

BALANCING THE SCALES: A PRACTICAL VIOLA SCALE METHOD

BY

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INTRODUCTION

As a fledgling viola-player I naturally regard all other violists as studious chaps who don't have the finger facility of the notenfressers who make agile first violinists, but are better read, have heard more music, and are, altogether, men of superior taste.

- Irving Kolodin¹

With its husky singing voice and unwieldy body, the viola has had a long and difficult history as the ugly middle child between the violin and the cello. Violinists who were not “good enough” to play the virtuosic violin parts were encouraged to switch to viola, thus perpetuating the stereotype of the viola as a lesser instrument and the violist as a lesser musician. Luckily, this attitude has changed a great deal since the early 20th century. The viola is more and more recognized as a solo instrument worth the effort of a great musician. Unfortunately, because of the similarity in technique (at least on the surface) between the violin and viola, many pedagogues have been content to transpose violin technique methods down a fifth and call it a day. This does not do justice to the unique challenges of the viola, nor does it necessarily capitalize on the inherent qualities of the instrument. If the viola is simply treated like a big violin, it will always be the Dodge minivan to the violin's Lamborghini.

With the changing attitude toward the viola has come more pedagogical material written specifically for the instrument. The purpose of this document is to present a method of scale study that uses excerpts from viola literature as its content. The method presented here follows that which is outlined in the article written by Professor Atar Arad for *Strings Magazine*, published in December 2008, titled “Scaling New Heights: Choosing nontraditional scale material for today's stringed-instrument student”². Prof. Arad's article outlines a method in the abstract, and this document will present a concrete realization of his idea.

¹ Irving Kolodin, *The Musical Life* (New York: Alfred A Knopf, 1958), 61.

² Atar Arad, “Scaling New Heights: Choosing nontraditional scale material for today's stringed instrument student,” *Strings Magazine*, December 2008, 32—25, http://atararad.com/strings_magazine_2008.html (accessed June 16, 2015).

The merits of studying scales through repertoire are numerous, especially for more advanced students, and Prof. Arad is not the only person to advocate for the use of passages from repertoire as technical studies. “[Leopold] Auer encouraged students to invent their own exercises and use the difficult passages from concertos as studies.”³ One obvious advantage is that the method is specific to the instrument, and representative of how composers write for it. Composers rarely incorporate scales into their music the way instrumentalists have practiced them for the last century. A three-octave scale up and down the instrument in triplets is almost unheard of. The collection of excerpts assembled here will allow the student to practice scalar passages as they will encounter them in their repertoire, with changes of direction, irregularities, and outlines of harmonic progressions.

The scales in this collection were chosen for their technical demands and their musical merit, and should be practiced with both these elements in mind. Prof. Arad, in his article, suggests the student first practice the passage as a technical exercise, taking care of shifts, string crossings, sound production, bow speed, contact point, vibrato, articulation, and all the other technical variables. Next, think about the context of the piece. Is it a concerto, chamber music, or an orchestral piece, and how will that affect your intonation, sound production, and musical decisions? Once all of these elements have been thoroughly explored, play the passage as you would perform it. Hear the other parts in your head, and imagine you are playing for an audition, a student recital, or in Carnegie Hall. Give it the all energy and musical intention you can!⁴ Scale practice of this nature will help students connect the technical and musical aspects of their practicing, ultimately giving them more control and flexibility.

Carl Flesch, author of one of the most widely used violin and viola scale books today, says of fingerings “As a consequence of the infinite number of possibilities in the choice of fingers, this particular field of our violin technique has degenerated in the course of time to a

³ Chul-In Park, “Comparison of Leopold Auer’s and Ivan Galamian’s Violin Teaching,” (D.M. diss., Indiana University, 1995), 13.

⁴ Arad, 33.

point of arbitrariness, of purely personal whim, which comes dangerously close to anarchy.”⁵

Traditional scale methods, Flesch’s included, usually suggest one or occasionally two fingering possibilities for each scale, and there is little difference in fingering from one key to the next. Flesch goes on to say that a fingering should be chosen for maximum technical and musical value, but a technically or musically valuable fingering can vary a great deal from person to person. Teaching students to figure out what works best for their physique and abilities (or what will help them progress in their abilities) is extremely important. Technical practice should not be exempt from this type of decision-making, and passages from the literature force students to search for solutions rather than repeat a pattern.

In chapters 1 and 2 of this document we will look at traditional scale and etude books. Some of the scale methods are transcribed from violin methods, while others are originally for viola, and all the etude books discussed are originally for viola. I have narrowed the focus of the scale books to the 20th and 21st centuries, partly to keep the scope of the discussion manageable, and partly because the focus of this document is modern pedagogy and the viola was not the instrument it is today until well into the 20th century. The etude books date back to the 18th century because, even though we play modern instruments with modern technique, we continue to play old music. Our instrumental technique evolves, but it must continue to serve an ever-expanding variety of musical styles.

⁵ Carl Flesch, *Violin Fingering: Its Theory and Practice*, adapt. by Boris Schwarz (London: Barrie and Rockliff, 1996), 5.

Chapter 1: TRANSCRIBED METHODS

A witty Frenchman once remarked: 'Ce qui est trop bête pour être chanté, on le danse.' Similarly, he who is too beastly on the violin, throw him a viola.

- William Primrose⁶

Many of the traditional scale systems most widely in use today are transcribed violin methods, although there are method books, both new and old, that were originally written for viola. This chapter will focus on some of the more common methods, dividing the pool into transcribed methods and original ones. As mentioned in the introduction, the discussion will focus primarily on methods of the 20th century and later.

First we will look at transcribed methods, and probably the most widely used is the *Scale System: Scale Exercises in All Major and Minor Keys for Daily Study* by Carl Flesch. Flesch was a Hungarian violinist, known particularly as a chamber musician and teacher. The original violin method was written in 1923,⁷ and a viola transcription was published by Charlotte Karman, with the blessing of Carl Flesch, in 1942.⁸ “Flesch was famous for his... impeccable technique..., a technical specialty was his playing of fingered octaves with amazing speed and accuracy.”⁹ His system reflects this technically demanding aesthetic, and he says in his preface to the *Scale System* that his method “provides the best time-saving method of developing one’s general technique.”¹⁰ Of course, the development of technique is not an end by itself. As Flesch points out, “the prerequisite of true artistry is entire freedom from all and every kind of ‘system’.”¹¹

In order to develop one’s technique, Flesch advocates practicing a different key every day. Each key has the same exercises, and the book moves systematically around the circle of

⁶ Yehudi Menuhin and William Primrose, *Violin and Viola* (London: Macdonald and Jane’s, 1976), 171

⁷ Boris Schwarz and Margaret Campbell, “Flesch, Carl,” *Grove Music Online*, <http://www.oxfordmusiconline.com/subscriber/> (accessed 24 August 2015).

⁸ Carl Flesch, *Scale System: Scale Exercises in All Major and Minor Keys for Daily Study*, ad. Charlotte Karman (New York: Carl Fischer, Inc., 1942).

⁹ Boris Schwarz and Margaret Campbell, “Flesch, Carl,” *Grove Music Online. Oxford Music Online*. Oxford University Press, accessed July 9, 2015, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/09814>.

¹⁰ Carl Flesch, *Scale System*, ad. Charlotte Karman.

¹¹ Flesch *Scale System*, ad. Charlotte Karman

fifths, alternating major and minor keys (C major, A minor, F major D minor, etc.). He combines scales with bowing patterns so as to practice both hands at once, and the bowing patterns change from key to key. Flesch does not include dynamics in the music, but suggests in the preface that the student should add dynamics to his/her practice. Interestingly, the original violin version and the transcribed viola version both start in C major. This shows that Flesch and Karman are more interested in the harmonic progression than the placement on the instrument. Enharmonic keys are not given their own exercises. The book includes D-flat major, B-flat minor, G-flat major, E-flat minor, B major, and G-sharp minor; but not C-sharp major, A-sharp minor, F-sharp major, D-sharp minor, C-flat major, or A-flat minor. Each included key has the following exercises:

- One-octave scales, arpeggios, broken thirds, and chromatic scales on each of the four strings.
- Three-octave scales, arpeggios, broken thirds and chromatic scales.
- Double stops in thirds: scalar patterns, broken thirds patterns, and chromatic scales.
- Double stops in sixths: scalar patterns, broken thirds, and chromatic scales.
- Double stops in octaves: scalar patterns, arpeggios, broken thirds, and chromatic scales.

Also, all of the above in just the top octave.

- Double stops in tenths: scales, usually in a higher register than the lowest possible.
- Harmonics: scales, arpeggios, and broken thirds.
- The violin version includes double stops in harmonics.

Flesch includes the exercises in harmonics for each key because “many violinists neglect this form of technic and are likely to be embarrassed, if their repertoire should by chance force them to employ harmonics.”¹²

The other widely used violin method is *Contemporary Violin Technique* by Ivan Galamian and Frederick Neumann, called *The Galamian Scale System*, in the viola adaptation by

¹² Carl Flesch, *Scale System*, rev. Max Rostal, (New York: Carl Fischer, 1987); score.

Karen Olson. The Galamian/Neumann original is a three-volume work, but for the purposes of this document, we will focus on *Part I: Scale and Arpeggio Exercises* of Karen Olson's transcription. In the preface to this work, Galamian and Neumann state that they intend to cover "the essential elements of contemporary violin technique."¹³ Their aim is to challenge students through the combination of left hand and bow patterns that can be mixed and matched in various ways. This not only develops the student's technique on the instrument, it also "present[s] a constant challenge to the student's thinking process."¹⁴ In this method, Galamian and Neumann have tried very hard to create a method that will not become rote and mindless scale practice, but rather an almost inexhaustible supply of combinations for the student to explore.

The book is not organized by key like the Flesch *Scale System*. Instead it is divided by type of scale (scales in one position, three-octave scales, arpeggios on one string, etc.). Also, each section has a set of primary rhythmic patterns, and a set of suggested patterns to practice from volume 2. The exercises themselves have no rhythmic values assigned, but are grouped by bars into some regular pattern (groups of 8 notes, 5 notes, 7 notes, etc.). The following is a brief outline of the method's content:

Chapter I: Two-Octave Studies

- Major and melodic minor scales and arpeggios in two octaves: uses a variety of fingering options, including starting on lower or higher strings for scales starting in higher registers. Primary patterns are in groups of 8 notes and scales are in order around the circle of fifths, alternating major and minor.

Chapter II: Two and Three-Octave Studies

- Broken thirds, double stop thirds, sixths, octaves, and tenths, each section organized around the circle of fifths, with primary patterns in groups of 4 or 8 for three-octave exercises, and primary patterns in groups of 3 or 6 for two-octave exercises.

¹³ Ivan Galamian and Frederick Neumann, *Contemporary Violin Technique: Part I, Scale and Arpeggio Exercises* (New York: Galaxy Music Corporation, 1963), ii.

¹⁴ Galamian, *Contemporary Violin Technique*.

Chapter III: Three-Octave Studies

- Scales with two different fingering suggestions for each, always starting on either first or second finger. Rhythmic patterns are in divisions of 12, and both an “Acceleration Exercise” and a “Retardation Exercise”¹⁵ are suggested which incrementally diminishes or augments the note values through the repetitions of the scale. All major and minor (melodic and harmonic) keys are included.
- Arpeggios move up by half step through all major and minor keys.
 - Groups of 9 notes: Primary patterns of triplets. Includes the following chords: i, VI, VI+, vi, V7/IV, IV, iv, I sus 4 -3, I.
 - Groups of 12 notes: Primary patterns of 16th notes. Includes the following chords: I with added scale degree 2, V7/IV, vii°/N, V7/N (the next key, a half step higher).

Chapter IV: Four-Octave Studies

- Scales grouped in patterns of 8 notes. Keys included are C through E-flat major, harmonic minor, and melodic minor. They move up by half step, but it is not specified that the student should practice in all keys, only the ones printed.
- Arpeggios include keys between C and E, moving up by half step.
 - Groups of 12 notes: Primary patterns of triplets, including the following chords: i, I, I+, IV, vii°/N.
 - Groups of 8 notes: Primary patterns of 8th notes, including the following chords: I with added scale degree 2, V7/IV, vii°7/V, V7/N.
- Chromatic scale, starting and ending on C, with two different fingerings.

Chapter V: Studies in One Position

¹⁵ Galamian, *Contemporary Violin Technique*, 5.

- Scales: Playing scales in one position necessarily limits the range to just over two octaves, but the authors recommend practicing them in all major and minor keys, at least to 7th position if not higher. Tonic always starts on the first finger on the C string, and primary patterns are in groups of 8 notes.
- Chromatic Scales: Moves up the major scale (beginning on C, D, E, etc.), each scale starts on the first finger on the C string, but does not specify how high the exercise should go.
- Broken Thirds and Fourths: To be practiced in all keys with two different fingerings for each key.
- Arpeggios: All keys, each has a two-octave range, and the keys move up by half step.
 - Groups of 12 notes: primary patterns of triplets and 16th notes, includes the following arpeggios: i, VI, VI+, vi, IM7, IV, iv, I sus 4 -3, I.
 - Groups of 16 notes: primary patterns of 16th notes, includes the following arpeggios: I with an added 2nd scale degree, V7/IV, vii°/V, V7/N.

Chapter VI: Studies on One String

- Scales: Each scale is one octave plus a sixth, and there are four fingering variations, each to be played in all major and minor keys with rhythmic patterns that are divisions of 12. These fingerings do not take into account the pattern of whole and half steps of the scale, but rather are applied independently of the usual musical considerations for fingerings.
 - 1 finger scales: 1-1-1, 2-2-2, 3-3-3, 4-4-4.
 - 2 finger scales: 1-2-1-2, 2-3-2-3, 3-4-3-4.
 - 3 finger scales: 1-2-3-1-2-3, 2-3-4-2-3-4.
 - 4 finger scales: 1-2-3-4-1-2-3-4.
- Chromatic Scales: Two-octave scales, with two fingerings given but more may apply. To be practiced on all four strings.

- Broken Thirds, Fourths, Fifths, and Sixths: To be practiced in all keys on all strings, with different given fingerings. All but thirds should be practiced with both shifting and “creeping” fingerings.
- Arpeggios: Triads in major, minor, diminished and augmented; diminished and dominant sevenths; two octaves in all keys moving up by half step. Exercises are written for the C string, but should be practiced on all strings.

Chapter VII: Non-Traditional Studies

- Scales of Varied Length and Different Groups of Notes: Dorian, Phrygian, and Lydian modes in patterns of 5, 7, and 9 notes. Scales are two-and-a-half octaves in range and should be practiced in all keys.
- Whole Tone Scales: To be practiced on one string (start on C, C-sharp and D on the C string, and the equivalent for each string), across strings (start on C, E, A-flat, and C upper octave, and stay in position), and in three octaves (start on D, F, G-sharp, B, and D upper octave). Groups of 9 or 12 notes in patterns of triplets and 16th notes.
- Non-Traditional Scales and Arpeggios: Scales are built from a series of intervals that repeat. There are 10 scales built this way in the book, and they range from 3 to 9 intervals, including whole steps, half steps, and augmented 2nds. Arpeggios are built the same way, with either 2 or 3 intervals of minor thirds, major thirds, and perfect fourths.

The Galamian method is much more complex in its approach than the Flesch book. Flesch is clearly harmonically oriented, grouping his exercises by key and ordering them around the circle of fifths. Galamian (and Olson) seems to be more interested in variety and flexibility, grouping his exercises by skill and moving through keys by half step. Notable aspects of *The Galamian Scale System* are the inclusion of the whole tone scale and the non-traditional scales and arpeggios. This is probably due to the fact that Galamian wrote his method in 1966 and almost all of the other methods commonly in use were written significantly earlier.

Otakar Ševčík's *School of Viola Technique, op. 1* (arranged for viola by Lionel Tertis), is also a popular method book. Unlike Flesch and Galamian, Ševčík combines elements of a scale method and a general technique book. There are four volumes, each with a slightly different focus, and in the preface Ševčík states “the first consideration in string playing, is the attainment of *perfect intonation*. This can only be achieved by the most *intense* and *concentrated* listening, (not superficial listening).”¹⁶ Throughout the four volumes of this book significant emphasis is placed on comfort in and an understanding of the entire range of the instrument, with the primary objective being perfect intonation.

Volume 1 is titled *Exercises in First Position*, and includes the following:

- Finger exercises on one string: Different patterns using all four fingers.
- Finger exercises on two strings: Varies the key and finger patterns.
- Bow exercises for string crossings: A variety of slurrings of alternating strings.
- Two-octave scales: Major, harmonic minor, and melodic minor, goes around the circle of fifths (F major, D minor, B-flat major, G minor, etc.).
- Scales in broken thirds: One-octave scales, around the circle of fifths.
- Scales in broken sixths: Scales less than an octave, around the circle of fifths.
- Scales in broken octaves: Scales less than an octave, around the circle of fifths, with fingerings that shift or cross strings.
- Ninths, Tenth, etc.: Scales less than an octave, around the circle of fifths, both shifting and crossing strings.
- Tonic triads: Double stops in each key, with voicing of the chords dependent on the key, around the circle of fifths.
- Arpeggios: Less than two octaves, around the circle of fifths, also used as a bowing exercise.

¹⁶ Otakar Ševčík arr. Lionel Tertis, *School of Technique, op. 1, part 1* (Bosworth & Co., 1953), 3.

- Chromatic scale: Starts with a small section (less than an octave), and slowly moves up the instrument adding range, up to two octaves.
- Diminished 7th chords: Various voicings of each chord, creeps up the instrument.
- Arpeggios of different chords: More like “standard” scale practice than other exercises so far, just goes up and down through each key.
- Double stops: Most of the exercises use oblique motion, where a note on one string is held while the notes on the other string change. The speed of the changes varies and some, but relatively few, exercises are in parallel or contrary motion. These exercises are similar to the very first finger exercises in that they are not harmonically organized, but rather change by finger pattern.
- Ends with a list of various bowing suggestions.

Volume 2 is titled *Exercises in 2nd – 7th Positions*, and includes the following:

- Finger exercises on each string, harmony changes depending on the finger pattern (2nd, 3rd, 5th, 6th, and 7th positions).
- Finger exercises with a drone on an adjacent string (3rd and 4th positions).
- Major and minor triads in double stops, goes through all keys around the circle of fifths. Chords are voiced to remain in position (2nd, 3rd, and 4th positions).
- Broken octaves, goes through all keys around the circle of fifths. Use string crossings to stay in position (2nd and 3rd positions).
- Finger exercises shifting between positions (1st - 2nd, 1st - 3rd, 2nd - 3rd, 1st - 4th, and 2nd - 4th).
- Diminished seventh arpeggiated chords (2nd position).
- Exercises in all keys including scales, broken thirds, arpeggios, and combinations (2nd, 3rd, 4th, and 6th positions).
- Various arpeggiated chords, both triads and seventh chords (2nd, 4th, and 5th positions).

- Chromatic scale (2nd position).
- Exercises in double-stopping in all keys, major and minor triads around the circle of fifths (2nd and 3rd positions).

Volume 3 is titled *Changes of Position*, and includes the following:

- Scales on one string: One octave major and minor scales and broken thirds, around the circle of fifths. Each starts on a different string depending on the key.
- Scales over three octaves: Position and starting string based on key. All major and minor scales around the circle of fifths, includes bowing and articulation suggestions.
- Arpeggios on one string: One octave arpeggios including the chords i, I, vi, IV, iv, vii^o/iii, and V7/IV. Moves by key around the circle of fifths.
- Arpeggios over three octaves: Simple tonic triad arpeggios moving around the circle of fifths. Different slurs / bowings, and slightly different arpeggiations based on key.
- Arpeggiated finger exercise patterns: shifts between cells of four notes.
- Arpeggios over three octaves: Various arpeggios in each key (i, I, vi, IV, iv, vii^o, V7/IV).
- Chromatic scales: Two octaves, various starting pitches.
- Shifting exercises: Various types of shifts including same and different fingers, and same and different strings. Exercises include finger patterns, scales, arpeggios, trills, small and large leaps, and harmonics.

Volume 4 is titled *Exercises in Double Stopping*, and includes the following:

- Octaves: Scales and tonic arpeggios; scales, triads, and finger patterns in oblique motion; and scales and arpeggios remaining on the same strings.
- Thirds: Two octave scales in all keys.
- Sixths: Two octave scales in all keys, and two octave triad arpeggios in all keys (mostly sixths, but some fifths depending on the key and the voicing).
- Exercises in harmonics: Scales and arpeggios in all keys.

The Ševčík Op. 1 method covers many technical issues in a more specific way than the Flesch or Galamian books. In that sense, it is not exactly a scale book, but it is included in this survey because it contains all the elements of one. Unlike many of the other methods surveyed here, harmony is not a primary organizational factor. Ševčík's method is structured around different techniques, and circle-of-fifths harmonic progressions are only used on the most local levels.

This method is transcribed for viola by Lionel Tertis from the original violin version, and the transcription is a little problematic. Unlike Karen Olson's adaptation of the Galamian system, Tertis made very few changes to the original. There are, unfortunately, some editing mistakes, as well as some rather strange notational choices. For one thing, there are several note mistakes, particularly in the later volumes. There is also a great deal of material in very low registers that is written in treble clef. For passages on the C-string, the student is forced to read several ledger lines below the treble staff, which is an uncommon practice for the viola. Generally, treble clef is employed only for notes involving ledger lines above the staff in alto clef. Whether this is due to negligence or an attempt to familiarize violists with unusual notation is difficult to say.

Like the Ševčík method, Henry Schradieck's *School of Violin-Technic Book 1: Exercises for Promoting Dexterity in the Different Positions* is more of a general technique book than a scale book. Schradieck is more interested in fingerboard geography and finger dexterity and independence than keys or key relationships. The book is organized as follows:

- Exercises on One String: Scales and finger patterns on the A-string, in A major, A minor, and chromatic. Patterns of 16th notes.
- Exercises on Two Strings: Scales, arpeggios, other finger patterns, and bariolage on the D and A strings, in D major and chromatic. Patterns of 16th notes.
- Exercises on Three Strings: Scales, arpeggios, and other patterns on the D, A, and E strings, in E major with some chromatics. Patterns of 16th notes.

- Exercises on Four Strings: Scales, arpeggios, and other patterns across all four strings in G major and D minor with some chromatics. Patterns of triplets, 16th notes, and sextuplets.
- Exercises in the Second Position: Scales, arpeggios and other patterns in B-flat major with chromatics. Patterns of 16th notes.
- Exercises in the First and Second Positions: Arpeggios, broken chords, and other patterns in A major with chromatics. Patterns of sextuplets and 32nd notes.
- Exercises in the Third Position: Scales, arpeggios, and other patterns in D major with chromatics. Patterns in 16th notes and sextuplets.
- Exercises in the First, Second, and Third Positions: Scales, arpeggios, and other patterns in A-flat major with chromatics. Patterns in 16th notes.
- Exercises in the Fourth Position: Scales, arpeggios, and other patterns in D major with extensive chromatics. Patterns in 16th notes.
- Exercises in the First, Second, Third, and Fourth Positions: Scales, arpeggios, and other patterns in B major with chromatics. Patterns in 16th notes and sextuplets.
- Exercises in the Fifth Position: Scales, arpeggios, and other patterns in E major with chromatics. Patterns in 16th notes.
- Exercises Passing Through Five Positions: Scales, arpeggios, and other patterns in A major with chromatics. Patterns in 16th notes.
- Exercises in Sixth Position: Scales, arpeggios, and other patterns in F major with chromatics. Patterns in 16th notes.
- Exercises Passing Through Six Positions: Scales, arpeggios, and other patterns in B major with chromatics. Patterns in 16th notes and sextuplets.
- Exercises in Seventh Position: Scales, arpeggios, and other patterns in G major and minor with chromatics. Patterns in triplets and 16th notes.

- Exercises Passing Through All Positions: Scales, arpeggios, and other patterns in F major with chromatics. Patterns in 16th notes with occasional sextuplets.
- Final Exercise: Patterns on specific strings or in specific positions with frequent trills, in D major with chromatics. Patterns in 16th notes.

As is obvious from the progression of the book, Schradieck's primary objective is to familiarize the student with the entire fingerboard (at least, up to 7th position). He writes his exercises in keys because that is standard and convenient, but the harmony is not as important as dexterity in each position and knowledge of how the positions relate to each other. The only keys used are G, D, A, E, B, F, B-flat, and A-flat major, and D and G minor. Within these keys, however, there is almost always significant chromaticism because of the use of different finger patterns (low and high 2, low and high 3, etc.). This book is also meant to be practiced in order. Each exercise builds on the skills learned in the previous, and Schradieck is careful to reinforce all previous elements in each new section. Of all the methods studied in this chapter, Schradieck's is the least like a "traditional" scale book, but worth including because it is widely used today and approaches from a different angle the same techniques addressed in other scale methods.

The last transcribed method we will look at is Leonard Mogill's *Scale Studies for Viola*, which is based on Jan Hřimalý's *Scale Studies for Violin*. Mogill, a renowned teacher, was a violist in the Philadelphia Orchestra for over 60 years.¹⁷ He published several studies for viola, including two that will be addressed here. Of the *Scale Studies for Viola*, Mogill writes "There has long been a need for a comprehensive book of elementary, intermediate, and advanced scales for the viola. Since the Hřimalý scale studies filled a similar need in the violin repertoire, these scales, transcribed and edited for the viola, should effectively fill a void in the viola literature."¹⁸

¹⁷ Daniel Webster, "Leonard Mogill, 86; Retired Violist for the Philadelphia Orchestra," *philly.com*, 30 October 1997, http://articles.philly.com/1997-10-30/news/25538766_1_philadelphia-orchestra-violist-music-director-riccardo-muti (accessed July 17, 2015).

¹⁸ Leonard Mogill, *Scale Studies for Viola*, (New York: G. Schermer, Inc., 1967), 2.

This book is different from Flesch, Galamian, and Ševčík in that it progresses by skill level.

There are several iterations of scales in every key, each with a progressively wider range and/or more comprehensive use of the instrument.

The book is organized as follows:

- Scales and arpeggios in one octave: All keys, organized around the circle of fifths.
- Scales and arpeggios in first position: All keys, organized around the circle of fifths.
- Scales and arpeggios in one position beginning on the first finger, second finger, and third finger: All keys, around the circle of fifths, 1st - 7th positions.
- Scales and broken thirds on one string: 1st - 3rd - 5th positions, 2nd - 4th - 6th positions, 3rd - 5th - 7th positions.
- Two octave major and minor scales and arpeggios: All keys, around the circle of fifths.
- Exercises on one string: Finger patterns and shifting exercises.
- Changing fingers on one note: Exercises on all four strings with all four fingers.
- Two octave major and minor scales on one string.
- One octave scales in high registers: Starts on C (on the A string) and goes up by half step
- Three octave scales and arpeggios: All keys, around the circle of fifths. Arpeggios include chords I and IV.

This completes the survey of viola method books that were transcribed from violin originals. Despite being written originally for violin, most of the exercises in the books discussed in this chapter are useful for violists and contain many of the same elements of the books we will discuss in the next chapter. The methods discussed above are all primarily organized either by key or by technique. Flesch and Mogill are organized harmonically on the largest level, although they approach that organization slightly differently. Ševčík and Schradieck are more interested in fingerboard geography and general dexterity, and organize their methods around finger patterns on different strings, with harmonic organization only on the most local level. Galamian and

Neumann fall in the middle, with macro-organization by type of scale or technique, and micro-organization by key, although the keys move up by half step, which undermines any harmonic relationship from one to the next. The way each of these methods is organized says a lot about the goals and priorities of the authors.

Chapter 2. PUREBRED METHODS AND ETUDES

If [violists] employed the necessary industry, they could easily improve their lot in a large establishment, and gradually advance their position instead of remaining chained to the viola to the end of their lives, as is usually the case. There are many instances of people who, after playing the viola in their youth, achieved great eminence in the musical world. And later, when already qualified for something better, they were not ashamed to resume the instrument in case of need.

-Johann Joachim Quantz¹⁹

Although the most commonly used scale method books for viola are transcribed violin methods, some authors did write with the viola in mind. Among these books, some are for intermediate or advanced violists, and some are designed to teach viola to proficient violinists. Many method books have been written for beginning students and classroom teaching, particularly in the past 25 years, but these are outside the scope of this discussion.

For the sake of continuity from the previous chapter, we will look first at Leonard Mogill's *Advanced Scales and Double Stops for Viola*. This book, like Flesch's *Scale System*, is organized harmonically. Mogill starts with C major and moves around the circle of fifths (C major, A minor, F major, D minor, etc.), and each key is explored fully before moving on to the next. Each key contains the following exercises:

- Three or four octave scale (depending on key).
- Two or three octave broken thirds (depending on key).
- Single string patterns (broken thirds or similar), each key has exercises on two strings.
- Two or three octave chromatic scale (depending on key).
- Three or four octave tonic arpeggio (depending on key).
- Scales in thirds, sixths, octaves, and tenths.

Advanced Scales and Double Stops for Viola is a traditional scale method book in most ways. Harmony is the priority, the right hand is not varied at all between exercises, and each key is given the exact same treatment. The most unusual thing about this method, particularly

¹⁹ Johann Joachim Quantz, *On Playing the Flute: The Classic of Baroque Music Instruction*, 2nd ed., trans. by Edward R. Reilly (London: Faber and Faber, 1985), 238.

because it was originally written for viola, is the inclusion of tenths in the practice of double stops. Especially in low positions, tenths are uncomfortable for most violists. Even of the violin methods studied here, few have extended exercises in tenths.

Hans Sitt (1850-1922) was a well-known violin teacher and prolific composer of both concert works and pedagogical material.²⁰ He taught violin at the Leipzig Conservatory, and wrote over a dozen scale and etude books for violin. His contribution to viola pedagogy consists of the *Practical Viola Method* published in 1891,²¹ and a book of etudes to be discussed later. Sitt states in the introduction to the *Practical Viola Method* “In this method the author, supported by his own practical studies and long experience in teaching, has endeavored to present concisely all that is necessary to enable the student to become a thoroughly good and efficient Viola player, either in the orchestra or in chamber-music; provided that he who chooses this instrument for study has previously acquired some proficiency in violin playing and a thorough knowledge of the rudiments of music.”²²

The book includes the following sections and exercises:

- Rudiments: Clef reading and placement of the fingers in first position; intervals of 2nds - 7ths; first position scales in all keys around the circle of fifths (the opposite direction of a dominant - tonic relationship, so C major, A minor, G major, E minor, etc.); rhythm etudes; bowing etudes (similar to Kreutzer Studies); and finger exercises (similar to Ševčík or Schradieck).
- Scales and exercises in each position, half position through 7th position.
- Scales in all keys and positions: Two octaves, moves by half-step up the chromatic scale (C major, C minor, D-flat major, C-sharp minor, etc.).

²⁰ Theodore Baker, *Biographical Dictionary of Musicians*, 4th ed. (New York: G. Schirmer, Inc., 1940), 1023. <http://www.archive.org/stream/biographicaldict00bake#page/517/mode/1upj> (accessed July 15, 2015).

²¹ Hans Sitt, *Praktische Bratschen-Schule*, 7608 C.F. Peters (Leipzig: C.F. Peters, 1891).

²² Hans Sitt, *Practical Viola Method*, (New York: Carl Fischer, Inc, 1924), IV.

- Scales in broken thirds: Two and a half octaves, moves by half-step up the chromatic scale.
- Tonic arpeggios: Two octaves, moves by half-step up the chromatic scale.
- Diminished seventh arpeggios: Two octaves starting on C, D, E, and F-sharp.
- Chromatic scale: First and third positions, both sliding and shifting fingerings.
- Embellishment exercises: Trills, trills with a turn, mordents, and turns.
- Double stops: Single position, starting slowly with a bow change per note and getting faster, including slurs. Includes all intervals, oblique, parallel and contrary motion; shifting, scales in thirds, sixths, octaves, and etudes primarily in thirds.
- Chords and arpeggios: Etudes of three note chords; arpeggios of three and four notes across the strings, slurred up and down.

The book is designed to help an already skilled violinist learn viola, and so it moves very quickly through a great deal of fundamental information. The part of the book that is strictly a scale method is not nearly as extensive as Flesch or Galamian, and it stays relatively low on the instrument. In fact, the exercises in specific positions go significantly higher than the scales. Sitt does make a point of switching back and forth between alto and treble clefs, presumably to allow the budding violist to practice this skill s/he would not have learned as a violinist. He also includes one set of enharmonically equivalent scales in the course of the exercises, G-flat major and F-sharp major, and they are presented as bracketed staves.

This method also includes valuable exercises in half position. Sitt says “the half position, which is close to the nut, is more used on the Viola than on the Violin; it offers the player many advantages, particularly to those whose hands are small.”²³ Perhaps the most uncommon element of this method is the section with embellishment exercises. These are frequently seen in etudes, but rare in technique method books. The inclusion of this section probably has to do with the age

²³ Hans Sitt, *Practical Viola Method*, 33.

of this method. Written in 1891, this is one of the oldest books that will be discussed here, and improvisation was a much more necessary skill at the end of the 19th century than it is now.

The Art and Practice of Scale Playing on the Viola was written by William Primrose, arguably one of the most influential violists and teachers of the 20th Century. In his extensive (and charming) introduction, Primrose explains his approach to scales in general and outlines how a student should approach his scale method in particular. His first point is that scales are essential to a thorough knowledge of the fingerboard, and should be practiced mindfully. Primrose says the fingerings suggested in this book are one solution but are certainly not the only solution. When thinking about fingerings, a student should be aware of the distance between notes, and not be a slave to the traditional idea of positions. He stresses that, whenever possible, the size of shifts should be minimized to half steps. This will allow the student to find fingerings most suitable to the situation and not worry about whether or not s/he is in the correct position. Scales should be practiced slowly at first with one note per bow. As facility develops, the student should increase the tempo and slur larger groups, eventually slurring the whole scale up or down in a single bow. Primrose also stresses that the student should use both hands as s/he would practice a piece of music. This means sensitivity to dynamics, tone, articulation, and vibrato.

A large percentage of this book, both in the introduction and the exercises, is dedicated to shifting. Primrose talks about “link fingers”²⁴, which move clearly from position to position at the end of the bow before the shift. He also stresses that the more difficult descending shifts should be practiced before ascending shifts. Link fingers for descending shifts are always the same as the note before the shift, but link fingers for ascending shifts can vary. As the student practices this method of shifting, and greater facility is achieved, the shift on the link finger will become inaudible. The other shifting technique Primrose employs, and one that might be unique to his method, is the “octave-sounding open string.” This is a phenomenon in which the upper

²⁴ William Primrose, *The Art and Practice of Scale Playing on the Viola* (New York: Mills Music, Inc., 1954), 3.

octave harmonic sounds between consecutive stopped notes, even when the player does not finger the note and plays the open string instead. This only works if the tempo is fast enough, but Primrose advocates sounding the open string during slow practice to get used to the fingering.

Primrose, in his introduction, also advocates for the use of open strings and low positions. “Especially on the Viola are the open strings among its glories, and to eliminate this source of characteristic sonority is one of the crimes to be charged the old order of Violists who were responsible, so often, for the criticism leveled at the the instrument, —its somber lack-lusterness and so forth.”²⁵ Primrose argues for open strings (as long as they are well in tune) as well as the use of the A string as much as possible. Most of his scale fingerings do not shift until the A string, and those that do remain in low positions until it becomes impossible.

The first part in this book consists of scales, organized in groups of four, that move up by half step. Each scale is three octaves and each group consists of the following scales: major, the parallel minor, flat VI (which acts as V/N), and N (which becomes the “tonic” of the next set). For example, the first four scales of the book are C major, C minor, A-flat major, and D-flat major. The other thing Primrose is careful about in these scales, is that each scale in the group starts on the same note. Taking our first example, C major and C minor both start on the open C string, which is tonic for those scales. A-flat major also starts on open C, which is scale degree 3, and D-flat major starts on scale degree 7. The next group begins with D-flat major starting on scale degree 1. Primrose’s collection includes C major through the first scale of the A-flat major group, but states in the introduction that the pattern could continue.

The next section of the book consists of harmonic minor scales. These begin with C minor and move up by half step through G minor. Like the previous section, the student is encouraged to continue the pattern. For the most part Primrose sticks to his stated preference for lower positions, but F and F-sharp minor both begin in third position and do not use any open strings.

²⁵ William Primrose, *The Art and Practice of Scale Playing on the Viola*, 4.

The rest of the book, and about two-thirds of the content after the introduction, is shifting studies for each scale. Each of the 41 scales in the first part is numbered, and each shifting study has a corresponding number or numbers. An emphasis is placed on descending shifts, with a break down of how to practice using the “link finger” method. Single finger shifts are also given significant attention. Primrose says in the introduction, “The use of the fourth finger on consecutive notes can readily degenerate into a most unpleasant caterwauling, and I place considerable emphasis on the elimination of this rather unseemly sound... The fourth finger *must* be moved from note to note with a species of *left hand* staccato, as it were, completely divorced from anything appertaining to a glissando.”²⁶ Although Primrose is particularly derisive of consecutive fourth finger shifts, the same principle holds true for other consecutive finger shifts as well.

In all of the shifting studies, Primrose carefully writes slurs so that bow changes do not correspond with left hand shifts. He stresses the importance of learning to shift smoothly, independent of a bow change, in the preliminary stages of learning the link-finger shifting method. Because of this, many of the shifting studies are slurred over the repeat and the student should be careful to observe them. Shifting exercises for the harmonic minor scales only include ascending shifts because the appropriate descending shifts have been practiced in previous exercises.

William Primrose’s *Technique is Memory: A Method for Violin and Viola Players Based on Finger Patterns*, is obviously not specifically a viola technique book (in fact, the book caters to violinists), but because it was originally intended for both instruments and written by a violist, we will claim it as our own. It is written in treble clef, with instructions and fingerings for violin strings. However, in the introduction, Primrose states:

This volume is meant for viola players as much as for violinists but, for reasons of clarity and as viola players are equally familiar with both clefs, the treble clef only has been used. In support I quote that most perceptive of all music critics,

²⁶ William Primrose, *The Art and Practice of Scale Playing on the Viola*, 3.

Irving Kolodin, who states in his distinguished book: ‘As a fledgling viola-player I naturally regard all other violists as studious chaps who don’t have the finger facility of the *notenfressers* who make agile first violinists, but are better read, have heard more music, and are, altogether, men of superior taste.’ I find myself in full agreement with the above glimpse of the obvious and ... transposing a fifth down from the treble clef is mere child’s play to those of such superior intelligence.²⁷

This system is designed to improve accuracy, speed, and memorization by breaking down scales into finger patterns. To help students visualize the patterns, Primrose has devised colored symbols. A red pyramid means a half-step, a green square top means a whole step (or multiple whole steps, if all under the same symbol), and a blue semi-circle with arrows up or down means a half-step up or down on the adjacent string. Primrose’s argument is that memory is strongly tied to the visual, and helping the student see the patterns will help them memorize them. He says in his introduction that “the route is: eye to brain, brain to finger, finger (or the sound produced by it) to ear, ear to brain.”²⁸ He also includes a chart for memorizing finger patterns of scales in all keys in the first seven positions. This chart shows where the half steps and augmented seconds (for harmonic minor) are for each string starting on each scale degree (tonic, super-tonic, mediant, etc.).

The method itself is organized by key around the circle of fifths in order: C major, A harmonic minor, A melodic minor, F major, D harmonic minor, D melodic minor, etc. Primrose gives harmonic minor and melodic minor their own completely independent sections for each key. The book is written in treble clef, so we will use those terms. For viola everything will be a fifth lower.

Each key is treated the same, and is divided into seven sections, one for each position. Each position starts with a two octave scale from first finger on the lowest string to fourth finger on the highest (A on the G-string to B on the E-string in C major

²⁷ William Primrose, *Technique is Memory: A Method for Violin and Viola Players Based on Finger Patterns* (New York: Oxford University Press, 1960), score.

²⁸ William Primrose, *Technique is Memory*.

on violin), and then the finger pattern on each string is explored. For example, C major on the G-string uses A, B, C, and D (fingers 1, 2, 3, and 4), with half steps between B and C (2nd and 3rd fingers). C major on the D-string uses E, F, G, and A (fingers 1, 2, 3, and 4) with half steps between E and F (1st and 2nd fingers), etc. This pattern is continued up to 7th position.

Although this method is organized by key, it is clearly more geared to the physical patterns on the fingerboard and not the usual patterns of whole and half steps of the major or minor scale. One of the most interesting things about this method is that the range is always exactly the same (or within a half-step, depending on the key), and the scales rarely start on tonic (just four times out of all 24 major and minor keys). This is an interesting challenge for the student because s/he must figure out the finger pattern for the key each time since it changes depending on which scale degree it starts on. The other advantage to always starting at the bottom of the instrument's range is that the student learns the lowest octave of each key. It is a danger with other methods that B major (for viola, F-sharp major for violin) never ventures below the lowest B, thus leaving out almost an entire octave of the instrument's range. Like Flesch, however, Primrose advocates "practising a complete set of scales and exercises for one key each day, changing key every day."²⁹

Viola Etudes

Next we will do a quick survey of viola etudes. The nature of the method proposed here is somewhere between a traditional scale method and an etude book, but because the primary objective of this document is a scale method, this survey will be cursory. Before you grumble about how there is no Kreutzer or Wohlfahrt, for the sake

²⁹ William Primrose, *Technique is Memory*

of relevance and brevity, the volumes presented here are all originally written for the viola, and presented basically in chronological order.

The first method we will discuss is Franz Anton Hoffmeister's *Etudes for Viola*. Hoffmeister (1754-1812) was an aspiring lawyer who, after qualifying, decided to pursue music, particularly publishing and composition.³⁰ He is an established and respected composer, particularly among violists, and was a friend of Mozart. Hoffmeister published many of Mozart's works, and Mozart titled his Quartet K. 499 the "Hoffmeister".³¹ His *Etudes for Viola* are all pieces of music worthy of his reputation. They are quite long, in standard musical forms (Sonata, Theme and Variation, etc.), and compositionally complex and rewarding to perform. The writing remains similar in difficulty throughout the book of 12, except that each is in a different key, and the keys get progressively farther from C major. Toward the end, the etudes are in B major, B-flat major, and F-sharp major. Nine of the twelve are in major keys, and he never repeats a key. The etudes are also not skill-specific, rather each one is varied and complex, addressing a great many technical issues.

Next are the *41 Caprices, Op. 22* by Bartolomeo Campagnoli (1751-1827)³². Campagnoli was an Italian violinist and composer with a successful performing career. He worked in Florence and Rome, and eventually became the leader of the Gewandhaus Orchestra in Leipzig. He was not a prolific composer, and of his output, he is most remembered for his pedagogical works. His *41 Caprices*, first published c. 1890, was his last opus and is probably his most played work today.³³ It is an extensive book written for advanced players. The caprices vary greatly from one to another in tempo, material,

³⁰ Alexander Weinmann, "Hoffmeister, Franz Anton," *Grove Music Online*, <http://www.oxfordmusiconline.com/subscriber/> (accessed July 11, 2015).

³¹ Ibid.

³² Chappell White, "Campagnoli, Bartolomeo," *Grove Music Online*, <http://www.oxfordmusiconline.com/subscriber/> (accessed July 10, 2015).

³³ Ibid.

and affect. Each one focuses on one or a few primary skills, but they are complicated enough to be challenging in all respects. Often the caprices end in a different key than they start in (sometimes wildly different). These compositions are musically strong enough to be concert pieces. They are written in standard musical forms, including theme and variations, binary, ternary, scherzo, etc., and vary greatly in length. Campagnoli is not methodical with his selection of keys. In 41 pieces he uses only 18 keys, primarily G, D, and C major. Two caprices in the middle of the book look like scale studies, however. One is scales and arpeggios in all keys around the circle of fifths, and the other is arpeggios in positions 1 through 7. It is also worth noting that the William Primrose edition includes virtuosic fingerings that challenge and reward the performer, but may offend the performance practice purist.

Antonio Bartolomeo Bruni (1757-1821) was an Italian violinist, composer, and conductor.³⁴ He was successful as a performer in France, and worked primarily in opera orchestras. Most of his compositional output is operas and string chamber music. These works are rarely performed anymore, and Bruni is probably most remembered now for his viola method.³⁵ The *25 Studies for Viola*, written c. 1805,³⁶ is a progressive etude book for advanced players. The first several exercises are clearly focused on a single specific technique such as arpeggios, double stops, bowing exercises, etc., but as the book progresses, more and more skills are included in each etude and they become more musically interesting as well. There are also several ‘theme and variation’ etudes that address skills individually through each variation. Bruni is relatively conservative with his choice of keys, never going beyond three sharps and four flats. Etudes stay well within the home key throughout, but some have forms, such as a minuet, that modulate to

³⁴ Leland Fox, “Bruni, Antonio Bartolomeo,” *Grove Music Online*, <http://www.oxfordmusiconline.com/subscriber/> (accessed July 10, 2015).

³⁵ Ibid.

³⁶ Ulisses Carvalho da Silva, “Original and Transcribed Etude Books for Viola: A Reference Guide for Teachers and Students” (D.M.A. diss., University of Georgia, 2010), 64.

a closely related key and back. He generally writes groups of etudes in closely related keys (a group in F major, B-flat major, E-flat major, and C minor, for example), and then will jump to a different key area. Toward the end, however, he alternates sharp and flat keys that are more distantly related. Although they are not concert pieces, these etudes are nicely written with well-integrated musical and technical aspects.

Casimir Ney (1811-1877) is a pseudonym for the French violist, composer, and editor Louis-Casimir Escoffier.³⁷ Ney's true identity had been lost until musicologist Jeffrey Cooper discovered an obituary for Escoffier in the *Revue et gazette musicale de paris* which revealed Ney to be a pseudonym for Escoffier.³⁸ It is unclear why Escoffier decided to write and edit music using a pseudonym, and until the discovery of this obituary, there was speculation that Ney was actually Paganini, Vieuxtemps, or some other well-known violinist/composer.

Ney was an active performer in Paris in the middle of the 19th century, specializing in chamber music. He wrote, transcribed, and edited many works for viola, and is probably most remembered for his *24 Préludes pour l'alto*, first published c. 1849.³⁹ These preludes can be considered the viola equivalent of the Paganini Caprices for violin. They are extremely difficult, and exploit the entire range of the viola in virtuosic ways. Ney uses many extended techniques such as natural and false harmonics, right and left hand pizzicato, pizzicato with four fingers, and passages of 10ths and even 12ths. Ney is also more methodical about his use of keys than any other etude composer in this survey. In the 24 Preludes, Ney works methodically through all 24 keys, alternating major and minor up through circle of fifths.

³⁷ Maurice W. Riley, "Jeffrey Cooper Solves Mystery of L. Casimir-Ney's Identity," *The American Viola Society Newsletter*, no. 25 (November 1983): 21.

³⁸ *Ibid.*, 21.

³⁹ Maurice W. Riley, *The History of the Viola, Volume II* (Ann Arbor: Braun-Brumfield, 1991), 144.

Friedrich Hermann (1828-1907)⁴⁰ wrote two viola etude books, *Concert Studies for Viola, Op. 18* and *Technical Studies for Viola, Op. 22*, both published c. 1881.⁴¹

Hermann was a violinist and a prolific arranger and composer. He studied at the Leipzig Conservatory under Felix Mendelssohn, among others, and eventually became professor of violin in 1848.⁴² His *Concert Studies for Viola, Op. 18* is dedicated to Henri Vieuxtemps. As the title suggests, they are true concert pieces in the same category as the 24 Paganini Caprices for violin. This opus contains only six studies, but they are quite long and formally and harmonically complex. They are given titles such as Prelude, Scherzo, and Fughette and have many expressive indications. Many of them use extended techniques such as left hand pizzicato and natural and false harmonics. They are not organized by key, and all six studies are in the closely related keys of A minor, C major, C minor, D major, and D minor. Within these keys Hermann uses much chromaticism and explores distant tonal areas. The last study is specified as a “Chromatic Study”, but they are all harmonically adventurous.

Hermann’s *Technical Studies for Viola, Op. 22* is a different work with a different objective than the *Concert Studies*. This volume contains 12 etudes, each long and fairly homogeneous. The etudes have clear technical objectives, and they get more complex and musically interesting as the book progresses. The range of technical challenge is similar to that of the Kreutzer violin etudes. As in the *Concert Studies*, Hermann writes movement titles and expressive indications, and he asks for technically demanding fingerings to serve the music. He is conservative in his use of keys, using mostly flat keys up to three flats, and only G major for sharp keys. There does not seem to be a particular method for the progression of keys throughout the volume.

⁴⁰ Ulisses Carvalho da Silva, “Original and Transcribed Etude Books for Viola: A Reference Guide for Teachers and Students.” (D.M.A. diss., University of Georgia, 2010), 26.

⁴¹ Ibid., 26

⁴² Ibid., 26

Richard Hofmann (1844-1918), like other composers in this list, lived and worked in Leipzig.⁴³ Much of his output was pedagogical methods for piano, strings, and woodwinds,⁴⁴ including two etude books for viola. The first, *Die Ersten Studien für Viola*, op. 86 (published c. 1900)⁴⁵, is a book of etudes in the worst sense of the word. They appear to be written for the intermediate player. Each etude has a single key, a single persistent rhythmic pattern, a single technical objective, and they are musically unrewarding. The book is organized loosely by key. He groups related keys together, often by 5th relations or relative keys, but sometimes parallel keys as well. He stays within four flats and four sharps of C major, and he works his way progressively through the keys.

Hofmann's *15 Etüden für Viola*, op. 87 (published in 1893)⁴⁶ are more advanced than *Die Ersten Studien*, but similar in that the etudes are quite homogeneous and address technical issues one at a time. In his introduction, Bernhard Päuler says that the aim of these etudes is "surely to make the 'proficient' violinist's introduction to viola playing as attractive as possible with the help of a progressive choice of practice material."⁴⁷ Päuler calls this book "progressive", but there is not a big increase in difficulty or variety within each exercise from the beginning to the end of the book. The etudes stay primarily in first position, occasionally reaching as high as fourth. There is no apparent organizing principal behind the use of keys from etude to etude, except that Hofmann tends to alternate sharp and flat keys and he never uses more than four sharps and three flats.

⁴³ Theodore Baker, *Biographical Dictionary of Musicians*, (New York: G. Schirmer Inc., 1940), 517. <http://www.archive.org/stream/biographicaldict00bake#page/517/mode/1upj> (accessed July 15, 2015).

⁴⁴ Baker, 517.

⁴⁵ Baker, 517.

⁴⁶ This is the earliest publication date I found, and sources have indicated that this is the date of first publication.

⁴⁷ Richard Hofmann, *15 Etüden für Viola*, op. 87 (Winterthur/Schweiz: Amadeus Verlag, 1990).

Hugo Von Steiner (1862-1942)⁴⁸ published his *12 Capriccios for Advanced Students, Op. 47* in 1909.⁴⁹ These capriccios are for advanced students, and each addresses a specific technique. They could possibly be performed as concert pieces, particularly those with more defined forms such as minuet and trio, but they are more homogeneous and more “studious” than those of Campagnoli or Hoffmeister. They do, however, explore a wide range, have many expressive indications, and have suggested fingerings that exploit high registers on low strings. Many of the capriccios explore difficult keys (B major, D-flat minor, etc.), and one goes through all the keys in arpeggios around the circle of fifths. Steiner does not, however, organize the book by key. In fact, he seems to go out of his way to make the key relations between capriccios distant. Rarely is there a relative, parallel, or fifth relation from one capriccio to the next.

Johann Palaschko (1877-1932)⁵⁰ was a German violinist, violist, and composer. He was a prolific composer of pedagogical material for violin and viola, and most of his music still available today is etudes for viola. The *20 Etudes for Viola, Op. 36*; *10 Künstler-Etuden, Op. 44*; *10 Viola Studies, Op. 49*; *12 Studies for Viola, Op. 55*; *12 Studies for Viola, Op. 62*; and *24 Easy and Melodious Studies, Op. 86* are a representative sample of Palaschko’s body of pedagogical material for viola.

The last on this list, *24 Easy and Melodious Studies, Op. 86* is the most straightforward, and is geared toward younger students. It stays in first position until very late in the book, and does not go higher than third position except in the case of natural harmonics. The keys of the etudes do not seem to be purposefully related, but Palaschko stays within three sharps and three flats of C major. He tends to alternate sharp and flat keys, and there is a healthy mix of major and minor. Palaschko gives these studies evocative titles, including *Hunting Song*, *Humoresque*, *Hindu Song*, and *In*

⁴⁸ Several independent sources have indicated these dates.

⁴⁹ This is the earliest publication date I found, and sources indicate it is the date of first publication.

⁵⁰ WorldCat listing for Palaschko

Beethoven's Style, which adds character to what could easily be just another series of etudes for beginning students.

Palaschko's *10 Künstler-Etuden für Viola, Op. 44* are the most difficult and the most musically rewarding of his six books listed here. These etudes also have colorful titles like *Präludium*, *In türkischer Weise*, and *Mazurka*. They are long and musically complex, and many of them are written in standard musical forms such as theme and variations or ternary form. The key signatures of these etudes are conservative until the last two etudes, which are in D-flat major and E major respectively. Within each etude, however, Palaschko often modulates and explores distant tonal areas.

The other four books by Palaschko listed above fall between Op. 44 and Op. 86 in terms of style and difficulty. They all seem to be geared toward the intermediate or advanced viola student, and are pedagogical in nature, not designed as concert pieces. The *12 Studies for Viola, Op. 62* might rival the *10 Künstler-Etuden* in terms of performance worthiness. These studies are musically complex, and most have a programmatic title. Palaschko does not relate the keys of etudes from one to the next; and he is conservative with his use of keys in all these books, rarely going beyond four flats or sharps in the key signature.

The *15 Etuden für Viola, Op. 116* by Hans Sitt was first published in 1913,⁵¹ more than 20 years after his *Practical Viola Method* discussed in the previous chapter. These etudes are geared toward the intermediate violist. Each etude has a technical objective, and they progress in difficulty. They stay in first position until well into the book, and they get more complicated and integrate more and more skills as they go. Sitt spends quite a lot of time on string crossings, both separate bows and under slurs, moving between adjacent strings and non-adjacent strings. Keys stay relatively close to C major,

⁵¹ Hans Sitt, *15 Etuden für Viola, op. 116*, EES 667 Kunzelmann (Adliswil: Edition Kunzelmann, 1913), score.

never going past four flats and two sharps. Sitt overwhelmingly favors flat keys, with just three etudes in C major, and two in sharp keys (G major and D major). The remaining 15 etudes are in keys from one to four flats, so they are inherently fairly closely related.

Lillian Fuchs (1902-1995) was an influential violist, teacher, and composer of the 20th century. She taught at the Manhattan School of Music and the Julliard School, and performed regularly with her brother Joseph Fuchs.⁵² She wrote several concert pieces for viola, but is probably best remembered for her three books of etudes, which are a staple of viola pedagogy today. The earliest, her *Twelve Caprices for Viola*, was written in 1950.⁵³ The caprices are all of similar difficulty, and each works on a single or small number of skills. They are technically demanding as well as musically interesting. She gives each a tempo and/or character marking, and she provides expressive markings throughout. Of all the etude composers included here, Fuchs is one of the most methodical about keys. The caprices alternate between major and minor keys, and the major keys are closely related one to the next.

Fuchs wrote *Sixteen Fantasy Etudes* in 1959,⁵⁴ and like the *Twelve Caprices*, the etudes are not ordered by difficulty. Each etude is relatively homogeneous and focuses on a small number of skills. The etudes are musically interesting, many are written in standard musical forms, and all have expressive indications. The key relations among the *Sixteen Fantasy Etudes* are more methodical than among the *Twelve Caprices*. With only one exception she alternates major and minor keys, with minor keys moving up by fifth from A minor, and major keys moving up by fifth from G major (A minor, G major, E minor, D major, etc.). After F-sharp major, she shifts to F major and G minor and

⁵² Boris Schwarz, "Fuchs, Lillian," *Grove Music Online*, <http://www.oxfordmusiconline.com/subscriber/> (accessed July 12, 2015).

⁵³ Ibid.

⁵⁴ Ibid.

continues the pattern. This allows for the inclusion of several exercises in flat keys that are close to C major.

Her last collection of etudes, the *Fifteen Characteristic Studies*, written in 1965,⁵⁵ is similar in content and structure to the others already discussed. Each study works on a small number of technical skills, is relatively homogeneous, and is musically interesting. She uses standard forms, primarily ternary form, with many expressive indications. Again, she is methodical with her use of keys, alternating major and minor, and moving around the circle of fifths. Each of the three collections has a fugue study near the end, and the last etude of each collection is a perpetual motion. Fuchs treats skill building and key relationships in a similar way in all three books, and all three are similar in difficulty.

Alfred Uhl (1909-1992) was a highly respected Austrian composer and teacher.⁵⁶ He was Kappelmeister of the Swiss Festspielmusic in Zürich, taught theory, orchestration, and composition at the Vienna Music Academy, and won many composition prizes in Austria. He was drafted into the Austrian Army and served from 1940-1942. Reports differ about his service. Either he commanded a French prison camp in Neumarkt,⁵⁷ or he served as a church organist for French prisoners of war.⁵⁸ Uhl wrote his *Dreißig Etüden für Viola* in 1975, and dedicated it to the viola professor at the Vienna Conservatory, Karl Stierhof.⁵⁹ This book is quite different from the volumes discussed so far. The etudes progress dramatically in difficulty, and they vary significantly in expressive direction. Each has a time signature and a tempo mark and the time signatures are particularly interesting. Uhl uses unusual signatures including 4/2,

⁵⁵ Schwarz, "Fuchs, Lillian."

⁵⁶ J. M. Hinson, "Uhl, Alfred," *Grove Music Online*, <http://www.oxfordmusiconline.com/subscriber/> (accessed July 15, 2015).

⁵⁷ Ibid.

⁵⁸ Daniel J. Keasler, "Alfred Uhl's (1909-1992) Viola Etudes: An Analytic Approach; and a Discussion of the Chamber Works that Feature the Viola," (D.M. diss., Florida State University, 2011), 1.

⁵⁹ Alfred Uhl, *Dreißig Etüden für Viola*, VAB 44 Schott (London & New York: Schott Music Corp., 1975), score.

6/4, 5/8, and 7/8 (as well as more standard ones such as 4/4 and 3/4). Uhl also gives a key signature to only one of the 30 etudes. They are not all in C major, but he prefers to use accidentals rather than a signature.

Sven Helge Reher (1911-1991) was a German refugee who fled to the United States with his parents in 1914.⁶⁰ He studied at UCLA and while still in school joined the viola section of the Los Angeles Philharmonic under Klemperer. He and his brother, cellist Kurt Reher, were staples of the L.A. music scene; and Sven Reher's recording of Hindemith Sonata op. 25 no. 1 was nominated for a Grammy.⁶¹ Reher was more of a performer than a composer, and his *Twelve Studies for Viola* (1978)⁶² is one of only a handful of compositions. Each of the 12 etudes has a very clear technical objective such as register leaps, double stops, key changes, trills, etc. The etudes are meant for advanced students, and the whole book is the same level of difficulty rather than progressive. The relationship of keys between etudes is not organized, but the key structures within the etudes get more complex throughout the book. Some of the later studies start and end in very different keys or progress through distant key relations within the study.

The next etudes we will look at is a set of three volumes edited and compiled by Ulrich Drüner. Dr. Drüner is a German violist, musicologist, and music editor, and is a member of the Association of German Antiquarian Booksellers. He holds a doctorate in musicology from the University of Strasbourg where he studied Richard Wagner,⁶³ about whom he has written several books. Drüner is perhaps best known for his editorial work

⁶⁰ *Online Archive of California*, <http://www.oac.cdlib.org/findaid/ark:/13030/tf9d5nb5mx/> (accessed July 20, 2015).

⁶¹ "Sven Reher, 79; Violist Active in Southland," *Los Angeles Times*, 12 February 1991. http://articles.latimes.com/1991-02-12/news/mn-1369_1_sven-reher (accessed July 16, 2015).

⁶² Reher, *12 Studies for Viola* (Hollywood: Highland Music Co., 1978), score.

⁶³ *Manuscript Collection Descriptions, Brigham Young University, Harold B Lee Library*, <http://findingaid.lib.byu.edu/viewItem/MSS%207880> (accessed July 17, 2015).

for viola literature, and has editions of Hoffmeister's *Concerto for Viola and Orchestra*,⁶⁴ Paganini's *Sonata per la Grand' Viola e Orchestra*,⁶⁵ and others.

Drüner's three volume *The Study of the Viola* is a collection of 100 romantic era etudes, and each volume corresponds to a set of commonly used violin etudes. This collection differs from all the other etude books discussed thus far. Rather than being a set of pieces written by a single composer, it is a collection of etudes by many different composers. Drüner chose and ordered the etudes in such a way as to create viola etude books that serve the same purposes as specific violin books. He says in his introduction that for the viola student "nothing but transcriptions of violin etudes have been available until now... [but] many passages, especially numerous towards the end of the Kreutzer volume, cannot be played satisfactorily on a viola with a corpus 41 cm in length... Furthermore, violists have been denied a repertoire of virtuoso solo music almost entirely until now... It is the intention of the present collection to help remedy this situation."⁶⁶

Volume one is titled *Thirty Etudes at the Intermediate Level of Difficulty Represented by the Violin Etudes of Jacques-Féréol Mazas*. This volume is designed to "consolidate the basic technique and the command of the positions."⁶⁷ The etudes get progressively more complicated throughout the volume, but each one is clearly dedicated to the study of one or a very few specific technical skills. Each etude is fairly homogeneous, and they are clearly teaching tools and not concert pieces. The volume has a short biography of each composer in an index, and Drüner included all the original fingerings "as a matter of principle, even though in some cases they have only documentary value -- shedding light on the portamento and change-of-position practice

⁶⁴ Franz Anton Hoffmeister, *Konzert für Viola und Orchester in D dur*, ed. Ulrich Drüner (Zürich: Edition Kunzelmann, 1982).

⁶⁵ Niccoló Paganini, *Sonata per la Grand' Viola e Orchestra*, ed. Ulrich Drüner, (New York: Schott Music Corp., 1974).

⁶⁶ Ulrich Drüner, *The Study of the Viola*, (London: Bärenreiter-Verlag Basel, 1981), 5.

⁶⁷ *Ibid.*, 5.

of their era.”⁶⁸ He also added editorial fingerings; corrected phrasing, slurring, and bowing indications as necessary to conform with present day notation; and corrected misprints. Some passages were cut due to “limitations of space... [and/or] lesser musical and technical interest.”⁶⁹ The etudes use a variety of keys, but there is no method to the key relations and they are overwhelmingly flat keys. The only sharp keys in the book are E major (used once) and e minor (used three times). Flat keys stay mostly between one and three flats, but D-flat major and B-flat minor are both used once.

The Study of the Viola, Vol. 2 is a collection of forty etudes “at the level of difficulty of the violin etudes of Kreutzer [and] the technical problems posed in each Kreutzer etude have been included here as far as possible.”⁷⁰ Like volume one, some etudes that were too long or repetitive were not printed in their entirety. Bowings and fingerings were preserved as much as possible, and biographical information is included for as many composers as possible. For each etude in volume two, Drüner indicates the analogous Kreutzer etude underneath the composer’s name. He found etudes to correspond with every Kreutzer etude except numbers 5, 27, 33, 40, and 42. Number 25 of *The Study of the Viola* is not paired with a Kreutzer etude, and Drüner writes that instead of a cumulative exercise like Kreutzer 27, he has included an exercise for intonation instead.⁷¹ Drüner also indicates that he could not find an appropriate exercise for Kreutzer no. 40 (trills in double stops), so he replaced it with an exercise in chromatic melody and diminished seventh chords. For trill studies, Drüner directs the student to volume 1, exercises 8 and 15.⁷² Like *The Study of the Viola, Vol I*, volume two is not organized by key. Almost ten of the 40 etudes in volume two are in C major, but volume

⁶⁸ Ulrich Drüner, *The Study of the Viola, vol. 1*, 6.

⁶⁹ Ibid., 6.

⁷⁰ Ulrich Drüner, *The Study of the Viola, vol. 2*, (London: Bärenreiter-Verlag Basel, 1982), 3.

⁷¹ Ibid., 36.

⁷² Ibid., 60.

two is more of a mix of keys than volume one. There are etudes in sharp keys up to five sharps, and flat keys up to three flats.

The Study of the Viola, Vol. 3 is titled *Thirty Concert Etudes*, and like the Paganini or Rode caprices, these etudes are technically demanding and have the musical merit to be concert pieces or encores. Due to copyright laws, the most recent pieces in this collection were published in 1915, so there are few works past the late romantic period. Many of these etudes are long and technically and musically complex. As a collection they span a wider range of keys than the first or second volumes, and they are not organized harmonically. Unlike the first two volumes, these etudes are not organized by technique. Each etude in volume three has a wide variety of musical material and technical requirements.

Garth Knox (b. 1956)⁷³ is a Scottish violist, composer, and improviser. He currently lives in Paris, and has been a member of the Arditti Quartet and the Ensemble Intercontemporain. Knox has given premieres of works by composers such as Ligeti, Henze, Schnittke, Ferneyhough, Xenakis, Kurtag, Berio, Cage, and others with both of these ensembles and as a soloist. Knox is also a viola d'amore player, performing period music and new music, including his own.⁷⁴ Knox's *Viola Spaces* is a set of "concert studies designed to give players the chance to learn and explore contemporary viola techniques."⁷⁵ Each study addresses a single extended technique, and Knox intends for the student to realize that most of the "so-called secondary techniques [are] already present in classical music and are not actually new at all, just carried a little further."⁷⁶ These "spaces" are written for very advanced players and address techniques such as sul ponticello, sul tasto, harmonics, pizzicato, quarter-tones, and bow direction. It does not

⁷³ Garth Knox, *Viola Spaces*, (Mainz & New York: Schott Music, 2009).

⁷⁴ Garth Knox, <http://www.garthknox.org/biography.htm> (accessed July 21, 2015).

⁷⁵ Knox, *Viola Spaces*.

⁷⁶ Knox, *Viola Spaces*.

make sense to talk about them harmonically because they are not composed using functional harmony. The harmonic language is familiar to the ear, but the technique being explored is the driving force behind much of the harmonic material. Despite being focused on a single technique, the etudes are varied, musically rewarding, and performance-worthy.

The last book we will discuss in this chapter is *Twelve Caprices* by Atar Arad (b. 1945).⁷⁷ Arad is an Israeli-born violist and composer. He was the violist of the Cleveland Quartet for seven years, and currently teaches at the Indiana University Jacobs School of Music in Bloomington, IN. Arad began composing relatively late in life, and has written works for solo viola, chamber music with viola, and a viola concerto, among others.⁷⁸

Arad wrote his caprices over a span of several years, “whenever I was in a ‘humorous, fanciful or bizarre mood’ or whenever I felt like challenging myself (or others) with some instrumental hurdles.”⁷⁹ Each caprice is given the subtitle of a first name, the last one given the enigmatic title “Unknown.” The subtitle of each caprice is the first name of the composer that inspired the caprice. Number one, for example, is titled “Rebecca” after Rebecca Clark, and Arad quotes the opening bars of her *Sonata for Viola and Piano* in the first bar of this caprice. Some of the *Twelve Caprices* use more borrowed material than others, but all of them are unmistakably Arad. Like Paganini and other great performer-composers throughout generations, Arad wrote these caprices in his own musical language and to fit his technique.

Arad gives a key signature for only two caprices, mostly preferring to use accidentals. The harmonic language of these caprices is familiar to the ear, but functional harmony is not the underlying structure. They have constantly shifting tonal centers and

⁷⁷ Atar Arad, *Twelve Caprices* (Leipzig: Friedrich Hofmeister Musikverlag, 2014).

⁷⁸ Arad, *Twelve Caprices*.

⁷⁹ Arad, *Twelve Caprices*.

the occasional microtonal inflection. Arad's fingerings also take some getting used to, and they are a fascinating insight into his approach to the instrument.

Chapter 3: THE METHOD EXPLAINED

The viola has frequently been described as the Cinderella of the orchestra. Compared with violinists, viola players through history have experienced a raw deal in respect of available pedagogical materials and opportunities.

- Robin Stowell⁸⁰

The method, as noted in the introduction, is based on Prof. Arad's idea of a scale system for daily practice using excerpts from viola repertoire. The excerpts I have chosen are presented in Appendix A. This collection is designed as a starting point only, and does not represent a comprehensive survey of viola literature. My excerpts have been taken from solo, chamber music, and orchestral repertoire, but every violist will have his/her genre preferences, as well as a deeper or shallower knowledge of some types of music, time periods, or styles. Users of this method are encouraged to add to this collection, either with old favorites or new discoveries.

The collection is organized by key, alternating major and the relative minor, and moving down around the circle of fifths (C major, A minor, F major, D minor, etc.). The last sections of the collection are devoted to non-traditional scales. Several of the scale methods explored in chapters 1 and 2 include chromatic scales, and the Galamian method includes whole tone scales and scales built on interval patterns. Overall, the attention paid to these scales is minimal, which is an oversight in 21st century pedagogy. The method presented here includes sections dedicated to chromatic scales, whole tone scales, octatonic scales, quartal scales / harmonies, and scales that do not fit neatly into any of the categories listed above but represent a skill the modern performer must know.

When choosing passages for this collection, particularly for tonal passages, I looked for examples that remain as much as possible in the home key. There are a very few that modulate, chosen either because they are particularly good examples without an

⁸⁰ Robin Stowell, foreward to *An Historical Introduction and Translation of Ferdinando Giorgetti's Viola Method (1854): Metodo per esercitarsi a ben suonare l'Alto-Viola*, trans. By Franco Sciannameo (Lewiston: Edwin Mellen Press, 2003), i.

obvious stopping point before they modulate, or because they are particularly important passages in the literature. The passage in G-flat major from the third movement of Dvořák Symphony no. 3 has no clear stopping point before ending in A-flat major. The C major opening of the last movement of the Beethoven Quartet op. 59 no. 3 is a well-known (and much feared) viola solo which modulates to G major in the second half of the phrase. Almost none of the passages in this collection, however, are purely tonic. Because they are passages from literature, and not composed as exercises, there is always a harmonic progression implied by the line. A passage in F major might have B naturals implying C major (V of F major), or even F sharps implying G major (V/V of F major). This is an inherent part of musical literature, and should not be avoided in the pedagogy.

Another criterion I looked for in choosing excerpts is that they have their own musical merit outside the context of the piece. Obviously the smaller the ensemble, the more likely the individual part is to be musically rewarding as a single line. An ostinato passage from a symphony or string quartet, while serving the very musical purpose of adding harmonic and rhythmic texture to the piece as a whole, is not as useful to this collection as a passage with more range and variety.

Not surprisingly, some composers are more heavily represented in this collection than others. This may be partly my personal preference, but it is also the fact that some composers write in ways more applicable to the method. Mendelssohn, for example, frequently writes long, scalar passages that cover a broad range of the instrument, are musically interesting as individual lines, and stay in a single key for a satisfying length of time. This is true of his chamber music as well as his symphonic writing. Wagner, on the other hand, tends to modulate abruptly and frequently. Few Wagner passages are both written in a way to warrant inclusion in this collection and stay in a key long enough to be satisfying.

Different composers are also more reliable for different keys. Beethoven, for example, tends to favor major keys that are within a handful of flats or sharps of C major. His symphonies and string quartets are full of excellent passages, unpredictable and technically demanding, in these keys. He is much less of a presence in minor keys, possibly because he does not use the minor mode as frequently, or possibly because he writes differently in minor than major. Dvořák, on the other hand, writes extensively in keys with the most sharps and flats. Like Beethoven, however, Dvořák favors the major mode. Brahms, Mahler, and Strauss are also excellent sources for passages in more unusual keys, and these three, but particularly Brahms, are also well represented in the minor keys. Most of these composers, Dvořák being a notable exception, do not write entire pieces or movements in keys such as F-sharp major or E-flat minor, but they explore them deeply enough within movements to generate sufficient material for this collection.

When looking for passages to include, I looked almost exclusively at the works of well-known composers, although not all of the pieces included are well known. Within this collection I tried to strike a balance of examples from solo, chamber, and symphonic repertoire. Compared to instruments like violin and piano, there is relatively little solo repertoire for viola. Consequently, chamber music, particularly string quartets, and symphonic music dominate the collection, and perhaps rightly so. These two genres are most often overlooked in private lessons and therefore perhaps most in need of attention.

The quantity of examples in each key is also loosely representative of the prevalence of that key in the overall body of literature. There is plenty of material in keys such as C, G, D, F, and B-flat major, and the excerpts in these keys vary greatly in difficulty, time period, and techniques addressed. Interestingly, in compiling this collection I found significant difference between major and minor in the quantity of

appropriate excerpts. This collection contains six excellent examples in F-sharp major and only two in B minor. Moreover, the only keys for which I could find no excerpts were A-sharp minor and D-sharp minor, although their enharmonic equivalents are represented. This imbalance in favor of major is surprising and perhaps indicative of where a student should concentrate his/her efforts in the practice room.

The scale methods explored in chapters 1 and 2, when organized by key, are all organized either around the circle of fifths or moving up by half step. I have chosen to organize this method prioritizing harmony, moving around the circle of fifths, alternating major keys with the relative minor, so adjacent sections in the method are closely related harmonically. I do this to show the harmonic relationships among the excerpts and also to emphasize the fact that although these excerpts remain in the home key, they explore tonal progressions which necessarily outline chords besides the tonic. I have grouped enharmonically equivalent keys together, a practice not used in any of the other methods surveyed. Understanding enharmonic relationships is important for developing the ability to find creative solutions for fingerings. As a rule, a G-sharp is fingered differently from an A-flat, but if a performer can override his/her first instinct about what is “correct”, a better, easier, or more musical fingering solution might present itself.

Within each key, the passages are organized loosely by skill. I say loosely because many of the excerpts meet more than one of the criteria I used for organization. First are scalar passages, or passages with primarily stepwise motion. Rarely in this collection will you find one octave of a scale that moves in one direction with no variation, let alone the favored three octave scales of the traditional methods. The scales in this collection change direction, skip or embellish notes, change rhythmic values, and progress harmonically. Next are arpeggiated passages, or passages outlining chords in some non-stepwise way. Further organization within a key depends on the material I have to work with. Some keys have chromatic scales, some have double stops, some

have highly ornamented passages such as trills and turns. Each key is different, but the idea is to go from the simplest excerpts to most complicated and difficult.

Examples in C Major

The examples in C major demonstrate the difficulty of organizing excerpts within a key. These examples do not come even close to covering all the C major possibilities, but they are a representative cross-section of the types of passages one might find, and the challenges they present. In the following section I will explain why I chose each excerpt, and how I decided on the order of the excerpts within C major. This should be taken as a guide for students building their own collections, as well as an explanation of the general organizational principals used for the excerpts in each key of Appendix A.

Example 1:

Ludwig van Beethoven (1770-1827), String Quartet Op. 59 No. 3⁸¹
IV. Allegro molto, bars 1-14

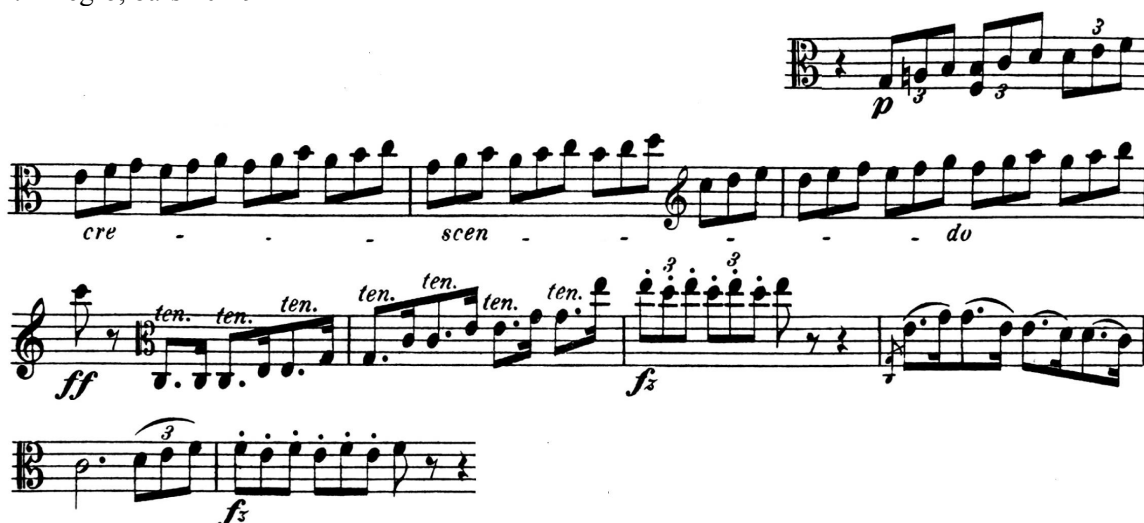


Example 1 is primarily scalar, has a medium range that covers three strings, and is rhythmically homogeneous. These features make for an excellent warm-up, finger exercise, or string crossing exercise. As the student works the excerpt up to tempo, the rhythm of the ties and the eighth rests should receive special attention. The one downfall of this as the first passage of the key is that it modulates to the dominant half way through.

⁸¹ Ludwig van Beethoven, *String Quartets Op. 59*, ed. Jonathan Del Mar (New York: Bärenreiter Kassel, 2008).

Example 2:

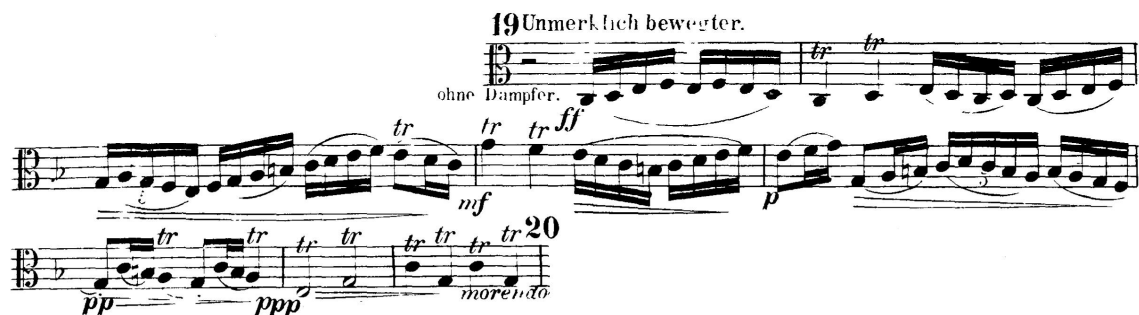
Antonin Dvořák (1841-1904), String Quartet No. 4 in C Major, Op. 61⁸²
I. Allegro, bars 20-29



Example 2 starts with a scale of two and a half octaves in triplets, then leaps down for two octaves of arpeggios in dotted rhythms. The student should choose a strong fingering for the first four bars, thinking carefully about the placement of shifts. The rhythmic relationship between the triplets and the dotted rhythms should be crystal clear and slurs should be very smooth, especially if one chooses to hook the dotted rhythms in bars 5—6.

Example 3:

Gustav Mahler (1860-1911), Symphony No. 3 in D minor⁸³
I. Kräftig, Entschieden, bars 239-246



⁸² Anton Dvořák, *String Quartet No. 4 in C Major, Op. 61*, (New York: International Music Company, 1949).

⁸³ Gustav Mahler, *Symphony No. 3 in D Minor*, (Vienna: Universal Edition, 1974).

The placement of example 3 is tricky. On the one hand it is simpler than the Dvořák example. It has a smaller range with less rhythmic variation, and is almost completely stepwise. I placed it where I did because it introduces trills, which are a skill to be explored thoroughly, thinking about speed, direction, character, and function. The trills in this Mahler excerpt need to be different in execution from the trills in the Harbison excerpt to be discussed later, and almost unrecognizable from the ornaments in example 5.

Example 4:

Dimitri Shostakovich (1906-1975), *Sonata for Viola and Piano*, Op. 147⁸⁴
 II. Allegretto, ♩ = 100, bars 167—170



Example 4 is a scale that covers 3 octaves and a major third. Although the material that precedes the scale is not in C major, I have placed this example here because the scale itself is strictly C major except for one D-sharp passing tone. This scale is a significant step up in difficulty from example 3, primarily because of the range, tempo, and note values. The student must find a fingering that will speak clearly under the slur, and plan his/her bow distribution carefully for the crescendo and register.

⁸⁴ Dimitri Shostakovich, *Sonata for Viola and Piano*, Op. 147, (New York: G. Schirmer, Inc., 1975).

Example 5:

Franz Joseph Haydn (1732-1809), String Quartet Op. 54 No. 2⁸⁵
I. Vivace, bars 199—219



This Haydn quartet excerpt is almost entirely arpeggiated motion, including five bars of textbook C major arpeggios at the end. The way the arpeggios are voiced, however, requires the student to either cross multiple strings, or shift to second position. In either case, the string crossings should be practiced so they are clear and even. The ornaments in this edition are notated as mordents, but other editions notate them as trills or other ornaments⁸⁶. This is something for the student to research and make an informed musical decision about, taking into account style, time period, and personal preference.

Example 6:

Richard Wagner (1813-1883), *Die Meistersinger von Nürnberg*⁸⁷
Act III, Scene 1, bars 356—363



⁸⁵ Franz Joseph Haydn, *6 String Quartets, Op. 54/55*, ed. Simon Rowland-Jones (London: Edition Peters, 2004).

⁸⁶ Franz Joseph Haydn, *String Quartet in C Major, Op. 54 No. 2*, Plate 9679, ed. Reinhold Jockisch (Leipzig: Fr. Kistner, n.d.).

⁸⁷ Richard Wagner, *Die Meistersinger von Nürnberg* (New York: Edwin F. Kalmus, n.d.).

Arpeggiated passages are not always outlined triads, as example 6 shows. This is included as an arpeggio exercise, but the primary motion is by fourth, not by third. Motion by fourth is not nearly as common as motion by third, and it poses its own set of difficulties, particularly more frequent string crossings and, in tonal music, the appearance of augmented fourths in a series of otherwise perfect and predictably-patterned intervals.

Example 7:

Ludwig van Beethoven (1770-1827), String Quartet Op. 59 No. 1⁸⁸
I. Allegro, bars 60—84

Example 7 is considerably more varied and complicated than the previous ones, as well as being a significant step up in difficulty. Beethoven is notorious, particularly in his string quartets, for inner voice parts with awkward leaps and string crossings. This passage is difficult to execute, but gives a depth and dimension to the music that would be difficult to achieve otherwise. Bar 63 alone spans almost two octaves. The excerpt includes double stops, rhythmic variety, and an extreme range of dynamics and expressive marks. The student must navigate large leaps, string crossings, bow distribution issues, and sudden dynamic shifts, all with the facility required to fit together with his/her quartet colleagues.

⁸⁸ Ludwig van Beethoven, *String Quartets Op. 59*.

Example 8:

Alexander Glazunov (1865-1936), String Quartet No. 7 in C major, Op. 107⁸⁹
IV. Finale: Festival Russe, bars 171—177

Example 8 shows three staves of music. The top staff is in treble clef, and the bottom two are in bass clef. The music features broken octaves with dynamic markings *sf*, *mf*, *p*, and *f*. Bar numbers 122 and 123 are indicated.

Example 9:

Alexander Glazunov (1865-1936), String Quartet No. 7 in C major, Op. 107⁹⁰
IV. Finale: Festival Russe, bars 44—52

Example 9 shows two staves of music. The top staff is in treble clef, and the bottom is in bass clef. The music features chords and broken octaves with dynamic markings *f*, *p*, and *cresc.* Bar numbers 106 and 107 are indicated.

Examples 8 and 9 both explore octaves, the first as broken intervals and the second as chords. These two examples, taken from the same movement, have the same tempo and similar range and rhythmic structure. Example 8 uses broken octaves with the higher note as the primary line. This can be difficult for students because the most reliable way to tune double stops is from the lower note, particularly when the lower note is the lower finger. The student benefits from practicing them as double stops, making sure the bass note of each one is in tune and moving correctly from one to the next,

⁸⁹ Alexander Glazunov, *String Quartet No. 7 in C Major, Op. 107* (Frankfurt: M. P. Belaieff, 1989).

⁹⁰ Ibid.

tuning the top note to the bass. The bowing is also awkward, and should be practiced on open strings for clarity of articulation and facility. Example 9 has a wider variety of intervals and uses more open strings. There is less shifting than in example 8, but the double stops leave no room for error in intonation.

Example 10:

John Harbison (b. 1938), *String Quartet No. 1*⁹¹
 II. Andante: aspro ed intimo =72, bars 48—65



The last C major excerpt we will look at, example 10, is a trill exercise. The trills in this example are more integral to the music than either the trills in the Mahler excerpt or the ornaments in the Haydn quartet. The student should consider how to start each trill, particularly when coming from a non-trilled note. When going from trill to trill, the student must think about how to connect the notes. Should the connection be as seamless as possible? Should the trill always start from the primary note or above the note, or does it depend on context? What is the affect of this excerpt and what is the best kind of trill to use, taking into account speed, evenness, finger weight on the string, etc.?

Examples of Non-Traditional Scales

The non-traditional scales included in this collection are divided into five groups: chromatic, whole tone, octatonic, quartal, and other. Chromatic scales are not exactly non-

⁹¹ John Harbison, *String Quartet No. 1* (New York: Associated Music Publishers, 1985).

traditional. In fact many of the traditional scale methods discussed in chapters 1 and 2 include chromatic scales. The chromatic scale section of this method focuses on chromatic passages with little or no tonal underpinning or on context that is too modulatory to rightfully be included with any single listed key. Just as some composers have a bigger presence than others in different keys, some have a bigger presence than others in these non-traditional harmonic languages. For example, Bartók is a major player here, particularly with whole tone and octatonic scales.

Chromatic Scales

Example 11:

George Enescu (1881-1955), *Concertstück for Viola and Piano*⁹²
Assez animé, bars 84—87

The image shows a musical score for two staves. The top staff is in 2/2 time, key of D major (indicated by two sharps). It begins with a *pp* dynamic marking and a triplet of eighth notes. The melody is a chromatic scale: D4, E4, F#4, G4, A4, B4, C5, D5, E5, F#5, G5, A5, B5, C6, D6, E6, F#6, G6, A6, B6, C7, D7, E7, F#7, G7, A7, B7, C8, D8, E8, F#8, G8, A8, B8, C9, D9, E9, F#9, G9, A9, B9, C10, D10, E10, F#10, G10, A10, B10, C11, D11, E11, F#11, G11, A11, B11, C12, D12, E12, F#12, G12, A12, B12, C13, D13, E13, F#13, G13, A13, B13, C14, D14, E14, F#14, G14, A14, B14, C15, D15, E15, F#15, G15, A15, B15, C16, D16, E16, F#16, G16, A16, B16, C17, D17, E17, F#17, G17, A17, B17, C18, D18, E18, F#18, G18, A18, B18, C19, D19, E19, F#19, G19, A19, B19, C20, D20, E20, F#20, G20, A20, B20, C21, D21, E21, F#21, G21, A21, B21, C22, D22, E22, F#22, G22, A22, B22, C23, D23, E23, F#23, G23, A23, B23, C24, D24, E24, F#24, G24, A24, B24, C25, D25, E25, F#25, G25, A25, B25, C26, D26, E26, F#26, G26, A26, B26, C27, D27, E27, F#27, G27, A27, B27, C28, D28, E28, F#28, G28, A28, B28, C29, D29, E29, F#29, G29, A29, B29, C30, D30, E30, F#30, G30, A30, B30, C31, D31, E31, F#31, G31, A31, B31, C32, D32, E32, F#32, G32, A32, B32, C33, D33, E33, F#33, G33, A33, B33, C34, D34, E34, F#34, G34, A34, B34, C35, D35, E35, F#35, G35, A35, B35, C36, D36, E36, F#36, G36, A36, B36, C37, D37, E37, F#37, G37, A37, B37, C38, D38, E38, F#38, G38, A38, B38, C39, D39, E39, F#39, G39, A39, B39, C40, D40, E40, F#40, G40, A40, B40, C41, D41, E41, F#41, G41, A41, B41, C42, D42, E42, F#42, G42, A42, B42, C43, D43, E43, F#43, G43, A43, B43, C44, D44, E44, F#44, G44, A44, B44, C45, D45, E45, F#45, G45, A45, B45, C46, D46, E46, F#46, G46, A46, B46, C47, D47, E47, F#47, G47, A47, B47, C48, D48, E48, F#48, G48, A48, B48, C49, D49, E49, F#49, G49, A49, B49, C50, D50, E50, F#50, G50, A50, B50, C51, D51, E51, F#51, G51, A51, B51, C52, D52, E52, F#52, G52, A52, B52, C53, D53, E53, F#53, G53, A53, B53, C54, D54, E54, F#54, G54, A54, B54, C55, D55, E55, F#55, G55, A55, B55, C56, D56, E56, F#56, G56, A56, B56, C57, D57, E57, F#57, G57, A57, B57, C58, D58, E58, F#58, G58, A58, B58, C59, D59, E59, F#59, G59, A59, B59, C60, D60, E60, F#60, G60, A60, B60, C61, D61, E61, F#61, G61, A61, B61, C62, D62, E62, F#62, G62, A62, B62, C63, D63, E63, F#63, G63, A63, B63, C64, D64, E64, F#64, G64, A64, B64, C65, D65, E65, F#65, G65, A65, B65, C66, D66, E66, F#66, G66, A66, B66, C67, D67, E67, F#67, G67, A67, B67, C68, D68, E68, F#68, G68, A68, B68, C69, D69, E69, F#69, G69, A69, B69, C70, D70, E70, F#70, G70, A70, B70, C71, D71, E71, F#71, G71, A71, B71, C72, D72, E72, F#72, G72, A72, B72, C73, D73, E73, F#73, G73, A73, B73, C74, D74, E74, F#74, G74, A74, B74, C75, D75, E75, F#75, G75, A75, B75, C76, D76, E76, F#76, G76, A76, B76, C77, D77, E77, F#77, G77, A77, B77, C78, D78, E78, F#78, G78, A78, B78, C79, D79, E79, F#79, G79, A79, B79, C80, D80, E80, F#80, G80, A80, B80, C81, D81, E81, F#81, G81, A81, B81, C82, D82, E82, F#82, G82, A82, B82, C83, D83, E83, F#83, G83, A83, B83, C84, D84, E84, F#84, G84, A84, B84, C85, D85, E85, F#85, G85, A85, B85, C86, D86, E86, F#86, G86, A86, B86, C87, D87, E87, F#87, 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B205, C206, D206, E206, F#206, G206, A206, B206, C207, D207, E207, F#207, G207, A207, B207, C208, D208, E208, F#208, G208, A208, B208, C209, D209, E209, F#209, G209, A209, B209, C210, D210, E210, F#210, G210, A210, B210, C211, D211, E211, F#211, G211, A211, B211, C212, D212, E212, F#212, G212, A212, B212, C213, D213, E213, F#213, G213, A213, B213, C214, D214, E214, F#214, G214, A214, B214, C215, D215, E215, F#215, G215, A215, B215, C216, D216, E216, F#216, G216, A216, B216, C217, D217, E217, F#217, G217, A217, B217, C218, D218, E218, F#218, G218, A218, B218, C219, D219, E219, F#219, G219, A219, B219, C220, D220, E220, F#220, G220, A220, B220, C221, D221, E221, F#221, G221, A221, B221, C222, D222, E222, F#222, G222, A222, B222, C223, D223, E223, F#223, G223, A223, B223, C224, D224, E224, F#224, G224, A224, B224, C225, D225, E225, F#225, G225, A225, B225, C226, D226, E226, F#226, G226, A226, B226, C227, D227, E227, F#227, G227, A227, B227, C228, D228, E228, F#228, G228, A228, B228, C229, D229, E229, F#229, G229, A229, B229, C230, D230, E230, F#230, G230, A230, B230, C231, D231, E231, F#231, G231, A231, B231, C232, D232, E232, F#232, G232, A232, B232, C233, D233, E233, F#233, G233, A233, B233, C234, D234, E234, F#234, G234, A234, B234, C235, D235, E235, F#235, G235, A235, B235, C236, D236, E236, F#236, G236, A236, B236, C237, D237, E237, F#237, G237, A237, B237, C238, D238, E238, F#238, G238, A238, B238, C239, D239, E239, F#239, G239, A239, B239, C240, D240, E240, F#240, G240, A240, B240, C241, D241, E241, F#241, G241, A241, B241, C242, D242, E242, F#242, G242, A242, B242, C243, D243, E243, F#243, G243, A243, B243, C244, D244, E244, F#244, G244, A244, B244, C245, D245, E245, F#245, G245, A245, B245, C246, D246, E246, F#246, G246, A246, B246, C247, D247, E247, F#247, G247, A247, B247, C248, D248, E248, F#248, G248, A248, B248, C249, D249, E249, F#249, G249, A249, B249, C250, D250, E250, F#250, G250, A250, B250, C251, D251, E251, F#251, G251, A251, B251, C252, D252, E252, F#252, G252, A252, B252, C253, D253, E253, F#253, G253, A253, B253, C254, D254, E254, F#254, G254, A254, B254, C255, D255, E255, F#255, G255, A255, B255, C256, D256, E256, F#256, G256, A256, B256, C257, D257, E257, F#257, G257, A257, B257, C258, D258, E258, F#258, G258, A258, B258, C259, D259, E259, F#259, G259, A259, B259, C260, D260, E260, F#260, G260, A260, B260, C261, D261, E261, F#261, G261, A261, B261, C262, D262, E262, F#262, G262, A262, B262, C263, D263, E263, F#263, G263, A263, B263, C264, D264, E264, F#264, G264, A264, B264, C265, D265, E265, F#265, G265, A265, B265, C266, D266, E266, F#266, G266, A266, B266, C267, D267, E267, F#267, G267, A267, B267, C268, D268, E268, F#268, G268, A268, B268, C269, D269, E269, F#269, G269, A269, B269, C270, D270, E270, F#270, G270, A270, B270, C271, D271, E271, F#271, G271, A271, B271, C272, D272, E272, F#272, G272, A272, B272, C273, D273, E273, F#273, G273, A273, B273, C274, D274, E274, F#274, G274, A274, B274, C275, D275, E275, F#275, G275, A275, B275, C276, D276, E276, F#276, G276, A276, B276, C277, D277, E277, F#277, G277, A277, B277, C278, D278, E278, F#278, G278, A278, B278, C279, D279, E279, F#279, G279, A279, B279, C280, D280, E280, F#280, G280, A280, B280, C281, D281, E281, F#281, G281, A281, B281, C282, D282, E282, F#282, G282, A282, B282, C283, D283, E283, F#283, G283, A283, B283, C284, D284, E284, F#284, G284, A284, B284, C285, D285, E285, F#285, G285, A285, B285, C286, D286, E286, F#286, G286, A286, B286, C287, D287, E287, F#287, G287, A287, B287, C288, D288, E288, F#288, G288, A288, B288, C289, D289, E289, F#289, G289, A289, B289, C290, D290, E290, F#290, G290, A290, B290, C291, D291, E291, F#291, G291, A291, B291, C292, D292, E292, F#292, G292, A292, B292, C293, D293, E293, F#293, G293, A293, B293, C294, D294, E294, F#294, G294, A294, B294, C295, D295, E295, F#295, G295, A295, B295, C296, D296, E296, F#296, G296, A296, B296, C297, D297, E297, F#297, G297, A297, B297, C298, D298, E298, F#298, G298, A298, B298, C299, D299, E299, F#299, G299, A299, B299, C300, D300, E300, F#300, G300, A300, B300, C301, D301, E301, F#301, G301, A301, B301, C302, D302, E302, F#302, G302, A302, B302, C303, D303, E303, F#303, G303, A303, B303, C304, D304, E304, F#304, G304, A304, B304, C305, D305, E305, F#305, G305, A305, B305, C306, D306, E306, F#306, G306, A306, B306, C307, D307, E307, F#307, G307, A307, B307, C308, D308, E308, F#308, G308, A308, B308, C309, D309, E309, F#309, G309, A309, B309, C310, D310, E310, F#310, G310, A310, B310, C311, D311, E311, F#311, G311, A311, B311, C312, D312, E312, F#312, G312, A312, B312, C313, D313, E313, F#313, G313, A313, B313, C314, D314, E314, F#314, G314, A314, B314, C315, D315, E315, F#315, G315, A315, B315, C316, D316, E316, F#316, G316, A316, B316, C317, D317, E317, F#317, G317, A317, B317, C318, D318, E318, F#318, G318, A318, B318, C319, D319, E319, F#319, G319, A319, B319, C320, D320, E320, F#320, G320, A320, B320, C321, D321, E321, F#321, G321, A321, B321, C322, D322, E322, F#322, G322, A322, B322, C323, D323, E323, F#323, G323, A323, B323, C324, D324, E324, F#324, G324, A324, B324, C325, D325, E325, F#325, G325, A325, B325, C326, D326, E326, F#326, G326, A326, B326, C327, D327, E327, F#327, G327, A327, B327, C328, D328, E328, F#328, G328, A328, B328, C329, D329, E329, F#329, G329, A329, B329, C330, D330, E330, F#330, G330, A330, B330, C331, D331, E331, F#331, G331, A331, B331, C332, D332, E332, F#332, G332, A332, B332, C333, D333, E333, F#333, G333, A333, B333, C334, D334, E334, F#334, G334, A334, B334, C335, D335, E335, F#335, G335, A335, B335, C336, D336, E336, F#336, G336, A336, B336, C337, D337, E337, F#337, G337, A337, B337, C338, D338, E338, F#338, G338, A338, B338, C339, D339, E339, F#339, G339, A339, B339, C340, D340, E340, F#340, G340, A340, B340, C341, D341, E341, F#341, G341, A341, B341, C342, D342, E342, F#342, G342, A342, B342, C343, D343, E343, F#343, G343, A343, B343, C344, D344, E344, F#344, G344, A344, B344, C345, D345, E345, F#345, G345, A345, B345, C346, D346, E346, F#346, G346, A346, B346, C347, D347, E347, F#347, G347, A347, B347, C348, D348, E348, F#348, G348, A348, B348, C349, D349, E349, F#349, G349, A349, B349, C350, D350, E350, F#350, G350, A350, B350, C351, D351, E351, F#351, G351, A351, B351, C352, D352, E352, F#352, G352, A352

Example 12:

Hector Berlioz (1803-1869), *Symphony Fantastique*, Op. 14⁹³

I. Träumereien, Leidenschaften: Largo - Allegro agitato e appassionato assai, bars 198—228

The musical score for Example 12 consists of five staves. The first staff is marked with a box containing the number 10. The score includes dynamic markings such as *mf*, *p*, *ff*, *decresc.*, *cresc.*, and *cresc. molto*, as well as the instruction *senza accel.* The music features a chromatic scale alternating with an A drone in the final bars.

Example 12 is quite long, and moves primarily but not entirely by half step. Toward the end of the passage there are whole steps included to allow the pattern to rise, and the last five bars are a chromatic scale alternating with an A drone. The whole excerpt stays in a comfortable register for the instrument, and particularly the last five bars encourage the student to think about the intonation of the chromatics against the drone.

⁹³ Hector Berlioz, *Symphony Fantastique*, Op. 14, ed. Charles Malherbe (New York: Edwin F. Kalmus, n.d.).

Example 13:

Richard Strauss (1864-1949), *Also Sprach Zarathustra*, Op. 30⁹⁴
Schnell, bars 505—511



Example 13 consists of downward chromatic scales. It is nice for practice because there are two lines in parallel major thirds (sometimes written as diminished fourths). This is a great excerpt for students to practice in pairs, to make sure the half steps are even and the parallel intervals are clear.

Example 14:

Béla Bartók (1881-1945), *String Quartet No. 5*⁹⁵
IV. Andante, bars 67—80



⁹⁴ Richard Strauss, *Also Sprach Zarathustra*, Op. 30, Plate 2860 (Munich: Joseph Aibl, 1896).

⁹⁵ Béla Bartók, *String Quartet No. 5*, U.E. 10.737 (London: Universal Edition, 1936).



Example 14 is not pure chromatic scales. Each cell includes one whole step on the way down, but the use of the open string drones makes for an excellent intonation exercise. Depending on the starting note, different scale degrees in each cell create the consonant and perfect intervals with the drone, forcing the performer to adjust the spacing of the half steps accordingly.

Example 15:

Richard Strauss (1864-1949), *Don Quixote*, Op. 35⁹⁶
Mässiges Zeitmass, bars 64—73



⁹⁶ Richard Strauss, *Don Quixote*, Op. 35 (Munich: Jos. Aibl Verlag, 1898).



Example 15, another from Strauss, combines scalar and arpeggiated motion. The student again has to make fingering decisions. S/he should avoid using the same finger for two notes under a slur, as well as avoid string crossings under short slurs.

Example 16:

Charles Ives (1874-1954), String Quartet No. 2⁹⁷
I. Discussions: Andante moderato, bars 58—70

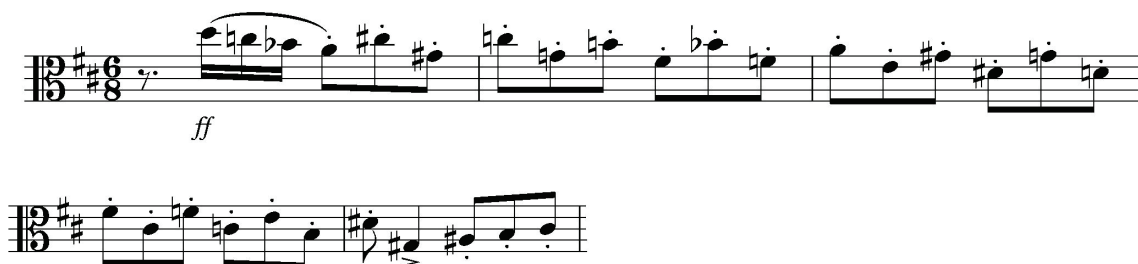


⁹⁷ Charles Ives, *String Quartet No. 2*, Plate 293-8 (New York: Peer International Corporation, 1954).

Example 16 is the chromatic scale equivalent of broken thirds in a tonal key. With the motion of down-by-whole-step, up-by-half-step (or the opposite), finding a fingering that works can be tricky, particularly when navigating string crossings. The other difficulty of this passage is rhythmic clarity. The rhythmic profile of sextuplets and 16th notes should be clear and distinct.

Example 17:

Ernst von Dohnányi (1877-1960), *Serenade in C major*, Op. 10⁹⁸
 III. Scherzo: Vivace, bars 258—262



Example 17 consists of broken fourths moving by half step. Like the Wagner excerpt in Example 6, broken fourths pose particular string crossing or shifting challenges. In this case, the student could choose to shift every two notes, or cross strings between almost every note. Individual strengths as well as the character of the excerpt should be taken into account regarding this decision.

Example 18:

John Harbison (b. 1938), *String Quartet No. 3*⁹⁹
 Continuation: Dramatic =80, bars 286 —300

⁹⁸ Ernst von Dohnányi, *Serenade in C Major*, Op 10, D. 3072 (Vienna: Doblinger, 1904).

⁹⁹ John Harbison, *String Quartet No. 3* (New York: Associated Music Publishers, Inc., 2006).

Example 18 uses some of the same kind of motion as examples 15 and 16. The alternation of whole-steps and half-steps in opposite directions gives melodic interest to the line, but keeps the tonality always shifting. Fingerings should be chosen for the *pp* and *very distant* and *mysterious* color, and to keep slurred groups on the same string.

Example 19:

Alban Berg (1885-1935), *Lyric Suite*¹⁰⁰
 III. Allegro misterioso, bars 46—67

col legno (gestrichen) 46 47 (geschlagen) 48 (gestr.)
 49 (geschl.) 50 51 52
 53 54 55 56
 sempre pp (pp)
 57 58 59 60
 (pp)
 61 62 63 64
 sempre pp
 65 66 67
 sempre pp 1. Gg. 2. Gg. (col legno) loco

The last chromatic excerpt, example 19, presents a more extreme version of the techniques used in examples 15-18. Finding a good fingering is extremely important (and

¹⁰⁰ Alban Berg, *Lyric Suite*, U.E. 8781c (Vienna: Universal Edition, 1927).

Whole Tone Scales

The next collection is whole tone scales. Not surprisingly, there are fewer examples of these than chromatic examples, and many of them are significantly shorter. Two factors may account for this shortage: 1) the whole tone scale is more difficult to use in any sort of tonal context, and 2) the nature of the scale does not provide as many options as the chromatic scale (half as many, to be exact). Whole tone scales, octatonic scales, and chromatic scales, unlike major or minor scales, have limited modes of transposition. Octatonic scales have 3 modes, starting with C, D, E-flat; C, D-flat, E-flat; and C-sharp, D, E. Whole tone scales have only two modes of transposition, starting with C and C-sharp, and chromatic scales have only one, although the chromatic scale puts significantly more notes at the composer's disposal than any other.

Béla Bartók (1881-1945), Concerto for Orchestra¹⁰¹
 II. Giuoco Delle Coppie: Allegretto scherzando, bars 87—90



¹⁰¹ Béla Bartók, *Concerto for Orchestra*, Plate B. & H. 9131 (London: Boosey & Hawkes, 1946).

Example 21:

Ernst von Dohnányi (1877-1960), String Quartet Op. 15¹⁰²
II. Presto acciacato, bars 200—204



Example 21 is similar to 20 in composition, but it is the other transposition of the whole tone scale. It covers a range of almost two octaves, and is a rhythmically simple scale down with no changes of direction. Again, the fingering is something to think about even in such a simple example. Bar 3 has E-flat, D-flat, and B-natural, which might suggest the fingering 1, 4, 2. A student should think about this, however, and make sure his/her fingering choice will produce the best results. Extending up with the third finger for D-flat might be preferable in this case to fourth finger.

Example 22:

Leoš Janáček (1854-1928), String Quartet No. 2 "Intimate Letters"¹⁰³
II. Adagio - Grave, bars 171—172



Example 22 is primarily the same scale as example 21, except that Janáček chose slightly different enharmonic spellings than Dohnányi did. This is one of the tricky things about whole tone scales for performers. Just as someone might approach a B major scale differently from a C-flat major scale, the use of sharps rather than flats and the placement of the necessary diminished second will have effects (conscious or unconscious) on the performer. It is important for students to be aware of this, and think creatively about fingering solutions. In the case of Example 22,

¹⁰² Ernst von Dohnányi, *String Quartet No. 2 in D Flat Major, Op. 15*, 12320 Simrock (London: N. Simrock, 1907).

¹⁰³ Leoš Janáček, *String Quartet No. 2 "Intimate Letters"*, H.M.729 (Prague: Hudební matice, 1938).

should the first run stay on the A string, with open A as the last note? Should the last run start on the A string or the D string? Musical context will answer many of these questions for the thoughtful student.

Example 23:

Béla Bartók (1881-1945), String Quartet No. 1¹⁰⁴
II. Allegretto, bars 324—337



Example 23 is not purely whole tone, and the chromatic notes are used as neighbor notes or to transition from one whole tone scale to the other. This is an excellent example for thinking about why composers choose to spell notes the way they do. In this example, the E-sharp at the beginning does not seem necessary until you reach the second bar and realize that it is much easier to read and understand the voice leading with E-sharp rather than F-natural. This example also covers a wide range, and exploits the high register of the instrument. A student should choose fingerings with tone color in mind, and think carefully about whether shifts or string crossings will be less obtrusive under the slurs.

¹⁰⁴ Béla Bartók, *String Quartet No. 1*, Op. 7, R. & Co. 3287 (Budapest: Rözsavölgyi, 1911).

Example 24:

Rebecca Clarke (1886-1979), *Sonata for Viola and Piano*¹⁰⁵
 III. Adagio - Quasi fantasia, bars 198—220

The musical score for Example 24 is a single system for Viola and Piano. It begins with a treble clef and a key signature of one flat. The tempo is Adagio. The score is marked with various dynamics and markings: *ff molto marc.*, *ten.*, *Poco meno mosso.*, *p sub.*, *molto cresc.*, *p molto espr. e calmato*, *sul G*, *sul D*, *rubato*, *V*, *39 Agitato.*, *pp molto marcato*, *p*, and *mf*. The score includes many triplets and slurs, indicating a complex, flowing melody.

Example 24 is the most extensive example of whole tone scales in this collection. Like example 23, it is not purely whole tone, but instead of adding chromatics, Clarke uses minor thirds, giving the passage a pentatonic flavor. This is also the most traditionally melodic excerpt of the examples in this collection. In this case, a student might look for the most expressive fingerings, rather than the least conspicuous.

Example 25:

John Corigliano (b. 1938), *String Quartet*¹⁰⁶
 II. Scherzo, bars 88—91

The musical score for Example 25 is a single system for String Quartet. It begins with a treble clef and a key signature of one sharp. The tempo is Scherzo. The score is marked with various dynamics and markings: *(mp)*, *(p)*, *sf*, *pp*, *sf*, *sf*, *sf*. The score includes many triplets and slurs, indicating a complex, flowing melody.

¹⁰⁵ Rebecca Clarke, *Sonata for Viola and Piano* (London: Chester Music, 1921).

¹⁰⁶ John Corigliano, *String Quartet* (New York: G. Schirmer, 1995).

Example 25 is quite short, but I have included it here because it uses an interesting pattern, and like the Ives quartet in Example 16, it poses particular fingering challenges. It is a chain of broken minor thirds moving up by whole step, which taken all together is a chromatic collection of notes, but is organized as a whole tone scale.

Example 26:

György Ligeti (1923-2006), String Quartet No. 1 “Métamorphoses nocturnes”¹⁰⁷
Prestissimo, bars 444—479

(ohne Akzent/ without accents)

sempre pp

sul tasto

ppp

morendo - - - - -

Example 26 is quite extensive, and covers a huge range on the instrument. It is a whole tone scale moving up in broken fourths, which, like example 25, compels the student to make fingering decisions based on musical considerations and their technical strengths. In this case, the student should look for the fingering that will create the smoothest line, balancing large shifts with multiple string crossings.

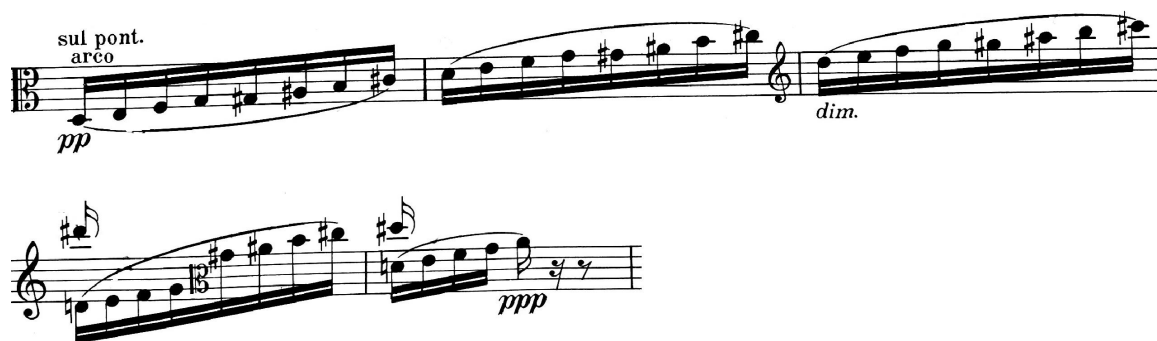
¹⁰⁷ György Ligeti, *String Quartet No. 1 “Métamorphoses nocturnes”*, (New York: Edition Schott, 1972).

Octatonic Scales

The collection of octatonic examples is heavily dominated by Bartók. Bartók is certainly not the only composer to use this scale extensively, but with six string quartets and several symphonic works, he wrote a great deal for the viola.

Example 27:

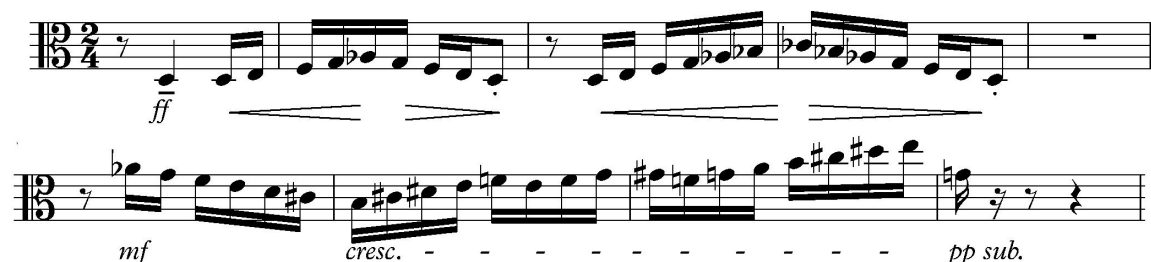
Béla Bartók (1881-1945), String Quartet No. 4¹⁰⁸
II. Prestissimo, con sordino, bars 243—247



Example 27 is basically just an ascending scale, but it covers almost three octaves and is an excellent example of the difficulties of this scale for the violist, primarily with regards to fingerings. For example, in the third bar, is it better to shift every half step or have fewer, larger shifts? This, again, depends on individual technical strengths.

Example 28:

Béla Bartók (1881-1945), Concerto for Orchestra¹⁰⁹
V. Finale: Presto, bars 88—96



¹⁰⁸ Béla Bartók, *String Quartet No. 4*, U.E. 9789c (New York: Boosey & Hawkes, Inc., 1956).

¹⁰⁹ Béla Bartók, *Concerto for Orchestra*.

Example 28 stays within a smaller range than example 27 and again emphasizes the difficulty of fingering a scale that is designed around the diminished chord on an instrument tuned in perfect fifths. The pattern breaks in bar 7 creating additional fingering challenges, particularly regarding whether to extend or cross strings for the D-sharp.

Example 29:

Ernst von Dohnányi (1877-1960), String Quartet No. 3 in A minor, Op. 33¹¹⁰
I. Allegro agitato e appassionato, bars 47—57



The last example, example 29, is much more melodic and considerably longer than the previous two. Like the whole tone examples, it is interesting to note how Dohnányi chooses to spell notes to make the melodic line clear. In fact, in this example particularly, the composer's choice of enharmonic spelling can inform and influence the performer's choice of fingering for the better.

Quartal Scales

Quartal harmonies, like whole tone and octatonic scales, are a popular way to break away from tertian harmony without losing a sense of pitch hierarchy or harmonic structure. Bartók and Hindemith used this structure frequently, but it can be found in the works of other composers as well.

¹¹⁰ Ernst von Dohnányi, *String Quartet No. 3 in A Minor, Op. 33*, Z. 3588 (Budapest: Zeneműkiadó Vállalat, 1961).

Example 30:

Béla Bartók (1881-1945), *Concerto for Orchestra*¹¹¹
I. Introduzione: Andante non troppo, bars 37—58



Example 30 spans all four strings in first position and is a satisfying melodic line by itself. It is good intonation practice because stacked fourths across all four strings forces the performer to adjust the hand and arm angle quickly, it allows him/her to check intonation using double stops, and, when open strings are involved, it requires him/her to think carefully about temperament.

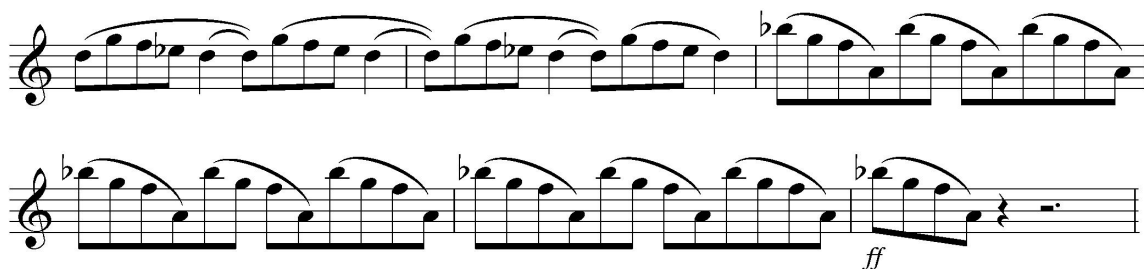
Example 31:

Paul Hindemith (1895-1963), *Sonate for Viola and Piano*, Op. 25 No. 4¹¹²
I. Sehr lebhaft. Markiert und kraftvoll, bars 46—57



¹¹¹ Béla Bartók, *Concerto for Orchestra*.

¹¹² Paul Hindemith, *Sonata for Viola and Piano*, Op. 25 No. 4 (Mainz: B. Schott's Söhne, 1977).



Example 31 begins in a manner similar to example 30, but spans a greater range, particularly exploiting the higher register. The same technical questions arise in this example as in the previous, and these issues are compounded by its placement in a higher register.

Example 32:

Arnold Schoenberg (1874-1951), *Chamber Symphony No. 1*, Op. 9¹¹³
Sehr rasch, 4 before rehearsal 76 — rehearsal 77



Example 32 is an elegant example of stacked perfect fourths across two octaves and four strings. It has the added bonus of a leap from the C-string to the A-string with a shift of a half step. This leap is an excellent skill to practice, and in context this excerpt goes by with very little time to think. The other difficulty is bow distribution. After the tied half-notes in bars 2, 3, and 4, one must either retake the bow or work his/her way back to the frog in the following beats. To execute this excerpt successfully, the performer must anticipate the string crossings in both hands and have a clear plan for the bow distribution.

¹¹³ Arnold Schoenberg, *Chamber Symphony No. 1*, Op. 9 (Vienna: Universal Edition, 1912).

Example 33:

Béla Bartók (1881-1945), *Concerto for Orchestra*¹¹⁴
I. Introduzione: Andante non troppo, bars 510—514



Example 34:

Béla Bartók (1881-1945), *String Quartet No. 1*¹¹⁵
III. Allegro vivace, bars 113—120



Examples 33 and 34 both create a more melodic line than example 32. Example 33 uses octave displacement and “inversions” of the stacked fourth chords to change the patterns. Shifts should be thought about carefully, deciding between more, smaller shifts or fewer, larger ones. Example 34 is not purely quartal in harmony, but as the example progresses it begins to swirl around two chords of stacked fourths, separated by a half-step. In example 34 particularly, note spellings are not good indicators of fingerings. Students should think enharmonically and consider every option for clarity in this passage.

¹¹⁴ Béla Bartók, *Concerto for Orchestra*.

¹¹⁵ Béla Bartók, *String Quartet No. 1*, Op. 7, R. & Co. 3287 (Budapest: Rözsavölgyi, 1911).

Béla Bartók (1881-1945), Viola Concerto, op. post.¹¹⁶
III. Finale: Allegretto, bars 205—213

On the surface, example 35 does not seem to be quartal in the way the other examples are; but the excerpt is structured around a pattern that repeats every bar, and every repetition moves up by fourth. It covers over three octaves, and has the added difficulty of a gradual crescendo and accelerando as it ascends. Each bar is almost exactly the same interval pattern, but it is not practical to use the same fingering for each one. Choose fingerings for clarity and facility.

The final non-traditional section includes scalar passages that either defy categorization or do not fit clearly into any of the previous categories. Perhaps users of this method will discover more excerpts that will create different specific categories, but for now these examples will remain in the category “Other”.

69

Example 36:

Ernest Bloch (1880-1959), String Quartet No. 4¹¹⁷
 II. Andante, bars 86—107

Example 36 is in a modified Phrygian scale, clearly imitating Jewish or Arabic music. The augmented seconds, as well as the changing and asymmetrical time signatures give this passage its exotic flavor. Just like many of the whole tone and octatonic examples, Bloch's choice of note spelling will probably influence a performer, for better or worse. Bloch clearly wants to spell augmented seconds as such (and not as minor thirds), because that is how they are functioning. For example, the second bar is a little strange for the performer. F-sharp and D-flat as well as G-sharp and E-flat are parallel on the fingerboard, but will probably be played with different fingers, and consequently will have different tendencies.

¹¹⁷ Ernest Bloch, *String Quartet No. 4*, Plate 43908 (New York: G. Schirmer, 1956).

Example 37:

Benjamin Britten (1913-1976), String Quartet No. 2 in C major, Op. 36¹¹⁸
 II. Vivace, bars 36—66

Example 37 also has a modal bent. The passage of bars 40—45, for example, is in the Dorian mode, and 59—62 seems to be Phrygian. In this excerpt, bowing is trickier than intonation or fingering. The slurring of triplets as 1 + 2 is not as common as 2 + 1, and the pattern of slurs and accents shifts around as the passage continues. A student will probably be better off avoiding string crossings when possible, particularly under slurs.

Example 38:

Béla Bartók (1881-1945), String Quartet No. 4¹¹⁹
 IV. Allegretto pizzicato, bars 6—13

¹¹⁸ Benjamin Britten, *String Quartet No. 2 in C Major, Op. 36*, B. & H. 9105 (London: Boosey & Hawkes, 1946).

¹¹⁹ Béla Bartók, *String Quartet No. 4*, U.E. 9789c (New York: Boosey & Hawkes, Inc., 1956).

Examples 38 and 39 both have elements of octatonic and whole tone scales that are definitely not major or minor and do not seem to correspond with any of the church modes either. Example 38 begins whole tone and ends octatonic. It is more straightforward than some of the previous excerpts, but excellent practice to familiarize oneself with finger patterns that are not the same from string to string.

Example 39:

Béla Bartók (1881-1945), String Quartet No. 3¹²⁰
Coda: Allegro molto, bars 4—23

The musical score for Example 39 is a Coda from Béla Bartók's String Quartet No. 3. It consists of five staves of music. The first staff is marked 'sul pont.' and 'pp'. The second staff is marked 'pp'. The third staff is marked 'poco a poco' and 'in modo ord.'. The fourth staff is marked 'cresc.' and 'molto'. The fifth staff is marked 'ff'. The tempo is 'Allegro molto'. The key signature has one flat (B-flat). The score includes various rhythmic patterns, including sixteenth and thirty-second notes, and various dynamic markings.

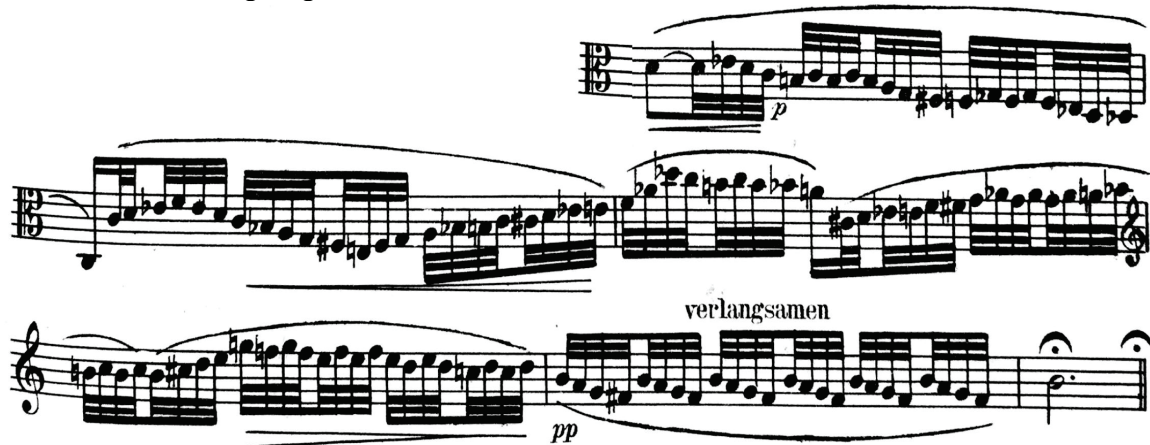
Example 39 has an interval pattern of half, whole, whole, half, whole, half, which then repeats. This repeating pattern spans the interval of a minor sixth, and the construction of the pattern creates octaves that are not uniform. The most difficult thing about this excerpt (and it is extremely difficult) is the C drone, which forces the violist to play everything else on the G-

¹²⁰ Béla Bartók, *String Quartet No. 3*, U.E. 9598 (Vienna: Universal Edition, 1929).

string. It goes quite high, and finding a good fingering and the correct balance between the strings at *pianissimo sul ponticello* is tricky.

Example 40:

Paul Hindemith (1895-1963), *Sonata for Viola and Piano* (1939)¹²¹
IV. Finale: Ein wenig langsamer =84, bars 143—148



Example 40 uses a great deal of chromatic motion, but there is enough “tonal” material that I am hesitant to classify it as strictly chromatic. Like many of the examples discussed already, one of the challenges of this passage is finding a good fingering. This passage consistently uses flats and naturals except for F-sharp and C-sharp. An exception to this rule is the first bar, which uses G-flats in the second half to facilitate reading. As a performer, it is easier to look at alternating notes of a different letter name than a string of accidentals. As far as fingering facility, the first F-sharp could have been written as G-flat. This would make the default fingering 4 instead of 3, setting the hand up well for the rest of the bar. The F-sharp in the second bar is good, but the C-sharp could be spelled D-flat and a player might read it more naturally. For much of this, a performer must decide between shifting and sliding fingerings, both of which have advantages and disadvantages.

¹²¹ Paul Hindemith, *Sonata for Viola and Piano* (1939), B.S.S 36091 (London: Schott & Co. Ltd., 1940).

Example 41:

Ralph Vaughan Williams (1872-1958), *Romance for Viola and Piano*, bars 50—52¹²²



The *Romance for Viola and Piano* by Vaughan Williams, from which Example 41 is taken, is a tonal piece. It is included in the “Other” category because the excerpt is modulating from D-flat major to D minor, and there is not a clear enough tonal underpinning to satisfactorily categorize it any other way. This excerpt spans three octaves and a minor second in three bars, and does so primarily with arpeggiated pairs of neighbor notes. Fingering choices should not be influenced by note spelling, and shift sizes should be minimized as much as possible.

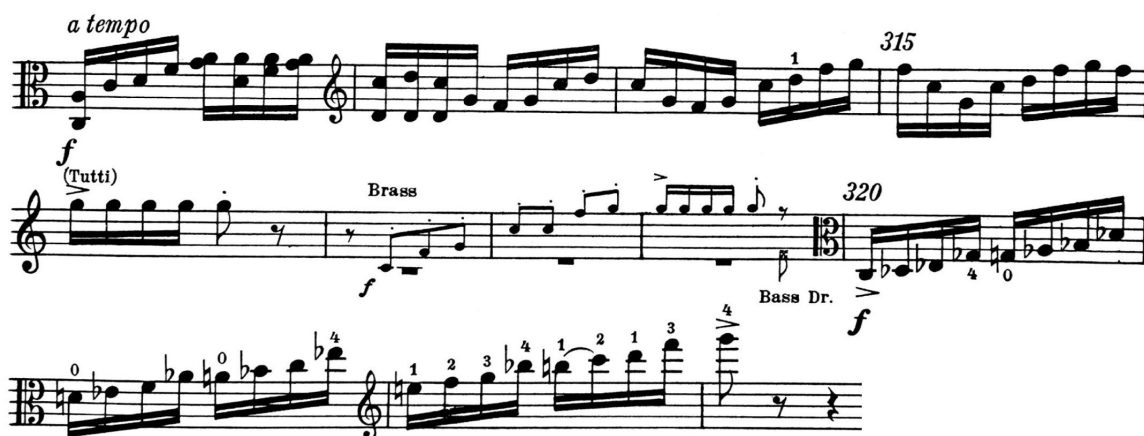
Example 42:

Walter Piston (1894-1976), *Concerto for Viola and Orchestra*¹²³
III. *Allegro vivo* =152, bars 300—323



¹²² Ralph Vaughan Williams, *Romance for Viola and Piano*, ed. Bernard Shore and Eric Gritton (Oxford: Oxford University Press, 1962).

¹²³ Walter Piston, *Concerto for Viola and Orchestra*, ed. Joseph de Pasquale, AMP-9591-32 (New York: Associated Music Publishers, Inc., 1959).



Example 42 contains two scalar passages that span more than three octaves. The first scale, bars 303—306, is organized in groups of five notes. Each group has the same pattern of intervals: M2, m2, Aug2, m2, which spans a perfect fifth. The next group begins a half step below the last note of the previous group and continues the pattern. The result is that each group is a tritone apart, and the starting notes alternate between E and B-flat. The last group begins on B-flat, and the top of the scale is F-natural.

The second scale, bars 320—323, is organized similarly. The groups are four notes, and each group has the interval pattern: m2, M2, m3, which spans a diminished fifth. These groups move up by half step, making the start of each group a perfect fifth from the start of the previous one. This scale begins on open C and goes through six groups, ending on the downbeat of what would be the seventh. This results in a scale spanning three octaves and a fifth.

In the first scalar passage, the fingerings change from beat to beat because they are constructed in tritones. In the second, the fingering stays the same because they are constructed in perfect fifths.

Example 43:

Leoš Janáček (1854-1928), String Quartet No. 2 “Intimate Letters”¹²⁴
I. Allegro, bars 272—289



Example 43 is important in order to have a passage in double stops, which is an element I have tried to include in as many keys as possible. This example is constructed as cells of parallel sixths, shifting keys in a rapid and somewhat jarring way. Choosing fingerings for this passage, a student must decide between what might be the most resonant for any given double stop, and the most practical for the passage as a whole. Generally, longer strings resonate more, and so lower positions are often better for double stops, but the continuity of the line must also be taken into account and so higher positions might be preferable.

Example 44:

J. S. Bach (1685-1750) / Zoltán Kodály (1882-1967), *Fantasia Cromatica*¹²⁵
bars 22—50

The last excerpt in the collection is by far the longest, and so I have not included it here, only in Appendix A. J.S. Bach’s *Fantasia Cromatica* was originally written for keyboard, but in 1951 Zoltán Kodály published a version for solo viola.¹²⁶ It is a virtuosic transcription, and any page of it would be an excellent addition to the excerpt collection of a performer. I have included bars 22—50 of this transcription as the grand finale of my collection. It is a huge number of notes, including scales and arpeggios of every stripe. It covers a huge range on the instrument

¹²⁴ Leoš Janáček, *String Quartet No. 2 “Intimate Letters”*.

¹²⁵ J. S. Bach, *Fantasia Cromatica for Viola Solo*, trans. Zoltán Kodály, B. & H. 17875 (London: Boosey & Hawkes, 1951).

¹²⁶ J. S. Bach, *Fantasia Cromatica for Viola Solo*

and never stays in the same harmony for more than a bar. To complete this collection, I could not think of a better excerpt.

CONCLUSION

The viola is the most wistful, melancholic, inward-looking and soulful instrument. The voice of choice for elegies and laments, its repertoire is distinguished by countless sad titles such as Trauermusik, Yiskor (in memoriam), Lachrymae. It does, however, take pleasure in being gay and humoristic, brave, tough and rustic. (In his letter to Tibor Serly, Bartok, not surprisingly, speaks about the masculine sound of the viola.) Yes, the viola may be a little weighty, somewhat clumsy, but it does like to dance! And yes, it does want to show off.

-Atar Arad¹²⁷

This proposed system of using repertoire excerpts as technical practice will not necessarily replace traditional scale methods for every student. Especially younger students and students with technical gaps can benefit from the discipline and consistency of traditional scale practice. Likewise, advanced students and professionals might like the ritual of traditional scale practice and would not want to discard it completely. The trouble occurs when scale practice becomes rote and mindless, and hours are spent training one's fingers but not one's brain.

The method proposed here will constantly and naturally evolve. Almost every piece of music has excerpts of scales, arpeggios, chords, or double stops that can add to a collection and should be practiced in a methodical and technically oriented way. By collecting excerpts, the performer also has a record of what s/he has worked on, what was difficult, and particularly what s/he likes. It is always more satisfying to practice music you enjoy, and allowing one's technical studies the same advantage has obvious benefits. Particularly for students, it is also helpful to share excerpts, which is easy in our hyper-connected modern society. Not only will sharing excerpts exponentially increase your collection, it will give insight into what your colleagues enjoy or find difficult, and it will expose you to a broader cross-section of the repertoire.

Using passages from repertoire as technical studies gives context to the music, whereas traditional scales live in a vacuum. Even solo literature, which has no context outside of what is on the page, has expectations with regards to style and harmonic language. These expectations inform intonation, vibrato, bow use and basically every other aspect of technique. Even more than solo music, ensemble music has the greater added value of information provided by other

¹²⁷ Atar Arad, http://atararad.com/strings_magazine_article.html (accessed August 23, 2015).

parts. For any ensemble situation, a performer must play differently depending on the circumstance. The solo part of a concerto is going to be played very differently from an orchestral section part. These contextual differences should not be overlooked in our technical practice. Everything from intonation to sound production will change from one piece to the next.

The performer must make many decisions in an educated way. Intonation, for example, depends on time period and genre. A performance of a romantic concerto can benefit from expressive intonation, and a performer must decide the degree of expressiveness consciously and deliberately. A string quartet, on the other hand, particularly one from the classical period, will probably not fare as well with expressive intonation, and the performer, particularly a violist, should think more about the vertical harmonies and less about the horizontal line. This can only be done if the performer has a clear understanding of the other parts, in terms of harmonic, melodic, and rhythmic content. We violists spend most of our time as a middle voice, but occasionally act as the bass or the treble, and each role comes with different responsibilities. A performer must think about how to change his/her sound density, vibrato, balance, and energy level depending on whether he/she is playing a melody, an accompaniment, a bass line, or providing harmonic or rhythmic texture (or both). The roles can also shift quickly, and a good performer must be able to turn on a dime. These elements of practice are all but absent from traditional scale methods, but must not be absent from technical practice.

Another benefit this method offers, that is conspicuously absent from almost every traditional scale methods, is the inclusion of enharmonic keys and non-traditional scales. Practicing B major, but not C-flat major does a disservice. A performer becomes fluent only in some key signatures, and his/her creativity about fingerings can be limited. Hans Sitt is the only author of a scale system studied in this document that includes any enharmonically equivalent keys, and the only ones he includes are F-sharp / G-flat major.¹²⁸ Different note spellings imply

¹²⁸ Hans Sitt, *Practical Viola Method*.

different fingerings, but a clever performer will consider all possibilities and choose the most appropriate (musically and technically), even if it is not the “correct” one for the key.

Non-traditional scales pose many of the same problems as keys with many sharps and flats. Not only does the performer need to think creatively about fingerings, he/she must also train his/her ear to understand a possibly unfamiliar harmonic language. Like anything new, the first time a student encounters a whole tone scale, it will be difficult to hear and to execute, and only with repeated exposure and careful practice will it become an integrated part of his/her technique. These scales are becoming more and more common, both in works now being written and in pieces that are becoming part of the standard canon, and should not be neglected.

As I have already mentioned, the collection of excerpts presented here is by no means exhaustive. It is meant to be a starting point for one’s own collection. The possibilities are endless, and the benefits numerous. It can serve as a performer’s entire technical practice, or just a part of it. Either way, the use of scales from repertoire as technical exercises fills a void in the current body of pedagogical materials for the viola.

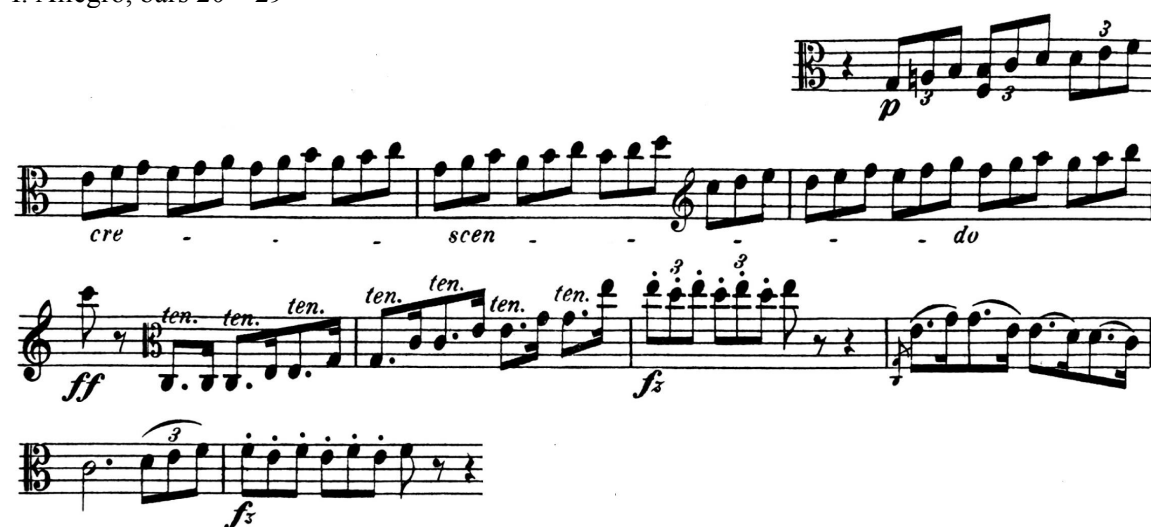
APPENDIX A

C MAJOR

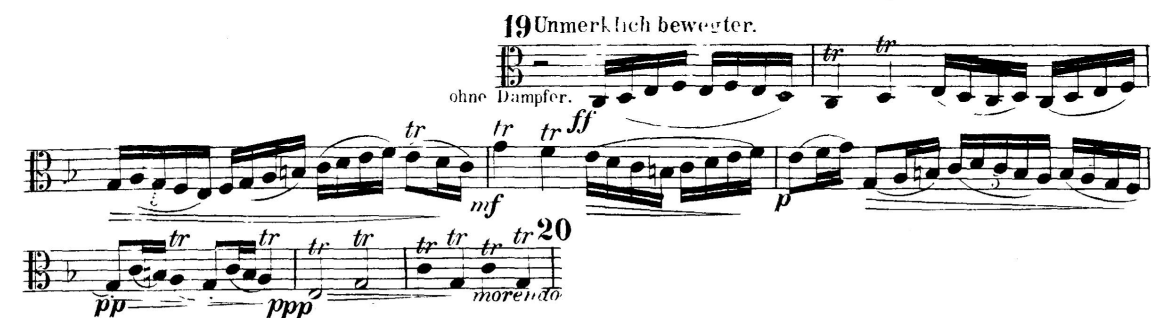
Ludwig van Beethoven (1770-1827), String Quartet Op. 59 No. 3
IV. Allegro molto, bars 1—14



Antonin Dvořák (1841-1904), String Quartet No. 4, Op. 61
I. Allegro, bars 20—29



Gustav Mahler (1860-1911), Symphony No. 3 in D minor
I. Kräftig, Entschieden, bars 239—246



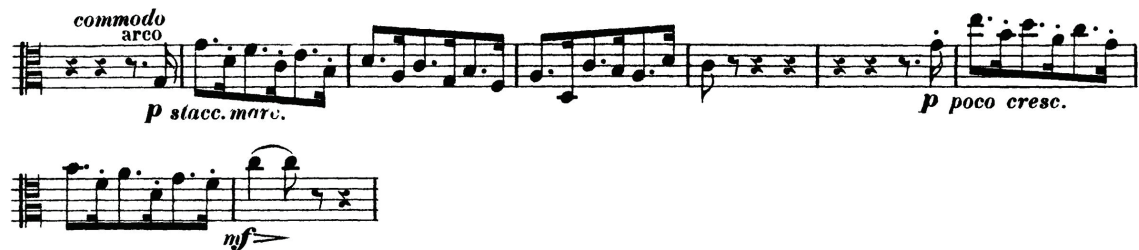
Dimitri Shostakovich (1906-1975), Sonata for Viola and Piano, Op. 147
 II. Allegretto, =100, bars 167 —170



Franz Joseph Haydn (1732-1809), String Quartet Op. 54 No. 2
 I. Vivace, bars 199—219



Richard Wagner (1813-1883), Die Meistersinger von Nürnberg
 Act III, Scene 1, bars 356—363



Ludwig van Beethoven (1770-1827), String Quartet Op. 59 No. 1
I. Allegro, bars 60—84

1

D

p *cresc.*

sfp *sfp* *sfp* *sfp* *cresc.* 1 *p*

E

cresc. *ff*

Alexander Glazunov (1865-1936), String Quartet No. 7 in C major, Op. 107
IV. Finale: Festival Russe, bars 171—177

122

sf *mf* *p*

123

f

Alexander Glazunov (1865-1936), String Quartet No. 7 in C major, Op. 107
IV. Finale: Festival Russe, bars 44—52

106

p *cresc.*

107

f

John Harbison (b. 1938), String Quartet No. 1
 II. Andante: aspro ed intimo =72, bars 48-65

A MINOR

Rebecca Clarke (1886-1979), Sonata for Viola and Piano
 II. Vivace, bars 79—102

Johannes Brahms (1833-1897), String Quartet in A minor, Op. 51 No. 2
I. Allegro non troppo, bars 1—13



Felix Mendelssohn (1809-1847), String Quartet in A minor, Op. 13
I. Adagio - Allegro vivace, bars 234—251

First system (bars 234–236): Treble and bass staves with sixteenth-note patterns. Dynamics: *f*.

Second system (bars 237–239): Treble and bass staves with sixteenth-note patterns. Dynamics: *ff*.

Third system (bars 240–242): Treble and bass staves with sixteenth-note patterns. Dynamics: *f*.

Fourth system (bars 243–245): Treble and bass staves with sixteenth-note patterns. Dynamics: *p*.

Fifth system (bars 246–251): Treble and bass staves with sixteenth-note patterns. Dynamics: *f*. Includes markings: *cresc.*, *al*, *f*, *cresc.*.

Ernest Bloch (1880-1959), Suite for Viola and Piano or Orchestra
I. Lento, bars 40—52

animando
cresc. poco a poco
f
a tempo
poco a poco più lento
f

Ernest Bloch (1880-1959), String Quartet No. 3
I. Allegro deciso, bars 133—147

ff
simile

F MAJOR

Ludwig van Beethoven (1770-1827), String Quartet Op. 59 No. 3
 III. Menuetto grazioso, bars 63—74



George Whitefield Chadwick (1854-1931), String Quartet No. 5 in D minor
 IV. Allegro vivace, bars 59—67



Henri Vieuxtemps (1820-1881), Allegro and Scherzo from an unfinished Sonata for Viola and Piano
 II. Scherzo: Grazioso, trio 2: Avec grande égalité, bars 37—48





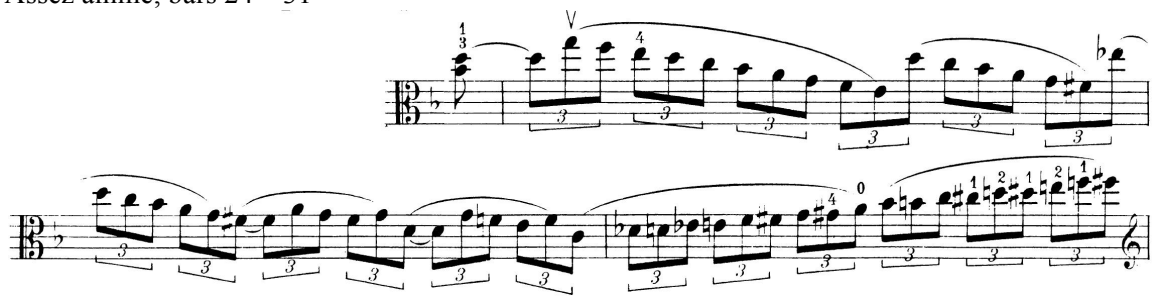
Ludwig van Beethoven (1770-1827), String Quartet Op. 59 No. 1
I. Allegro, bars 369—387

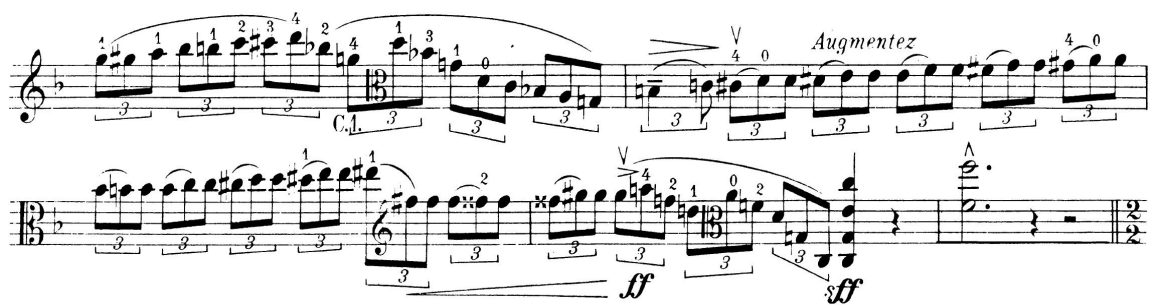


Ludwig van Beethoven (1770-1827), Symphony No. 1 in C major, Op. 21
II. Andante cantabile con moto, bars 108—126



George Enescu (1881-1955), Concertstück for Viola and Piano
Assez animé, bars 24—31





Johannes Brahms (1833-1897), Quintet No. 1 in F major, Op. 88
I. Allegro non troppo ma con brio, bars 137—144



D MINOR

Antonin Dvořák (1841-1904), String Quartet in D minor, Op. 34
I. Allegro, bars 1—31



Ludwig van Beethoven (1770-1827), Symphony No. 9 in D minor, Op. 125
 II. Molto vivace, bars 543—587



Johannes Brahms (1833-1897), Sextet No. 2 in G major, Op. 36
 II. Allegro non troppo, bars 17—31



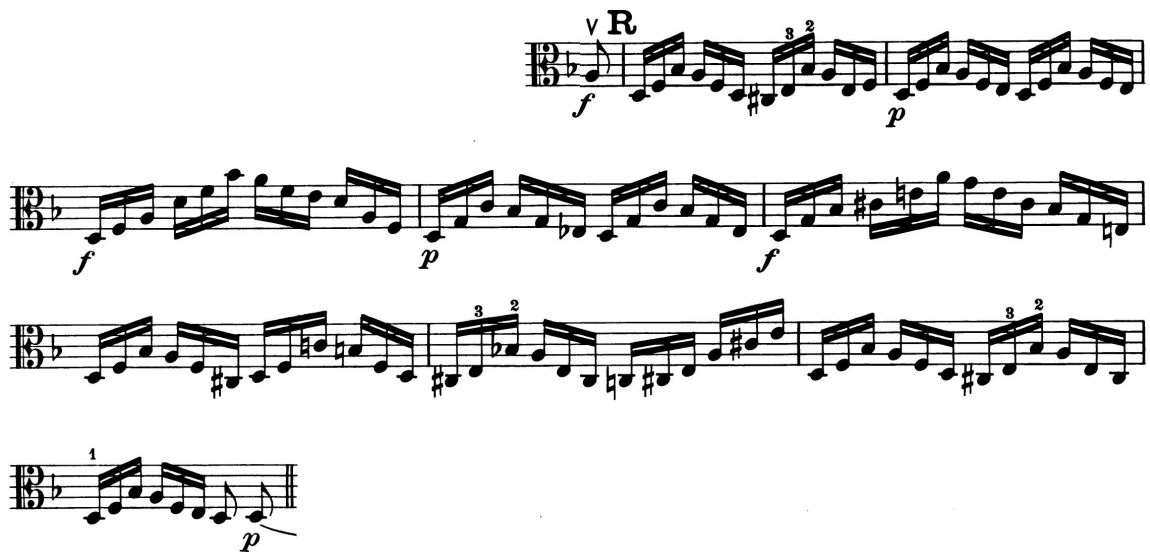
Henri Casadesus (1879-1947), Concerto in B minor for Viola and Orchestra (G. F. Haëndel)
 I. Allegro moderato, bars 96—104



Ludwig van Beethoven (1770-1827), String Trio in D major, Op. 9 No. 2
 II. Andante quasi allegretto, bars 83—90



Robert Schumann (1810-1856), Märchenbilder, Op. 113
 III. Rasch (Mit springendem Bogen), bars 28—36



Alexander Glazunov (1865-1936), String Quartet No. 5 in D minor, Op. 70
 I. Andante - Allegro, bars 284—292



B-FLAT MAJOR

Claude Debussy (1862-1918), String Quartet op. 10

I. Animé et très décidé, bars 12—26

First system: Treble clef, B-flat major key signature, 4/4 time signature. Dynamics: *p* and *pp*.
Second system: Treble clef, B-flat major key signature, 4/4 time signature.
Third system: Treble clef, B-flat major key signature, 4/4 time signature.
Fourth system: Treble clef, B-flat major key signature, 4/4 time signature. Dynamics: *p*, *mf*, *dim.*, *pou dim.*.
Fifth system: Bass clef, B-flat major key signature, 4/4 time signature. Dynamics: *p*. A box with the number 1 is placed above the first measure.

Franz Joseph Haydn (1732-1809), String Quartet Op. 33 No. 2

III. Largo e sostenuto, bars 51—59

First system: Bass clef, B-flat major key signature, 4/4 time signature.
Second system: Bass clef, B-flat major key signature, 4/4 time signature. Bar numbers 52 and 56 are indicated. Dynamics: *p*.
Third system: Bass clef, B-flat major key signature, 4/4 time signature. Bar numbers 52 and 56 are indicated. Dynamics: *p*.

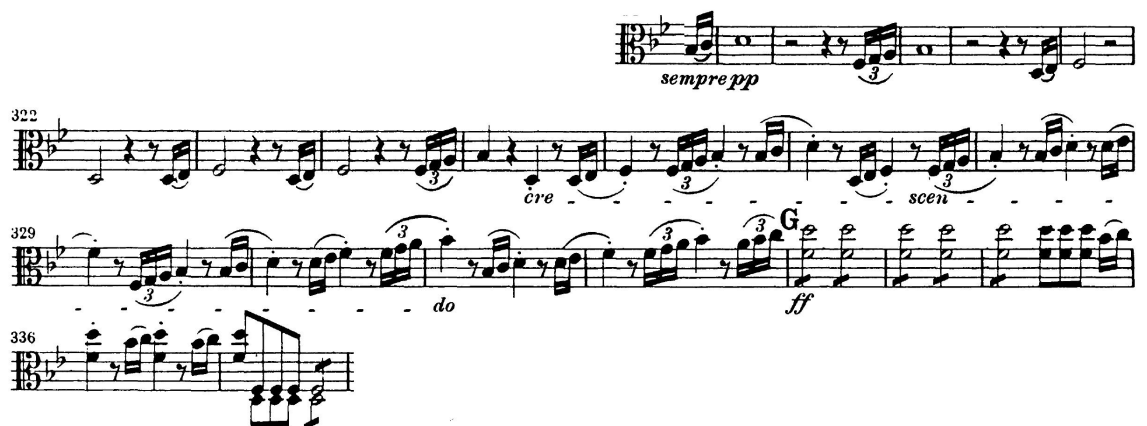
Franz Joseph Haydn (1732-1809), String Quartet Op. 50 No. 5
 II. Poco Adagio, bars 34—39



Darius Milhaud (1892-1974), Concerto for Viola and Orchestra (1929)
 I. Animé, bars 58—62



Ludwig van Beethoven (1770-1827), Symphony No. 4 in B-flat major, Op. 60
 I. Adagio - Allegro vivace, bars 316—337



Johannes Brahms (1833-1897), Variations on a Theme by Haydn, Op. 56a
 Var. 1: Poco più animato, bars 30—58

Var. I Poco più animato

Hr. III *p* *mf*

p *cresc.* *f* *f* *dim.* *p*

Ludwig van Beethoven (1770-1827), Symphony No. 6 in F major, Op. 68 “Pastoral”
 II. Szene am Bach: Andante molto moto, bars 85—95

f *dimin.*

cresc. *p* *cresc.*

Johannes Brahms (1833-1897), Sextet No. 1 in B-flat major, Op. 18, viola 1
 IV. Rondo: Poco Allegretto e grazioso, bars 468—508

Animato, poco a poco più.

p leggiero *segue*

p leggiero



Ottorino Respighi (1879-1936), String Quartet in D major
 II. Tema con variazioni: Andante, bars 25—36



G MINOR

Felix Mendelssohn (1809-1847), String Quartet in E-flat major, Op. 12
 IV. Molto allegro e vivace, bars 90—105

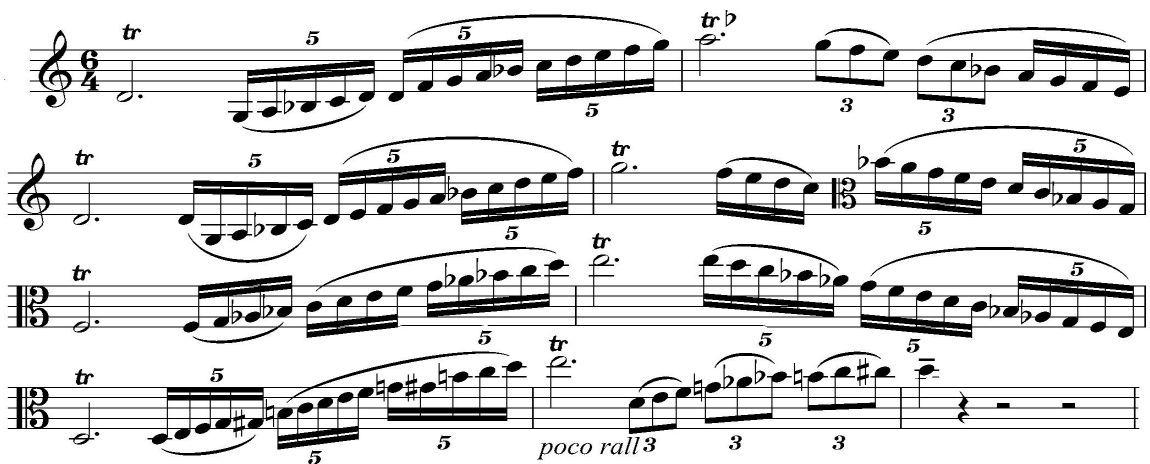




Franz Joseph Haydn (1732-1809), String Quartet Op. 33 No. 4
IV. Presto, bars 103—136



William Walton (1902-1983), Viola Concerto
III. Allegro moderato, bars 97—105



Hector Berlioz (1803-1869), *Symphony Fantastique*, Op. 14
 IV. Gang zum Hochgericht, bars 136—154



Max Reger (1873-1916), *Suite for Solo Viola in G minor*, Op. 131d, No. 1
 IV. Molto vivace, bars 40—63

Max Reger (1873-1916), Suite for Solo Viola in G minor, Op. 131d, No. 1
 II. Vivace, bars 33—53

This musical score is for the second movement, 'Vivace', of the Suite for Solo Viola in G minor, Op. 131d, No. 1, by Max Reger. It covers bars 33 to 53. The score is written for a single viola part. The key signature is G minor (two flats). The time signature is 3/4. The tempo is marked 'Vivace'. The score includes various dynamic markings: *mf*, *p*, *f*, *rit.*, *a tempo*, *mf cresc.*, *f*, *p*, *pp*, and *Fine.*. The notation features a variety of musical elements, including eighth and sixteenth notes, rests, and slurs. There are also some unusual markings, such as 'o' above certain notes.

E-FLAT MAJOR

Ludwig van Beethoven (1770-1827), Symphony No. 3 in E-flat major, Op. 55 "Eroica"
 I. Allegro con brio, bars 651—677

This musical score is for the first movement, 'Allegro con brio', of Ludwig van Beethoven's Symphony No. 3 in E-flat major, Op. 55 "Eroica". It covers bars 651 to 677. The score is written for a single viola part. The key signature is E-flat major (three flats). The time signature is 3/4. The tempo is marked 'Allegro con brio'. The score includes dynamic markings: *cresc.*, *f*, *ff*, and *p*. The notation features a variety of musical elements, including eighth and sixteenth notes, rests, and slurs. The score is divided into measures, with bar numbers 658, 665, and 672 indicated at the beginning of their respective staves.

Henri Casadesus (1879-1947), Concerto in C minor for Viola and Orchestra (J. C. Bach)
I. Allegro molto ma maestoso, bars 95—110

7 Più calmato e espressivo

p

Poco rit. **1º Tempo**

Felix Mendelssohn (1809-1847), Elijah, Op. 70
No. 20. Chor: Allegro moderato ma con fuoco, bars 97—129

ff **D**

ff **E**

ff

Anton Bruckner (1824-1896), Symphony No. 4 in E-flat major “Romantic”
I. Bewegf, nicht zu schnell, bars 476—501

pp crescendo

mf cresc.

ff

ff sempre

dim. sempre

pp

ppp

W. A. Mozart (1756-1791), Sinfonia Concertante in E-flat major, KV 364
I. Allegro maestoso, bars 211—223

sf

sfp

W. A. Mozart (1756-1791), Sinfonia Concertante in E-flat major, KV 364
 III. Presto, bars 432—444

435

444

Ludwig van Beethoven (1770-1827), String Quartet Op. 59 No. 1
 I. Allegro, bars 140—143

cresc.

ff

Johannes Brahms (1833-1897), Piano Quartet No. 1 in G minor, Op. 25
 III. Andante con moto, bars 1—8

Viol.

poco f press.

Max Reger (1873-1916), Suite for Solo Viola in D major, Op. 131d, No. 2
 III. Allegretto, bars 25—47

Quasi meno mosso.

p espress.

poco rit. *a tempo* *rit.*

p *p* *p*

Allegretto da Capo al Fine.

C MINOR

Felix Mendelssohn (1809-1847), String Quartet in E-flat major, Op. 44 No. 3

II. Scherzo: Assai leggero e vivace, bars 49—72

49

56 *pp* stacc. *f* dim. *p*

Ludwig van Beethoven (1770-1827), String Trio in C minor, Op. 9 No. 3

I. Allegro con spirito, bars 145—178

p

8 *ff* *ff*

1 *sf* *sf*

sf *sf* *p* *sf* *sf* *sf* *sf*

9 *ff* *pp* *sf decresc.* *pp* *pp* *sf*

sf *cresc.*

Gustav Mahler (1860-1911), Symphony No. 2 in C minor
I. Allegro maestoso, bars 316—321

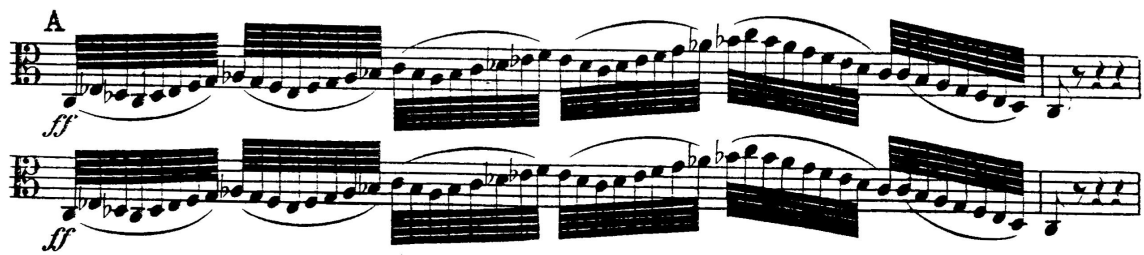


Henri Casadesus (1879-1947), Concerto in C minor for Viola and Orchestra (J. S. Bach)
III. Allegro molto energico, bars 1—16

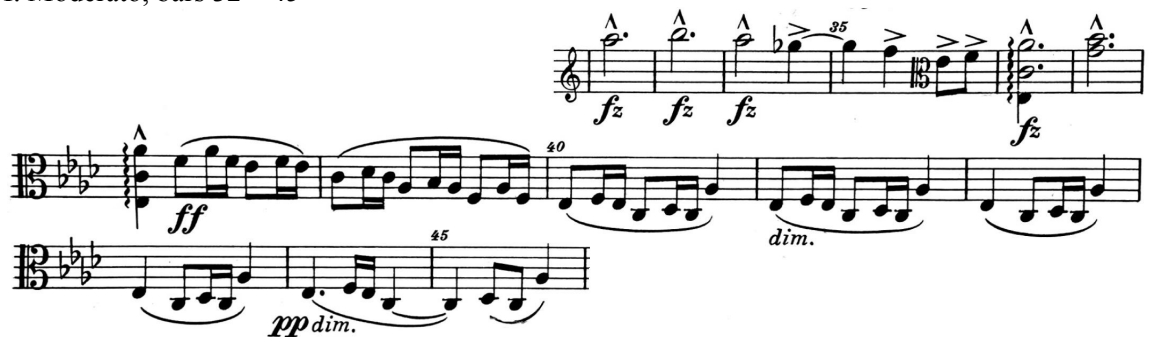


A-FLAT MAJOR

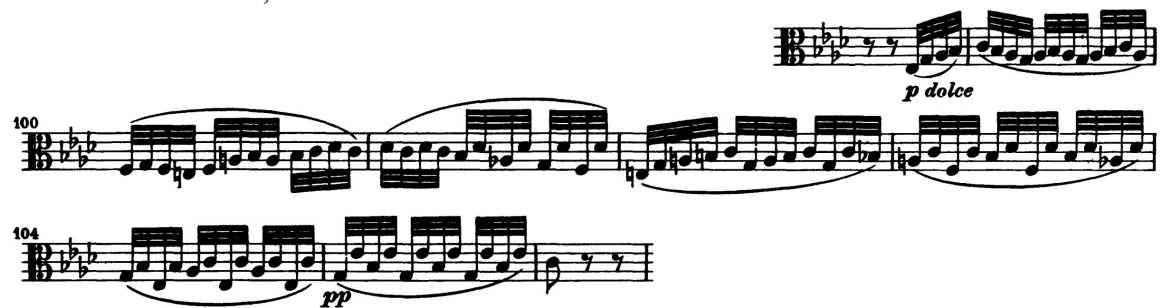
Ludwig van Beethoven (1770-1827), Leonore Overture No. 2, Op. 72
Adagio, bars 36—39



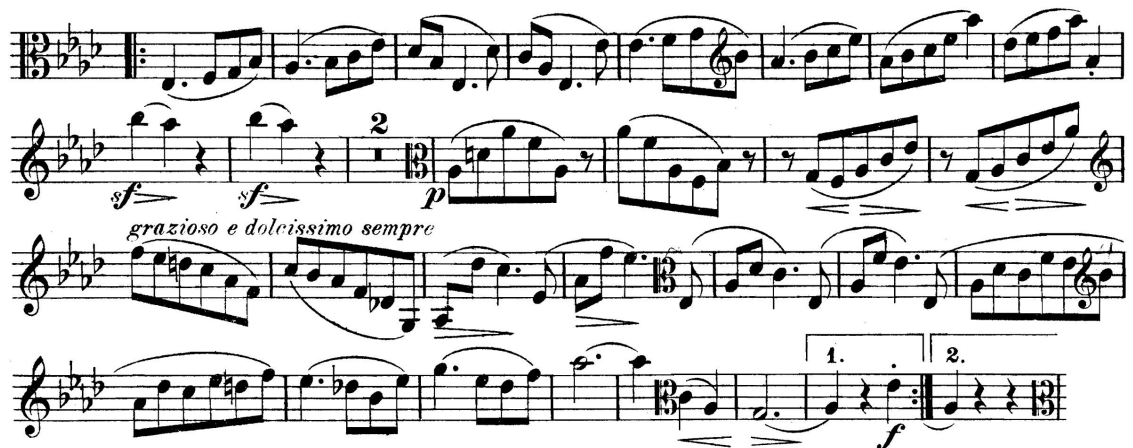
Antonin Dvořák (1841-1904), String Quartet in F minor, Op. 9
I. Moderato, bars 32—45



Ludwig van Beethoven (1770-1827), Symphony No. 5 in C minor, Op. 67
 II. Andante con moto, bars 98—106



Johannes Brahms (1833-1897), Sonata in F minor, Op. 120 No. 1
 III. Allegretto grazioso, bars 17—46



Ludwig van Beethoven (1770-1827), String Quartet Op. 127
 II. Adagio, ma non troppo e molto cantabile, bars 41—50



F MINOR

Ernst von Dohnányi (1877-1960), String Quartet Op. 15

II. Presto acciacato, bars 210—229



Ludwig van Beethoven (1770-1827), String Quartet Op. 59 No. 1

II. Allegretto vivace e sempre scherzando, bars 141—150



Johannes Brahms (1833-1897), Symphony No. 3 in F major, Op. 90

IV. Allegro, bars 1—18



D-FLAT MAJOR / C-SHARP MAJOR

Gustav Mahler (1860-1911), Symphony No. 3 in D minor
I. Kräftig, Entschieden, bars 605—628

Più mosso.

fff sf sf sf sf sf

Immer noch drängend.

sempre ff sf sf sf sf

sf sf sf sf

52

53

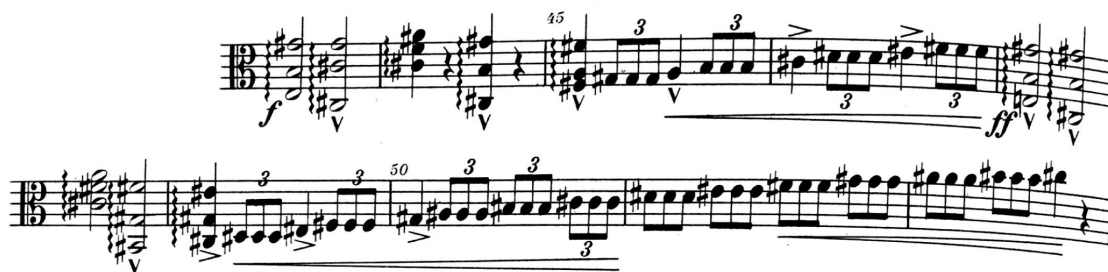
Claude Debussy (1862-1918), La Mer
III. Dialogue du vent et de la mer, bars 145—153

div. p mf dim. p

54 *pizz. sf pizz.*

più p

Antonin Dvořák (1841-1904), String Quartet in A minor, Op. 16
IV. Allegro ma non troppo, bars 43—52



Darius Milhaud (1892-1974), String Quartet No. 5
IV. Très Animé, bars 38—52



Antonin Dvořák (1841-1904), Symphony No. 3 in E-flat major, Op. 10
III. Adagio molto. Tempo di marcia, bars 164—178



Darius Milhaud (1892-1974), String Quartet No. 2
I. Modérément animé., bars 135—142

1^{er} Mouvt ♩ = 84

sonore

Antonin Dvořák (1841-1904), String Quartet No. 4 in C major, Op. 61
II. Poco adagio e molto cantabile, bars 25—32

pp

pp

cresc.

C

Johannes Brahms (1833-1897), Quintet for Clarinet and Strings Op. 115
I. Allegro, bars 98—105

quasi sostenuto

p

cresc. *scen.*

do

B-FLAT MINOR / A-SHARP MINOR

Johannes Brahms (1833-1897), Variations on a Theme by Haydn, Op. 56a
 Var. IV: Andante con moto, bars 146—185

p dolce *piu f*

D *p dolce e semplice*

piu f **E** *Hr.I* *p*

piu f

p sf p sf p

Johannes Brahms (1833-1897), String Quartet in B-flat major, Op. 67
 I. Vivace, bars 257—264

K *pp*

pp

Johannes Brahms (1833-1897), String Quartet in B-flat major, Op. 67
 IV. Poco allegretto con variazioni, bars 122—137

p

pp

pp

G-FLAT MAJOR / F-SHARP MAJOR

Antonin Dvořák (1841-1904), String Quartet in D minor, Op. 34

I. Allegro, bars 260—269



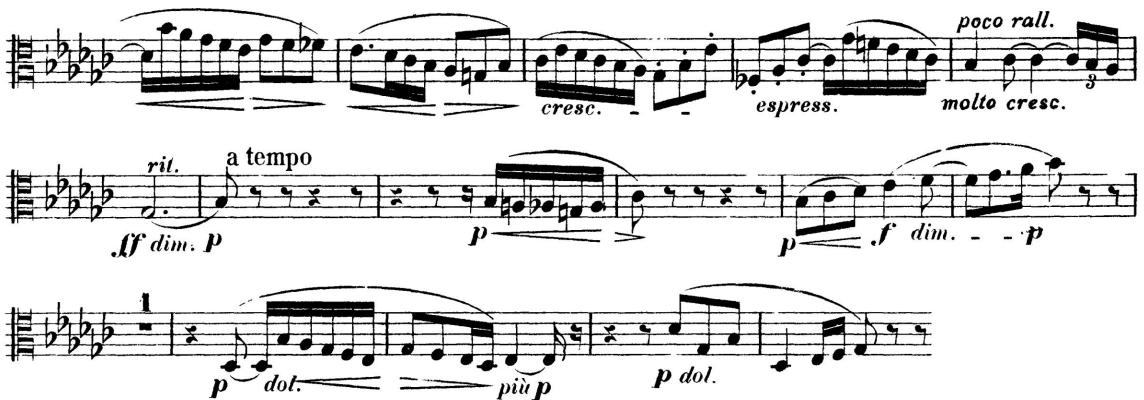
Johannes Brahms (1833-1897), String Quintet No. 2, Op. 111

IV. Vivace ma non troppo presto, bars 241—247



Richard Wagner (1813-1883), Der Meistersinger von Nürnberg

Act III, Scene 4, Andante ma non troppo, bars 27—42



Pyotr Ilyich Tchaikovsky (1840-1893), String Quartet in B-flat major, Op. Post.
Adagio misterioso - Allegro con moto, bars 314—330

sempre *ff*

320

p

330

f

p

Antonin Dvořák (1841-1904), Quintet in E-flat major, Op. 97, Viola 2
IV. Finale: Allegro giusto, bars 105—119

f

dim.

tr

p

p

Robert Fuchs (1847-1927), String Quartet in A major, Op. 106
 III. Andante sostenuto, bars 59—71

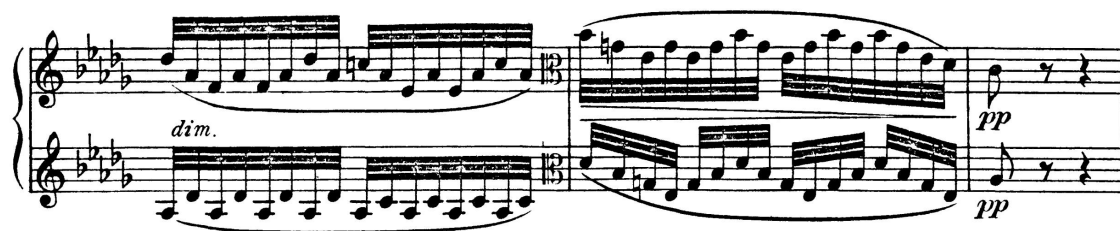
Robert Fuchs (1847-1927), String Quartet in A major, Op. 106
 III. Andante sostenuto, bars 59—71

Richard Wagner (1813-1883), Lohengrin
 Act I, Scene 3, 3 bars after rehearsal 39 — 7 bars before rehearsal 40

Richard Wagner (1813-1883), Lohengrin
 Act I, Scene 3, 3 bars after rehearsal 39 — 7 bars before rehearsal 40

Antonin Dvořák (1841-1904), Symphony No. 3 in E-flat major, Op. 10
 III. Adagio molto. Tempo di marcia, bars 105—113

Antonin Dvořák (1841-1904), Symphony No. 3 in E-flat major, Op. 10
 III. Adagio molto. Tempo di marcia, bars 105—113



Arnold Schoenberg (1874-1951), Verklärte Nacht, Op. 4, Viola 1
 Sehr Breit und langsam, (mit Dämpfer), 6 before N — 11 after N



Paul Hindemith (1895-1963), Sonate für Bratsche allein, Op. 11 No. 5
III. Scherzo, bars 42—54



D-SHARP MINOR / E-FLAT MINOR

Antonin Dvořák (1841-1904), Quartet for Piano and Strings in E-flat major, Op. 87
IV. Allegro ma non troppo, bars 1—13



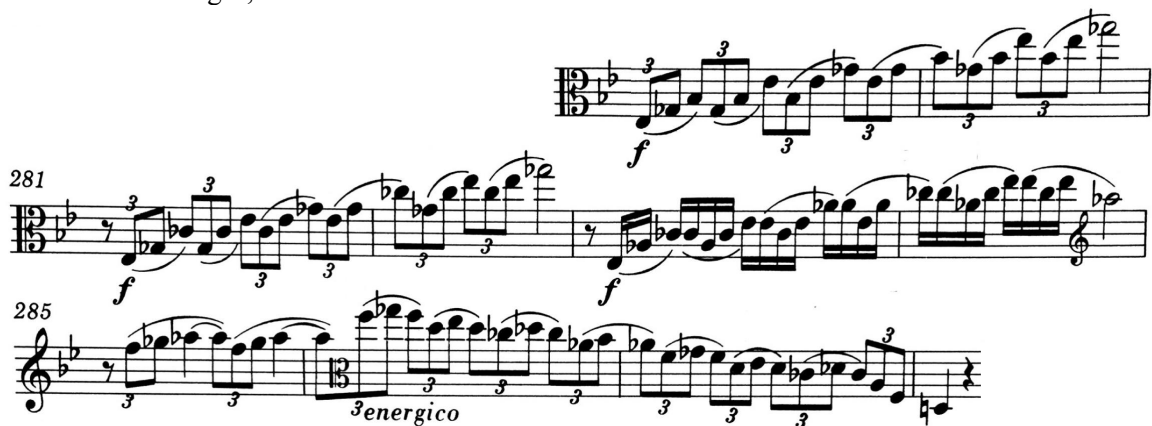
Johannes Brahms (1833-1897), Sonata in E-flat major, Op. 120 No. 2
 III. Andante con moto - Allegro, bars 74—86



Richard Strauss (1864-1949), Ein Heldenleben, Op. 40, bars 538—546



Henri Vieuxtemps (1820-1881), Sonata in B-flat for Viola and Piano, Op. 36
 I. Maestoso: Allegro, bars 279—288



Johannes Brahms (1833-1897), Sonata in E-flat major, Op. 120 No. 2
 II. Appassionato, ma non troppo allegro, bars 37—44

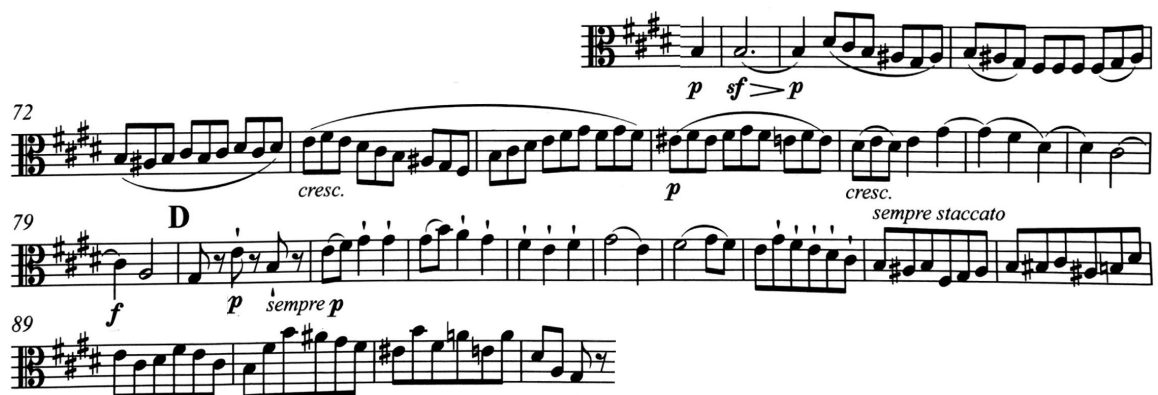


B MAJOR / C-FLAT MAJOR

Antonin Dvořák (1841-1904), String Quartet No. 4 in E minor
 II. Andante religioso, bars 1—11



Ludwig van Beethoven (1770-1827), String Quartet Op. 59 No. 2
 III. Allegro - Maggiore. Thème Russe, bars 69—92

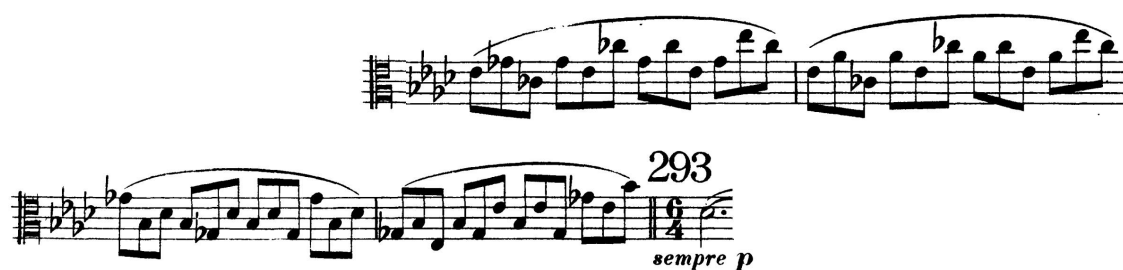


Johannes Brahms (1833-1897), Quintet for Clarinet and Strings, Op. 115
IV. Con moto, bars 129—160

Franz Joseph Haydn (1732-1809), String Quartet Op. 64 No. 2
III. Menuet: Allegretto, bars 43—62

Antonin Dvořák (1841-1904), Quintet in E-flat major, Op. 97, Viola 2
IV. Finale: Allegro giusto, bars 183—197

Richard Wagner (1813-1883), Parsifal
Act III, 4 bars before rehearsal 293 — rehearsal 293



Johannes Brahms (1833-1897), Quartet for Piano and Strings in C minor, Op. 60
I. Allegro non troppo, bars 134—152

A-FLAT MINOR / G-SHARP MINOR

Antonin Dvořák (1841-1904), Quintet in E-flat major, Op. 97, Viola 1
III. Larghetto, Var. V: Un poco più mosso, bars 147—163

Gustav Mahler (1860-1911), Symphony No. 2 in C minor
II. Andante con moto, bars 42–79

Nur 2 Pulte 3

sempre ppp

Alle spring. Bog.

ppp

sempre ppp

4

immer spring. Bog.

sempre ppp

Etwas drängend.

sf mf sf p sf pp

Johannes Brahms (1833-1897), Symphony No. 4 in E minor, Op. 98
I. Allegro non troppo, bars 369—372

369 *piu f*

Gustav Mahler (1860-1911), Symphony No. 10 (unfinished), bars 194—199

ff *dim.*
dim. sempre *p*

E MAJOR

Bedřich Smetana (1824-1884), Má Vlast
II. The Moldau, bars 395—422

fff *ff* *dim.* *sempre dim. al* *pp*

Ludwig van Beethoven (1770-1827), Fidelio Overture, Op. 72
Presto, bars 282—308

Four staves of music in G major (one sharp). The first staff (bass clef) shows measures 282-288 with a forte (*sf*) dynamic. The second staff (bass clef) shows measures 289-293 with a forte (*sf*) dynamic. The third staff (bass clef) shows measures 294-302 with a forte (*sf*) dynamic and first fingerings (1) indicated. The fourth staff (bass clef) shows measures 303-308 with a forte (*sf*) dynamic. The music features rapid sixteenth-note passages.

Henri Marteau (1874-1934), String Quartet No. 3 in C major, Op. 17
III. Scherzo: Allegro, bars 8—28

Four staves of music in C major. The first staff (bass clef) shows measures 8-14 with a piano (*p*) dynamic and a pizzicato (*pizz.*) marking. The second staff (bass clef) shows measures 15-21 with a mezzo-forte (*mf*) dynamic. The third staff (bass clef) shows measures 22-28 with a mezzo-forte (*mf*) dynamic. The fourth staff (treble clef) shows measures 8-28 with a mezzo-piano (*mp*) dynamic and second fingerings (2) indicated. The music features rapid sixteenth-note passages.

Gustav Mahler (1860-1911), Symphony No. 5 in C-sharp minor
I. Trauermarsch., bars 69—75

Two staves of music in C-sharp minor (three sharps). The first staff (bass clef) shows measures 69-75 with a fortissimo (*fff*) dynamic. The second staff (bass clef) shows measures 69-75 with a fortissimo (*ff*) dynamic. The music features rapid sixteenth-note passages and a trill (*tr*) marking.

Johannes Brahms (1833-1897), Sextet No. 2 in G major, Op. 36, Viola 1
 III. Adagio, bars 67—88

Adagio

p dolce

cres.

f

cres

f poco a poco rit: dimin:

p dolce molto rit: dim. pp

C-SHARP MINOR

Béla Bartók (1881-1945), Concerto for Orchestra
 V. Finale: Presto, bars 384—393

pp

p

Franz Joseph Haydn (1732-1809), String Quartet Op. 50 No. 4
 IV. Finale: Fuga - Allegro molto, bars 3—10



Johannes Brahms (1833-1897), Symphony No. 1 in C minor, Op. 68
 II. Andante sostenuto, bars 53—62



Richard Strauss (1864-1949), Don Juan, Op. 20, bars 379—393



A MAJOR

Hector Berlioz (1803-1869), Symphony Fantastique, Op. 14

II. Ein Ball, bars 174—191

Ludwig van Beethoven (1770-1827), Symphony No. 7 in A major, Op. 92

I. Poco sostenuto - Vivace, bars 277—299

Gustav Mahler (1860-1911), Symphony No. 1 in D major

I. Langsam. Schleppend. - Im Anfang sehr gemächlich, bars 135—163

Franz Schubert (1797-1828), String Quartet in A minor, D. 804, Op. 29 “Rosamunde”
I. Allegro ma non troppo, bars 227—237



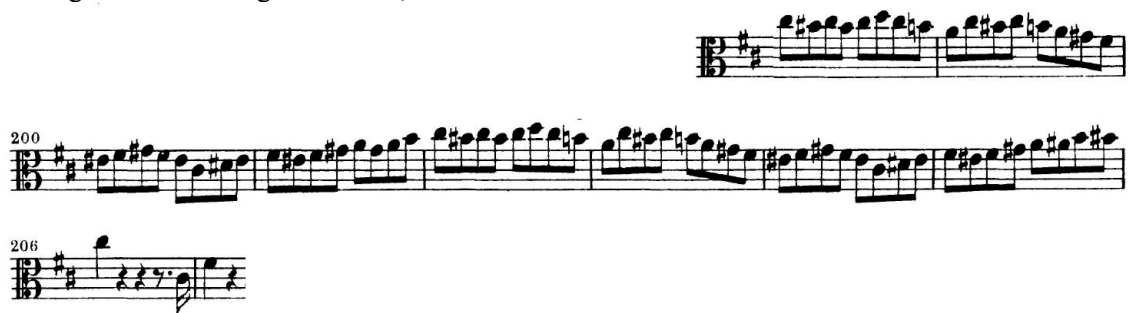
Alexander Borodin (1833-1887), String Quartet No. 1 in A major
I. Moderato, bars 554—582

Franz Anton Hoffmeister (1754-1812), Concerto for Viola and Orchestra
I. Allegro, bars 72—90



F-SHARP MINOR

Ludwig van Beethoven (1770-1827), Symphony No. 2 in D major, Op. 36
I. Adagio molto - Allegro con brio, bars 198—207



W. A. Mozart (1756-1791), String Quartet in A major, K. 464
I. Allegro, bars 110—123



Felix Mendelssohn (1809-1847), Elijah
No. 13, Chor: Presto, bars 3—69



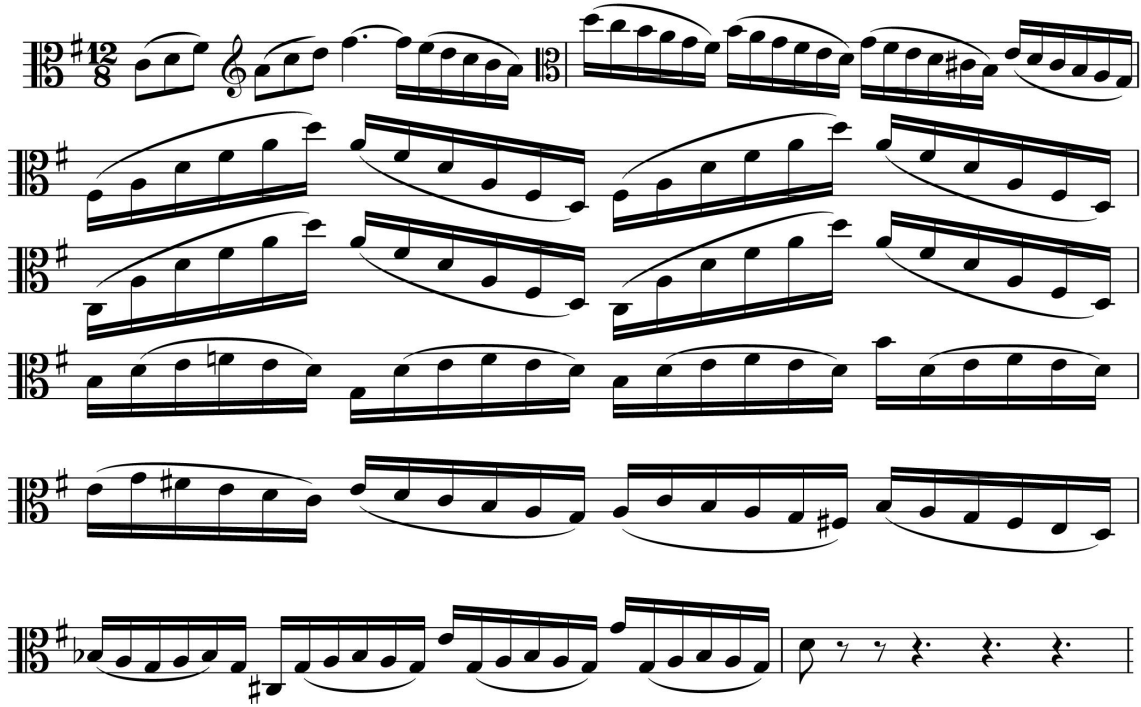


Henri Casadesus (1879-1947), Concerto in B minor for Viola and Orchestra (G. F. Haëndel)
 III. Allegro molto, bars 63—95

D MAJOR

J. S. Bach (1685-1750), Suite No. 6 for Solo Viola

I. Prelude, bars 83—90



Ludwig van Beethoven (1770-1827), Symphony No. 9 in D minor, Op. 125

IV. Allegro vivace, bars 543—594

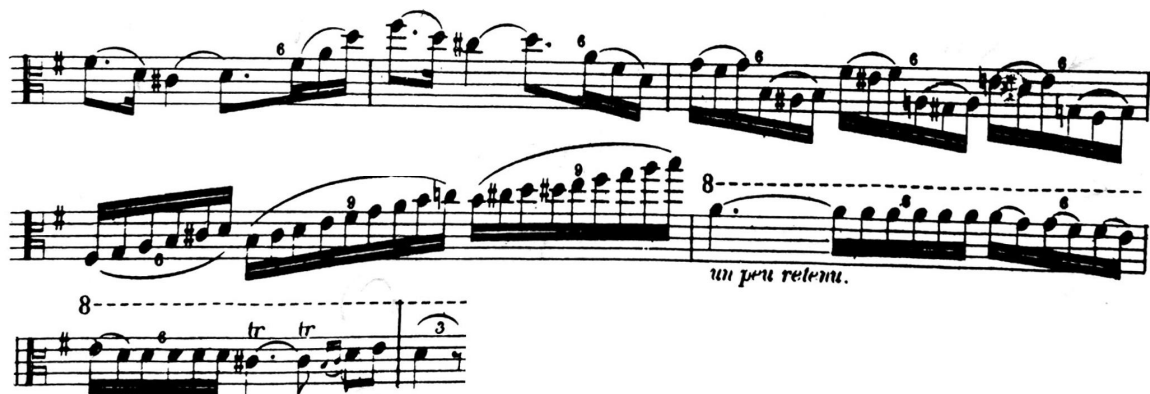
This musical score is for the fourth movement of Beethoven's Symphony No. 9 in D minor, Op. 125. It consists of five staves of music, all in bass clef. The key signature is two sharps (F# and C#), and the time signature is 6/8. The music is marked with a forte (*ff*) dynamic. It features a driving, rhythmic pattern with frequent eighth and sixteenth notes. The score includes various musical notations such as slurs, ties, and accidentals. The piece ends with a final measure marked with a forte (*ff*) dynamic.



Alexander Glazunov (1865-1936), String Quartet No. 5 in D minor, Op. 70
 IV. Finale: Allegro, bars 1—28

Musical score for Alexander Glazunov's String Quartet No. 5 in D minor, Op. 70, IV. Finale: Allegro, bars 29–43. The score is written for six staves in 2/4 time, key of D minor (three sharps). It features various dynamics including *f*, *mf*, *mp*, *p*, *pp*, and *cresc. poco*. The tempo is marked *Allegro* with a quarter note equal to 126 beats. The score includes markings for *pizz.* (pizzicato) and *arco* (arco). A box containing the number 43 is present on the third staff.

Hector Berlioz (1803-1869), *Harold in Italy*, Op. 16
 I. Harold aux Montagnes: Adagio, bars 62—67



Ludwig van Beethoven (1770-1827), *Missa Solemnis*, Op. 123
 II. Gloria, bars 1—43

Allegro vivace

ff

6

12

18

24

30

36

42

A

B

p

Johannes Brahms (1833-1897), Symphony No. 2 in D major, Op. 73
IV. Allegro con spirito, bars 244—265

in tempo
pp
in tempo
pp

244

L

251

pp sempre

pp sempre

257

262

f sempre più f

Franz Anton Hoffmeister (1754-1812), Concerto for Viola and Orchestra
I. Allegro, bars 188 — 206

Solo
f

p

cresc.

9

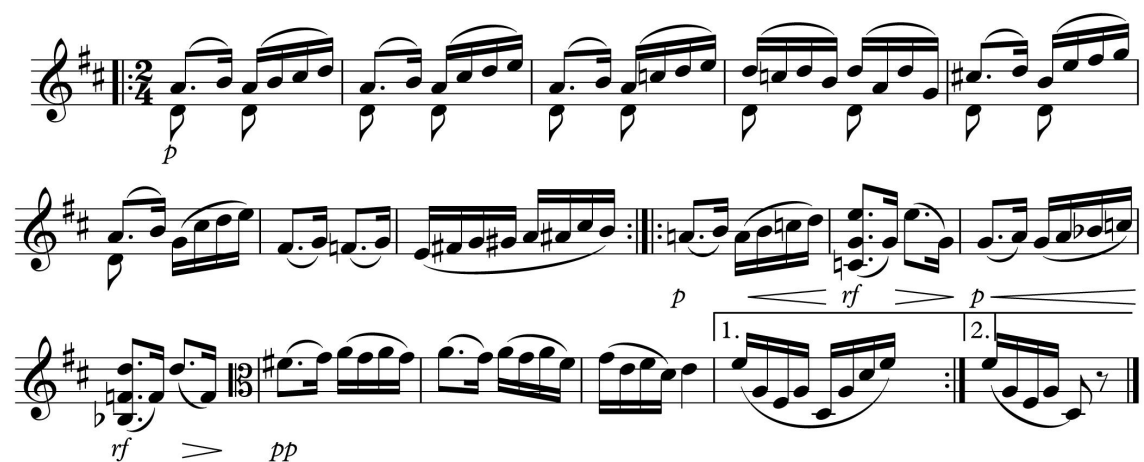
p

cresc.

Ludwig van Beethoven (1770-1827), String Quartet Op. 18 No. 5
 III. Andante cantabile, Variation V, bars 81—96



Johannes Brahms (1833-1897), Sextet No. 1 in B-flat major, Op. 18, Viola 1
 II. Andante ma moderato, bars 113—127



Antonin Dvořák (1841-1904), String Quartet in D minor, Op. 34
 III. Adagio, bars 2—11



B MINOR

Franz Joseph Haydn (1732-1809), String Quartet Op. 64 No. 5

I. Allegro moderato, bars 94—103

94

f *p* *f* 3

98

101

6.

p

Johannes Brahms (1833-1897), Quintet for Clarinet and Strings, Op. 115

IV. Con moto, bars 161—193

E

poco f

cresc.

f

1. 2. *tr*

fp

G MAJOR

Felix Mendelssohn (1809-1847), String Quartet in E minor Op. 44 No. 2

III. Andante, bars 1—18

*Andante M.M. ♩ = 60**

p

6

f *p* *dim.* *p* *cresc.*

14

f *dim.* *p*

Franz Joseph Haydn (1732-1809), String Quartet Op. 33 No. 5
IV. Finale: Allegretto, bars 49—57



Franz Joseph Haydn (1732-1809), String Quartet Op. 54 No. 1
IV. Finale: Vivace, bars 164—193



Gabriel Fauré (1845-1924), Piano Quartet in G minor, Op. 45
IV. Allegro molto, bars 517—527



Antonin Dvořák (1841-1904), String Quartet No. 8, Op. 106
I. Allegro moderato, bars 46—60



Richard Strauss (1864-1949), Don Juan, Op. 20, bars 31—36



E MINOR

George Whitefield Chadwick (1854-1931), String Quartet No. 4 in E minor
I. Andante moderato, bars 246—275



Edward Elgar (1857-1934), String Quartet Op. 83
 III. Allegro molto, bars 36—42

Felix Mendelssohn (1809-1847), String Quartet in E minor Op. 44 No. 2
 I. Allegro assai appassionato, bars 173—189

CHROMATIC

George Enescu (1881-1955), Concertstück for Viola and Piano
 Assez animé, bars 84—87

Hector Berlioz (1803-1869), Symphony Fantastique, Op. 14

I. Träumereien, Leidenschaften: Largo - Allegro agitato e appassionato assai, bars 198—228

10

mf p cresc.

ff decresc. p cresc.

ff decresc. p cresc.

ff senza accel. cresc. molto

ff

Richard Strauss (1864-1949), Also Sprach Zarathustra, Op. 30

Schnell, bars 505—511

29

1. Pult. 3 p f

2 1.2. Pult. 3 f

1.2. 3 tr.

3 tr.

Béla Bartók (1881-1945), String Quartet No. 5

IV. Andante, bars 67—80

65

1.2. p f

1.2. p f

70

75

80 *poco a poco calmandosi -*

mf

Richard Strauss (1864-1949), Don Quixote, Op. 35
Mässiges Zeitmass, bars 64—73

mit Dampfem.

ff

ruhig

molto dim. - - - - - p

Charles Ives (1874-1954), String Quartet No. 2
I. Discussions: Andante moderato, bars 58—70

Ernst von Dohnányi (1877-1960), Serenade in C major, Op. 10
III. Scherzo: Vivace, bars 258—262

John Harbison (b. 1938), String Quartet No. 3
Continuation: Dramatic =80, bars 286 —326

Alban Berg (1885-1935), Lyric Suite
 III. Allegro misterioso, bars 46—67

col legno (gestrichen) 46 47 (geschlagen) 48 (gestr.)
 49 (geschl.) 50 51 52
 53 54 55 56 (pp)
 57 58 59 60 (pp)
 61 62 63 64
 65 66 67
 sempre pp
 1. Gg. loro
 2. Gg. (col legno) loco
 = 150

WHOLE TONE

Béla Bartók (1881-1945), Concerto for Orchestra
 II. Giuoco Delle Coppie: Allegretto scherzando, bars 87—90

pizz
 mf p

Ernst von Dohnányi (1877-1960), String Quartet Op. 15
 II. Presto acciacato, bars 200—204

f

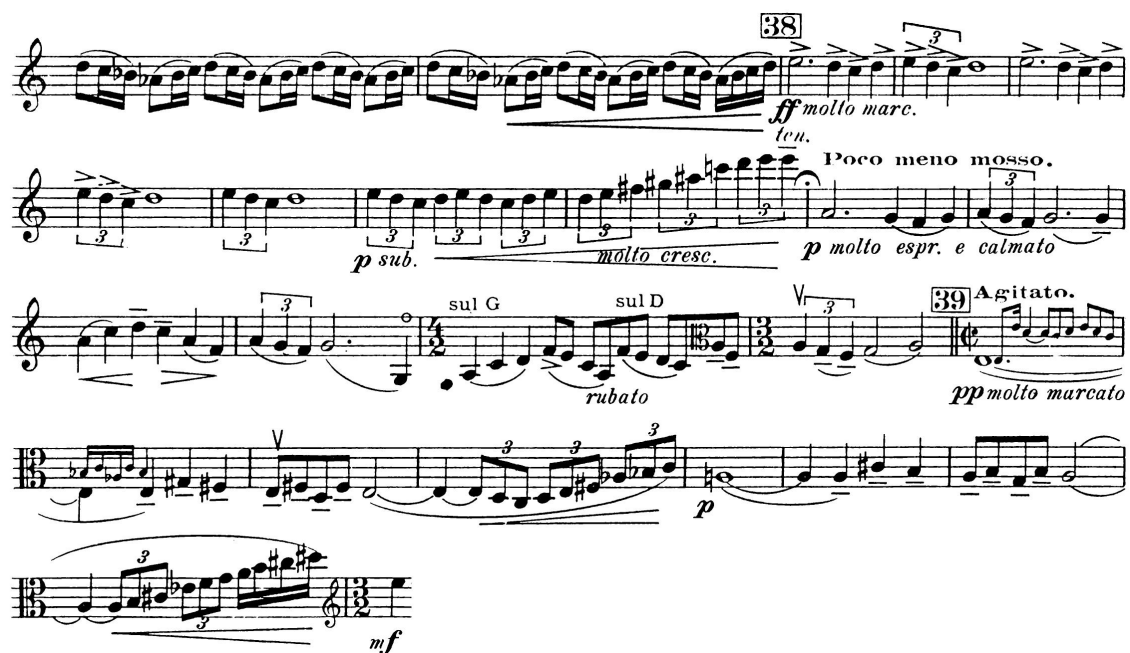
Leoš Janáček (1854-1928), String Quartet No. 2 “Intimate Letters”
 II. Adagio - Grave, bars 171—172



Béla Bartók (1881-1945), String Quartet No. 1
 II. Allegretto, bars 324—337



Rebecca Clarke (1886-1979), Sonata for Viola and Piano
 III. Adagio - Quasi fantasia, bars 198—220



John Corigliano (b. 1938), String Quartet
II. Scherzo, bars 89—91



György Ligeti (1923-2006), String Quartet No. 1 “Métamorphoses nocturnes”
Prestissimo, bars 444—479

(ohne Akzent/ without accents)

sempre pp

sul tasto

ppp

morendo - - - - -

OCTATONIC

Béla Bartók (1881-1945), String Quartet No. 4
II. Prestissimo, con sordino, bars 243—247

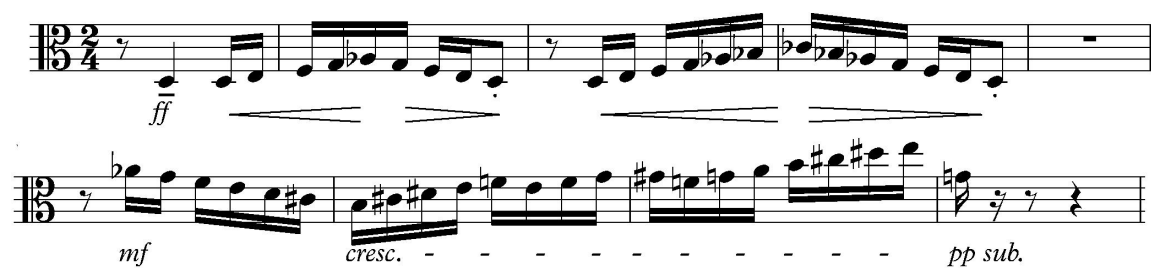
sul pont.
arco

pp

dim.

ppp

Béla Bartók (1881-1945), Concerto for Orchestra
V. Finale: Presto, bars 88—96



Ernst von Dohnányi (1877-1960), String Quartet No. 3 in A minor, Op. 33
I. Allegro agitato e appassionato, bars 47—57

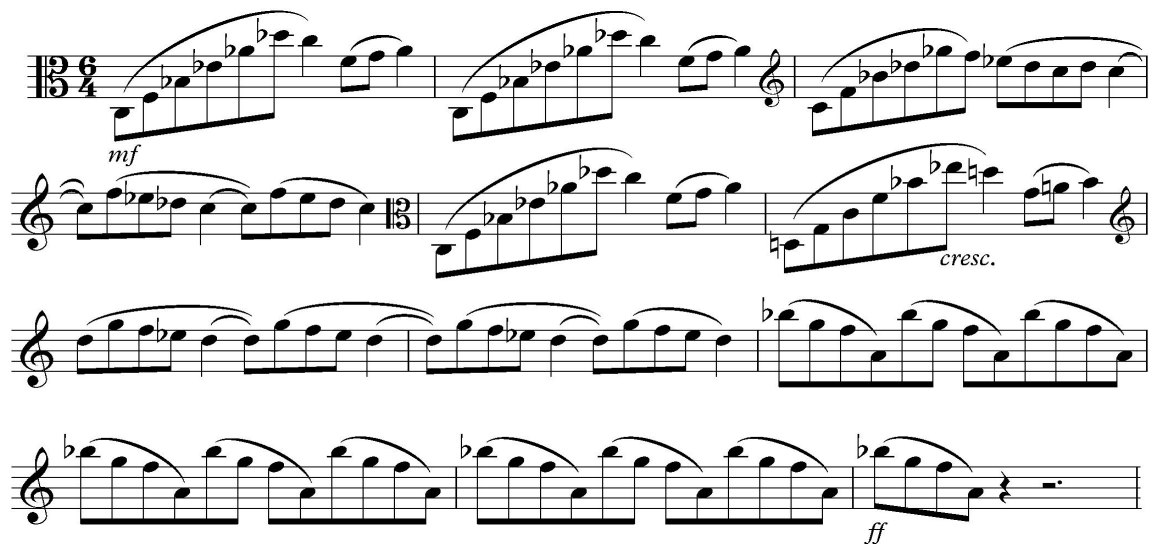


QUARTAL

Béla Bartók (1881-1945), Concerto for Orchestra
I. Introduzione: Andante non troppo, bars 37—58



Paul Hindemith (1895-1963), Sonate for Viola and Piano, Op. 25 No. 4
 I. Sehr lebhaft. Markiert und kraftvoll, bars 46—57



Arnold Schoenberg (1874-1951), Chamber Symphony No. 1, Op. 9
 Sehr rasch, 4 before rehearsal 76 — rehearsal 77



Béla Bartók (1881-1945), Concerto for Orchestra
 I. Introduzione: Andante non troppo, bars 510—514



Béla Bartók (1881-1945), String Quartet No. 1
 III. Allegro vivace, bars 113—120



III. Finale: Allegretto, bars 205—213

205

poco a poco accel.

sub. *p*

poco a poco cresc.

al-

213

Allegro molto, ♩ = 144 - 152

f

OTHER

II. Andante, bars 86—107

The image displays a musical score for the song "L'Espresso" by Giuseppe Verdi. The score is written for piano and voice, with the piano part in the upper staves and the vocal part in the lower staves. The key signature is one sharp (F#), and the time signature is 3/4. The score includes various musical notations such as notes, rests, and dynamic markings. The dynamics range from *mf* (mezzo-forte) to *ff* (fortissimo). The tempo markings include *poco animando*, *allarg.* (allargando), *a tempo*, *molto allarg.* (molto allargando), and *slentando poco* (slowing down a little). The score is divided into measures, with measure numbers 90, 95, 100, and 105 indicated. The piano part features complex rhythms, including triplets and sixteenth notes. The vocal part is written in a more melodic style, with some measures featuring a half note and a quarter note. The score is presented in a clear, professional layout, typical of a musical score.

II. Vivace, bars 36—66

ff

cresc.

pp

f ff ff ff ff

legato

3

ff

ff ff pp legato ff ff

ff ff ff ff

IV. Allegretto pizzicato, bars 6—13

The image shows a musical score for the song "The Rose Tree". It consists of two systems of music. The first system starts with a treble and bass staff in 3/4 time, with a key signature of one flat (B-flat). The melody is written in the treble staff, and the bass line is in the bass staff. The first system ends with a measure containing a boxed number "10". The second system continues the melody and bass line. The music is written in a simple, folk-like style with a clear melody and a supporting bass line.

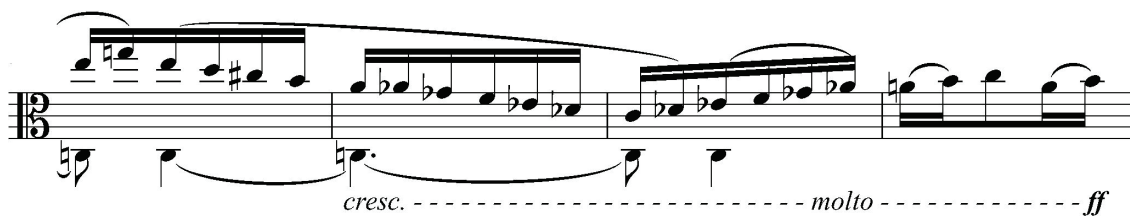
Coda: Allegro molto, bars 4—23

sul pont.

pp

poco a poco

in modo ord.



Paul Hindemith (1895-1963), Sonata for Viola and Piano (1939)
IV. Finale: Ein wenig langsamer =84, bars 143—148

Ralph Vaughan Williams (1872-1958), Romance for Viola and Piano, bars 50—52

Walter Piston (1894-1976), Concerto for Viola and Orchestra
III. Allegro vivo =152, bars 300—323

a tempo

f (Tutti)

Brass

Bass Dr.

f

315

320

325

Leoš Janáček (1854-1928), String Quartet No. 2 “Intimate Letters”
I. Allegro, bars 272—289

cresc.

f

272

275

280

285

J. S. Bach (1685-1750) / Zoltán Kodály (1882-1967), Fantasia Cromatica, bars 22—50

f

22

25

30

35

40

45

50

This page of musical notation is for a piece in 12/8 time, featuring complex fingerings and an 'Ossia' section. The notation is organized into several systems:

- First System:** Three staves of music. The first two staves are in bass clef with a key signature of one flat. The third staff is in treble clef. It includes various fingerings (1, 2, 3, 4) and articulations like accents and slurs.
- Ossia Section:** A section labeled 'Ossia' in a smaller font, featuring a single staff with a treble clef and a key signature of one flat, showing an alternative melodic line.
- Second System:** Two staves. The top staff is in treble clef, and the bottom staff is in bass clef. It continues the complex melodic and harmonic development with detailed fingerings.
- Third System:** Three staves. The first two are in bass clef, and the third is in treble clef. This system includes a dynamic marking of *p* (piano) and features many slurs and accents.
- Fourth System:** Three staves. The first two are in bass clef, and the third is in treble clef. It continues the intricate melodic patterns with various fingerings and articulations.
- Fifth System:** Three staves. The first two are in bass clef, and the third is in treble clef. This system includes a section marked 'II' and features complex fingerings and articulations.
- Sixth System:** Three staves. The first two are in bass clef, and the third is in treble clef. It continues the melodic development with detailed fingerings and articulations.
- Seventh System:** Three staves. The first two are in bass clef, and the third is in treble clef. This system includes a section marked 'II' and features complex fingerings and articulations.
- Eighth System:** Three staves. The first two are in bass clef, and the third is in treble clef. It continues the intricate melodic patterns with various fingerings and articulations.

This page of musical notation is for a guitar piece, written in 12/8 time. It consists of five staves of music. The notation includes various musical symbols such as notes, rests, and fingerings, along with technical markings like 'I', 'II', and '4'. The first staff begins with a treble clef and a key signature of one flat. The second staff has a '2' above the first measure. The third staff has a '2' above the first measure and a '4' above the second measure. The fourth staff has a '3' above the first measure and a '4' above the second measure. The fifth staff has a '3' above the first measure and a '4' above the second measure. The notation is complex, with many notes and rests, and includes various musical symbols such as slurs, ties, and accidentals. The piece is written in a style that is typical of modern guitar music, with a focus on technical skill and musical expression.

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