**SUNDAY, JUNE 9**

The June field trip will be at the Yankee Air Museum at Willow Run Airport. Tony Gigliotti has informed the editor that we have reached our limit of participants for the guided tour. Touring on your own is still an option.

The West side luncheon will be at the Senate Coney Island on the 27th at 1:16 pm (see map on page 7)

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<table>
<thead>
<tr>
<th><strong>NO MEETING OR LUNCHEON IS SCHEDULED FOR JULY</strong></th>
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<tbody>
<tr>
<td>The annual picnic and swap meet will be on <strong>Sunday, August 11</strong> at the <strong>Royal Oak VFW Park</strong> from noon until....</td>
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<tr>
<td>The <strong>August</strong> luncheon will be at George’s Cony Island on the <strong>22nd</strong> at 1:16 pm</td>
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**MAP TO THE YANKEE AIR MUSEUM**

**ED STUCKEY**

**ED THOMAS**

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**CALENDAR OF EVENTS**

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It must be time to leave the workshop. It seems like the grass, the bushes, the deck, and all of the rest of the summer concerns are taking up all my time.

In keeping with the move into summer, the Guild will have a June outing to the Yankee Air Museum in Willow Run. The trip is scheduled for June 9th. Our May meeting included an informative presentation on sharpening chisels, plane blades, and carving tools. Ed Stuckey did a thorough job of demonstrating the necessary sharpening approaches. In addition, Ed Thomas demonstrated the Work Sharp sharpening system, including recovery of a rusty, mistreated chisel from junk to fully usable and really sharp. Thanks to both of them for a job well done.

The May executive board meeting went well. Our programs for the remainder of 2019 and for 2020 have come together well. Of particular importance are two meetings featuring instructors from the Marc Adams School of Woodworking (MASW). In November Tim Puro will give an all day presentation on finishing. Tim instructs at MASW on finishing and on furniture repair. I am scheduled to take his class on furniture repair September 30th – October 4th. In addition to teaching at MASW, Tim has published recent articles in Fine Woodworking magazine. The January meeting will feature an all day presentation by Marc Adams. The topic is still under discussion. Marc Adams always gives an outstanding presentation.

A summit meeting of the various Michigan woodworkers organizations was held in Dewitt on May 9th. We are the largest of the organizations. Most of the meeting was concerned with legal issues, particularly organizing in ways that met the needs of the IRS for non-profit interest groups (501C(7)). We are already correctly organized and registered, but several of our ‘sister’ organizations need to work on this. In addition to the legal issues, the various clubs are beginning to share information on speaker/presentation resources.

I attended the Great Lakes Woodworking Festival in Adrian on May 4th. The show consisted of about forty five vendors, mostly in outdoor booths. John Wilson’s Home Shop had a booth. Lie-Nielsen had an indoor Hand Tool Event to allow interested attendees to try their hand tools. This festival has grown from previous years. Overall, the festival was well done and seemed to have good community support. This show may be worth attending as it continues to grow.

The Guild is shut down for July and August except for the picnic. I hope to see everyone there. The Guild will return to regular meetings in September. That meeting will be in Royal Oak, with Lee Calkins presenting on electric guitars. I hope everyone has an enjoyable Summer.
MEETING REVIEW
By Dale Ausherman

MWG Meeting Review
Ed Stuckey and Ed Thomas
Tool Sharpening

Very sharp tools are a necessity for quality woodwork-
ing, safety, and for the woodworker to enjoy the craft. The quality of a finished project requires smooth sur-
faces and tight joints, enabled by sharp tools. Safety is compromised if one has to apply extra force to a non-sharp tool to make a cut. And dull tools take the fun out of woodworking because cuts just don’t go as easily or smoothly as planned and frustration can mount. Thus the importance of the presentation by Ed Stuckey and Ed Thomas on tool sharpening techniques. While all tools in the shop need to be sharp, hand tools as well as machines, the presentation focused on plane blades, bench chisels, and carving gouges. These are the fundamental tools where sharpness is most critical. And because even tools new from the store generally do not come adequately sharp, the first thing new woodworkers should learn is how to adequately sharpen. And the first step to any project should be a review to determine which planned tools need sharpening, and then doing the sharpening prior to starting the project.

The woodworking marketplace is rich with sharpening stones, jigs, machines and other paraphernalia for sharpening. Experienced woodworkers often have quite a collection of items and methods they have tried over time, many setting unused in a drawer. Some of this is due to new materials coming along over time, but much is because many of us have succumbed to the lure of the marketplace, trying oil stones, Japanese water stones, and diamond stones, with promising specialized adaptations of these basic materials. We also are tempted with many alignment jig variants, each promising an easier or more precise job. The best thing for a new woodworker to do is to talk with an experienced woodworker for recommendations, then buy a single set of stuff and stick with it until one becomes proficient. There are also many books on tool sharpening on Amazon, with the Leonard Lee and Thomas Lie-Nielsen authors being quite good. Just search the site for “tool sharpening book.” While some of these may be dated by not addressing the very latest materials, in the end the basic techniques remain the same.

For our presentation, Ed Stuckey focused on the use of diamond stones, and/or ceramic stones, for sharpening plane blades and carving gouges. (Chisels are sharpened with basically the same approach as plane blades.) Then Ed Thomas demonstrated the speed and convenience of a particular sharpening machine, the Work Sharp 3000, for re-sharpening a severely damaged bench chisel, one put to many worthy but unorthodox jobs by his wife.
The first step, especially for a new blade, is to flatten and polish the back. Ed pointed out that tool sharpening of any kind is basically the process of making two polished flat surfaces meet at an appropriate angle. One of the planes is the back of the plane or chisel blade, the other is the bevel itself. One need not flatten and polish the entire back of a blade, only a short distance from the edge.

Ed used a factory fresh plane blade from a member’s new block plane for the first demo. Should he have started with a chipped chisel, or a tool whose bevel angle needs to be changed, the first step would have been to do the basic reshaping on a slow-speed grinder. But that is a whole different process with its attendant dangers of overheating to ruin the temper (hardening) of the blade (see the books). Blades grinding is an art sufficient for a Guild demonstration all its own. Since the demo blade was new and “sort of” sharp, Ed could start with sharpening on a set of stones.

Such stones are basically hard planer surfaces impregnated with abrasive grit whose job is to cut away the metal of the blade as it is moved over the surface, be it a flat stone or a rotating disc or wheel in a machine. The size of the grit determines how fast the material “cuts” and the smoothness of the final surface. One starts with a coarser grit to make faster progress, then progresses to an intermediate grit (to remove the grain pattern of the coarser stone), then finishes stoning with a very fine grit, almost to a polish. For example, Ed started sharpening the new plane blade on a 600 grit diamond stone, then did a few stokes on a 1,200 grit stone until the grain pattern was gone, then “finished” with a 8,000 grit ceramic stone. This latter stone is what Ed had, but it could have been any type of stone as long as it was very fine grit.

A word about abrasives and grit sizes: There are various abrasive grit material types, mounted on various surface materials, all which drive the use of several standards for specifying grit size. https://sharpening-madeeasy.com/grits.htm. There is an American ANSI/CAMI standard (e.g. sandpaper grits w/o the P), European FEPA standard (e.g. sandpaper grits with the leading “P”), and a Japanese JIS standard typically used to rate water stones and diamond stones. The rating system and grit type associate an average grit size in microns for the abrasive. I.e. Ed’s 600, 1,200 and 8,000 “water stones” would have average grit sizes of 22, 11, and 1.2 microns respectively. By the way, sharpening to a 6,000 grit (2 microns) is likely all one would really ever need.

After stoning or honing the back and bevel of the blade, the next step is to polish the back and bevel on a strop, typically a strip of leather impregnated with a very fine polishing compound. With tool usage, this simple stropping (also sometimes called honing) can
be done to recover the sharpness of the tool, but when this does not re-establish the keen edge one must complete the entire process over again.

When flattening and polishing the back of a plane blade, one can add a small secondary bevel (sometimes called a “back bevel”) by placing a small metal rule along the long edge of the stone and using this to raise the blade back a small controlled amount to hone at a very slight angle. Secondary bevels are NEVER added to the back of a chisel blade. And if one is preparing a blade for a smoothing plane, one adds a small camber across the blade width so that the very edges of the blade do not cut and leave small ridges in the surface. The camber is added by alternately adding pressure to one side of the blade of the other during the final couple of steps.

Very experienced woodworkers can learn to sharpen the bevel totally by hand, but this requires much hand-eye coordination and muscle memory. Instead many use some sort of sharpening jig to align the blade as it is moved back and forth across the stone surface. Ed demonstrated a Lee Valley Veritas® Mk.II Honing Guide System used by many woodworkers. This system features an attachment for quickly and repeatedly setting the bevel angle, and comes with auxiliary heads for holding narrow blades, skew blades, and mortise chisel blades. The Mk.II also has a mechanism for quickly adding a small back-bevel (secondary bevel) to the blade bevel.

Once the bevel is sharpened there is often a tiny burr on the edge back which is removed with a couple of hand strokes on the very finest stone. Ed indicated that bench chisels are sharpened via the same process as plane blades, except that secondary bevels are never added to the blade backs of bench chisels.

But there are simpler and much cheaper guides available as well. Visit https://www.woodcraft.com/products/honing-guide for more information.

Ed Stuckey also demonstrated the sharpening of carving chisels (often called gouges), which is a different process entirely because the gouge typically has a curved cutting bevel. In this process the gouge is generally held by hand with locked wrists at the appropriate angle and the chisel is moved back and forth over the stone using a rocking motion of the hips, with locked elbows, while rotating the tool to sharpen along the curved bevel. With practice, this technique produces a uniform bevel along the gouge curve. Ed also showed several shop-built leather stropping surfaces, round and triangular, for final honing of the carving tools.

By registering as a free member of professional carver Mary May’s School of traditional Woodcarving site, one can watch a video and obtain a pdf demonstrating these gouge sharpening techniques (learning steps 8 and 9). Visit https://www.marymaycarving.com/carving-school/getting-started-preview/ for more information.

Ed also demonstrated the more complex process of sharpening a carving V-tool, and Mary May provides a video of this process as well, as steps 10 and 11.
Ed Thomas followed the Stuckey presentation with demonstration of the WS-3000 Woodworking Tool Sharpener. The WS-3000 is an air-cooled powered sharpening system that consistently sharpens and hones to 20°, 25°, 30° or 35° bevel angle without jigs. It has a built-in blade holding system which positions bevels to abrasive surfaces on rotating glass discs. It also allows you to sharpen a 5° micro-bevel for faster re-honing, or create custom edge profiles using the horizontal, low-speed abrasive wheel.

When sharpening chisels and plane blades, the tool rests on a forced-air heat sink that takes the heat away from the tool as it sharpens. The heat sink is coated with a replaceable ceramic oxide lapping abrasive that automatically deburrs your edges as you sharpen. The $200 WS-3000 includes 2 tempered glass wheels - giving you 4 abrasive surfaces (2 per wheel). It also comes with an Edge-Vision wheel. Slots in the Edge-Vision wheel allow you to see the cutting edge of the tool you are sharpening, making it easier to sharpen in about 10 minutes. There is a manufacturer’s video showing the use of the system. [https://www.youtube.com/watch?v=5Afg74oOWR0](https://www.youtube.com/watch?v=5Afg74oOWR0)

We thank the two Eds for their diligent efforts to educate us on these critical woodworking sharpening skills.
For membership information contact Ed Thomas at: edwardthomas554@comcast.net.

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

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Ed Stuckey.........Treasurer....................313-345-3671
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For membership information contact Ed

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Ever curious about how Dale Ausherman comes up with such a detailed and informative meeting review? Just look at the notes he records. Not only that but he also takes pictures, asks probing questions, and does it all with a smile on his face!

I wonder where he changes out of his Superman costume now that we no longer have phone booths.