Woodworkers Guild

of

Southwestern Michigan December 2012

Next Meeting

Dec. 11 2012 7:00pm **WMU Engineering Campus**

From 131 take the Stadium drive exit 36A and travel east toward town. Take the first right onto S Drake Road and continue to **Campus Drive**

- 1. Once you are on Campus Drive keep going until you go over the bridge.
- 2. Immediately after crossing the bridge turn right onto Campus Circle.
- 3. Go around the circle to the front door. (The front door is across from the object of art tower. This steel tower has four sides that meet at a point about 25 feet up.)
- 4. Get a parking pass from someone who will be at the front door. There are about 20 metered parking spots. You do not need to put money in the meters.

Please car pool!

Program

WMU Industrial and Manufacturing Engineering Professor Fred Sitkins will provide a tour of the Sunseeker solar powered car facility and a replica of the East Hill trolley that operated from 1908 -1948.

Bill Crown opened up the meeting and welcomed a couple of guests from Portage in addition to 31 members in attendance. All the toy cars and items to be donated to the Portage Community Center and Kalamazoo Gospel Mission were on display. Thanks to all the hands that make those gifts possible.

It was announced that Carroll Seats will step down from his position as newsletter editor and that Scott McDavid will assume that role. The guild owes Carroll a huge debt of gratitude for all his years of service compiling the monthly newsletter. We all thank you Carroll for your hard work.

The general business discussion was brief and the meeting moved on to show and tell. Doug Lynes presented photos of a custom "Lynes' Arcade" system he built for his home. It brings back memories of the 1980's and all those great games that are just as fun today. He built the case from sheet goods and painted it with a masked layered technique to provide the custom look. Some of the components he had on hand and others were special ordered to create an authentic arcade console. Using some modern day technology this console can play over 200 games. Dennis Regan also had photos of loft beds that he built for his grandchildren. The lofts were his own design, built from red oak materials and utilized pocket hole construction techniques. Any kid would love to have these beds in their room.





The meeting was turned over to our feature presenters, Bill Sias and Gary Foote. Bill came to the meeting via Gary Foote and the Woodcraft store in Grand Rapids. Bill does not work for the

store but teaches classes there on occasion. Bill's commissioned work maybe a single piece of furniture, furniture for a whole room or an entire house. He uses no power tools to build his custom furniture. Hand tools are faster when building unique one of a kind pieces. He learned that speed lesson by studying the work of craftsmen from two centuries ago. Bill does use some traditional apprentices that pay him during their internship. A key component to producing furniture fast is sharp tools. For this presentation Bill demonstrated his sharpening techniques. As in most businesses,

time is money. So Bill has developed techniques for quickly sharpening his hand tools using a three step method: Shaping, Honing and Polishing. Once surfaces are flattened, bevels ground and established, and initial honing and polishing are complete, very quick subsequent honing and polishing are used to maintain a sharp edge. Polishing is accomplished in eight seconds or less,

twelve seconds on a dull tool. The sharp edge can be brought back several times before a return to the grinder and in some instances



never returned to the grinder. The key to the polishing is maintaining finger contact with the tool and the stone. Don't be afraid to get your fingers wet and dirty.

Bill's setup at home is a grinder with 14" wheels, he just happened to have those around, 6"-8" wheels will work. A Tormek with a Wolverine jig as opposed to



the Tormek stock jigs. A 1.5" wide belt sander with 800 grit belt. And the polishing stones that he uses and takes on the road with him. On a1000 grit stone he will lift the tool to put a 2° bevel using his wet finger technique. He moves the tool over to a 30,000 grit stone with a 1° bevel. A 1000G stone costs about \$50 while a 30,000G stone costs near \$400. Here are some gold nuggets of information from the presentation:

- Most woodworkers are too quick to grind. Bill will polish/hone 8~12 times/day/6 days a week and maybe hits the grinder 20 times/year.
- Polishing will help an edge last longer and less likely to grab.
- Higher the grade of steel, the shallower the bevel can be.
- If you accidently blue the steel on a grinding wheel, sharpen as normal and continue to use. It will require more frequent sharpening, thus more opportunities to refine your skill.
- Strop tool on suede side of horse butt leather. Glue the leather to a flat piece of stock. Use stropping oil sparingly ~ 8 drops max.
- DMT diamond stones are good, but their bases allow the stone to flex too much. Use them on a ridged flat surface. Their grits are not fine enough so follow with 30 strokes on a strop.
- Stones do not necessarily need to be dead nuts flat. But need to be trued once in a while.
- A cutting edge is only about two molecules thick.
- Sharp is determined by standing directly under a light and looking at that two molecule cutting edge. A sharp edge will not reflect light and will look dull grey.
- Chisel backs need to be flat, but the need to fine polish the back is more of a myth.
- Sharpen a carving tool once when new, then use the tool to gouge a path in soft wood. Maintain the sharp edge by stropping with rouge in the gouged path.
- Honing jigs that clamp the iron from each side should first be clamped without an iron. Any difference in the clamping surface should be filed away so both surfaces are even.
- A properly tuned plane only needs 3~4 lbs of downward pressure to cut paper thin shavings.
- Bill used a rocking motion and stood on a platform to be in a position to lock shoulders and elbows while honing on the stones. Normally his stones are on a low bench.
- "Using a dull tool is like trying to sail a boat while dragging the anchor" Gary Foote

Note below how Bill is elevated above the stones and finger-tool-stone technique.





Bill maintains a blog with information and class schedules. See a guild officer for info on Bill's blog. Thanks to Bill and Gary for bringing us a very informative and educational presentation.

Guild Officers

| President - Bill Crown | 375-1594 |
|------------------------------|----------|
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Woodworkers Guild of S.W. Michigan

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