



# Michigan Woodworker

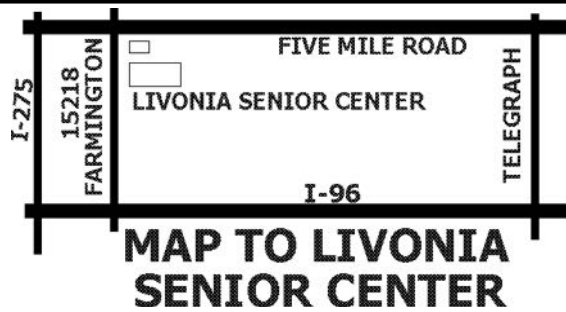
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Michigan Woodworker's Guild (Est. 1981)

**Saturday, March 19, 2016**  
**12:00 - 4 PM - At The Livonia**  
**Senior Center - Annual Showcase**  
**Of Skills. Set up time 10 - 11:30 AM**

The March luncheon will be held at Jimi's  
 in Royal Oak on Thursday the 24th beginning  
 at 1:15 PM



## Upcoming Events

Month	Meeting Date	Topic	Speaker	Location	Luncheon Date
<b>April 2016</b>	Sunday, 10 <sup>th</sup> 2:00-4:30PM	Intarsia	Kathy Wise	Tech Shop In Allen Park	Thursday, 28th
<b>May 2016</b>	Sunday, 15 <sup>th</sup> 2:00-4:30PM	Construction Processes	Will Stanford	Tech Shop in Allen Park	Thursday, 26th
<b>June 2016</b>	June is currently scheduled to be part of the summer shut down period.				
<b>July 2016</b>	July is our annual summer shut down period.				
<b>August 2016</b>	Sunday 14 <sup>th</sup> 12:00 – 3:00	Annual Picnic	n/a	Starr/Jaycee Park, Royal Oak	Thursday, 25th
<b>Sept. 2016</b>	Sunday 11 <sup>th</sup> 2:00 – 4:30	<b>TBD</b>	<b>TBD</b>	Royal Oak Senior Center	Thursday, 22nd
<b>October 2016</b>	Saturday 8 <sup>th</sup>	Woodworking Magazine	Jim Heavy	Tech Shop in Allen Park	Thursday, 27th
<b>Nov. 2016</b>	Sunday 13 <sup>th</sup>	Violin Woodmaking	Peter Psarianos	Royal Oak Senior Center	Thursday, 17 <sup>th</sup> If Facility Available
<b>Notes</b>	All luncheons are held at Jimi's in Royal Oak at 1:15 PM				

**The President's Corner****By Dr. Gary Assarian**

I welcome this opportunity to update the membership on various things going on within the Guild. Now that the program season is in full swing please keep in mind that one needs to check the venues for the various programs as they may have changed. Our program for February featured Ed Stuckey speaking on Finishing. A review of this program is provided later in this newsletter. This program took place at the Royal Oak Senior Center. We are once again holding a number of our meetings at the Livonia and the Royal Oak Senior Centers. While the Tech Shop has provided an excellent set of facilities for our meeting, their location is remote enough from our membership that the reduction in attendance at meetings is noticeable. We will, however, continue to have some of our meetings at the Tech Shop. In particular, all day meetings with special speakers (e.g. Marc Adams) gain some advantages from the excellent facilities provided.

I'd like to remind members that this month's meeting, the **Showcase Of Skills**, will take place on **Saturday March 19 at the Livonia Senior Center from 12 to 4:00**. Everyone is welcome and admission is free. If you wish you to display your project please contact Ed Stuckey. Please keep in mind that the projects can be at any phase of completion. Set up times for those displaying pieces of work are between 10 and 11:30 AM. We are using the Activities Room of the senior center for our show.

Looking forward, the April meeting will feature Kathy Wise. She is an internationally known expert in the area of Intarsia. She will be speaking at the Tech Shop in Allen Park from 2 to 4:30 PM on April 10. She has written a number of books, articles, and designs her own patterns. Please mark your calendar.

In other news, I hope that you have been watching the Ellen Furniture Design show on the HGTV channel. One of our own members Kyle Huntoon has made it to the third show. It's an interesting concept where the participants design the furniture and they receive assistance from a professional craftsman to produce what the designer has created. The designs are based upon a specific challenge which is given the by the three panel members for each show. The designers are graded or judged based upon their ability to address the specific challenge or objective. It's interesting and you may want to tune in. We wish him good luck.

I'm happy to report that we are making progress on our re-created website and are looking forward to a completion date in late spring. I hope to report more details on our progress in the next couple of newsletters.

One last item, the Metro Carvers of Michigan are having their "Artistic Creations in Wood", their annual wood carving show, on March 19, 10AM – 5PM and 20<sup>th</sup>, 10:30AM- 4PM. The public is welcome and entry is \$4 per adult. Children under 12 are free. There will be demonstrations, displays and items for sale. The show will be held at: 876 Horace Brown Drive in Madison Heights Michigan (south of 13 mile between I-75 and John R.)

As an organizational goal, the Guild supports other local organizations which are dedicated to woodworking and teaching others their craft. Many of our Guild members are also members of other local woodworking oriented groups.

**2016 Toy And Box Program By  
Ken Wolf**

As many of our members know, our guild has an ongoing community service program of supporting our Children's Hospital with wooden toys in December and wooden boxes throughout the year. The guild will supply our toy building members with wheels, axles and washers for the toys they build and donate to the hospital. Toys may be of your design or we have some patterns available on our website which are past successful designs that can be used. It is important that toys be built to hospital guidelines, which are also available on our website, and that finishes comply with federal requirements of CPSIA compliance certification (to be lead free). We have compiled certification of compliance documents for a variety of finishes which are listed on our website as well that can be used without any paperwork on the toy builder's part. If you choose to use another finish, I need you to contact the manufacturer for their certification of CPSIA compliance (not the material safety data sheet) for the finish you use and to forward a copy to me.

In 2015 our guild members provided a total of 511 much appreciated toys to the hospital. For 2016 our goal is to provide a minimum of 450 toys which will require the involvement of some new members. Some of last year's builders have informed me that they will be producing a smaller number of toys for 2016. I believe we will need 125-150 toys from new toy builders in 2016 to reach our goal. We have some members already working on 2016 toys, so you can start at the time that is best for you. I will bring some sample toys to our March Showcase meeting for you to review for ideas and inspiration. Let me know the number of wheels/axles and washers you need (including the wheel sizes) and I can bring them to a guild meeting for you.

Our box program at the hospital provides two types of boxes, plain boxes usually pine, poplar or maple with a seal coat finish which are patient decorated in the hospital art class and used for the patient's personal possessions during their hospitalization and "memory" boxes. The memory boxes are fully finished boxes of quality wood often with a 4"x6" picture frame in the top that are used to return a patient's personal items to the family when they do not survive their treatment (thankfully we don't need as many of these). Avoid the use of hinges on the boxes (we use drop on or sliding lids). Our 2016 box goals are a minimum of 45 plain boxes and 20 memory boxes which are delivered 2-3 times a year.

Your continued support of this program is much appreciated. Contact me if you have questions or need toy parts at (734) 981-3423 or [wolfkenneth@att.net](mailto:wolfkenneth@att.net).

**February Meeting Review  
Ed Stuckey - Finishing  
Dale Ausherman**

On Sunday, February 14<sup>th</sup>, the Guild gathered in Royal Oak for demonstration of and presentation on wood finishing. Ed Stuckey drew on his deep experience as a woodworker and period furniture builder to cover wood preparation, staining, pore filling, oil and film finishes, rubbing out, and waxing. In September 2012 Ed gave a similar presentation, but one a little more focused on period furniture shellac. The repetition was very worthwhile because, if you are like me, you need to hear things more than once to remember. Additionally, Ed adds insight each time he presents. Also, available resources in terms of tools and materials may have changed over time.

Ed briefly reviewed wood preparation, the process of removing milling, jointing, and planing marks. He feels the best surface preparation is via a very sharp smoothing plane, or scraper plane, or even a card scraper. These methods cleanly cut the wood fibers to make a very smooth surface.

For those who are not into hand tools, or desire to avoid the accompanying labor, sanding is the way to go. He compared hand sanding versus powered random-orbit or palm sanders, working one's way through 100, 120, 150, 180 and 220 grits, while vacuuming or wiping the board clean between grits to avoid marring later stages with grit particles from earlier work. He suggests avoiding the use of tack rags on bare wood, which can leave resin residue which may interfere with later finishes. Since orbital sanders can leave tiny swirl marks, it is best to finish with a hand-sanded stage at the finest grit, always sanding with the grain. To minimize raising of the grain with later stages of coloration or finish, sponge the sanded surface lightly with water, let thoroughly dry, then sand lightly with 280 grit paper.

Staining or coloration of the wood pieces in a project may be desired to lessen color differences between pieces from different boards or parts of a tree, to enhance the "figure" of the wood grain, or simply to match a desired décor. Ed reviewed aniline dyes and pigmented stains for this purpose. Aniline dyes chemically change the wood color, whereas stains apply pigments in a binder. Dyes tend to penetrate and be transparent, whereas pigments can hide the underlying grain somewhat.

Dyes typically come as powders in such brands as Lockwood (available from Lockwood directly, or Tools for Working Wood) or Transtint (Rockler or Woodcraft), and are available for different solvents such as water, alcohol, or mineral spirits/oil. Water soluble types are best for hand application. Alcohol and spirits-based dyes are best sprayed due to their fast drying time, and in order to avoid overlap marks. Unless sealed, water soluble dyes are not good under water-based finishes as the finish will pick up the dye and spread it around unevenly.

Pigment stains generally come in a thick mineral spirit solution (the consistency of ketchup), or as a gel stain. A gel stain, which is thick enough to avoid penetration, is good for woods such as cherry, pine and birch which tend to "blotch" when stained, due to their grain fiber makeup. Also a wash coat of "1/2 lb cut" shellac (or highly thinned varnish) can help reduce blotching, and is good for sealing end grain before staining to prevent the heavy absorption of stain.

Ed also showed a means of filling dings and divots in wood via the use of shellac sticks, which are melted into the blemish and then smoothed by scraping. These are not cheap, as a tin of 10 Liberon Shellac Filler Sticks is available on Amazon for about \$60.

To produce a mirror-like smooth finish surface, open grain woods such as oak, mahogany, walnut and ash must have the pores filled. Ed reports that this can be done with the finish itself, or with a paste wood filler. Using finish, the surface is built up using multiple coats, sanding in between to level the finish using 220-320 grit paper. If finishing with shellac, an alternative is to apply finely powdered shellac to the dry wood surface, rubbing the powder into the pores. (Finely powdered shellac may be hard to find in reasonably small quantities as it is usually used only in commercial operations.) When liquid shellac is then applied, the alcohol melts the powder, partially filling the pores. One has to overcoat the shellac sparingly, and apply cross grain, to avoid pulling the melting shellac dust back out of the pores.

Paste wood fillers are generally very fine silica powders suspended in mineral spirits and oil, which can be colored to match the wood. A thick coat is applied and pushed into the pores with a brush or cloth, let dry until it loses its shine, then removed (cross grain) with a squeegee and burlap cloth. Then a light smooth wipe along grain should remove all the paste filler except that which is in the pores. It is important to get off all of the filler except that which is in the pores. One then sands lightly and seals with a 1 lb. cut of shellac before finishing.

Ed indicated that finishes are either wipe-on finishes or film finishes. Wipe on finishes are nearly fool proof, avoiding issues of runs and dust nibs. Such finishes are generally either oil/varnish blends or wiping varnish. Oil/varnish blends usually dry to a satin sheen, and include such products as *Minwax antique oil*, *Watco*, *Deft Danish oil*, and the like. Wiping varnish dries to a more glossy sheen (but can be further dulled by fine steel wool), can build up more than

oil/varnish, and protects better against scratches, wear, and water. Wiping varnishes include *Formby's Tung Oil*, *Hopes Tung Oil*, *Gillespie Tung Oil* and others. (Unfortunately the industry which produces these products include "Tung Oil" in the product name, where in reality they do not actually contain Tung oil, nor oil for that matter.) Both oil/varnish blends, and wiping varnishes, require several to many coats for complete protection. Application is simple: brush or wipe on; let dry 5-15 minutes; wipe all you can get off; let dry 24 hours; lightly sand and repeat as many times as required to get the desired surface. As coats build up one can get a little pore filling, and a smoother final surface, by using 600 grit wet/dry sandpaper when the wet finish is first applied, before partial drying and wiping clean.

Ed's choice of film finishes include shellac, varnish and lacquer. For safety reasons, lacquer is usually sprayed, which requires special equipment and facilities. Thus, Ed concentrated on shellac and varnish film finishes. Shellac is a resin secreted by the female lac bug, on trees in the forests of India and Thailand. It is processed and sold as dry flakes or other forms and dissolved in ethanol or denatured alcohol to make the liquid shellac finish. It has been used as a finish since the late 18<sup>th</sup> century, forms an excellent barrier against water-vapor, and wears reasonably well. It is not resistant to heat, water solvents, or alcohol, so it would not be a good choice for a table on which one might place an alcoholic beverage, or one expected to see heavy wear. Shellac is easily removed with alcohol solvent, so is easy to repair or remove if needed. It does have very limited shelf life in mixed form, but the flakes can last a long time if kept cool, out of light, and sealed against humidity. It comes in various "purities" which determine its mild colors, from amber, to orange, to blond (very clear). It is available in both natural (about 5% wax) and de-waxed varieties. Even natural shellac produces excellent results, and does not have bonding issues associated with the wax. But dewaxed shellac is more water resistant.

Shellac is commercially available (various *Zinsser* products), but it is best to mix one's own using shellac flakes from various woodworking sources (Shellac.Net is a good source). It is easily mixed by adding the flakes (or ground-up flakes using coffee grinder or a dry blender) to denatured alcohol. Label the bottle with date, type of shellac, and lb. cut. (190 proof Everclear grain alcohol from a liquor store in a state where it is legally sold is very good, perhaps for more reasons than one.) A "two lb. cut" is made from 1/4 lb. of flakes to 1 pint of alcohol, equivalent to two lbs. of shellac to one gallon of alcohol. Various other dilutions are used in finishing. Application is by brushing with a good quality natural or synthetic bristle brush, or in some cases by padding on with a pad made of a cheesecloth ball inside a lint free cotton cloth. First coat is a 1 lb. cut, followed by a 2 lb. coat for second and subsequent coats. Shellac dries very fast so one can usually make 2-3 coats in a single day. After every couple of coats one sands with 280 or finer grit, tacking off the resultant powder. (Some folks leave the powder on and rub it into any remaining pores. The next coat simply re-dissolves the powder.) After the 4<sup>th</sup> to 10<sup>th</sup> coat (I have even made 15 coats on table tops) let dry 2 hours and sand with 0000# steel wool, and then apply one more coat. Wait one month or more before rubbing out.

Varnish is Ed's other choice for film finishes, having excellent heat wear, solvent resistance, and excellent water-vapor and water resistance. However it is slow curing and tends to yellow over time. He advises using a top quality brand such as Pratt and Lambert "38." He advises against using spar varnish, which is intended for marine and exterior applications. Varnish comes in gloss, satin or flat. Application is with a high-quality natural or synthetic bristle brush (such as *Grammercy Finishing Brush*, 2" wide x 11/16" - \$50.00, but currently sold out on the *Tools for Working Wood* site), with the first coat being a 50/50 mixture of varnish and mineral spirits. Let dry 24 hours then sand with 280 grit and remove the sanding dust. Second coat is a repeat of the 50/50 mix. Third and fourth coats are a 75% varnish to 25% spirits mix. Fifth and sixth coats are 100% varnish. Let the varnish cure one month before rubbing out.

Both shellac and varnish finishes should be “rubbed out” to remove dust nibs, soften the harsh reflected shine, and create a really smooth feel. Ed demonstrated rubbing out with increasingly fine grits of sandpaper, using 400, 600, 1000, and even finer grits, stopping when one gets the desired sheen. He wrapped the sand paper around a little rubber block, and used a mixture of Murphy’s Oil Soap and water as a lubricant. One can then simply paste wax the surface. Ed also demonstrated getting to a mirror smooth surface by using auto glaze to further polish the surface. For this he used *Meguiar’s Mirror Glaze* or *Show Car Glaze*.

Ed finds water-based finishes difficult to rub out. (And to me the films always seem a little “milky.”) Thus he does not use them. Perhaps this will change when the product improves, or the government does not let us buy anything else.

Finally, Ed recommended an excellent comprehensive book on wood finishing as *Flexner on Finishing*, by Bob Flexner, available from Popular Woodworking Books (seems to only available now as a digital download for \$25) and Amazon (\$57 new hardcover). This book covers all of the material presented by Ed, at greater depth, and includes many other subjects such as furniture finish repair.

I thank Ed for his entertaining and informative presentation, and for sharing his hard won expertise with us.

**SAPFM and The Detroit Institute Of Arts Presents**

**Working Wood In The 18<sup>th</sup> Century**

**10 AM to 4 PM., April 2-3, 2016**

The Society of American Period Furniture Makers (SAPFM) members will be presenting techniques used by cabinet makers of the 18<sup>th</sup> century. Various hand cut joints, carving, 6 panel construction, turning and many other demonstrations will be given. Members will have their museum quality furniture on display. The DIA docents will lead tours of the DIA 18<sup>th</sup> century furniture collection. Children’s activity will include assembling and decorating tool boxes made by members.

The workshop will be in the Great Hall. MWG members are encouraged to attend this free event.

**Juried Show Participation**

**By Ann Ivory**

In an effort to investigate new ideas we would like your feedback. Would you be interested in entering a local Juried Art Show as a Guild? Details regarding possible shows and other details will be provided to whomever is interested.

Please reply back to this request with one of 2 responses:

- A.) Sounds interesting, please tell me more. Or
- B.) No thanks, not interested.

If we do not hear back from you by the next meeting, we will assume you are not interested in this idea.

Thank you for your time and consideration!



**\$1399<sup>00</sup>**

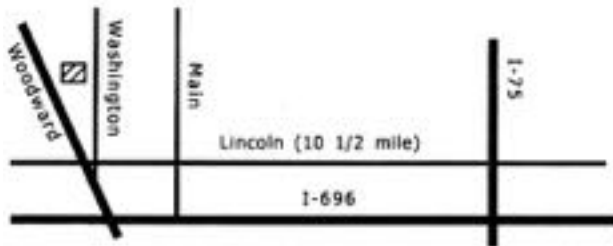
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For membership information, contact Ann Ivory at 21206 St. Francis, Farmington Hills, Michigan  
By email, contact at [tivory@twmi.it.com](mailto:tivory@twmi.it.com).

For name tags, sign up with Ed Stuckey at any regular meeting.

**GLENN WING  
POWER TOOLS**

33656 Woodward Ave.  
Birmingham, MI 48009  
(248) 644-0444  
(248) 644-5790 Fax  
(800) 821-5177 (US)  
(800) 448-1572 (MI)

Jeff Wilmot



**Michigan Woodworkers Guild**  
**21206 St. Frances**  
**Farmington Hills, Michigan 48336**

## **Scenes From Ed's February Presentation**



**Ed Stuckey Presenting Finishing**