



# Dublin Chapter Newsletter

Irish Woodturners Guild

October 2020 (Another Lockdown Edition)



As you are probably aware, due to the outbreak of Covid-19 all meetings of the Dublin Woodturners Chapter have been cancelled until further notice.

Please check both your email and the Chapter website (<http://www.dublinwoodturners.com>) regularly for updates.

## The Online Competition Is Back.

The monthly competition will resume again in October and will again be held online.

This will be an open competition with all entrants submitting a photograph of their piece for judging. So get out to the workshop and make something.

Points awarded will NOT count towards the annual awards however all items entered WILL be eligible to be entered in the normal monthly competitions when they resume.

Send a photo of your work by email to Mark Daly at [mark@eninserv.com](mailto:mark@eninserv.com) by Saturday 3rd of October. Include the category (Advanced, Experienced, Beginners or Artistic). Also include something in the photo to show scale (possibly a ruler or pen).



*The virus Continues*

## A Note From Our Chairman

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Hi everyone I hope you are all enjoying the good weather now that we are in the middle of September. The evening is closing in very quickly so I hope most of us are able to get out to the shed and get back to do a bit of turning.

I know that for a while after I got the news that I was not to go near any of my schools as my doc said that it would be too dangerous, I was not happy and I was down for a while. But then turning is a bug and it wasn't too long before I was out in the shed turning away, and now the only problem I have is "what day it is" but that will come back to me soon.

If there is something that you need or want I have been talking

to The Carpentry Store and they are going to do a promotion for our chapter. It will be 15% or 20% but we'll have to wait until after the current lockdown. Details will be included in the next newsletter.

The competition are back for the first Saturday in October. I hope you get turning for that.

Please give a little thought for the three members who have passed away since we stopped meeting. Frank McCartney, John Owens and Joe Fitzgerald.

Let's all stay safe until we are back meeting again.

John Doran

## Photographing Your Work

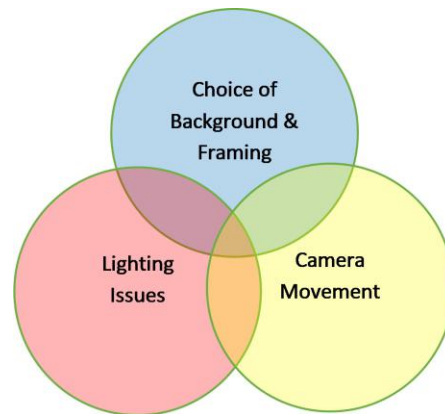
Given the unfortunate likelihood that we will need to continue participating in chapter competitions for the foreseeable future, it was suggested that someone write a few words of advice on getting our pieces to look their best. In my “official capacity as Chapter Photographer”, a title that I didn’t even know existed, Brendan asked me to take on the task. Therein lay the first problem. I sort of fell into the role of taking photos of the competition pieces after Hugh Flynn who had done such a wonderful job for many years, passed away.

Having a half decent camera and a light box allows me to hide my photographic shortcomings in much the way that 60 grit can cover up some of the limitations in my turning. But there is no substitute for knowledge, skill and practice and who am I to offer advice on photography. Consequently, I have dithered about how to approach this.

Then it suddenly occurred to me that I was thinking about the wrong problem. Photographing our work in the current climate is not about settings on SLR cameras and using light boxes. It’s about doing the best we can with the resources we already have. So, I began thinking about simple steps we can take when armed with just a standard smartphone or basic camera. With that in mind, here are some suggestions of the pitfalls and potential solutions that I have encountered. I have tried to avoid being overly technical.

### Three Challenges

In my time editing the IWG Journal, I had to reject many photos that were sent in for publication, because I knew they would not look well in the magazine. Quite often these were photos of wonderful work that really deserved to be shown off. Generally, the problem lay in one or more of these areas...



My suggestions will concentrate on these areas with the aim of avoiding or at least minimising the problems. I have taken a number of photographs of the same tealight holder that I put into a competition a good few years ago. I chose this piece as I have a photo of it that Hugh Flynn took at the time that will serve as the reference as to where I should be aiming.



Figure 1. Hugh Flynn’s photo of the candle holder.

Without even considering Hugh’s superior photographic skills it would not be possible to replicate this photo with the equipment I

have used. But that is not the point, my photos in this article were taken with an iPhone and without any light box etc.

### Background

The background is important in any photo and is so often overlooked. Looking at photos that I’ve taken, I often find myself saying things like “why didn’t it occur to me that someone would look as if they have a tree growing out of their head when I took this.” I think these problems have a lot to do with the human brain’s ability to process and filter the images our eyes send it. In the same way when I am taking a photo of something, I am perhaps concentrating so much on the objects in the foreground that, my mind pays little attention to the background. I also think that our ability to process 3D perspective by using our two eyes and by moving our heads slightly mean that at the time of framing a photo our brain can seamlessly separate foreground items from background items. This becomes much harder once the image is frozen into a 2D photograph.



Figure 2. The background in this photo takes the viewers’ concentration away from the tealight holder.

Of course, in photographing our turnings, we are trying to show off the items and that is not helped if there are other items in the photo to distract the viewer. I would say that unless there is a reason for including other items, e.g. for perspective, it is best to photograph just the item by itself.

Photographing the item in front of some sort of uniformly plain background helps to both remove other items from the background and provide a contrast to the item itself so that its shape and edges are clearly defined.

A plain light-coloured sheet or bath towel will often be perfect for this job. If the item is reasonably small, the sheet could be draped over a chair. Larger items obviously provide more of a challenge. Gently curving the sheet from horizontal under the item to vertical behind it and avoiding folds and creases will help give a background where the shadow and light is graduated.



Figure 3. A sheet draped over a chair can provide a decent background.

I have found that sometimes a particular piece will not photograph well in front of a light-coloured sheet and trying a

darker colour gives much improved results. So, do not be afraid to try a background of a different colour if you have it.



Figure 4 Don't be afraid to try different colour backgrounds.

#### Framing

Framing the picture can be a challenge particularly when you want a smaller turning to fill a large portion of the image or ensure that the background fully fits behind the item and across the image.

The temptation is often to move the camera closer to the object, but at very close range, the image will suffer from curvature and a loss of perspective. It will also likely suffer from an issue with focus, because of the big difference in the relative distance between the parts of the object that are closest and furthest away from the camera. The camera will not be able to focus on both at the same time.



Figure 5 Photographing too close can cause distortion and focusing problems.

It is generally far better to take the photo from slightly further away and crop away the unwanted parts of the image afterwards. Most phones will have an option to provide simple editing of a photo including cropping (and zooming). The computer software that comes with any camera will provide similar options.



Figure 6 Take the photo from further back and crop the image after.

While on the subject of framing the image, do not forget about orientation of the piece and the camera angle. I often find that even a simple bowl or platter can look quite different in a photograph depending on how the grain is oriented in respect of the camera.

#### Lighting

I find that when photographing pieces, there is no substitute for bright, diffuse, natural daylight. At Willington Scout Hall, it would be far easier to get better photographic results by taking pieces to the car park to photograph them. For a range of reasons that is not practical and so a light box and lamps are used to try to overcome the issues of light.

The light being bright but diffuse is important. Lighting from a point source such as a lamp or the sun causes two problems:

Firstly, the work being photographed will reflect the point light source, particularly if it has a smooth or glossy finish.

Secondly shadows with crisply defined lines tend to be thrown by the object. Whilst our eyes are quite good at compensating for this, cameras are not. The exposure level tends to either be too high or too low for the parts of the photo that are or are not in shadow. Parts of the item are too dark and lost to the shadow and/or other parts are too light and washed out.



Figure 7 This photo was taken outside in bright sunlight. The shadow can make it difficult to see the edges of the piece.

Thus, the best way to photograph a piece is in bright daylight on a cloudy day. If the photo must be taken indoors and artificial light be used, it is difficult to get good results without a light box and a form of diffuse bright light. Using the flash can give variable results. It is a point light source after all and unless you have a flash gun that can be positioned separately, it will almost certainly be directly reflected back at the camera.

As outlined earlier, the other challenge with low lighting is longer exposure leading to the next challenge....

#### Camera Movement

Obtaining a crisp clear photograph

requires that the image being shot is focused through the lens into the same place for the duration of the exposure. This applies to both digital photography where the image is focused on to a sensor or conventional photography where it is focussed onto film.

For this to happen both the image being captured and the camera itself must be still. Movement of either will result in a degree of fuzziness or blur in the film. This is a particular problem for sports photography where the difficulty of capturing fast moving items is compensated for by capturing images at extremely short exposure.

Fortunately, we do not need to be photographing our turned items moving at high speed, if at all. However, keeping the camera still can be another matter. Moving the camera only slightly can cause the image to shift considerably. When it comes to mobile phone design, competing requirements mean that being able to easily hold the thing steady while pointing it and pushing the button are not at the top of the list of design considerations. Holding a camera still can be easier, but success is far from guaranteed.



Figure 8 An example of an out of focus image cause by camera movement.

Using a tripod will prevent camera movement but is not always practical. If I need to hold my phone or camera, I find that it helps to pivot my elbows on the floor or a table and, if I cannot do that bring them in against my body.

The other thing is to minimise exposure time, by taking the photograph in the best possible light. On many cameras there are setting for sports photography which also shorten the exposure time.



Figure 9 Less Light = Longer Exposure = More Blur.

Another trick with phones or cameras that have the feature is to take a photoburst. This is where several photos are taken very quickly in succession. Often the camera will be moving less in some photographs than others when I do this. I can then go through the burst of photos to select the best one.

#### Try and Try Again

You can see from the few photos I have taken, that lighting and background make a huge difference to the outcome. Modern technology allows us to take a photo, check how it looks and reshoot repeatedly at little cost other than time. Before hitting the send button, take a little time looking at the entire photo

carefully. Zoom in to check that detail is clear and crisp. If something is not right, try changing one small element, repeat the process and see if it improves things. Even if you are reasonably happy with your first photo, still experiment and see what works for you. You may find that you like the 4th or 5th attempt better. Most importantly keep making things and sending in the photos. We may not be able to enjoy each other's company for the moment, but we can carry on sharing our ideas, inspirations and creations.

*Rich Varney*

## In Memory Of

John Owens RIP.

It is with great sadness that we learn of the death of John Owens RIP.

Our condolences to his wife Carmel and her son and daughter. John passed away on the 11th March this year in Mount Talbot nursing home, after a long illness.

John was an accomplished wood turner. He was a regular at our meetings in Willington. He was a very reserved and quite man.

May he rest in peace.

Joe Fitzgerald RIP.

Joe passed away quite recently and was responsible for the very good sound system our chapter have today.

He was a musician and was director of music at Burlington Hotel. He was also a church organist and demonstrated at Nordell Crane in Cathel BurghSt.

Our Condolences to his wife Mary and sons Liam and Thomas.

May he rest in peace.

Frank McCarthy RIP.

Frank passed away unexpectedly recently. He was a member of our Chapter since 1987. Apart from woodturning he had many other interests, a lifelong GAA supporter, a keen photographer, a talented water colour painter and a member of CYM Bowling Club.

He is greatly missed by his wife Betty, his children John, Brianne, Lisa and Michael along with his many grandchildren to which we offer our deepest sympathy.

May he rest in peace.

Who were the winners in October 2010. Recognise any?

Answer on page 6.



Advanced



Experienced



Beginners

Tony Hartney came across this tree sculpture in his local park recently.

Do you know of any others?



### Online Charity Auction

With no demonstrations, craft fairs or competitions since March, the Executive Committee have decided to organise an online charity auction with all proceeds going to the Irish Cancer Society (Republic of Ireland) and the MacMillian Trust (Northern Ireland).

We are asking all members to make and donate pieces for the auction. The only criteria is that they must

be well made and finished with no defects unless they are incorporated in the design. Also due to electrical regulations, we cannot accept lamps.

All items will be photographed, a description and minimum price added and then displayed on an auction website. We are currently negotiating with a couple of potential sites.

We are aiming to have the auction in the last week of November, in time for the Christmas market.

Arrangements will be made for the collection of items towards the end of October.

So get out to the workshop and make something for this deserving cause.

### Here were the winners in October 2010.



Advanced: Michael Fay



Experienced: Jerry Ryan



Beginners: Mark Daly



Whitethorn and blackthorn are the two main varieties of the Crataegus family that we see in Ireland.

Whitethorn is what we commonly refer to as Hawthorn but Hawthorn is just one variety of Whitethorn. The berries of the tree are called haws. The term haw is an old English name for a hedge, in Anglo-Saxon 'haguthorn' meant a hedge with thorns, over the centuries this became hawthorn. This common bush provides food for many birds and small animals and the flowers are nectar rich and support many types of insects. The haws are a rich source of winter food for birds.

Hawthorn was highly regarded in Celtic folklore. It was a gateway to the fairie world and was used in marriage and birth ceremonies. It was called the Fairie Tree and the Lonely Bush and when Christians

arrived it became the Queen of the May. One risk in using it for turning is that one might incur the wrath of the fairie. In Serbia it was prized as the best wood to make stakes for impaling vampires!

The blackthorn is part of a different plant family, Rosaceae



and is part of the rose family. The fruit is called sloe and is used for making sloe gin. We Irish used the wood to make walking sticks and shillelaghs. The most common use now is still in the making of

walking sticks.

In Celtic mythology Blackthorn had a sinister reputation. It was known as Straif in ancient Ireland and is thought to be the origin of the word strife. It was associated with the dark side of the year and was guarded by unfriendly fairies. Witches were said to use blackthorn wands. If you want to cut some for turning then the safest time is on a moonlight night when the guardians are out doing their moon dance!

Hawthorn can be used for woodturning. When cut it has a tendency to split and it can be wet turned or sealed and cured over a period of at least one year. The thorns should not be cut off as this will accelerate drying and result in cracking. The wood should be sealed well before drying. The wet turning method can also be used for hawthorn.

Note, if cut from hedging watch out for nails, barbed wire and staples. The tree never gets very big so the largest item to expect is a small bowl. Spindle turning is probably the best option although the root ball plus the lower trunk part can make interesting lamps. A guy called Matt Jordan has a good video on Youtube where he turns a hawthorn root and trunk into a lamp. He uses a lot of resin and comes up with a top class piece. (<https://www.youtube.com/watch?v=UTplpIjc33k>) Blackthorn can be treated in the same way, seasoned or wet wood can be used.

John O Neill

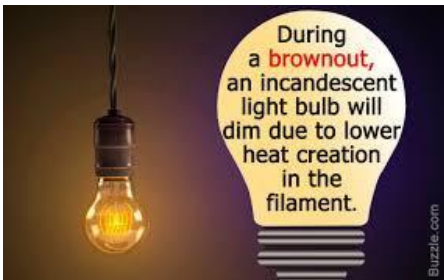
## UNDERVOLTAGE - BROWNOUTS AND ASSOCIATED PROBLEMS. HOW THEY CAN AFFECT & DAMAGE MOTORS

### VOLTAGE SUPPLY TO YOUR WORKSHOP:-

#### UNDERVOLTAGE - BROWNOUTS AND ASSOCIATED PROBLEMS.

#### HOW THEY CAN AFFECT & DAMAGE MOTORS

Undervoltage is condition where the applied (incoming) voltage drops below 90% of the rated voltage. This condition is commonly called a Brownout.



Older readers will remember the days when late at night (around 11-30PM), the light bulbs would dim slightly, and the light from bulbs looked browner. This was caused by the ESB dropping the voltage overnight to something like 218 volts. This browning effect is commonly called a Brownout when the voltage falls below 207 volts.

This condition occurs when:-

1) A facility / workshop or either you or a near neighbour asks for more power than the local supply can deliver (through a local transformer). But the problem is not always caused by the electricity supplier. A neighbour could have installed new equipment and

increased the load above that which has been available up to that time.

2) Brief low voltage conditions when a very large motor or load is started up.

3) When power is shorted to ground / earth (a fault condition). A good reason to have an ELCB (earth leakage circuit breaker) fitted.

4) If 2 power cables are shorted together (on a 3 phase supply).

5) Loose cable connections.

To illustrate why low voltage levels are unhealthy for electric motors, we have to look at the relationship between motor torque and applied voltage.

Electric motor torque changes as the square of the voltage supplied. A 10% increase in voltage (230VAC to 253VAC) will boost torque by 21% ( $1.1 \times 1.1 = 1.21$ ).

Similarly at 90%, a 10% decrease (230VAC to 207VAC), a motor will

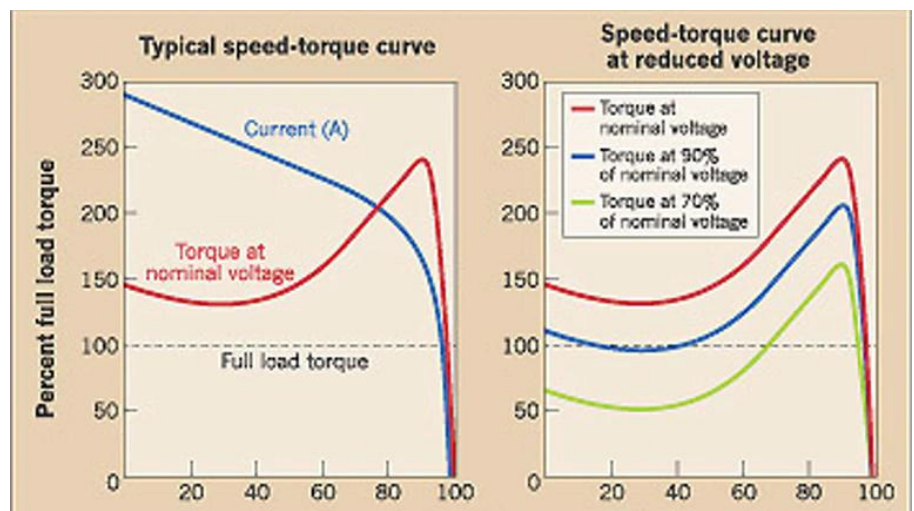
suffer a 19% reduction in torque ( $0.9 \times 0.9 = 0.81$ ).

At 20% below rated voltage, torque would be 64% ( $0.8 \times 0.8 = 0.64$ ). At this level overload reaches 156% and causes catastrophic failure.

This is also a major reason why we cannot put speed controls on single phase induction motors, commonly used on Woodturning Lathes and Saws. Voltage control will cause motor failures. Phase control is useless. In either case, when you reduce voltage, torque drops off at a huge rate.

If torque decreases below the torque required by the load, the motor will stall. At this point the only output from a motor is HEAT. A 100 Horse Power motor, stalled or stuck becomes a 500kW resistive heater.

Also if a centrifugal switch is fitted and drops out, and you run the motor for a period on the starter winding, it will rapidly overheat and burn out.





Excessive heat is a problem for motors:-

Insulation life expectancy in the windings is halved for every 10 degree C increase in temperature. At the same time the temperature rises in the windings by 10C to 15C for each 10% drop in voltage. The insulation life of a motor that operates on 10% undervoltage, will decrease winding insulation to between 50% and 75% of its life expectancy.

Undervoltage events which last long enough to increase winding temperature, cause irrevocable damage to winding insulation and unexpected failures later. A sustained low-voltage event can cause the motor to fail during the event. The only safe motor during a long low-voltage event is a motor which is switched off. An undervoltage event longer than one minute is considered a problem.

Devices can be introduced to monitor for undervoltage (brownout) events, but in our workshops is not really practical to date. I am looking into this more

deeply, and have built a "Brownout Monitor". It works with both visual & audible alarms. It could be used to knock out power to the motor being used. I will come back with a future article on this project. In industry PLC systems can be used to monitor & control motors when brownouts occur, but would prove too expensive for our applications.

If for some reason you do need to have a motor re-wound, I would strongly suggest the fitting of PTC thermistors(positive temperature co-efficient) in the windings. These are a temperature sensor which looks like a little bead, with 2 wires coming from it. These are wired in series with each part of the motor winding coils with the sensor embedded within the winding. As a winding starts to heat up and reaches the thermistor set point temperature, the sensors resistance rises dramatically and lowers the current flow allowed through the motor windings. The motor will slow down and is protected from further overheating. When the temperature falls, the thermistors allow the flow of current again, but the motor should be checked to see if there is a fault. It could

also have been caused if you had too high a mechanical load on the motor. Also bearings could be starting to fail.

I will write an article in the future on these PTC thermistors and any other methods which could help in motor protection.

Summary:-

If you don't have an ELCB fitted in your workshop, you should seriously consider having one fitted. This should be done by a competent professional.

If you do any work on cable connections, ensure all connections are correctly re-connected, or have it done or checked by a professional.

If you need to get a motor re-wound, ask for PTC thermistors to be fitted. They are relatively cheap when compared to another re-wind cost.

I will come back with further details on my "Brownout Monitor" project when it is more complete.

Graham Brislane

## Chapter Contacts.

**Chairman:** John Doran  
087 6393081  
DWT.Chair@gmail.com

**Secretary:** Tommy Hartnett  
086-8284178  
DWT.Secretary@gmail.com

**Treasurer:** Vincent Whelan  
087 760 4918  
DWT.Treasurer@gmail.com

**Vice-Chairman:** J. McCloughlin  
087 2610803

**Membership:** Mark Daly  
087 9484051  
DWT.Membership@gmail.com

**Competitions:** Brigie DeCourcy  
087 9258766  
DWT.Competitions@gmail.com

**Books & Video:** Frank Maguire  
01 8346854  
DWT.Library@gmail.com

**Exhibitions:** Paul Murtagh  
087 1331292

**Audio/Visual:** Tony Hartney

**Wednesday Demos:** Brendan Phelan

**Newsletter / Web Master:** Brendan Kelly  
086 3748183  
DWT.Newsletter@gmail.com