

CELEBRATING THE LEGACIES AND PEDAGOGIES OF EMINENT AMERICAN WOMEN STRING PEDAGOGUES

By Dijana Ihas 

A celebration of the centennial anniversary of the 19th Amendment beckons reflection on the many women who made significant contributions to advancing string pedagogy in the United States. Specifically, this article focuses on the pedagogical contributions of four eminent American string pedagogues—Dorothy DeLay, Karen Tuttle, Phyllis Young, and Mimi Zweig. These women were selected for their high-profile name recognition within the profession, the expansive body of scholarship detailing their lives and teaching practices, and to represent upper and lower string instruments. Although these women significantly impacted the field of string pedagogy in the United States, their contributions have never been clearly articulated side by side for comprehensive comparison and understanding. In honor of this anniversary, I seek to illuminate the details of their teaching philosophies and influences, and to articulate their unique pedagogical contributions and ideas.

Dorothy DeLay



Violin teacher, violin pedagogue, faculty at the Juilliard School of Music

Born: March 31, 1917, Medicine Lodge, Kansas

Died: March 24, 2002, New York, New York

Legacy

Dorothy DeLay was both the first American to teach at the Juilliard School of Music and the first woman to teach at this prestigious school. Her life and professional achievements are recognized through many prizes, including the ASTA Artist Teacher Award (1975), a National Medal of Arts (1994), and three honorary doctorate degrees from Oberlin Conservatory, University of Colorado, and Michigan State University. In addition to myriad accolades, her greatest legacy continues to be her students—a long line of world-leading performers and pedagogues including illustrious figures such as Itzhak Perlman, Midori, Sarah Cheng, Nadja Salerno-Sonnenberg, Simon Fischer, among others.

Pedagogy

Philosophy and Influences

Miss DeLay's teaching philosophy may be viewed through Lev Vygotsky's (1896–1934) concept of the *zone of proximal*

development, as she mindfully guided students through stages of learning until desired outcomes were accomplished (Gholson 1998, 537). As a young violinist and teacher, she was exposed to various national violin schools including German (through her studies with Hans Letz, who was a student of Joseph Joachim), Franco-Belgian (through her studies with Ramond Cerf and Louis Persinger, who both studied with Eugène Ysaÿe), and Russian (through her studies with Michael Press, who was a student of Jan Hrimaly, and her collaborative work with Ivan Galamian, who was a student of Konstantin Mostras) (Ihas 2017, 3). This exposure may explain Miss DeLay's proclivity for offering her students multiple solutions to the same technical or musical demands.

Teaching Principles

Formulating an individualized plan of study for each student was one of DeLay's teaching principles (Koornhof 2001, 80). She used the Socratic method of questioning to guide students toward methodically mapped musical choices, followed by an exploration of instrument/bow/body interactions as a technical means for realizing the imagined phrase-shape or desired tone-color (Tsung 1993, 72–76). With regard to teaching musical expressivity, her guiding belief was that musicality can be quantified. She illustrated this point with a story about Leonardo da Vinci who, when invited to give his opinion on a piece of Greek sculpture, took out a piece of string and began measuring its proportions instead of plainly marveling at the sculpture's "beauty" (Tsung 1993, 48).

Unique Pedagogical Practices and Teaching Ideas

Practice routines. DeLay developed a methodically constructed practicing regimen lasting five hours a day (Lewis 2003, 72). The first hour is dedicated to the "Seven Basics," the second hour to scales with arpeggios and passages from concerti, the third on etudes and Paganini's *Caprices*, the fourth on concertos, and the fifth on Bach and short pieces. The "Seven Basics" are organized into two subsets, in which the first three pertain to left-hand techniques (control of dropping and lifting of the fingers, vibrato, and shifting) and the final four pertain to right-hand techniques (four groups of bowing: whole-bow legato, detaché, martelé, and rebound) (Lewis 2003, 73).

Teaching vibrato with harmonics and vibrato "ping." When teaching finger vibrato, which requires the first knuckle to change from the "play" shape into a completely "flattened down" shape, DeLay taught students to relax the first joint into

a “natural harmonic position” rather than a “full-sounding pitch,” which produces the “play-relax” motion. This “play-relax” motion is closely connected to the concept of the “vibrato ping” that DeLay viewed as an excellent way for eliciting an audience’s emotional reactions. According to DeLay, if the pitch is played at the same speed of vibrato and the speed of vibrato is then reduced before turning to the pitch, this will produce the “ping,” or energy, that touches the listener’s emotions in a special way (Tsung 1993, 38–45).

Karen Tuttle



Violist, viola teacher, founder of viola pedagogy, faculty at Curtis Institute of Music

Born: March 28, 1920, Lewiston, Idaho
Died: December 16, 2010, Philadelphia, Pennsylvania

Legacy

Karen Tuttle is considered to be one of the most eminent viola players of the twentieth century, one who greatly contributed to the emancipation of viola-specific techniques. At the same time, her stellar teaching “left an indelible mark on the world of viola teaching” (Dane 2002, 60). For professional achievements, she received the ASTA Artist Teacher Award in 1994 and the Curtis Institute of Music presented her with an honorary doctorate degree in 2005. Tuttle taught two generations of leading violists who hold positions in major orchestras, chamber groups, conservatories, and universities. Some of the world’s most prominent viola soloists studied with her, including Kim Kashkashian and Steven Tenenbom.

Pedagogy

Philosophy and Influences

Tuttle’s teaching philosophy was influenced by her studies and collaborations with several leading musicians and pedagogues of the time, as well as her exposure to the theories of controversial psychologist Wilhelm Reich (1897–1957). By observing William Primrose’s practicing sessions, Tuttle gleaned an understanding of “natural” playing. Through Marcel Tabuteau, an oboist with whom she studied chamber music at Curtis, she was exposed to a musical phrasing philosophy that is based on grouping notes that “belong together” while creating musical phrases uninterrupted by measure lines (Dane 2002, 17). Tuttle also studied with legendary cellist Pablo Casals, adopting from him the belief that discovering the emotional resonance of a piece of music must precede learning how to play it. Demetrius Constantine Dounis informed her understanding of the physical mechanics that go into playing string instruments (Rodland 2020, 7–8).

Teaching Principles

The hallmark principle of Tuttle’s teaching is “Coordination” (Sander 2013, 18–28), which puts the physicality of musicality in the service of expressing emotions (Rodland 2020, 96). In her own words, “Coordination is the relationship between the horizontal movement of the bow and the movement of the neck, shoulders, chest, and pelvis” (Tuttle in Ritscher 1993, 89). Coordination also applies to grouping the notes into one or more gestures while creating longer and flowing musical lines (Sander 2013, 34).

Unique Pedagogical Practices and Teaching Ideas

Teaching stance. Alexander Technique and the Feldenkrais Method informed Tuttle’s ideas on teaching stance (Ritscher 1993, 89). According to Tuttle, the teaching stance includes “stacking up” and balancing several components of the body, starting with the position of the feet, knees and hips, abdominal part of the body, and the neck (LaCourse 2020, 17). What was unique about her approach to teaching feet position is that she proposed right-handed players play with the left foot forward and vice-versa (Ritscher 1993, 89). Similarly, she advocated using “release” movements such as knee bends to free tension from hips and knees. She taught the importance of a loose stomach (Dane 2002, 28) and asked her students to practice relaxing stomach muscles by making an “un-huh” sound. In addition, she was very adamant about keeping neck joints loose through movements called “neck releases” (Irvine 2020, 88). The culminating outcome of proper stance is a “jazzy” feeling in the entire body (LaCourse 2020, 18).

Teaching bow hold and drawing the whole bow. Instead of teaching the “bow hold,” Tuttle taught the concept of “balancing the bow” (Tuttle in Weinberger 1998, 67–70). She proposed that the bow stick be suspended by the last joint of the middle finger and the opposing thumb, and that all fingers must be malleable (Ritscher 1993, 90). To accommodate the various sizes of player’s hands, Tuttle offered the choice between the “shallow position,” in which the bow stick touches three fingers in the tip joints, and the “deep position,” where it touches fingers in the first joints. She encouraged early development of right-hand finger flexibility by playing as much as possible in the frog area while flexing the fingers. When teaching how to draw the whole bow, one of Tuttle’s guiding principles was that it is the elbow that leads the bow (Ramsey 2020, 63). “Classic Tuttle” method for navigating drawing the whole bow (Rodland 2020, 98) includes movements that are unique to her approach: “pull,” “re-pull,” “over the bow,” “scooping in,” along with “neck releases.”

Phyllis Young



Cellist, cello teacher, music educator, faculty at University of Texas

Born: October 20, 1925, Milan, Kansas
Died: November 28, 2017, Austin, Texas

Legacy

Phyllis Young's legacy is exemplified through her books and her direction of the University of Texas at Austin String Project that, under her direction and

leadership, became the gold-standard for String Projects at other universities. For her service to the string community, she received many honors and awards, including the ASTA Distinguished Service Award (in 1984), Indiana University's Eva Janzen Memorial Cello Center "Grande Dame du Violoncelle" (in 2000), and the Paul Rolland Lifetime Achievement Award from ASTA (in 2002). She was equally renowned as a cello teacher and as a teacher of future music educators, many of whom became leaders in the string education profession, including Donald Hamann and Robert Gillespie.

Pedagogy

Philosophy and Influences

Finding creative ways to extend the independence and quality of her husband's life (who suffered from multiple sclerosis) inspired Young to teach cello in innovative ways, which in her case sometimes meant the use of props utilized in everyday life to explain certain techniques or concepts. Timothy Gallwey's book *Inner Game of Tennis*, a popular read at the time, also influenced Young's teaching philosophy as she adopted its principle of the "inner and the outer" games as foundational to the success of executing refined movements. Young's pedagogy was influenced by the pedagogical practices of several significant string pedagogues/educators of her time, including Samuel Applebaum, Robert Klotman, Paul Rolland, Margaret Rowel, and Shinichi Suzuki (Kovach 2010, 383; Young 1985, 72).

Teaching Principles

To Young, the ultimate goal for learning music is playing with a beautiful tone. To attain this goal, the student first listens to the teacher's well-modeled sound, which is clear and resonant in nature and garnished with "gorgeous vibrato" (Kovach 2010, 373). Students are then instructed to listen to recordings of well-known musicians. The next step is known as the "best note principle." Students are encouraged to play one note with beautiful tone and then to look for the same quality of tone in other notes (Kovach 2010, 373–74).

Unique Pedagogical Practices and Teaching Ideas

Playing the String Game (Young 1978) was Young's first book on cello teaching. In it she explained teaching as the

process of "inner" and "outer" games. The "inner game" takes place within the teacher and it includes silent games such as teacher planning, learning goals, deciding on concepts to teach, developing motivational tactics, and coming up with specific teaching strategies and assignments. The "outer game" is exemplified by the teacher modeling on the instrument, various physical gestures, and verbal descriptions. Each mini game relates to a specific technical skill and it is presented through a movement found in everyday life. She also suggests a number of props from everyday life that teachers may find useful.

Teaching vibrato. One of Young's pedagogical specialties was teaching vibrato. When learning vibrato, students should already be fluent in the use of the whole bow and they should have prior knowledge of fingerboard geography. She viewed vibrato as a combination of a well-balanced left elbow and tension-free motions guided by the aural imagery of a "beautiful tone." One of the props she used for helping cello students establish an elbow-supported left hand was a small match box filled with rice or dried beans that she would attach to the back of the student's left hand with a rubber band. The student would shake the match box toward both ends of the finger board while listening for the loudest sound that this movement can produce—which is when there is a straight line between the left elbow and the wrist (Kovacs 2010, 371; Young 1986, 54–56).

Mimi Zweig



Violin teacher, violin pedagogue, faculty at the Jacobs School of Music, Indiana University

Born: 1950

Legacy

Mimi Zweig's legacy continues to expand as she retains exceptional results with her college and pre-college students at the Indiana University String Academy. She has also gained tremendous acclaim for her globe-trotting String Virtuosos. In 2004, the String Academy and Mimi Zweig received the prestigious Dorothy Richard Starling Foundation grant, which is designed to support gifted violinists in their pursuit of excellence. For her life-long commitment to excellence in teaching, Zweig received the ASTA Artist Teacher Award in 2019. Zweig is known as a pedagogue who feels confident teaching both very young and advanced students in equal measure—Joshua Bell is just one example of a student she started at a young age that she continued mentoring through the advanced stages of his musical development. Her students have won major national competitions and many hold positions within the finest symphonies and chamber orchestras. In addition to performers, she trained a high number of teachers, many of whom followed her example and established their own String Academies.

Pedagogy

Philosophy and Influences

Zweig's teaching philosophy is concerned with creating a "non-judgmental environment" in her studio (Sciaroni 2018, 191). This postulate implies that everything said in a lesson, whether positive or corrective, shall be perceived as an opportunity for learning and growth. Zweig's teaching is influenced by the pedagogies, visions, and philosophies of various pedagogues/teachers, including Shinichi Suzuki, Paul Rolland, Josef Gingold, Tadeusz Wroński, Janos Starker, Jerry Horner, on the top, and Dorothy DeLay (Sciaroni 2018, 82–90). From Suzuki, she adopted the "every child can" philosophy as well as the use of Suzuki's sequential repertoire. Rolland's approach informed the way she teaches "healthy foundations." For instance, she uses his "Statue of Liberty" exercise for the instrument hold and teaches the left-hand position/shape/mobility through the "Sliding on Magic X," the "Tapping Over High Dot," and "Plucking in the High, Middle, and Low Positions" exercises (Zweig 2011, 20–22). She also uses Rolland's supplemental repertoire, composed by Stanley Fletcher, to develop particular playing techniques in a musically interesting way. The systematic teaching of scales and etudes was influenced by Wroński, and her sequence of repertoire was developed over many years in her search for the most logical musical journey.

Teaching Principles

A guiding principle in Zweig's teaching is "establishing a healthy foundation" from the onset (Sciaroni 2018, 196). This principle is based on the mindful interplay between the instrument, the bow, and the player's body, arms, and hands. "Techniques as a tool for artistry," another guiding principle in her teaching, establishes that musically expressive playing is dependent on first obtaining fluid playing techniques (Sciaroni 2018, 9). One of her more recent pedagogical explorations is the use of a system of "The Code," which pertains to a student knowing fingering patterns in any given position and across the strings regardless of whether consecutive fingers move stepwise or in skips or leaps (Sciaroni 2018, 229–30; Zweig, interviewed by Ihas 2017). This provides students with a practical tool for organizing their intonation practice. Another newer pedagogical preoccupation of Zweig's is experimenting with the idea of balancing the instrument with the down force, the up force, and the realization of the inward force, which came from her colleague Jonathan Swartz, a violin professor from Arizona State University (Zweig, interviewed by Ihas 2017).

Unique Pedagogical Practices and Teaching Ideas

Establishing healthy foundations. To develop a well-balanced bow hold with younger students, whose pinkie fingers may not have the strength to keep a curved shape on the bow stick, Zweig uses a unique "device" known as the "Pinkie House." This is a little concave-shaped attachment made out of electric tape that is placed on top of the bow stick



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in the frog area. This keeps the student's pinkie in a curved shape. For establishing a healthy left-hand foundation, she teaches students a series of left-hand exercises adapted from Rolland (e.g., plucking, tapping, strumming, glissando), which ensures the development of a left-hand frame that supports playing in tune from the onset of instruction.

Website. Her website, Mimi Zweig (2017) Stringpedagogy.com, is a unique online learning platform developed at a time when videos dedicated to teaching string instruments were not commonly available. It is organized into five volumes, with additional online streaming resources attached. Each volume starts with an introduction that summarizes the major points of the volume. Video clips, ranging in length from two minutes to an hour long, provide visual illustrations of her teaching points. "The First Lesson" and "Making the Pinkie House" are among the many videos designed for teaching beginning students. For teachers of more advanced students, there are videos on scales and Kreutzer etudes. Depicting footage derived over the span of several years, "Sadie the Beginner" is a unique film that showcases Zweig's teaching approach over time. The film is organized into three parts: (1) From the Beginning through Twinkle, (2) Lightly Row through D major, and (3) G Major.

Coda

While this comparison examined the pedagogies of four eminent string women pedagogues, there are many others who have significantly contributed to our profession. String educators such as Elizabeth A. H. Green, Jacqueline Dillon, and Marjorie Keller laid the foundation for the methodological and practical application frameworks for teaching strings in American public schools. Studio pedagogues such as double bassist Diana Gannet have helped advance access and opportunities for women in low strings. Yet, we have only scratched the surface of celebrating this work and realizing possibilities. A greater examination of the impacts of women pedagogues through historical and qualitative

Table 1. Four Women String Pedagogues: Comparison and Summary.

| Women pedagogue | Primary teachers | Teaching career | Highlighted pedagogical contributions |
|-----------------|--|--|--|
| Dorothy DeLay | Markwood Holmes, Raymond Cerf, Michael Press, Hans Letz, Louis Persinger, Felix Salmond, Raphael Bronstein | Taught at: Juilliard School of Music, Sarah Lawrence College, University of Cincinnati Conservatory of Music, New England Conservatory, Meadowmount School of Music, Aspen Music Festival and School | <p>“Practice Schedule”: a guide for organized practicing routine around a five-hour schedule (Lewis 2003, 73)</p> <p>Three-phase martelé: beginning (bite), middle (slow and sustained), and end (tapering off) (Tsung 1993, 60–61)</p> <p>Active control of left-hand finger pressures: each “drop” of the finger is followed by an immediate “relax” and each “lift” is followed by an immediate “release” (Tsung 1993, 32)</p> <p>Vibrato “Ping”: the energy produced by manipulating the speed of vibrato right before finger returns to the pitch (Tsung 1993, 45)</p> |
| Karen Tuttle | Karel Havlíček, Henry Temianka, William Primrose | Taught at: Curtis Institute of Music, Mannes College, Juilliard School of Music | <p>“Speaking” posture and healthy “viola balance”: student faces forward and embraces instrument with the shoulder and chin while achieving the balance that fits students’ physiques (Tuttle 1985, 65)</p> <p>“Classic Tuttle” method for navigating the use of the whole bow: a series of “events” that happen at various parts of the bow including “re-pull,” “over the bow,” and “scoop in” (Rodland 2020, 96)</p> <p>“Coordination”: a hallmark of this approach that teaches physicality of musicality through subtle movements of the body including “neck releases,” “up bow releases,” and “releases on fast notes” (Irvine 2020, 88–90)</p> <p>“Emotion Chart”: a resource with emotions organized in five categories, Love, Joy, Anger, Fear, and Sorrow, that serves the purpose of helping students uncover the emotional charge of a piece of music (Teploff 2020, 167)</p> |
| Phyllis Young | Jeanette Barbour, Yvonne Tait, Horace Britt, André Navarra | Taught at: University of Texas at Austin | <p>“Jack-in-the Box” mini game for teaching posture: student quickly stands up and sits down without moving the feet to “automatically find a good sitting position for playing cello” (Young 1978, 13)</p> <p>“Cooked Macaroni” mini game for teaching energy transfer into left-hand fingers: the weight of the left arm transfers onto the string through the playing finger <i>only</i> while the other fingers “feel like cooked macaroni” (Young 1978, 56)</p> <p>“Substitution Plan” mini game for teaching vibrato: student vibrates “best note” with “best finger” and then plays the same note with other fingers while listening for the “best sound” (Young 1978, 92)</p> |
| Mimi Zweig | Winnifred Madison, Donnette Erickson, Robert Bloch, Ruth Shahar, Louis Krasner, Samuel Kissel, Karen Tuttle, Dorothy DeLay, Tadeusz Wron’ski | Teaches at: University of Indiana in Bloomington | <p>“Pinky House”: a little handmade concave-shaped attachment made of electric tape placed on the top of the bow stick in frog area that helps young students to keep pinkie in curved shape (Zweig 2017)</p> <p>“The Code”: a newer left-hand practice strategy in which student learns finger patterns replicable in any position on any string that proved to be effective in fixing intonation and left-hand balance (Sciaroni 2018, 228–232)</p> <p>“Wiggling the Last Knuckle”: a vibrato pre-exercise assisted by the teacher manually manipulating student’s left-hand fingers’ “last knuckles” (Sciaroni 2018, 223)</p> |

research methods is needed. Moreover, in this celebratory year of the 19th Amendment, we must continue to create pathways to allow more women, and especially women of color and other underrepresented groups, to join the string teaching community. It is my hope that this celebratory comparison sparks further interest in the accomplishments, contributions, and development of women in music (Table 1).

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