



The Turning Point

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Member since 2012

*The next meeting of the Nova Woodturners' Guild is
On Zoom
SUNDAY, March 20, 2022. 1:00 p.m.*

*The next meeting will feature
Dave McLachlan
Mandrels-Types, Uses and Designs.*

The President's Workshop March 2022

Gary Landry

*One more
reminder that
we are going to
hold a Fun Turn
Event this year.*

Anybody tired yet of our trend for a snowstorm-every-weekend?
I know I am. Come on Spring!!

It seems the provincial COVID regulations have changed but so far I see no change in **Lee Valley's** policy on using the seminar room for our meetings. I will keep you apprised of anything I hear, as I hear, it but so far it is radio silence. A good benchmark we can all look for is if LV is announcing seminars for their customers. That would be the clue that we should be able to get back to in-person meetings.

One more reminder that we are going to hold a **Fun Turn Event** this year. The rules are:

- you supply a 1 1/2" by 3 1/2" by 12" piece of wood of any species or laminated species (dimensions chosen so you can even use 2X4 lumber if you wish)
- you can turn anything from it resulting in one, to a max of three, individual piece(s)
- your entry will be photos and/or videos of the piece(s) emailed to **Calum** up to the week before our April 10th meeting (last day for entries will be Friday the 8th giving Calum time to prepare the entries for presentation)
- prizes will be awarded by random draw (prizes to be determined by the Executive) during the April 10th meeting

Due to the generosity of **Mark Hazen** we will once again meet via Zoom on Sunday, March 20th at 1PM. **Dave McLachlan** will be presenting his recorded demo (I believe it is on mandrel design and use) at the meeting and we will have a Show and Tell session at the end of the meeting.

Once again I would ask all members to consider a date for a new Turning Competition during our 2022-2023 meeting year. Would you like it early in our meeting year (say October or November 2022) or later (say March or April 2023)? This item will come up for voting at our AGM in June.

I wish you all continued good health and encourage you to turn some wood.

Gary Landry – President

“From Pen Turning to Pen Making” presented by Mark Dreyer and John Underhill

This seminar was held online on February 19, 2022 and lasted just over two hours. It appeared that this presentation was really planned as a casting-only seminar and the general turning of pens was added to make the presentation more widely desired. The general turning section by **Mark Dreyer** (about 35 minutes) never discussed the turning of wood blanks but rather acted as a initiation into pen turning with an emphasis on turning cast resin blanks which then acted as a segue into the section by **John Underhill** on casting resin blanks. While perfectly acceptable an approach, if you were interested in beginning in pen turning it probably was less helpful. I say that because I would think that very few people turn pens in resin blanks first but rather use wood blanks due to easy availability. That being said, I believe that I got good information for my low investment of \$10US.

Mark started out emphasizing a approach that suggested attention to detail and form over enhancements when making a pen. He does not condone the use of the term “pen kit” because it makes those who are not pen makers to believe that the maker only bought some parts and stuck them together to make a pen. He instead maintains that we should say we bought pen components to make a pen making the point that the turner spent time and talent to produce the finished pen.

He showed how to measure and cut a blank for drilling to receive the brass tube(s) in a planned manner to assure consistent flow of surface textures in the finished pen. Discussion of pen mandrels, drills, bushings followed. Some suggestions were to drill carefully to avoid blowout at the exit end by overdrilling before cutting to required length. Care must be taken in drilling to avoid excess heat build up and melting of the resin blank. If you are using a blank that is transparent (even if coloured) it is necessary to paint the drilled hole so the brass is not visible in the final pen. Use white or black paint (acrylic) but be aware that each one will produce a different appearance in the final pen, white keeps things light and black results in a darker background tint to the blank. Gluing the tubes into the drilled blank should be done using five minute epoxy to allow for assembly because using CA adhesive will certainly end up with a few tubes frozen in place when not fully inserted in the blank. Use of a pen mill on anything other than wood or pure acrylic blanks (especially clear cast blanks where materials are attached to the brass tube before casing) was discouraged. He favours the use of a V-block assembly with transfer punches matching the internal diameter of the brass tubes and a rotary sander at exactly 90 degrees to the brass tube/transfer punch jig.

He showed one acrylic blank and a component set and then took us on a journey from raw materials through preparation, to turning and to final finish. Mandrels were discussed and in general the rod type mandrels were not advised because of the possible flex in the shaft which result in oval pen surfaces. Instead he suggested a turn-between-centres system ([Turn Between Centers Mandrel System - #2MT | ExoticBlanks](#)). He suggest turning the



mounted blank by cutting from the centre off one end and then repeating on the other end before turning the central portion. This eliminates most of the potential for chip-out on the end of the blank. He stated that the acrylic blanks produce a lot of long shavings that get in the way and he clears them off (under power) by using a golf ball brush. It is efficient and keeps his hands and fingers away from the turning parts. He works exclusively with carbide cutter tools for acrylic blanks including a negative rake cutter version when it is required.

At this point the seminar was handed over to **John Underhill** whose presentation was exclusively dedicated to resin casting. His opening remarks suggested that one should think of the intended buyer/receiver of a pen and produce a casting that would be appreciated by them. For example inlaid feathers for a hunter or bird watcher or firefighting/police emblems for first responders are more likely to be desired/appreciated.

Considerations when casting would include the set up of a dedicated casting area where everything needed is close at hand (time is limited when resin and catalyst are mixed together), spills are planned for and safety is assured (some of the casting systems have very volatile and toxic vapours). Read and follow all mixing and safety instruction from the manufacturer.

John gave a general estimate of \$300 to \$400 (which I assume is \$US) as the start-up cost of setting up for resin casting. Cost would include such things as a compressor, pressure pot, molds, resin, mixer, mixing cups, weight scale, non-contact digital thermometer, silicone mat to work the resin on and a log book to keep notes on all aspects of a resin pour so it can be corrected if faulty or, more importantly, replicated if more of a particular batch have to be produced. Of course some of us would have some of these items (e.g. compressor) or can make some (e.g. molds) and as such the overall cost may be reduced somewhat. By the way, if you intend to make your own molds John suggests that you only use plastic that has a #1 or #5 recycling code on them or they could melt or bulge out from reaction with the resin chemicals. Molds, both vertical and horizontal types, are commercially available from places like www.exoticblanks.com or Penn State Industries, among others.

When choosing a resin type for use some considerations he suggests you take into account are the quality of adhesion (determined by the project type), viscosity (tight voids require thinner resins), durability (do you need to cut threads in the resin), working time (how fast will the resin set up and become un-pourable), curing time (this can range from minutes to seven days), price and availability (from who and how fast can you get it).

Apparently there are four basic types of casting resin. They are:

- **polyester resin** (PR) and one has a trade name of Silmar 41, cost about \$40 to \$50US per gallon, requires two or three drops of catalyst per ounce, does not require a pressure pot but one is strongly recommended and has very strong odours.
- **urethane resin**, known as Alumilite (clear/clear slow/white types) that are mixed 1:1, has approximately two minutes of working time, requires a pressure pot, has low odour, is great for kitless pens (supports threading), cannot be exposed to moisture from things like CA or on molds or casting parts. Cost is about \$80US per gallon.
- **Epoxy resin** is mixed at a 2:1 or 1:1 ratio, can yellow with age if UV stabilizers are not added, is hard on silicone molds, can be demolded after one or two days and requires three to seven

days before cured and able to be turned. I did not hear a cost per gallon given.

- **UV curing resin** is applied in layers, no pressure pot is required, takes only two to four minutes to cure under UV light and is not very shelf stable so buy only what you can use in two or three months (assuming you can get a fresh supply)

John spoke of three types of cast blanks we can make. First is Colour Cast type where you can mix in dyes and powders and then pour in a pattern that produces a pleasant display when cut up. Second is Embedded Object type where the resin is poured over well-dried objects and cut into blanks when cured (think of pine cones or shells). The last type is Tube On Clear Cast where objects are applied to the brass tube and clear resin is cast around the tube. Examples of all these versions were shown being produced up to the actual blank as it would be used in producing a pen.

John gave a couple of the most common reasons for failures when casting. The first is the resin mixture is too hot or too thick when poured and the second is that there is moisture in or on the objects being cast in the blank.

A list of resources was provide at the end of the seminar and they are:

(Mark Dreyer)

- Penturners Tool Rest – Robust
- Sanding V -Block - ExoticBlanks.com
- Wood Finish (Briefly mentioned) – GluBoost
- Carbide Tools – Easy Wood Tools

(John Underhill) Casting

- Vertical Casting Rack & Clear Tubes/Tapered Plugs/Bases – ExoticBlanks.com
- Silmar 41 Polyester Resin & dye – Composite Envisions.com & US Composites.com
- Alumilite Urethane Resin... Clear/Clear Slow/White & dye – Alumilite.com & ExoticBlanks.com
- UV Resin – Berea Hardwoods .com
- Mica Powders (Pearl Ex) - Hobby Lobby & ExoticBlanks.com & Alumilite.com
- Silicon Casting Mat – Amazon.com
- Clear Mixing and Measuring cups – Kroger (Grocery Store)
- Block Molds and Release Spray- Exoticblanks.com & PTownSubbie.com
- Mesh weave fabric for over dry goods cast – hobby lobby
- Weather Proof Labels (label casting) – Online Labels.com
- Pressure Tank – harbor Freight (build your own) CA Technologies (purpose built)

Contacts

- **Mark Dreyer** - mark@markdreyerturning.com
- **John Underhill** - JMU1032@hotmail.com

All in all this was an interesting seminar. I expected that there would have been more on the general aspects of pen making. While I am interested in how casting is done, I am not about to get into casting myself so this part was of less practical use to me. However, for less than \$15 CDN I think I got full value for my money. - GL

The Great Fun Turn Project

MILLIONS♦ IN PRIZES♦♦

**NO LIMIT ON THE NUMBER OF
ENTRIES♦♦♦**

The rules are simple:

- Any species of wood**
- Dimensions limited to what you could get out of a one foot piece of construction 2 x 4. (1.5" x 3.5" x 12")**
- Have Fun!**

Your entry will be emailed photos and/or videos of the piece(s) (last day for entries will be Friday the 8th of April).

*Actual prize limit will probably amount to \$25 CAN

**And there will probably only be one

***And the limit is actually three pieces!

Calendar of Events

Date	Subject	Location
September 19, 2021	Richard Ford Video presentation "Turn a Chess Piece"	Online via Zoom
October 17, 2021	Phil Rose presentation via Zoom Embellishing Techniques	Online via Zoom
November 21, 2021	Competition Show and Tell	Online via Zoom
December 19, 2021	"Things I Have Learned" Submitted videos	Online via Zoom
January 16, 2022	Richard Ford Making Birdhouses	Online via Zoom
February 20, 2022	Richard Ford Making Small Birds for Birdhouses	Online via Zoom
March 20, 2022	Dave McLachlan - Mandrels Types, Uses and Designs	Online via Zoom
April 10, 2022	To Be Announced	Online via Zoom
May 15, 2022	To Be Announced	Online via Zoom
June 12, 2022	AGM	Online via Zoom

(Third Sunday of the month, 1:00 pm.)

What's on the Web? Norm Jolivet

An undeniable truth!



Nova Woodturners' Guild – 2021/22 Executive

Our e-mail now reflects a more consistent method of communicating with the various offices in the Nova Woodturners' Guild. The recipients will change as the need arises but a note sent to the president will go to who ever is president at that time. All the following <address> should be followed by @novawoodturnersguild.com to send mail to that person

<address>@novawoodturnersguild.com

Position	<address>		
Executive	executive (sends the message to all executive positions on the list)		
President	president	(or) pres	Gary Landry
Vice President	vice-president	(or) vp	Bill Maes
Secretary	secretary		Calum Ewing
Treasurer	treasurer		Dave McLachlan
Director at Large	director-at-large		Brian Sharp

Committees

Library	library	Jim Diamond Richard Ford	C
Web Site	webmaster	Richard Ford	C
Membership & Promotion	membership	Vacant	C
Newsletter	newsletter	(or) news	Norm Jolivet C
Competition	competition	Vacant	C
Guild Photographer	photographer	(or) photos	Chris Palmer
Fund Raising	Raffles	Norm Jolivet Yogi Gutz	C
Nominating	nominations	Bill Maes	C
Members Group	members	30+ members	

To add or remove yourself from the group email: webmaster@novawoodturnersguild.com
 Note: to email all NWG members you must go via the club secretary.

