Northwest Woodworkers Association

THE SAWDUST NEWS



January 2018

An association for woodworkers of all skill levels to share their common interest

The Next Meeting

Date: Thursday, February 22, 2018 at 6:30 PM

Location: Woodcraft Supply

5963 Corson S. Seattle, WA 98125

Program Highlight: CNC Router Woodworking

Our featured program presenter for this meeting will be Mr. Eugene Bagdon, an employee of Woodcraft who specializes in the use of CNC routers for woodworking applications. His program will include a brief show and tell of his own CNC router projects, discussion of what a CNC router can do, along with its limitations and challenges. He will also discuss the basic anatomy and configuration of a CNC router and a demonstrate the software used to create CNC router programs. This should be a very interesting meeting and give us an insight into one of the most popular modern woodworking technologies – definitely a don't miss meeting!

January 2018 Meeting Highlights Meeting Notes by Tim Newsome Newsletter Photos by Scott Wilson



The January 2018 meeting of the Northwest Woodworkers Association was held on Thursday, January 25, 2018 at Rockler - Northgate. Sixteen members were present.

We want to express our appreciation to **Michael Reszler, Manager**, and the **Rockler - Northgate** staff for hosting this meeting and providing this wonderful venue. We appreciate your long-standing support of the **Association**.

This'n'That

- **Tom Howorth** said he picked up a Stanley #3 plane to add to his collection of antique tools. He noted that it is in pretty rough shape but he plans to restore it.
- **Dan Cordwell** devised a fence to apply to his 12 1/2 inch block plane to allow him to plane curved surfaces. He said he will bring it to the next meeting rather than try to describe it to the group.
- Herb Stoops noted that he was upgrading the drum sanding capability in his shop by replacing his Performax/Jet 16-32 drum sander with a new Supermax 16-32. He is offering the Performax 16-32 for sale. <u>Late update</u>: Herb said he sold the Performax 16-32 to one of the attendees at the meeting.
- **Scott Wilson** brought along a bundle of the veneer we were gifted a couple of years ago, noting that he had no plans to use it and offered it free to any/all takers.

Show 'n' Tell

Chris Green showed us some more examples of his delightful artistic creations, provided by an unexpected windfall, along with some interesting images of the various steps and equipment used to create them.





He began his discussion with a photo of a 55 – 60 year old maple tree that had blown over in his yard during a recent windstorm. During the task of removing the tree, **Chris** noted that the lichen covered ends of some of the main branches had interesting enlarged ends with multiple growths of small branches. No doubt the enlarged areas resulted from multiple pruning operations over the years, which tend to encourage a plethora of new growth, with small branches going every which way. Ever on the lookout for

interesting woodworking opportunities, he wondered what kind of interesting possibilities could be lurking within these knobby treasures.....?

So, instead of relegating this find to the woodpile to be disposed of, he cut out those interesting knobby branch ends for further up close and personal investigation.









To prepare them for turning on his bowl lathe, he first turned the small end on his spindle lathe to provide a circular gripping surface for further turning. **Chris** noted that due to the large diameter, knobby shape, he had to move his tool rest 5" or so away from the part, requiring some skillful and careful manipulation of the lathe tools. However, he also noted that because the pieces were green wood, they turned much more easily and safely than if they had been seasoned wood.

So, what was lurking inside those rustic, lichen-covered, knobby branch ends?













In order to turn such thin elements into his creations, **Chris** said that he used an obliquely mounted light while turning those areas as thin as 1/16 inch to help gage the progress! He also noted that the fact that the wood was green contributed greatly to his success. Note that the light can be seen shining through the piece!





He noted that this piece had an interesting processing history in that after turning it, the top had a rather flat, uninteresting appearance. But, knowing that green wood shrinks as it dries, especially in such a thin cross section, **Chris** placed it on one of his floor heating registers, expecting that as it dried, it would curl up into a more interesting shape. Looks like he was right! I guess that shows that the distortion from the drying process isn't always a bad thing! Thanks, **Chris** for sharing these beautiful objects with us, and your always interesting materials, innovative methods and techniques!



Tim Newsome, showed us an interesting puzzle – a big nail inside a wooden block – with no holes to allow insertion of the nail! Surely it didn't grow that way, so how did he do it?

He went on to explain that he first drilled the holes in the wooden piece and then split it lengthwise with a lusty hammer blow! Then he hollowed out the groove for the nail with a Dremel tool and after inserting the nail, glued the split wood back together. It was very well done and the split line, which followed the grain lines, was hard to detect after being glued back together! He said that the lusty hammer blow technique wasn't too

reliable and solicited some ideas from the group about improving his technique. Most of the suggestions were related to wood selection, with straight grained wood species being the preferred choice.

[Ed. Note: As I thought about it later, I would suggest making one end of the block with excess material and using a chisel to split the piece. This would probably be a more reliable way to split the wood in the intended area. After gluing back together, cut off the excess material to remove the chisel marks.] Thanks for showing us a unique and fun project, **Tim**!

Program Highlight — Multi-purpose Portable Work Table Presented by John Gonder



John Gonder, one of our new **Steering Committee** members was the presenter for this interesting and informative meeting. He demonstrated a refreshing new perspective on woodworking techniques, effectively marrying our old, conventional woodworking technologies and equipment with the wide vista of possibilities offered by the newer CNC technologies and equipment. He also

displayed an amazing array of tooling and accessories that reflected his engineering design

talents and problem-solving skills, including the expertise required to use his CNC router to fabricate complex, precision tooling components.

John began his presentation by unfolding a uniquely designed modular portable work table.



He said that although it appeared somewhat fragile, it was very strong. This table was designed with an open framework top, configured to accept a variety of panel inserts to accommodate different tasks, including assembly, finishing, work and tooling support, etc. The basic configuration had a pair of blank, solid surface inserts, making an ideal assembly table.

John also noted that he plans to modify the design to include adjustable levelers on the legs to provide a variable height to enable matching the height of various machines when using as an infeed/out feed table.

One of the interesting work table configurations involved using an insert with an array of transfer balls, which provides a low friction surface for supporting a workpiece. One possible application of this configuration would be using the transfer ball insert as a lazy suzan type of table for rotating a workpiece for finishing.



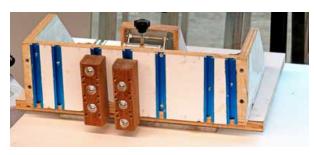


John also demonstrated another unique configuration of the portable work table as an infeed or outfeed table for a band saw or table saw, inserting one panel with an array of transfer balls and another equipped with rollers. He noted that using his **Ashlar-Vellum Cobalt 3D Modeling** software program enabled him to design the two panels so that the roller ball and roller surfaces were positioned at the same height.(http://www.ashlar.com/3d-modeling/3d-modeling-



<u>cobalt.html</u>) **[Ed. Note**: It should be noted that other CAD programs could also have been used to accomplish this task.]

He also showed us a unique, well-designed resawing guide for his band saw, noting that the inspiration for this project came from a resawing guide that **Herb Stoops** had showed at a previous meeting! **[Ed. Note:** This is an excellent example of the influence each of us can have on other members of the **Association** at the meetings by bringing along and sharing projects with the group! **]**



Compared to most shop-made resaw guides, this heavy-duty unit has a number of interesting design features. The base is large, allowing it to be securely clamped to the band saw table. The face of the tool has embedded multiple tee tracks to accommodate different guide block sizes and configurations. The guide blocks themselves are also unique in that they contain spring-loaded

button catches recessed into the face of the blocks to enable maintained contact with uneven workpiece surfaces. He said he also made some interchangeable long guide blocks which allow him to resaw wide workpieces.

John noted that he made the blocks from **Ipe** material, (http://www.wood-database.com/ipe/), which he had never used before. He said it milled beautifully, but apparently he is allergic to the dust, which gave him severe skin irritation! He said that he is going to give up using **Ipe**!

Another of the uniquely engineered features of this tool is the ability to manually adjust the position of the resaw guide relative to the saw blade *in process*. He noted that he has a quantity of rough lumber with uneven surfaces that he is able to consistently resaw because of that tool feature. To provide this adjustability, **John** used a laboratory scissor lift as the mechanism to accomplish the linear repositioning of the face of the resaw guide tool. He said he watches the cut in process and moves the guide in and out with the scissor mechanism to compensate for surface anomalies! Clever idea, **John**!!



To illustrate how well the tool worked, he brought along a stack of thin boards which he had successfully resawed to a uniform thickness using this tooling.

Having an interest in lathe-turned segmented bowls, **John** also showed us some amazing tooling that he designed and built using his circa 2005 **Shark CNC Router**, equipped with **Aspire** software by **Vectric**, **Ltd.** (http://www.vectric.com/products/aspire.html), noting that both **Rockler** and **Woodcraft** market newer models of this machine with updated software. And as can be noted, he designed this tooling to be compatible with his portable work table.

For those who are interested in segmented turning, he recommended the **Segmented Project Planner** software from **Segmented Turning** (http://www.segmentedturning.com). This software turns bowl designs into cut lists for the required segments.

John explained that in addition to the requirement for precision cutting of the multitude of angled segments that make up segmented turnings, two additional challenges involve the accurate concentric alignment of the segments and providing suitable means for clamping during glue up.



He demonstrated unique scroll plates he designed to be inserted into his portable work table, which enable the segments to be uniformly assembled into the rings which make up the segmented turnings. He noted that although making such tooling components with accurate multiple spiral grooves would be practically impossible using conventional woodworking techniques and equipment, the task became rather simple using his CNC router which employs software that causes the router to follow the CAD drawings he generated for the tools.

He designed a second type of tool to enable clamping the segmented rings that make up the vessel to be turned. After assembly of the required segments into rings, this tool, which he referred to a "stomper" is used to align the segments concentrically and apply clamping force to the segmented ring stack during glue up.

A spring-loaded center post, cleverly made using components of a pop-up sprinkler head, provides a capability to accommodate variable height projects from shallow bowls to tall



lamps or vases. Clamping force is provided by a pressure plate guided by Allthread posts.



During his demonstration, **John** had some difficulty in raising and lowering the pressure plate due to the friction produced by the Allthread posts. **Dan Cordwell**, using his mechanical engineering background, suggested adding circular slots to the edge of the tabs on the pressure plate to allow installation and removal of the pressure plates by simply rotating the plate a few degrees to engage/disengage it from the guide posts. **John** thanked **Dan** for the suggestion and said he will implement it, solving a problem that had been vexing him.

John finished up his presentation with a video which explains the design and use of the commercially made segment "stomper" (https://www.youtube.com/watch?v=LS6TnFWVXVk). He noted that in the video, a custom plate is required for each different number of segments in a ring. He hopes to be able to design a universal tooling arrangement that will accommodate a wide range of segmented rings. He told the group that he would welcome any ideas they might have to help resolve that issue.

Steering Committee Update

As of this meeting, the **NWWA** was officially open for business under new management! We are pleased to welcome a new **Steering Committee**.

Our new **Steering Committee** members are as follows, alphabetically:







John Gonder



Tony Grosinger



Tim Newsome



Scott Wilson

We want to recognize our outgoing **Steering Committee** members and thank them for their many hours of dedicated service to the **NWWA**. You men have done a wonderful job of leading the **Association** and providing us with interesting, educational, and entertaining activities and meetings. We hope that you will remain active members and continue to grace our meetings with your proactive attitude, interesting projects and presentations, and valuable experience.



Bill Bond



Mark Martinez



Herb Stoops

We hope that our membership will actively support our new **Steering Committee**. As in the past, the **Steering Committee** welcomes your suggestions, proactive support, technical assistance, and constructive criticisms. Please feel free to contact any of the **Steering Committee** with any questions or comments.

Note from the Editor



This was a very interesting and informative meeting, illustrating how new woodworking technology can be integrated with conventional woodworking processes and equipment. In our manufacturing world today, many computer controlled machines are used for a wide variety of operations. In our woodworking world, most of the precision tools and equipment we use are

manufactured whole or in part on numerically controlled equipment. For example, most of our circular saw blades are sharpened (and resharpened) to precise tolerances on CNC equipment, providing extreme, repeatable accuracy at a reasonable cost. As **John Gonder** so aptly demonstrated in this meeting, CNC equipment, now commonly available to us hobbyist woodworkers, has a valuable place in our woodworking equipment array, providing us the ability to machine accurately machined joints and build precision tooling for our standard woodworking processes, as well as many stand-alone applications like carving, sign fabrication, etc. This interesting meeting dovetails well with our next meeting in which we will have a presentation on the use of a CNC router.

Committee members. Though some of them are relatively new to woodworking, they offer a wide variety of talents, abilities, and experiences. Expect to see some changes in our meeting formats and content, as they implement some new ideas and concepts. As you have been patient and understanding with those of us who have previously served on the **Steering Committee**, please give this new group your full support and cooperation. They are dedicated to making the **Northwest Woodworkers Association** the best it can be – please step up to help them succeed.

Happy and Safe Woodworking,

Paul

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We encourage our members to contact any of the above individuals with questions, comments, or items that may be of interest to the membership.

In addition, please visit our website: http://www.nwwoodworkers.org