Some thoughts on Woodturning and Design

I start this with a quote from Oliver Wendell Holmes (a 19th Century American poet and author), "***Men do not quit playing because they grow old; they grow old because they quit playing.***" I like to think that I'm playing when I am woodturning since solving the problems as they arise and all those enforced "design opportunities" are like a game. Plus by trying different things (or playing around) you never know what you might come up with.

Design – how can one approach designing a new piece of turning? There is the approach where you have a rough idea and a sketchy image in your head and you stick a piece of wood on the lathe and stab a chisel at a few times and you have something like you envisaged. You tidy up the shape a bit, sand it and apply a finish with the words, "That'll do". Very occasionally you will strike lucky but this method can never be very satisfying and rarely will it produce a piece that is pleasing both to you and the wider world.

There is another more formal way which is based on Project Management principles and it can be summarised as below.

1. **Idea** - you see something that triggers the thought that you could make that on the lathe
2. **Investigate and develop how to do it** - this might involve making a special tool, what to turn first, what wood would be most suitable, etc.
3. **Make a prototype** - try out your ideas and see if they produce a good result
4. **Make the final piece** - this should be the piece you are prepared to share with the world
5. **Possible development of a range**.

In between each of these steps (or stages) you have to make decisions and you have three possible decisions a) return for reworking, b) reject and c) carry on to the next step. These decision points are known as "gates" and the whole process as a "Stage-Gate" process. Most turners do this without realising it, this just states it a bit more formally.

Involved in some of the decisions above are "Form and Function" i.e. what shape the piece is to be and what use it is to be put. If the piece is to be purely decorative then the form can be quite elaborate and delicate, however if the object is to be used then it must be fit for purpose and be able to withstand regular handling, etc. This determines what type of finish must be applied to the surface and so on. So what can you do to help this process of designing a new piece of turning.

Here are some "tricks" that you can use.

1. Keep a sketchbook handy and record your ideas with a quick sketch. Do not worry if your drawing skills are not good, some record is better than nothing. You can then refer back to it and refine it or develop new ideas from your rough sketch.
2. Keep your eyes and mind open to all manner of influences – the world of pottery and ceramics uses shapes very similar to those produced by woodturning.
3. Natural shapes i.e. rock formations, eroded rocks, sand dunes as well as the shapes formed as animals and birds move are all sources of inspiration. Woodturning involves curves and straight lines so anything involving such properties can be a source of ideas.
4. If something in a magazine appeals to you then cut it out and put in your ideas folder/scrapbook. Take photographs and put them in your folder (digital cameras make this very easy to do).
5. Visit exhibitions and museums, these are full of items from many different cultures and eras to give you inspiration.

Other considerations in design involve proportion, if something is not in proportion it often does not "look" right. The "rule of thirds" which was first mentioned in the C18th is a guideline usually applied to the composition of paintings, photographs and more recently web design. It relates to the positioning of items in the image. This is often quoted by turners as the correct ration of, say, the body of a box to its top or the width of a rim to the width of the recessed part of a platter. Mostly turners do this by eye and do not make precise measurements, again this is the intuitive "looks right".

Then there is the Golden Section which was found by the ancient Greeks in their studies of regular pentagons and other geometric figures. They found that the ratio of the line joining two points of a pentagon with an angle included between the two points to the side length of the pentagon was an irrational number, 1.6180339887494..... They also found this number cropped up with

other ratios within the pentagon, also when all of the points of the pentagon are connected a five point star was formed with an inverted pentagon at its centre (it was named the pentagram), obviously this process could be repeated ad infinitum, so never ending like the number 1.618..... Many books and papers have been written about the Golden Section and how it appears in nature and art and architecture. In art and architecture it is there by design but in nature I am not so certain. By making many measurements of various bits in relation to others it is possible to find very close approximations to the Golden Section in nature, but then rarely are two things in nature identical.

Why then do these proportions have a pleasing appeal to us? I am not certain that I can answer that but many experiments have been done that show that behaviour can change in different environments. I offer, therefore, the explanation for the appeal of the Golden Section and related proportions could well be that we are exposed to them all of the time and we have become conditioned to them. There may be some other deeper explanation which is beyond my understanding. Happy turning.

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