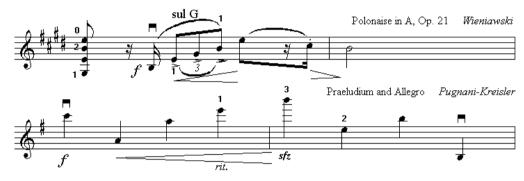
Bow weight and length of string

Three principles of tone production for all string instruments:

- 1 Closer to the bridge, more weight.
- 2 The higher the fingers play up the string (the shorter the string), the nearer the bow plays to the bridge.
- 3 The shorter the string the less pressure it can take from the bow.

The third principle overrules the first. The bow plays *heavily* near the bridge in low positions. The bow plays *lightly* near the bridge in high positions.

In the examples below, the top E in the Wieniawski and the top B in the Kreisler must be played surprisingly gently near the bridge if they are to sound pure and stay in tune.



EXERCISE

In this exercise, always play the open strings heavily; play the stopped notes more and more lightly as they get higher.

- 1 Play the whole exercise **near the fingerboard**. Play all the open string notes *mf*. Begin the crotchets (quarter notes) *mf*, and play them more and more lightly as the string length shortens, reaching *ppp* at the top.
- 2 Play the whole exercise **midway between the fingerboard and the bridge**. Play the open strings *f*. Begin the crotchets *f* and play them more and more lightly until reaching *pp* at the top.
- 3 Play the whole exercise **near the bridge**. Play the open strings *ff*, moving the bow slowly and heavily. Begin the crotchets *ff* and play them more and more lightly until reaching *mp* at the top.
- **4** Play the whole exercise **changing the point of contact throughout**. Stay away from the bridge to play the open strings, move nearer to the bridge to play each crotchet. Play every note *sempre forte*.



Next month's BASICS explains the method of tuning scales used by Pablo Casals and Dorothy DeLay.