Notice

Please **do not park** in the road. The police have said they will take action if they receive complaints from the public. Villagers have complained to the committee. The police could issue you with a fine for unnecessary obstruction. Please park in the yard even if it means double parking. Car sharing would ease the situation.

Committee Contact Names & Numbers

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Woody's World
The Newsletter of OFFCHURCH WOODTURNERS

June 5th 08

Tonight we welcome a talk & demonstration from **Michael Lowe - Lute Maker.**

Last month David Springett gave us an insight into using fixtures & techniques of turning extraordinary shapes.

First the fitting of a turned arrow through a small hole in a glass apple. Taking a 25 mm square with pre-cut flight he turned an 8mm shaft & arrow head. The head would then be boiled for 15 mins. Compressed & left to dry for two days. Taken a compressed one he squeezed it through a 9mm hole. This would then be soaked to return it to its original size.

Similar approach, where a rectangular block with two 'U' shape cut outs effectively giving 3 arms had a nail passing through two arms, the nail head made captive by compressing the third arm.

In both cases it is best to choose summer wood with the grain running at right angles to the line of compression. The nail example was made in ash, boiled for 30 mins. & dried for 3days.

2. Turning Spheres, essentially this was using a swivel fixture, made from 1/4in ply mounted between MDF sides fitted with a 1/4in square tool mounted at centre height. The sphere was turned for the most part leaving trunnions which were cut off with a tenon saw. The 'sphere' was remounted in the lathe between cups moulded with plastic & Blue-Tac.
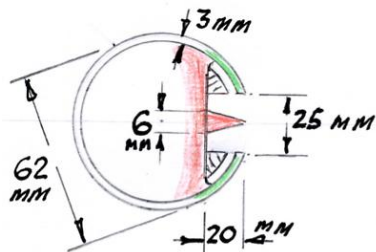
Sphere cont. With the sphere spinning the trunnion witnesses were turned off by hand tool.

3 Turning a 12 Pointed Star inside a Sphere.

Next David proceeded with the 62mm sphere he had just turned. The sphere must be marked off with 12 equal spaces, starting with the north & south poles. Marking off David stressed remember the figure **0.526** & multiplied the 62mm sphere by this figure to give a chord distance to use, this came to 32.612, he chose 32.5.mm.

To hold the sphere David turned a hollow holder and used a polythene bag & car body filler to make a mould. Placed over was a spherical shape lid to cramp the sphere tight.

Using a flat shelf tool rest at centre height he used a square ended converted Chinese tool to bore 20 mm deep with 25mm bore, leaving material for the spike, which he then turned with a tool ground to the precise taper. Tip-Ex used by typist was used to coat tools & mark off cutting depths. David used a combination tool which cut the inside leaving a 3mm thickness of wall guided by an external arm, also attached was a bent arm cutter which removed the shaded base of the spike.

As each spike was finished it was supported by a cap with a centre locating hole & a secondary hole to insert a screw for removal. If cap is a loose fit, fix with hot glue and later remove in the microwave.

Marking out Sphere.

I have given some thought to this & hope the following will help.
First it is necessary to calculate the chord dimension to use which is **0.526** x the sphere diameter. Start at the 'north pole' with compasses set to the chord dimension draw a ring around the sphere & with compasses

still set divide the line into 5, ie 5 chord distances.

At this stage it is a good idea to draw the hole sizes on the centres marked out, shade a few in & you see the holes are set out in equilateral triangles. Now to complete the 'south side' of the sphere with the compasses set to the chord dim., mark off each new hole triangularly from two adjacent holes on the 'north side'. If from the 'south pole' you similarly draw a line around the sphere, the hole centres you have just marked out should fall on this line but with each hole midway below the holes on the 'north line'. In fact the two lines should be approx 0.85 x chord distance apart.

Silhouette of internal finishing tool.------------------------------------

4 Streptohedrons

The principle is to take two pieces of wood with flat surfaces & glue them together with a piece of paper in between, then turn various shaped peripherals. Next the two pieces are eased apart with a thin bladed knife & wood wedges. The two halves are then rotated & faces of matching lengths are brought together to form extraordinary shapes.