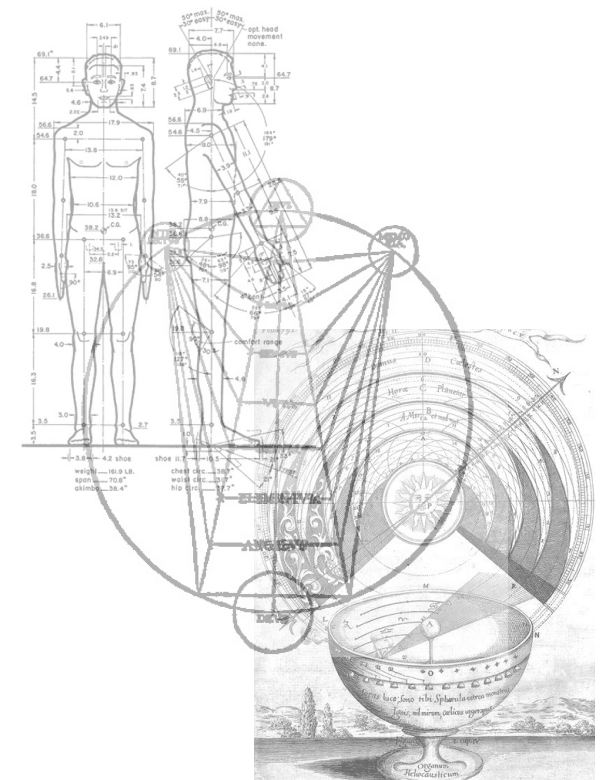


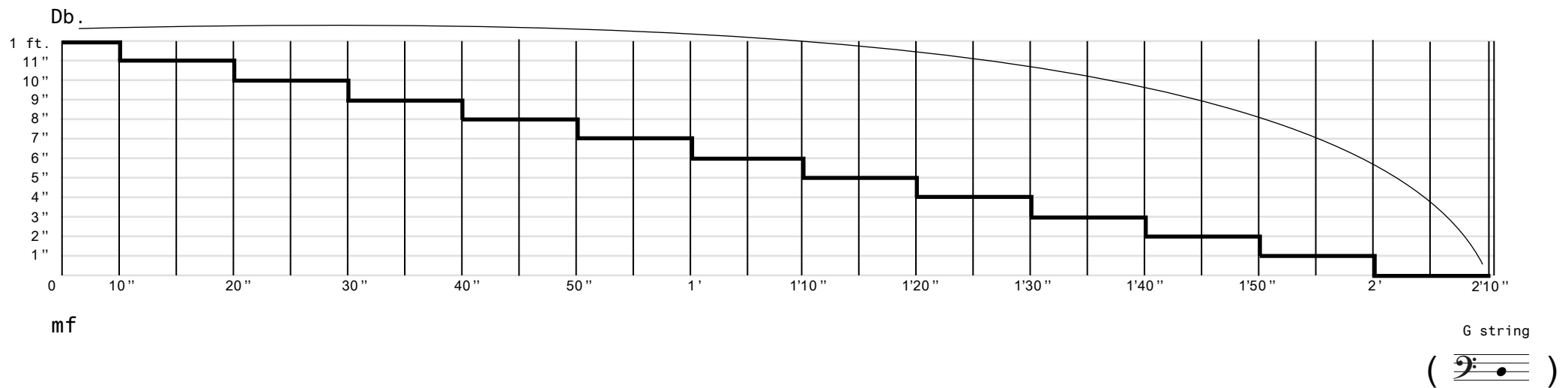
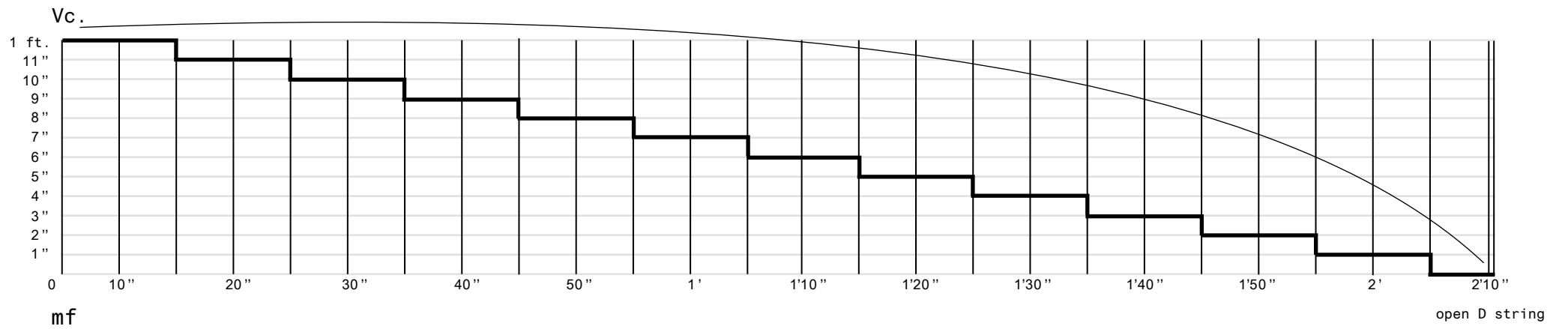
R.Belfiore  
3 measurement studies, March 2024



to P. E. Barcellona & J. Morley

## study 1: imperial lengths / metric durations (2'10")

Durations are measured with a stopwatch. Lengths are measured with a specially made paper ruler fixated to the fingerboard.  
Changes in the bowing direction are free.  
Relatively « pure » vibrato-free sound.



## study 2: anthropometric lengths / intuitive durations (~2'30")

inch: length of the thumb (tip on the strings, articulation on the nut)

palm: full hand on the string at the level of the knuckles.

span: thumb on the nut, little finger on the strings, other fingers not touching the strings

cubit: elbow on the nut, tip of middle finger on the string

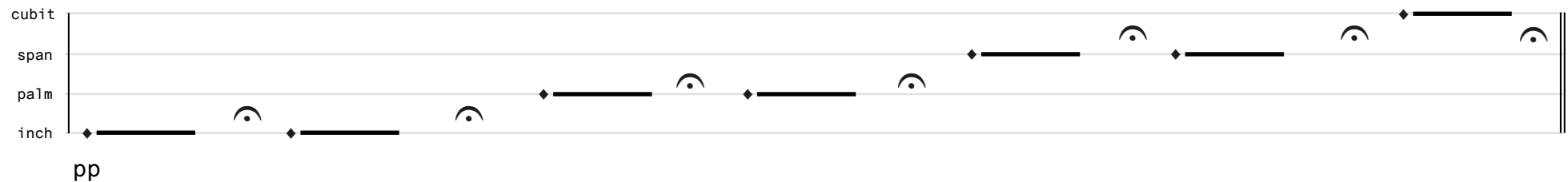
durations: estimate together in the moment what an adapted duration is.

silence: more than enough to prepare the next unit calmly. Always begin as simultaneously as possible.

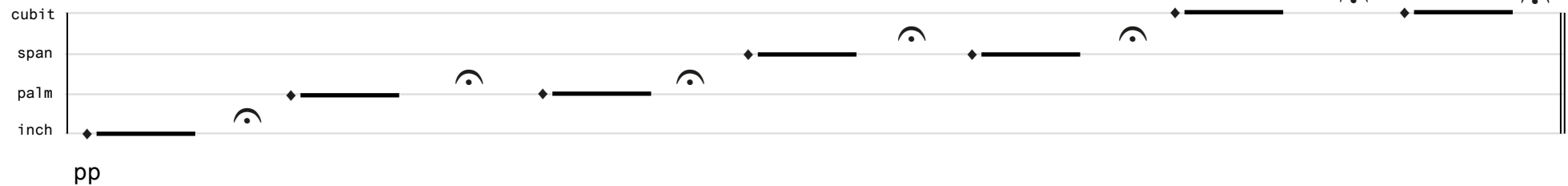
Look for harmonics/multiphonics at each position. If not possible, muffled string sounds are fine.

The string on which this study is played is decided by each interpreter individually depending on the result of tests made on all strings. It can change between performances.

Vc.



Db.



### study 3: proportional lengths / action-determined durations

Both instrumentalists perform this score in parallel without trying to synchronise.

Duration of the notes is exactly two bows at a 'mp' dynamic. Try to always keep the same dynamic and match that of the other performer at all times.

The first note is the highest octave possible on the open string. The rest of the proportions are given with the paper ruler.

End of the piece:

The piece stops when the strings of both instruments cannot be physically divided anymore. The paper ruler gives as many divisions as printable. When one performer is done, he waits for the other to finish while playing the last possible division. Both stop at the same time after an agreement.

