Guild officers will be nominated at the November Board meeting, and will be ratified during the December General meeting. If you are interest is serving the guild in some capacity, please speak to any of the board members.

See you at the Show!
For those of you that access to the Internet, you no doubt know that there is a myriad of woodworking sites to visit. The following are reviews of interesting? useful? woodworking (and sometimes non-woodworking) sites for you to visit.

The College of Redwoods Fine Woodworking Program

http://www.redwoods.cc.ca.us/main/dept/mendo/wood/finehome.htm

This address will lead you to a very comprehensive website for the college of Redwoods, a well rounded, high quality college located in Eureka California. The woodworking school is located on the Mendocino, California campus which James Krenov founded and at which he still teaches and directs.

The program is a rigorous 9 month, 6 day a week schedule divided into three semesters. Although students get their share of technique education, a lot of time is spent exploring the relationship of eye to hand to workbench.

The website has a complete listing of graduates who have settled around the US. Interested applicants are encouraged to contact them. A gallery of photos or pieces built by the students is available for browsing. Even though many of the pieces are strongly flavored by Krenov, there are some beautiful pieces. There are links to feature articles written by the professors and a terrific and comprehensive booklist. This list is worth a visit to the site. For those lusting for a well thought out, woodworking school, visit this site first.

should have a lens shade to match, to block out stray flare or glare from your lights. Except for situations that demand shooting large objects like beds or dining tables in the confined space of small rooms, it's best not to use wide-angle lenses, because their optics distort the proportions of most objects.

Besides a camera with the right lens, you need a tripod, to keep the camera still, and a cable release (or the camera's delayed self-timer) to trip the shutter. There is much less chance of blurring the image if you aren't hand-holding the camera, or pressing the shutter button snapshot style, directly with your finger.

You can work with flash, or even with available light -- with daylight streaming through the windows, or in open shade -- but on the whole, it is easier to control the look of the photo by using tungsten light, or "hot lights," and to shoot in an otherwise darkened room. Tungsten lights come in the form either of photo-floodlights or -- better, but more expensive quartz halogen bulbs, in special reflectors.

Shooting slides using tungsten lighting requires that you use a tungsten slide film matched to your bulbs' color value, or "color temperature." If you have tungsten lights but can only find "Daylight" slide film, you can use a correcting filter (no. 80A) but the results won't be quite as good. If you shoot slides with flash or in daylight instead, you must use "Daylight" -- not tungsten -- film. With either type, the relatively slow and fine-grained films rated at ASA 25 to ASA 100 will give the best results, provided that exposures are no longer in duration than one second (with longer exposures, funny things can happen to the colors.) It should be noted that for publication, slides or "chromes," are much preferred to prints from color negative film. Most print film, if prints are what you need, is uncorrected for tungsten lighting, so your prints may have an unacceptable reddish orange cast, but that can be corrected with clear instructions to the lab that does the printing. Another solution here is to use flash, but the disadvantage of that is, since you can't study how your lighting setup looks in the brief moment of a flash, you have no real idea of the outcome until you get your film back, unless you use expensive Polaroid film for preliminary lighting tests.

There are conventions about how and where to set the lights when shooting works such as furniture, carvings, or turnings. Bulbs (or flashguns) should not be aimed directly at the work but faced back into reflectors, such as umbrellas, which then bounce and disperse the light back onto the subjects, creating softer light with fewer hot spots. You can also use sheets of white Fome-Core™, or Styrofoam insulation as reflectors, as well as low white ceilings and nearby walls. If the light striking the subject is too hot visually, try diffusing it through a translucent vinyl shower curtain or something similar (take care, though, not to let lights get close enough to melt the plastic). A common setup is to have the lights positioned roughly six to eight feet away 45° off either side of the lens-and at about seven feet off the ground, but rather than robotically following a formula it is better to experiment, and see how the lighting actually looks through the viewfinder, shifting things around if you don't like what's happening with the shadows, reflections, glare,
etc. Sometimes, for example, things look good when one light lights the backdrop, the other the subject, or when one light is positioned just off to the side of the camera, and the other 45° and some distance away on the other side. With turnings, forms might look fuller with the lights set 180° apart, or lit from below, through a surface of frosted glass or sandblasted opalescent Plexiglas.

Paper backdrop material, called "seamless," is available from photo supply houses in rolls 9 feet and, in a few colors, 12 feet wide. The roll of paper is suspended from a horizontal pole securely supported at both ends. Carefully unroll the paper so that it drops plumb and drapes, without crimps, to a softly curved cove on the floor (which should be swept clean underneath), and then rolls out ten or twelve feet along the floor. Even before you unroll it, weight the end of the paper (tape it to a length of thinwall conduit or something similar, which will function something like the stiffening stick used to weight the bottom of a windowshade). Remove your shoes and in your stockinged feet set your object down carefully on this "sweep," positioning it far enough forward of the "wall" so that the shadows cast by the lights don't curve suddenly back up the sweep. A middle grey color sweep off the tripod and meter up close, right off the subject -- not off the backdrop -- taking care not to block the light that will be falling on the subject, and set your exposure for that reading, ignoring what the meter says when the camera's mounted again back on the tripod. Another method is to meter off a "grey card," available from most camera stores. Yet another is to take an "incident light" (rather than the in-camera meter's "reflected light") reading with a separate hand-held meter.

An assistant can be invaluable to hold a prop or light reflector while you take the picture.

Shoot one or two overall views of the piece, perhaps trying a few variations where you change not only the lighting setup but the angle of view, and possibly, the camera's height. Be bold, and fill the frame with the object, so it doesn't rattle around like a lonely B-B in a big bowl of space. "Bracket" i.e., shoot exposures a half-stop above and below what the meter says, especially when shooting slide film. If you're sure your exposure is accurate, you can shoot duplicates, to avoid the greater expense of having them made later on. Don't drop off your film at the drugstore. Have your slides processed and mounted by a professional color lab -- the cost per roll is not that great.

Your overall views of the piece will make people want to draw in closer, so shoot some details too. The details represent the world you were in when you were building the work, and photos of them can carry great meaning to a viewer (especially another woodworker) who might never get to see the piece in the flesh. Photography is a matter of seeing for strangers what they cannot be there to see for themselves. You are their eyes. You have to try to detach yourself from your own familiarity with the piece and see it for others for the first time. In the process, you can learn a lot about your own way of looking at things, and it can bring a sharpened perception to the next work you design.
Glenn Gordon is a frequent writer to Woodwork magazine and a past judge at several Northern Woods Exhibitions. Photographs taken by Glenn as shown in this article, From Candle Box to Disk Box, pg. 31 may be seen with his prose in the December issue, #48 of Woodwork magazine.

Professional Photographic Lights Available!
The guild has purchased a set of professional quality photographic lights which will be available to all current guild members. The set includes two 650W tungsten (quartz-halogen) lamps and reflectors, two stands, two silver umbrellas, gels, a seamless backdrop, and a carrying case. A comprehensive “how-to” guide book will also be included. There is a $5.00 rental fee for each use to cover the replacement costs of bulbs and the backdrop. To check out the light kit please call Willis Bowman at 869-0140 or e-mail to WBowman@compuserve.com

These may be used for both private and professional use. We are still looking for professional quality photographs of your work to be displayed on the guild’s website. This may be your chance!

Buy & Sell

Keen Kutter Bedrock-style planes: #4 1/2C, #5, and #6C. Also motorized Japanese water grinding wheel with 3 stones and jointer knife attachment. Call John Walkowiak at 824-0785.


Sears Craftsman Power Planer with 3.5” wide blade, $35. This is a portable hand held power planer (110v). Call Rich Gotz at 544-7278.

THICK Macassar Ebony. Most boards 8” wide, 80” long, nominal 2” thick (actual approx. 1-1/2”). $30/BF. ($25/BF if you buy over 50 BF). Can cut or sand to any size. Also, Watco Danish Oil Finish, pints $3, quarts $4, gallons $12, many flavors! Call Wayne Wenzlaff 895-0642 (days), 496-2330 (nights) Twenty to two-hundred pound walnut burls from Oregon. Call Scott Bodine at 827-1041.

Reclaimed submerged old-growth Red Pine, White Pine, Hemlock, Spruce, and Tamarack. Tim McCabe in Hastings at (612) 437-4928 Also, call about air dried oak for $1.50/bf.

Do you want to buy old hand tools to use but can’t find them? Join the Mid-West Tool Collectors Association. For information call John Walkowiak at 824-0785.

Delta contractor’s tablesaw with THC roller base and 32” Unifence. Extension table included. Purchased 11/93, $799 Call Jerry Dornquast at 888-4637


Portable 12” Delta planer, dust collector attachment, extra set of blades, 3 years old. $250. Call Rich Gotz at 544-7278

Wanted: Guild members who work for, or have “connections” with a printing business that would be interested in printing the guild newsletter in color at a reasonable price! Call Rich Gotz 544-7278(h) 536-4198(w) or Willis Bowman at 869-0140.

AutoCAD (Release 13) drafting services are available from Don Wattenhofer at $25/hour. Typical projects may require one or two hours to produce scaled 11x17 drawings. 572-1045
Come for an evening of thrills, spills, and woodworking skills! Plan to attend a friendly competition and show off your woodworking skills on December 16th, 1997. See back page for directions and times.

**Belt sander races:**

Award for the fastest in a round robin tournament. Contestants will race their belt sanders down a straight 30-foot plywood track with sides. Use any grit for traction. Extension cords supported from above will be supplied.

Award for the best decorated sander. Spruce up your sander with anything to impress the spectators as you fly down the track.

**Just plane simple:**

Award for the longest unbroken curl. Test your hand planning ability by shaving the longest unbroken curl from a 16-foot pine 2 x 4. Yep, there might be knots!

Award for the longest, thinnest shaving. Thickness of shaving will be measured with a micrometer so sharpen that blade so that even your family surgeon would blush! Wood may be curly or burled!

**A cut above:**

Award for the fastest hand-cut dovetail joint. Join together two 2 x 5 x ½ poplar pieces as fast as you can. It doesn’t matter how many pins and tails or what angle you cut at, just get it done! You supply your own tools.

Award for the fastest jointing and planing of a 4 x 8 x ¾ rough board with a hand plane into a usable board. Points given for squareness and flatness.

**Hole-y smokes:**

Award for the hole drilled squarest to the face of a 5 x 5 x 1” wood block. The hole must go through the 1” thickness. A ¼ diameter by 12 “ long dowel will be inserted into the hole and the angles, measured from the dowel to the face of the wood block both laterally and longitudinally, will be added together. The hole driller with the lowest sum is the winner. You must bring your own standard electric, manual, or cordless hand drill and ¼ “ drill bit. Sorry, no jigs or fixtures!

**Towering Sculpture:**

Make your own crazy sculpture out of scrap wood and hot glue. The tower that reaches the ceiling receives an equally crazy award. Please bring scrap wood (some will be available) and hot glue gun(s).
The Minnesota Woodworkers Guild presents the fifteenth annual

NORTHERN WOODS EXHIBITION

A DISPLAY OF FINE WOODWORKING

Southdale Center, Edina, MN - October 16 - 19, 1997

Hosted by Davlins and Southdale Center

This activity is made possible, in part, by funds provided by the Metropolitan Regional Arts Council (MRAC) and the Banfill-Locke Center for the Arts through a grant from The McKnight Foundation and an appropriation by the Minnesota Legislature.
Special Group Buy

The Minnesota Woodworkers Guild has arranged a group buy

Hock Plane Blades

These plane blades are the same one that are sold everywhere for $30.00 or more. They feature a specially hardened tool steel which takes and holds an outstanding edge.

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These items may be picked up in Bloomington or at any Guild function. If you wish them shipped to you, please add $3.00 for the first item and $.50 for each additional unit.

Shipping  _____ @ $3.00  $

Shipping  _____ @ .50 $

Total Due $

Your Name

Address

City, St, Zip

Phone No

Make checks payable to Minnesota Woodworkers Guild

Sent order with check to Allan Furber

10440 Brunswick Circle

Bloomington, MN 55438

Orders must be received by Oct 31, 1997

Questions? Call Allan Furber, 830-1504
Welcome New members

Ronald Corradin, Pat Dreese, Gary Evans (Gary Evans Inc.), Ross Ewert, Ken Johns, Glenn Nelson, Erik Willard Olson (M&E Services), Geoffrey Page, Mike Poston, Tetsuo Shibata, Sidney Teske, Steven Thompson, Tom Van Binsbergen, John Wellman, and Hank Zwart.

Editor’s note: Because of the transition of a membership director to our system, we were unable to publish the names of new members from the last two months. We apologize for this omission and sincerely welcome you to the guild.

August 1997 Guild Meeting
Building the North Oaks Timber-Framed Bridge
By Richard Lagerstrom

Guild members traveled to North Oaks on a rainy and cool August evening to examine the unique timber framed bridge built by Brent Brager and find out how it was built. The bridge was not only a pleasure to see, but also protected us from the drenching rain and offered an appropriate place to hear how it was conceived and built.

North Oaks property managers asked Brent to design a walking bridge for a public area that would both connect a small island in a wetland with a trail, and enhance the green space. The commission emphasized that the bridge should recall the historic period of James J. Hill as well as use wood from the property in its construction.

As a boy, Brent dreamed of building a bridge to an island on his grandparents property, designed it and started cutting down a tree for material. This boyhood project remained an unfulfilled dream but the idea remained. The request from North Oaks resulted in a scale model of a timber frame design that met the needs of the space. To Brent’s surprise, he was offered the opportunity to build it. Without experience in bridge building or timber framing, Brent accepted the offer and started work.

The bridge spans only 30 to 40 feet but timber frames of even a modest bridge such as this are impressive. The main vertical timbers are 12 by 12 oak, 14 feet long. The wood was worked green in timber framing (Continued on page 8)
tradition. Each of these timbers weighed about 1100 pounds when green. Engineering the bridge was a large task. The bridge has a 24-inch crown so almost every piece has a different length and angle. Brent and a mechanical engineer spent many hours calculating the construction details, checking and double checking them before cutting wood. The advice offered by master timber framer, Mr. Bjork, was crucial in assuring that the construction both followed tradition and was appropriate for the job.

The glue laminations supporting the span were the only large components not made from wood from the property. Every other beam, stringer and spline was cut on-site or in Brent’s shop. About 13,000 board feet of oak and 35 cubic yards of concrete plus a large pile of cut fieldstone for the footings were used for the bridge. The glue laminations were put in place in April and the bridge was completed in October. Brent and friends celebrated Halloween on the bridge.

Erection of the bridge started with the two end structures which were braced with cables. When all the remaining structural members were cut and checked, Brent rounded up a crew and assembled the entire structure in one day. (He did not say how long the day was!) This is an interlocking structure so assembly had to proceed in sequence. Each section was assembled, placed properly and then pulled together until the entire structure became whole.

How long will a wooden bridge survive? The covered bridge design naturally protects much of the structure from weathering and oak has a long life if it is protected from constant wet or contact with the ground. The roof of the bridge also shades the wood from sunlight which can dry the surface, causing checks and flaking. These defects trap moisture which promotes decay of the wood. Brent pointed out that railings and other horizontal surfaces are laid to discourage water from pooling. Where water could be trapped, drains are placed to let water out. A proper timber framed structure gets stronger with age as the wood becomes harder and the joints shrink tight.

More information: A videotape of this meeting is available and can be borrowed from the Guild. Contact a board member at the next meeting for a copy of the tape.

The Guild thanks Brent Brager for his personal view of the thinking, planning and work needed to create a work of art.

Richard Lagerstrom is a member of the guild board of directors and a frequent contributor to the Northern Woods newsletter. Send questions or comments to the author at the Guild address or e-mail richardl@acm.org

Help! The Fifteenth annual Northern Woods Exhibition is quickly approaching Oct 16-19th and we would like to give the audience a look at the Guild’s website. To do this we need a computer or a laptop available for visitors to browse the site. If you have a computer or laptop that you wouldn’t mind bringing to the show, it would be greatly appreciated! The computer can be locked safely away each night and will be attended to during the day. Please call Rich Gotz 544-7278 or 536-4198 for details if you can be of assistance.
A Glimpse Into the World of Apprenticeships
by Ellen Benavides

Three years ago, I left my job as Director of Health Policy for Hennepin County and drove to Nova Scotia to pursue a year-long furniture-making apprenticeship. I was searching for a way to learn the craft that would be more "hands on" than an academic program would offer. As a life-long experiential learner, I knew that the best way for me to learn is to blend theory and practice in an unstructured, organic way.

I had researched the topic of apprenticeships through woodworking literature and journals, asked people whose work I admired for ideas and suggestions about creating an apprenticeship, interviewed a variety of woodworkers who run furniture-making schools and workshops, and contacted various woodworking guilds in North America and Australia. I even called James Krenov to ask who he might recommend I work with as an apprentice.

As my research progressed, it became clear that the "old world" style apprenticeship with an established seven-year learning period as a prerequisite to practicing a trade no longer existed. However, variations on the theme could be found in any number of settings; it all comes down to two people making a commitment to work together for mutual benefit. The terms of the arrangement can be as varied as creativity and personalities permit. The following interviews describe the experiences of six local crafts persons.

Elizabeth Barnard has her own business designing custom furniture. She has worked with a number of interns from the Minneapolis College of Art and Design, as well as apprentices. Elizabeth describes her strong belief in passing on information and community education as an act of pure devotion. In her experience, apprentices have "self-selected" her as a mentor to learn about woodworking. Her gifts include teaching to see with a discerning eye, the subtle use of the body and an appreciation for detail, all with an emphasis on the process as well as the product.

Elizabeth views the apprenticeship as a mutual time commitment with three basic phases, while recognizing that everyone comes with unique needs, experience, expectations and skill levels. During the initial phase, she expects to be more helpful to the apprentice as she teaches many of the basic skills. Eventually, the apprentice will be able to help her on her pieces with supervision. Ultimately, during the final phase, she feels the apprentice should be paid for their time because they are able to work independently, helping with her business.

When approached about setting up an apprenticeship, Elizabeth and her apprentice spend time up front in very direct conversation, negotiating their mutual expectations in terms of what they each want to get out of the experience and whether they are compatible in terms of their personalities and values. In addition, they discuss how much of a time commitment they will make to the relationship, as well as financial and legal arrangements. Elizabeth's apprentices are responsible for their own health insurance and are not covered under her liability coverage.

Once the terms have been negotiated, the apprenticeship begins with an emphasis on safety in shop, teaching/learning and having fun. Elizabeth tries to strike a balance between investing the amount of time necessary to teach an apprentice enough so that they can be useful in the shop and remaining conscious of the need to run an efficient business. Recognizing that everyone has a different learning style, she is able to explain things in many different ways. While she gives a lot of feedback, she finds it important not to "hover," allowing the apprentice to explore and take risks.

In exchange for their unpaid labor and bringing new ideas and life into Elizabeth's workshop, apprentices receive information, education, shared space and develop a lifelong relationship.

One apprentice, Carol Damm, has a Masters in French Literature and was unable to find work in her field. While she had no prior experience with tools, Carol wanted to learn woodworking and preferred to learn "on the job". After speaking with several local furniture makers about her interest, she determined that few could afford to pay an apprentice or felt it was worth the investment of time and energy, given the amount of patience it requires to teach someone the craft.

One day, a friend of Carol's happened to exchange business cards with Elizabeth at Youngblood Lumber and made the connection.

(Continued on page 10)
Shortly thereafter, Carol and Elizabeth negotiated a work schedule of one-half day, three days a week for a year and a half. While not paid for her work, Carol describes the experience as a peer relationship based on mutual gain. In addition to learning while working together on Elizabeth's pieces, "teaching time" included ongoing reading and discussions about a variety of related woodworking topics, periodic vocabulary and technique quizzes, and visits to exhibits and galleries to see other artists' work.

Based on her experience as an apprentice, Carol recommends that anyone considering an apprenticeship be clear about what they expect to gain from the experience. In addition to working with a mentor that you respect, choose one who has a compatible personality and shares your values. She thinks it's important to work with a variety of woodworkers to learn different styles and approaches to the craft. Ideally, she believes that apprentices should be paid for their work and that the cost of teaching be built into the price of furniture. However, she recognizes that this is not possible for many woodworkers, given the economics of being a self-employed business owner.

Currently a full time mother with two young children, Carol has put aside her woodworking aspirations for the time being. In the future, she may explore another apprenticeship or take classes, since she is not yet ready to work on her own and wants to learn more hand tool skills. Someday, she hopes to make a living building fine furniture.

John Nesset approaches woodworking as a language of sculpture. Using primarily hand tools, he builds practical, utilitarian furniture that articulates artistic concerns. Based upon the level of interest his work has generated with galleries and clients throughout the country, he has decided to tailor some of his box designs to power tool construction for production runs. These boxes will be more affordable for the average buyer than his one-of-a-kind, hand made pieces. The revenue he anticipates will allow him more time to pursue his design work.

Six months ago, he received a call from the son of college classmates who was interested in woodworking. John recognized the potential for an artistic and business partnership at their first meeting and agreed to provide space, instruction and share his tools, workbench and market with apprentice John Preus in exchange for help in the shop.

The two men have negotiated a very flexible arrangement, working both together and separately in the workshop producing writing boxes. Nesset views the relationship as a process of building a partnership and anticipates setting up two separate businesses to divide the revenue when their boxes are sold. Nesset values the camaraderie and shared learning that occurs in his shop and is interested in nurturing and mentoring Preus' talent and contribution to our craft.

John Preus recently graduated from Gustavus Adolphus with an art degree. While his medium has been drawing and painting, he has always been interested in wood and worked in several carpentry and millwork shops. Disappointed by the lack of attention to detail in these jobs, he wanted to find some-one who shared his interests and values who needed help in exchange for instruction. Preus is not interested in "banging things together to make money" and is frustrated with societal expectations about acquiring enormous debt in order to learn a trade in school, which too often results in pursuing work for the sake of getting out of debt, rather than doing what you love.

As he was about to give up on the idea, his parents suggested he contact classmate John Nesset. When he saw one of John's writing boxes, he knew he had found someone. Preus finds their arrangement to be ideal; he sets his own hours, is learning how to use hand tools, and enjoys the intimacy of working with wood in this way as another medium for expressing his ideas. He describes their relationship as being grounded in shared artistic sensibilities, trust and passion about what they communicate with wood; "John is not in it just for the money. This is not a hobby. He thinks about and cares about what he is doing."

Tom Schrunk is the newest member of the Guild. He makes custom frames for stained glass windows, as well as doing marquetry and parquetry as artwork. His interest is in exploring the light refractive qualities of the wood surface. In the past, he has turned potential apprentices away, due to legal concerns. According to the Department of Labor Relations, if you sell things made with apprentices, you must record their hours, pay at least minimum wage, provide workers compensation and unemployment insurance, and file withholding
from what is paid to the apprentice. Recently, David Huset purchased a piece of Tom's work. David has had a long time interest in woodworking, but chose graphic design and advertising as his creative career outlet. When he walked into Tom's studio, he was "stunned by what he saw and inspired by Tom's enthusiasm." David approached Tom about working with him as apprentice, expressing interest in learning about his technique, as well as his creative blending of science and art. They agreed on an arrangement where they work on a specific project one night a week. Rather than being an apprentice per se, they will treat the pieces done as joint projects and David will share in the profits from the sale in exchange for his time and instruction.

Tom has also been approached by a Croatian architect, Stipe Hlaca, who is interested in working with him to learn some of his techniques as they apply to decorative chair work. He will begin in September. Tom looks at this process as an educational experience. "If we've learned from others, we have an obligation to share with others."

My own apprenticeship experience grew out of a telephone conversation with the President of the Atlantic Woodworkers Guild. He informed me that Nova Scotia was not a particularly good place to be an apprentice, since there was not much of a market for fine furniture in the Maritimes. Undaunted, I asked him to mention my interest in coming to Nova Scotia and my willingness to work for free in exchange for instruction at their monthly Guild meeting. Two weeks later, I received a letter from "the Woodhead" in Mahone Bay, expressing curiosity about me and interest in setting up an apprenticeship.

Once I had determined that he was not expecting a "mail order bride" and was not a character out of "Deliverance," I agreed to work with the Woodhead for a year. Due to the size of his shop and my inexperience, it was a challenging relationship from the beginning. (He lived alone in the woods with no running water in a 10 x 16 cabin he had built by hand). He was an incredible craftsman, but not very verbal. He liked me to figure things out without asking questions. Since mind reading is not one of my specialties, it was difficult to spend 8 hours a day in silence with someone you barely know. I found myself trying to "guess" what was expected of me and was frustrated by my lack of wood working vocabulary. Nonetheless, I learned a great deal from him in what turned out to be a four-month apprenticeship. His lack of business acumen, coupled with the fact that he had recently fallen in love resulted in his mind not being on his work. As a result, he ran out of business.

I quickly found someone else to work with. My next "mentor" was a furniture maker who preferred designing to building and had a well-equipped workshop behind his house. He, too, was not very verbal, but his wife and children were. I was given my work assignment every morning and was left pretty much on my own to figure it out. If I got into a bind, he was in his office, so I could ask for advice and guidance when I needed it. I enjoyed my independence and value the self-reliance this experience taught me.

My apprenticeships have influenced me in ways I am still discovering. As a very new woodworker, I have had the luxury of being exposed to many different ways of problem solving and approaches to design. I have not yet developed my own style. When I do, I am sure that it will reflect my own organic process of learning, applying and teaching a craft that is complex and uniquely mine, thanks to my many mentors.

Ellen Benavides is a part time woodworker at the Fourth Street Guild. She is also a Health Care policy consultant.

Parting thoughts...

By the time you read this newsletter the Northern Woods Exhibition will be well nigh. At last count there are 40 entrants with 67 pieces; above the amount of pieces from last year's show!

The September 25th issue of Star Tribune's At home section (a special edition of Home & Garden) featured a fabulous article about guild member John Nesset and his work. The exhibition was also detailed in a sidebar. With this exposure and the PR that the show committee has released to national and local publications, we hope to see attendance up. Please do your part by posting the enclosed poster at your place of work or another public place.

A cursory glance at the photos received with the entries for this year's show prove that the show is ever improving. There will be some outstanding, creative pieces this year. The guild has been receiving a lot of national attention in the woodworking magazines such as Woodwork, Workbench, and American Woodworker. The more pieces presented in the show the more likely you will be recognized. Come and enjoy the show, bring your family and friends, and become inspired to build something for next year's show. As a past entrant, I can tell you that it's a bit nerve-wracking to exhibit the first time but also very exhilarating. The later far outweighs the former. If you are thinking about showing for the first time and are timid to place your piece among the rest, I can guarantee you it's well worth it. The respect and attention lauded on you by the audience and co-exhibitors is well worth the price of admission!

-ed.
November 18, 1997 Tuesday 7:15 p.m.

Location: Minneapolis College of Arts and Design, Morrison Building, Room 01. MCAD is just west of 35W between Franklin Avenue and Lake Street and south of the Minneapolis Institute of Arts. There is free parking in the ramp on 3rd Ave. Go up the stairs to the main entrance, then down to the basement, turn right and go to the end the hall. FINDING YOUR INNER FURNITURE DESIGNER: Three professional guild members will conduct a fun evening of activities to enhance your creative mind. Please bring a sharp pocket knife to the meeting. Show & Tell / Buy & Sell starts at 7:15 p.m. Educational program starts at 7:30 p.m.

December 16, 1997 Tuesday 7:15 p.m.

Thrills and Skills

Location: Fourth Street Guild. 26254 SE Fourth Street, Minneapolis. The shop is west of Highway 289 and one block north of University Ave. THRILLS AND SKILLS: Come join us in a friendly competition to see who is the best craftsperson in the land. Awards will be presented to those members with the best hand and power tool skills. See page 6 for more details! Show & Tell / Buy & Sell starts at 7:15 p.m. Educational program starts at 7:30 p.m.
Thanks for the Feedback

By Tom Van Binsbergen

The recent 15th annual Northern Woods Exhibition was a continuation and improvement on what has become a fine fall tradition in Minnesota. I say this as a person who has "grown up" in the woodworking world, and who has attended the past five or six shows. I have noticed a consistent increase in the quality and number of pieces over the years. This improvement impressed me to enter a piece.

Two years ago I first thought I had a piece good enough to enter the show. That year I entered a few pieces in the Northern Woods Exhibition where I met several guild members including Paul Lienbach. Paul had entered a sofa table made of quartersawn oak and marble that impressed me in its simple yet elegant lines. As I examined and admired it, Paul introduced himself and explained his piece. He asked me if I was a professional woodworker and in turn showed genuine interest in my pieces. Paul also encouraged me to speak with other show participants and to consider joining the Woodworkers Guild.

After speaking with various guild members and witnessing and enjoying the helpfulness of the feedback they were receiving from show attendees, judges, and fellow entrants, I became inspired to come up with a piece of furniture worthy of the show.

This brings me to the piece that I entered in this year's show. With encouragement from Rich Gotz, I decided to enter the Queen Anne highboy I had completed last May. I decided to make the highboy because each fall I build one large project that involves developing a skill in which I am not confident or that is new to me. The building of this piece involved advanced carving as well as sculpting cabriole legs, both of which I hadn't done before.

I researched the highboy by reviewing several antique furniture books. Most illustrations of highboys in these books showed that they had roughly the same proportions but that the details varied widely. I chose to combine elements of four different Queen Anne highboys.

After sketching the highboy in detail my next step was to procure the wood. I remembered dealing with a wood sawyer in Pennsylvania before, who told me to always buy lumber from the same log for consistancy. I chose to purchase curly maple because it most likely would have spectacular amounts of curl. At the same time, I searched for sources of solid brass hardware, square nails, curly maple veneer, aromatic cedar, and the proper shades of anilne dye. This search is one of the most enjoyable parts of building a new, (Continued on page 3)
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To help assure that more trees end up in furniture than in the land fill, please recycle this when finished.

A subscription for color printed newsletters (6) is available for $30.00/year.

Next issue submission deadline is JANUARY 21st

Published using Microsoft Publisher

President's Notes

The 1997 Northern Woods Exhibition has come and gone and I would like to congratulate all the committee members and all the artists, who made it a very successful show. This annual event is a fine tradition that I was very proud to be a part of, and I am already looking forward to next year. Although it was a lot of work, it was also very gratifying. And so, if you would like to get in on some of that "gratification" next year, please give me a call and we'll put you to work!

For the past two years, each meeting has been video taped and two copies have been made available to the membership. The guild thanks Sherm Wood for providing the equipment and time to make this service available to all members. Members may borrow these tapes at most meetings from Peter Ribotto.

John Nesset is burning the midnight oil in preparation for a one man exhibiton at the Phipps Center for the Arts in Hudson Wisconsin. John will be featured in one of the Center's four galleries from January 15th through February 16th, 9:00 am - 4:30 p.m. Monday through Friday and 9:00 am until noon on Saturday. John will be displaying approximately thirteen pieces of furniture as well as photographs and verbal sculpture in the 24' x 24' gallery. To get to the gallery, take I-94 across the St. Croix River and take the first exit to Hudson. As you travel north into Hudson, turn left at the third stoplight onto Vine Street and the Art Center will be on your right.

The annual Guild Social Dinner will be held in late February and we are asking attendees to build a wooden toy that can be donated to the children cancer patients at the Ronald McDonald house. As I write this, we are planning to donate last year's toys to the Ronald McDonald house on November 25th. It is our hope that these wooden toys will bring a few moments of joy into their difficult lives. See details elsewhere in this newsletter.

It is unfortunate that Home Furniture magazine will end with issue fourteen. This magazine has been an inspiration to many guild members and we can only hope that Fine Woodworking will devote a few pages to a "Home Furniture" section. During the magazine's three year history, two of our members, Richard Helgeson and John Nesset, have been published.

As you may already know, the Guild purchased photographic lights, a seamless background, and a stand to support the seamless. This equipment has been used by several
members and during the Northern Woods photo session. If you would like to use this equipment, please call Willis Bowman or Rich Gotz and we’ll get you started.

If you have visited the Woodcraft store in Bloomington recently, you may have noticed a new employee with a very familiar face. **Tom Caspar** is now employed by Woodcraft. He plans to continue writing articles for Woodwork magazine, teaching additional classes at Woodcraft, and is planning to teach a class with Peter Korn at the Center for Furniture Craftsmanship in Maine next October. Good Luck Tom.

This past year has been a very busy year for the Board of Directors and so, this being the last newsletter of 1997, I would like to **review the progress** that we have made.

* increased the newsletter from quarterly to bi-monthly, doubled the size and improved the content.
* created a website that receives an average of fifteen hits per day from around the world.
* purchased a scanner to enhance the newsletter with pictures and to create the website.
* used bulk mailing to offset rising mailing costs.
* bought professional quality photography lights and seamless for guild member usage.
* became incorporated.
* establishing the guild as non-profit organization (in progress).

Congratulations to all the volunteers that donated effort, time and materials to achieve these goals.

This ends my first year as president and it has been a challenging but rewarding job. Willis Bowman, Doug Perlick and myself, have been elected for another year and we look forward to your support in 1998. Thank you.

(Continued from page 1)

difficult project. It really challenges a person to go beyond where they are familiar, expand their horizons, and hopefully become inspired to come up with an even better project than if they had simply done what was familiar.

After five months of late nights and weekends I finished and was very satisfied with what I had made. Since I worked alone in my parent’s shop while they were in Florida and that very few people saw the highboy as a work-in-process I felt I needed feedback for reassurance. I wanted to know how other people, who knew and appreciated the large amount work that goes into such a piece, thought of it. **Feedback** is one of the reasons the Northern Woods Exhibit turned out to be such a great experience. Between speaking with fellow guild members and explaining my work to people who attended the show, I heard many comments on how they felt about my piece, other pieces, and the show in general. This kind of feedback between fellow woodworkers and between the public and the exhibitors is something all of us appreciate and now I wish I had pursued earlier in my career.

With each large project built I hope to learn some-thing new. This project taught me that ignorance is not necessarily a bad thing! Not knowing exactly how a design will end up, or how difficult a particular wood is to work can be beneficial because the limits are not already set in your mind. If you’re not sure you can do something, you probably can with a little extra amount of effort and patience. If you’re thinking of trying something new, go for it! The rewards and awards are great.
What’s all the buzz?

Why you should plug in both your table-saw and computer

By Willis Bowman

When I took over the job as editor a few months ago I was very excited about the possibilities of creating a newsletter full of information but mostly, I wanted it fun to read. My only concern was the limitations of the printing press that would produce the 450 copies every two months. I am still struggling with the technical challenges of transferring what is staring back at me on the computer monitor to the age old paper presses.

I have found out that the computer has a long way to go to easily join hands with the presses. What looks beautiful in its clear, rich Technicolor turns to mud on the presses. It is a matter of choosing the right hardware and software to make the transition from the monitor screen to paper an easy chore. I am committed to make that happen.

The last few years has opened my eyes to a new brand of communication: the Internet. The Internet has both the capability of offering information to other people and the ability to communicate with anyone in the world who is on-line in a matter of seconds. This explosion of information can be, and is, overwhelming.

Some information posted on the Internet is, unfortunately, not worth its salt. There has been so much untrustworthy “fact” strewn on websites that it is hard to know what is really true. On the brighter side, aside from facts, there is a plethora of websites that offer pictures of woodworking pieces. I have found many sites on which woodworkers post their wares just as the Guild does. We get about fifteen people a day looking at the pictures of pieces that some members have posted. This information is far more current and immediate than any magazine that comes to your mailbox only once a month. Most sites are continuously changing to reflect the latest and greatest. This is one of the powerful features of the Internet.

The other side of the Internet is communication or e-mail (electronic mail). E-mail has revolutionized how people talk to each other. Not that the telephone will succumb to the computer (in fact computers “talk” over telephone lines), e-mail offers many features that perhaps makes it more palatable than an ever-ringing phone. You can read and send your e-mail at your leisure; it lacks the immediacy of the phone which can distract you from your routine, bothering you at inopportune times.

Data can be passed from one computer to another without much trouble. Rich Gotz and I routinely send photos, text, and ideas back and forth via an ftp server. We keep each other informed about guild business by passing messages that arrive at our computers in seconds. Maybe we have

(Continued on page 8)
Scandinavian Whittling Knife Class

Teachers: Chris Thompson and Pat Juettner
Location: 2 Langer Circle
    West St. Paul, Minnesota 55118
    (612) 457-4130
Dates: Monday, Jan. 12; Tuesday, Jan 13; and Tuesday, Jan. 20
Times: 6:30 – 9:30 PM.
Class Fee: $60.00 (Instruction $35 and materials $25 – includes wood, knife blank, leather, and sharpening)

In this 3-session class you will create a custom whittling knife! Students will shape a handle out of wood (walnut, osage orange, big leaf maple, and curly maple are possible choices – contact us for other options). You will also create a leather sheath and finish both. Sharpening is included; you will learn the correct technique to obtain a good edge and maintain it! Space is limited – please contact us early if you are interested in this class.

Buy & Sell

Keen Kutter Bedrock-style planes: #4 1/2C, #5, and #6C. Also motorized Japanese water grinding wheel with 3 stones and jointer knife attachment. Call John Walkowiak at 824-0785.

THICK Macassar Ebony. Most boards 8” wide, 80” long, nominal 2” thick (actual approx. 1-1/2”). $30/BF. ($25/BF if you buy over 50 BF). Can cut or sand to any size. Also, Watco Danish Oil Finish, pints $3, quarts $4, gallons $12, many flavors! Call Wayne Wenzlaff 895-0642 (days), 496-2330 (nights)
Twenty to two-hundred pound walnut burls from Oregon. Call Scott Bodine at 827-1041.

Reclaimed submerged old-growth Red Pine, White Pine, Hemlock, Spruce, and Tamarack. Tim McCabe in Hastings at (612) 437-4928 Also, call about air dried oak for $1.50/bf.

Do you want to buy old hand tools to use but can’t find them? Join the Mid-West Tool Collectors Association. For information call John Walkowiak at 824-0785.

Delta contractor’s tablesaw with HTC roller base and 32” Unifence. Extension table included. Purchased 11/93, $799 Call Jerry Dornquast at 888-4637


Portable 12” Delta planer, dust collector attachment, extra set of blades, 3 years old. $225. Call Rich Gotz at 544-7278

Wanted: Guild members who work for, or have “connections” with a printing business that would be interested in printing the guild newsletter in color at a reasonable price! Call Rich Gotz 544-7278(h) 536-4198(w) or Willis Bowman at 869-0140.

Newsletter of the Minnesota Woodworker’s Guild
Local woodworker has show

John Nesset, member of the Minnesota Woodworkers Guild is holding a one man show at the Phipps Center for the Arts. He received a Career Opportunity Grant from the MN State Arts Board to cover expenses. John plans to have a variety of pieces at the show such as his writing boxes, tables and benches. The Phipps Center for the Arts is located at 109 Locust Street Hudson, WI 54016, 715/386-2305. Call ahead for gallery hours. The show runs from January 15 through February 16, 1998.

The Northern Woods committee would like to thank the following sponsors and supporters of the 1997 Northern Woods Exhibition. A HUGE thank you to:
Jim Frey at Woodcraft Supply in Bloomington.
Heidi Ziemer at The Woodworker’s Store in Maplewood, Minnetonka, Burnsville and Lyndale.
George Efriem at The Woodcarver’s Store and School in Minneapolis.
Chuck Reese at Seven Corners Hardware Store in St. Paul.
Randy Johnson at Youngblood Lumber in Minneapolis.
Carl Wolter at G.C. Peterson Machinery Co. in Minneapolis.
Paul Wilson at Tried & True Tools, Inc. in Fridley.
Rod Johnson at Northern Hardwoods, Inc. in Cannon Falls.
Dave Looney at Davlin’s for hosting the Exhibition at Southdale Center.

Congratulations to the winners of the 1997 Northern Woods Exhibition
Best in Show - Tom Van Binsbergen for the Queen Anne Style Bonnet Top Highboy
People’s Choice Award - Tom Van Binsbergen for the Queen Anne Style Bonnet Top Highboy
Best Design - Tom Shrunk for the Ying Yang Sculpture
Most Technically Accomplished - Ross Peterson for the Cherry Dining Table
Most Daring - Alan Lacer for the Black Rose Goblet
Best Handwork - Tim Johnson and Tom Caspar for the Maple Dining Table
Best Finish - Ron Betcher for the Spindle Prairie Chair with Footstool
Woodworking for Pleasure - Dwight Speh for the Wooden Gear Clock
Best Towning - Craig Lossing for the Suspended Vessel
Best Carving - Steve Tomashek for the Miniature Animals
Top Drawer Award - Richard Gotz for the Single Drawer Shaker Sewing Table
Judges’ Award - Ross Peterson for the Stuff Storage Cabinet

And thank you to everyone that entered pieces in this year’s show. We hope to see you next year!

We hate to do it but...

The annual membership fee will increase to $30 a year. The cost of operating the guild has been increasing and as a result, the annual membership dues will be increased by $5 per year beginning January 1998. We still think it’s the best value in town!

Space Available

space has opened up in the cooperative workspace known as the Fourth Street Guild. Tom Caspar, a long term woodworker there, is moving on to pursue teaching and writing about woodworking. His departure has left a space for an interested woodworker. The space now houses 5 woodworkers and they all share the same machines and finishing area but have their own benches and workspace. Anyone interested in joining this cooperative call Tim Johnson at 378-2605.

Newsletter of the Minnesota Woodworker’s Guild
Fold each of the tabs up, then fold the base into a square tube by folding along the dashed lines in four places. The last fold will cause the tab on the side of the base to point into the tube. Confused yet? Run each end of the sawblade dowel through the holes on the side of the base. Make sure that the sawblade teeth are pointing towards the front; the front has the guild logo on it. This will take some finesse but I have complete faith in your cardboard techniques! A word about the 24-inch spring you will be using. You may use a heavy-duty thread or do what I did: I unraveled a piece of polished twine and took out one strand. Perfect! Now take your 24-inch string (strand) and run one end through the hole in the front of the base. That hole should have donuts on both sides (JUST CHECKING!) Tie the end TIGHTLY around the dowel to the right of the blade. Cut off the short end so it’s not in the way. On the other end of the string tie the pull tab. Spread glue (I don’t care, yellow or white) on the tab and place INSIDE the square tube. Use paper clips to hold the tab to the rest of the base, or you may hold it (about ½ minute with yellow glue) (Again, I could care less).

Tabletop. Fold along the dashed lines, the four sides down. Woah! Before you do that notice the four skinny “legs” sticking out. They need to be folded inside first so that they are under the endflaps. Smear glue on the legs, fold the legs in, and then fold down the endflaps and secure with paperclips to hold to dry or you may hold it with your hands.

Fence. Fold along the dashed lines all tabs down except the business end of the fence (the knob-ended tab). Fold the endtabs in first (labeled F.I.F. for “fold in first”) and then glue the endflaps successively over the endtabs. Do this on each end. Finally fold the knob-ended tab up.

Goop some glue on the tops of the four tabs of the tablesaw base. Place the completed and dry table top onto the base. You may have to adjust the saw blade position so that it pokes up through the slot in the tabletop. Remember, the miter gage point away from the front and the logo on the base is the front. Do you see the relationship? You may have to tape the tabs on the base to the top for them to seat properly. The paperclips are useless on this setup, unless you have pretzel bent them. Your tablesaw is finished!

**USING THE SAW:**

Spin the blade backwards by rotating the dowel clockwise (as you look at it from the right) by hand and let the string feed into the base. The string should wind up onto the dowel. If it doesn’t, help it along. When you have wound all the string onto the dowel, grasp the tablesaw base near the top with one hand and with the other pull the pull-tab. Pull the pull-tab and rewind a few times to check alignment. You may have to move the blade to center it in the tabletop opening and you may have to flatten the blade so that the teeth don’t catch on the edge of the opening. You can flatten the blade by crimping with your fingers. The sawblade will spin allowing you to power through the toughest of tissue or the gnarliest of Kleenex. Place fence on top. Enjoy!
WHAT YOU NEED:

- Straight edge, preferably metal
- A utility knife with a very sharp blade
- Tape
- Glue, white or yellow
- 24 inch thin piece of string or strong thread
- Paperclips
- 8 clear plastic donuts. Reinforcements for holes in paper used in three ring binders
- 3" long 1/8 inch dowel
- A variety of colored markers, pencils, or crayons

WHAT YOU DO:

Coloring:

Using indelible markers, colored pencils, crayons, or what ever pleases you, color the parts of the tablesaw any which way you want.

Cutting:

To cut out each of the pieces to the table saw, use an ever-sharp x-acto blade and a straight edge. Cut on the heavy black lines BUT! do not cut on the dashed lines until told to do so, if ever. Two pieces (the tablesaw top and the fence) have black lines that are drawn in to the part. Make sure to cut those as well. The tablesaw top also needs a slot cut out in the insert. Make sure to place an expendable chunk o’ cardboard or an old magazine under the cut out sheet so as not to cut neat little score marks into Aunt Betty’s living room table. Obviously you will not use a straightedge on the saw blade. Because why? BECAUSE IT’S NOT STRAIGHT! Freehand it or use a quarter or bottle cap or? If you want to get fussy, you may cut out each of the teeth. Later on, you can cut toilet paper or Kleenex with this saw. OOOOH, AAAAAAAH!

To make the folds on the dashed lines gently, GENTLY! I say, score along the dashed lines with the still ever-sharp x-acto blade. Just cut through the top fibers of the paper. This will make for a crisp, clean fold.

Once you have cut out all the parts it is time to stick on the donuts. Use the clear plastic donuts, as they will wear better than the white paper ones. Poke or cut holes through the three holes on the table saw base, the one hole in the sawblade, and the one hole in the pull-tab. Put the donuts on EACH SIDE of the holes except the sawblade to make the holes EXTRA tough!

Folding and gluing:

Saw blade. Do this first. Run the 3" long 1/8-inch dowel through the hole in the sawblade. Run each end of dowel through a blade stiffener and pull each stiffener up to the blade. Glue or tape the stiffeners to the blade.
Web Sites Review

For those of you that access to the Internet, you no doubt know that there is a myriad of woodworking sites to visit. The following are reviews of interesting? useful? woodworking (and sometimes non-woodworking) sites for you to visit.

MacLachlan Woodworking Museum
http://mal.rmc.ca/museum/home.html

The MacLachlan Woodworking Museum examines the importance of wood through its expansive collection of woodworking tools and wooden objects. Their displays highlight the variety, versatility and evolution of the tools. Re-created workshops bring to life the woodworking trades, such as that of the cabinetmaker, cooper and timber-framer.

The museum is also dedicated to research. Their collection of woodworking planes is unrivalled in Canada, making it a center of study for tool collectors. By collecting complete and intact tool boxes, and when possible, entire workshops, the museum is able to keep historically accurate records of the tools used in various trades.

The MacLachlan Woodworking Museum is an excellent resource center for the tool enthusiast, historian or casual visitor alike to learn about Canada’s past.

The collection and exhibits focuses mainly on the harvesting, working and uses of wood in Pioneer Ontario. It includes both the wooden objects and the tools that were used to make them. The pride of the collection are the woodworking planes; over three thousand planes from across Canada, USA, England, and Europe.

Whiteside Machine Co.
http://www.routerbits.com

Whiteside Machine company manufactures a complete set of router bits and forstner bits. You can choose each bit you want to buy and place it in “your shopping basket”. This is a good place to see what’s available in the market. A price list is included with each description.

Yes, you can order and purchase directly from the website!

More Buy & Sell

Beautiful, dazzling burls and unusual boards of the most incredible wood you’ve ever seen. Colorful exotic burls from the Yukatan Peninsula, wildly figured Cocobolo from Guatemala as well as Zircote, Osage Orange, and more! Variety of sizes and widths. Unbeatable prices. Call Craig Lossing at 785-4194.

Delta DJ-15 6” jointer. Excellent condition $950 Call Paul Leinbach (612) 682-1030

Older lathe. Will accept up to 36 inches of stock. $150 or b.o. Call Dave Boulay 866-8834.

Jet 15-5/8” Planer on casters, 6 years old, $600.00 Call Colby Wilkins 927-5456

6” Delta Lathe  12” diameter swing and extended bed for 48” between centers. Enclosed steel base with added reinforcements. 1 1/2 HP DC drive motor and variable speed controller with reversing. (240 volt 1 phase input - standard house power at about 10 amps) $850 Call Don Wattenhofer 572-1045 H or 781-5378 W

8” Delta Lathe 16” diameter swing (2” height blocks added to a standard 6” lathe) with auxiliary shaft to connect a lead screw. Mounted on a bench table with steel legs, 2” white oak top and shelf. 3/4 HP 3 phase AC drive motor with variable frequency speed control. (240 volt 1 phase input - standard house power at about 5 amps) Note: I will consider breaking this one up and selling components (the speed controller is an industrial unit worth about $750.00) $1,200 Call Don Wattenhofer 572-1045 H or 781-5387 W

Newsletter of the Minnesota Woodworker’s Guild
become too conceited in our operations but the thought of receiving pages of text from Rich and retyping them is more than I want to do with my time. Our programs do this very easily. The convenience is almost startling!

You can broadcast information to many people at once. In my mind this is what makes e-mail worth while. Currently there are 57 guild members online who send and receive messages and questions about woodworking and related topics. We tell each other about sales, shows, or opportunities that come our way. Unfortunately, the newsletter is not frequent enough to tell all the guild members about them in time. I urge you to subscribe to an Internet Service Provider (ISP) for an e-mail account so that you can keep more up to date.

There is a lot of information that passes by us and as editor I would like to dispense it to you in a timely manner. Our coffers won't allow us to publish as newsletter more frequently from a printing press. The next best alternative is to bring it to you electronically. This newsletter will be presented on our website for you to download in living color (very beautiful!). Who knows, if there comes a time when all members (or most) have access to the Internet then we could publish the newsletter bi-weekly on our website with the most current information. Until then I hope we never lose the art of conversation and visiting now and then. After all, we’re humans, not computer monitors.

The big three ISPs are: American On Line (AOL) 1-800-827-6364 Compuserve 1-800-554-4079
Microsoft Network 1-800-426-9400 Juno (free e-mail) 1-900-555-JUNO

There are many other smaller providers in the twin cities. If you get on line, please tell Rich Gotz at RGotz@empros.com to add your name to the official guild e-mail list.

More Space Available

I am writing you to let you know about some great space for rent. I have been in the 2303 Kennedy Building for the last 14 years and have enjoyed the close proximity to the freeways, lumberyards, hardware stores and downtown Minneapolis. Furthermore, the rent is among the lowest I have found: $375 in the basement where I have my workshop.

There are 3000 ft² and 1200 ft² areas available in the basement with even more on second and third floor. The third floor space has a built-in spray booth.

We are two woodworkers in the building who have just bought a spray booth on second floor of the building and plan to rent it out by the hour or by the day. If you don't have a spray gun, don't worry; we have what you need. And if you don't know how to spray lacquer, I'll be happy to give you a quick lesson.

If you need more information about the space and/or spray booth please call me, Hans Mouritzen, at (612) 378-0954 or email me at danwood@PioneerPlanet.infi.net or visit at 2303 Kennedy Street NE, Minneapolis

Wanted: Wooden Toys

We are looking for entrants to the annual toy contest held with our February 1998 Guild Dinner. Contestants have been sparse in the past so this year the Board is asking you to seriously consider how a wooden toy of your creation can both make a child happy and demonstrate your skills. The Guild members attending the dinner anonymously judge entries. The winner receives a modest prize and the toys will be donated to a local children's hospital.

If you would like to enter a toy in the contest but cannot attend the dinner, please contact Rich Gotz at the e-mail address or phone number printed on page 2 in this newsletter or another Board member to make arrangements to bring your toy to the dinner.

Need ideas? Woodworking stores and public libraries have many books of toys to stimulate your mind. The mass of catalogs arriving in your mail at this time of the year may also give you ideas. Please enter the competition this year to help make our contest exciting and bring joy to some kids.

Newsletter of the Minnesota Woodworker's Guild
Free Finish!
by Willis Bowman

Last October when Rich Gotz and I were painting the brand new and old vitrines for the upcoming Northern Woods Exhibition, I offered to gather all the materials necessary to finish them. Intending to do this on the cheap, I remembered the Reuse center at the South Hennepin Recycling & Problem Waste Drop Off Center. I went there and picked up four gallons of white latex paint, barely used. Inside the facility I noticed a shelf labeled “finishing supplies” on which I found an unopened and fresh can of amber shellac and a new can of McKloskey’s Spar Varnish. There were scores of canned varnishes, polyurethanes, stains, and other finishes for the taking. In fact, I went back later and picked up ten gallons of paint for a theater I help out at. At $12 a gallon for new paint this was a great savings to them.

For a random assortment, there was a fair amount of useable finishes. Though most of the cans had been opened I thought it a great place to pickup materials for the pieces that didn’t require the ultimate finish. There is plenty of paint for touching up the garage and maybe putting a clear coat on that lawn furniture that’s taken a beating. Besides all the material being free, just think that you will be taking all that problem waste out of circulation. The Drop Off Center is also a great place (and the only place!) to leave your finishes and paints that you don’t plan to use.

The Recycling and Drop Off Center is located at 1400 West 96th Street in Bloomington. Closed Sundays and Mondays. Call 348-6500 for more information.

My First Woodie
by Dwight H. Speh

The 1996 Northern Woods Exhibition was history and the three hour drive home from the show allowed me to reflect on the excellent woodworking pieces that were displayed. There was the Best of Show: a cherry sideboard by Ross Peterson whose attention to detail and design was flawless, and the beautiful work bench by Richard Gotz. My mind drifted to my arrival at the show on Thursday morning when I viewed Richard’s piece for the first time. I was awestruck not only by the depth and beauty of the finish, but by the craftsmanship that went into this bench.

As the odometer was counting off the miles to home, the judges critiques began to take their toll. “Nice design, but pretty minimalist - push the design”; “Joints could be tighter and cleaner”; “Could you employ some other wood species other than baltic birch?” “The gear mechanism doesn’t relate to the case.” My reaction was, “What do these guys know about making a wooden geared clock?” I pondered if they had ever tried to produce an item like this and experienced the endless hours of frustration and failure.

Home was in sight and as I unpacked, I placed the judges critique sheets on my desk where they would remain for the next year. I would read these over and over for the next few weeks and finally interpret their comments with an entirely different attitude. The comments were written to help me improve my woodworking skills by pointing out areas that were flawed; they were not attempting to tear me apart. The judges may not have understood clock building, but they knew woodworking and it was the time to incorporate their observations in the next clock. I could improve my joinery, and as for the design, why not attempt a few more drawings? There had to be a limitless number of possibilities. For a change in wood species, cherry would become the parent wood and padauk would be used for the contrasting parts.

For the next few weeks I drew sketches of clock plates and cases. I wanted to keep the basic lines in the case, but somehow change the clock plates to be more freeflowing with the case. Overall the design would need to have a fluent and elegant look to the observer. Finally, a design popped that sign would need to have a fluent and elegant look to the observer. Finally, a design popped that I thought could work with the gear train. A full size drawing was to follow which was cut out and observed from a normal viewing distance. The design appealed to me and now had to pass which was cut out and observed from a normal viewing distance. The design appealed to me and now had to pass another critique (my wife’s). The critique was going smoothly until she focused on the weight shells. Her exact words were, “Everything is so pretty and neatly done, but you need to hide how the shells are connected to the strings” (weight cords) - she doesn’t speak clock language. I would deal with this detail later, much later.

All systems were go and I was anxious to commence making sawdust when the inevitable happened - I fell off a ladder at work and fractured my right wrist. Five

(Continued on page 11)
September 1997 Guild Meeting -
Solid Edging Veneered Panels
By Richard Lagerstrom

Bruce Kieffer opened his shop to Guild members this month to show how easy it is to put solid edging around a circular veneered panel without gaps. This is a step-by-step narration of a very nicely presented demonstration.

The field (the center panel) of the circular panel construction should be bandsaw cut close to a circle but slightly larger than the final dimension and veneered before working on the solid edging. The veneer should be trimmed proud of the outside of the roughly circular substrate. The solid wood edge stock should be made at least slightly thicker than the panel, but it can be significantly thicker if you want the panel to appear thicker than the substrate. Try not to make the edging very wide since wood movement can cause problems when the seasons change.

Drill a center hole in the back of the panel to guide a radius jig. Do not drill all the way through and mar the top!

Use a radius jig on a router and make the panel perfectly round and of the correct diameter. A 1/2-inch straight bit works well. Bruce trims about 2/3 of the panel thickness from the under side with the straight bit. Then he flips the panel over and from the top cleans up the uncut portion with a bearing-guided trim bit. You may need to try different bits or bearings to eliminate a step where the top and bottom trim cuts meet.

To make the solid edge edging, start by making a template with its inner radius matching the panel and outer radius matching the final outside dimension. Bruce does this with a drawing program on his computer but trammel points set to the correct radius also work. Make a template for 1/4 of the circle. Using the template, with a bandsaw rough cut at least four (it is better to make one or two extra pieces in case some are damaged in later steps) segments that will make up the edge. Allow extra width and length so in later steps you will have enough material for trimming.

Make a jig to hold a segment. The jig should hold the segment tightly so it does not move while it is being routed. The jig also has a spacer block where the center of the radius jig will go. Make this block the same thickness as the segment to level the router. Set the radius jig for the inner radius of the segment. Make a shallow trim cut and try the fit of the segment on the panel. It is best to cut the radius slightly smaller than the panel so the center of the segment does not quite touch the panel when the ends of the segment are tight. When the segment is clamped, it will be drawn to the correct radius and put extra pressure on the ends so they are assured to be tight. (Similar to edge jointing boards with a slight spring.) When the fit is acceptable, complete the segment by routing it about 3/4 its thickness. Do all segments. Next use a bearing-guided trim bit to clean up the remainder of the edge from the other side. Do not worry about the outer radius now.

On a belt sander or a table saw sand or cut the segment ends to the correct angle so two segments meet perfectly when placed on the edge of the panel. Do this with both ends of three segments and one end of the fourth. Leave the fourth segment slightly long. It will be trimmed later to fit exactly after the other three segments are glued to the panel. Next glue three segments to the panel. It is easier if a temporary fourth segment is used to fill the gap and force the joints tight. Do not glue the fourth segment. Use a band clamp to hold the segments onto the circle and use cross clamps to eliminate any spring in the segments. Let this dry.

Finally, take off the clamps and fit the fourth segment. This is where an extra segment will be handy if you happen to trim off too much while fitting! Make a radius jig for a belt or disk sander so the panel will turn on a dowel placed in its center hole. Sand the outer radius to size. Sand the top and bottom of the panel and the edged panel is complete.

Edge detail work should be done now if a rounded edge or other decorative details are wanted. The remainder of the piece can now be completed and assembled.

Each of the four trim pieces are precisely cut with a router jig.
The solid edge trim pieces are test fit to the panel.

Newsletter of the Minnesota Woodworker's Guild
months would pass before I had enough strength and confidence to rip or joint a board. I really was anticipating this year's show, but would time allow me to complete my clock before the exhibit date?

The 1997 Northern Woods Exhibit was four months away and not one board had been selected or cut for the frame. How would I complete a clock and honor a commitment of a large project for our local 4H club within that time frame? I would take a new approach by machining parts for four frames. Gears for ten clock movements would be gang cut to reduce setup time and numerous jigs would be built to aid in construction. My shop would be setup for a small mass production run. A walnut case would first be built to be exhibited at local county fairs and then a cherry case be completed later for the Northern Wood Exhibit. I completed the clock movement without any setbacks and it was now ticking away the hours in my shop. The frames were next and construction went well except for a bunged setup on a radial arm saw that required a redo on several completed parts.

Finishing now became the unresolved issue - Richard's beautiful finish on his bench almost haunted me! It had to have depth, luster, and be silky smooth to the touch. After several trials on identically prepared cherry samples a finish was selected. Danish oil would become the base coat followed by, 72 hours later, Sam Maloof's poly/oil finish as the top coat. Two applications of Danish oil were flooded on the piece for no less than 30 minutes and then wiped off. Additional coats would be rubbed on with only a few drops to an application pad that would be used for the entire case and not wiped off. Several ultra thin coats of poly/oil were applied with a very light buffing between coats with steel wool. The results looked better with each coat and finally the surface would meet my prerequisites. I have always disliked finishing, but this was almost fun, extremely easy and probably fool proof. The finish would have a month to cure before waxing and the October exhibit.

With only a few weeks of time left, the critique from my wife was still not addressed, how do I hide the weight cord to weight shell connections neatly? I attempted to use hollowed out wood turnings, but there was not enough mass remaining to keep the turnings in place. They would tilt from one side to another when winding the clock. I opted for turnings from ¼" brass stock. They would be turned, highly polished and then lacquered to retain the luster and prevent tarnishing.

Show time arrived and I was anxious to leave after school on Wednesday afternoon. All packing preparations had been taken the night before to prevent any oversights or last minute catastrophes. As I headed for the cities, my thoughts on improving my grades from the previous year. I wanted an "A" for my finish and hoped it would meet the judges' approval. I knew the design had more pleasing lines and that everything related, but how would the judges view the design?

Thursday morning found me meandering through the exhibit and I was as awestruck as I had been the previous year. I am amazed at the craftsmanship that was displayed at Northern Woods and felt that in this year's show, the craftsmanship had improved several notches from last year. The Queen Anne highboy in my view would be the "Best of Show", but not once did I contemplate that I would receive any award for my endeavors.

My wife arrived at the show Friday noon with my daughter and youngest son Cory. I had asked Richard to print a name card for Cory as he basically is my wood-working companion when I am working in my shop. Although he is only ten years old, he wanted to be a member of the guild. He was catapulted to cloud nine when I pinned on his name tag. ("Dad, am I a member now?") Little did I know that I would join him on that cloud that evening during the award ceremony.

Friday evening Ellen Benavides - the mistress of ceremonies and I were discussing my clock when she asked how to pronounce my last name. Since I am accustomed to that request, I never gave it another thought. When Ellen announced my name as winner of the "Woodworking for Pleasure" award. I was totally shocked and really could not collect my thoughts for the acceptance. I do remember referring to Richard Gotz's as having received the award the previous year. How honored not only to have been selected but to have followed in Richard's footsteps as this year's recipient.

I approached this show with an attitude of displaying an improved version of a clock based on the judges critiques from last years show. Discarding those comments would have been easy, but instead I let those remarks and grades influence my work.

Driving home from this year's show was a little more pleasant than last year, and like the previous year, I reflected on the show and of course, the judges' critiques. Upon arriving home I placed this year's judges' reports with those from last year on my desk. I plan to read both sets as I prepare for next year's exhibit. Woodworking is still an avocation to me, and there are many skills that I need to hone as I progress up the ladder of craftsmanship. By the way, I did receive that A for finish - there is still room for improvement. (A+maybe)

Welcome New Members!

GEOE ANDERSON, MICHAEL BOSQUEZ, JACK E. COBRK J. CRUZ, BRAD CUMMINGS, LEO DEHLER, DAVID ENNIS, ARDEN FLATEN, DAVE GUNDERSON, KEVIN HECK, TERRY HOCKERT, KEITH JOHANSEN, SUSAN KISER, DAVE KINER, JOHN LAUFERSWEILER, CRAIG LOSING, MICHEAL MURRAY, CHARLES PIEPHS, BILL RICHARD, TROY SAUSEN, LARRY STEWART, BRIAN SUNDIE, DON TAYLOR, STEVE TOMASHES, AND KENNETH L. VOLD.

Newsletter of the Minnesota Woodworker's Guild
December 16, 1997 Tuesday 7:15 p.m.

**Thrills and Skills**

Location: Fourth Street Guild, 2625 SE Fourth Street, Minneapolis. The shop is west of Highway 280 and one block north of University Ave. **THRILLS AND SKILLS:** Come join us in a friendly competition to see who is the best craftsperson in the land. Awards will be presented to those members with the best hand and power tool skills. See October issue for details. *Show & Tell / Buy & Sell starts at 7:15 p.m. Educational program starts at 7:30 p.m.*

January 20, 1998 Tuesday 7:15 p.m.

Location: Fourth Street Guild, 2625 SE Fourth Street, Minneapolis. The shop is west of Highway 280 and one block north of University Avenue.

**Bow Saw and Other Specialized Hand Tools:** John Nesset will use a bow saw to cut and flatten boards and will demonstrate other specialized hand tools. *Show & Tell / Buy & Sell starts at 7:15 p.m. Educational program starts at 7:30 p.m.*

February 21, 1998 Saturday 6:30 p.m.

**Winter Party:** Members and their guests are invited to a fun and enjoyable social event. Invitations with more information will be mailed to all members.