


# Some thoughts on bowing and tone production

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- ▶ “Beauty has no need of us, but on the contrary, it is we who have need of her, and it is only by repeated effort, by work of depth and not on the surface, that Beauty will be revealed to us (Lucien Capet, TSA, 38)
  - ▶ [...] we should never dream of putting Art on our terms but on the contrary to go toward Her [Beauty] while perfecting ourselves more and more in order to be as worthy of Her as possible.... (Lucien Capet, TSA, 71)

# General considerations: What do we refer to?

- ▶ What is tone (*Ton, Klang*)? -> intentional sound. Intentionality as a source of music making
- ▶ Is tone personal? -> tone and voice. The demands of interpreters.
- ▶ Tone the result of “imagination” of tone. -> multisensory conception of tone. (tone can be velvety, reedy, (tactile), bright or dull (visual), etc). How do we speak about tone?
- ▶ The source/ origin of tone: voice -> the expressive ear
- ▶ Bowing is part of bilateral movement -> holistic conception
- ▶ Concrete physical determinations: Friction, (string, bow), contact point, articulation

# Physicality

- ▶ **Equipment.** (violin, string, bow, bow hair, resin)
- ▶ Contact point
  - ▶ Bow speed & bow pressure (bilateral)
  - ▶ Length of string (including uneven contact points), thickness of string.
  - ▶ Angle of bow hair on the string (rotational inclination, (“Roulé”))
- ▶ **Body & Mind:** Movement -> freedom and flexibility of movement, interference with tone through poor co-ordination.
  - ▶ How is movement conceived? Movement occurs as a result of metaphorical imagination -> we aim at something and connect a feel of movement with the outcome (experience, practice, .. But also conception)
  - ▶ Bow hand set-up -> Why is the bow hand set-up important? Arm movement, transmission of force/ movement to string, freedom of arm movement (-> “Arm leads, hand follows” (Steinhausen/ Flesch)

# Bow hand & bow hand set up

- ▶ Finger placement on bow stick
- ▶ The role of the fingers (active -> variously active -> passive) -> Capet's "antennae"
- ▶ Fingers in various strokes -> Capet & Galamian's concept of "springs"

## Capet, "Technique Supérieure de l'archet" Placement and roles of fingers on the bow stick (independence of fingers)

"These exercises will lead to independent control of the fingers on the stick which will be preferable, in our opinion, to the simple control of the entire hand exerting all its weight on the bow *in a single direction* and preventing the profoundly artistic sensitivity of *touch* from revealing itself for the good of the Art. Our fingers must literally be *antennae* to allow us to penetrate this mysterious world where few beings occupy the periphery and which has Beauty at its centre...Let us not forget that the *left hand* represents only the materials and that the *right hand* holds the secret which can assemble them, with the goal of constructing the temple of beauty" (TSA, 13)

# Who was Lucien Capet?



- ▶ 1873-1928
- ▶ Studies with Jean-Pierre Maurin
- ▶ 1896-99 concertmaster of the Orchestre des Concerts Lamoureux
- ▶ Capet Quartet (founded in 1904, renowned for its interpretation of Beethoven) <https://www.youtube.com/watch?v=Tk8c7RWig3I>
- ▶ “... My connection with Lucien Capet began in Brussels in 1928 when I attended a string quartet concert given by the Capet String Quartet that was the greatest string quartet concert I heard in my lifetime. The program was all Beethoven: Op.18, no. 1; Op. 59, no. 2, and Op. 131. It has never been duplicated in all of these years...” (Joseph Gingold)
- ▶ Teacher in Bordeaux (students: Jascha Brodsky, Ivan Galamian)
- ▶ Co-founder of the Institut Moderne du Violon (with Suzanne Chaigneau) 1924

# Technique Superieure....

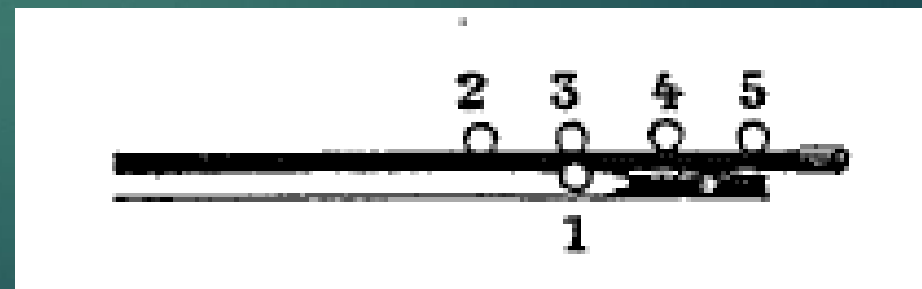
The thorough study of anything necessarily requires two primordial qualities:  
*attention and reflection...*

We are completely walled-in by an excessive pride which blockades us with some extremely limited knowledge and prevents us from discovering the truths which are beyond ourselves. We will succeed in breaking down this frightful wall by developing the two aforementioned qualities, because it hides from us that which is most beautiful, and consequently all which could allow a human being to become the beneficent Artist, the interpreter of the highest thoughts. Our dignity will grow in proportion to our destruction of this pride and we will find it beyond ourselves.

The true role of the Artist is to identify himself with Beauty and not to violently attract- by mediocre means- the attention of his contemporaries; and it must be said that the ascent toward the light of superior things is infinite, that is to say that we will never have any consciousness of having attained the Goal, since at the moment of our complete identification with Beauty we will lose consciousness of our individuality in becoming Beauty itself; the ideal should thus grow in proportion as we perfect ourselves, otherwise the descent is rapid and everything must begin again. (Capet, TSA, 72)

# Role of fingers (Capet/ Galamian)

- ▶ Index/ 1<sup>st</sup> finger: Strength.. Counterbalances 4<sup>th</sup> finger
- ▶ 2<sup>nd</sup> finger (& thumb): form a ring, joined by the stick, fulcrum
- ▶ 3<sup>rd</sup> finger: “This finger is in a sense the *Spiritual guide* in the domain of general sensitivity of the fingers on the stick ...one must view the 3<sup>rd</sup> finger as a watchman who, by his artful presence, complements the role established by each finger; it increases the sweetness or strength, the sensitivity of assuredness. It is the finger which must bring ultimate sensitivity in this mysterious communication among the fingers which unite in the realization of an infinitely varied ideal (TSA, 13)
- ▶ 4<sup>th</sup> finger: “The role of this little finger is very important. Its sensitivity must be in two directions: *horizontal* and *vertical*.”





# Critical voice.... Flesch

- ▶ “The index finger has in the main a tone-producing effect, the little finger inhibits tone...a similar role also applies to the middle-finger. The combined action of all fingers, especially of the index finger, constitutes the fact that their source of power does not lie within themselves, but in the parts of the arms, the fore- and upper arm and in the back muscles...(Flesch, 38) (Footnote: re middle finger: “contrary to Capet, who thinks of the middle-finger together with the thumb as a closed ring... (footnote, 38)

# Galamian

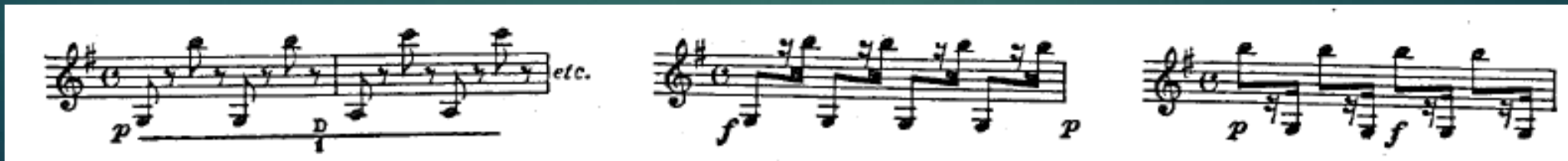
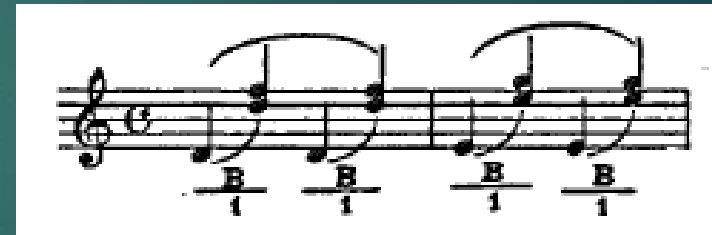
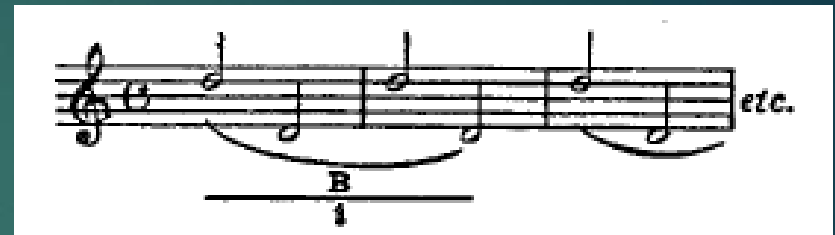
Galamian: “motions of the fingers as such”.... (Galamian, 48/49)

- ▶ **Vertical** (raise & lower the bow vertically)
- ▶ **Horizontal** (horizontal stroke motion) (“one must pay particular attention to the thumb in this motion to see that it is active in the straightening and recurving process”)
- ▶ **Horizontal turning (pivoting)** (“...point of the bow [...] to swing in a horizontal arc..”)
- ▶ **Vertical turning (Pivoting)** (“...rotate vertically so that the point of the bow describes a perpendicular arc around the tip of the thumb as the center. When the bow is held in the air horizontally, the vertical rotation can be achieved by alternatively pressing and releasing the fourth finger.”)
- ▶ **Lengthwise axis-rotation** (“..rolling the bow between thumb and fingers ... [the bow] rotate[s] around its own lengthwise axis ...”)

# Vertical finger Movement (Capet)

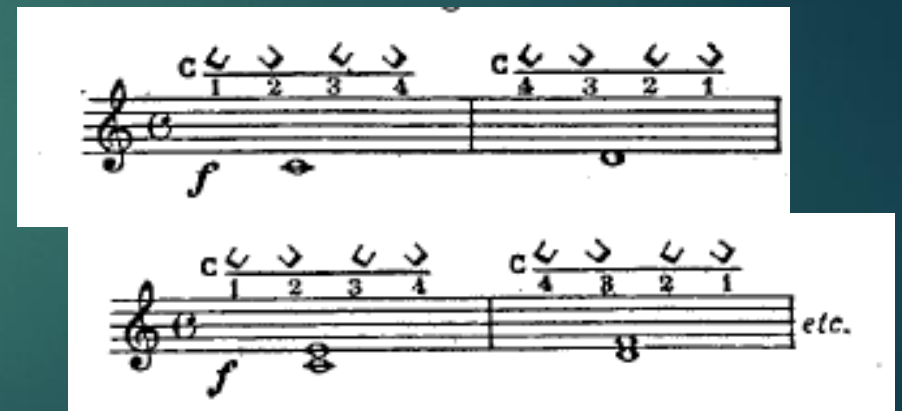
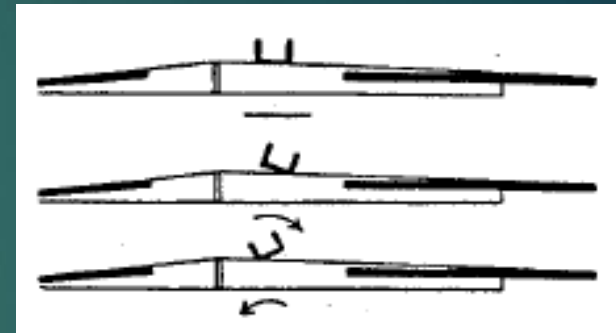
“These finger gymnastics make it possible to achieve [both] the *horizontal* movement of the bow – penetration of the hair into the strings – powerful and flexible bow strokes, and the *vertical* movement, lightness of the bow, *Barriolage*, and string crossings.

(Exercises in legato and détaché)



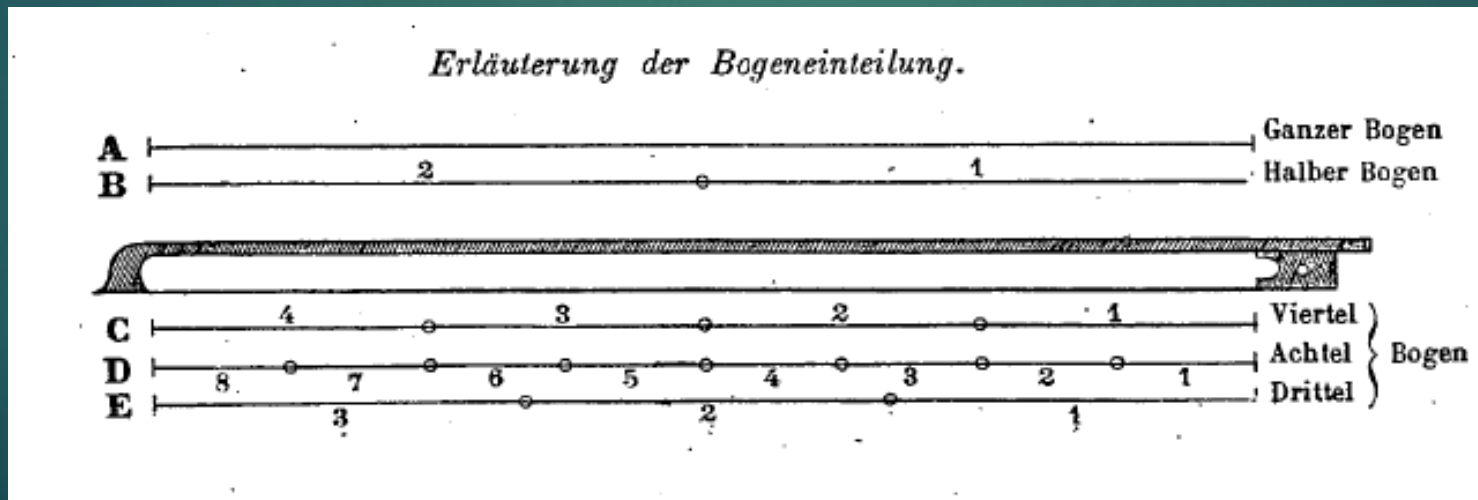
# Roulé

“In order to obtain a resonant and flexible quality of sound, it is not enough that the bow press the string; it must penetrate it, so that it possesses it. For that it is necessary to add to the vertical pressure – which is due to the resilience of the stick on the hair- a sort of horizontal flexibility which increases the sensitivity of this pressure. We must require of each finger of the right hand an infinitely more subtle control than the simple pressure of the entire hand ... one must have at one’s disposal as complete a musical palette as possible, in order to obtain the greatest variety of interpretation, all the while preserving, it is understood, general Harmony, which is Unity in Diversity... **Because the bow is the soul of the violin its possibilities should become for all purposes unlimited.** (TSA, 28/29)



# II Bow distribution & Co-ordination

- ▶ Bowing and bow -> direct reflection of singing/ expressive intention.
- ▶ Bow movement needs to be intentionally directed (not random) and co-ordinated
- ▶ More sound -> more bow (French School, Flesch)
- ▶ Capet: even distributions



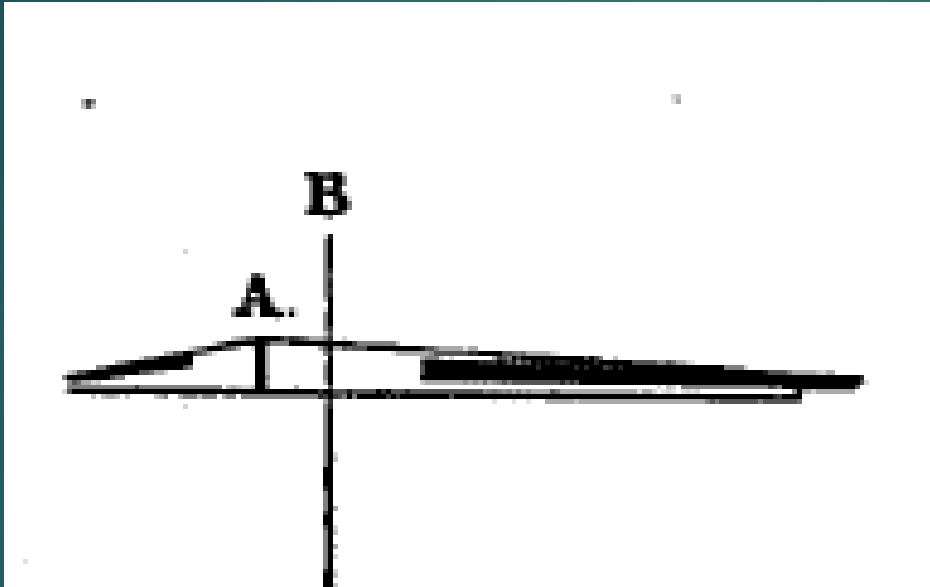
# Bow distribution... (Capet)



# Is Capet's approach "correct"?

- ▶ "While it is certainly not denied, that a particular distribution of the bow during a homogenous legato passage is important, one should not neglect that in nuanced forms of legato the bow distribution must be uneven..." (Flesch 46)
- ▶ What is the value of Capet's division?
- ▶ "What we explain here is very limited by comparison to its possible realisation, which one obtains through the accurate work with the bow. These studies lead into a world of such subtlety that the words resemble marionettes on broken strings when it comes to translating such a world in concrete words. This is in any case the unfathomable privilege of music that – when words are entirely powerless – it can continue the path towards a higher world" (Capet, TSA 10)
- ▶ Capet's approach enables us to find, learn and expand our understanding and use of the bow by ourselves. (origin: *heuristic*). In this sense it's theoretical value is eclipsed by its practical and artistic importance.
- ▶ Bow/ sound production based on feeling, imagination -> mechanical principles, exercise stimulate attention and access to movement only. Movement is "found" (not constructed)

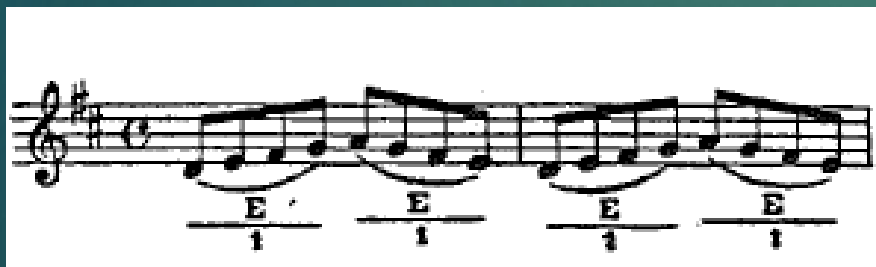
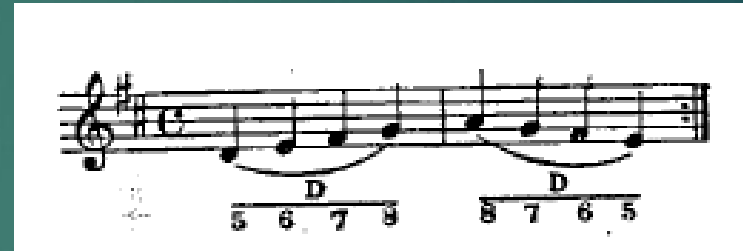
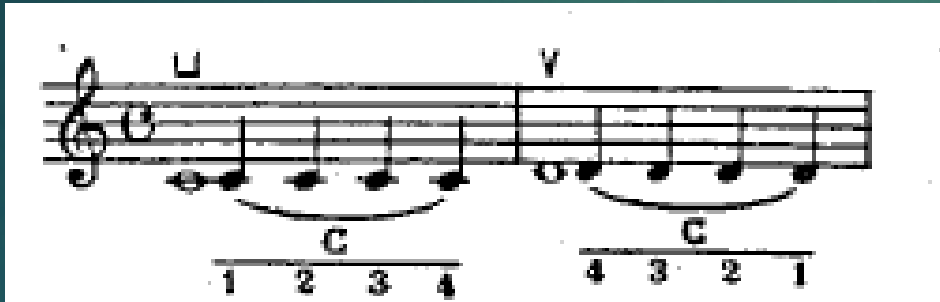
# III Parallelism & Contact Point





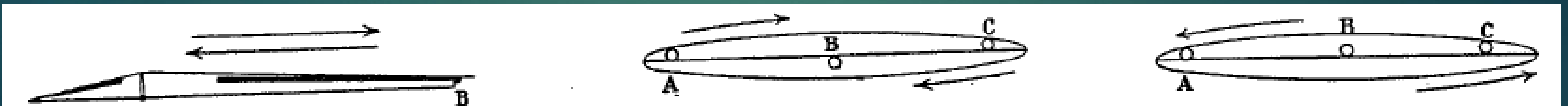
# Particular bow distribution exercises

▶ Parallelism and Division of Bow

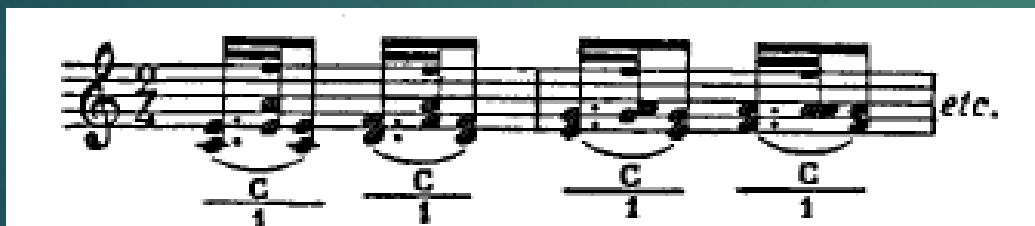
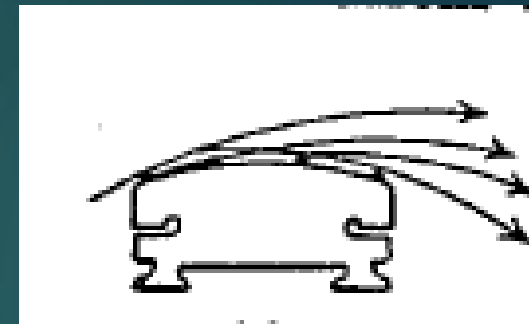
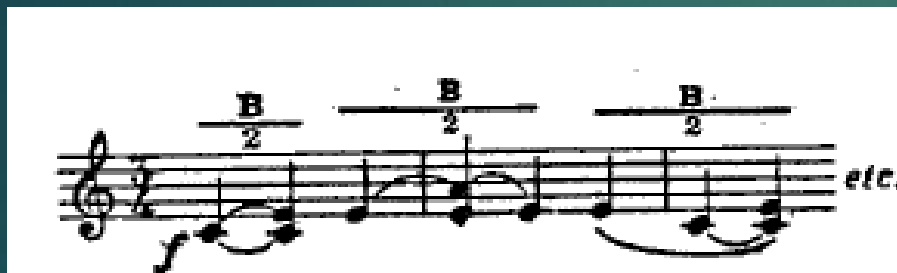


# IV Horizontal movement

“The horizontal movement consists of increasing “ad libitum” the pressure of the bow on the strings, as the 1<sup>st</sup> & 4<sup>th</sup> fingers press on the stick alternately in the direction of the strings- horizontal – and toward the nut, and using the thumb as a central point (fulcrum)... this horizontal movement is present in all bow strokes which call for great strength or great power or penetration. It is this [movement] that generally comes into play at the moment of dynamic nuances” (TSA, 34)



# Exercises for horizontal movement (in B2, C1, C4)



# V Angles in string crossings



Bsp. 1.

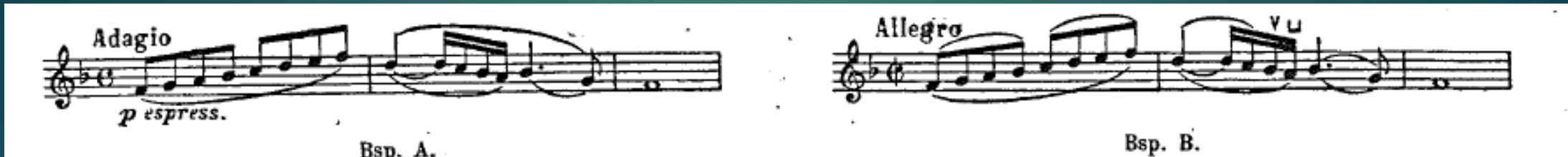


Bsp. 2.



# Tempo/ character


- ▶ Tempo and character determine the nature of articulation/ legato



Two musical staves are shown side-by-side. The left staff is labeled 'Adagio' and 'p espress.' and features a slow, legato melody with long, sweeping lines connecting notes. The right staff is labeled 'Allegro' and features a faster, more rhythmic melody with shorter, more distinct notes and some slurs.

Bsp. A. Bsp. B.

- ▶ Nuanced Detache (energy, decisiveness, characterisation)

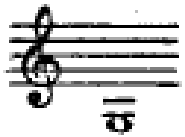


A musical staff labeled 'Allegro' and 'f' (forte) is shown. The melody is fast and rhythmic. Below the staff, there are markings for articulation: 'C' (crescendo) and 'A' (accents) are placed under specific notes. The first 'C' is under a note with a '1' below it, and the second 'C' is under a note with a '4' below it. There are also four 'A' markings under subsequent notes.

Bsp. A.

# VI Contact point

exercises & oscillations of contact point



# Contact point oscillation exercises

123 *Très lent* **ausgehaltene Töne**

*p* *pp*

124 *Très lent*

*pp*

127 *Très lent*

*pp* etc.

128 *Très lent* ... DIE GLEICHE ÜBUNG NOCH LANGSAMER

*pp*

# Balance of the bow in Double Stops (son filé)

“The [vibrato] abused by the majority of violinists, is what most often closes the door to superior aspirations and prevents us from realizing sublime realities, by plunging us into the domain of an inferior illusion. The absence of left hand vibrato requires such purity of technique, such accuracy (of intonation), such noble quality of sound, that to avoid having to surmount these difficulties one wraps the vibrato of the left hand like a cloak, around and aesthetic that is deformed and absolutely imperfect. It is thus necessary to practice intonation without vibrating – under threat of having only very limited control – as well as beauty of sound. Son filé on double stops, without left hand vibrato, will allow us most efficiently to control all our imperfections of sound. One will be able to regulate the penetration of the hair into the strings while taking note of the different Oscillations (changes of string level) according to the intervals that we are about to interpret.. It is well understood that in a **forte** dynamic this meticulous practice will have only relative benefit, as all that will thus transpire is noise. But when it comes to performing a piano passage, it is then that we are able to see the many flaws in our instrumental aesthetic which were hidden by our vibrato and by our effervescent dynamic. (TSA, 37)



# Son Filé

**Très lent**

137 *pp* 1 2 3 4 D 5 6 7 8 etc.

138 1 2 3 4 D 5 6 7 8

The image displays two staves of musical notation for the piece 'Son Filé'. The first staff, numbered 137, begins with a treble clef, a common time signature (C), and a dynamic marking of *pp* (pianissimo). The tempo instruction 'Très lent' is written above the staff. The notation consists of a series of notes, each with a fermata, connected by a long slur. Below the staff, a sequence of numbers 1 through 8 indicates fingerings for each note. A 'D' is placed under the fourth measure, and 'etc.' is written at the end of the staff. The second staff, numbered 138, continues the piece with similar notation and fingerings, also ending with 'etc.'.

# VII Further Tone Exercises

- ▶ Portato (inflexion of bow stick)

Bsp. 1.      Bsp. 2.

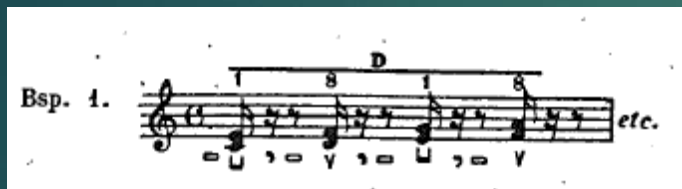
Bsp. 3.      Bsp. 4.

Bsp. 1. — Bogenteil : B<sub>2</sub>.

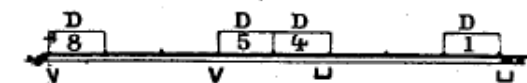
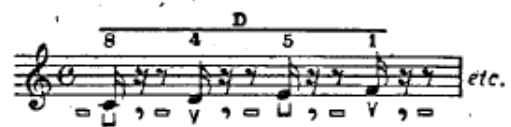
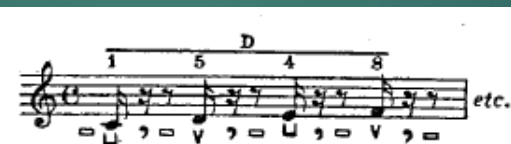
Bsp. 2. — Bogenteil A<sub>1</sub> od. B<sub>2</sub>.

# Bow control

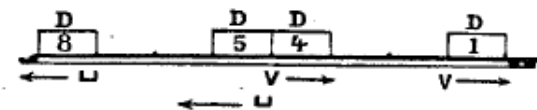
- ▶ Articulation (“grasp”) of the string followed by rapid movement



- ▶ Also (cf. Dounis)

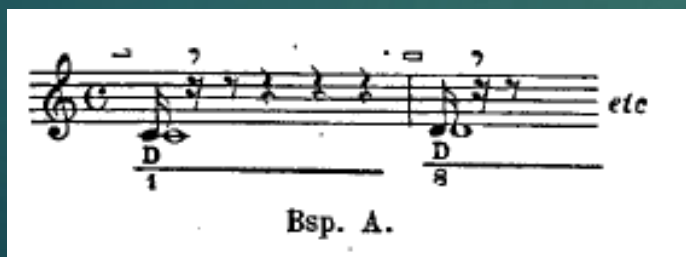


Bsp. 3.



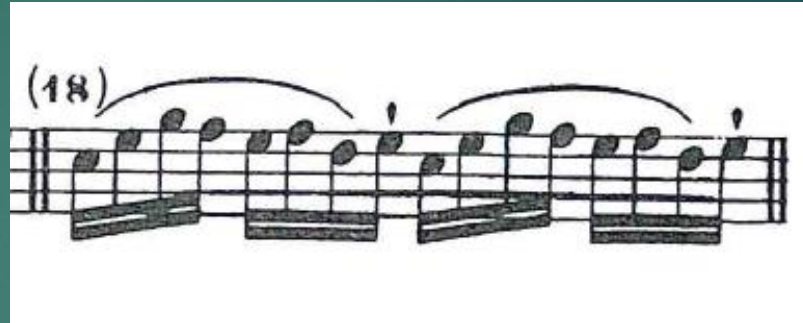
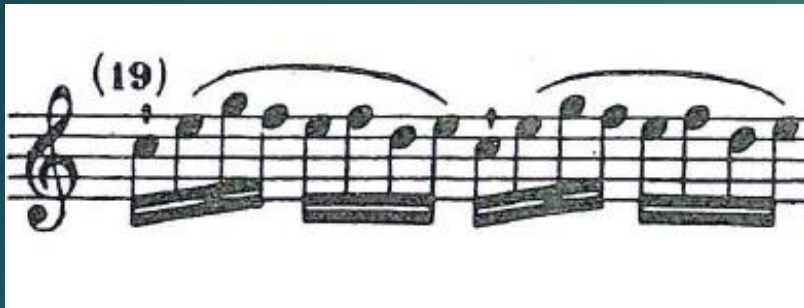
Bsp. 4.

- ▶ Also

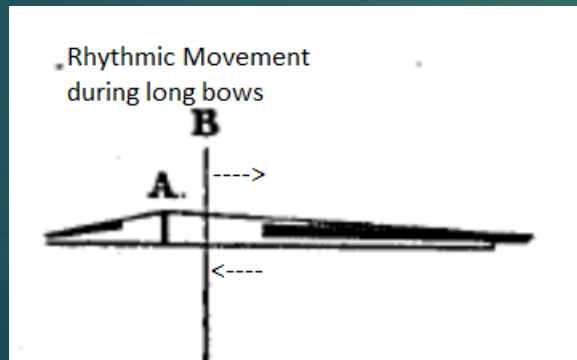


# Contact point & Bow speed

- ▶ Uneven Bow Speed



- ▶ Contact Point Variation



# Nuance (Baillot)

“Nuances, as they are understood today in relation to music, are the different degrees of softness or loudness through which can pass one or more sounds in a note, a melody, a passage, or an entire piece...There is, moreover, one simple way to increase the effect of nuances and contrasts. This is to accustom the ear to soft sounds by making softness and lightness the basis of one’s playing and the paramount principle of one’s performance. In this way, if the ears of the listener are also trained, the nuance captures the soul much better, in return for this restraint, the performer then had that much more power to move the spirit.” (Baillot, AoV, 254-56)

# Sense and feeling

“In this instance we are dealing with Detache and Legato, which in our view present two equally powerful but in their expression two entirely different elements, like water and earth, fluid and solid elements.... And thus can the combination of two entirely contrasting elements lead to marvellous reflections in our mind. In the same way as we can distinguish in our art water and earth it also contains fire and air. A work has its mood, its atmosphere which combines with the deepest expression, its fire. The mutual penetration of these elements creates a vibrant and living work in the deepest depth of the sensuous world. I say sensuous because at this stage only means are considered which are perceived through sense perception. If this perception is deepened it arrives at cognition which allows the world of feeling to illuminate the sensuous world like sunlight the stained glass of a church.” (Capet, TSA, 38)

# Literature

- ▶ L. Capet. *La Technique Superieure de l'Archet*, Paris: Senart, 1916 (German translation in imslp; English translation available)
- ▶ S. Fischer. *Practice – 300 Exercises and Practice Routines*. London: Peters, 2000
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- ▶ P. M. F de Sales Baillot. *The of the Violin (1835)*. Evanston: Northwestern University Press, 2000