AITCHISON MNATZAGANIAN

CELLO MAKERS RESTORERS & DEALERS

NEWS FOR CELLISTS APRIL 2007

RNCM Manchester International Cello Festival

There are just a few weeks to go until the next RNCM Manchester International Cello Festival 'From Britten to Britain' (Wednesday 2nd to Sunday 7th May) and we look forward to seeing many friends there. If you need to book concert tickets and festival passes, the festival office can be contacted at 01625 571 091 or via their website: www.cellofestival.co.uk

In between concerts and masterclasses we will be resident at a maker's table in the concourse with our bow maker friend, David Tempest. We will have one of Robin's cellos, a stock of strings and a collection of sound adjustment tools with us and will be very happy to discuss any aspect of your instrument with you.

If you have trouble finding us during the Festival, please call us on our mobile: 07765 413636.

Michael Edwards Exhibition

Michael Edwards is the exceptional artist who creates all the drawings in our newsletters and the Cello Care Guide. We are delighted to announce that from 5th to 29th April the Old Fire Engine House gallery and restaurant in Ely will be holding an exhibition of Michael's latest work.

For more information, please contact the Old Fire Engine House gallery on 01353 662582, visit www.theoldfireenginehouse.co.uk or contact us on 01353 668559 or email sarah@aitchisoncellos.com

www.aitchisoncellos.com

Tailpieces and Tailcords

The tailpiece and tailcord come under the spotlight this month in an article exploring their subtle but significant influence on a cello's tone and response (see pages 2 and 3).

TAILPIECES AND TAILCORDS

Experimenting with tailpieces and tailcords can be very rewarding, especially if you have already worked on other aspects of your set up such as the bridge, sound post and strings. The intimate relationship between the tailpiece, tailcord, bridge and strings mean that the weight, length, materials and positioning of the tailpiece and tailcord all have a direct influence on a cello's sound.

When the cello is played the bridge twists, rocks and bends in an extraordinarily complex dance. Ideally the tailpiece - like any good dance partner – should be light and responsive, allowing the bridge to move freely; the heavier the tailpiece is, the more it will dampen the sound of a cello.

One of the worst tailpiece scenarios is a traditional wooden tailpiece fitted with four heavy metal adjusters, the weight of which act as a mute on the bridge. A better solution for a cellist looking for a more open response from their cello might be a light plastic tailpiece with integral adjusters or, if the player has a generous budget, a hand made wooden tailpiece with lightweight integral adjusters. For details of a selection of tailpiece models, see the chart below.

The length of the tailpiece is also an important factor. If the tailpiece is too long and comes very close to the saddle, leaving a very short tailcord, the rotation of the tailpiece will be inhibited and will suppress certain vibrational modes in the cello's response. If the tailpiece is positioned too close to bridge, it will act in a similar way to a mute. Fortunately, different models of tailpiece do vary in length and some manufacturers produce tailpieces in different lengths to suit different cellos (see chart below).

Experimenting with tailpieces is very similar to experimenting with strings. Like strings, tailpieces have subtly different resonant properties which influence the tone and projection of the cello. Depending on its length, mass and the material from which it is made, each tailpiece has its own vibrational frequency which can be harnessed to strengthen the performance of a cello. For example, if a tailpiece produces Bb when tapped, or if any of the strings between the tailpiece and bridge produce a Bb when plucked, this will enhance the resonance of Bb on the cello.

The most common materials for tailpieces are plastic, aluminium alloy and ebony, although boxwood, rosewood or pernambuco are also used. Many players find that wooden tailpieces offer the most attractive sound. Wooden tailpieces are, however, many times the price of their plastic and metal cousins.

TAILPIECE	WEIGHT	LENGTH	MATERIALS	TAILCORD SUPPLIED	R.R.P.
Akusticus	77.2g	223mm	Plastic	Steel	£30.50
Wittner	103.3g	240mm	Aluminium alloy	Nylon	£18.50
Wittner Ultra	81.4g	235mm	Plastic	Nylon	£29.50
Bois D'Harmonie (standard length)	70.2g (ebony)	235mm	E, B, R, P*	None	£100
Bois D'Harmonie (other lengths)	various	200mm, 220mm 250mm	E, B, R, P	None	£145

* E = ebony; B = boxwood; R = rosewood; P = pernambuco

N.B. Akusticus and Wittner weights include the tailcords supplied with these tailpieces.

TAILPIECE DESIGNS

The most popular plastic tailpiece is the Akusticus, as it is light and short enough to suit most cellos – and is also inexpensive. There are drawbacks, however: the Akusticus is aesthetically unappealing and the steel tailcord with which it is supplied is very difficult for luthiers to adjust. Another good plastic tailpiece is the Wittner Ultra which is considerably longer than the Akusticus and can suit bigger cellos. The Wittner standard aluminium alloy tailpiece can be rather heavy for some instruments. Both Wittner and Akusticus tailpieces are made with integral adjusters.

Very fine wooden tailpieces are made by Bois D'Harmonie in a wide selection of materials and sizes. They are all available with light-weight integral adjusters and can be used to good effect with Kevlar or, if a smoother sound is desired, nylon tailcord.

TAILCORDS

Traditionally, tailcords were made from natural gut. Few modern players now use gut tailcords as they tend – like gut strings – to break unexpectedly. The most common replacement for gut is nylon which is much more reliable than gut but its elasticity tends to make cellos sound rather smooth.

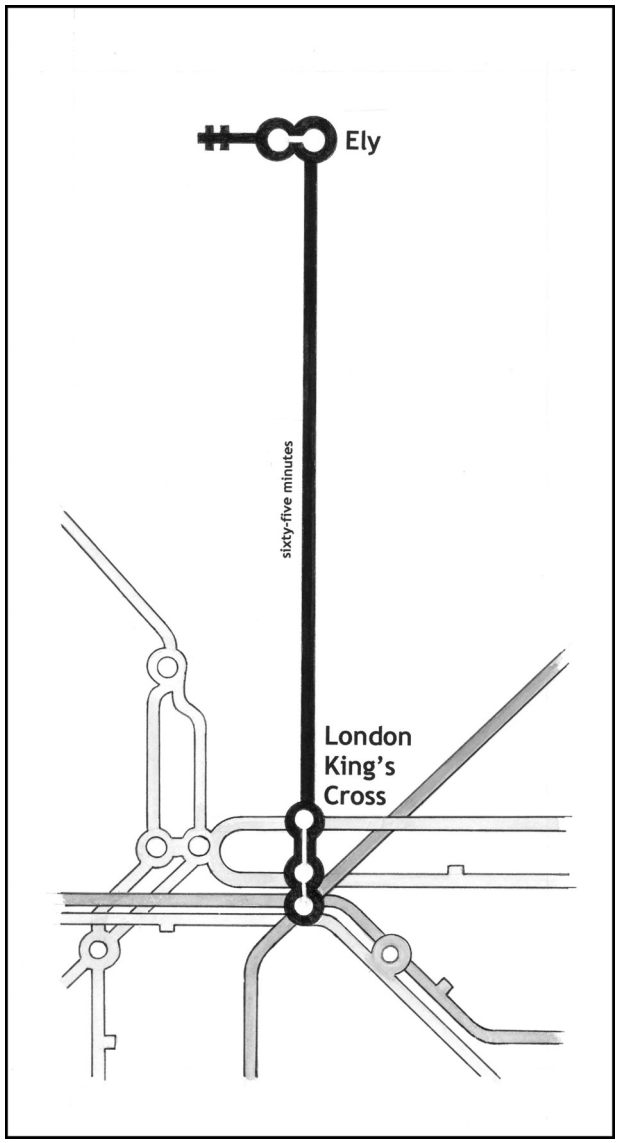
Steel tailcords have been in regular use since the 1970's as their greater strength and rigidity provides more clarity of sound than nylon. The popularity of the Akustikus tailpiece may be in part due to the fact that it is supplied with a steel tailcord, unlike the Wittner tailpiece which is supplied with a nylon tailcord.

The latest high-tech tailcord material is Kevlar, a braided synthetic fibre which is five times stronger and stiffer than steel. Kevlar's stiffness gives exceptional clarity, brilliance and definition to a cello's sound and greatly improves projection.

TAILPIECE CASE STUDY

We were recently visited by a cellist friend who wanted to experiment with tailpieces to improve his sound. His instrument had a Wittner aluminium alloy tailpiece with a nylon tailgut. The Wittner tailpiece was much too long for the cello and was positioned so close to the saddle that the tailpiece was not able to vibrate freely

We fitted an Akusticus tailpiece to the cello (using a Kevlar tailcord rather than the standard steel tailcord supplied with the tailpiece) which fitted the cello better and made the instrument considerably more open and resonant. We then fitted a Bois D'Harmonie 220mm ebony tailpiece with integral adjusters. The cellist felt that the wooden tailpiece gave the cello a warmer, more Italianate sound so he settled for this tailpiece, with a Kevlar tailcord.



No Longer Than a Tube Journey

Ely is just 65 minutes from London King's Cross. Direct trains from King's Cross to Ely (destination King's Lynn) depart at 45 minutes past each hour. For train information: www.thetrainline.com

CELLOS AND BOWS

FORSTER CELLO c.1780
L.O.B: 29″ (740mm); String length: 26⅞" (683mm)
Price: £42,000

HENRY LOCKEY HILL CELLO c.1830
L.O.B: 29 ¼″ (743mm) String length: 27¼″ (690mm)
Price: £42,000

LOCKEY HILL CELLO c.1780
L.O.B: 29" (737mm) String length: 26⅓" (669mm)
Price: £28,000

PETER WAMSLEY CELLO 1739
L.O.B: 29½″ (750mm:) String length: 27½″ (700mm)
Price: £16,000

FINE FURBER SCHOOL CELLO c.1830
L.O.B: 29⅞" (758mm) String length: 27⅜" (698mm)
Price: £21,000

FINE GERMAN CELLO c.1900
L.O.B: 29½" (749mm) String length: 27½" (693mm)
Price: £12,500

AITCHISON MONTAGNANA COPY 2001
L.O.B: 29⅛" (739mm) String length: 27¼" (693mm)
Price: £11,500

LUIGI MOZZANI CELLO 1914
L.O.B: 28⅞" (745mm) String length: 26⅞" (682mm)
Price: £11,500

NIGEL CRINSON CELLO 2001
L.O.B: 29½" (751mm) String length: 27" (688mm)
Price: £11,000

FURBER CELLO c.1840
L.O.B: 28⅞" (734mm) String length: 26¾" (680mm)
Price: £10,000

MITTENWALD CELLO c.1840
L.O.B: 29" (736mm) String length: 27⅛" (690mm)
Price: £9,000

JEREMY MAHRER CELLO 1990
L.O.B: 29⅞" (760mm) String length: 27¾" (682mm)
Price £9,000

GERMAN CELLO c.1880
L.O.B: 30¼" (768mm) String length: 27⅛" (690mm)
Price: £8,000

CAUSSIN SCHOOL CELLO c.1900
L.O.B: 30¼" (768mm) String length: 27" (688mm)
Price: £8,000

GERMAN CELLO c.1850
L.O.B: 29″ (737mm) String length: 27″ (685mm)
Price: £6,000

SALOMON SCHOOL ¾ CELLO c.1770
L.O.B: 27½″ (700mm) String length: 25⅓″ (643mm)
Price: £6,000

LÉON MOUGENOT CELLO 1908
L.O.B: 30⅓" (770mm) String length: 27¼" (690mm)
Price: £5,500

GERMAN CELLO c.1900
L.O.B: 29¾" (738mm)
String length: 27½" (699mm)
Price: £5,000

STUDENT CELLOS - FROM £2,500

SELECTED CELLO BOWS

E.F. Ouchard	82.5g	£4,000
Vidoudez	82.3g	£3,500
Christian Vunka (gold)	80.8g	£2,450
Stephen Salchow	84.5g	£2,350
Roger Zabinski	78.9g	£2,350
Pierre Nehr	81.7g	£2,200
Klaus Grünke (gold)	83.2g	£2,160
Paul Sadka	81.8g	£2,100
Robert Pierce	83.4g	£1,950
Christian Vunka	81.4g	£1,500
Josef Gabriel	81.3g	£1,260
Pierce & Co	82.5g	£1,050

PERIOD CELLO BOWS

Andrew Dipper	French Baroque	£1,220
JS Finkel	Classical bow	£900
Gerhard Landwehr	Baroque c.1700	£890
Philip Davis	French Baroque	£800

For detailed descriptions of all cellos and bows see:

www.aitchisoncellos.com