The Newsletter of the Minnesota Woodworkers Guild

NORTHERN WOODS

Volume 114

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You to can make one of these. They are kits. See Feb. meeting

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NORTHERN WOODS

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Membership

To become a member, fill out the coupon below, write check to MN Woodworkers Guild, mail both to:

MN Woodworkers Guild 5700 Vincent Ave. S. Minneapolis, MN 55410

You will receive your membership card by return mail.

Address Changes

Please forward address and contact change information to Carole Magnuson at the email address shown to your left.

Newsletter

Send articles, "Buy & Sell" submissions and letters to the editor to:

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New Membership Coupon

Name
Business Name (if any)
Address
City State

Zip Code

President's Notes

Last week I was walking in the woods with my dog and noticed a particular old bur oak....twisted and contorted into an impossible shape. A wonderful idea for a new marquetry piece, I thought.



A hundred yards later I saw the delicate curves of a clump of dogwood stems. A concept for new cabinet leg posts?

A bit later, walking along the river bank, I became intrigued by the many shards of melting ice in the swirling water. Surely, this was worth reproducing with fused and foiled glass in some future cabinet door.

Upon returning home, all these ideas were logged into my idea book....just a little notebook with the words "dream, plan, do" inscribed on the cover.

Eating lunch, I couldn't help admire the tiny flutes on the edge of a piece of romaine lettuce and the amazing logo on the bottle of olive oil. I logged a new sculpture idea into the notebook.

You see, inspiration is everywhere! Not just for your next woodworking project, but for life in general. All we really need to do is look around and...well...see.

During the next week I entered notes about a pair of earrings I saw, the shape of an old Jaguar grille, and a 17th century drawing of a butterfly.

Here's my tip for the month: Instead of buying plans for your next woodworking project, buy an empty notebook instead. Fill it with your own ideas and you just might discover the best part of woodworking.

Cool stuff is everywhere. We only need an open mind, observant eyes....and a notebook.

To see the word in a grain of sand And a heaven in a wildflower Hold infinity in the palm of your hand And eternity in an hour.

- William Blake

Midwest Tools Collectors Meetings

The Mid West Tool Collectors Area A will have a meeting on April 19th at the Hastings Armory, in Hastings MN. The doors will open at 7:30 am and the buying/selling will begin at 8:30 am. It will wrap up after lunch, which is included in the registration fee. All Mid-West members and their guests are welcome. Email me at JohnWalkowiak@comcast.net for more information or contact Hollis for a registration flier.

Don't Forget





Northern Woods

Let's do some shop tours.

Everyone's shop is different and each one has some unique ideas.

Let's start a small group of woodworkers who would like to tour some shops and are willing to provide a tour of their shop.

To see if anyone is interested I will be offering a tour of my shop.

The shop has evolved over 40 years and has been in 3 locations. Three years ago I moved to a townhouse in Plymouth and had the opportunity to upgrade and set up my shop again.

Some of the features are dust collection at every machine, a sound enclosure for the dust collector and air compressor, an island layout for 4 machines, and an all steel Hawk router table that tilts for vertical or horizontal routing. The shop is a combination of old and new and is designed for my convenience not to look pretty.

If you are interested in being part of a tour group please let me know and we will work out a schedule for the first tour.

Please provide your name, address, phone and email to:

Bob Paulson rmelp@comcast.net any time or Phone 763 557 5764 **after April 14** 3630 Archer Lane N Plymouth, MN 55446





April 24th - 27th





Southdale Center



Wooden Harp Making with Jerry Brown - Feb. Meeting by Bob Rocknem

We had the February meeting on a very cold evening at the very pleasant auditorium in the Stillwater Library. All of who ventured out enjoyed a well presented and informative lecture about the construction and technology of harp making. As so often happens, there is much more to the subject than we expected. Jerry Brown brought four different sized harps and an overhead projector for his lecture.

His interest in stringed musical instruments started out as a hobby thirty years ago and has grown into a full time business called Musicmakers. Musicmakers is a national and international company accessible by phone and the internet. To order a catalog call (1-800-432-5487) on the internet (www.harpkit.com) see the products offered. Jerry has kits and blueprints for various stringed instruments that



Jerry Brown discussing Harp making

are available for people with a wide range of woodworking and musical skills.



These harps are all made from Jerry's kits

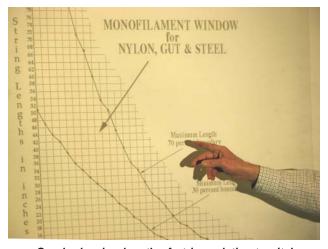
This lecture was devoted to harps. The rules for design and construction have been used for more than two thousand years. The shape is roughly triangular with the short strings at the corner in the sound board area and the longer, lower pitched strings at the pillar end. The top of the triangle is called the harmonic curve and must be very strong. It is made from straight grain hard wood usually laminated to two or three inches thick. The harp is held together when the strings (nylon now instead if wire or gut) are tensioned to about 70% of the breaking point. Glue isn't used for the joints because the harp

may need to be taken apart. Crescent, dowel, and dovetail joints

with many variations have been used through the ages.

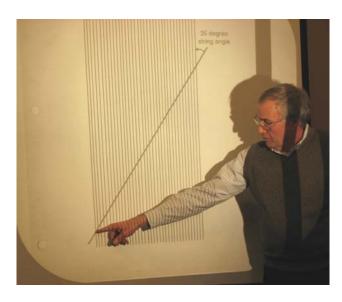
The length of the strings can be calculated graphically by showing the strings vertically and drawing a line through them at an angle of 25 to 40 degrees depending on the size of the frame. (25 degrees for large, tall ones)

The sound board side of the harp is solid wood on three sides and the inside made of 1/8 inch airplane plywood with holes and grommets where the strings pass through to the back made of solid hard wood. The base is larger than the top to give a better sound.



Graph showing length of string relative to pitch and tension. The sweet spot is between the curves.

Jerry finished when two members played two floor model harps. It was an evening well spent.



Establishing the angle of the sounding board on the graph of string length and pitch



Joinery detail. The duthman is structural.



Discussing the importance of grain direction in the harmonic curve.



Overlaying the design on the graph



No glue allowed. The strings hold it together.



Impromptu concert. My what a sound.

Introducing this Year's Judges for Northern Woods

BOB KINGHORN

Bob has his own business where he makes furniture, advertising props and decorative architectural metal projects. He has also been an instructor at Rosemount Technical college, an editor for <u>Family Handyman</u> Magazine, and furniture restorer.

He has won ten awards for his furniture and designs (including five from the Woodworkers Guild).

He uses a large variety of materials for his work: wood, stone, cement board, metals, laminate and gold leaf.









JENNIFER KOMAR OLIVAREZ

Jennifer attended St. Louis University, University of Minnesota and the University of Glasgow (Scotland).

She has been Associate Curator at the Minneapolis Institute of Arts since 1991. While in that position she has organized many exhibits and installations on twentieth-century architecture, design and craft, including the traveling show Wood turning in North America Since 1930.









STEPHEN J. SKORO

Stephen studied fine arts at Minneapolis Community College, Minneapolis College of Art and Design (MCAD). He received a degree in Furniture Design from California College of Arts and Crafts.

He established his own business, Skoro & Associates, in Wayzata in 1979. He has built a variety of products, including exhibits and displays for corporate, institutional and retail use, furniture for business and residential clients as well and studio furniture and sculpture.

He is currently teaching cabinetmaking at Minneapolis Community and Technical College.

March Meeting - Health Hazards of Woodworking by David Mitchel

Woodworking and Safety

The Minnesota Woodworkers Guild met in March at the Fridley Community Center. Don Garvey, CIH, CSP, gave a well received presentation on woodworking safety. Don Garvey has a master's degree in environment health from the University of Washington and a bachelor's degree in biology from St. Olaf College. He has decades of experience in safety compliance, working for such institutions as OSHA, Honeywell, and 3M, where he is currently a respiratory specialist.

The woodworker has a number of safety concerns, notably power equipment, razor-sharp hand tools, chemicals, and airborne dust. Don limited his presentation to wood dust, noise, and general safety issues.



Don Garvey discussing shop safety

Wood Dust

Wood dust can have a number of hazards. It consists of physical particles of varying size, suspended in the air. These particles will cause irritation, usually associated with the eyes, nose, and throat.

Wood dust can also cause allergic reactions, which often manifest as skin rashes, but may also cause respiratory distress. Allergies are more commonly encountered in the summer. Increased humidity and accumulated sweat on your skin enhances the allergic affects of wood dust. Allergies are more prevalent in people over 40 years of age. Allergic exposures are cumulative.

Wood dust toxicity is rated by several agencies. There commonality between agency ratings, but also differences. Newer ratings tend to have lower tolerance limit levels. Usually you find that they will list several species as cancer causing (carcinogenic), and others species as "insufficient evidence."

The IARC lists deciduous broad leaf species, such as elm, ash, oak, mahogany, beech, and walnut, as carcinogens. Conifers, cedar, pine, Douglas fir, and larch are listed as "insufficient evidence."

The ACGIH lists oak and beech as carcinogenic. Birch, mahogany, walnut and teak are listed as "suspect." All other species are not classified on their list.

Although these agencies list some species as carcinogenic, the actual rate of incidence is relatively low, approximately 1 in 1,400 individuals after 40 years of continual exposure. Wood dust is not as carcinogenic as asbestos or cigarette smoking, but the risk is significant enough that we want to protect ourselves.

Mold is another significant hazard encountered in wood. We can appreciate the patterns found in spalted maple, but we need to remember that this is direct result of mold. Mold will cause respiratory reactions and potentially skin and fingernail or toenail infections.

Wood dust density is measured in milligrams per cubic meter. OSHA's safety limit for wood dust is 15mg/m³. Minnesota's limits are lower: MNOSHA's limit for western red cedar is 2.5mg/m³; all other species have a 5mg/m³ limit. The CDC limits are even lower: NIOSH has set the limit for wood dust exposure at 1mg/m³.

It is cost prohibitive to measure wood dust density in most working environments. Generally woodworkers want to do whatever they can to minimize dust in their shops. Think about collecting dust at the point of generation, wearing a proper dust mask or respirator, and using an air filtration system (AFS).

Chemical Hazards

As woodworkers, we often forget that we are working with a complex chemical product. As we cut and generate dust, we are releasing such things as resins, tannins, gums, acids, and salts. The concentration of these chemicals is usually found in the inner heartwood, lesser levels in the sapwood. Since most of us covet the color and figure of the heartwood in our projects, we are unknowingly subjecting ourselves to higher concentrations of these chemicals.

In addition to the hazards generated from wood, the woodworker is exposed to adhesives, some of which contain epoxy, phenols, and urea formaldehyde. You want to wear appropriate gloves to prevent skin contact, and a respirator when appropriate. Exposure to these chemicals can cause skin blisters, skin rashes, or blood in the urine.

When working with treated wood, remember that the wood you're cutting is impregnated with pentachlorophenol, chromium, copper, and/or creosote. These are definitely dangerous substances. Watch for serious skin irritations.

Imported woods are often handled or grown in conditions that are banned in the United States. When working with an imported wood, it is best to assume that it is a dangerous substance, regardless of its species.

Noise

Sound levels are measured on the dBA or decibel scale. This scale is logarithmic, meaning that approximately every 3 dBA the volume doubles. OSHA has set a limit of 90 dBA as the threshold for safety. NIOSH has a safety limit of 85 dBA at 8 hours per day. As with the exposure to wood dust, noise level exposure is also cumulative. Even a noise of 90 dBA or less for an extended time can cause hearing damage.

Table Saw 92 dBA
Belt Sander 94 dBA
Router 95 dBA
Circular Saw 100 dBA
Miter Saw 102 dBA

As the above table illustrates, a number of the power tools that woodworkers and carpenters normally use are significantly above the dangerous noise level. Repeated or extended exposure to high noise level can cause permanent hearing loss. With today's tools, some studies have shown that a 25-year-old carpenter shows the hearing loss of a typical 50-year-old man.

Noise is directional. It propagates with an inverse square relationship to distance. Noise in a shop can also reflect off of walls and flat surfaces. Don't rely on having visitors to the shop standing a few feet away as your noise protection methodology; they need hearing protection, too.



Don demonstrating a disposable full face mask

With forethought and care and the use of proper protection devices, the woodworker can safely work for years in his/her workshop.

Glossary

ABIH American Board of Industrial Hygiene

ACGIH American Conference of Governmental Industrial Hygienists

BCSP Board of Certified Safety Professionals

CCHEST Council on Certification of Health, Environment and Safety

CDC Department of Health and Human Services, Centers for Disease Control

CIH Certified Industrial Hygienist, Certification program of ABIH
CSP Certified Safety Professional, Certification program of BCSP

IARC International Agency for Research on Cancer

MNOSHA Minnesota OSHA

NIOSH CDC National Institute for Occupational Safety and Health

OSHA Federal United States Occupational Safety and Health Administration

The following is some additional information on wood dust control provided by Traveler's Insurance:

Major industry groups with significant potential for wood dust exposures include Lumber and Wood Products, Furniture and Fixtures, Paper and Allied Products, Construction, and other miscellaneous manufacturing industries that use wood as a raw material. Within these industries, various sawing, milling, and sanding operations are usually responsible for generating the most wood dust. The dust generated by most of these operations can be captured and removed by local exhaust ventilation systems. ACGIH and NIOSH have published ventilation designs that are specific for the various types of machinery used in woodworking operations.

Work practices can also impact the amount of dust exposure generated. One practice that contributes significantly to wood dust exposure is the use of compressed air for cleaning equipment and the area surrounding it. This practice reintroduces settled dust into the air, thus providing a second opportunity for exposure. Compressed air should be avoided for this reason.

If local exhaust or work practices fail to maintain airborne exposures below established guidelines, respiratory protection should be used. The type of respirator selected should be based upon the expected airborne concentration. Protective clothing should also be used to pre-vent skin contact with allergenic (some hardwood) species. Good personal hygiene will also help to minimize the dermatitis risk.

Wood dust clearly warrants attention and exposure control because of its potential toxicity. If exposures are properly identified and managed, the potential occupational health risks can be reduced significantly.

REFERENCES

OSHA - Wood Dust : http://www.osha.gov/SLTC/wooddust/index.html

OSHA - Wood Products Industry: http://www.osha.gov/SLTC/woodproducts/index.html

NIOSH - Pocket Guide to Chemical Hazards - Wood Dust:

http://www.cdc.gov/niosh/npg/npgd0667.html

NIOSH – Control of Wood Dust from Shapers: http://www.cdc.gov/niosh/hc5.html

DISCOUNT SUPPLIERS

The following suppliers offer special discounts to Guild members. To receive a discount you must be a member in good standing and show the merchant your current membership card.

Abrasive Resources

900 Lund Blvd #400, Anoka, MN (763) 586-9595 or (800) 814-7358 Sandpaper, coated abrasives, rolls, clearance items - 20% discount.

Art Betterley Co.

11160 Central Ave NE (Hwy. 65) Blaine (763) 755-3425 Various discounts depending on product.

Eide Saw Service

Dave Heidtke
<daveh@eidesaw.com>
1329 Tyler St. NE (Behind
Youngblood Lbr.) Minneapolis
612-789-3288
Saw blades, router bits, planer
knives, and band saw blades
welded to length. 10% discount on
all items, sharpening included.

Forest Products Supply

2650 Hwy 61, Maplewood, MN 55109 (651) 770-2834. 10% discount on all lumber purchases. www.forestproductssupply.com

Gardner Hardware

515 Washington Ave N, Minneapolis (612) 333-3393. Contractors standard discount with MWG card.

Hirshfield/lathrop Decorating Centers

20+ metro locations, Rochester, St. Cloud. Discounts on all items including stains, varnishes, application tools, etc. Must show membership card. Ask for MN Woodworkers Guild account. www.hirshfields.com

Holdahi Company

1925 Annapolis Lane, Plymouth (763) 231-3130 or (800) 777-8992.

Commercial cabinetmaker's supplier but will sell at wholesale to Guild members - router bits, saw blades, abrasives, tools for laminating, laminate, decorative and functional hardware.

Nob Hill Decorative Hardware

3027 Holmes Avenue South, Minneapolis (612) 824-7424. Decorative hardware for doors, cabinets and bathrooms. 10% discount, 15% on orders over \$1000.

www.nobhillhardware.com

Rockler Woodworking

(612) 822-3338; Burnsville, 2020 W Cty Rd 42 (952) 892-7999; Maplewood, 1935 Beam Ave (651) 773-5285; Minnetonka, 12995 Ridgedale Drive (952) 542-0111 10% discount on all regularly priced items except power tools.

Minneapolis, 3025 Lyndale Ave S

www.rockler.com Savitt Brothers

1515 Nicollet Ave., Minneapolis (612) 871-1155. Everything in paints & stains, accessory items. Contractor discount to net price.

Swanton Hardware

7501 W 27th St, St. Louis Park (952) 925-4083. Cabinet shop supplies, hinges, handles - Wholesale to Guild members. www.swansonhardwareco.com

Valspar Paint

Plymouth, 2984 Niagara Lane (763) 557-1361; St. Paul, 284 E. Lafayette (651) 222-8436; 20% discount to Guild members. www.valspar.com

Wooderaft

9125 Lyndale Ave S, Bloomington (952) 884-3634. 10% on all items except power tools. www.woodcraft.com

Woodcarvers Store & School

3056 Excelsior Blvd, Minneapolis (612) 927-7491. Books, tools, classes, supplies. 10% discount on all items (except electrics 5%).

www.woodcarversstore.com

Youngblood lumber Co.

1335 Central Ave., Minneapolis (612) 789-3521, or (800) 933-1335. Wholesale prices to Guild members.

www.youngbloodlumber.com

New Members

Gregg P Carl Stuart Mike Gary Eugene Paul John Ron David Stephen Mark Andrew Jeff Edward Terry L Russell Lee Larry Patrick David Jeff Paul Steve Kyle Steven P Eric Bob Ernie Tom Rob Scott John Steve Mark Jed Michael Mark Mike John Pat Hiroo Michael Bob Charles David Robert	Cherne Applequist Beattie Bierscheid Connett Enfield Groe Harper Hart Hebert Hedman Hendrickson Houlton Krueger Mittman Potts Quanbeck Toman Wilson Witherow Moench Larson Scobie Tomashek Claassen Andersen Blad Brown Dallan Dixon Johnstone McGlasson Ottosen Thompson Tibbetts Bastyr Pogalz Allen Benz Burns Carver Kitaoka Konobeck Mielke Pitschka Roberts
Robert James	Dyko
Gerald P	Ryks Dohogne O'Driscoll

THE CLASSIFIEDS

Materials

8/4 and 10/4 Hard Maple Slabs. All are 30" wide and 121" long. I rescued this log from being burned! They were sawn on a bandmill, dried in a vacuum kiln to 6%, and are quite flat. There was not a knot in the whole flitch. I've got 10 of these available. I'm asking \$5/bf, discount possible if purchasing more than one. Contact: jason@jholtz.com, 715 557-0328

Nemadji Woods of Sandstone Minnesota would like to announce that we have a full assortment of hard and softwoods for purchase at very competitive prices (Ash, Maple, Oak, Basswood, Pine, Hickory and Cherry). We have both a Vacuum Kiln and D/H Kiln for drying wood. We also have a full service milling operation for custom requests, which is able to produce and replicate moldings. We are able to accommodate the needs of both the large and small wood worker. For types of wood available, pricing and other information contact Ken, Toll Free at (888) 496-5556 or (320) 245-6909 during regular business hours.

Woodturning – Architectural, Furniture components and Artistic. Diameters up to 18" and lengths up to 8 ½ feet. I can help with design or duplicate an original and supply the turning blank or use yours. Quantities from 1 to 100 or more. Contact Don Wattenhofer at 763 360 8282 or 218 573 2386 drwatt@arvig.net

Tools

Steam bending box, 8' x 12" x 12" with the copper steam manifold inside, opens at both ends, built in the fashion noted in Fine Woodworking some 25 years ago. No longer bend wood, available for free to a good home. Jim Marquardt, "Arkworks" 1500 Duluth St., Saint Paul, MN. 651-774-7993

Having recently overhauled my dust collection system, I have used 4" and 3" PVC pipe, 4" and 3" flexible hose, and fittings; free to anyone who wants to set up a system. All you have to do is call me and pick up the stuff. Mike Hipps 952-949-3589 mandchipps@comcast.net

Restored trade and collector tools from early 1800's to 1950's. Large assortment of quality planes, chisels, saws and hand tools. Grey Wolf Antiques will provide current guild members with a 15% discount on all tools. You must present your membership card. Located at Midtown Antique Mall, 301 South Main Street, Stillwater, MN or Email: gwa@lighthousebay.us

Personal & Services

Logs To Lumber

Hardwood Lumber. Oak, Maple, Walnut, Ash, Cherry, Basswood, Vacuum Kiln Dried, Surfaced. Planer/molder On Site Portable Saw Mill Service. Kiln Drying Service. Contact: http://RunTheMill.com
507-278-4642

Shop Space For Rent, Hiawatha area in South Mpls. available part time nights and weekends 1500 square feet. Small cabinet shop with all the essentials.Rent is flexible depending on your needs. Would have full access to all tools at night and weekends. Call 612-998-5039

Woodworking space. 1000 sf available. The cost is 600.00 per month plus 5 hours of labor per month. The labor consists of miscelaneous woodworking tasks. Mike Veverka I can be reached by phone 651-292-4984 or by e-mail mikeveverka@comcast.net

Plane soles milled flat, price ranges from \$12 for a block plane to \$40 for a #8. Sides can be milled square to the sole for \$15-\$20. Contact Chuck Pitschka at 952-935-0660, or by e-mail at cpitschka@mn.rr.com.

Kline Lumber Service. Sawmilling, kiln drying, and planing. 715-247-4466 or kline@pressenter.com

Woodturning - Architectural and furniture components. Diameters up to 18" and lengths up to 104" (8 ½ ft.) I can help with design or duplicate an original and supply the turning blank or use yours. Quantities from 1 to 100 or more. Call or e-mail Don Wattenhofer at 763-360-8282, drwatt@usfamily.net

I have a bandsaw mill and will cut logs to your specifications. I specialize in quartersawn lumber. Custom planing also available. Send email to jojomomo@redwing.net or call Gary Miller at 1-651-388-5632.

Portable sawmill/kiln service. Lumber sales. Phone Randy Thompson at 952-492-5169, or contact by e-mail at thompsonrandall@hotmail.com.

Workshop Space For Rent: Bloomington Industrial building. Includes access to floor tools: panel & table saws, jointer, planer, etc. Call Rory King @ 952-646-0000

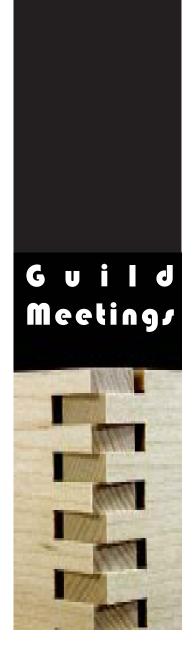
SHOP SPACE FOR RENT

Artisan(s) wanted to share large space in NE Minneapolis with Furniture Designer/Maker. Other wood/furniture people would be great, but also very open to other types of work or disciplines. Includes shop and/or show space. Contact Tom at ph: 612-789-9989 or e-mail to: thomasmenkemail@yahoo.com

Advertising in The Classifieds is provided to members of the Minnesota Woodworkers Guild free of charge. The ads placed herein should be for goods or services that are of general interest to the crafts people who make up the membership of the guild. Ads for services will run until cancelled. Ads for tools and materials for sale will run for one issue unless renewed. For submissions, renewals and to cancel an ad, please contact Bob Bridigum, e-mail RLBridigum@aol.com or snail mail to 4755 Laura Lane, Shoreview, MN. 5126

Minnesota Woodworkers Guild 10507 Vessey Rd Bloomington, MN 55437

www.minnesotawoodworkersguild.com



Mark Your Calendars

25th annual Northern Woods Show, Southdale Center April 24th to 27th, 2008. Mark your calendar.

May 20th - David and Nancy Allan, Sign Making

David Winslow Allan is a retired industrial arts teacher and university professor. Nancy Allan was formerly an art teacher and she has many years of experience as an artist and craftsperson. In 1996 they founded Winslow Woodcarving Studio. They do a variety of professional woodcarving and they specialize in hand carved residential and commercial signs. They work with sign foam and wood using a combination of routers and traditional hand tools. They will discuss tools, materials, and techniques including gold guilding. They will also discuss what it is like to start and operate a woodworking business.

We will meet in the community room at Edina High School 6754 Valley View Rd. Edina, MN 55439

Take hwy. 62 west to the Tracy Ave. exit. Take a right at the end of the ramp and go south $\frac{1}{2}$ mile to the high school.

Meeting Times: Show and Tell at 7:15 P.M. with the program starting about 7:30.

Check the guild website www.minnesotawoodworkersguild.com for updates.