

Bowing Skills

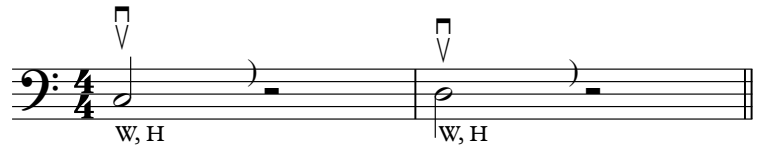
Scott Pingel

The following bow strokes, patterns, and descriptions are intended to help develop a foundation of basic bowing skills. Practice these bowing studies with scales, arpeggios, etudes, or simple patterns in different keys. Begin with a tempo of around ♩ = 66 - 76, unless otherwise noted, increasing the speed and/or rate of left hand note change as each technique becomes more comfortable. Some strokes have speed limits beyond which the mechanics become impractical (such as *martelé* and *spiccato*). Practice everything with broadly different dynamic levels in different contact points relative to the bridge. For further patterns, see *Essentials of Sevcik*, edited by Niel Tarlton, *Strokin'*, by Hal Robinson, or *Kontrabass Bogen Technik*, by Klaus Trumpf.

1. Keep the bow 90-degrees to the string at all times (including the lift), with an even tone throughout the stroke. Use rounded motions with a controlled, relaxed resetting on the string before starting the next note. Each note should begin with a vowel sound and be sustained into a resonant release at the rest.

Practice:

1. Full bows.
2. Half-bows beginning in the middle.
3. "Landing" stroke: simultaneously land and start the note in a rounded motion.



2. Listen to the beginning, middle, and end of each note. Begin each with a vowel sound that is sustained and then slightly tapered into the rests for a musical, resonant release. Very lightly pause the bow on the string during the rests. Match the sound in each bowing direction.

Practice:

1. Full bows.
2. Half bows.



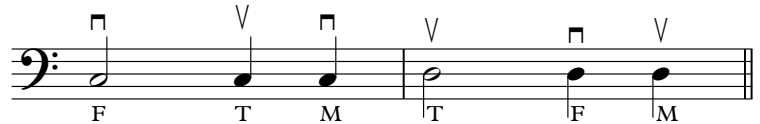
3. *Détaché*: fully connected, non-articulated strokes with an even tone throughout. Listen to the beginning, middle, and end of each note.



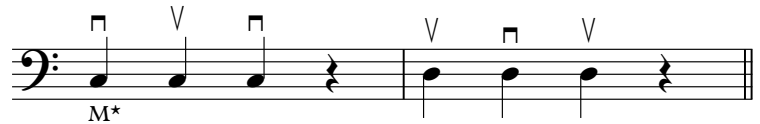
4. *Détaché* using about 1/2 bow at the frog, middle, and tip (M*).



5. *Détaché* using whole bows on the half-notes and half-bows on the quarter-notes that are smooth and connected. Match the sound in each part of the bow.



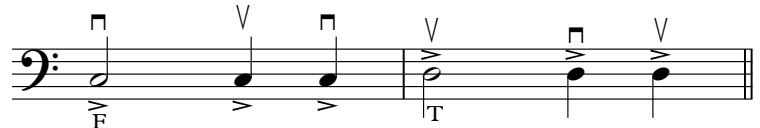
6. *Détaché* using about 1/2 bow at the frog, middle, and tip (M*). Match the sound in each bar. Similar to #2, begin each note with a vowel sound and slightly taper into the rest, ending the note with a resonant sound.



7. *Accented détaché*: each stroke fully connected, but with a firmly consonant articulation. The accentuation is created by increased pressure and speed at the beginning of each note. Match the sound in each part of the bow.



8. *Accented détaché*. Match the sound in each part of the bow.



9. *Détaché secco/staccato*: *staccato* is frequently used as a general term meaning space between the notes, but it can also refer to a bow stroke with light articulation and separation. Begin each note with a light consonance and release the pressure as you pause the bow between notes. Listen for the resonance at the ends. Use about 1/2 bow length at the frog, middle, and tip (M*).



10. *Staccato and détaché*. Match the sound in each part of the bow. Use whole bow with a vowel sound on the half-note connected up to the light consonance at the start of the following *staccato* note.

11. *Martelé*: an on-the-string, strongly articulated *marcato* ("marked") stroke that combines the sharp consonance of *accented détaché* with a space between the notes similar to *staccato*. The sound can be described as a longer, more assertive *staccato*. This stroke is often used to bring a clear emphasis to notes in passages.

Set the bow into the string (not so much as to get stuck) before the note begins, then thrust into motion with a release in pressure. The separation is achieved by this release and then pausing the bow on the string before the next note begins. Match the sound in each part of the bow. There isn't necessarily a standard notation, but sometimes it is marked as shown.

12. *Martelé*. Match the sound in each part of the bow.

13. *Détaché* with uneven bow speed. Using whole bows on each note, the bow speed on the quarter-note will be twice the speed of the half-note. Play with less pressure on the quarter-note to avoid accenting or greatly swelling the tone (the tone will naturally be slightly different). Feel the integration of your body as you push and pull the bow, and leave the bow gently resting on the string during the rest. Also practice with *accented détaché* and *martelé*.

14. *Détaché* with uneven bow speed. Play with a fully connected, resonant sound, controlling the up-bow tone with lighter pressure. Also practice with *accented détaché* and *martelé*.

15. *Détaché* with uneven bow speed. Play with a fully connected, resonant sound, controlling the down-bow tone with lighter pressure. Also practice with *accented détaché* and *martelé*.

♩ = 84

16. With about 1/3 of bow length at the frog, middle, and tip.

17. *Détaché and staccato* with about 1/3 of bow length at the frog, middle and tip.

18. *Détaché and staccato* with about 1/3 of bow length at the frog, middle and tip. Match the sound of each group of notes.

♩ = 96

19. *Détaché*. Use about 1/3 of bow length on the eighth-notes and full bows on the half-notes. Match the sound at each end of the bow.

20. Uneven bow speed, *détaché* and *staccato*. Use whole bow on the quarter and about 1/3 of bow length on the eighth-notes. Match the sound at each end of the bow.

21. Lifted recovery to a pickup. Use about a full bow on the half-note and recover to about mid-bow for the quarter, making the bow speeds about equal. With rounded motions and fluid joints, control the lift and relax the reset, connecting the notes across the barline.

22. Reset quickly to small *détaché* strokes with about 1/3 of hair length.

23. Dotted rhythm with recovery. Connect the eighth note to the following note.

24. Uneven bow speed. Conserve the bow speed on the long note and carry the bow on the up-bows. Sustain with no breaks in the sound. This bowing creates a more vigorous rhythm than hooked bows. Subdivide the 8th-notes for accurate rhythm. Play in the lower-half, middle, and upper-half.

25. "Zig-zag" sustained recovery to the frog. Conserve bow speed/length on the down-bows, then fluidly "zig-zag" your way back to the frog with faster bow speeds and lighter pressure on the up-bows. Use this technique when the music needs to be very sustained with no breaks in the sound.

26. Hooked bow, even speed. Similar to #2, listen to the beginning, middle, and end each note. Use a half-bow for each quarter, pausing lightly on the string during the rest.

27. Hooked bow. Use about 1/3 bow on the quarter-note and about 2/3 bow on the half-note. Connect the half-note to the following quarter. Match the sound in each direction.

28. *Slurred/Hooked Staccato*: Series of even *staccato* strokes linked in the same bow direction. If a sharper articulation is needed, use linked *martelé*. This is an excellent exercise for regulating bow speed and weight distribution. With flexible joints, use 1/4 bow per note and match the sound in each part of the bow.

29. *Slurred/Hooked Staccato* in a smaller subdivision. Listen for evenness of each stroke, using about 1/8th of bow per note, regulating the speed so that the middle of the bar aligns with the middle of the bow. Notice the different positions of your right elbow relative to the bowing plane in different parts of the bow. As you approach the tip, the elbow will naturally pronate from the shoulder to effect weight transfer through the hand and bow. Challenge yourself by playing more notes per bow: 12 using triplets, 16 using 16th-notes, or even up to 32 using 32nd notes!

30. Double-ups. Use about 1/3 to 1/2 bow in the lower half, middle, or upper half. In faster tempi and lighter styles, the up-bows may almost leave the string.

31. Hooked pickup. Subdivide the 8th-notes, and make sure you have enough bow to clearly play the small note.



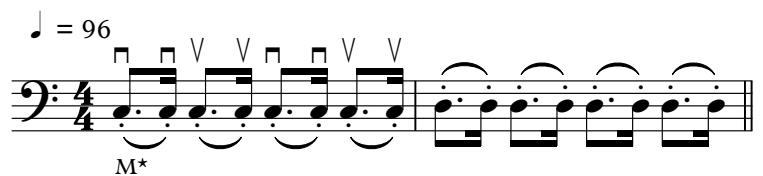
32. Hooked bows. The amount of articulation and space between the notes will always be relative to musical context. Subdivide the 8th-notes for accurate rhythm. Depending on context, this can be played with varied amounts of bow in different parts of the bow, with soft/transparent being easiest in the upper-half of the bow, and loud/powerful easiest in the lower half. Be sure to have enough bow length to clearly articulate the 8th-note.



33. Hooked bowing similar to #30, but a true 6/8 rhythm with a 2:1 ratio between the quarter and eighth. Subdivide 8th-notes for accurate rhythm.



34. Hooked dotted-8th to 16th. Subdivide 16th notes carefully for accurate rhythm. Keep the rhythm "square", avoiding falling into a triplet rhythm. Practice at frog, middle, and tip.



35. "Viotti" style bowing. Stop the bow lightly on the string during the rests, connect over the barline with smooth *détaché*.



36. *Portato/Louré*: similar to *slurred staccato*, except with a pulsing "wah-wah" sound. Slightly slow the speed of the bow and lighten the pressure between the notes to create mild, resonant distinction. Keep the string spinning. This stroke is also a very important technique for hiding or "masking" unwanted left hand shifting sounds during a legato. Also practice with 8th-note subdivision, keeping a sense of lightness and flexibility in your fingers and wrist as you float through the pulsing strokes.



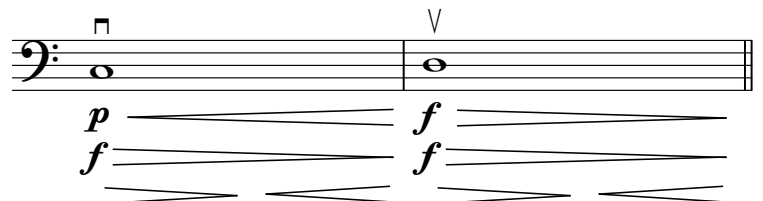
37. *Détaché porté* ("carried *détaché*") mimics the sound of *portato* using separate bow strokes. This stroke is useful in music such as some Baroque bass lines that need a gentle, rounded separation between notes. It can be played in any part of the bow, but is generally easiest in the lower half to middle. Experiment switching between the two, making their sound indistinguishable.



38. Using *portato/louré* to study dynamics. Maintaining a consistent contact point for each note, use bow speed to increase the dynamic, with very little bow for the *pianissimo*, increasing up to about a half-bow for the *forte*.

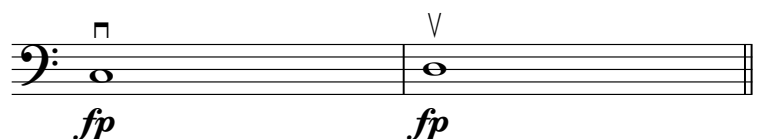


39. Dynamic patterns. Practice these dynamic patterns and their opposites, as well as playing continuous *pianissimo flautando* and sustained *fortissimo*.



Apply these dynamic patterns to other bowing variations as well.

40. *Forte-piano* is not necessarily an accent, but a dynamic effect. Use about a half-bow for the *forte*, about a quarter-note in duration, then slow the speed and lighten the pressure for the rest of the note. Match the down-bow and up-bow, and also use *portato* to study the bow distribution (use about a half-bow for the *forte*).



41. Repeated down-bows and up-bows near the frog. Make a circular motion with the hand as you execute this stroke.

42. *Collé/Piqué* stroke. There isn't much agreement on the use of these terms. *Collé* means "glued" and *piqué* means "picked", so start with the bow "glued" on the string, similar to the start of *martelé*, and "pick" it off the string, releasing the string into motion, like "pizzicato" with the bow. Sometimes referred to as the "take-off" stroke.

Control the bow while lifting, then place it on the string before the next note. Match the sound at the frog and tip and manage the resonance with the left hand. For another challenge, practice with up-bow near the frog and down-bow near the tip.

43. *Collé* recovery. Play a long stroke on the half-note into a short *collé* stroke, out of which carry the bow parallel to the bridge back to the frog.

You can lightly pre-set the down-bow, or use a "landing" stroke. The "landing" stroke and *collé* are opposites as the former goes from "off to on", and the latter goes from "on to off" the string.

The *collé* recovery is very helpful in the last movement of Brahms Symphony No. 1 after Letter K, where there are three legato eighth notes followed by one short eighth note.

44. *Collé* to the tip. After the release of the *collé* down-bow, carry the bow out to the tip and control the reset/landing on the string, avoiding any "jittering". Sustain the whole bow up to the start of the next *collé* stroke.

45. Beethoven Symphony No. 7 rhythm. Played typically in the lower half where releases and landings are easier to control. Hooked down-bows on the dotted rhythm, followed by a small, low to the string *collé* recovery to where the down-bow started, landing simultaneously into the start of the next stroke. Subdivide the 8th-notes to always have a 6/8 feel, avoiding falling into a duple rhythmic pattern. The sound should be like the word "Amsterdam" with a long "A" at the beginning.

In some contexts, such as slower tempi, this rhythmic pattern might be played with a "z-bowling" (below), named for the z-shaped path created by playing it "as it comes". The bow speeds are more even, creating more evenness and sustain, but it tends to have less rhythmic drive.

46. The other Beethoven Symphony No. 7 rhythm. The difference from #45 is the rest between the first two notes, making the first note shorter and changing the feel of the grouping. Think of this as "the big pig", with "pig" on the beat. Oink, oink!

47. "Shoe shine" bowing. A kind of "galloping" rhythm typically played in the lower half of the bow. Mechanically, this can be played faster than the hooked bowing of #34, typically above $\text{♩} = 120$. The fourth movement of Berlioz Symphony Fantastique and the last movement of Schubert Symphony No. 9 are two examples of this stroke in the repertoire.

48. *Brush stroke (brossé)*. An "off-the-string" stroke that begins and ends above the string. This is often considered to be a kind of *spiccato*, but is differentiated by the controlled, carried motion, rather than the "drop-bounce" of typical *spiccato*. Played near the frog, the trajectory is a low "u-shaped" pattern that creates a rounded articulation, enables longer length, and has a resonant release. There isn't necessarily a notation for this as it is relative to musical/stylistic context. This stroke can range from quite powerful and heavy to very elegant and light. An example of the brush stroke in an excerpt would be Mozart Symphony No. 40, mvt. I.

49. Hybrid *brush stroke*. Sometimes referred to as an "onff" bowing, which is a hybrid of "on-the-string" and "off-the-string". In this stroke, the bow "scrubs" the string in a similar motion to the *brush stroke*, but the hair doesn't actually leave the string. It is used in loud, fast passages, such as the trio from Beethoven Symphony No. 5 when played at a faster tempo.

$\text{♩} = 63 - 88$

50. The "scoop" stroke. The name coined by my buddy Joe Conyers, it is the perfect description of how to get the sound of *sforzando*. Starting from the string, accelerate the bow speed as you simultaneously "scoop" into the string. The pressure pattern is light-heavy-light and the speed is slow-fast. If you press too much into the string before it is already moving, you will get stuck and likely get a "thud" or "pop" sound. A great example of the use of this stroke is at letter E in Brahms Symphony No. 2. Practice in all parts of the bow, though most commonly it is played near the frog on down-bows.

51. Sustained "scoop" stroke. After the fast bow speed of the "scoop" into the string, slow the bow in order to sustain. A *sforzando* is not a dynamic, but an articulation that is relative to the dynamic. Match the sound ends of the bow.

The term *sforzando* is a contraction of the Italian words "subito" and "forzando", together meaning "suddenly with force".

52. *Ricochet* (sometimes used interchangeably with *jeté*) is a series of controlled bounced *spiccato* strokes in the same direction. It can serve as an excellent study for bouncing the bow and developing *spiccato* technique, which we will do here. Simply drop the bow with flat hair onto the string in the middle area, letting it bounce as your arm travels in each direction. You can let it bounce as many times as you like, but here we will use three.

$\text{♩} = 72$

The right elbow will be slightly lower than for typical *détaché* (allowing a freer bounce). The whole arm should be relaxed, and the index finger (French bow) or thumb (German bow) should be passive on the bounce. The sound and trajectory will be more consonant and angular than *brush stroke*.

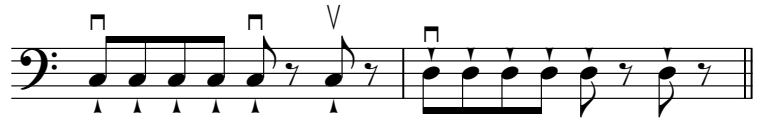
53. *Ricochet* with two bounces per direction. The trajectory of the bow bounce should be "w-shaped" in each direction of travel.

54. *Spiccato*. An "off-the-string" stroke that begins and ends above the string and uses the natural spring of the stick create articulation and release. Drop the bow onto the string between the balance point and the middle, letting it bounce once in each direction of travel. Trajectory should be "v-shaped".

The faster the rate of *spiccato*, the closer to the middle of the bow it should be played. Additionally, lighter, softer *spiccato* will be played nearer to the middle.

The speed limit for *spiccato* is typically about $\text{♩} = 120$, playing sixteenth notes, beyond which one would switch to *sautillé* to achieve a similar sound. Use flat hair for more consonant articulation and quicker release, and tilted hair for a more rounded sound. There isn't a standard notation for *spiccato*, but it is typically used for passages that require lightness, articulation, and separation.

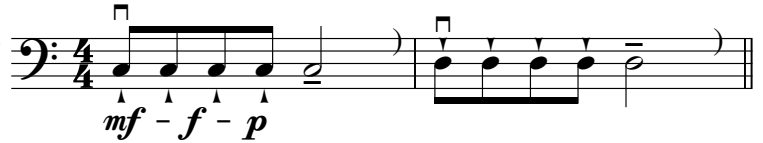
55. *Spiccato*. Follow through on the last note of the bar to set up the first note of the next bar.



56. *Spiccato*. Match the sound in each direction.



57. *Spiccato* and landing. When coming out of a *spiccato* stroke into a sustained note, the challenge is to cease the vertical energy so that there is no "jittering" in the sound. In order to do this, the last *spiccato* note should have a lower trajectory on the release to reduce the vertical distance, and when landing on the long stroke, tilt the bow slightly away from the bridge.



58. Long note followed by a *spiccato* pickup. Play a long down bow, recover into an up-bow *spiccato* stroke in the lower-half of the bow, then land directly into the next down bow.



59. Long note followed by a *spiccato* pickup in a 6/8 rhythm. This pattern can be found in the Marcia section of Beethoven Symphony No. 9, mvt. IV.



60. Long note followed by two "flying staccato" strokes, or *staccato volante*. Similar to *ricochet*, these are two or more bounced strokes in the same direction. Play the quarter as long as possible, then lift the bow into two up-bow *spiccato* strokes, then land directly into the down-bow quarter.



61. Long note followed by a *collé* recovery into a *spiccato*. The first note of a *spiccato* passage that follows a long stroke is often played "from the string". This serves to maintain the length of the long note while setting-up the *spiccato*. Try to match the sound of the eighth-notes.



62. Similar to #61.



63. The "William Tell" stroke. One of the most famous bowing patterns of all time, this combines two down-bow *ricochet* strokes with one up-bow *spiccato*.



64. *Sautillé*: "jumping" stroke played between the balance point and the middle area of the bow that sounds "off-the-string", but is executed essentially "on-the-string" (another "onff" bowing). It is actually closer to *détaché* and *martelé* than it is to *spiccato*. The vertical "jumping" in the stick creates articulation and separation.

To achieve *sautillé*, begin with small *détaché* strokes into the string around the middle of the bow. Gradually get faster, making the strokes smaller, and introduce more vertical energy into the stroke with a small clockwise elliptical motion from the arm or wrist, oblique to the bowing plane. The stick will naturally want to jump from its own weight and elasticity, though sometimes additional pressure from the hand may be needed. It is very important to practice this stroke in a broad range of dynamics.

Two of the most crucial *sautillé* excerpts are the last movement of Mozart Symphony No. 35 and Smetana's Overture to the Bartered Bride.

♩ = 132

mf - f - pp

61. Alternating *sautillé* and *détaché*. This is an excellent way to study the relationship between the two strokes and to achieve better control of *sautillé*.

sautillé *détaché* *sautillé* *détaché*

mf - f - pp

62. Alternating *sautillé* and *spiccato*

sautillé *spiccato* *sautillé* *spiccato*

63. Alternating *sautillé* and *détaché*.

sautillé 6 6 *détaché*

mf - f - pp