

Shavings No 50 - March 2019

The visiting demonstrator for March 2019 was Donal Ryan but, as a bonus, at Noon, we had Ryan from MB Fibreglass to talk about resins before the demo started.

Ryan works for MB Fibreglass in Belfast who supply many different types of resins for many different applications. He explained that we would probably get the best results from Polyurethane resin that is more expensive than Polyester resin as the down side of Polyester resin is that it can be brittle. Two-part epoxies can also be used and results are mostly reliable but variable depending on conditions like temperature and humidity. Epoxy resins work best at 18C.

Jim Overton (YouTube videos) is making a name for himself as the resin casting expert on YouTube and he buys all his materials from MBF. Two of his favourite resins are Cleartop 35 and Opticast 2000. These will take colours and metal powders.

When talking about the actual casting process Ryan explained that the two methods used to remove bubbles in the resin are with a vacuum pot and pressure pot. A vacuum will extract bubbles and a pressure pot will compress them until they are invisible to the naked eye. For small casting of, say, pen blanks it is possible to use a hair drier or heat gun to burst the bubbles on the surface of the resin so



there is no need to spend lots of money to

make small casts. When casting wood it is worth coating it with resin before putting it in the mould. That will seal the wood and prevent any unwanted surprises.

MBF sell the materials needed to make moulds and those, also, vary in price.



When using silicon rubber you need to be careful to avoid moisture while the mould is setting and Fast Cast Polyurethane will set in about 15 minutes so you will get results quite quickly. The type of material you use for the mould will depend on the desired result e.g. if you want to lift a lot of detail use a soft silicon mould material. It is advisable to use some sort of mould release to ease extraction of the cast. This could be wax, silicon or spray teflon.

Ryan was asked about applying epoxy to wood and advised us to apply it in layers rather than one thick cast because the layer method would give better results. He suggested coats 1mm - 5mm thick. Sand the layers to 800 between pours and remove dust before the next one.

Storage conditions were discussed and Ryan explained that most resins have a shelf life of about three months and that they actually start to cure the moment they are made so don't buy a huge amount at a time unless you need it. Epoxies last longer, about one year and both those and resins should be kept in the dark at 10C - 20C as cold is not good for resin.



There are so many variables at play in casting that Ryan advised experimenting to see which types of resins and methods suit your purpose best. There are lots of people on YouTube using all sorts of casting materials but, for us, Jim Overton (mentioned above) is a really good source of information because he is UK based, very fussy, and freely shares his discoveries. This writer has met Jim and can vouch for the fact he is a reliable source of information and a lovely man.

Whenever the casting process is done the material is treated just like wood. Just cut to your required shape and sand from P180 to P1500 and then polish with any compound. There are many available and Yorkshire Grit now have a Microfine Grit just for acrylics and resin. It is available from Sam in The Wood Shed as are MBF resins along with the metal powders and colours for mixing in the casts.

Stabilisation of wood was briefly discussed and Ryan recommended Cactus Juice for that purpose and a vacuum tube or pot because the vacuum will pull all the air out of the wood and then resin will fill those voids when the vacuum is released. It is available from two UK sources [Metal Clay](#) (Cactus Juice) and [House of Resin](#) (more Cactus Juice) both of which seem to have special prices for sending to N.I.

However, Jim Johnston was with us last year doing a pen making demo and he uses Stick Fast Resin, available from Turners' Retreat which can be bought in smaller quantities ([Stick Fast](#)). The stabilising resins can be used many times so will treat a lot of timber, you don't have to dump any unused liquid after treating wood.

Ryan advised us to ensure personal safety at all times and to wear goggles, gloves and a mask when using any resins. Should you wish to explore the world of casting Ryan will be happy to assist you in MBF and Sam in The Wood Shed has already got MBF's resins, metal powders, and colours to get you going with popular resins that will give you good results.

We thank Ryan for his very interesting and informative talk and for answering our many questions. We all left the session wiser and better informed than we were before.

Visiting Demonstrator - Donal Ryan

We were delighted to have Donal Ryan return to The Wood Shed to do another demonstration for us and, as usual, he was superb.

Donal made a lidded bowl with a finial using Ash blanks that had been shaped and dried in his kiln. He advised us to try to



keep the pith running dead centre through the bowl in order to reduce excessive



warping when the blank was dry. He mounted the blank on a homemade chuck that was, basically, two large jaws with a space cut between them to allow the warped blank to seat as well as possible in the jaws. A patch of tractor tyre inner tube helped maintain contact and a ring centre without a point held the blank at the tailstock end.

When the blank was secured Donal used a bowl gouge to slowly true the blank and the bowl rim to get the piece balanced before increasing speed. He cut a 50mm tenon from the old tenon that he had used when roughing the bowl to size and that he had deliberately made oversize to allow for shrinkage and warping when drying.

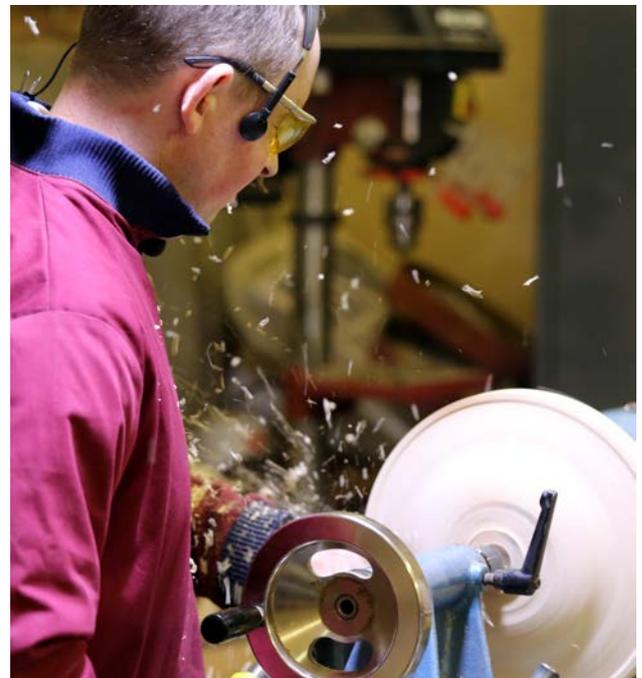
While cutting the shape of the bowl Donal wanted to do so in a way that would match the profile of the bottom to that of the lid and then, satisfied that he had a profile that worked, he increased the speed to refine the cuts for finishing staying on the bevel for the entire cut. For this 27cm wide bowl he left the base at 7cm wide using the Rule of Thirds as a guide to a pleasing ratio. While he was taking the finishing cuts Donal changed gouges to try various different grind angles to determine which was giving the best result for that bowl.

Satisfied with the finish from the tools Donal then sanded from P120 to P400 using pads on a drill that he was running in reverse. During the sanding process he sanded from the centre of the bowl to the rim to get the best finish possible. After the bottom of the bowl was sanded it was reversed and Donal used a bowl gouge to take light cuts from the rim to the centre of the bowl to tidy the rim. He then set the wall thickness and, starting from the inside of the wall, cut down the wall trying to

maintain wall thickness and a mass of wood in the centre for stability.

Donal urged caution when setting the ledge for the lid so that there wasn't the possibility of going through the wall because of the angle of the cut. He marked the edge of the lid and used a parting tool to make small cuts, in steps, until he achieved the desired result. Once the rim was established Donal worked on the wall thickness from the lip down to the ledge and then used a parting tool to tidy the area up to a finish.

To complete the inside of the bowl Donal cut down the wall in steps measuring the wall thickness as he went and keeping as much mass as possible in the centre of the bowl. As he approached the bottom he changed to a gouge with a double bevel that allowed him to get around the corner at the bottom of the bowl without the bottom of the bevel grounding out on the bowl and leaving pressure marks. When cutting towards the centre of the bowl Donal slowed the cut to



take into consideration the slower moving wood.

Once satisfied with the interior Donal used a Glen Lucas negative rake scraper to refine the inside of the bowl before sanding with a drill as before. (G. Lucas

tool video and Lucas French Scraper)

Having completed the base Donal started on the lid by jam chucking the dried Ash blank at the headstock and holding it with a ring centre at the tailstock side. He carefully cleaned up the top and rim with a bowl gouge taking light cuts and cutting towards the headstock to keep pressure against the wood. When satisfied that the blank was trued Donal cut a 50mm tenon and set the width of the lid to match the recess on the base before starting to



profile the lid to match the profile on the base. As before, he used a selection of gouges with differing profiles to try to achieve the best cut on this particular piece of Ash. Having satisfied himself with the finish the lid was sanded from P120 to P400 and the piece was removed from the lathe and reversed into a chuck to allow the inside to be cleaned out.

In order to finish the inside of the lid Donal set the width of the rim and then, using the same technique as on the bottom, made his way down the wall measuring frequently and maintaining an even wall thickness. He kept checking the fit with the base in case the wood was moving and, when satisfied with the fit, told us that he would normally leave the piece for three weeks to allow the wood to make any further movement before cutting the

rim to its final dimension. At this stage a slightly loose fit is good as the wood will move laterally so will make a better fit when touched up later.

When the lid was finished, and a little feature left inside the top, the piece was removed from the lathe and reversed onto a set of Cole jaws to allow access to the centre of the lid to drill a hole for a finial. With the lid in this orientation Donal could remove the tenon and profile the lid to accept the finial. A tip we got for using the Cole jaw type chucks was to keep the tool rest close to the work so that it wouldn't fly all over the workshop if it came out of the jaws. It is also important to remember to keep speed down when using jaws of this type. When the lid was sanded to finish Donal drilled a hole for the finial being careful not to go through to the inside of the lid.

The finial was the next element to be turned and an Ash blank was mounted between centres and trued to a cylinder. Donal laid out the profile he wanted and showed us how to use a triangle to keep the features of the finial within a frame for a more pleasing effect. Working from the tailstock end Donal used a skew and spindle gouge to cut towards the headstock keeping the tailstock in place as long as he could for support. When cutting long coves Donal used a roughing gouge because he felt it helps him maintain a better stability and he then refined the cut with a spindle gouge. The bottom of the finial was undercut to ensure a good fit with the top of the lid. When the finial was finished it was sanded as before and Donal used his fingers to support the finial while sanding. When the finial was sanded and the tenon set it was removed from the lathe to be glued into the lid.

This was a very enjoyable demo and we got lots of good advice and tips. We thank Donal for coming to visit us and hope we will see him again in The Wood Shed.

RBHSC

Once again the Ulster woodturners came out on top with another great display



of eggs, ducks and other various turnings to donate to the Royal Belfast Hospital for Sick Children. Jenne McDonald came along at the break in Donal's demo and the turnings were handed over. Jenne thanked



all those who contributed to the total and explained that some of our turnings are being distributed to other hospitals across the province who do not get such support. She also said that there is always a need for small turnings for the smallest of babies that are in the hospital. Perhaps when you have offcuts from your lathe you could make a small turning. Jenne will be back in June, so all contributions will be welcome. Well done once again to the Ulster woodturners.

LIBRARY

The library is a valuable resource but isn't being used as much as before which is borne out by the fact that rental of books and DVDs in 2019 has raised only £6.50 with total revenue of £7.50 when a £1 fine is taken into consideration. So, where do we go from here? Is it worth keeping two people manning the library or should we sell off, or auction, or gift the books and DVDs to other chapters? Please have a think about where we should go with this issue because we want to do the best for our members but without having other members volunteering their time and effort for little return for the Chapter. We will raise this issue during the break at the next demo but, should you have any views you would like to express privately please feel free to approach any committee member either personally or by email.

Chainsaw Sharpening and Maintenance

If any members would like to do a short course on chainsaw sharpening and maintenance we could arrange classes for them with a registered and qualified City & Guilds instructor and assessor. If you are interested please contact, Peter Lyons, Brendan McAreavy or Ricky McDonald.

Competition Results

Category 1

1. Patsy Cassidy



With this win in Category 1, Patsy moves to Category 2

2. Francis McHugh



3. David Hassall



Category 2

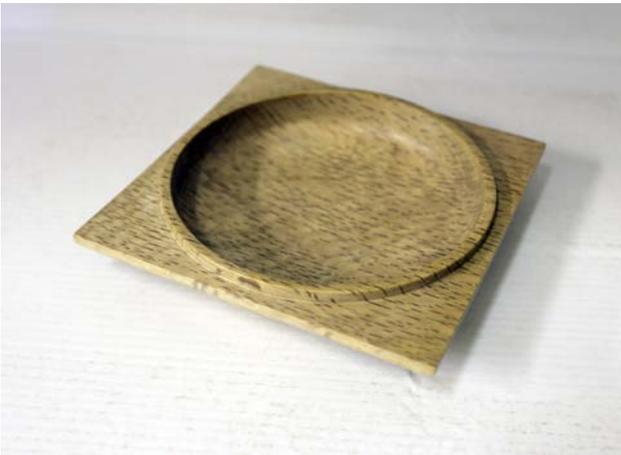
1. Dermot Doherty



2. Jim Neil



3. Paul Finlay



Next months competition is :-

Category 1 A thimble and Needle case

Category 2 A Sundial