



String Playing in Balance *at Oundle School*

A new approach to playing stringed instruments
By Angus Gibbon and Crissman Taylor

Over the past three years we have been developing a new approach to string teaching at Oundle School. Our initial inspiration was a talk given by Crissman Taylor who is based at Utrecht Conservatoire, Netherlands (organised by Sue Holladay- one of the visiting Alexander Technique teachers). As a qualified Alexander Technique teacher and violinist herself she was keen to find a better solution to the eternal problem facing all violinists- how best to hold

the violin? Her research led to interesting conclusions and she started to question both conventional equipment and methods. Consequent interest from professional players lead her to found the *Violinist in Balance* team*, who have been working with us. We are now incorporating the methods and equipment we have developed together into our teaching practice at Oundle.

How do we hold and support the instrument and where should the instrument be placed?

I found it quite a challenge at first to think in a new way and consider what it would be like to play when equipment is made to fit individual requirements. Our work together at Oundle has clarified some basic issues for me:

What is the Role of the Chin Rest?

The Chin Rest should simply support the jaw. This should happen without requiring dipping or tilting of the head or contraction of the neck. Maintaining a good head position allows for more physical freedom and mental composure. Most conventional equipment fails to meet these criteria. Crissman explains:

*"Ill-fitting equipment disturbs the alignment of the head on the spine, putting neck, jaw and skull under pressure when the instrument can only be secured with force between jaw and shoulder in a 'diagonal clamp.' This can lead to long-term health issues.** Ideally, the chin rest should be accessible to the player by simply turning and nodding the head, using the top neck joints made for these purposes."*

What is the role of the shoulder rest and where should the support be placed?

To support the instrument from below, most shoulder rests are placed near the tip of the left shoulder and on the chest muscles. This inhibits freedom in the left arm and hand, and shoulder rests frequently lock the instrument into a challenging, awkward playing position. Crissman Taylor demonstrated that immobilization of the left side also effects the bowing on the right side. She says:

"A shoulder rest pressing on the tip of the shoulder and the chest muscle immobilizes the whole shoulder girdle, not just the left side. How can the shoulder roll in the socket when the springiness of the shoulder girdle is limited by this downward pressure? It is interesting to note that a common injury among violinists is inflammation of the right shoulder socket and deterioration or extra growth of bone on the underside of the tip of the collarbone. Instead of the shoulder girdle being able to respond to the movements of the bow arm, the ball of the shoulder rubs against the collarbone every time the violinist lifts the arm to play on a lower string with the bow! We are hoping that our new collar bone rests will allow the violinists to move their arms freely."



a custom chin rest and collarbone rest

By designing the shoulder rest to sit on the middle of the collarbone at one end, and just under it on the other, we reduce muscular and joint restrictions and connect the instrument to the skeleton. This, in turn, adds the possibility of utilising the resonance of the body whilst playing the violin.

How do changes in equipment affect the way we play?

When the students at Oundle were fitted with custom equipment, there was an immediate change to the sound and increased freedom in the right arm. I noticed these changes in my playing as well, when I started playing with my new equipment. It becomes easier to develop the concept that the strings support the bow and that bowing is really about pulling and pushing (as the French have always said). By having the violin in the optimal position for a free bow stroke many issues to do with bowing simply disappear.

Methodology for a new approach to playing.

The methodology we now use has been developed by our interdisciplinary team of Upper String teachers and Alexander teachers, with the consulting Violinist in Balance team of experts and technicians under Crissman Taylor.

It consists of

- Diagnoses of current playing habits,
- Re-positioning the instrument,
- Assessing equipment requirements,
- Customizing equipment,
- A new teaching strategy: re-training cramped playing habits with the Alexander technique and balancing games.

1. Diagnoses of current playing habits

The Oundle interdisciplinary team of Upper String and Alexander Technique teachers worked together with Crissman Taylor to develop a clear diagnostic picture of how ill-fitting equipment interferes with coordination. To aid in diagnosing initial cramped playing habits and analyse the role of equipment in reinforcing these habits, we make a 'walk-around' video of each pupil, viewing from all angles. This gives an objective view of what's working and what isn't in the support structure for the violin. It is particularly revealing to see how playing you play from behind. Watching from behind reveals how the process of holding the instrument often involves clamping between the head and the left shoulder. This in turn creates a physical imbalance and can create all sorts of problems beyond muscular tension, including breathing and circulation issues.



hunched shoulders and head pulled down due to ill-fitting equipment

Common playing problems linked to ill-fitting equipment:

- 'Diagonal Clamping' of head and shoulder. Most of us find the only way to secure the violin is with a combination of raising the shoulder and lowering the head.
- Leaning the head forwards into the chin rest. The shape of many conventional chin rests encourage this habit.
- Heavy bowing. As a consequence of all this cramped holding the right arm is often restricted and there is the tendency to squeeze the strings with the bow.
- Crooked bowing. As the violin is often fixed in a position the strings do not easily lined up with the strings without contortionist movements and straight bowing becomes a chore.
- Over-extension of bowing arm at the tip of the bow. As the violin is often fixed in a position where we cannot reach the tip easily, we develop habits of overstretching at the point.
- Cramped playing position when playing at the heel. Many of us find it difficult to play near the heel. This is particularly problematic with those with longer arms and is also due to incorrect instrument placement.



Can't reach the tip of the bow

2. Positioning the instrument for ease of fingering and bowing:

We first position the instrument and then measure and build the equipment. Crissman Taylor has come up with some clear guidelines for positioning the instrument and creating equipment options that we have been applying at Oundle.

They are:

Squaring off the violin to the bow:

When the bow and string are at right angles to each other, the elbow is also a right angle. By repositioning the violin we can achieve a straight bow and more freedom without overextension or cramping of joints.

Three options for re-positioning the violin:

These options are rarely tried, as the usual fixed position of the chin rest and shoulder rest on the instrument doesn't allow freedom of choice in instrument positioning.

- **Lateral movement of the instrument.** By sliding the instrument along the collar bone, while keeping the scroll pointing in the same direction, we can explore the optimum position for the chin rest. Often this is more central than usual or even to the right of the tailpiece.

- **Rotation of the violin around the bridge.** This is more than moving the scroll just in and out. This movement is often very effective to line up the bow and strings.

- **Tilt of the Fingerboard.** By tilting the fingerboard towards or away from the bow, one can make the lower strings more accessible to both hands, or conversely, give more space to long-armed players.



Alexander teacher stabilises healthy head position while measuring for the chin rest

The challenge of accepting a new playing position

Initially the new position is challenging for both the player and teacher. The longer you have played the more difficult it is to adjust. Not only is the spatial placing difficult to adjust to, but quite often it's difficult aurally because the ear is now in a different position in relation to the instrument. There *is* a positive gain from repositioning the instrument as the ear ends up more upright and there may be less damage to the left ear from playing. Crissman says:

"During our initial research at the conservatory, we were surprised to find that adjusting to the new instrument position generally took less than two weeks. Advice from the hearing specialist Dr. de Laat, LUMC, confirmed that this is

the time frame needed to accustom yourself to a new aural environment.”
(Leiden University Medical Centre)

Most of the children are equal to the challenge of these changes. Young people are already in a state of constant change. We thought: wouldn't it be best if we got it right from the outset of lessons? We are experimenting with the new equipment series with a few of our youngest pupils at Laxton Junior School where all the 7-year-old pupils have a year of violin or cello lessons.

3. Assessing equipment requirements.

After first establishing a good instrument position it is possible to start measuring for new custom equipment or experimenting with rests from Crissman Taylor's new range.



The spaces that need filling

Issues that need attention:

- **Positioning the chin rest on the violin.** To allow for the desired instrument position, we have found that most players need to have the chin rest more centrally placed and some even to the right of the tailpiece.

- **Height of the chin rest.** After finding a healthy neck position with a turn and nod of the head, the height is carefully measured. The chin rest needs to bridge the gap between the collarbone and the chin with allowance made for freedom of sweep with the chin.

- **The tilt of the chin rest** is taken in to account to accommodate the desired string tilt toward the bow.

- **Shape of the chin rest.** As we all have different shaped jaws this needs to be reflected in the design of the rest. This includes the lip of the rest, which needs to be made to fit inside the jawbone to help the player secure the instrument.

Only when there is a satisfactory chin rest scenario is it possible to start looking at the support below the instrument.



Many jaw shapes require many chin rest shapes. Chin rests in rough cut models, ready for finishing.



Custom chin rests from Violinist in Balance technician, finished at Oundle by Tim Warburton

Shoulder rest:

The new shoulder rests are wedge shaped, creating a secure, yet flexible plateau for the violin or viola. As mentioned above, if the shoulder rest is placed properly on bony structures on and around the collarbone, there is no impact on the freedom of the left, or right, arm. Using the new "collarbone rest" creates an immediate impact on bowing and creates a different sound and more freedom in all bowing movements. The *Violinist in Balance* team has developed a range of collarbone rests that we call 'boomerangs' because of their shape.



Collarbone rests and fitting equipment from Violinist in Balance

4. Customising equipment

The *Violinist in Balance* team in Holland has been creating individual chin rests based on precision measuring techniques with Lies Muller of *Muziek en Ambacht*, Utrecht. Crissman Taylor with, Niek Gersen of *Niek's Fabriek* in Amsterdam, has developed a wide range of collarbone rest shapes which are now being distilled into series used for fitting individuals. With *Bouman en Zn. Violins*, in the Hague, Crissman is now creating basic chin rest series. At Oundle the chin rests can already be made or altered by the on-site team. The collarbone rests are also being developed further with the same end in view.



New chin rest series from Violinist in Balance in partnership with Willem Bouman en Zns, the Hague.

Creating our own team of experts:

Violinist in Balance is helping to build our own team of specialists at Oundle to deliver most aspects of the programme. We are very fortunate to have as part of a violin teaching team Tim Warburton who is also a very talented wood worker. He has been trained by Ms. Taylor's team in measuring, creating and adjusting equipment for individual pupils. The assessment and fitting work is always carried out with the assistance of a specially trained Alexander Technique teacher, originally Sue Holladay, and now Julia Cowper. They Alexander Technique teachers keep the student from reverting into old violin habits. This ensures that the measurements reflect the true stature of the student.



Crissman Taylor (right) assists the fitting team to assess new equipment. Julia Cowper, Alexander Technique, left. Middle: Tim Warburton.

5. A new teaching strategy

In order to develop a new teaching strategy it is vital to look at body usage, habits and thoughts and to develop teaching practices and exercises that facilitate change. This is where our strong Alexander Technique team come into their element. Each pupil now has a course in Alexander Technique- partly in group classes and partly individual lessons.

The classes cover :

A Preparing for change

Before changing the equipment we work with pupils looking at their playing habits and general body usage with the aim of creating awareness of their habits and looking at how they might improve.

We develop an awareness of the upright position of the head in relation to the instrument and bow in "Balancing Games," exercises devised by Crissman. These exercises also explore the scope of bowing movements including freedom in the shoulder joint and ease of rotation of the lower arm. In one exercise, we work with two sticks, which are the same measurements as the violin and bow, to prepare the body for the new position without the stimulus of the instrument.

We also cover learning where the head joint is and how to nod to secure the violin without clamping. When the new equipment is in place, we can secure the instrument by a simple turn and nod of the head using the top neck joint without compromising the newly found muscular freedom in both arms. Ms. Taylor calls this the "Royal Nod."

B Assisting Change

After receiving their customized equipment, the group classes help demystify the experiences that the students may be undergoing during the equipment changes. This, and individual lessons in the Alexander Technique, help them reorient to the new instrument position and learn to secure the instrument without undue tension.

Strangely it is easiest for those with little violin experience to change. The more experienced the player the more engrained our habits and the more difficult it is to adjust. In some cases there are new aches and pains as old habits of clamping the head and shoulders gradually recede. However, the pleasure of the new sound world available through change and the increased freedom of movement compensate well and sustain the patience required during the transition period.

I have expanded on the work with sticks to develop awareness that the violin stick actually supports the bow stick at all times except when playing off the string. This leads to a better understanding of bow weight; playing on and off the string and the various elbow heights needed to play on each of the seven positions: G G+D D D+A A A+E E. We also explore a range of bow strokes and look at left hand issues including touch, shifting and vibrato.



Balancing Games using sticks

3 Supporting Change

During the rest of the school year, we conduct periodic check ups with the fitting/Alexander team of each individual, checking their equipment, their use of themselves, and progress in unlearning

engrained habits. We work out individual plans to facilitate change. We also consider issues of playing sitting down as well as standing up.

Adjustments for growth

Obviously all children grow and it is important to acknowledge that they will need to have adjustments to their equipment from time to time. As part of the programme we have an annual assessment of each pupil's equipment. Adjustments can include simply adding extra height to the chin or collar bone rests with the addition of extra corks or more substantial materials when necessary. In some cases it may be necessary to change to new equipment but as Crissman develops a range of commercial models the costs will reduce and there will be a new second hand market for discarded rests. We wouldn't expect our children to keep the same shoes as they grow. Badly-fitted violin equipment is just the same as badly-fitted shoes. It is our responsibility to safeguard young bodies from unnecessary twists and pressures.

The value of Alexander Technique

The more we have worked on this project the more I value the support and wisdom offer by our extremely talented Alexander Technique team at Oundle School. As a colleague recently pointed out 'they are the people who can enable our pupils to do the things we told them to do.'

Impact on Teaching

One of the most exciting outcomes of making changes is that as a teacher you notice that all of your pupils find it easier to play the instrument. Pains or discomforts from playing go away as playing improves. You start to ask the question: "Is a talented player merely the pupil who finds the best solution to holding the violin, or is this because they are physically closer to the 'right shape' for conventional equipment?" It is a joy to teach pupils good technique and interpretation and not to spend so much time dealing with problems caused by having the violin in the wrong place and unsupported and the resultant physical tensions and stiffness.



New equipment gives a lift to the violin, and the player

String Playing in Balance

symposium on June 9th, 2013
Oundle School, Peterborough

Crissman Taylor

Peter Buckoke
(Professor of Double Bass and
Alexander Technique, RCM)

Sue Holladay
(presenting her book
'Playing with Posture')

10.00am - 5.00pm
Light lunch provided
£60 per delegate

For further information and to book
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* *Violinist in Balance's* professional private clients come from orchestras such as *Concertgebouw Orchestra, London Philharmonic, BBC Scottish Symphony, Royal Scottish National Orchestra, Netherlands Philharmonic, Metropolitan Opera Orchestra, Chicago Opera, Staatskapelle Berlin, Radio Kamer Philharmonie, Rotterdam Philharmonic Orchestra, Gelderseorkest, concertmasters of the Netherlands Radio Chamber Philharmonic and the Slovenian Philharmonic Orchestra*, and faculty and students from conservatories such as *Royal College, Amsterdam Conservatory, Guildhall School of Music, NYU*, etc.

** A French medical study of teenage violinists involving x-rays over time showed that the asymmetrical pressure exerted on their jaw and skulls while playing caused jaw joint dysfunction, and caused the facial bones of the skull to grow differently than their non-violin playing contemporaries. The reason for this was the lack of ergonomically designed support equipment: "...l'instrument n'est pas doté d'un cousin de dimension convenables. Cette observation met en valeur l'intérêt du facteur ergonomique pour diminuer le risque d'éventuelles futures maladies professionnelles chez le violoniste." From article: "Les effets du jeu du violon sur les dimensions faciales et le fréquence de dysfonctionnements tempo-mandibulaire chez des adolescents," Dr. Outi Kovero, DDS, PhD, Insitut d'odontologie, Université de Helsinki, Finlande, Medecine des Arts, 1999-29, pp. 10-12.