



A PARADIGM SHIFT: Starting Position Work in Fourth Position



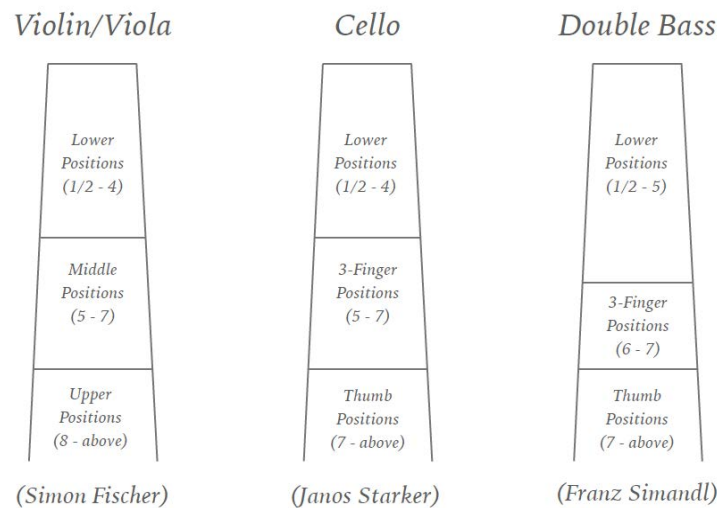
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Defining the Positions

Best practice labels the positions as follows. Our goal is to teach the lower positions starting in IV position and working backwards. Although it is important to understand where the positions are, skilled cellists and bassists typically do not think in positions as they become too cumbersome.



Why IV position?

- Cellists and bassists use the heel as an anchor point; violinists and violists use the bout (shoulder).
- I and IV positions outline the other lower positions (½, II, and III).
- Violins and violas must be able to play in IV position just as well as III position.
- Cellists and bassists need IV position when violinists and violists play in III position.
- From IV position, bassists can learn the pivot into V position.
- Similar to I position, IV position fits tonal pattern nos. 1 and 2 for violins/violas (e.g., 12-3-4; 1-23-4).
- IV position provides access to the 3rd and 2nd (middle/octave) harmonic.

Hand Shape in IV position

Violin/Viola

- The hand contacts the bout of the violin and “replaces the index finger in forming the second point of contact.” (Galamin, 1962)
- The side of the index finger and its metacarpophalangeal (base knuckle) joint may separate slightly from the instrument but not to the extent of the hand in V position.
- The shape of the fingers when contacting the fingerboard remains the same as in I position.
- The spacing between the fingers decreases proportionally.

Cello/Bass:

- The thumb contacts the heel of the cello and bass.
- The hand shape remains the same as I position.
- The spacing between the fingers decreases proportionally.
- The thumb is positioned closer to first finger, given the thumb's contact with the heel.
- There are two types of bass necks: 1) D neck (IV) and 2) E-flat neck (V).



How do we teach the IV position?

1. Shifting to the 2nd harmonic (middle harmonic)

- This has been best practice throughout the 20th century (Bornoff/Rolland).
- Teaches students to relax the hand and thumb in preparation for shifting.
- Violinists and violists should learn 3rd and 4th finger; cellists and bassists use 3rd finger.
- See Bornoff's Patterns in Position (Section 1) for a comprehensive collection of exercises.



Exercises shifting to 2nd Harmonic (from Bornoff's Patterns in Position: Section 1)
[Cellos & Bases play the harmonic with 3rd finger]

Three staves of musical notation for cello/bass exercises. The first two staves are in 4/4 time, and the third is in 3/4 time. Fingerings are indicated by numbers 1-4 above notes.

2. Finding IV Position

Step 1: Setting the Aural Expectation

E A E Har. A
 Tutti 1 0 1 (Slide) 1

Step 3: Initiating the Silent Shift

E Rest A
 Tutti 1 - 1

Step 2: Initiating Thumb Movement

E E Har. A
 Tutti 1 1 (Slide) 1

Step 4: Self-Evaluating with Open A

E A A
 Tutti 1 - 1 0

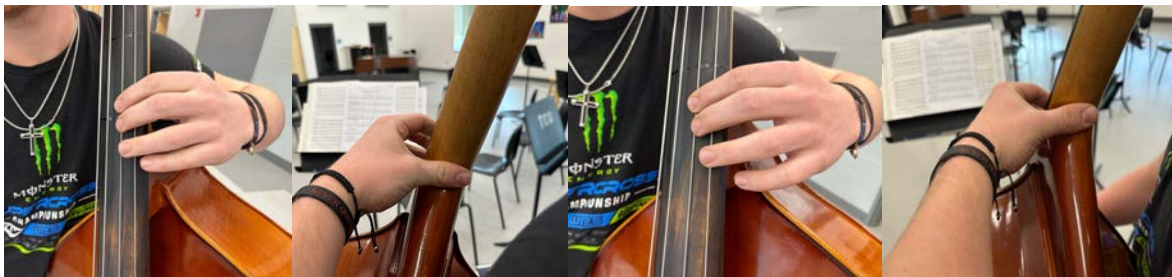
3. Teaching the Bass Pivot

Step 1: Finger Exchange

Step 2: Play the 1/2 Steps

Step 3: Pivot to 4
 (same for pivot to 2nd finger)

A single staff of musical notation in bass clef showing fingerings (1, 2, 1, 4) and positions (IV, V) for a pivot exercise.



a. Hand before pivot

b. Thumb before pivot

c. Hand after pivot

d. Thumb after pivot

4. Getting Familiar with IV Position

- Practice only tonal patterns no. 1 (hWW) and 2 (WhW) in IV position on each string by rote and follow up with note reading.
 - Pattern no. 3 (WWh) requires extensions in IV position and should be taught after students feel comfortable with the first two patterns. Pattern no. 4 (WWW) requires cellists to play V extended position and bassists to play VI position.
- Play tetrachords with rhythmic variations, modal “Marys” in IV position and on each string
- Play “Snake Charmer” (aka “Kradoudja”) and “Sakura”

The image displays a musical score for a string quartet, divided into two systems. The first system focuses on the C and G strings, while the second system focuses on the D, A, and E strings. The score is written for Violin, Viola, Cello, and Contrabass.

System 1: C String and G String

- C String:** Shows a hWW pattern (half-whole-whole) across four strings. Fingerings are indicated as 1, 2, 3, 4.
- G String:** Shows a hWW pattern across four strings. Fingerings are indicated as 1, 2, 3, 4.
- Violin:** Rests.
- Viola:** Rests.
- Cello:** Rests.
- Contrabass:** Rests.

System 2: D String, A String, and E String

- D String:** Shows a hWW pattern across four strings. Fingerings are indicated as 1, 2, 3, 4.
- A String:** Shows a hWW pattern across four strings. Fingerings are indicated as 1, 2, 3, 4.
- E String:** Shows a hWW pattern across four strings. Fingerings are indicated as 1, 2, 3, 4.
- Violin:** Rests.
- Viola:** Rests.
- Cello:** Rests.
- Contrabass:** Rests.

The score includes detailed fingering and bowing indications for each string, such as slurs and accents, to guide the student's practice.

WhW

C String **G String**

Violin

Viola

Cello

Contrabass

D String **A String** **E String**

Vln.

Vla.

Vc.

Cb.

5. Shifting Drills Between I and IV position

The musical score consists of three systems, each with four staves (Violin, Viola, Cello, Double Bass) in 4/4 time. Exercises A, B, and C are in the first system; D, E, and F in the second; and G, H, and I in the third. Fingerings are indicated by numbers above or below notes. Exercise G includes rests with grace notes.

Key

(perform each exercise on all four strings)

- A. Shift from open string to 1st finger in IV position and check 1st finger with the open string.
- B. Practice the shift of a perfect 4th from 1 to 1 on each string.
- C. Practice the shift of a perfect 4th from 2 to 2 on each string (3 to 3 for cello; 4 to 4 for bass).
- D. Combine the 1st and 2nd finger shift in IV position.
- E. Combine the 1st and 2nd finger shift in IV position with faster pitch changes.
- F. An inversion of exercise 'E'.
- G. Practice the new-finger shift. Set the guide finger (grace note) during the rest.
- H. Practice the new-finger shift. Use the guide finger from exercise 'G' to find the new fingered pitch.
- I. Another exercise to practice the new-finger shift. Use the guide finger from exercise 'G' to find the new fingered pitch.

6. Connecting IV and III position

The score consists of seven systems, each with four staves (Violin, Viola, Cello, Contrabass). Each system is labeled with a letter in a box (A-G) and contains musical notation with fingerings and bowings.

- System A:** Labeled 'A' and 'IV'. Time signature 4/4. Violin: 1 0 | 1 2 | 1 -2 | 1 -2. Viola: 1 0 | 1 2 | 1 -2 | 1 -2. Cello: 1 0 | 1 2 | 1 -3 | 1 -3. Contrabass: 1 0 | 1 2 | 1 -4 | 1 -4. Section ends with a double bar line.
- System B:** Labeled 'B' and 'IV'. Time signature 4/4. Violin: -1 -1 | -1 -1. Viola: -1 -1 | -1 -1. Cello: -1 -1 | -1 -1. Contrabass: -1 -1 0 | -1 -1 0. Section ends with a double bar line.
- System C:** Labeled 'C' and 'III'. Time signature 4/4. Violin: 1 2 | 3 2 | 2 2 | 0. Viola: 1 2 | 3 2 | 2 2 | 0. Cello: 1 3 | 4 3 | 0. Contrabass: 1 -2 | 4 -4 | 0. Section ends with a double bar line.
- System D:** Labeled 'D' and 'III'. Time signature 4/4. Violin: 1 2 | 3 2 | 2 2 | 0. Viola: 1 2 | 3 2 | 2 2 | 0. Cello: 1 3 | 4 3 | 0. Contrabass: 1 -2 | 4 -4 | 0. Section ends with a double bar line.
- System E:** Labeled 'E' and 'III'. Time signature 4/4. Violin: 1 2 | 3 2 | 2 2 | 0. Viola: 1 2 | 3 2 | 2 2 | 0. Cello: 1 3 | 4 3 | 0. Contrabass: 1 -2 | 4 -4 | 0. Section ends with a double bar line.
- System F:** Labeled 'F' and 'III'. Time signature 4/4. Violin: 1 2 | 3 2 | 2 2 | 0. Viola: 1 2 | 3 2 | 2 2 | 0. Cello: x1 2 | 4 2 | x1 0. Contrabass: U III 1 -1 | 4 -4 | 1 0. Section ends with a double bar line.
- System G:** Labeled 'G' and 'III'. Time signature 4/4. Violin: 1 2 | 3 2 | 2 2 | 0. Viola: 1 2 | 3 2 | 2 2 | 0. Cello: x1 2 | 4 2 | x1 0. Contrabass: 1 -1 | 4 -4 | 1 0. Section ends with a double bar line.

H **I**

J

K

Key

(Practice each exercise on all four strings)

- A. Find IV position and set the aural expectation for B-flat.
- B. Practice finger replacement between IV and III positions.
- C. Shift from IV to III position and check the 1st finger with the appropriate adjacent string.
- D. Practice playing pitches from the first tonal pattern in III position. Basses shift between III and Upper III positions.
- E. Same concept as 'D' with faster pitch changes.
- F. Practice playing the pitches from tonal pattern nos. 1 and 2 in III position. Cellists practice in Extended Upper III position. Bassists shift between III and IV positions.
- G. Same concept as 'F' with faster pitch changes.
- H. Violins and violas stay in III position; cellists shift between III and IV position; bassists shift between III and V positions.
- I. Same concept as 'H' with a different tonal pattern.
- J. Practice shifting between III to IV position and playing the harmonic in the first tonal pattern. Vln/Vla shift on ½ step. Bassists shift between III and V positions and the harmonic.
- K. Same concept as 'J' with a different tonal pattern.

7. Practice more advanced shifting

Extending the technique

- Shifting from a lower to a higher finger in IV and III position
- Move to different strings (cycle form)
- Shift to different fingers (must adjust for cello/bass)
- Shifting to new finger on a new string
- Move on to second position

Scan for access to the “Paradigm Shift” presentation



Thank you for coming!