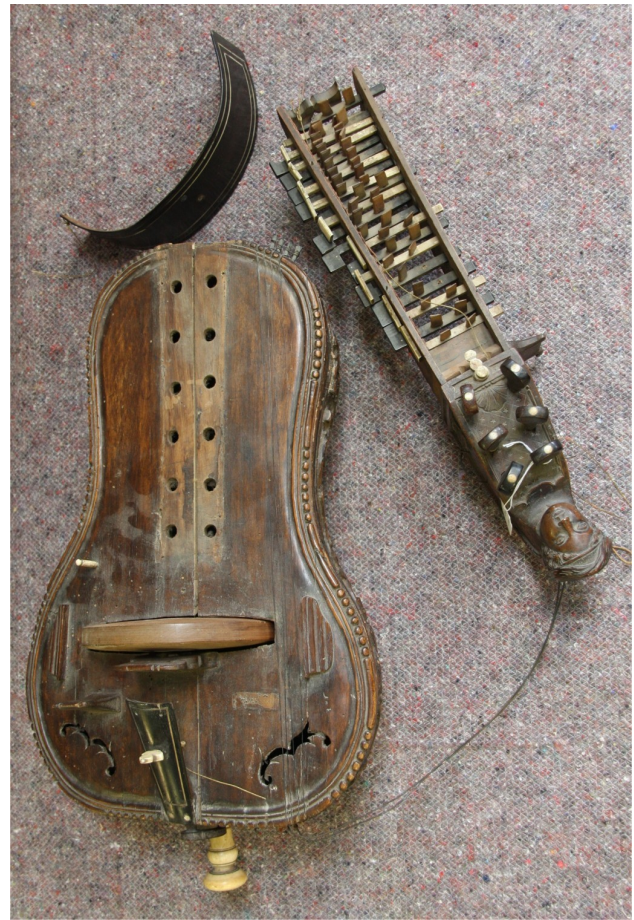


THE HURDY GURDY FROM BERKLEY CASTLE

By Richard Higgins,
a BAFRA Accredited member

**Here lies the Earl of Suffolk's fool
Men called him Dicky Pearce.
His folly served to make folks laugh
When wit and mirth were scarce.
Poor Dick is dead and gone
What signifies to cry
Dickys enough are left behind
To laugh at by and by.**



This epitaph is upon the gravestone of Dicky Pearce, the last known court jester in England who was under the employ of the Earl of Suffolk. Poor Dicky died falling from the minstrel's gallery in the Great Hall at Berkley Castle, whether pushed or in a drunken stupor we do not know but tradition has it that he fell whilst playing the hurdy gurdy. Of course one can suppose that this is the instrument he was playing but although the above illustration shows the hurdy gurdy in a decrepit state, as it certainly has been for many years, this cannot be the state it was in in 1728 when Dicky died at the age of 63. The instrument as presented is composite. The main body of the instrument dates from the late 16th/early 17th century but the carved head and key box are certainly much later. They were made by the fine Parisian luthier Pierre Louvet. Although we do not know his birth date we do know that he died in 1784 and as such the later addition to the instrument must have been made post the untimely accident. We might still suppose that the main body of the instrument remains after that untimely fall and that at that time the instrument was sent to France for restoration where Louvet fitted the new elements.

So much for the myth. A hurdy gurdy is essentially a bowed string instrument, but instead of the vibrating string being set in motion by horse hair held taught on a wooden stick as with a modern violin bow or its predecessors of the viol family it is effected by a rotating wooden wheel impregnated with rosin which is turned by the handle at the bottom end of the instrument. Instead of the strings being "stopped" to shorten the string length by the left hand fingers as on a violin or guitar and so alter the note which sounds, there is a key box over the strings; keys are activated by the player which in turn press a small wedge shaped wooden "tangent" against the string to alter its vibrating length and hence the pitch.

Originating from mediaeval times the earliest depicted examples of such an instrument are seen carved into the "Pórtico de la Gloria" on the cathedral at Santiago de Compostela, Galicia, Spain, dating from the 12th century. The instrument depicted is in fact a much larger instrument played by two people, one turning the handle with their partner sitting a few feet away operating the keys. Music at this time was much simpler with no form of harmony as we know it. Instead, a continuous note or notes known as drones would sound throughout the entire performance giving a fullness to the sound in the same way as the continuous drone sounds along with the melody on bagpipes as their music drifts across the glens of Scotland. During the renaissance, as music became more sophisticated with ever changing harmonies and music when developed such that it could be played in more and more keys culminating in the Baroque when Johann Sebastian Bach developed a system of tuning such that music could be played in any key, the hurdy gurdy, with its limitation of playing in one key only with a single note of harmony (the drone), lost popularity. However, due to the simplicity with which it could be played it remained in use as a folk instrument, accompanying the voice and dance as well as being a pastime for courtiers who had not the time to master the intricacies of the viol family of instruments.

Most Hurdy Gurdies have two strings, played in unison, which are acted upon by the keys and four drone strings tuned at various 5ths and octaves from the two tuned “chanterelle” strings. In addition, some instruments, the Berkeley castle example included, have an additional four “sympathetic” strings which are tuned much higher than the melody strings and which vibrate, literally in sympathy with the melody strings and provide an extra timbre of sound. So although relatively simple as an instrument and as such relatively simple to play it does produce a full and complex sound.

As a tribute to the late Guy Acloque (former Chairman of the Heart of England Region), we were commissioned to undertake the conservation of the Berkeley Castle instrument, which he knew, and return it to playing condition. As well as the obvious damage to the instrument, from inappropriate handling (!) there were elements missing and of course the normal damage caused by environmental conditions and the ravages of woodworm. Both the latter forms of deterioration can be seen most clearly in the main body of the instrument which show a large shrinkage split down the centre of the table, made from birch and laid upon the sounding box which is hewn out from a single block of beech and beautifully carved on the outside.



Here we can see the split down the centre of the table due to shrinkage caused by the timber drying out



Woodworm damage is evident causing a breakdown to the integrity of the timber and the glue joint between the table of the instrument and the hollow body which forms the sound box.

The table was removed; originally glued down with animal glue. This was simply achieved by breaking down the glue line with heat and moisture, the job made all the simpler as much of the glue had already been enjoyed by the woodworm feeding off the easily digestible protein present in the glue. The infestation itself was treated with Permethrin to ensure eradication of any live eggs, larvae and beetles whilst the timber was consolidated with Paraloid B72 in a hydrocarbon solvent in order to regain its structural integrity.



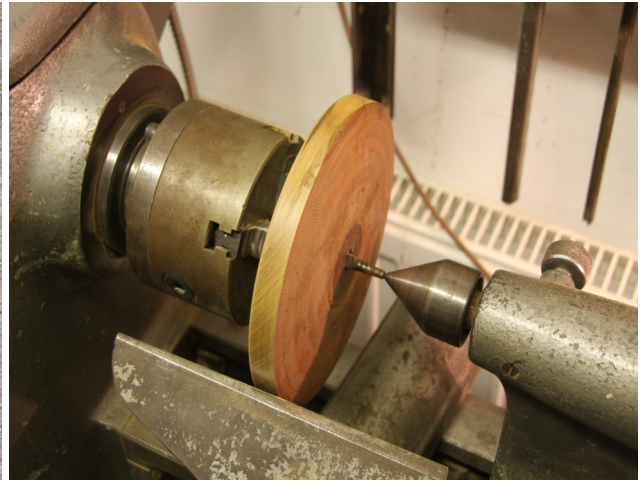
The table came off in two parts. Significant further worm damage can be seen to the cross struts, part of which has come adrift whilst still attached to the underside of the table.



With the table fully removed we can see the wheel which acts upon the strings and which is so fundamental to the sound production of the instrument. It is pivoted between the two cross members of the body with its arbour extending through the base of the instrument and attached to a beautiful ivory handle to control its operation. The performance of the wheel needs to be absolutely precise in order that its contact with the strings remains constant; hence it must be perfectly round and with no play or wobble to its pivots. The whole of this mechanism was dismantled, the wheel trued up in the lathe, the timber for the cross members treated for worm and consolidated such that the pivots could be re-executed to ensure perfect running of the wheel.



With the whole wheel mechanism removed, the way in which the whole body is hewn out of a single block of beech can be seen with all of the gouge marks still showing.



The wheel itself was mounted in the lathe in order to true it up such that its action upon the strings would always be constant.



The cross members, once removed, were consolidated and any wear to the pivots taken up to facilitate the true running of the wheel.



The beautiful ivory handle had become sloppy upon the crank mechanism; this was wholly dismantled, the handle bushed and riveted upon its arbour.



Once the individual parts of the mechanism had been restored they were all re-assembled and re-fitted to the body of the instrument. Alignment had to be absolutely precise; the cross members set such that the wheel would always run perpendicularly to the strings. Rather than using the usual scotch animal glue, much slower setting fish glue was utilised in order to allow time for fine adjustment before clamping up.

The present keybox with its finely carved figurehead was added to the instrument in the mid 18th century . There were a number of the ivory and ebony key heads missing, many of the tangents were missing or ineffective and needed to be replaced. The whole of the cover for the keybox was missing. Not only does the cover protect the mechanism within but serves as a rest for the players left hand. A new one was constructed from beech, veneered in ebony and with an ivory line inlaid to match the tail piece still in place on the instrument. Small spiral hinges made from silver wire of a type we have only ever seen on a hurdy gurdy keybox lid were made and fitted. New heads for the keys were made in ivory and ebony and glued to the sliders upon which the tangents are mounted. One bridge and nut (the elements over which the strings are stretched to create the fixed length of each string) were missing. Fortunately two were present such that these could be copied and fitted as appropriate. The keybox was then re-fitted to the table of the instrument by gluing and the insertion of two pegs into the body of the instrument from the head instrument as was done originally.



The keybox as it was when found, with key heads (at the LH end) missing and clearly showing the tangents within, a number missing and most requiring attention such that they would act correctly upon the two chanterelle strings.



The finely sculpted head of the keybox, most interestingly showing the carved variant of the scallop shell associated with St James and present on the carvings at Santiago (St James) de Compostela. The area of dry wood beneath the carving shows the position of one of the missing nuts which required to be replaced.



The reverse side of the keybox shows the end of the sliders guided through the side of the box beneath which we can clearly see within the branded decoration the stamp of Pierre Louvet, the Parisian Luthier who restored the instrument in the 18th century.



The new ebony veneered and ivory inlaid cover for the keybox can be seen with the newly made silver spiral hinges.



The instrument largely retained its original finish albeit in a somewhat tired state. This was revived and touched up as necessary. The whole was waxed to add further protection and enhance its appearance. Finally the instrument needed to be strung up. This was done with gut of various gauges and for the bass drone strings gut wound with silver wire, to add weight to them, was utilised. The four sympathetic strings are fine iron wire.



The completed instrument was presented upon a display stand for return and display back at Berkley Castle as a fitting tribute to the well loved Guy Acloque who would have surely enjoyed this marvellous instrument as much as we did in its research, conservation and restoration.