

Some essential aspects of the bow and arm

Playing into the elasticity of the bow and hair

A major factor in using the bow is the springiness of the wood and hair. A string player does not so much play with the bow itself, as with the force of elasticity *in* the bow. The feeling of playing in the lower half is different from playing in the upper half, because the amount of ‘give’ in the hair and the wood changes.

At the heel, the hair gives and the wood of the bow is rigid

At the point, the wood gives and the hair is rigid

In the middle, both the hair and the wood give equally

- 1 Rest the bow on the string at the heel, near to the first finger. Press the hair into the string heavily, without moving along the string. No amount of pressure alters the curve of the bow, while the hair ‘bends’ where it touches the string.
- 2 Press the hair down into the string heavily at the point. The hair is now completely rigid, while the wood gives easily in the middle of the bow. No amount of pressure will ‘bend’ the hair where it touches the string.
- 3 Playing *forte* on one note, play short down- and up-bows at the heel, in the middle and at the point. Notice the different feel of the wood and hair at each place in the bow. Then play whole bows on each string, playing heavily into the stick and the hair. Feel the same changing proportions of give in the different areas of the bow.

Curves on one string

There is no bow stroke on the violin that moves in an exactly straight line. Even when playing ordinary down- and up-bows on one string, seen from the side the tip of the bow draws curved lines. Trying to draw the bow in an exactly straight line causes great tension in the arm, hand and fingers.

This exercise makes the curves much larger than normal.



- Sustain the tied notes solidly, so that they sound like one continuous note.
- During the tied notes pivot towards the next double-stop smoothly and evenly. Pivot as far as possible without actually touching the next double-stop, so that to play it (on the new bow) you only have to pivot a fraction further.
- Begin with quarter-length bows near the heel; in the middle of the bow; and at the point. Then use half-length bows in the lower half, middle, and upper half.
- Repeat the same sequence on the D-A-E strings.

Pushing the arm forwards

In playing the violin the right arm does not so much move to the right and left as *forwards and backwards*. (Draw the bow to the point, keeping the bow parallel with the bridge. Note where your hand is: directly in front of the shoulder, not out to the right.)

Each 'lever' of the arm moves in an arc, the largest being that of the upper arm, the smallest that of the hand. If any one lever is used alone, the bow moves in a circular motion. To draw the bow parallel to the bridge different combinations of these arcs must be used at the same time.

It was recently suggested to the Russian teacher, Zakhar Bron, that the Carl Flesch bow arm is faulty because Flesch says to use only the forearm in the upper half, opening the arm at the elbow, without any mention of the upper arm moving as well. This produces a curved movement which makes the bow crooked to the bridge. In contrast, Galamian was very clear about the upper arm moving 'out' (☐) and 'in' (∇) near the point.

Bron replied that perhaps Flesch's apparent misunderstanding was only a problem of *language*. Bron said, for example, that everyone talks about moving the left forearm towards the body to shift upwards, but nobody ever adds that the upper arm must also move back (without which the violin would move vertically upwards). Similarly, he said, Flesch probably never dreamt that anyone would try to move the right forearm alone.

Point of contact: not taking the line of least resistance

It is all too easy to bow near the fingerboard too much of the time, because unless you deliberately move the bow *against the line of least resistance*, the bow automatically moves to the fingerboard.

This causes many problems. While the tone produced near the fingerboard may sound more mellow to the player, chiefly because there are fewer upper partials in the sound, the tone will lack brilliance and carrying power. Little pressure can be used, preventing you from being able to play deep into the elasticity of the bow and string, as outlined above. (This also makes lifted strokes, such as spiccato and sautillé, difficult because there is not enough natural bounce in the bow, hair and string.) Martelé, which needs a sharp attack at the beginning of the stroke, becomes impossible to play without scratching; the strings are too flat, and so on.

Playing nearer to the bridge requires going against the line of least resistance. This is because the strings (on the violin or viola) slope up into the bridge, and the natural tendency for the bow to slide down towards the fingerboard must be resisted (a good reason for holding the scroll higher). Also, the tension of the string is greater nearer the bridge, and needs more bow pressure. The greater the pressure, the more the bow has to be kept from springing back out of the string.

Soundpoint exercise

Flesch and Galamian, amongst others, divided the area between the bridge and the fingerboard into five points-of-contact, or 'soundpoints': **1**, at the bridge. **2**, between the bridge and the central point. **3**, at the central point. **4**, between the central point and the fingerboard. **5**, at the fingerboard.

Play a variety of rhythm patterns on each soundpoint, faster near the fingerboard and slower near the bridge.

- 1 Start on soundpoint 5 (near the fingerboard). Play the rhythm pattern several times, experimenting with speed and pressure until the string vibrates as widely as possible on each note. As well as judging by the sound, watch the string vibrating at the midpoint between the finger and the bridge.
- 2 Without stopping, when the speed and pressure are both perfect move the bow to soundpoint 4 and again find the right speed and pressure to make the string vibrate as widely as possible. Do the same on soundpoints 3, 2 and 1, and then work back again through 2, 3, 4 and 5.

Example

033'1

Soundpoint 5 Soundpoint 4 Soundpoint 3 Soundpoint 2 Soundpoint 1

Fast and light Slightly slower, heavier Slower, heavier Slower, heavier Very slow, heavy

mp *mf* *f* *ff* *f*

- Make up many different bowing and note patterns to play on each soundpoint. Play on each string.
- Use quarter-length bows at the point, in the middle, and at the heel. Then use more bow (half bows for the ♩), playing in the upper half, middle, and lower half. Whatever the soundpoint, length of bow or dynamic, find the bow speed and pressure that creates maximum resonance and purity of tone.

Next month's BASICS features a highly effective intonation exercise for the violin or viola.