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Cello Teaching Methods: An Analysis and Application of Pedagogical Literature

A supporting document submitted in partial satisfaction of the
requirements for the degree Doctor of Musical Arts
in Music

by

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ABSTRACT

Cello Teaching Methods: An Analysis and Application of Pedagogical Literature

by

Chenoa Kellyanne Orme-Stone

The purpose of this document is to study prominent and influential literature on cello pedagogy and combine the most useful aspects of each method along with additional research and my personal experience to create a comprehensive new teaching method. Investigative research spans from the earliest cello treatises of the eighteenth century to publications from the last decade. The new teaching method includes the position of the body while holding the instrument, left hand fundamentals, bow arm fundamentals, intonation, shifting, bow strokes, vibrato, and musical expression for beginning to advanced cello technique with an emphasis on the vital beginning foundation. Additionally, I will present a catalog of cello etudes/studies and repertoire, as well as discuss matters related to practicing and the student-teacher relationship.

Similar to the art of music performance, the art of teaching requires dedicated study. The study of cello pedagogy is essential for building the next generation of successful cellists. This new teaching method adds to the research and development of instrumental pedagogy essential for the evolution of classical music.

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Introduction

The purpose of this document is to study prominent and influential literature on cello pedagogy and combine the most useful aspects of each method along with additional research and my personal experience to create a comprehensive new teaching method. It is important to clarify that the term ‘literature’ in this context does not refer to musical compositions written for the cello, but rather written publications that discuss cello technique and teaching methods. The following list contains the literature I chose to review for this document in chronological order by publication date, along with a description of why I believe them to be the foremost contributions to cello pedagogical literature.

1. *The Theoretical and Practical Method for Cello* by Michel Corrette. Published in 1741, this book is one of the first major contributions to cello pedagogical literature. Corrette discusses the history of the instrument, how the cello was held, how the bow was held, and how to execute certain techniques that were frequently seen in cello repertoire of the time, such as ornamentation. I used this source to reflect on how cello playing and teaching methods have evolved since the 18th century.

2. *Essay on Fingering the Violoncello and on the Conduct of the Bow* by Jean-Louis Duport. Though Duport is perhaps best known for his *21 Etudes for Violoncello*, he also contributed what is widely accepted as one of the most influential pedagogical works for the instrument.

Originally published in 1806, this work contains discussions about and exercises for a wide range of aspects of cello technique.

3. *Complete Cello Technique: The Classic Treatise on Cello Theory and Practice* by Diran Alexanian. This treatise was originally published in 1922 and was titled *Theoretical and Practical Treatise for the Violoncello*. The edition to which I will refer to in this document was published in 2003 and includes an introduction by David Geber, a member of the Manhattan School of Music faculty, and a preface by Pablo Casals, who is generally regarded as the pre-eminent cellist of the first half of the 20th century. According to David Geber, advances in cello technique “would not have been possible without the modernization of approach to the instrument brought about by Diren Alexanian and Pablo Casals.”¹

3. *How I Play, How I Teach* by Paul Tortelier. Tortelier was a celebrated French cellist who published a book of his teaching methods in 1976. His book includes detailed explanations, musical examples, and photos to illustrate his teaching methods. He also discusses techniques of other respected cellists of his time.

4. *The Art of Cello Playing: A Complete Textbook-Method for Private or Class Instruction* by Louis Potter. Potter was a faculty member at Michigan State University and published his comprehensive textbook and reference manual on cello technique in 1980. This book became

¹ Alexanian, Diran, Pablo Casals, and David Geber. *Complete cello technique: the classic treatise on cello theory and practice*. Courier Corporation, 2003.

widely popular with both cello students and teachers because of Potter's clear and comprehensive explanations.

5. *Cello* by William Pleeth. Pleeth was a prominent British cellist, pedagogue, and faculty member at the Guildhall School of Music and Drama. In 1982, he published a book of his ideas about cello technique and teaching methods. The book includes an introduction by his former student Jacqueline du Pré, who is regarded as one of the greatest cellists of all time.

6. *Cello Technique: Principles and Forms of Movement* by Gerhard Mantel. Mantel was a German cellist who studied with renowned pedagogues Pierre Fournier, Paul Tortelier, and Pablo Casals. In 1995, he published an innovative work that analyses the physics and physiology of playing the cello. This book includes a foreword by legendary cellist Janos Starker, who describes the book as an "obligatory reading" for cellists.²

7. *New Directions in Cello Playing: How to Make Cello Playing Easier and Play Without Pain* by Victor Sazer. Published in 1995, Sazer's extraordinary book on body mechanics uses elements of the Alexander technique to advocate for a natural, tension-free way of playing that prevents performance-related injuries. This book includes a foreword by Paul Katz, a faculty member at the New England Conservatory.

² Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. ix.

8. *Rosindust: Teaching, Learning and Life From a Cellist's Perspective* by Cornelia Watkins.

In 2008, Watkins published her book of practical ways to promote self-awareness, problem-solving skills, and creative thinking. This important contribution to pedagogical literature goes beyond technical discussions and gets to the core of what it means to be a teacher who inspires students. This book is endorsed by such distinguished cellists as Steven Isserlis, Richard Aaron, Hans Jørgen Jensen, Anthony Elliot, and Norman Fischer.

9. *CelloBello* by Paul Katz. CelloBello is a groundbreaking platform that provides an ongoing resource for cello pedagogy. The CelloBello website was founded by Paul Katz and features blog posts and videos about his teaching methods. Additionally, the website provides free content created by renowned cello teachers around the world.

The areas of cello technique I will discuss in this document include the position of the body while holding the instrument, left hand fundamentals, bow arm fundamentals, intonation, shifting, bow strokes, vibrato, and musical expression. I will discuss beginning to advanced cello technique with an emphasis on the vital beginning foundation. These discussions assume the reader has prior knowledge of the instrument and musical terminology. Additionally, I will present a catalog of cello etudes/studies and repertoire, as well as discuss matters related to practicing and the student-teacher relationship. The following chapters are generally arranged in the order I believe each technique should be introduced to students.

Introducing the Student to the Cello

The primary objective of the first lesson is to captivate and inspire the student. In his book *Cello*, William Pleeth states, “From the beginning the child must be allowed to see that playing an instrument and making music are much more related to the things that are lovely in life, not the duties of life.”³ Whether the student is an adult beginner or a young child, it is important to establish a musical purpose before beginning the study of technique.

If the student has never taken a music class, I have found it beneficial to engage in activities that foster an appreciation for music. Examples of this include playing for the student or listening to recordings, discussing how different sounds on the cello can depict various moods and emotions, reacting to music with motion and dance, finding the beat of the music by clapping and stomping, and singing notes and melodies together. These kinds of activities can also provide the opportunity to get to know the student’s temperament and musical abilities.

When introducing the student to the cello, I fascinate the student with the various parts of the instrument and its accessories by explaining of what they are made and their purpose. This is also an ideal time to explain the fragile parts of the instrument, such as how to take out the endpin and why we don’t touch the bow hair. If the student is a young child, it is also important to involve the parents in learning how to take care of the instrument so they are able to help the child at home.

³ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 199.

Holding the Cello

There is no one-size-fits-all way to hold a cello because everyone's body is different. When I first began teaching, I tried setting students up with a position of the instrument that mirrored my own. Some students would struggle with the peg interfering with their posture, while others experienced discomfort caused by the edges of one of the c-bouts digging into the side of the leg. Because students will likely be shorter, taller, or proportioned differently than the teacher, it is important to be open-minded to a position of the cello that may be different from the way one holds one's own instrument. It is best to experiment with students to assist in finding the most comfortable way for them to hold the cello while maintaining a healthy postural alignment.

Postural Alignment

Postural alignment is the position of all the joints and limbs of the body at any given moment.⁴ Having the correct chair height is essential for efficient postural alignment. The optimal height of a chair is when the player is able to sit with his or her knees slightly below the hips.⁵ This means that most children will need to acquire a small or adjustable chair for playing cello. Taller players may also need to acquire a taller chair in order to sit comfortably. In Victor Sazer's book *New Directions in Cello Playing: How to Make Cello Playing Easier and Play Without Pain*, he recommends using a wedge-shaped cushion to elevate the hips, as

⁴ Sweigard, Lulu E. *Human Movement Potential: Its Ideokinetic Facilitation*. Allegro Editions, 1974, p. 173.

⁵ Sazer, Victor. *New directions in cello playing: how to make cello playing easier and play without pain*. Ofnote, 1995, p. 60.

“a seat that slopes backward is the worst hazard of all to a cellist’s back,”⁶ resulting in lower back pain.

Have the student sit on the edge of the seat without leaning on the backrest. The spine does not need a backrest while standing, so there is no reason why it should need support when we are seated. A healthy spine is perfectly designed to support the trunk as long as the feet and legs provide a base of support. I have had many students who struggle to keep their feet planted, especially while playing difficult passages of a piece. I have found that instructing students to play a piece or passage solely focused on feeling balanced and grounded to the floor is an effective way to improve postural alignment.

An aspect of postural alignment that is important for students to understand is that it is a dynamic activity rather than a static position of the body. Our nerves and muscles constantly need to adjust themselves because our center of gravity is always in motion. Therefore, instructing a student to hold him or herself in one position may actually be counterproductive. I have found that instructing students to hold their heads with “good postural alignment” can cause the neck to become stiff with tension. Instead, I use a method presented in *Human Movement Potential: Its Ideokinetic Facilitation* by Lulu Sweigard in which she suggests thinking of postural alignment as the way our energies are projected into space, similar to the way an instrument projects its sound into a concert hall. The concept of directing energies, or the ideation of movement without muscular effort has been proven to

⁶ Sazer, Victor. *New directions in cello playing: how to make cello playing easier and play without pain*. Ofnote, 1995, p. 62.

be an effective way to improve postural alignment.⁷ Directing energies upward can allow one to have good posture alignment without losing the ability to move freely.

The orientation of the head is particularly important because it affects the behavior and coordination of the entire body. For example, I once had a student who was struggling to reach a high shift. I noticed that as he moved his hand to the end of the fingerboard, his head followed the motion of his arm. I asked him to imagine that the top of his head was being pulled up gently by a string or was a helium balloon floating up toward the sky. The upward direction of energy helped lift his chest and align his neck and spine. Furthermore, this reduced the tension in his left arm so that he was able to reach the high note with ease.

Sazer suggests another helpful method which he calls “the Breath Test” to determine whether a player is seated in a balanced position with good postural alignment. He explains that if one is seated in an unbalanced position or has tension anywhere in one’s body, “it becomes impossible to take a full, deep breath.”⁸ To take a full, deep breath, start by placing a hand on the abdomen. Breathe in slowly through the nose and feel the abdomen swell under the hand. Pause for a second or two and breathe out through the mouth. I have tried using this tool throughout the process of finding a playing position to help students feel balanced and tension-free. I found that young children were not always able to tell whether a change of position affected their breath. However, more mature students seeking a more comfortable position of the instrument have found the exercise to be informative.

⁷ Sweigard, Lulu E. *Human Movement Potential: Its Ideokinetic Facilitation*. Allegro Editions, 1974, p. 232.

⁸ Sazer, Victor. *New directions in cello playing: how to make cello playing easier and play without pain*. Ofnote, 1995, p. 24.

Position of the Instrument

The first step in finding a comfortable position of the instrument is to determine the length of the student's endpin. It may take a few tries before finding a position in which the scroll does not interfere with the student's head and neck position. I have found that the length of the endpin often continues to evolve as a student advances. For example, some of my students prefer to have a longer endpin in order to utilize the natural pull of gravity on the bow, while others prefer to have a shorter endpin in order to hold the cello closer to the body.

The position of the cello against the body is either square (facing straight ahead) or angled slightly to the right (strings turned to meet the bow), as shown in Figure 1. I personally find that a relatively square position feels more balanced and provides the best ease of playing across all four strings. In his book *How I Play, How I Teach*, Paul Tortelier similarly describes that the cello should “face straight ahead.”⁹ However, in *The Art of Cello Playing: A Complete Textbook-Method for Private or Class Instruction*, Louis Potter asserts that the cello should be angled to the right in order to “assure maximum playing comfort for the two outside strings (A and C) without having to readjust the position of the instrument between the knees when playing from one string to another.”¹⁰ Pleeth also expresses this sentiment and argues that holding the cello in a square position feels “disadvantageous because the angle of the bow to the strings is already less direct.”¹¹ This shows that the most comfortable position for one cellist may not be the same for another. Rather than assigning

⁹ Tortelier, Paul, Maud Tortelier, and Rudolf Caspar Baumberger. *How I play, how I teach*. Chester Music, 1976, p. 14.

¹⁰ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 11.

¹¹ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 147.

either a square or angled position of the instrument, I have found that it is most advantageous to allow students to assess which position they personally feel the most comfortable.

Whether the student feels more comfortable with the cello in a square position or an angled position, the body of the cello must always remain connected to the student's left leg. Support from the left leg is essential because the neck of the cello is positioned on the left side of the player's body. Support from the right leg is nonessential, so students may prefer to leave a small amount of space between the right leg and the cello, as shown in Figure 2.

Figure 1: Angle of the cello



Square Position



Angled Position

Figure 2: Placement of the cello on the left side of the body



In Jean-Louis Duport's seminal work on cello technique *Essay on the Fingering of the Violoncello and on the Conduct of the Bow*, he advocates for this off-center position of the cello. Duport states, "the weight of the cello is carried at the side of the left leg."¹² Before delving into my research, I had assumed that this position of the cello was more favorable in the Baroque and Classical eras than in the present day. Interestingly, this position is also advocated for in Sazer's 1995 publication. Sazer makes this compelling argument for leaving space between cello and right leg:

Placing your cello on the left side of your body with your right leg well away from the side of your instrument provides the best alignment. Your body is balanced and flexible and all your playing motions are fully supported. You can access all regions of your cello without slouching, twisting, or leaning forward. You may feel as if you are semi-standing when you sit this way.¹³

I personally prefer to support the cello between both of my legs because this position provides a greater sense of balance and security. When I first encountered a student who carried the weight of the cello on the right side of the body, I had her experiment with supporting the cello between both legs. The student observed that it became more difficult for her to relax the adductor muscles of the hip when the cello was connected to both legs. Pleeth explains that the tension created by squeezing the body of the cello between the legs "spreads upwards and causes tension in the muscles of the upper body."¹⁴ Though most of my students are able to support the cello between both legs without excess tension, leaving space between

¹² Duport, Jean Louis. *Essay on Fingering the Violoncello, and on the Conduct of the Bow*. Augener Limited, 1904, p. 4.

¹³ Sazer, Victor. *New directions in cello playing: how to make cello playing easier and play without pain*. Ofnote, 1995, p. 83.

¹⁴ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 148.

the cello and left leg may help students who struggle with pressing unnecessarily into the sides of the instrument.

Experimenting with variables such as the length of the endpin, position of the cello, and placement of the feet can also be enlightening for an advanced student who is struggling with postural alignment and ease in playing. For example, something as simple as moving the feet forward or back or repositioning the endpin can have an appreciable effect on postural alignment, as well as the projection of the instrument.

Plucking

The easiest way to produce a sound on the cello is by plucking the open strings. I have found this to be the best way to allow beginners to explore the instrument without having to learn the complexities of the bow hold and left hand technique. To teach students how to pluck the instrument, I place their right thumb on the side of the fingerboard a few inches from the end of the fingerboard. Then I demonstrate how to pluck the string with both the index and middle fingers. Encouraging students to sing the pitch and/or say the letter name of the string while plucking can help them memorize the notes of the open strings.

Once the student is acquainted with plucking, I show him or her how to play a simple melody using open strings (e.g. Figure 3). I start by plucking one measure at a time and have the student repeat the notes back to me. This exercise is beneficial because it helps develop the student's ear and working memory skills.

Figure 3: Simple melody using open strings



Left Hand Fundamentals

The basic principles of the left arm and hand position are an elevated elbow, neutral (straight) wrist, rounded fingers, and a soft thumb. Using imagery can be a helpful way to describe the position of the left arm and hand to beginning students who have never felt the sensation of placing their fingers on the string. For example, I use the ‘coat hanger’ method, which is presented in *Rosindust: Teaching, Learning and Life From a Cellist's Perspective* by Cornelia Watkins. Watkins describes how this method is used:

Imagine a coat hanger hanging in a closet. Shape your arm like that hanger, with the fingers as the hook, and the forearm creating the left half of the “shoulder”...Try hanging this shape on the cello now. Experiment with adding weight to the hanger - working your way up to a heavy wool coat. Feel it weighing down on the forearm, and feel how the raised elbow supports the weight from underneath.”¹⁵

This method is beneficial because it not only illustrates the position of the arm and hand, but also teaches students two important aspects of technique: 1) the weight of the arm pulls the fingers down onto the string, and 2) the thumb should not squeeze the neck of the cello. This is important to establish early on, as I have encountered many students who struggle with clamping down the fingers. Excess tension in the fingers makes fine tuning, shifting, and vibrato extremely difficult and may even result in an injury if prolonged over time.

¹⁵ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 62.

Releasing the Fingers and Thumb

Pleeth states, “One is usually taught as a general principle when learning the cello to hold the fingers down...Teachers too often forget to tell students when to *stop* holding their fingers down.”¹⁶ He explains that a “feeling of release” is needed in order to keep the hand from becoming fatigued.¹⁷ This means that fingers that are not in use must be released in order to prevent a build up of tension. For example, when the second finger is placed down on the string, the first finger can soften.

The concept of releasing the fingers when they are not in use may be easy for students to understand, but is often difficult to execute. Watkins explains, “One of the most challenging aspects of learning to play the cello is discovering how to disassociate sets of muscles that habitually act together, so that one group can be activated while others stay relaxed.”¹⁸ While working with a former student on combating a build up of tension in his hand during a difficult passage, we quickly realized that he was not able to focus on the challenging passage and releasing his fingers at the same time. Instead, I asked him to play scales and arpeggios at a very slow tempo, which gave him the opportunity to strip away the dozens of other variables he would otherwise encounter in his piece. This allowed him to focus solely on releasing his fingers and over time lead to his execution of the difficult passage without a build up of tension.

¹⁶ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 162.

¹⁷ Pleeth, *Cello*, 23.

¹⁸ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 62.

When it comes to the thumb, it is important to differentiate between counterpressure and tension. In his book *Cello Technique: Principles and Forms of Movement*, Gerhard Mantel states, “Pressure and counterpressure correspond to the basic grasping movement of the hand. There is no reason to eliminate [the thumb’s] natural counterpressure.”¹⁹ The natural counterpressure from the thumb helps stabilize the hand as the fingers move up and down on the fingerboard. However, this counterpressure can easily turn into tension if the thumb does not release.

Sazer points out that “unlike a violin or viola...playing the cello does not require constant contact with the thumb.”²⁰ The most effective method I’ve tried for eliminating thumb tension is to have the student practice with the thumb removed from the neck altogether. Freeing the thumb immediately reduces tension in the arm and hand. Additionally, I have determined that freeing the thumb can also help loosen a student’s tight vibrato.

Because of one’s instinctive urge to grip the neck of the cello, I have found that most students benefit more from focusing on releasing tension than strengthening the fingers. “A loose hand is stronger than a tight one,” says renowned cellist and pedagogue Paul Katz.²¹ Using any more force than necessary when placing the fingers down on the string is a waste of energy. Additionally, Sazer points out that cellists often press harder with the fingers when trying to play louder even though this has no effect on volume.²²

¹⁹ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 71.

²⁰ Sazer, Victor. *New directions in cello playing: how to make cello playing easier and play without pain*. Ofnote, 1995, p. 120.

²¹ Katz, Paul. “Eliminate Left Hand Tension (Part 2).” CelloBello, www.cellobello.org/cello-lessons/left-hand/eliminate-left-hand-tension-part-2.

²² Sazer, *New directions in cello playing: how to make cello playing easier and play without pain*, 146.

Orientation of the Arm, Hand, and Fingers

Mantel states, “In fluent playing, the entire left arm is continually in motion in order to support the changing action of the fingers.”²³ I have discerned that the orientation of the arm changes by 1) raising and lowering the elbow, and 2) rotating the forearm in order to change the angle at which the fingers meet the string. The elbow, and thus the arm, is free to move up and down as the fingers change positions on the fingerboard or cross to different strings. Rotating the forearm allows the hand to alternate between a square (boxed) position and a slanted (sloped) position.

According to Potter, a square position is when the fingers are placed onto the fingerboard at a 90 degree angle (fingers perpendicular to the fingerboard), as shown in Figure 4.²⁴ Pleeth defines a slanted position as when the arm is rotated counterclockwise so that the fingers and fingerboard form an acute angle, as shown in Figure 5.²⁵

²³ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 85.

²⁴ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 15.

²⁵ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 159.

Figure 4: Square finger position



Figure 5: Slanted finger position



I have experienced many instances where the square hand position is favorable, such as when executing fast passages. Additionally, the square position may provide a greater sense of security, especially for beginners. I have also experienced many instances where the slanted hand position is favorable, as in extensions and vibrato. Pleeth also points out that a slanted hand position is beneficial because “the differences in various finger lengths have been evened up and each finger is given an equal degree of independence.”²⁶ Therefore, there is no reason to restrict students to one of the two hand positions.

Encouraging a dynamic approach allows students to find the most comfortable orientation of the arm for every finger, position, or passage. Another reason I have found a dynamic approach to be beneficial is that it allows for motion and fluidity in the hand. The additional motion helps prevent the hand position from becoming static, which ultimately helps release excess tension.

Thumb Placement

Potter describes the ideal placement of the thumb as “against about the middle of the neck on the instrument, opposite the second finger,”²⁷ as shown in Figure 6. This is generally the most comfortable position of the thumb for most of my students. However, I have encountered certain situations, namely extensions, in which the thumb feels more comfortable positioned higher or lower on the neck. Therefore, like the orientation of the arm, the placement of the thumb on the back of the cello’s neck does not need to be fixed.

²⁶ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 159.

²⁷ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 15.

Mantel agrees with this sentiment and explains that the placement of the thumb may change in different positions, but usually becomes less comfortable as it moves toward the fourth finger.²⁸ As long as the thumb remains soft, it can be placed wherever it feels the most comfortable along the cello's neck.

Figure 6: Placement of the thumb on the back of the cello's neck



²⁸ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 71.

Extended Position

A common misconception students have about extended position is that it is a shift. Rather, extended position is when the fingers stretch to reach a larger interval while the hand remains in the same position. Pleeth states, “The hand should move as easily and effortlessly as the opening of a fan.”²⁹ This ease of movement is only possible if the orientation of the entire arm and hand accommodates the fingers. The arm may rotate or move forward or back to propel the hand and fingers. The fingers may straighten so that the finger pad is placed on the string at a different angle. The thumb will often remain in place to ensure that the extension does not become a shift, but Potter suggests that the thumb may also move along the back of the neck to avoid a “forced, cramped stretch.”³⁰ Additionally, Sazer argues that the thumb may release from the neck altogether to make the stretch more comfortable.³¹ I have had helped students solve issues executing passages in extended position by using one or a combination of these various accommodations.

Thumb Position

There is no reason to wait until a student has mastered all of the lower positions on the instrument to introduce thumb position. Many of my students who encountered thumb position for the first time when it appeared in their advanced etudes and repertoire have felt overwhelmed by the level of difficulty. I now introduce all of my students to thumb position

²⁹ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 168.

³⁰ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 78.

³¹ Sazer, Victor. *New directions in cello playing: how to make cello playing easier and play without pain*. Ofnote, 1995, p. 152.

at an early stage of study. Figure 7 shows a an example of a simple melody in thumb position that is suitable for beginners. Rick Mooney’s *Thumb Position for Cello, Book 1* includes melodies that are familiar to most cellists, as well as accompaniment parts that can be played by the teacher.

Figure 7: “French Folk Song” from Rick Mooney’s *Thumb Position for Cello, Book 1* ³²



³² Mooney, Rick. *Thumb position for cello*. Alfred Music Publishing, 1999, p. 6.

To prepare the hand for thumb position, Potter recommends this method:

Make a firm fist with the left hand, but with the thumb extended out straight. This prepares the arch of the hand, so important for good finger position and action...Next open the fist, bringing the fingers into playing position over the D string, being sure not let the arch of the hand collapse as the fingers are pressed to the string and fingerboard.³³

This method helps students maintain the same hand shape as is used in the lower positions, that is, with rounded fingers and a straight wrist. Katz explains that the wrist should be flat because “bending your wrist creates tension in your hand and limits finger dexterity.”³⁴ While experimenting with Potter’s thumb position method, I discovered an extra step that makes the exercise even more effective. Rather than starting in thumb position, I have my students make a fist and place the hand in first position. Then slide the fist along the strings from first position to thumb position. This will show the student the natural disposition of the elbow to remain elevated with the wrist unbent.

I have found the most favorable location for introducing the use of the thumb position is at the half-string harmonics. Potter describes why he also believes this location is ideal:

(1) These correspond directly with the open strings, since the pitch is one octave higher. (2) The player, at seventh position, has arrived at the area of maximum reach of the hand around the instrument without bringing the thumb up on the fingerboard.³⁵

A further benefit to introducing thumb position on the half-string harmonics is that students will be less inclined to hold the thumb down on the fingerboard when it is not in use.

³³ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 184.

³⁴ Katz, Paul. “Shifting: In and Out of Thumb Position.” CelloBello, www.cellobello.org/cello-lessons/left-hand/shifting-in-and-out-of-thumb-position.

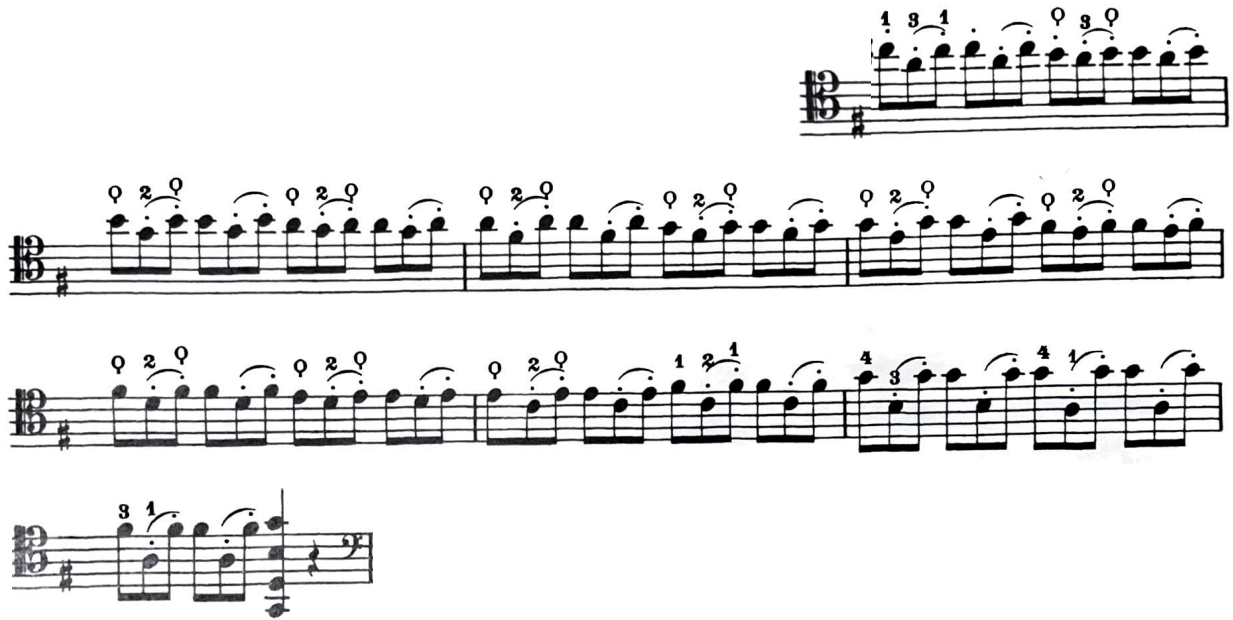
³⁵ Potter, *The art of cello playing: A complete textbook-method for private or class instruction*, 183.

The thumb will often become fatigued in thumb position, especially if the student has yet to build strength in the flexor pollicis brevis, which is the muscle in the hand that flexes the thumb. Like the rest of the fingers, the thumb must release in order to avoid becoming fatigued. However, unlike the rest of the fingers, it is beneficial for the thumb to remain gently connected to the string even when it remains released.

One of the most common reasons I see students struggle with intonation and shifting in high positions is due to having a “hitchhiker thumb,” or a thumb that is lifted high above the string. Furthermore, Potter argues, “It is necessary when shifting in the thumb positions that the thumb and hand move together as one single, compact unit. The thumb should not “lag” behind the rest of the hand in shifting.”³⁶ I have discerned that keeping the thumb in position and connected to the fingerboard helps students improve intonation and feel more secure in high positions. Students can use scales, arpeggios, and etudes that incorporate thumb position in various locations on the fingerboard, such as Etude No. 6 from Duport’s *21 Etudes for the Violoncello* (Figure 8), to work on an undesirable “hitchhiker thumb.”

³⁶ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 188.

Figure 8: Excerpt of Etude No. 6 from Duport's *21 Etudes for the Violoncello*³⁷



Mapping out the Fingerboard

In addition to learning left hand technique, it is essential that students become well acquainted with the map of the fingerboard. Because most method books begin solely in first position on the cello, I use elements of the Colourstrings method, which advocates for introducing natural harmonics before first position.³⁸ Natural harmonics allow new students to explore all areas of the fingerboard without having to master the complexities of fine tuning. For example, I teach my students simple melodies using harmonics, similar to the open strings melody in Figure 3 (p. 13).

³⁷ Duport, Jean-Louis. *21 Etudes for the Violoncello*. Alfred Music, 1998, p. 20.

³⁸ Szilvay, Csaba. *Colourstrings: Cello ABC, Book A*, Fennica Gehrman, 2007, p. 7.

I have encountered many students who are able to learn a piece by ear with no real understanding of the notes they are playing or positions they are in. It is the teacher's responsibility to ensure that the student is knowledgeable about the notes in each position on the fingerboard and how the notes and positions relate to one another. Pleeth says, "From the start cellists should explore the fingerboard in a way that makes them thoroughly conversant with the location of every note and the many different pathways by which that note can be reached."³⁹ A method I use to help students strengthen their knowledge of the fingerboard is to encourage them to try multiple fingering options or even come up with their own fingering ideas.

³⁹ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 169.

Bow Arm Fundamentals

For many students, developing a balanced and flexible bow hold is one of the most challenging aspects of learning how to play the instrument. Potter states, “The left hand and bow should not be used together until each has been developed separately to a point where the student will be able to combine the two with a reasonable degree of control.”⁴⁰ Once students are knowledgeable about left hand technique, I introduce the use of the bow on open strings.

Holding the Bow

Rather than replicate his or her own bow hold, the teacher’s objective should be to discover a bow hold that is natural to the individuality of the student’s hand. In Diran Alexanian’s book *Complete Cello Technique: The Classic Treatise on Cello Theory and Practice*, he states:

I am convinced that in the bow-technique nothing concerning the [bow hold] can be absolute, and that if all the artists formed by the same teacher have a slightly personal ‘manner’ this has originated in the dissemblance of their physical aptitudes.⁴¹

In order to help students develop their own “personal manner” of holding the bow, I start by determining the neutral position of the student’s hand. Alexanian suggests this preparatory movement of the right arm: “The arm hanging by the side of the body, the

⁴⁰ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 22.

⁴¹ Alexanian, Diran, Pablo Casals, and David Geber. *Complete cello technique: the classic treatise on cello theory and practice*. Courier Corporation, 2003, p. 10.

forearm should be raised perpendicularly, and in such a way that its extremity will be a little to the left of the line of the elbow.”⁴² I call this step the “sleeping hand” to help students understand that the hand should hang completely relaxed from a bent wrist. Having the student shake out the hand can help release any excess tension. The resulting neutral hand position will establish the natural spacing of the student’s fingers. Potter states, “The fingers when relaxed are naturally somewhat curved and ready to hold the bow.”⁴³

Next, I bring the bow to meet the student’s relaxed hand. Tortelier states, “One generally commits the error of trying to make the beginner ‘grasp’ the bow in order to hold it, whereas in actual fact he only has to ‘drop’ his hand on it in the desired shape”⁴⁴ As the student’s hand is ‘dropped’ on the bow, it is important to ensure that the fingers remain soft and flexible. Watkins states, “The bow is an unfamiliar and awkward object in the hands of new students, so almost all bow hold problems come from the perceived need to hang on tight.”⁴⁵ I have observed that this instinctive urge to grip the bow in order to gain control ultimately results in having the opposite effect. Katz explains, “balance and flexibility give us more bow control than gripping and squeezing; they are essential to mastery of the bow.”⁴⁶

⁴² Alexanian, Diran, Pablo Casals, and David Geber. *Complete cello technique: the classic treatise on cello theory and practice*. Courier Corporation, 2003, p. 14.

⁴³ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 22.

⁴⁴ Tortelier, Paul, Maud Tortelier, and Rudolf Caspar Baumberger. *How I play, how I teach*. Chester Music, 1976, p. 17.

⁴⁵ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 53.

⁴⁶ Katz, Paul. “Bow Hold Principals, Part 1.” CelloBello, www.cellobello.org/cello-lessons/right-hand/bow-hold-principles-part-1/n.

Because of the importance of developing a soft and flexible bow hold from an early stage of study, I have students release the bow as soon as the hand begins to grasp unnecessarily. Then I will begin again from the first step (i.e. the “sleeping hand”). I was once teaching a student who was a young child and having a difficult time refraining from squeezing the bow because of her excitement and eagerness to begin playing. We took the imagery of the sleeping hand a step further by pretending that the bow was also sleeping. Pretending not to “wake the bow” helped her learn how to handle it gently.

Another wonderful use of imagery is Watkins’ description of the hands as a tree frog:

Tree frogs have great long “fingers” with little suction cups at the tips, and imagine you have the same. While supporting the bow with the left hand, drape the fingers of the bow hand over the frog, and let the pads find their places on the frog. Now feel them cling as though they were stuck there with suction cups...Gently wobble the bow hand back and forth to feel how the fingers can cling even when the bow is in motion...Try “flicking water” off your hand, feeling the looseness of the joints while the fingers stick to the bow.⁴⁷

This method helps students understand how to have soft fingers and flexibility in the joints. An aspect of this method that I find particularly useful is having students execute the “flicking water” motion while holding the bow. This motion demonstrates how the fingers can be flexible without dropping the bow. This flexibility is essential for certain bow strokes that will be introduced later on.

While researching literature on cello pedagogy, I came across many different descriptions of where each finger should be placed on the bow. For example, Potter provides this detailed account of where he believes each finger should be placed:

⁴⁷ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 54.

Place the right side of the tip of the curved thumb against the inner end-corner of the bow stick and frog, just where the stick and frog meet. The first joint of the finger (index) finger (counting from the tip of the finger) is now curved over the bow stick at the leather and silver thread (or plastic) bow grip. The fourth (little) finger is then placed against approximately the middle of the frog, its first joint curved slightly over the stick. The third (ring) finger falls in line with the fourth finger, its first and second joints against the frog and stick, usually with the fleshy part of the tip of the finger against the silver mount of the bow. The second (middle) finger falls in line with the first and third fingers, its first and second joints also against the frog and stick, and the fleshy part of its tip usually against the hair of the bow just where the hair joins the silver mound of the frog.⁴⁸

However, the simple fact that each author's descriptions varies suggests that these can not be considered definitive rules. For comparison, I have also illustrated my own points of contact on the bow in Figures 9 and 10. Though I have found it helpful for students who are visual learners to observe my bow hold, it is rare for a student's finger placement to be precisely the same as mine. Because of the differences in shape and size of one's hands, the exact placement of the fingers and thumb on the bow will vary between individuals.

⁴⁸ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 22.

Figure 9: Position of the fingers on the bow



Figure 10: Position of the thumb on the bow



One of the main differences I see between the bow holds of my students is the amount of space between the fingers. For example, some of my students feel more comfortable with the fingers spaced closer together, while others prefer to spread the fingers farther apart. The amount of space between the index and middle fingers poses a particular challenge for cellists. This is because the index finger must transmit most of the weight of the arm into the string while remaining a comfortable distance away from the middle finger.

According to Mantel's research, the "degree of spreading at which the greatest possible pressure is achieved with relatively small energy expenditure...probably occurs when the index finger touches the bow stick at a distance of 5-6 centimeters (2 inches) from the contact point of the thumb."⁴⁹ He came to this conclusion by putting the tip of the bow on a letter scale and pressing firmly on the stick with his index finger. As he spread his index and middle fingers farther apart, the pressure on the scale increased. However, the pressure on the scale ceased to increase beyond a certain degree of spreading.

Increasing the degree of spreading between the index and middle fingers becomes progressively more uncomfortable due to the corresponding increase in muscle activation. Therefore, we can use a student's comfort level as a measurement for finding the degree of spreading in which the energy for the bow is not lost in the energy for the finger.

Another aspect of the bow hold that poses a particular challenge for cellists is the thumb. When it comes to tension in the hand, the thumb is often the main source. According to Katz, tension in the bow hold "blocks agility, sensitivity to touch, and hence, nuance and

⁴⁹ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 156.

color.”⁵⁰ I have discerned that students who struggle the most with tension in the thumb have a tendency to hold the thumb in a locked position. Watkins describes this experiment (Figure 11) to show how a locked position increases tension in the thumb:

Turn the right hand palm up. Flatten the thumb so that it is touching the second finger “pad to pad.” Feel how that position tightens the thumb muscle, even if you don’t squeeze, and how it almost forces the thumb to lock in place.

A further reason the thumb poses a particular challenge for teachers is because it usually lies outside of our direct line of sight. Tortelier states, “The thumb is often forgotten for the simple reason that it hides behind the hand.”⁵¹ To prevent poor technique habits from developing in the thumb, it is important to observe students’ bow holds from all angles.

⁵⁰ Katz, Paul. “Bow Hold Principals, Part 2.” CelloBello, www.cellobello.org/cello-lessons/right-hand/bow-hold-principles-part-2.

⁵¹ Tortelier, Paul, Maud Tortelier, and Rudolf Caspar Baumberger. *How I play, how I teach*. Chester Music, 1976, p. 21.

Figure 11: Locked vs. free thumb



Locked Thumb



Free Thumb

Alternative Bow Hold for Beginners

Many methods, such as the world-renowned Suzuki method, advocate for an early start to music learning.⁵² There are many advantages to this, however, I have encountered many young children who are not mature enough to execute a proper bow hold and understand all of its nuances. In this case, a simpler “beginner bow hold” may be used in order for students to feel the sensation of drawing the bow across the string without resorting to poor technique.

A commonly used beginner bow hold is one in which the thumb is placed on the underside of the frog, as shown in Figure 12. According to Pleeth, this position of the thumb “stabilized the hand on the bow.”⁵³ I have found this to be an effective bow hold because it is easier for beginners to understand and remember.

⁵² Suzuki, Shinichi, and Waltraud Suzuki. *Nurtured by love: The classic approach to talent education*. Alfred Music, 1983, p. 5.

⁵³ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 155.

Figure 12: Beginner bow hold



Movement of the Arm

Once the student's bow hold is established, I help the student place the bow on the string. I have found that placing a hand over the student's or holding onto the edge of the frog is an effective way to guide the student's first bow stroke. This method helps stabilize the student's hand, similar to the way training wheels balance a bicycle. I recommend drawing the bow across the string enough times that the student is able to commit the movement to memory.

It is important to ensure that students have flexibility in their joints as the bow moves from the frog to the tip. Mantel explains, "Since the elbow is lower at the frog than at the tip,

the wrist is flexed volarly at the frog (in the direction perpendicular to the palm) so that the wrist comes up.”⁵⁴ As shown in Figure 13, the wrist must bend as the bow moves toward the tip. This means the arm must also be free to bend at the elbow.

Figure 13: Hand position at the frog vs. at the tip



At the frog



At the tip

⁵⁴ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 174.

Another adjustment the arm must make as the bow moves closer to the tip is the degree in which it is pronated. Mantel explains that as the bow moves closer to the tip, more pronation is required to “achieve balance with the arm weight.”⁵⁵ I describe pronation to students as the motion of the hand when pouring a glass of water. It can be helpful to have the student pretend to pour a glass of water as a preparatory exercise for executing the movement of pronation.

Even after the movement of pronation is mastered, many students find it difficult to play with a straight bow. Pleeth explains, “The view he has from ‘above’ - when he looks down from a playing position - gives him a distorted picture which he eventually has to put in a correct perspective.”⁵⁶ To solve this issue, I have students use a full length mirror to observe the angle of the bow from a different perspective. This helps students develop a better understanding of the sensation of the bow when it is parallel to the bridge.

Another way to help students understand how it feels to play with a straight bow is to have them imagine that the bow is a bicycle’s handlebars. When the bow is on the A string, the angle must be adjusted as if it were a bicycle turning to the left. When the bow is on the C string, the imaginary bicycle must turn to the right. This imagery helps students understand the adjustments that must be made to achieve a straight bow on the outer strings.

It is important to mention that playing with a straight bow does not mean that the arm must move in a straight line. Moving the arm in a straight line actually prohibits preparation

⁵⁵ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 146.

⁵⁶ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 184.

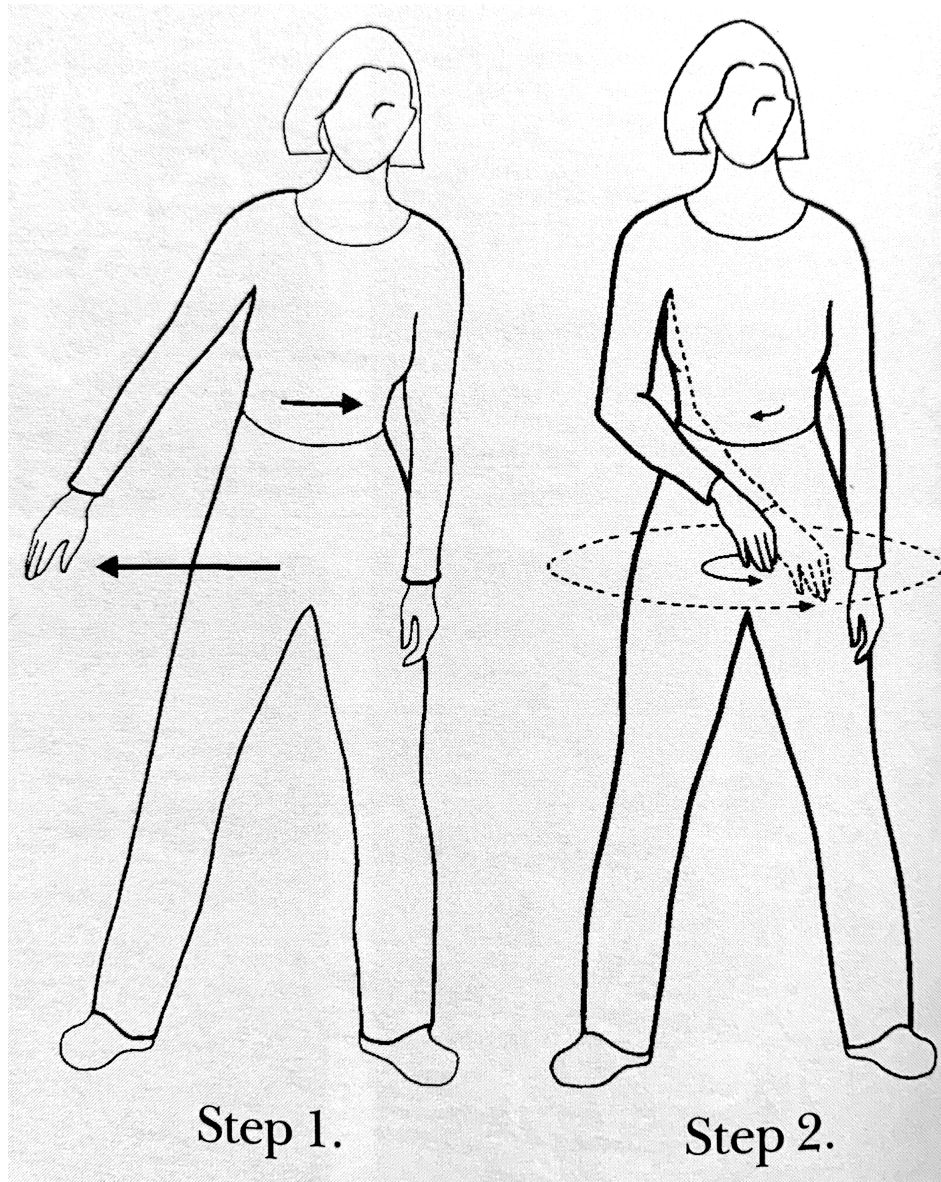
and follow-through motions. Sazer suggests this exercise to illustrate the difference between straight and curved bowing (see Figure 14 on page 39):

Step 1: Simulate vigorous bowing in a straight line. Step 2: Simulate bowing in circles, ovals, spirals, figure eights, and other curved paths. Observations: You feel a jolt at the end of each stroke when you move in straight lines. This occurs when motion in one direction is interrupted to reverse direction. Abrupt stopping forces opposing muscles to contract at the same time, causing tension. Putting on the brakes is more difficult than continuing motion. Abrupt movements can also stress your joints and back...Natural motions are always curved and continuous. They include preparation and follow-through. Preparatory motions preceding bow stroke, shifts, or any other movements break the inertia of being at a standstill. Follow-through completes each motion to avert sudden stops.⁵⁷

Sazer goes on to explain that the arm moves in a counterclockwise circle on a down-bow and a clockwise circle on an up-bow. To illustrate this motion, I use the image of a figure-eight to describe the motion of the bow arm. This imagery helps students avoid tension in the arm and execute smooth bow changes, which are essential for legato bowing.

⁵⁷ Sazer, Victor. *New directions in cello playing: how to make cello playing easier and play without pain*. Ofnote, 1995, p. 93.

Figure 14: Straight vs. curved bowing ⁵⁸



⁵⁸ Sazer, Victor. *New directions in cello playing: how to make cello playing easier and play without pain*. Ofnote, 1995, p. 92.

Sound Production

The amount of sound produced by the instrument is controlled by 1) the amount of pressure placed on the bow, 2) the speed of the bow, and 3) the contact point (distance from the bow to the bridge). In addition to changing the volume, these variables also affect the sound quality. For example, Pleeth describes how adjusting the contact point can provide “the richest variety of colors, textures, and dynamics imaginable.”⁵⁹

Watkins states, “Every cello student needs to discover what it means to have maximum control and freedom while using a minimum amount of physical effort.”⁶⁰ In order to use a minimum amount of physical effort, it is important for students to understand that the pressure exerted onto the bow comes from the weight of the arm. Many students use more physical effort than necessary when trying to achieve more sound. However, if the weight of the arm is used instead of muscular effort, it will actually take more energy to play softly than it does to play loudly. Mantel explains, “The musculature holding up the arm is relieved of the amount of pressure that rests on the string; the louder the sound the more relaxed this musculature will be.”⁶¹

To encourage the use of arm weight in bowing, I use a method described in Shirley Given’s book *Adventures in Violinland, Book 1C: Meet The Bow*. Givens suggests having

⁵⁹ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 58.

⁶⁰ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 51.

⁶¹ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 144.

students imagine that their bows are boats and the strings are the ocean.⁶² I describe a big, heavy ship slowly pulling through the resistance of the water to illustrate drawing a big sound from the instrument. This imagery encourages students to sink their arm weight into the string as they pull the bow. To illustrate playing softly, I describe a little toy boat floating on the surface of the water. This helps students understand that using less arm weight will produce a softer sound.

⁶² Givins, Shirley. *Adventures in Violinland, Book 1C: Meet the Bow*. Arioso Press Publication, 1993, p. 9.

Intonation

To assist beginning string players, I use thin strips of tape to indicate where the fingers should be placed on the fingerboard. This is an effective way to help students with intonation before they have developed ear skills and muscle memory. However, the tapes should not be left on any longer than necessary. Watkins argues, “When students are asked if they are playing in tune, and they have to look to answer, this teaching device is doing students a disservice.”⁶³ Therefore, I take off the tapes as soon as a student demonstrates a development in ear skills, such as the ability to sing a scale or melody, match a sung pitch, or notice when a note has been played incorrectly.

Singing and Listening Exercises

Playing in tune is one of the biggest challenges string players face, so it is important to allow time during lessons to focus solely on intonation. A method I use when students are struggling to play in tune is to have them sing the offending note or passage. Learning how to sing in tune will help students strengthen their ear skills. If a student is finding it difficult to sing in tune, Watkins suggests using this exercise:

Sing a note that is in the range of a student’s voice, and see if he can match it. If this is a challenge, experiment with singing very high and very low pitches, with no concern about whether your voices match. Next, try sirening your voices to discover the pitches between the extremes, using hand gestures to suggest how high or low the notes will be. Gradually work toward sliding into the same pitch together. With most students, this is a five minute, one-time

⁶³ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 77.

exercise - with others it might take weeks, even months of lessons, to refine this skill.⁶⁴

I have found this to be an effective method for teaching students how to match a pitch. I have had students who are able to perfect this skill on their first try, while others take much longer to become proficient. Either way, this exercise can be used as a warm-up or throughout a practice session to teach students how to match a pitch.

Another exercise I use for strengthening ear skills is to have the student adjust an out of tune double stop. I start by playing a unison or octave double stop dreadfully out of tune. Then I slowly slide the pitches closer to being in tune and ask the student to stop me when it is correct. This exercise is easiest with unison notes or octaves against open strings, but can also be done with various other intervals. Practicing this exercise with fifths is particularly beneficial because it helps students learn how to tune their own instruments.

Intermediate and advanced cellists can also benefit from singing and listening exercises. Identifying and singing intervals is an important part of ear training. Because interval ear training can be done without preparation, this is a particularly useful activity to add to the end of a lesson if the student has forgotten a music book or hasn't completed a practice assignment.

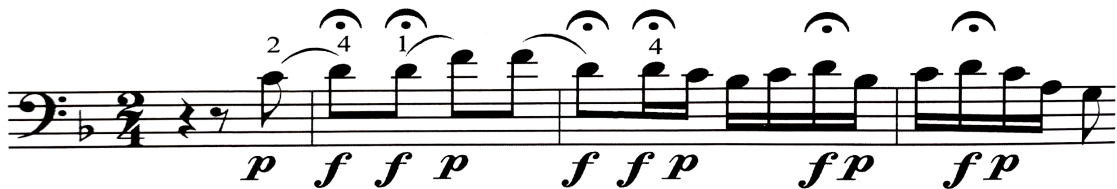
Intonation Practice Techniques

An intonation practice technique that I use for students of all levels is to choose one pitch at a time to focus on, regardless of what finger, position, or string is used to play it.

⁶⁴ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 78.

Watkins refers to this method as “target practice” and demonstrates how this exercise would be used in a passage from *Danse Rustique* by William Henry Squire (Figure 15).⁶⁵ Pausing on the chosen pitch gives students a chance to listen carefully and practice correcting the intonation on their own. Watkins advises against offering too much guidance and states, “The less work you do, the more adept students can become observing and resolving intonation problems.”⁶⁶

Figure 15: Intonation exercise in a passage from *Danse Rustique* by William Henry Squire⁶⁷



I have found using a short passage for this exercise to be the most effective. The idea of pausing on a chosen pitch can also be used to correct a single offending note. After students have completed this exercise, I have them describe the adjustment(s) they made before attempting to play the passage again. For example, if a student has played a note too low, the finger must deliberately be placed higher in order to correct the intonation. If the note is repeatedly played too high or too low, I have the student try to break the pattern with

⁶⁵ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 82.

⁶⁶ Watkins, *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*, 82.

⁶⁷ *Ibid*, 82.

the opposite tendency. For example, I was once working with a student who consistently hit one of her shifts too flat. I told her to try again but to purposefully play the shift too high. While shifting with the intention of hitting the note sharp, she ended up playing it perfectly in tune.

I encourage my advanced students to regularly incorporate double stops and drones into their practice routines. Even beginning students can learn to practice double stops using scales and simple melodies, such as “Amazing Grace” from Rick Mooney’s *Double Stops for Cello* (Figure 16). In situations where an adjacent string is not available (e.g. the pitch does not fit into the key), a drone can be used to help with tuning. Watkins states, “Rather than tuning each note unto itself, a drone offers a stable pitch against which to choose beautiful intonation. The ability to tune dissonances will also be cultivated in the process, since seconds, sevenths, and tritones are bound to occur.”⁶⁸ Drones can be used to practice scales, etudes, and passages from the student’s repertoire.

⁶⁸ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 87.

Figure 16: “Amazing Grace” from Rick Mooney’s *Double Stops for Cello*⁶⁹



In addition to developing ear skills, students must also learn how to build muscle memory. Watkins describes why this important aspect of intonation practice is often forgotten:

A common mistake in intonation study is to play a note out of tune, “fix” it by squirming the finger, and then move on to the next note, on the assumption that this process improves intonation. While on the surface it seems like a good idea to move a finger until it sounds right, consider what practicing this way actually teaches the hand: an inaccurate placement followed by an adjustment. What the hand really needs to know is how to put the finger in the right spot the first time.⁷⁰

I have found that the best way to encourage this type of intonation practice at home is by modeling it in lessons. For example, when a note is played out of tune, I ask the student to pause and determine whether the note is too sharp or too flat. Next, I have the student go back to the previous note and then play the note again with the appropriate adjustment.

⁶⁹ Mooney, Rick. *Double Stops for Cello*, Summy-Birchard Music, 1995, p. 6.

⁷⁰ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 90.

Lastly, I have the student repeat the entire measure or passage to ensure that the note remains corrected.

Shifting

“Shifting is a cellist’s transportation,” says Sazer. “It is the way you get from one place to another along the cello fingerboard.”⁷¹ Like any type of transportation, it is essential that we know our destination. Mantel states, “Conception of sound and place has to precede the actual movement. Conception in this context means anticipation.”⁷² If a student does not know the sound of the note he or she is shifting to, Watkins suggests this clarifying process:

Find a note on the instrument, down an octave if it helps, and play it for a long time - at least long enough that you can hear it from the inside out when you stop. Sing it out loud, and then try singing it in the right octave (teachers can sing with students at first if this helps ease the process). Now play the passage of the shift up until that note, but instead of shifting, insert the voice. Could you sing it, or did the pitch get lost? If the note escaped, find it again and repeat this process until it’s easy to sing that note.⁷³

This method is beneficial because it easily informs the teacher whether the student has a conception of the the note before shifting. In addition to anticipating the sound of the pitch before arriving, the student must also have a clear idea of where the new position is located on the fingerboard. Potter describes the importance of this anticipation in shifting:

You should have the feeling *before arriving* at the new position (no matter what the distance) of just what it will be like to be there. This is psychological, instinctual preparation (“muscle memory”) ahead of the actual

⁷¹ Sazer, Victor. *New directions in cello playing: how to make cello playing easier and play without pain*. Ofnote, 1995, p. 149.

⁷² Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 10.

⁷³ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 68.

execution of the shift (just as when food is raised to the mouth which is not even seen, or when reaching for a familiar object without having to look).⁷⁴

To ensure that students are able to anticipate the shift in this way, I ask them to describe where the new position is located. The simplest answer to this question is to state the name of the position. However, all cellists have certain positions in which they feel the most secure. For example, Potter describes fourth position as possessing a particular feeling of security and naturalness because “the thumb resting at the crook of the neck of the cello acts as a reliable guide and goal for the shift.”⁷⁵ Therefore, when shifting to a less secure position, it can be helpful to describe the destination of the shift as where it is located in relation to a more secure position. For instance, shifting to fifth position can be described as shifting one half or whole step above fourth position.

A common mistake students make when visualizing the location of a shift is to think of shifting from note to note rather than from position to position. Potter states, “The left hand in playing the cello, for fluency, accuracy, and security of intonation, moves (shifts) over the fingerboard not by “finger after finger” but in finger groups, even when shifting to a single note.”⁷⁶ Shifting to a position rather than a note improves muscle memory and ensures that the hand is prepared to play the subsequent notes.

⁷⁴ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 99.

⁷⁵ Potter, *The art of cello playing: A complete textbook-method for private or class instruction*, 96.

⁷⁶ *Ibid*, 116.

Anticipatory Motions

Anticipatory motions occur naturally with all movements. Sazer describes how every act we perform includes preparation:

A preparatory motion moves in the opposite or different direction from the intended one. Preparatory motions are essential to all movement because they break the inertia of being at a standstill. In other words, you must be in motion before the beginning of any purposeful motion. This is a natural, involuntary impulse and occurs with all movements, including bowing, shifting, fingering, extension, contractions and vibrato. Immobility upsets body balance and causes tension.⁷⁷

An example of an anticipatory motion is the way the arm moves when throwing a ball. Similarly, “This anticipatory motion [in shifting] is necessary in order to shift smoothly, accurately and with interpretive intent,” says Katz.⁷⁸ Mantel describes the movement of the arm during a shift (Figure 17):

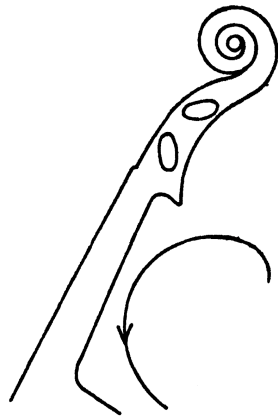
The arm must lead the hand and fingers into the new position...The arm (one may also say elbow) is brought into its new position but the finger does not change its place on the string yet. The movement of the elbow does not describe a straight line, but a curve.⁷⁹

⁷⁷ Sazer, Victor. *New directions in cello playing: how to make cello playing easier and play without pain*. Ofnote, 1995, p. 101.

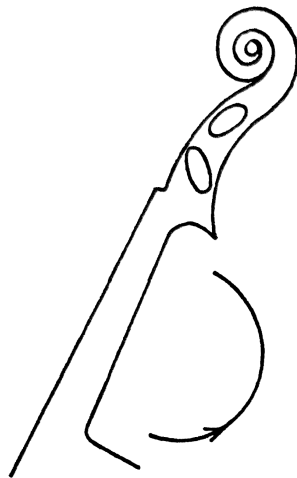
⁷⁸ Katz, Paul. “Shifting: Watching the Speed Limit.” CelloBello, www.cellobello.org/cello-lessons/left-hand/shifting-watch-the-speed-limit-2.

⁷⁹ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 54.

Figure 17: Path of the elbow when shifting⁸⁰



Path of the Elbow in an Ascending Shift



Path of the Elbow in a Descending Shift

⁸⁰ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, pp. 54 and 58.

To help students understand how the the arm moves in curved line, Watkins suggests using the image of an airplane's flight line:

Shifting with the feel of a gently curved line allows the finger to lighten, move easily along the string, and time to settle into the arrival. Commercial airlines have those in-flight magazines with maps that show what cities they serve. The flights are drawn as little curved lines linking the destinations. You can almost tell by the shape of the arc how far that flight is going, because the distance between the departure and destination was clearly established before the flight line was drawn. These maps offer a wonderful mental image for shifting...Play the note before the shift, lighten the finger and let it “take off,” gliding smoothly and quickly along the string. Just before the arrival slow the hand down and settle into a secure landing on your note.⁸¹

I have found this method to be very effective for some students, while others find it difficult to carry out the motion that goes along with the imagery. In this case, I will lightly hold the student’s elbow and guide it along the path shown in Figure 17 while the shift is executed. This gives students the opportunity to feel the sensation of the elbow moving before the hand. I have also found it helpful to use a mirror to show the student what the motion looks like.

Potter states, “In shifting, have the sensation of gliding along the string and fingerboard - like skiing - never tense or stiff.”⁸² If a student is not able to glide smoothly along the fingerboard, I have found that he or she is likely gripping the neck of the cello too hard or moving the arm too quickly. Pleeth describes how gripping the neck of the cello causes issues when shifting:

⁸¹ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 69.

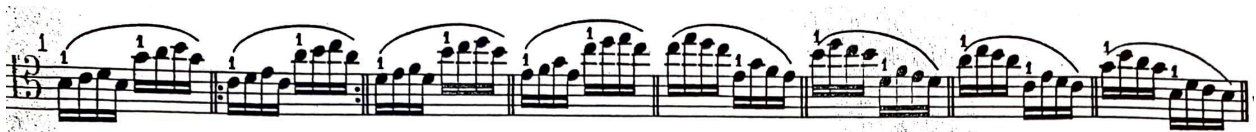
⁸² Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 116.

If a cellist burdens his hand with a grip so tight that an enormous force of energy is required to dislodge it and shove it onto the new position, if he creates a situation of maximum tension in the hand (however unwittingly and unwillingly) and thereby reduces the hand to a minimum of mobility and sensitivity, then the intolerable demands of force he has placed on his hand will make even the slightest change of position an awesome task - and any responsive movement in the shift will be made difficult, if not impossible.⁸³

In order to prevent tension in the hand when shifting, Mantel suggests eliminating the thumb altogether. He states, “In the lower positions, [the thumb] relaxes during the shift and may even completely leave the neck of the cello in order to keep the friction between the finger and fingerboard as low as possible.”⁸⁴ I have found this to be an effective method for releasing tension during a shift.

Another aspect of the shift that can cause tension is the speed of the movement. Shifting to a new position in a sudden and rapid manner causes the arm to become tense. In order for the shift to be unhurried and without tension, the motion of the arm must begin as early as possible. A helpful saying I use to remind my students of this concept is, “Shift early and slow, not late and fast.” I recommend using arpeggios and etudes that include large leaps, such as Etude No. 16 from Louis Feuillard’s *Daily Exercises* (Figure 18) to practice shifting with anticipatory motions.

Figure 18: Excerpt of Etude No. 16 from *Daily Exercises* by Louis Feuillard⁸⁵



⁸³ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 32.

⁸⁴ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 63.

⁸⁵ Feuillard, Louis R. *Daily exercises*. Schott, 1919, p. 19.

Expressive Shifting

In addition to causing tension, Pleeth argues that shifting with maximum speed also “greatly narrows the expressive potential of the shift.”⁸⁶ He describes, “In shifts one should hear endless varieties of movement reflecting the endless subtleties within the music.”⁸⁷

Watkins states, “As soon as possible technical concerns about shifting need to be set aside so that the qualities of shifts can become the most important factor in how shifts are approached.”⁸⁸

The first decision to make about a shift is whether to play a “clean shift” with no audible slide or a “romantic shift” with some degree of audible slide (glissando or portamento). Additionally, one will need to decide whether to slide with the current finger or the finger used to play the preceding note, as shown in Figure 19. Potter describes these two different methods for shifting with a slide:

There are two principal methods for shifting using the slide, each differing considerably from the other. One, which for convenience may be called “Portamento No. 1,” consists of sliding to the position required by the next note (shown by the intermediate notes in the following illustrations) with the finger which stopped the preceding note (shown by the intermediate notes in the following illustrations) with the finger which stopped the preceding note (the “old” or “same” finger) and then dropping down the finger which is to play the next note. The other style of shift, which may be conveniently called “Portamento No. 2,” consists of sliding to the position required by the next note with the finger which is to play that note (the “new” finger).⁸⁹

⁸⁶ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 33.

⁸⁷ Pleeth, *Cello*, 32.

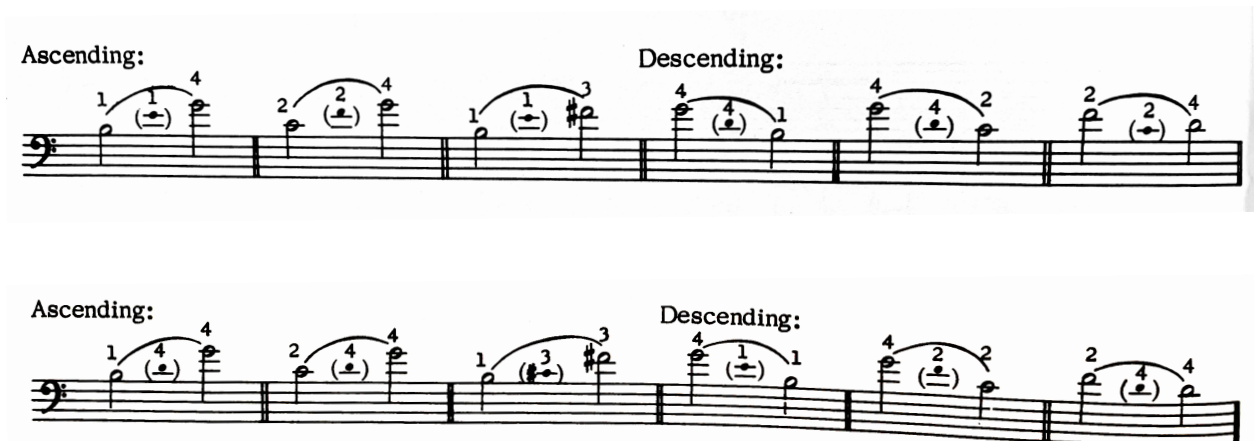
⁸⁸ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 74.

⁸⁹ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 114.

These two methods of shifting with a slide provide a different expressive quality.

Potter states that each “has its own particular emotional and aesthetic effect.”⁹⁰

Figure 19: Methods of shifting with a slide⁹¹



In addition to the nuances of the left hand, the bow also plays an integral role in the quality of the shift. Watkins explains how the speed and pressure of the bow affects the quality of the shift:

The amount of bow pulled through the shift, as well as the weight applied, makes a tremendous difference in the expressive quality. If the bow is slow and light, the sound of the shift will mostly be hidden. If more bow weight is added as the left hand approaches the arrival, the resulting shift will be much heavier-sounding.⁹²

When students begin to explore different types of expressive shifting, I give them as much freedom as possible. I start by engaging in discussions about the type and quality of the

⁹⁰ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 115.

⁹¹ Potter, *The art of cello playing: A complete textbook-method for private or class instruction*, 114.

⁹² Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 74.

slide and use of the bow, as well as what techniques were favorable during the time the piece was composed. Next, I have the student try out different ideas. Ultimately, I let students decide what type of shift they feel best expresses the character of the piece.

Bow Strokes

Pleeth describes the significance of a cellist's bow stroke by comparing the bow to an artist's pen or brush:

For an artist every stroke of his pen or brush is a gesture which corresponds to an image within artistic imagination, and cellists must develop a similar relationship in their use of the bow...When we play the cello, our bow is our pen, our brush; the only difference is that the marks it makes are aural, not visual. But the link-up between the heart, the mind, the physical gesture and the end result in sound is exactly the same; we cannot escape the fact that what we do we will hear.⁹³

Pleeth also uses the comparison between the way we move our bodies while bowing to that of writing to explain why it is important to encourage natural movements in bow strokes:

The proper use of the fingers and wrist is important in every aspect of bowing; yet it is often difficult for those of us who play string instruments, because the nature of our craft requires us to give considerable thought to the movement and action of the wrist and fingers, not to become overly obsessed with them and develop ways of using them which are unnatural and mannered. When we write, for instance, the finger joints and wrist coordinate in a perfect sequence of interrelated movements. If we writ very large (on a blackboard, say) the whole of the arm will come into use as well, whereas in the smallest writing the movements are pared down, many being left out altogether and new and more refined ones, which were not needed for the large writing, coming into play.⁹⁴

I find this to be a helpful analogy because I often see students resort to using unnatural movements in order to execute a new bow stroke. These unnatural movements are usually brought on by the perception that the bow stroke is difficult, which causes the student to use more physical effort than necessary. Therefore, Alexanian describes that all new bow

⁹³ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 55.

⁹⁴ Pleeth, *Cello*, 52.

strokes should begin by allowing the muscles and joints to “move with their own natural and primitive freedom.”⁹⁵ How to employ more natural movements will be discussed in the following segments.

On-the-String Bow Strokes

A *legato* bow stroke is smooth and connected, with no intervening silence between notes. Slurred bowings are often used to eliminate the break between bow changes. Because the bow is “elastic by nature,” Pleeth argues, “It is our *legato*, not *spiccato*, bowing that we have to cultivate.”⁹⁶ I start almost every lesson with either long tones on open strings or scales with slurred bowing to practice playing *legato*. The first scale I introduce to beginning students is a one octave G major scale. Alexanian explains, “It is on the [inner strings] that the right arm will acquire facility most quickly.”⁹⁷ I wait to introduce long tones on the outer strings until legato bowing on the inner strings has been mastered, as learning how to navigate the outer strings can be difficult for new students.

Pleeth describes how to execute smooth bow changes, which are essential for playing legato, as well *détaché* (separate bow strokes that remain connected):

Bow changes in *legato* playing can create problems because cellists, in striving to get the changes as smooth as possible, can be tempted into making contrived finger and wrist movements on the bow to camouflage the bow change. The impetus to do this may arise partly from the pupil having observed this kind of finger and wrist movement, or what appears to be this kind of movement, in more advanced cellists and then attempting to recreate

⁹⁵ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 53.

⁹⁶ Pleeth, *Cello*, 50.

⁹⁷ Alexanian, Diran, Pablo Casals, and David Geber. *Complete cello technique: the classic treatise on cello theory and practice*. Courier Corporation, 2003, p. 19.

it. Smooth bow changes, however, are not the result of contrived wrist and finger action on the bow, but rather of a hand that is loose on the stick that as the arm turns around and takes another direction, the fingers continue on in the previous direction for a split second before going with the arm in the new direction.⁹⁸

The contrived finger and wrist motion Pleeth describes can end up having the opposite of the desired effect: rather than masking the sound of the change in bow direction, a contrived motion can cause an increase in volume before the bow change. This is because the active rotation of the hand applies more pressure into the bow. When I was working with a student on this issue, I had her put down the bow and describe the motion of a paint brush moving side to side with her right hand. The behavior of the hand and fingers during this motion resembles that of a *legato* bow stroke. She then tried executing the same motion while holding the bow. This method in combination with a lightening of pressure before the bow change helped her to execute a smooth *legato* bow stroke.

Another challenge cellists face in *legato* playing is crossing strings without disrupting the smooth, connected bow stroke. Similar to the anticipatory motion of a shift, the player must anticipate the string crossing. Pleeth explains how to anticipate the change of string:

The result of abrupt changes of angle is a jolt or splash in the sound when the bow moves onto the next string which completely destroys any sensation of *legato*... This 'jolt' can come about in a crossover from the D to the A string if one starts from the 'far side' of the D string and moves abruptly to the 'far side' of the A string. To avoid this, the cellist should, throughout the course of notes he is playing, angle gradually with the bow toward the A string so that the actual crossover, when it comes, is almost imperceptible.⁹⁹

⁹⁸ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 186.

⁹⁹ Pleeth, *Cello*, 189.

In addition to utilizing open strings and scales, there are many etudes that give students the opportunity to focus on string crossings in *legato* bowing. For example, Etude No. 17 from Alwin Schroeder's *120 Foundation Studies for Violoncello* (Figure 20) is perfectly suited for intermediate students to work on this technique. Etude No. 2 from David Popper's *High School of Cello Playing, Op. 73* (Figure 21) is an example of an etude that can be used for more advanced students to work on this technique.

Figure 20: Etude No. 17 from Alwin Schroeder's *120 Foundation Studies for*

*Violoncello*¹⁰⁰

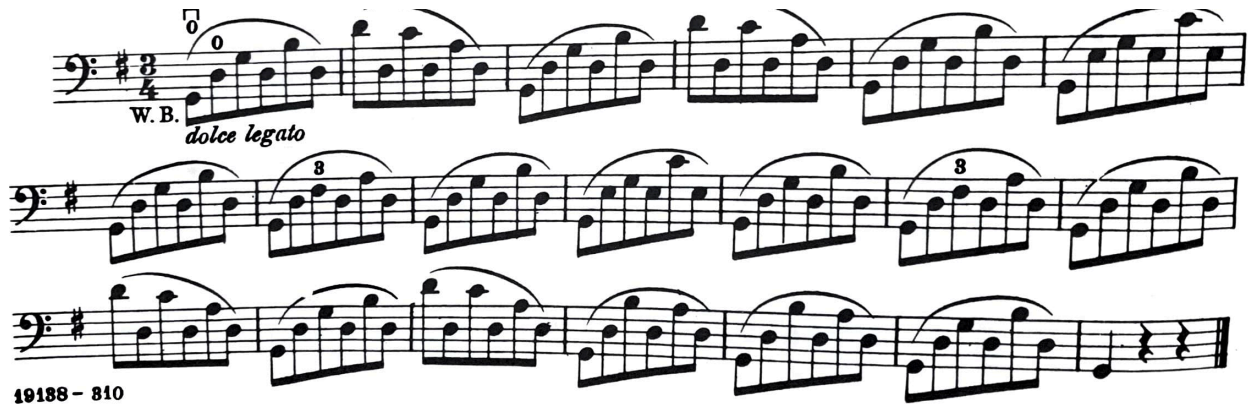


Figure 21: Excerpt of Etude No. 2 from David Popper's *High School of Cello Playing,*

*Op. 73*¹⁰¹



¹⁰⁰ Schroeder, Alwin. *170 Foundation Studies for Violoncello, Vol. 1*, Carl Fischer Inc., 1916, p. 8.

¹⁰¹ Popper, David. *High School of Cello Playing, Op. 73*. Alfred Music, 1900, p. 4.

The the index finger is essential for achieving an articulated on-the-string bow stroke.

Pleeth describes how one uses the index finger to create articulations:

The ability of the right hand to create articulations - and the sense of tension, release and thrust, we need in playing - is determined by the use of the first finger as it sits on the stick. This is the perfect “articulator” and it will determine the degree of contact at that point where the bow meets the string - the point of fusion between the downward pressure and the horizontal movement. The other fingers are essential in varying degrees, but they play their part always in relation to the first finger.¹⁰²

It is important to clarify that the index finger exerts pressure on the bow as a result of pronation (forearm rotation) rather than movement of the finger alone.

I teach all articulated on-the-string bow strokes by demonstrating for students what the new bow stroke sounds and looks like. If necessary, I also give the student a living experience of the sensation by placing my hand over the student’s hand so we can execute the bow stroke together. The first articulated on-the-string bow stroke I teach students is *détaché lancé*, a variation of the *détaché* bow stroke. Unlike the smooth bow changes in the *détaché* stroke, the *détaché lancé* stroke gently articulates the notes with a distinct break in the sound.

The second articulated on-the-string bow stroke I introduce to students is *martelé* (*martellato* in Italian), a more accented version of the *détaché lancé* stroke. Mantel describes, “After a strong plosive sound the volume is immediately reduced, so that the impression of an especially forceful “hammered” attack is created. The mechanism that prefixes the pressure is again pronation combined with a correspondingly stiffened index finger.”¹⁰³

¹⁰² Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 57.

¹⁰³ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 212.

Next, I introduce *staccato*, which is the shortest on-the-string bow stroke. According to Mantel, “The *staccato* is no different in sound from a short *martellato*. Up to a certain speed nothing changes in principle from the execution of the *martellato*. The forearm rotation again provides the mechanism for fixing the pressure.”¹⁰⁴ Another form of *staccato* is the slurred or “hooked” *staccato*. This bow stroke is described by Potter as “a method of connecting tones in one bow direction, which, however, will sound detached, where the rhythm and articulation of the musical passage are better served than with separate bow-strokes.”¹⁰⁵

Lastly, I introduce *louré* (*portato* in Italian), which is separated, yet unaccented, notes in one bow. This stroke is achieved by gently pulsing the weight of the arm into the bow on each note. Like other on-the-string bow strokes, the weight of the arm is transmitted through the index finger into the bow.

In addition to using the new bow strokes in their repertoire, I also have students practice the stroke in their weekly scales. This is beneficial because it allows students to practice new bow strokes on both up bows and down bows. Pleeth explains why this is important:

Because musical considerations do not always give us a choice, we must be able to execute any stroke perfectly on either an up-bow or a down-bow. If we fall into the lazy habit of adopting the most convenient manner of stroke (say, always using the down-bow for the attack), then we will never explore and develop the techniques for achieving the same stroke by other means. Yet when they are developed and handled properly, both up-bows and down-bows

¹⁰⁴ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 215.

¹⁰⁵ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 118.

can attain an equal stature - it is only the means of producing the stroke that is different.¹⁰⁶

Off-the-String Bow Strokes

Mantel describes, “In off-the-string bowings the elastic hair of the bow produces a rebound on the elastic string. Because of the momentarily increased tension of the hair and the string, the bow bounces off.”¹⁰⁷ The two primary off-the-string bow strokes are *spiccato* and *sautillé*. I find these to be the most difficult bow strokes to teach because there are a number of different ways they can be executed.

I start by having students experiment with the natural tendencies of the bow. Pleeth states, “Our first task in *spiccato* bowing is to enquire into the nature of the bow’s own ability to bounce *before* we decide what physical actions we need to add to make it happen in the right manner and to the right degree.”¹⁰⁸ Tortelier describes this preparatory exercise to allow students to experience the vertical bouncing of the bow:

Exercise 1 is done entirely at the point, almost silently, in allowing the bow to drop like a ball. The vertical bouncing of the bow is maintained by only the index and littler fingers without any action in the wrist.¹⁰⁹

After incorporating this exercise, I introduce a variation of the *spiccato* bow stroke that is referred to as “slow” or “controlled” *spiccato*. Potter describes the movement of the arm during controlled *spiccato*:

¹⁰⁶ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 48.

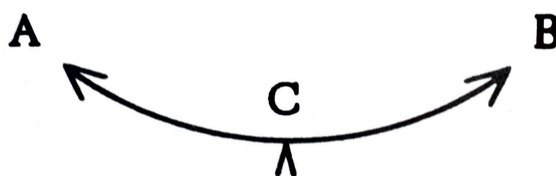
¹⁰⁷ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 218.

¹⁰⁸ Pleeth, *Cello*, 51.

¹⁰⁹ Tortelier, Paul, Maud Tortelier, and Rudolf Caspar Baumberger. *How I play, how I teach*. Chester Music, 1976, p. 41.

In executing this *spiccato* the bow is held over the string with a feeling of suspension, and while the forearm moves to and fro in the bow strokes the bow is dropped onto the string by the hand, from the wrist. After rebounding, it is arrested in its suspended position by the counter-balancing effect of the fourth (little) and third (ring) fingers against the frog until the bow stroke has been reversed from down to up bow (or vice versa). Then it is again dropped onto the string. This dropping onto the string must always occur during the middle of the stroke. Hence the combination of the two motions (one horizontal, the other vertical) describes an arc [Figure 22]. (A-B is the arc described by the bow stroke. C is the point at which the bow contacts the string. For general playing purposes the most advantageous part of the bow for execution of this type of *spiccato* is about at the balance point.¹¹⁰

Figure 22: Arc described by the controlled *spiccato* bow stroke ¹¹¹



I describe the arc shape illustrated in Figure 22 to young students as the “banana bow.” This stroke can be achieved by a number of different movements. In the quote above, Potter states, “The forearm moves to and fro,” however, Mantel describes a series of alternative movements: 1) pronation of the arm in regular intervals, 2) describing an arc of a circle with the wrist, 3) flexing and extending the index finger, and 4) describing an ellipse with the hand.¹¹² I have found that different students will naturally prefer a different one of

¹¹⁰ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 145.

¹¹¹ Potter, *The art of cello playing: A complete textbook-method for private or class instruction*, 145.

¹¹² Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 227.

these methods. All have proven acceptable as long as the arm, hand, and fingers remain free of tension, as excess tension will hinder the natural bounce of the bow.

If a student is struggling to execute the controlled *spiccato* stroke, I place a hand over the student's hand and demonstrate what it feels like to control the bounce of the bow. Pleeth suggests using this method and then slowly moving the hand away as students continue the bow stroke on their own.¹¹³ I have found this method to be successful, however, it will sometimes take weeks of demonstration before the student is able to execute the stroke without guidance.

The main difference between the execution of the controlled *spiccato* and rapid *spiccato* or *sautillé* is the number of notes produced by one body impulse. In the *sautillé* bow stroke, two or more notes are produced by a single body impulse. Sazer describes how a single body impulse can produce more than one note:

Two, three, four, six, or eight note groups can be played from the same starting impulse. Additional strokes continue to rebound after an initial body impulse in the opposite direction of the first note of each group. Subsequent notes are re-energized by body impulses with the first note of each group.¹¹⁴

Because there are many notes played from one starting impulse, *sautillé* requires less motion than any other bow stroke. For example, a long legato bow stroke requires movement in the entire arm. Contrastingly, the *sautillé* bow stroke originates from the forearm or even just the wrist (at very fast tempos).

Potter describes this preparatory exercise for teaching *sautillé*:

¹¹³ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 190.

¹¹⁴ Sazer, Victor. *New directions in cello playing: how to make cello playing easier and play without pain*. Ofnote, 1995, p. 105.

Preparatory practice for the *sautillé* may consist of starting at about the middle of the bow, or just a little below, with a slow, small stroke, rather firm, but relaxed, on the string (*détaché*), with practically full hair on the string. Be sure to feel four-note groups (sixteenth notes) with an accent on the first note of each group. Without any attempt at bouncing the bow, gradually increase the speed of the strokes until they are quite rapid (and regular). Then loosen the pressure of the fingers on the stick, giving the bow on the down-bow accent a slight downward throw with the hand, to get the bow to spring (rebound). Continue this downward action (see-saw motion) of the hand with each down-bow stroke to sustain *sautillé*.¹¹⁵

This exercise is beneficial because it allows students to start with a stroke they will have already mastered (*détaché*). I have found this to be a successful method for initiating the bounce of the bow, however, it will sometimes result in an uneven or inconsistent stroke. Though it is possible to refine the stroke from this point, there are also further preparatory methods that can be used. For example, Tortelier describes three additional methods developed by him, Feuilliard, and Bazalaire for teaching the *sautillé* bow stroke.

Method by Tortelier (Figure 23):

Place the middle of the bow on the string, holding it with only the first three fingers and the thumb - then tap the point of the bow swiftly with the left hand in order to start the bow bouncing like a ball. Obtain the same result by quickly pressing the 1st and 2nd fingers on the stick on the first note. The little finger here, should be back in place. Make the bow bounce silently on the string in the middle of the bow with a totally vertical movement. Maintain this movement for half a minute, then gradually start to move the wrist from the left to right. In order to keep the bow bouncing it is imperative to maintain a perfectly straight bow.¹¹⁶

¹¹⁵ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 150.

¹¹⁶ Tortelier, Paul, Maud Tortelier, and Rudolf Caspar Baumberger. *How I play, how I teach*. Chester Music, 1976, p. 43.

Figure 23: Exercise for *sautillé* by Paul Tortelier¹¹⁷



Method by L. R. Feuillard:

To achieve this, practice the *martelé* from the wrist only, on scales, studies and other suitable pieces (Popper Etude no. 38, Servais Caprice no. 2, Popper's Elfin Dance, Paganini's Moto Perpetuo). By practicing the *martelé*, Feuillard's pupils acquired the *sautille*, for which this school was particularly noted.¹¹⁸

Method by P. Bazalaire (Figure 24):

Play the first 4 bars of the following exercise with a 'rubbing bow', the hand relaxed. Continue to the next four bars with the same swiveling movement of the wrist, as if the changes of strings continued on the repeated notes.¹¹⁹

Figure 24: Exercise for *sautillé* by P. Bazalaire¹²⁰



¹¹⁷ Tortelier, Paul, Maud Tortelier, and Rudolf Caspar Baumberger. *How I play, how I teach*. Chester Music, 1976, p. 43.

¹¹⁸ Tortelier, *How I play, how I teach*, 43.

¹¹⁹ *Ibid*, 43.

¹²⁰ *Ibid*, 43.

Feuillard's method is similar to Potter's in that the *sautillé* bow stroke is derived from an on-the-string stroke. Tortelier's method is the opposite approach. Rather than deriving the vertical bounce from another bow stroke, his method derives the bow stroke from the vertical bounce. Bazalaire's method offers an entirely new idea, which is to derive the vertical bounce from a string crossing. This method is particularly useful for cultivating flexibility in the wrist during the *sautillé* bow stroke.

As previously stated, there are a number of different ways the *sautillé* bow stroke can be executed. Therefore, I do not believe that any of the methods discussed can be considered superior. Each of my students have benefited from using a different one or combination of these methods to develop the *sautillé* bow stroke.

Vibrato

Developing a beautiful and expressive vibrato is an important milestone in musical development. However, students will benefit from mastering certain techniques before introducing vibrato. For example, vibrato can make intonation more difficult, so it is favorable to wait until after the student is able to play in tune to introduce vibrato.

Furthermore, Pleeth explains why students will benefit from developing bow arm technique before learning vibrato:

It is important that students should not be allowed to learn vibrato before they have first learned to develop an expressive sound in the right hand and have fully understood that the source of all sound is in the bow. Otherwise the temptation to “prettify” the sound with vibrato will be too great. In many students the urge to learn vibrato actually arises from a dissatisfaction with the sound they are producing and from the mistaken belief that all it needs to make it beautiful is a little vibrato.¹²¹

Alexanian describes the basic motion of the arm during vibrato:

The vibrato consists of an oscillation of the nut finger, the extremity of the latter remaining firmly pressed down upon the proper note. This oscillation is to be produced by a slight, supple, and regular movement of the left hand and forearm, executed in a practically vertical direction, (in relation to the length of the strings).¹²²

The most important element of this description is that this oscillation originates from the forearm. Mantel describes this as the movement created when you “shake a match box up and down to find out whether there are any matches left.”¹²³ Similarly, Watkins explains,

¹²¹ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 191.

¹²² Alexanian, Diran, Pablo Casals, and David Geber. *Complete cello technique: the classic treatise on cello theory and practice*. Courier Corporation, 2003, p. 96.

¹²³ Mantel, Gerhard. *Cello technique: principles and forms of movement*. Indiana University Press, 1995, p. 101.

“Shaking a can of spray paint or a bottle of salad dressing is similar to the basic vibrato motion.”¹²⁴ I use a shaker instrument in the shape of a cylinder to allow students to experience this motion before trying it on the instrument. A shaker can easily be made at home by filling an empty plastic bottle or aluminum can with dry beans or popcorn kernels. This tool can simultaneously be used for establishing the motion of the forearm needed for vibrato and practicing rhythm exercises.

Once the student has established the motion of the forearm away from the instrument, I use this preparatory exercise described by Watkins:

Pick up the cello and slide the left hand up and down the neck of the instrument. The motion should be quite wide (between the first and fourth positions), loose, and very fast. It’s important to keep the speed fast now because once the finger is focused into the string to vibrate one note, a slower action will not translate well. Take ample time to integrate this action at this stage - this exercise alone is sufficient for a week or two when initiating the vibrato. To bring this motion into an actual vibrato, pick one finger (usually second or third is best to start with) and begin to add weight to it until the friction of the heavy finger on the string makes it want to stick to one spot. Be sure that weight is the only reason the finger stays in one place - not because the thumb is squeezing from behind, or that the arm motion has suddenly minimized to “allow” the finger to stay put.¹²⁵

An additional tool I have found useful for the first step of this preparatory exercise is to slide a tennis ball up and down the neck of the cello. Holding onto a tennis ball keeps the fingers in a rounded shape and makes it impossible for students to unintentionally involve the hand or wrist in the motion. Furthermore, the felt material on the outside of the tennis ball

¹²⁴ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 93.

¹²⁵ Watkins, *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*, 94.

slides more easily up and down the string, which is helpful for obtaining the desired speed of the motion.

When the student is ready to attempt the motion of vibrato on the string, I find it helpful to physically guide the student's hand in order to continue the desired forearm motion developed in the preparatory exercise. Pleeth explains how this method can be executed:

The teacher, by slipping his hand over the pupil's hand, will be able to give him the living experience of the sensation before he has had a chance to intellectualize about it. If one just talks about vibrato, it does not get the pupil very far; but once he has "tasted" it, once he has felt the sensation in his own hand, then the teacher can gradually begin to let go and the pupil will be able to carry on.¹²⁶

Another strategy for guiding the motion of vibrato is to hold onto the student's forearm instead of the hand. I have found this useful because it gives me control over the student's forearm motion while the student learns to navigate the use of the hand and finger.

It is essential that students understand this motion of the forearm early on, as vibrato that originates from the hand and wrist can cause distinct technical issues. For example, Potter describes the two types of vibrato that should be avoided: 1) "The stiff, tense, fast, nervous type of vibrato, usually consisting of a mere quivering or shaking of the hand," and 2) "The wrist vibrato, in which only the wrist initiates the vibrato movement."¹²⁷ If students are experiencing either of these technical issues, I have them return to using the shaker or preparatory exercise to reestablish the controlled forearm motion.

¹²⁶ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 190.

¹²⁷ Potter, Louis. *The art of cello playing: A complete textbook-method for private or class instruction*. Alfred Music Publishing, 1980, p. 108.

In addition to learning the motion of the arm, students should be encouraged to discover a variety of tone colors in their vibrato. For example, Watkins explains how the speed and width can be controlled:

Remember to keep speed and width two separate functions on the vibrato “motor.” Speed is how fast the hand is moving, and is not necessarily related to whether the motion is wide or narrow. Let go of any preconceived notions: wide is not necessarily slow and narrow is not necessarily fast. Be aware of what physical changes create these vibrato variations. If faster vibrato is desired, rather than forcing the muscles, simply *ask* the arm to move faster. A wide vibrato can be achieved by loosening the arm, and is much more preferable to “trying hard.”¹²⁸

Another variable we can change to alter the sound of the vibrato is to adjust the angle that the fingertip touches the string. For example, Watkins states, “The richest vibrato sound comes from plastering the thickest, widest part of the pad right through the string onto the fingerboard and making the pad ‘squish’ back and forth.”¹²⁹ I have also found that many students are able to control the tone color of their vibrato by alternating between a rotated and slanted finger position (see Figures 4 and 5 on page 18).

Vibrato Exercises

Most cellists favor certain fingers when using vibrato. If a student is finding it particularly difficult to use vibrato on a certain finger, Watkins recommends this exercise:

Choose a finger that vibrates easily (usually 2nd or 3rd) and get a good vibrato going. Use a soft, formless hand with no measurements between the fingers, keeping only the vibrating finger firm. Now, gradually ease an adjacent finger onto the string. Move very slowly so as not to disrupt the vibrato motion. The

¹²⁸ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 97.

¹²⁹ Watkins, *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*, 95.

new finger will be riding alongside the vibrating finger, “learning how it’s done.” Gradually transfer the weight of the vibrating finger onto the new finger, and slowly let the initial finger turn soft and fall away, all without stopping the vibrato, of course. Continue working this way, moving almost imperceptibly from finger to adjacent finger...As the feeling of one continuous vibrato motion in the hand becomes more familiar, begin to practice skipping fingers and transferring the vibrato from 1st to 2nd to 3rd to 4th, and finally from 1st to fourth. Gradually begin to make clearer the measurements between the fingers and start to increase finger articulation, so that eventually neither an extension nor a sudden finger motion will necessarily stop the vibrato.¹³⁰

I have found this to be an effective method for strengthening a student’s weaker vibrato fingers. However, perhaps an even more useful application of this exercise is to teach students how to change fingers without stopping the vibrato.

Another method I use for teaching continuous vibrato and developing control in the speed of the vibrato is using a metronome. Start by setting a metronome to 60 beats per minute. Using full bows, shake the arm on every beat. This will feel like executing vibrato in slow motion. Next, increase the speed of the vibrato to two shakes per click (duples), three shakes per click (triplets), four shakes per click (quadruplets), and so on. This exercise is also useful for practicing difficult rhythms, such as quintuplets and septuplets. Some of my students have found this to be a simple exercise, while others take weeks or months to refine this skill.

Rather than using etudes or repertoire, Alexanian argues that the best way to develop vibrato is by simply practicing slow scales:

The study of vibrato, any more than that of sound intensities, does not call for special exercises. One need only apply, in future, to all music, the technique described here concerning these different branches. Experience will add

¹³⁰ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 96.

“naturalness” to execution. I think it useful, however, to advise the daily practicing of vibrato and of dynamic fluctuations, on extremely slow scales.¹³¹

I advise students to practice slow scales with and without vibrato. This way, vibrato can be the main focus when it is added. While warming up in lessons, I alternate between requesting scales with vibrato and without.

¹³¹ Alexanian, Diran, Pablo Casals, and David Geber. *Complete cello technique: the classic treatise on cello theory and practice*. Courier Corporation, 2003, p. 97.

Musical Expression

Mastering proper technique is a vital part of learning to play an instrument and developing musical expression is equally essential. Pleeth explains why “oneness” of technique and expression is important:

How can a physical action have a separate existence from the emotion which brought it into being and which it is to reflect? I do not believe it can. However well-intentioned, a purely technical approach to mastery leads ultimately to a blocking of even technical fulfillment. And when the student tried to counteract this built-in limitation by practicing even more “technique,” he finds himself caught up in a vicious circle where the “oneness” of his playing is undermined: a wedge is driven ever deeper, splitting his creative force right down the center.¹³²

Watkins expresses a similar sentiment:

Since music creates the need for good technique, then virtually all technique can be learned - and problems resolved - by teaching directly from the needs of the music. It is neither wise nor healthy to create a teaching hierarchy where technique comes before musicianship. While practically speaking it is not always possible to teach musicianship and technique simultaneously, students should never walk out of a lesson without understanding the correlation between the two: why the music needs the technique and how the technique will free them to express the music¹³³

In order to provide a union of technique and expression, I include discussions about how students can use the technique they learn to express the meaning of the music. To begin a discussion about musical expression, I have the student examine the information on the page and ask how it impacts our interpretation of the music: Who is the composer and when

¹³² Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 3.

¹³³ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 103.

was the piece composed? What does the key, meter, tempo, and decorative terminology tell us about the piece? Does the title include a descriptive word or phrase, or tell us the form of the piece? It is a dance? A march? A minuet? A sonata?

Engaging in this type of discussion teaches students that there is so much more to learn about the piece than simply reading the notes. Pleeth elaborates on why it is important to examine the information on the page:

The act of discovery on the part of the performer needs purity and integrity - and tremendous respect for even the minutest details of the composer's instructions, for they are his only means of transmitting his message on paper. Therefore, we must never start out by putting our own personality in between.¹³⁴

In addition to recognizing the composer's intent, it is also important to discuss the style in which a piece should be played. For example, a student may not understand why the Bach Cello Suites are not played in the same style as the Dvorak Concerto, and vice versa. Pleeth explains that each piece of music reflects "the sound world unto which it was born."¹³⁵ This concept is especially important to consider when discussing Baroque music. This is because string instruments were modified in the nineteenth and twentieth centuries, so we must make accommodations when playing on a modern cello to reflect the sound of these earlier instruments. Pleeth says, "We should be happy that the set-up of our modern instruments does give them the potential for a bigger, warmer, and more open sound - there's nothing wrong with "red" - but we like other colors as well."¹³⁶

¹³⁴ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 73.

¹³⁵ Pleeth, *Cello*, 85.

¹³⁶ *Ibid*, 136.

There are countless features of the music that are in the performer's control, such as the dynamics, tempo, rubato, phrasing, bow strokes, bowings, fingerings, and vibrato. "The scope of musical language is enormous," says Watkins.¹³⁷ In addition to learning the compositional style of the historical period and the composer's intentions, I have found that students will be more inclined to explore these features of musical expression if they can connect them to emotions, characters, stories, or other meanings. To spark creativity and imagination in music making, "students need to discover how the music on the page and the sounds they learn to create on the instrument can connect to life experiences," says Watkins.¹³⁸ Below is a summarized list of strategies Watkins suggests for evoking musicianship from life experiences.

1) Emotions in music. Have students describe what emotion the music portrays. Dig deeper than just happy or sad - for instance, Watkins states, "Maybe it's spooky, or a melancholy 'rainy day' kind of piece."

2) Physical expression. Have students pretend to be an actor and express a mood or character through body language.

3) Vocal expression. Have students demonstrate how the music would be spoken or sung.

4) Connecting emotions. Have students contemplate what emotion they feel when playing the music. For instance, Watkins suggests that performing Fauré's *Élégie* may provoke one to feel "sorrow, anger, melancholy, or despair."

¹³⁷ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 102.

¹³⁸ Watkins, *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*, 102.

5) Aural connections. Have students relate another type of sound to the music, such as an echo effect, accent, or another instrument.

6) Visual connections. Have students imagine images that the music reminds them of. For example, Watkins asks, “What movements might you use to depict a swan’s gracefully curved neck, or its fluid gliding motion across the water, when you play *The Swan*?”

7) Tactile connections. Have students think of a temperature or texture that relates to the music, such as warm, cold, smooth, sharp, or dull.

8) Other sensory connections. Have students describe how the music might taste or sound, such as fresh, sweet, juicy, or bitter.

9) Natural timings. Have students relate the timing of a piece, such as an *accelerando*, *ritard*, *rubato*, or *tenuto*, to an everyday occurrence.

10) Other cultural connections. Have the student relate the music to other forms of expression. For example, visual art, dance, drama, architecture, and literature offer inspiring images, stories, and emotions that can be related to music.¹³⁹

I have found these creative ideas to be incredibly inspiring for students. I was once working with a student on evoking musicianship from life experiences and gave her an assignment to make a photo copy of her music so she could write all of her ideas onto the paper. She came to her next lesson with a copy of her music that included descriptive words, stories, and colorful drawings in the margins. She enjoyed this activity so much that she ended up using this copy of her part when she performed the piece in a recital.

¹³⁹ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 221.

Practicing

The ultimate goal of teaching any instrument is for students eventually to become their own best teachers. Therefore, it is crucial that students are taught how to evaluate themselves and develop a meaningful practice routine. I find it helpful to structure lessons in a way that emulates how I want the student to practice at home. For example, I start almost all of my lessons with a warm-up, such as scales and arpeggios. Warming up in a gentle way helps focus the mind and prevent injuries due to repetitive strain. Pleeth describes the benefits of a healthy warm-up routine:

When you sit down in the morning to warm up on the cello, it should be in the healthiest and most complete way. Enjoy the simple beauty of the sensation of touching the cello and creating sound on it. Let your fingers and bow play around with complete freedom, following their own whim. Let them find their own way and they will eventually lead you to something - a scale or a study, or perhaps a passage from a sonata or concerto. Warming up should never be a matter of stale routine, but of allowing your body and mind and spirit the freedom to sense and discover what they (you) need. No two days need ever be the same. The greatest value of this kind of warm-up is not only that your physical will warm up faster (using the word “physical” as a noun to denote the physical aspect of playing, as I will use it in this book), but that your mind and musical sensitivity will not be shoved off into an isolated corner.¹⁴⁰

It is not enough to simply tell students what and how to practice at home. I have found that practice tools must be learned in lessons. For example, using a metronome is an essential skill for music learning. However, students will not be able to do metronome work on their own until they have cultivated the skill through practicing repeatedly in lessons. There are a number of valuable practice skills to cultivate in lessons, including 1) self

¹⁴⁰ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 10.

evaluation, 2) goal setting, 3) making musical decisions (e.g. exploring bowings, fingerings, and phrasing), 4) identifying and resolving problems, and 5) preparing for a performance.

Watkins states, “Students’ ability to listen and evaluate themselves is critically important to their development,”¹⁴¹ Therefore, rather than immediately giving students feedback, I start by asking them this simple question: “What went well and what didn’t?” This question encourages students to both acknowledge their accomplishments and think about ways to improve.

If a student is finding it difficult to think of observations, Watkins suggests asking more specific questions, such as, “Why do you think you stumbled?” or “Did you like the sound you made at the pianissimo?”¹⁴² These types of questions help students be as specific as possible about what they are observing. I have found that asking questions encourages students to think for themselves, which will ultimately help them make improvements without guidance from a teacher.

Another helpful tool for self evaluation is to have students play in front of a mirror. I have found that having a mirror for students to use during lessons also helps them better understand my observations. Some issues, such as a crooked bow or shoulder tension, are not addressed by listening alone. Being able to see the issue for themselves makes it easier for students to self-correct. Another benefit to using a mirror is that “practicing in the mirror

¹⁴¹ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 18.

¹⁴² Watkins, *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*, 18.

helps remove visual distractions (such as music on the stand) and redirects attention to where more significant discoveries and changes can be made,” says Watkins.¹⁴³

I have found that giving weekly practice assignments to students sets clear expectations and helps them learn how to set goals for themselves. I involve students in choosing their assignments by asking questions like, “How much of the piece do you think should be memorized by next week?” or “What areas of technique would be the most beneficial to focus on in this piece?” I have found that it is usually more beneficial to center goals around the amount of repertoire that should be learned or specific areas of technique that should be corrected rather than the amount of time the student should spend practicing. Watkins states, “I cringe at the idea of my students reluctantly yet dutifully sitting down at the cello, checking the clock every few minutes to see if they’ve finished yet.”¹⁴⁴ A practice routine that works for one student might not work for another. I have found that any practice routine is acceptable as long as students are reaching their goals each week.

As soon as students achieve a basic understanding of the fundamentals of playing the cello, I begin to involve them in making decisions about matters such as bowings, fingerings, and phrasing. Even students who are not yet able to come up with their own ideas about these matters can be presented with multiple options to try. Asking questions about the music helps students learn how to make their own decisions. For example, when experimenting with different fingerings, I discuss with students how each option sounds and feels. This teaches

¹⁴³ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 45.

¹⁴⁴ Watkins, *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*, 28.

them how to evaluate options for when they eventually start exploring these matters on their own.

Another essential skill students will learn from lessons is how to identify and resolve problems. Watkins recommends these basic components to resolve problems efficiently and effectively:

Make the practice goal specific and stated in the positive. (“I will remember the F sharp” rather than “I won’t play F natural again”). Focus on one problem at a time. Choose a practice section that is no longer than necessary, with a clear starting and stopping place. Start slowly enough that the correction is immediately attainable. Keep the practice goal conscious during repetitions - stating it aloud before each repetition if necessary - and be able to observe if the goal was met after each attempt. Reintegrate the newly-mastered section by gradually expanding the practice to include measures before and after the original section.¹⁴⁵

I have found that students are more likely to utilize these strategies at home if they are repeatedly demonstrated in lessons. In addition to learning how to resolve problems in the confines of a practice room, it is also important to prepare students for performances. This requires a different type of practicing than described above. For example, stopping to fix a problem when practicing is essential for progress, while stopping to fix a problem in a performance takes away from the audience’s experience. Watkins states, “Students need to learn what it feels like to keep playing no matter what. However, this mode of “stopping to fix” can be a terribly difficult habit to break.”¹⁴⁶ Watkins explains how to get into the right mindset for practicing for a performance:

¹⁴⁵ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 20.

¹⁴⁶ Watkins, *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*, 140.

Mistakes can and do happen, and everyone who plays, no matter how well-prepared they are, must accept this reality. If a student begins a performance thinking “I can’t make a mistake,” there is a tendency to react badly if one happens. On the other hand a realistic outlook allows the performer to take a mistake in stride and recover more quickly. Mistakes in practice can be used as an opportunity to learn how to recover in performance without missing a beat, as the saying goes. Rather than stopping because the bow gets turned around, accept some discomfort and ride it out until there is an opportunity to reverse it again. Rather than backtracking to fix a fumbled group of sixteenths, aim for the next group and keep going. By working this way it is possible to create the sense of performing within a well-constructed framework that easily endures superficial flaws, and can even take a few hard knocks without collapsing.¹⁴⁷

In order to practice performing with this mindset, I have students perform their piece many times in lessons before a recital. Recording these run-throughs is a helpful way to simulate a performance. This method also gives students the opportunity to watch and reflect on their performance before performing in front of an audience.

¹⁴⁷ Watkins, Cornelia. *Rosindust: Teaching, Learning and Life from a Cellist's Perspective*. Rosindust Publishing, 2008, p. 142.

Teacher-Student Relationship

In a successful student-teacher relationship, a special bond and friendship will grow out of the many hours spent together. In order for students to get the most out of lessons, it is important for them to feel comfortable making mistakes, asking questions, and taking risks. Regardless of whether the teacher's attitude is strict or nurturing, there must always remain a relationship of trust and mutual respect. Pleeth explains the importance of building relationships with students:

One of the greatest failings in teaching can be a lack of understanding of the need for the spiritual and emotional alignment between the teacher and the pupil. When you undertake to work with a pupil, you must first harness his heart and mind in your heart and mind, for without that close link you cannot really teach him. At the same time, however, you have to be able to stand back from him so that he does not become submerged in your personality, but will be encouraged to grow and blossom into whatever his potentials and inclinations will allow him to become. A respect on the part of the teacher for the unique nature and temperament of each pupil is also essential. Students should never be approached as if they were made of one substance. It is the role of the teacher rather to encourage them to discover themselves, and it should be within the power of the teacher to develop each pupil's musical personality in terms of what it *is*, not in terms of some abstract 'norm'.¹⁴⁸

Getting to know students' personalities in this way is essential for helping them discover a path that they can best use their talents. There are many paths a student can take in music and in life, and it is the obligation of the teacher to open as many doors for the student as possible. Some students will require more time for their unique musical personalities to blossom. Pleeth states, "Until a decision is finally taken, all doors must remain open."¹⁴⁹

¹⁴⁸ Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 175.

¹⁴⁹ Pleeth, *Cello*, 196.

Starker expressed a similar sentiment when he said, “I want my disciples to have choices, listening to others, broadening their ability to make decisions. I never wanted to raise carbon copies of me, but let them fulfill their potential.”¹⁵⁰

If the student is a child, it is equally important to cultivate a healthy relationship with the student’s parents. For example, there must be open communication between the teacher and parent about the student’s progress and needs. I have found that nearly all children need help with discipline and practicing at home. Parental involvement is a cornerstone of the Suzuki method:

As when a child learns to talk, parents are involved in the musical learning of their child. They attend lessons with the child and serve as “home teachers” during the week. One parent often learns to play before the child, so that s/he understands what the child is expected to do. Parents work with the teacher to create an enjoyable learning environment.¹⁵¹

However, Pleeth argues that it is also important for parents to understand that “the child’s guide at the beginning has to be the teacher, not the parent.”¹⁵² A healthy balance between parental involvement and respecting the teacher’s leadership will yield the most successful student-teacher-parent relationship.

¹⁵⁰ Battey, Robert. “János Starker Shares His Teaching and Philosophy.” CelloBello, 25 Sept. 2018, www.cellobello.org/cello-legacy/janos-starker/janos-starker-shares-his-teaching-and-philosophy.

¹⁵¹ Suzuki, Shinichi. “About the Suzuki Method.” Suzuki Association of the Americas. www.suzukiassociation.org/about/suzuki-method

¹⁵² Pleeth, William. *Cello*. Macdonald & Co., 1982, p. 201.

Etudes/Studies and Repertoire

When it comes to choosing repertoire for students, there are many schools, anthologies, and grade systems teachers can choose to follow. For example, the following list contains five of the most well-known education systems for cello repertoire progression.

1. The Suzuki Method - Created by Japanese violinist Shinichi Suzuki, the Suzuki Method comprises of graded repertoire books that span beginning to advanced pieces. The Suzuki method does not include supplemental etude books because the repertoire “is designed to present technical problems to be learned in the context of the music rather than through dry technical exercises.”¹⁵³

2. The Colourstrings Method - The Colourstrings Method was created by Hungarian brothers Géza and Csaba Szilvay and is particularly popular in Scandinavia. The material includes cello repertoire, etudes, and duet books. This method is useful because of the innovative way it teaches students to learn how to read music through colorful notation.

3. Royal Conservatory of Music (RCM) - RCM is one of the largest music education institutions in the world and provides examinations for students of all levels. Teachers have access to a free syllabus that lists repertoire, etudes, and technical tests that are required to pass each grade. Teachers can also purchase RCM's repertoire, etude, and technique books.

¹⁵³ Suzuki, Shinichi. “About the Suzuki Method.” Suzuki Association of the Americas. www.suzukiassociation.org/about/suzuki-method

This grade system is particularly useful because it also includes music theory and ear training material.

4. Associated Board of the Royal Schools of Music (ABRSM) - According to their website, “ABRSM is the UK's largest music education body, one of its largest music publishers, and the world's leading provider of music exams.¹⁵⁴ Similar to RCM, they offer repertoire and etude books, as well as ear training resources.

5. Statewide music study programs - Most states offer their own music study program that often includes examinations. For example, the Music Teachers' Association of California (MTAC) offers the Certificate of Merit, which is a graded music education program available to students of teachers who are members of MTAC. These exams include sight reading, repertoire, ear training, and written theory. Though Certificate of Merit does not publish their own anthologies like ABRSM and RCM, they do provide a syllabus that includes repertoire recommendations.

Though all of my students use at least one of these education systems, I have found that no one system fits the needs of every student. Therefore, I have assembled a comprehensive etudes/studies and repertoire catalog that allows me to create a personalized education system for each student. I have included my etudes/studies and repertoire catalog below, which is organized into the following categories: 1) etudes/studies, 2) anthologies, 3)

¹⁵⁴ ABRSM. “About Us.” Royal Schools of Music, <https://us.abrsm.org/en/about-us>.

works for cello and piano, 4) works for cello and orchestra, 5) unaccompanied solo works, and 6) works for cello ensemble. The etudes/studies and repertoire I assign most frequently are represented in bold.

Etudes/Studies

ABRSM Cello Scales and Arpeggios, Grades 1-8

Applebaum, Samuel: First Position Etudes for Strings

Applebaum, Samuel: Orchestral Bowing Etudes

Bazelaire, Paul: La Technique du Violoncelle

Block, Mike: Contemporary Cello Etudes: Studies in Style & Technique

Brückner, Oscar: Short Studies for Cello, Op. 30

Cossmann, Bernhard: Concert Studies, Op. 10

Dotzauer, Friedrich: 113 Studies for Solo Cello, Volumes 1 and 2

Duport, Jean-Louis: 21 Etudes for the Violoncello, Books 1 & 2

Feuillard, Louis: 60 Etudes For The Young Cellist

Feuillard, Louis: Daily Exercises

Franchomme, Auguste: 12 Caprices for Cello, Op. 7

Grutzmacher, Friedrich: Technology of Cello Playing, Volumes 1 and 2

Grutzmacher, Friedrich: Studies, Op. 38

Klengel, Julius: Technical Studies, Volumes 1-3

Kummer, Friedrich: Violoncello Method: Op. 60

Lee, Sebastian: First Steps for One or Two Cellos, Op. 101

Lee, Sebastian: 40 Easy Studies, Op. 70

Lee, Sebastian: 40 Melodies and Progressive Etudes, Op. 31

Legg, Pat: Superstudies for Cello, Books 1-2

Merk, Joseph: 20 Studies, Op. 11

Minsky, Aaron: Ten American Cello Etudes

Mooney, Rick: Double Stops for Cello

Mooney, Rick: Thumb Position for Cello, Books 1 and 2

Mooney, Rick: Position Pieces for Cello, Books 1 and 2

Piatti, Alfredo: 12 Caprices, Op. 25

Piatti, Alfredo: Method for Cello, Books -3

Popper, David: 15 Easy Studies, Op. 76

Popper, David: High School of Cello Playing, Op. 73

Popper, David: Preparatory Study, Op. 76

RCM Cello Technique, Levels 1-8

RCM Cello Etudes, Levels 1-8

RCM Cello Orchestral Excerpts

Schroeder, Alwin: 170 Foundation Studies, Volumes 1-3

Servais, Adrien-François: 6 Caprices for Cello, Op. 11

Ševčík, Otakar: 40 Variations, Op. 3 (arranged for cello)

Szilvay, Csaba: Colourstrings Daily Cello Technique

Young, Phyllis: Playing the String Game

Anthologies

The ABCs of Cello, Books 1-3

ABRSM Cello Exam Pieces, Grades 1-5

ABRSM Time Pieces for Cello, Volumes 1-3

ABRSM More Time Pieces for Cello, Volumes 1 and 2

ABRSM Principal Cello, Grades 6-8

The Boosey & Hawkes Cello Anthology
Building Technic With Beautiful Music, Books 1-3

Colourstrings Cello ABC, Books A-G

RCM Cello Repertoire, Levels 1-8

Recital Repertoire for Cellists, Books 1 and 2

Solos for Young Cellists, Volumes 1-8

Solos for Intermediate Cellists, Volumes 1-8

Suzuki Cello School, Volumes 1-10

Violoncello Music For Beginners, Volumes 1-3

Works for Cello and Piano

Auerbach, Lera: 24 Preludes for Cello and Piano

Bach, Johann Sebastian: Viola da Gamba Sonata

Bach, Johann Sebastian: Arioso from Cantata BWV 156 (arranged for cello and piano)

Baker, David: Sonata for Cello and Piano

Barber, Samuel: Sonata for Cello and Piano, Op. 6

Bartók, Béla: Rhapsody No. 1 (arranged for cello and piano)

Bazelaire, Paul: Suite Française, Op. 114

Beau, Luise Adolpha Le: Four Pieces for Cello and Piano

Beethoven, Ludwig van: Cello Sonatas, Nos. 1-5

Beethoven, Ludwig van: 7 Variations on Bei Männern, welche Liebe fühlen

Beethoven, Ludwig van: 12 Variations Ein Madchen oder Weibchen

Beethoven, Ludwig van: Variations On a Theme From Handel's Judas Maccabaeus

Berteau, Martin: Cello Sonata in G major, Op.1 No. 3 (formerly attributed to Giovanni Battista Sammartini)

Bloch, Ernest: From Jewish Life

Boccherini, Luigi: Cello Sonatas, Nos. 1-12

Brahms, Johannes: Cello Sonatas, Nos. 1 and 2

Bridge, Frank: Cello Sonata

Britten, Benjamin: Cello Sonata, Op. 65

Bolcom, William: Capriccio for Cello and Piano

Bolcom, William: Cello Sonata No. 1

Bonis, Mélanie: Cello Sonata, Op. 67

Boulanger, Nadia: Three Pieces for Cello and Piano

Bréval, Jean-Baptiste, 6 Cello Sonatas, Op. 12

Brown, Lawrence: Spirituals: Five Negro Folk Songs for Cello and Piano

Busoni, Ferruccio: Serenata, Op.34

Carter, Elliot: Sonata for Cello and Piano

Cassado, Gaspar: Requiebros

Cervetto, Giacobbe Basevi: 2 Sonatas for Cello, Op. 2

Chopin, Frédéric: Cello Sonata in G minor

Chopin, Frédéric: Polonaise Brillante in C Major, Op. 3

Clarke, Rebecca: Passacaglia on an Old English Tune for Cello

Copland, Aaron: Waltz and Celebration from Billy the Kid

Davidov, Carl: 4 Pieces, Op. 20

de Falla, Manuel: Suite populaire espagnole (arranged for cello and piano)

de Fesch, Willem: 6 Cello Sonatas, Op. 8

de Sarasate, Pablo: Spanish Dances, Op. 23, No. 2, Zapateado (arranged for cello and piano)

de Sarasate, Pablo: Zigeunerweisen, Op. 20 (arranged for cello and piano)

Debussy, Claude: Sonata for Cello and Piano

Delius, Frederick: Sonata for Cello and Piano

Dohnányi, Ernst von: Sonata in B flat, Op. 8

Dolin, Samuel: Variables for Cello and Piano

Dvorák, Antonin: Silent Woods, Op. 68, No. 5 (arranged for cello and piano)

Eccles, Henry: Sonata in G minor

Eckhardt-Gramatté, Sophie-Carmen: Duo Concertante for Cello & Piano

Elgar, Edward: Salut d'Amour (arranged for cello and piano)

Fauré, Gabriel: Après un rêve (arranged for cello and piano)

Fauré, Gabriel: Élégie, Op. 24

Fauré, Gabriel: Papillon, Op. 77

Fauré, Gabriel: Sicilienne, Op. 78 (arranged for cello and piano)

Foss, Lukas: Capriccio for Cello and Piano

Francœur, François: Cello Sonata in E major

Franck, César: Sonata in A major (arranged for cello and piano)

Geminiani, Francesco: 6 Cello Sonatas, Op. 5

Ginastera, Alberto: Pampeana No. 2, Op. 21

Goltermann, Georg: Capriccio for Cello and Piano

Grieg, Edvard: Cello Sonata in A minor, Op. 36

Hindemith, Paul: Drei Leichte Stücke

Hindemith, Paul: Cello Sonata, Op. 11, No 3

Honegger, Arthur: Sonata for Cello and Piano

Janáček, Leoš: Pohádka

Jolivet, André: Nocturne for Cello and Piano

Kabalevsky, Dmitri: Sonata for Cello and Piano, Op. 71

Kabalevsky, Dmitri: Rondo for Cello and Piano in Memory of Sergei Prokofiev, Op. 79

Kernis, Aaron Jay: Air

Kodály, Zoltán: Sonatina for Cello and Piano

Kokkonen, Joonas: Sonata for Cello and Piano

Koppel, Herman: Cello Concerto

Kilpinen, Yrjö: Cello Sonata in F major, Op. 90

Locatelli, Pietro: Sonata in D major (arranged for cello and piano)

Marcello, Benedetto: 6 Cello Sonatas, Op.

Martinu, Bohuslav: Cello Sonatas, Nos. 1-3

Martinu, Bohuslav: Nocturnes For Cello And Piano

Mendelssohn, Felix: Sonata for Cello and Piano, Nos. 1 and 2

Mendelssohn, Felix: Song Without Words, Op. 109 (arranged for cello and piano)

Mendelssohn, Felix: Variations Concertantes, Op. 17

Myaskovsky, Nikolay: Cello Sonatas, Nos. 1 and 2

Milhaud, Darius: Élégie for Cello and Piano, Op. 251

Paganini, Niccolò: Variations on a Theme from Mose by Rossini

Pärt, Arvo: Fratres

Pärt, Arvo: Spiegel im Spiegel (arranged for cello and piano)

Paradis, Maria Theresa von: Sicilienne (arranged for cello and piano)

Pentland, Barbara: Cello Sonata

Pergolesi, Giovanni Battista: Nina (arranged for cello and piano)

Persichetti, Vincent: Vocalise For Cello and Piano Cello

Piazzolla, Astor: Le Grand Tango

Piazzolla, Astor: Tres Piezas Breves, Op. 4

Pizzatti, Ildebrando: Cello Sonata in F major

Popper, David: Elfentanz (Dance of the Elves), Op. 39

Popper, David: Gavotte, Op. 23, No. 2

Popper, David: Polonaise de Concert, Op. 14

Popper, David: Spinning Song, Op. 55, No. 1

Popper, David: Tarantella, Op. 33

Popper, David: Wie einst in schöner'n Tagen, Op. 64 No. 1

Poulenc, Francis: Cello Sonata

Prokofiev, Sergei: Cello Sonata in C major, Op. 119

Rachmaninoff, Sergei: Sonata in G minor for Cello and Piano, Op. 19

Rachmaninoff, Sergei: Vocalise (arranged for cello and piano)

Reger, Max: Cello Sonatas, Nos. 1-4

Rochberg, George: Ricordanza (Soliloquy for Cello and Piano)

Rawsthorne, Alan: Sonata for Cello and Piano

Romberg, Bernhard: Cello Sonata in E minor, Op. 38

Ropartz, Guy: Cello Sonatas Nos. 1 and 2

Schumann, Robert: Fünf Stücke im Volkston (Five Pieces in Folk Style), Op. 102

Schumann, Robert: Träumerei, from Kinderszenen, No. 7 (arranged for cello and piano)

Saint-Saëns, Camille: Allegro Appassionato, Op. 43

Saint-Saëns, Camille: Cello Sonatas Nos.1 and 2

Saint-Saëns, Camille: The Swan from Carnival of the Animals

Scarlatti, Alessandro: Three Sonatas for Cello

Schnittke, Alfred: Sonata for Cello and Piano

Schubert, Franz: Sonata in A minor for Arpeggione and Piano, D. 821 (arranged for cello and piano)

Schumann, Robert: Adagio & Allegro, Op. 70 (arranged for cello and piano)

Schumann, Robert: Fantasiestücke (Fantasy Pieces), Op. 73 (arranged for cello and piano)

Sehested, Hilda: Three Fantasy Pieces

Senfter, Johanna: Cello Sonata in A Major, Op. 10

Shostakovich, Dmitri: Sonata for Cello and Piano in D minor, Op. 40

Sibelius, Jean: Malinconia, Op. 20

Smyth, Ethel: Cello Sonata, Op. 5

Strauss, Richard - Sonata for Cello and Piano, Op. 6

Stravinsky, Igor: Suite Italienne (arranged for cello and piano)

Still, William Grant: Summerland (arranged for cello and piano)

Squire, William Henry: Tarantella, Op. 23

Tansman, Alexander: Fantaisie for Violoncello and Piano

Tcherepnin, Alexander: Cello Sonatas Nos. 1 and 2

Valentini, Giuseppe: Sonata in E Major for Cello and Piano

Van Goens, Daniël François: Scherzo

Villa-Lobos, Heitor: Cello Sonata No. 2

Vivaldi, Antonio: 6 Cello Sonatas, Op. 14

Webern, Anton: Three Little Pieces, Op. 11

Webern, Anton: Two Pieces for Cello and Piano

Webern, Anton: Sonata for Cello and Piano

Williams, Vaughan: Six Studies in English Folk Song

Works for Cello and Orchestra

Barber, Samuel: Cello Concerto, Op. 22

Beethoven, Ludwig van: Triple Concerto, Op. 56

Bernstein, Leonard: Three Meditations from Mass

Bliss, Arthur: Cello Concerto

Bloch, Ernst: Schelomo

Boccherini, Luigi: Cello Concertos, Nos. 1-12

Brahms, Johannes: Double Concerto in A minor, Op. 102

Bréval, Jean-Baptiste, Cello Concertos, Nos. 1-4

Britten, Benjamin: Cello Symphony, Op. 68

Bruch, Max: Kol Nidrei, Op. 47

Carter, Elliot: Cello Concerto

Danzi, Franz: Variations on a Theme from Mozart's Don Giovanni

Davidov, Carl: Cello Concertos, Nos. 1 and 2

Delius, Frederick: Cello Concerto

Dvorák:, Antonin: Cello Concerto in B minor, Op. 104

Dvorák:, Antonin: Rondo in G minor, Op. 94

Elgar, Edward: Cello Concerto in E minor, Op. 85

Glazunov, Alexander: 2 Pieces for Cello and Orchestra, Op. 20

Golterman, Georg: Cello Concertos, Nos. 1-5

Gulda, Friedrich: Concerto for Cello and Wind Orchestra

Hartmann, Emil: Cello Concerto in D minor, Op. 26

Haydn, Joseph: Cello Concertos, Nos. 1 and 2

Herbert, Victor: Concerto No. 2 in E major, Op. 30

Jolivet, André: Cello Concertos, No. 1 and 2

Kabalevsky, Dmitri: Cello Concertos, Nos. 1 and 2

Khachaturian, Aram: Cello Concerto

Klengel, Julius: Cello Concerto No. 1 in A minor, Op. 4

Klengel, Julius: Concerto for 2 Cellos and Orchestra in E minor, Op. 45

Korngold, Erich: Cello Concerto C Major

Lalo, Édouard: Cello Concerto in D minor

Leo, Leonardo: Cello Concertos, Nos. 1-5

Martin, Frank: Cello Concerto

Myaskovsky, Nikolay: Cello Concerto, Op. 66

Milhaud, Darius: Cello Concerto No. 1, Op. 136

Monn, Georg Matthius: Cello Concerto G minor

Neruda, Franz Xaver: Cello Concerto No. 2 Op. 59

Pfitzner, Hans: Cello Concerto A minor Op. 52

Popper, David: Concerto in E minor, Op. 24

Popper, David: Hungarian Rhapsody

Prokofiev, Sergei: Sinfonia Concertante, Op. 125

Raff, Joachim: Cello Concertos, Nos. 1 and 2

Respighi, Ottorino: Adagio with Variations for Cello and Orchestra

Rimsky-Korsakov, Nikolay: Serenade for Violoncello, Op. 37

Romberg, Bernhard: Concertino for 2 Cellos, Op. 72

Roussel, Albert: Concertino for Cello and Orchestra, Op. 57

Rubbra, Edmund: Soliloquy for Cello and Orchestra, Op.57

Saint-Saëns, Camille: Cello Concerto No. 1 in A minor, Op. 33

Schuman, William: A Song of Orphius

Schumann, Robert: Cello Concerto in A minor, Op. 129

Shostakovich, Dmitri: Cello Concertos, Nos. 1 and 2

Stamitz, Karl: Cello Concertos, Nos. 1-3

Strauss, Richard: Don Quixote, Op. 35

Tartini, Giuseppe: Cello Concerto in D major

Tchaikovsky, Pyotr Ilyich: Pezzo Capriccioso, Op. 62,

Tchaikovsky, Pyotr Ilyich: Variations on a Rococo Theme, Op. 33

Vivaldi, Antonio: 27 Cello Concertos

Walton, William: Cello Concerto

Unaccompanied Solo Works

Bach, Johann Sebastian: Six Suites for Solo Cello

Beamish, Sally: Gala Water

Bloch, Ernst: Suites Nos. 1-3

Britten, Benjamin: Cello Suites, Op. 72, 80, and 87

Casals, Pablo: Song of the Birds

Cassado, Gaspar: Suite for Solo Cello

Chan, Ka Nin: Soulmate

Crumb, George: Sonata for Solo Cello

Escher, Rudolf : Sonata For Violoncello Solo

Fortner, Wolfgang: Cello Suite

Gabrielli, Domenico: Ricercare

Glass, Philip: Songs and Poems for Solo Cello

Harbison, John: Suite for Solo Cello

Henze, Hans Werner: Serenade

Hindemith, Paul: Cello Sonata, Op. 25, No.3

Klengel, Julius: Caprice in the Form of a Chaconne after a Theme by Schumann, Op. 43

Kodály, Zoltán: Capriccio for Solo Cello

Kodály, Zoltán: Sonata in B minor for Solo Cello, Op. 8

Ligeti, György: Sonata for Solo Cello

Lutoslawski, Witold: Sacher Variations

McCabe, John: Partita for Solo Cello

Mayuzumi, Toshiro: Bunraku

Nordheim, Arne: Clamavi for Violoncello Solo

Reger, Max: Three Suites for Solo Cello, Op. 131

Rodrigo, Joaquin: Como Una Fantasia

Saariaho, Kaija: Spins and Spells for Cello Solo

Shaw, Caroline: In manus tuas

Sheng, Bright: Seven Tunes Heard in China for Solo Cello

Sibelius, Jean: Theme and Variations for Solo Cello

Sollima, Giovanni: Lamentatio for Cello Solo

Summer, Mark: Julie-O

Summer, Mark: Kalimba

Tcherepnin, Alexander: Suite for Solo Cello

Ysaÿe, Eugène: Sonata for Solo Cello, Op. 28

Works for Cello Ensemble

Baker, David: Impressions for Two Cellos

Baker, David: Refractions for Four Cellos

Bartók, Béla: 44 Duos (arranged for two cellos)

Barrière, Jean-Baptiste: 6 Cello Sonatas

Beamish, Sally: Song of the Birds: Catalan Folk Song for Two Cellos

Beamish, Sally: Duel for Two Cellos

Berteau, Martin: 6 Cello Sonatas, Op. 1

Bréval, Jean-Baptiste: 6 Cello Duos, Op. 2 and 26

Buchanan, Dorothy: Cello Duet

Bunting, Christopher: Three Pieces for Cello Ensemble

Casals, Pablo: Sardana for Cello Orchestra

Chapman, Roger: Music for Two Cellos

Chopin, Frederic: Prelude, Op. 28, No. 9 and 15 (arranged for four cellos)

Couperin, François: Les goûts-réunis, ou Nouveaux concerts (arranged for two cellos)

David, Johann Nepomuk: Sonata Op. 57 for Three Cellos

Despik, Dejan: Dosta je ve, Op. 141

Dotzauer, Friedrich: 3 Duos, Op. 15

Dotzauer, Friedrich: 12 Duos, Op. 63

Dotzauer, Friedrich: Collezione di motivi d'opere favorite

Dotzauer, Friedrich: 3 Sonatas for 2 Cellos, Op. 103

Dotzauer, Friedrich: 6 Pieces for 3 Cellos, Op. 104

Duport, Jean-Louis: 21 Etudes for the Violoncello, Books 1 & 2 (arranged with cello accompaniment)

Glière, Reinhold: 10 Duos for 2 Cellos, Op. 53

Handel, George Frideric: Concerto Grosso in D minor, HWV 316 (arranged for three cellos)

Haydn, Joseph: Six Minuets For Two Cellos (arranged by Frances J. Steiner)

Hindemith, Paul: Cello Duet

Hofmann, Wolfgang: Partita for Two Violoncellos

Klengel, Julius: Hymnus for 12 Cellos, Op. 57

Klengel, Julius: Impromptu for Four Cellos, Op. 30

Klengel, Julius: 4 Pieces for Four Cellos, Op. 31

Klengel, Julius: Theme with Variations for Four Cellos, Op. 28

Klengel, Julius: Suite in D minor, Op. 22

Klengel, Julius: Small Suite for Three Cellos, Op. 59

Kraft, Anton: Cello Duos, Op. 5 and 6

Kraft, Anton: 3 Cello Sonatas, Op. 1 and 2

Kummer, Friedrich August: 3 Cello Duets, Op. 22

Kummer, Friedrich August: 6 Duos and a Capriccio, Op. 33

Kummer, Friedrich August: 6 Duos for Two Cellos, Op. 156 and 165

Laks, Simon: Dialogue for Two Cellos

Matz, Rudolf: 12 Duets for Two Violoncellos

Metzler, Friedrich: Quartet for Four Violincellos

Mozart, Wolfgang Amadeus: Le nozze di Figaro, K. 492 (arranged for four cellos)

Nicolai, Valentino: 6 Easy Cello Sonatas, Op. 8

Offenbach, Jacques: Duos for 2 Cellos, Op. 49-54

Popper, David: Polonaise de Concert, Op. 14 (arranged for eight cellos)

Pärt, Arvo: Fratres (arranged for four, eight, or twelve cellos)

Piazzola, Astor: Libertango (arranged for four cellos)

Pütz, Eduard: Blues Fantasy for Six Cellos

Rodrigo, Joaquin: Two Piezas Caballerescas for Violoncello Ensemble

Romberg, Bernhard: 3 Cello Duos, Op. 9 and 33

Sebastian, Lee: 3 Duets for Two Cellos, Op. 36-39

Sebastian, Lee: 6 Caprices, Op. 109

Shostakovich, Dmitri: Präludium (arranged for two cellos)

Telemann, Georg Philipp: 6 Sonatas (arranged for two cellos)

Villa-Lobos, Heitor: Bachianas Brasileiras No. 1

Wagner, Richard: Lohengrin, (arranged for four cellos)

Whitacre, Eric: Sleep (arranged for eight cellos)

Conclusion

The art of teaching is no different than performing when it comes to taking time to hone pedagogical skills. Legendary cellist Janos Starker once said, “When I started teaching 79 years ago, I wasn’t actually teaching. I said, ‘This is how I do it, so do it. It works for me, so it should work for you too.’ This is not teaching.”¹⁵⁵ He went on to explain that in order to teach his students effectively, he had to learn methods for teaching technique that go beyond demonstration. This document serves as an example of how to take methods that have been passed down from some of the greatest cellists and pedagogues and continue to build on them in order to better serve the next generation of cellists.

Being a cello teacher means so much more than fixing bow holds and correcting intonation. Teaching is a commitment to going on a demanding and deeply rewarding journey with each student. As teachers, we should strive to ensure that our students come away from their cello studies with the knowledge and skills to become capable, confident cellists - and human beings.

¹⁵⁵ Battey, Robert. “János Starker Shares His Teaching and Philosophy.” CelloBello, 25 Sept. 2018, www.cellobello.org/cello-legacy/janos-starker/janos-starker-shares-his-teaching-and-philosophy.

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