BEAUTIFUL BOW ARMS

Essentials for Tone Development in Orchestra

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Overview

This session will address foundational skills that contribute to excellent tone quality. Pedagogical strategies for tone production will be addressed, including posture, body movement, bow hold, bow arm motion, intermediate bow strokes and bowing uniformity.

The information I present in this session can be found in my book *The Art of String Teaching, Second Edition*, newly published and available from GIA Publications.

Videos from this presentation and many additional pedagogical videos can be viewed at: **https://www.youtube.com/user/stringtechnique/videos**

Posture and Instrument Position

- Never stop addressing the foundations that tone is built upon—posture and instrument position
- See checklists at the end of this handout for assessing posture and instrument position and address common issues

Role of the Fingers in the Bow Hold

- Helping students who are still struggling with a flexible bow hold
- The main issues are:
  - Thumb tip not touching stick
  - Thumb not bent correctly
  - Thumb squeezing
  - Incorrect contact points for index, middle, and ring fingers
  - Tension in the pinkie
  - Fingers too spread out
- All of these issues will affect the bow arm motion
- Ideas for addressing the issues
  - Draw contact point line on the hand
  - Form bow hold on pencil or straw
  - Teach students where their middle and ring fingertips should touch the frog

    - Use imagery and stories – fingers should have "thin windows" between them; fingers are friends, glum thumb vs. happy thumb; touch the bunny's nose to your nose
    - Check the thumb muscle to make sure it is loose
    - Doctor the frog with tape, tubing, frog covering, pinkie house, etc.
    - Hold bow at balance point
    - Cue word reminders for pinkies and thumbs before playing
- Play the teeter totter game to learn the roles of fingers in different parts of the bow
- Middle to tip and middle to frog bow strokes for developing tone and learning the role of fingers
- Helicopter with resistance game for added balance in the bow hold

Refinement of Bow Arm Motion

- Shadow bowing—introduce this to beginners, but can also be used as physical therapy with older students to help with correct bow arm motion. The tube forces students to open from elbow and flex the wrist.
- Address common issues
    - Raised shoulder—inflate and deflate the shoulder balloon – pump it up to 10, then slowly deflate to 1
    - Raised elbow—inflate and deflate; elbow magnet in the ceiling, move magnet to the floor; let elbow float
    - Flexion and extension of wrist—practice the motion away from the bow and instrument; short bow strokes in different parts of the bow; slurred staccato (four short bow strokes down, four short bow strokes up
- Engage the back muscles
- Isolate the right arm! No left hand, just do it on open strings.

Principles of Body Movement When Bowing

- All sound on stringed instruments is produced through bodily movement—it therefore follows that if there are problems with the movements, there will probably be problems with the sound.
- Unilateral movements—body and bow move in the same direction

- Bilateral movements—body moves in the opposite direction of the bow stroke
- Daily bowing warm-ups to promote fluid bow arm motions, free from tension
- Synchronize breathing to enhance tone quality precision and expression—inhale on up bow and exhale on down bow

Learning to Manipulate the Bowing Variables: Placement, Angle, Weight, and Speed (PAWS)

- Bowing lanes (1 through 5)
- Adjust weight (10-1)
- Adjust speed (miles per hour)
- Seven bowing angles
- Warm-ups for altering one of the bowing variables while keeping the other two constant
    - Change weight while keeping speed and bow placement constant—long bows over a metronome, e.g., half notes at 60 bpm from frog to tip. Start with weight at 10 (or 11-total crunch). Do a down and up at 10, then down and up at 9, etc. all the way down and back up.
    - Change speed while keeping weight and bow placement constant—slurred staccato countdown, always go from frog to tip. 10 staccato down bows, 9 staccato up bows, 8 down, 7 up, etc. This can also be done with sustained bow strokes with a metronome
    - Changing bowing lane while keeping speed and weight constant. Start in bowing lane 1 and move towards the bridge on a downbow to make a crescendo. Start in bowing lane 4 and move towards the fingerboard on an upbow to diminuendo.
    - Try these warm-up exercises on all the strings
- When students are comfortable with altering the bowing variables they can experiment with altering two or three bowing variables at the same time

Improving the Martelé Bow Stroke

- Use of collé—very short bow stroke initiated by flexing the fingers.
- Adding weight into the string before beginning the bow stroke while retaining flexibility in bow hand.

- Bow wiggle
- Releasing pressure immediately after the attack (e.g., weight going from an 8 to a 4, or a 7 to a 1)
- Practice slowly! Bring the bow to a complete stop before starting the next note. Put into a rhythmic pulse with four parts-1)weight, 2) wiggle, 3) pow, 4) stop.

Improving the Spiccato Bow Stroke

- Three approaches for improving
  - Holding the bow at the balance point
  - Bow drops and lifts
  - Starting with short strokes from the string
- Refinement using bow tilt
- Consistent contact point between hair and string

Bowing Uniformity in the Orchestra

- Everyone playing in the same part of the bow, with the same articulation, contact point, and amount of bow
- Uniform bow releases and recovery
- Uneven bowing rhythms—the approach that will be used will depend on tempo, style and interpretation
- Stay low on the bow
- Length and space
- Be in the right part of the bow for what you are playing
- Be in the right part of the bow for what comes next
- Different styles of music require different approaches to tone production
- More bow is not always the best solution, especially for the low strings
  - "Use as much bow as you need to make it sound good, but no more." —*Stuart Sankey* (1927–2000)
- "The things we address in rehearsal tend to improve. The things we don't address tend not to improve." —*H. Robert Reynolds*

Checklist to assess violin and viola posture and instrument position

Standing posture

_____ Lengthened posture - standing tall
_____ Feet shoulder width apart in a "V" shape
_____ A little bend in the knees
_____ Weight balanced between feet

Sitting posture

_____ Knees even with or below hips
_____ Feet under knees
_____ Sitting near front of chair
_____ Able to stand directly from sitting position

Instrument position

_____ The end of the violin rests on the collarbone.
_____ Scroll is level with the body of the instrument.
_____ The head is upright and slightly turned to the left with the neck lengthened and relaxed.
_____ Nose, scroll, elbow, toe, all in a row.

Checklist to assess cello posture and instrument position

Basic posture

_____ Knees even with or below hips
_____ Feet under knees
_____ Floating head
_____ Back and neck are straight (not twisted or bent)
_____ Relaxed, even shoulders
_____ Sitting tall near front of chair

Instrument position

_____ C-peg behind and below ear. Able to look left and right without hitting peg.
_____ Lower bout corners should be around knee level with kneecaps visible.
_____ Scroll should contact chin when student stands with cello.

Checklist to assess double bass posture and instrument position

Standing posture

_____ Lengthened posture—standing tall
_____ Relaxed shoulders
_____ Feet shoulder width apart
_____ A little bend in the knees
_____ Weight balanced between feet

Sitting posture

_____ Sitting tall
_____ Left leg on rung of stool
_____ Right leg on floor
_____ Stool height is aligned with bottom of back pants pocket

Standing instrument position

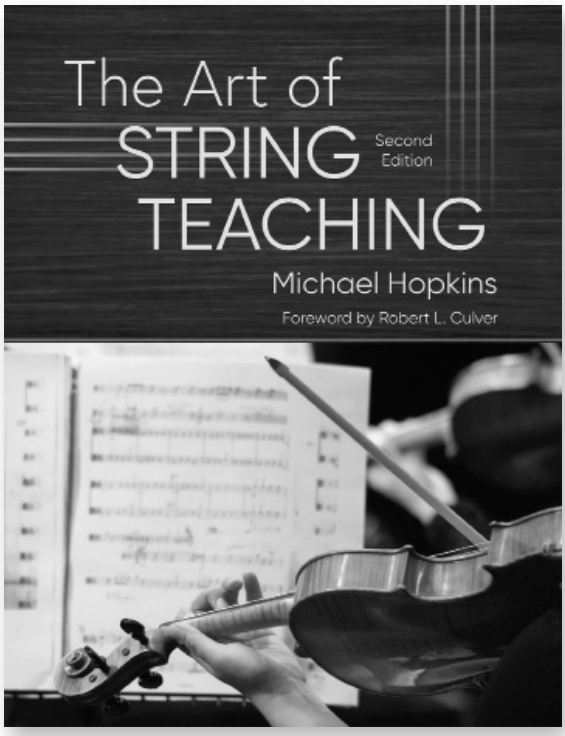
_____ Bridge of the bass is on the same plane with the knuckles of the student's right hand.
_____ The seam that connects the upper right bout to the back of the double bass contacts the student's body near the waist and groin region.
_____ The left leg should be slightly behind the instrument.
_____ Bass balances against body and is not held up by left thumb.

Sitting instrument position

_____ Body of the instrument rests against the student's left leg.
_____ The upper right back of the instrument makes contact with the student's torso.
_____ The nut is slightly above and behind the left ear.
_____ Student's nose is approximately above the right foot of the bridge.

The Art of String Teaching (Second Edition)

Michael Hopkins



The Art of String Teaching—a hybrid of written text and high-quality online videos—is a comprehensive string pedagogy resource covering everything from the origins and history of the string family to advanced-level string techniques.

This one-of-a-kind resource begins with two chapters that provide an overview of the orchestral strings. In Chapter 3 Hopkins describes his philosophical approach to string education and provides a curricular model for string instruction. Chapters 4 and 5 provide a detailed description of foundational pedagogy for strings, and Chapters 6 and 7 contain information for helping beginners develop skills and musicianship.

Chapters 8 through 12 focus on intermediate- and advanced-level instruction, touching on such topics as left-hand shifting, vibrato, bowing techniques, tuning skills, improvisation and composition, and music listening, among others. The two concluding chapters offer insights on rehearsing and how to run a successful orchestra program. QR codes throughout the book link to online video demonstrations of string techniques.

The online appendices contain an abundance of practical and convenient teacher resources, including repertoire for beginning string classes, worksheets, flashcards, scales and arpeggios, a template for method book analysis, and sample assessments and rubrics.

This book serves as a useful reference guide for professional orchestra conductors, teachers of group string classes, and private studio teachers. It also addresses the needs of students whose primary instrument is not strings and is suited for use in a string techniques or pedagogy course at the college level.

Michael Hopkins is Professor of Music Education at the University of Michigan in Ann Arbor. In addition to serving as a guest conductor at string festivals across the country, he has given many presentations at state and national conferences on various topics related to string education and music technology. He has composed or arranged over 90 published works for orchestra, and has published articles in a number of the most notable music and education journals.

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