Thames Valley Woodturner

A publication of the Thames Valley Woodturners Guild

A chapter of the AAW

Turning events, Wood shows, and competitions in our region and farther afield

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For a Guild info/policy sheet or mentors list, call or email Bob Hewson at *66.bobhewson@rogers.com* or refer to our web site at: *http://www.thamesvalleywoodturners.com/*

Volume 15.1&2 January/February/March/April 2013

Treasury and Dues

We have ~$6510 less rentals as of late March with authorized expenditures for new A/V equipment.

Membership dues were due by Dec 31, and cover the full year 2013. Dues remain at historic lows of $35. We have had a collection drive, but have a number of people that have not renewed and thus have been stricken from the roster

Should an unpaid member wish to return he/she may do so by sending dues made out to the *Thames Valley Woodturners Guild and given to Bob Fenn during the meeting or mailed to him at 49 Susan Ave, London, N5V 2G1*.

Interesting new or updated web sites

Google, Yahoo and MSN host newsgroups that cover virtually any topic you can imagine. Try typing your query as a question into the Google box and see the breadth of info you can find.

- For those who follow Beall Tools progress here is a link to their latest catalog containing lots of product info: http://bealltool.com/pdfs/catalog.pdf
- Check out this site/forum for woodworking of all types including tuning http://lumberjocks.com/
- Check out Lee Valley's web site and sign-up ffffor their newsletter which includes highlights of their newest products http://www.leevalley.com/en/home/OptInStart.aspx
- Want a tutorial on inside out turning? Check out this YouTube video http://www.youtube.com/watch?v=F68Sp9dFALs&feature=em-subs_digest-vrecs
- See all of Dave Bell's videos at http://www.youtube.com/user/DavesWoodturning/videos

New Members

We have three new members to report for this period. Please welcome Dave Hudgel , Dave Ladore, Brandon Smith., Les Mannen, and Harry Senkevics. Please make them welcome.

Combined "Super-Sized" issue

Due to conditions beyond my control I am way behind on the newsletters. Since content was a little light for January and February and heavy for March and April I have combined the two issues into one.

Name Tags and planned Photo Roster

Please wear your name tags. It is easy to remember faces, but it helps to know the names that go with the face. If you drop the name tag on the table at night's end it will be here for you next meeting. If you don't have a name tag or have lost it, please write your name on the provided sheet.

To help us all remember the many names and associate them with the correct face we plan to develop a Photo Roster of our members. We plan to begin taking photos at the January meeting. This could also be included on our web site if the members are interested. Any not wishing to participate in either aspect may abstain or ask not to be shown on the website.

January meeting

Eric shows us how to create a storeyboard for copying or duplicating as well as initial designs.

Story Stick – Creation and Use

Thames Valley Woodturners Guild Demo by Eric Deckert, Jan 10, 2013

Purpose: To understand how to create a story stick for duplication of turnings and how best to use a story stick. To create a story stick based on a re-scaled picture/drawing of a woodturning.

Demonstration: Reproduction of a candlestick

Tools: Some tools I used are listed below. Some of the items listed are optional depending on your preference.

Vernier calipers	Direct read calipers
Square	Normal calipers and ruler
Flexible rulers	French curves
Molding templates	Horizontal turning holder/jig
Hardboard for story stick	

Method 1: Create a story stick from a turning

Steps:

Select a piece of hardboard which is slightly longer than the piece to be reproduced. Use wood which is easy to write on and will maintain the registration marks without smudging. I used 1/8" hardboard and marked with a pencil. Once measurements are confirmed you can go over the pencil with pen or marker.

Set up the turning in a horizontal holder. Identify which end of the turning will be at the headstock. The headstock side will be where the zero of distance measurements are measured from. This is called the reference line.

Select a zero point on your turning for the reference line. It could be the base or the bottom of the first bead. It should be easily identifiable.

On your blank story stick, mark a horizontal line back from the edge which will serve as a line of symmetry for a drawing of your turning in profile.

Mark the zero reference line on the left hand side of your story stick using a square. Mark the line as zero and ensure the line goes far enough back to intersect the symmetry line of your turning profile. Measure the diameter of the first feature at zero distance and mark it on your story stick.

Calculate ½ the diameter (radius) measured in step 5 and mark a line up from the symmetry line. This will be connected to the next radius and will produce the profile of the turning as you progress.

Look for the next identifying feature in your turning from left to right. It could be the top of a bead, bottom of a cove, or an arbitrary location along a curve that you want to use as a diameter-check as you turn. Label this feature with a number! The zero reference line will of course be the 0th feature but remember to consecutively label each feature as you go. The brain will be able to pick out numeric features more easily especially when the lines become close. Measure the distance offset from zero on your turning and measure the diameter with Vernier calipers.

On the story stick, mark the offset from zero with a square line drawn back to the symmetry line. Mark the diameter on or beside the line. Calculate the radius and mark the radius up from the line of symmetry. Connect this point to the previous radius point to show the profile of this section.

Repeat steps 7, 8 until you arrive at the end of your turning.

Identify any outstanding features or tricks on the story stick such as where to hollow, how large or long a tenon or mortise to include. You can create profile templates and label them on your story stick so you know which profile template to use for each section.

Method 2: Create a story stick by re-scaling a drawing

Steps:

Select a hardboard as in method 1 and draw a symmetry line on it.

From your drawing, identify which side will be the headstock side and identify a zero reference.

On your drawing, identify the scale up or scale down factor you want to employ. (Example 4/3 will upscale the drawing by 30%)

Mark your zero line on the story stick. Measure the diameter on the drawing and rescale by your scaling factor. Remember to convert to your favourite units (metric or 1/8ths or 1/16ths standard)

Mark the radius up from the symmetry line.

Measure the offset of the next feature on the turning. Scale the offset by your scaling factor. Mark the scaled offset on your story stick.

Measure the diameter of this feature and scale by your scaling factor. Label this diameter on your story stick. Mark the radius up from the symmetry line and draw the connecting line to the last radius.

Repeat as above until all features are identified on your story stick.

How to Use Your Story Stick:

Set up your turning billet on the lathe after all pre-work has been completed. Devise a way to mount the story stick behind your turning so you can look up to it and also pull it down to hold up to your turning very easily.

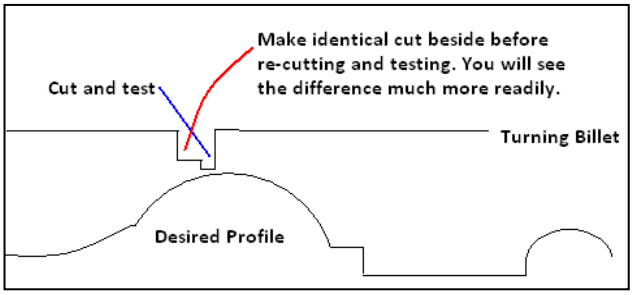
Hold the story stick up to your turning to mark the zero line and the largest diameters first! Extend the lines all the way around the turning billet.

Turn down the blank to the highest diameters while leaving some registration marks on the turning for reference! I found it useful to re-draw the zero line after the diameter has been turned for ease of reference to the story stick.

Mark your other reference lines on the turning in whatever order makes most sense to the turning. Note to yourself if you should cut on the line or to the left or right of the line.

Either set vernier calipers to the diameters to be turned or pre-set some calipers to the diameters required and label them with masking tape to reflect the station number on your story stick. You can put a board of nails up under the story stick and hang the calipers off the corresponding nail.

Turn the diameters down to size and join them with the appropriate turning, using your templates if you made them.



Whenever possible, while turning down the station to the proper diameter, waste away beside the line to the same depth before continuing to cut to the next depth. The eye can see the relative depth from the last depth cut very easily. Example, when cutting a bead height, cut and test the bead diameter at the edges. If you cut too much off you can always cut less off at the center of the bead, and you have to cut off the edges of the bead so your mistake will disappear.

When marking subsequent diameters to cut on the turning, always zero your story stick before marking the diameters and draw a few extra lines for reference. You don't want to cut too far to the side of a thin feature.

Make any helpful hints on the back of your story stick for the next time you use it! If you don't use the same story stick for a year you will have great notes on it to remind yourself before you use it again.

Suggestions:

When creating your story stick, always measure offsets from zero to reduce error. Measuring from the last feature will compound your error. Remember that the error in a sum is the sum of the errors!

Use a French curve or molding pin stick to reproduce curves from the original on your story stick.

I bored the hole for the candlestick before cutting the billet to final length. This made it a little more difficult to bore the handle hole once the bulk of supporting wood was removed. Think of what pre-work needs to be done before turning.

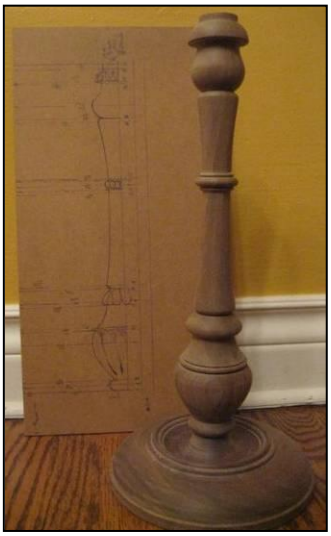
If there is a difficult section of a smooth curve, consider making a hardboard template to put against the turning to let you know when it is acceptable. Label this template and mark the template number on your story stick.

Ensure you write your labels so you can read them when the story stick is lying horizontally…unless you have a vertical lathe!

If you are scaling your measurements off a drawing, consider entering the raw distances and diameters in an Excel spreadsheet and using a formula to convert all values as below:

Formula:

=INT(A1) & " " & (FLOOR(A1,1/16)-INT(A1))*16 & "/16"
This rounds DOWN to the nearest 1/16th to ROUNDUP change the FLOOR function to CEILING.



SAMPLE STORY STICK FOR A CANDLESTICK

For additional photos of the storyboard in use please refer to the April ite/demo by Paul Jackson

Ed.

January show and tell items

John Calver, Rose engine engraving on barrel (L & C), Powdered metal swirl (R)

Bob Fenn - Ball in a box. Attempt #1 was the original. #2 was done after he worked out better turning procedures. Neither was a finished product, Bob was trying to see if he could do it.

Bob Fenn, maple and purple heart, turners polish finish

Gary Miller, Lost wood process, wood-burning in "shell", rock ground out with diamond cutters. A prototype for a larger work.

Dave Bell, Box elder + Alumalite, 5", Lacquer finish

Dave Bell, Box elder + Alumalite, 5", Lacquer finish

February meeting

Finishing Guidelines

This panel discussion was put in place as a replacement for a turning demo while our insurance policy was being sorted out. Although I missed the meeting I understand there was some great ideas techniques discussed. Gary Miller kept notes and they follow. Thanks Gary.

Ed

Finish or no finish

Some woods look great with no finish after careful sanding and buffing such as Ebony, African Blackwood , Cocobolo. Often a little wax is all that's needed (not very permanent though). However, most woods need finishing for protection, to enhance appearance and ease cleaning.

What finish should I use?

This depends on a variety of things;

Type of wood

Size of the piece

Intended use

Appearance desired (clear, tint, sheen)

Durability (scratch, wear, chemical, fingerprints)

Types to consider

Wax. I don't recommend using wax directly on wood at all. It has no chemical, water or abrasion resistance, most types will show fingerprints, some cause significant yellowing and needs re-doing regularly.

Non-polymerized 100% Tung oil. Again, I don't recommend it. It is, for our intents, non-drying (although it does over a very long period), has a strong odour that takes forever to go away, offers no protection and needs re-applying frequently.

Polymerized Tung. Highly recommended. Offers reasonable protection, easy to apply, cures fairly quickly, will "build" on the surface with multi applications, easily repaired, really brings out the best in most woods having attractive grain. It bonds chemically thus it is not necessary to sand between coats.

Boiled Linseed oil. Although I don't recommend it for most purposes, it is widely used for special purposes. It is mainly used by woodturners to make Norfolk Island Pine (NIP) transparent after soaking in it for days. It can be used as a finish but has a strong odour that lasts nearly forever and has poor protective qualities. It is also used with alcohol and Shellac to do French Polishing.

Wipe-on Poly (WOP). Recommended. Not as easy to apply as Oils and should be sanded between coats as it bonds mechanically (needs "tooth" in the surface to bond) but builds easily and has good protective qualities. When rubbed back, it can provide a nice non-plasticy looking finish and can be buffed to a high sheen if desired.

Shellac. It's a wood worker's miracle preparation as virtually any finish can be put over it. It dries very quickly and seals wood fibres, sands like a dream and can be used as a beautiful final finish if rubbed back with 0000 steel wool and then waxed but it is not a "tough" finish. It is, however, easily repaired. It bonds chemically thus it does not need to be sanded between coats.

Varnish. I don't recommend it for finishing turnings. It's too slow drying and tends to look "plasticy", must be sanded between coats for a good bond. Save it for guitars.

Water-based Lacquer. Recommended. Apply Water based sanding sealer first and rub back with synthetic steel wool (eg. 3M sanding pads). **DO NOT USE STEEL WOOL** as any little fibres caught in the grain will rust because it is water based. Offers good protection.

Cellulose Lacquer. Highly recommended. Along with Polymerized Tung = my favourites. It is quite easy to apply (not as easy as Tung) and very forgiving (runs sand out easily). It bonds chemically thus it is not necessary to sand between coats. Apply Cellulose sanding sealer first and rub with 0000 steel wool (several coats to fill open grain). Can be sprayed or, for smaller pieces, apply sparingly with cheese cloth. Recoat time is only a few minutes and it builds well. Although a fairly protective finish, things like perfume will damage the finish but it's easily repaired.

Preparation

The surface must be well prepared. Sand to at least 400 and **DON'T SKIP GRITS!!** Each grit used should only remove the scratches created by the one preceding it. If they're not disappearing, back up and sand with a coarser grit until the deeper scratches are gone before proceeding. Gallery quality should be sanded to at least 600 or finer. An exception might be if the intended finish bonds mechanically - anything finer than 400 might provide a poor bond. Before applying any finish, make sure the surface is free from dust. Blow it off with compressed air and wipe it down with a tack cloth.

Choosing the finish

What is the intended purpose of the piece? Utility = durable, easily cleaned. Must decide whether it is better to have a built-up film or no film (will water ever be used on it- such as a salad bowl? i.e. no film). Decorative = mainly maximize appearance. Again, must decide whether it is better to have a built-up film or no film.

What kind of wood is used? Even this must be in context with the intended use. For example, if it is a highly figured burl: a decorative piece would benefit from using Tung oil as it amplifies the grain but if it is to be used as a bowl it might be better to seal the wood with 2 or 3 coats of Walnut oil (which will cure) and rub back to the wood and buff lightly.

Is the wood "open or closed" grain? If you want a fine finish, open grain (e.g. on Walnut) must be filled before the final coat is applied. This could be built up with many coats of sanding sealer and sanded back to the wood until the grain is filled or a commercial grain filler (sometimes having different colour choices) could be used before the final finish is applied.

Is it a light wood or dark? If very light, you might want the wood to remain as white as possible. Krylon fixative (used over pastels and pencil drawings to provide a protective coat) will seal and causes little or no colour effect. Cellulose lacquer and water based finishes make it a little bit amber, but might be quite acceptable. Darker woods benefit from Tung, Lacquer, Shellac, or other oils.

If the piece is very small, Turner's Polish is a good choice. The U-beaut system works very well too. It is a 2-part system – both parts are a kind of paste which is Shellac based. The first has Jeweler's rouge in it and you burnish with it to acquire a fine finish. This is often enough on its own. If you want a higher polish, apply the second part and buff to a high polish. Pen turners often use a CA glue finish. There are various techniques used. Some just apply CA directly to the pen barrel with a paper towel and spread it around while the piece turns at slow speed, building up layer after layer, then sand back and finally use buffing compounds. Other's put a little mineral oil on the paper towel before applying the CA. It acts much like turners polish. Apply the CA, turn up the speed and keep the pad in contact until it starts to shine. Finish with buffing compound.

Oil application technique

Sand to perfection

Apply oil generously. If dry spots appear, add more oil

Wait a couple of minutes then wipe off all excess with cheese cloth. Turn the cloth frequently.

Leave for 24 hours.

Repeat the process at least two more times. More if you are intending to use buffing compounds for the final finish

Rub down with 0000 steel wool and buff to a final finish using Beall buffing compounds. I DON'T USE THE CARNUBA WAX FINISH. Carnuba is not very permanent, attracts dust, and amplifies fingerprints. If you choose to wax, use Renaissance Wax. It is synthetic, easily restored and doesn't attract dust or fingerprints.

Gary Miller 13.02.05

February show and tell

There were no photos taken at this meeting

Visiting turners

For the interest of members we continue to list future seminars and visiting turners scheduled at neighbouring Guilds as we learn of them.

These are the demonstrators that WGO, GHWG, TVWG and other area Guilds have either scheduled or are making arrangements for. The Guilds have generally said that members of other clubs are welcome to attend, space permitting. If you wish to attend make your wishes known as early as possible. Please let Gary Miller know for out-of-town sessions. Gary will verify that there is space and confirm the fees.

Carpooling may be arranged if there is sufficient interest, co-ordinate with Gary Miller. For sessions held in London see Bob Hewson to sign-up and or buy your ticket(s).

Guest turner	***Date***	***Sponsor***	***Fee***	***Contact***	***Comments***
We have no featured turners on the immediate horizon. Few a seem to be traveling this year					This is a perfect time for members ideas as to their preferences or specific turners they would like to see as we build the new 2013 schedule.

March meeting

Paul Jackson shared with us an overview and demonstration of how he recreates the past for those with deteriorating wood trim on their older homes or outbuildings. Many of the original pieces are often in a sorry state, weathered, rotted and crumbling from years of neglect. Paul has developed a side of his business in recreating these objects of the past. Tonight's demo recreates a finial for an old home. Co-incidentally this project/demo carry's on with the use of the storyboard as demonstrated by Eric earlier in the season.

The Shrewsbery window panel finial damaged original and recreations

Paul lays out storyboard data taken from sample and transferred to his storyboard

Taking the piece down to measured section diameters

Marking high points for curved section

Checking against storyboard

Measure, measure, measure!

Nearing the end, keep the storyboard handy for easy refernce

And now sanding to 220 grit

Nicely done, two more to go as noted in the initial photo. Another happy customer for Paul

March show and tell items

Bob Fenn, experimental shapes and finish

Doreen Bowden, Automotive paint with colored embossing powders embedded plus leather lacing with beads

Doreen Bowden, Automotive paint embedded embossing powders, Thunderbird

Doreen Bowden, Automotive paint, embossing powders, Thunderbird

"Gary Miller, maple platter, burned design and stippled background, lacquer, 11"OD

Dave Bell – Box elder and Alumalite &", lacquer finish

Dave Bell, Lidded bowl, Alumalite, 6",

Doug Magrath, square bowl, ambrosia maple, Tung oil finish, 16

John Calver acrylic badger bristles brush, maple

John Calver, shaving brush, cast acrylic base with enameled insert in handle

Dave Bell, Decorative box, box elder and Alumalite

April meeting

See Part 2

Blank page for notes