
NEWS FOR CELLISTS SPRING 2011

Wolf notes



Wolf notes are an unfortunate fact of life for cellists, but every year more products are released and new solutions are developed by cellists worldwide. On pages 2-3 we interview players about their wolf note experiences and publish the results of an experiment with a range of suppressors, followed by a 'how to' section on the best way to fit and tune suppressors and how to create a free string resonator.

Take a Bow 2011

We are delighted to announce our next selling exhibition of international contemporary cello bows which will take place from 10th October to 10th December. *Take a Bow 2011* will give cellists the chance to compare a wide range of cello bows from some of the finest bow makers in the world. Players will be invited to book three-hour appointments with the bow collection in Ely. Bookings open on 1st September and full details will be published in a special edition of our Autumn newsletter.

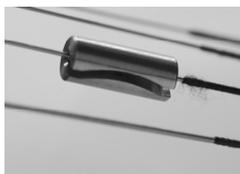
We will also be taking the bow exhibition on tour to conservatoires and music schools in London, Birmingham and Manchester, giving students an opportunity to experience the varied playing qualities of exceptional bows. For the most up-to-date information on bow prices and details of all the prize-winning bow makers participating in *Take a Bow 2011*, see www.aitchisoncellos.com/exdiary.htm

I'd definitely recommend the exhibition. There's just no comparison. You never normally get to try so many bows in one place at one time and having all that choice is unique.'

WOLF NOTE SUPPRESSORS AND MUTES ADAPTED AS SUPPRESSORS



Traditional



New Harmony



Güth Wolfötter



Adapted round Tourte



Lup-x



Wolf Tuner



Rezx



Adapted shaped Tourte

WOLF NOTES

Just as each open string on the cello has its own basic mode of vibration when it is played, so too does the body of the cello. This fundamental mode of vibration in the cello's body is responsible for the existence of the wolf note, and so the wolf note is an undesirable fact of life for every cellist. To gain an insight into the way different players cope with this problem, we asked some experienced players to share their wolf histories with us.

Corinne Frost describes the wolf note on her John Lott cello as 'appallingly bad'. She would prefer not to have to use any suppression but finds it necessary to moderate her wolf just enough so that she can play around it. She has tried a variety of devices in the past, but her current solution is to use two New Harmony suppressors of the lightest possible weight, one on the G string and one on the C. The wolf is worse at times of high humidity and so Corinne fits heavier suppressors when necessary, using just enough weight to make the wolf note manageable. She finds that, with care, she can move the suppressors up and down her Spirocore Tungsten bottom strings without de-tuning them and can fine-tune the suppressors according to the key she is playing in and will occasionally use the suppressors to move the wolf note out of harm's way (e.g. between E and F). She also finds that slightly different effects can be achieved by rotating the suppressors on the string.

Nicholas Jones has adapted his shaped Tourte mute to act as a temporary and/or easily adjustable wolf note suppressor (see photo on front page). His cello has several wolf notes, depending on the weather, and he finds them less troublesome in dry environments such as concert halls. Because Nicholas is determined never to sacrifice sound quality unnecessarily, he relies whenever possible on playing techniques to get around the wolf notes, including squeezing the lower bouts between his knees, stopping free strings to form resonators (see 'How to' section opposite) and rearranging his bowing in order to meet the wolf on a down bow, which offers more control for playing through the wolf note. Nick advises: 'When testing a suppressor, be sure to assess not just its effect on the wolf note, but also on the general quality of your cello's sound and response.'

Hannah Roberts also prefers to work around wolf notes. She writes: 'I have a monstrous wolf note on F, which at its worst resembles a pneumatic drill but at other times is much less potent. I find the unpredictability of it challenging to work with, especially when recording. However, I do not like suppressors as I find they diminish the resonance and sympathetic overtones and I prefer to 'work round' the wolf, for example by channelling the balance of weight

through the left hand through the centre of the pitch. Although it is often said that the best instruments have healthy wolf notes, I have definitely found that the wolf is worst on my cello when it is out of adjustment or open.'

'I hate losing all that expensive quality,' says **Raphael Wallfisch** on the subject of wolf note suppression and cello sound. Until recently he was using the GÜth Wolfötter on his Gagliano cello but has just discovered the new 'Wolf Tuner' made by André Theunis. This light-weight (2.8g) silver suppressor slips over the string below the bridge like the New Harmony but has a centre of gravity very eccentric to the string and works very well for Raphael.

In the past, **Ben Davies** used a modified round Tourte mute as a suppressor by wrapping rubber bands around the waist of the mute to widen it until it was slightly broader than the gap between the G and D strings; he then wedged it in place and tuned it to the wolf note, finding this easier to use than the traditional brass/rubber or New Harmony suppressors (see front page photo). The disadvantage was that using a conventional mute then made the wolf note much worse. On his 17th century Dutch cello Ben avoids the use of suppressors, finding that a fast, narrow vibrato helps to combat the wolf, as does playing closer to the bridge.

After much experimentation, **Sue Monks** has found that combining a traditional brass/rubber suppressor with a lighter gauge of strings has solved virtually all her wolf note problems, except for the F# on the G string.

WOLF NOTE THEORY

The currently accepted explanation of the wolf note is that it is caused by the massive vibrations of the cello body associated with the cello's simplest and most fundamental mode of vibration or resonance.

When we attempt to bow the cello at or near the note of this resonance (usually between E and G) we get feedback from the intense vibration of the cello body into the strings, disrupting the action of the bow on the string and causing the sound to die momentarily. However, as soon as the vibration dies down, the bow - which is still moving - re-activates the colossal vibration. This cycle of activation and disruption repeats several times per second, producing the oscillating 'howling' wolf note.

All wolf note suppressors aim to absorb vibrational energy at the critical frequency and this is why they work best when "tuned" to the wolf frequency. Sometimes the range of affected frequencies is quite broad and the suppressor can be tuned to protect one note or another (eg F or F#). Some playing techniques such as the free string resonator work in the same way, while the technique of squeezing the lower bouts changes the vibrational behaviour of the body of the cello so that it cannot disrupt the bowing action.

SUPPRESSOR TRIAL John Heley kindly dedicated several hours over two days to help us chase and tame the moderate wolf note ranging between E and F# on his Rubio cello. Our aim was to test a range of devices for their effectiveness as wolf suppressors, while also noting the effect each had on the sound and response of John's cello. Since each cello is unique, this report does not assess the relative merits of each suppressor, but simply reveals the way John's cello responded to each device. The results were surprising and very rewarding, which proves the value of patient experimentation!

Status quo When he arrived, John was using a traditional rubber/brass suppressor on his C string which he would regularly adjust to move the wolf note, depending on the key of the piece played and the atmospheric conditions. John uses a very sculptural bow stroke, so the effect of his wolf was minimal using a legato bow. However, the wolf was difficult to control using short, off the string bow strokes which proved problematic, particularly in continuo playing.

Rezx This magnetic suppressor was very effective in quelling the wolf note when fitted at approximately 5 o'clock below the bass f hole but it also subdued the tonal response of John's A string considerably – this was noticeable as soon as it was removed. The Rezx was admirably easy to fit and adjust which was very helpful in assessing its effectiveness.

Traditional rubber/brass model (6.5g) There was no negative impact on the tone of the upper register of John's cello when this model was fitted to the G string and the wolf note was adequately contained. The outcome was better when this model was fitted on the G string rather than on the C string - an unusual outcome, as most cellos seem to respond best to a suppressor fitted on the C string.

Güth Wolftöter This was not as effective as the traditional suppressor and also subdued the cello's sound to an even greater degree than the Rezx.

New Harmony (7g) When tuned to a slightly sharp G on the C string the result was dramatic. Instead of quelling the cello's tone, this 7g device added power and response to the whole instrument, especially from E to F on the C string (almost to excess). John found that the overall response of the cello had improved, especially on the D string. When we tuned the device to F# on the C string, it encouraged an even silkier response on the D string.

New Harmony (11g) When fitted to the C string and tuned to G# this was less effective in suppressing the wolf than the 7g and had no beneficial effect on response. When tuned to F it suppressed the wolf better and also improved the D string response, but not as well as the 7g. Tuned to F# the 11g was not very effective on the wolf and created a good response on the A string but not on the C string.

New Harmony (5g) When fitted on the C string and tuned to E there was an excellent response on the C string (not as over-powerful as using the 7g) and the wolf was well suppressed. When tuned to F, the wolf was completely tamed and John was delighted with the response and tone of the cello in all registers. He described the sound as clearer and more even and the cello also responded well to a very light bow. John decided that he would like to keep the 5g New Harmony fitted to his cello, so the trial ended here. A few days later, John phoned to report that he was still very pleased with the result of our experiment.

HOW TO...

***The free string resonator** is a very effective - if technically demanding - way to control a wolf note. When you stop the same note as the wolf on a free adjacent string, either one octave above or below the wolf note, the wolf is very successfully tamed.

Josephine Horder uses this technique often on her Panormo cello. In one extreme instance, having no finger available to stop the F on the C string to create a free string resonator, Josephine resorted to stopping it with her chin!

Tune suppressors between the bridge and tailpiece (Traditional, New Harmony, Lup-x and Wolf Tuner)

We normally find that suppressors are more effective when fitted to the C string than to the G string. To find the optimal position for the suppressor, first try to identify the central note of your wolf. Experiment with different bow strokes and dynamics to identify the worst note and make a mental note of it. Then fit the suppressor onto the G or C string approximately 4cm below the bridge and bow the short length of string between the bridge and suppressor very close to the bridge, using a light bow pressure.

When you have identified the note this produces, move the suppressor until the bowed string note below the bridge matches the original wolf note (it will be several octaves above the actual wolf note in fact). If the bowed note is too low, move the device towards the bridge; if too high, slide it towards the tailpiece until you have matched the worst wolf note.

Finally, test the wolf note on your cello, also noting the tone and response of your cello across all four strings. A successful tuning will minimise the wolf note while also maintaining the quality of your cello's sound.

For a longer version of this article, detailed product information and full-length interviews with cellists, see: www.aitchisoncellos.com/articlewolfnotes.htm

Profound thanks to all the contributors quoted in this article and also to James Barralet and Nicholas Trygstad, whose interviews are published online.

SELECTED CELLOS AND BOWS

J & J SIMPSON CELLO c.1780

L.O.B: 29³/₈" (745mm) String length: 26¹/₂" (672mm)
Price: £35,000

An exquisite English cello in very good condition with an even, deep tone and good projection. The varnish is a beautiful orange brown over a golden ground. Certificate from J P Guiver & Co.

ROBIN AITCHISON CELLO 2011

L.O.B: 28" (711mm) String length: 26¹/₄" (667mm)
Price: £20,000

A close copy of a Milan period cello by G.B. Guadagnini circa 1755 with an exceptionally quick response and colourful tone. Antiqued transparent orange-brown varnish over a golden ground.

PRESTON SCHOOL CELLO c.1780

L.O.B 28⁷/₈" (735mm) String length: 26¹/₂" (672mm)
Price: £16,000

A most appealing small English cello in good condition with a very beautiful tone. The varnish is a deep red brown over a golden ground.

MICHAEL KEARNS CELLO 1998

L.O.B: 29¹/₂" (750mm) String length: 27¹/₂" (698mm)
Price: £16,000

A responsive, attractive cello by a well-respected maker in very good condition. The tone is open and powerful and the varnish is orange-brown over a golden ground.

PRAGUE SCHOOL CELLO c.1900

L.O.B: 29¹/₂" (750mm) String length: 27¹/₄" (692mm)
Price: £14,000

A beautiful sounding cello in excellent condition with an excellent response and good projection. The varnish is an attractive orange-brown.

GOOD GERMAN CELLO c.1800

L.O.B: 29¹/₄" (744mm) String length: 27¹/₄" (691mm)
Price: £12,500

A handsome instrument in good condition with a mature, colourful and attractive tone. The varnish is red-brown over a golden ground.

CELLO BRANDED BANKS c.1820

L.O.B: 29⁵/₈" (753mm) String length: 26⁷/₈" (683mm)
Price: £tbc

An attractive cello with fine red-brown varnish and a pleasing tone. This instrument has been recently restored and is probably German in origin.

KAZIMERZ GLISZCZYNSKI CELLO

L.O.B: 29⁷/₈" (758mm) String length: 27¹/₄" (692mm)
Price: £10,000

This cello has been played professionally since 1969 and has an exceptionally good tone. The condition is excellent and the varnish is a dark orange brown over a golden ground.

MICHAEL WATSON BAROQUE CELLO

L.O.B: 29¹/₄" (743mm) String length: 26³/₄" (679mm)
Price: £9,000

A pleasing baroque cello made in 1990 with a quick response and full tone. The condition of the cello is excellent and the varnish is a deep orange brown.

Selected Cello Bows

Victor Fétique	81.4g	£12,000
F N Voirin	77.0g	£8,500
Paul Sadka (gold)	78.5g	£4,400
Victor Fétique	80.8g	£4,000
Carl Albert Nürnberger	79.5g	£4,000
Morgan Andersen	80.6g	£3,500
Christian Wanka (gold)	81.3g	£3,100
Roger Zabinski	78.0g	£2,870
Christian Wanka (gold)	80.7g	£2,700
Klaus Grünke	81.0g	£2,670
Bernd Etzler	81.8g	£2,550
Bernd Etzler	80.6g	£2,550
Klaus Grünke	79.8g	£2,040
F C Neuveville	80.8g	£2,000
J S Rameau	76.7g	£1,500
Rudolf Neudörfer	81.1g	£1,500
Coltman (baroque)	75.7g	£1,500
Alessandro Carlesso	81.5g	£1,500
J S Rameau	76.7g	£1,500
German branded Dodd	85.2g	£1,250
German c.1930	76.7g	£1,125
German c.1920	78.0g	£900
J S Finkel (classical)	64.3g	£900
Lothar Seifert	77.6g	£600