

Bass Viol Attributed to William Turner, London, ca. 1650
Conservation of the Original Parts and Reconstruction of the Original State.
Ian Watchorn, 2018

Conserving and reconstructing this unusual and hitherto undocumented bass viol has been an interesting exercise, both as a conservator and as a maker of historical instruments. While considering how to approach this commission, one of the many instructive stories I heard during my time in the musical instrument conservation laboratory of the Germanisches Nationalmuseum in Nürnberg in the 1980's came to mind.

It was my good fortune to study and work with Friedemann Hellwig over a five year period and the story in question was related by him at one of our famous "breakfast-meetings".

As I recall, it concerned a team of paintings conservators from Germany who offered their time and expertise to the Ladakhi government to conserve ancient and important wall murals in a Ladakhi Buddhist monastery. The very interesting response of the monastery's abbot, was to politely refuse the help, explaining that, if the old murals were "permanently" conserved, then there would be nowhere for his monks to practice the ancient skill of mural painting, which was passed on to them as part of the monastic tradition. In short, they didn't need to conserve the objects of the past, but rather to sustain the living tradition.

The abbot's approach made a big impact on me at the time. It seemed in sharp contrast to the approach we of European heritage accept as self-evident - that the object itself is quasi "sacred", and the need to conserve it is absolute. The causes of such a dichotomy have always seemed to me well worth exploring.

My own conclusion is that the need to conserve and document cultural material is actually not something inherently "good", but rather a response to a situation. If one was to ask the abbot of that monastery, he would, as a good Buddhist, doubtless point to "causes and conditions" peculiar to Western culture.

Specifically with regard to musical instrument conservation and its contribution to historically informed musical practice, the causes behind the need are particularly clear. Specifically, our need to conserve arises from of what has gone missing over the centuries in Western music, due to "fashion" on one hand, and wars on another, to identify but two culprits.

The Ladakhi attitude seems rather to arise from what has been preserved, despite the passage of much more time, as well as many of the same culprits of cultural discontinuity. Conservation in a Western context could be seen, therefore, as a response to a lack, or a need - not an inherently virtuous thing to do.

Over the years, I have found this sense of urgency, or need, to be a beneficial guide in how to approach an instrument, not merely as a combination of materials, nor as an object in its own right, but rather as an endangered fragment within an impoverished cultural context, that is both our inheritance and our responsibility. A sharpened sense of necessity can make the practice of conservation most rewarding and stimulating, beneficial both for one's own growth and for the enrichment of our common cultural life. The following questions seemed relevant when faced with the interesting and complex fragment that the present bass viol presents:

Why am I conserving this – what do I want to achieve with the treatment?

What cultural qualities does this particular object have?

What cultural necessities does this particular object have?

How may it best be treated, documented and used, so that it can give the maximum of what it has to offer?

Let's see what these questions reveal in the case of this most unusual fragment of a bass viol.

The Instrument is a larger than usual bass viol, English, around 1650, which has been rebuilt as a cello in London around 1780. It has thereafter suffered massive worm damage and has undergone subsequent repair, much of which is of lesser quality. It came to the present custodians through the wife's father, who purchased it as a cello at auction in London in the late 1940's. When the current owner first became aware of the instrument,

it was hanging above a fireplace as an ornament and was no longer playable. It presented as very fragile and needing substantial stabilisation.

Inside the instrument is a non-original, composite printed label, which reads:



Identifying the Original Maker

Attributing this viol to a 17th century English maker is based on the following characteristics:

- The style of the decorative purfling knots, which are a single strand of dark wood
- The use of pine neck and tail blocks, with a dove-tailed joint to fix the neck.
- The bent belly with 3 principal staves and unequal wings in both bass and treble.
- The belly wood being fir, rather than spruce – what in Australia would be termed “Baltic pine”.

The overall outline and the CC-hole design suggest the Rose school. Taking into account the choice of wood for the bent top, the use of a single line of dark hardwood for the purfling, the overall spacing of the broad-edged purfling and the outline in general, this instrument strongly resembles the work of the mid-17th century London maker, William Turner.

Turner is quite well represented as a maker, ten other instruments from his workshop being recorded. It is on comparison with these that the attribution is made. A bass viol by Turner in substantially original condition may be found in the Palais Lascaris Museum in Nice and another in the collection of John Mark Rozendaal, in the United States. Both provided key details for the reconstruction of the present instrument.

The Viol in Later Life

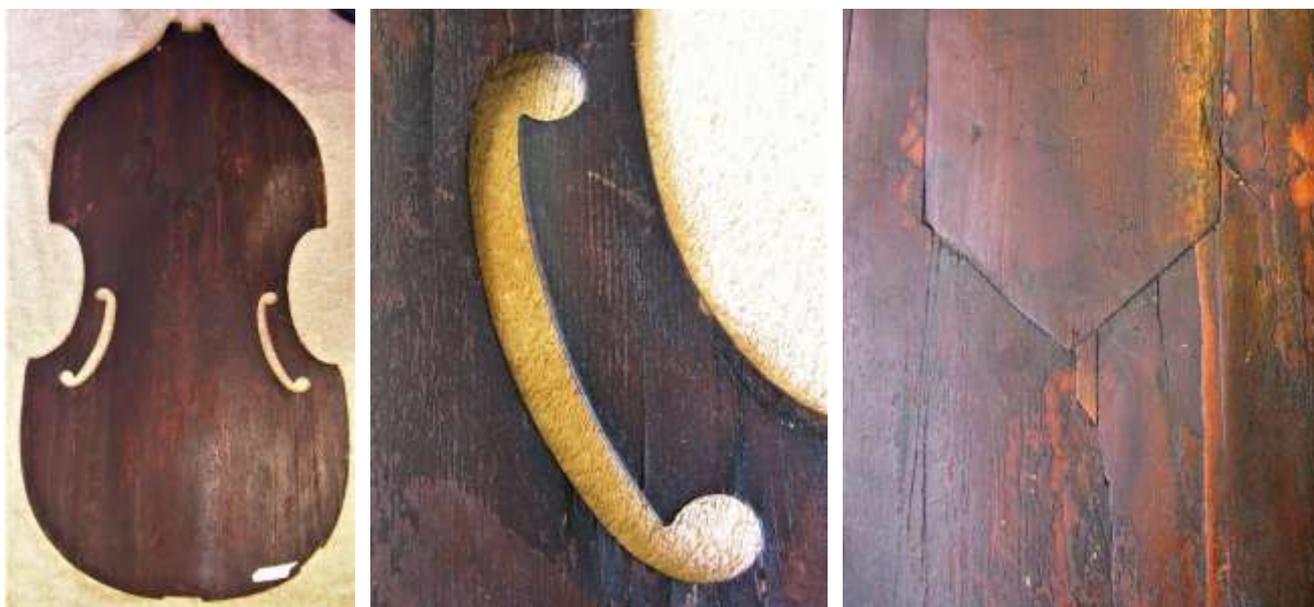
After a relatively short period as a consort bass viol, there are signs, principally from marks made by successive bridge feet on the belly, that this instrument may have spent some time as a bass instrument, possibly a G-violone, with a stringlength of around 850mm. Subsequently it appears to have been rebuilt as a cello around 1780, possibly in the St Paul’s Churchyard workshop of the Thompson family. It’s more recent life as a cello is attested to by major alterations of lesser quality in the early 20th century, by which time it had been badly damaged by woodworm, as can be seen from the photos.

The Original Parts:

Belly

The belly remains largely intact, but has a large non-original patch in the centre of the upper bout. There are remains of a geometrical purfling knot in the upper bout, also executed in a single line of dark hardwood, below and to both sides of the non-original patch. The belly is the most complete part of the instrument.

Current dimensions of belly in mm		Projected dimensions estimated from existing purfling line	
Length	769		775mm
Width Upper bout	368		372
Width centre bout	278		289
Width lower bout	435		438



Back

Only the central portion of the back is original. It consists of two book-matched pieces of broadly figured maple, with the joint centred and the remains of a geometrical purfling knot aligned to this centre joint, executed in a single line of dark hardwood. Non-original pieces have been inserted in the back, in the lower part of the lower bout and in the upper bout, from the purfling line below the bend, upwards.

Existing dimensions of the back

Projected dimensions estimated from existing purfling line

Length	472mm	812mm (see more below)
Width Upper bout	360	362
Width centre bout	260	262
Width lower bout	434	435

Comparing the above, the deviation of belly from back can be quantified. Despite all the alterations, a good deal of this deviation is attributable to the free-hand construction method, which is common in English instruments of the period.



Ribs

The planed and scraped finish of the inside surface of the original part of the back concurs with the inside surface of the lower bout rib. This lower rib appears to be the only original one and is a single piece. There are no signs of a tailpost ever having been attached to the rib and the existing hole for an endpin seems to be original, though probably enlarged.

Blocks

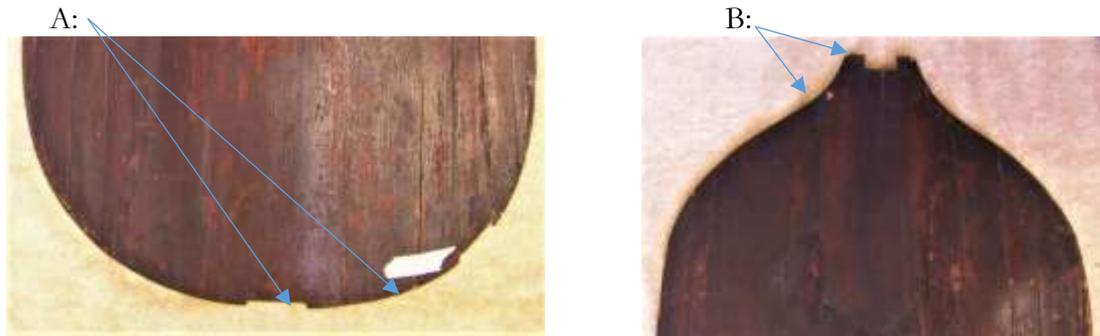
Both the neck and tail blocks appear to be original. Both are pine and the neck block has a dove-tailed cut-out to receive the neck, a common feature of English viols. There are signs of both nails and screws used to fix previous necks.

Determining the Original Outline

Both the belly and back have been slightly modified over the years, but the overall belly size is very close to the original. Therefore, the existing purfling line becomes the primary point of reference for recreating the original outline.

Belly:

The maximum spacing of the purfling is 6mm from the edge. There is a substantial amount of original purfling on the belly, with 120mm missing in the lower bout (A) and about 70mm missing closest to the neck (B).



To complete the belly outline, the projected edge was plotted as far as these points permit, and then described geometrically with compass and French curves to give a close approximation.

Back:

The back is much less complete, with both upper and lower bouts missing. Using the reconstructed belly outline and by positioning the original blocks and rib vertically below their respective locations, a back length can be approximated. Interestingly, the result was a length of 813mm, or 32 English inches – a measurement that accords closely with contemporary dimensions given for consort bass viols.

The back is traditionally the starting point for assembling the body of an English viol. The template used for marking out would have been a $\frac{1}{2}$ back template, being derived from a geometric drawing of the outline. This can be verified by comparing the treble and bass sides of back and belly with one another. Once the back is made, sides are bent and assembled freehand, often leading to considerable discrepancies between back and belly outlines and, as can be seen on various Turner instruments including the present instrument, also between the treble and bass belly outlines.

Sides

The lower-bout side is original. It has been cut down in height and very slightly shortened in the process of conversion to cello. The tail pin hole is not currently centred in the lower bout side, but is placed 60mm from the back-side joint. Whilst the current rib height of 112mm, an original side depth of 120 - 140mm could be assumed, based on other surviving English bass viols of similar size.

Neck Block

The neck block appears to be original and retains the original dovetail fitting for the neck, a usual feature of early English viols. As well, there is a nail hole and two screw holes, the latter most likely being the attachment method for the cello neck, which is also fitted to the original dovetail joint. (see photo)



Tail Block

The tail block appears to be original. There is no visible sign of an original tail post. The endpin hole is currently not centred, as stated above. The fragile state of the wood is clearly evident from the photos.



The conservation approach was to consolidate the instrument in its cello form, and to document the various stages through which the instrument has passed. It is now stable, though unplayable and remains in controlled conditions with its owners.

The Reconstruction

The observations above form the basis for the second part of the project, kindly funded by the viol's owners, which was to reconstruct as accurately as possible the original configuration of the viol, so as to make a playing consort bass viol available to the viol playing community of Australia. From the above, drawings were prepared of the surviving original parts and these were brought into alignment by assuming:

Firstly, that the neck and tail blocks were originally vertically oriented, as is usual in English viols.

Secondly, that the centre bouts front and back were aligned as vertically as practicable, given that these instruments were built up free-hand from the back.

The remaining original parts provide just enough information to determine a likely original body size. At this point, two things became obvious.

- A. The dimensions seem to be slightly larger than the largest so far recorded for a bass viol.
- B. The dimensions bear a close resemblance to those provided by Talbot (Oxford, Christ Church Library Ms. 1187. "The Talbot Manuscript", c.1694).

Below is a table with the comparative measurements:

Table of Dimensions in millimetres

	Talbot	Deutsch Viol	Henry Jaye,1619 (RCM 0935)
Type:	Consort Bass		Division Bass
Belly - Length:	762	775	721
Width UB:	375	378	337
Width CB:	282	280	242
Width LB:	445	438	400
Back –Length		813	716
Sides – Depth:			
At Neck:	102	90	77
At Tail:	140	114 (reduced)	140
Stringlength:	813	810-850*	730
Neck length	368	376	353

* Based on marks from bridge feet on the belly.

Once the body size was determined, proportional equivalents were calculated, based on the 1619 Jaye division bass viol (RCM 0935) and the Richard Meares lyra bass viol, ca. 1660 (RCM 936). These two viols retain their original necks and fittings and provide insights into the proportional relationships common in the period, that could applied to the Turner instrument. Turner worked in Gravelle Lane, Aldgate, in London, and this viol could date from 1640 – 50, making both the Jaye and the Meares useful references.

To complete the models for neck, head, fittings and inlays, surviving bass instruments by Turner were studied. The two that provided the models for missing original parts are:

1. A bass in the Palais Lascaris in Nice, which retains a nicely carved original head and pegbox.
2. A bass belonging to John-Mark Rozendaal in New York, which offered details of the typically Turneresque heart-shaped rose missing from the belly.

To Conclude

Until recently, the consort bass viol has been largely ignored as an instrument, being perceived as impossibly large, despite the historical documentation to the contrary. In fact, the trend toward smaller viols is not a recent phenomenon, beginning with the French, who began buying up English viols and converting them to 7 strings in the later 17th century. Interestingly, it was not the consort bass they sought out, but rather, the smaller, division bass. Whilst adding a bass string, they also reduced the division bass stringlength from about 760mm (30 English inches) to around 710mm (28 English inches), a feat made possible only by the invention of overspun bass strings. So in fact, the viol we consider large today is actually the smaller English bass, and with the stringlength shortened.

This proved to be the most interesting point in the exercise of reconstruction. On the one hand, a consort bass with 32” stringlength works well at $a' = 390 - 415\text{Hz}$ when strung throughout with plain gut.

The playability was found to be comfortably manageable at this stringlength and the sonority quite striking and distinct, adding an extraordinarily rich lower voice to complete the consort, but with excellent left-hand facility.

It is for others to consider the appropriateness or otherwise of my interpretations in reconstructing this Turner viol, which is reported here in very abbreviated form. For me the most striking aspect of this commission has been to see how each individual part of the viol, and the original fragment as a whole, have been a source of so much information and inspiration. The complementary processes of conservation and reconstruction have led to both a comprehensive documentation of the original viol and a pleasing and viable musical result. On the one hand it confirms historical references, whilst on the other, it restores a voice to the viol consort which, at least in the Australian context, had not been heard before.

My thanks to the following people for their input into this project:

George and Kathy Deutsch

Friedenmann Hellwig

Klaus Martius

Christophe Sarale – Palais Lascaris

Sylvie Lecat – Palais Lascaris

John-Mark Rozendaal

Michael Fleming
John Pringle
José Vazquez
John Bryan
Thomas MacCracken
HHHEEERRREE!!!



Turner viol – Palais Lascaris, Nice



Turner viol – J. M. Rozendaal



The Rozendaal – Turner rose and the adaptation to the present instrument



The finished rose, back and fittings





The completed reconstruction of the Turner Consort Bass Viol

