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A structured content analysis of five contemporary etude books for the violin

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A STRUCTURED CONTENT ANALYSIS OF FIVE CONTEMPORARY ETUDE BOOKS FOR THE VIOLIN

A Monograph

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ABSTRACT

The use of etudes has long been a time-honored device in developing, shaping, and expanding the technical skills of the violinist. Certain etude books, most notably those by Kreutzer, Rode, and Dont, have become standard. Yet, these classic etude books prove to be insufficient for the preparation of atonal, contemporary literature. Individual accounts by violin scholars and pedagogues indicate that there is a major void in contemporary etude literature for the violin, yet when the totality of what violin scholars and pedagogues have written over time is considered, it appears by numbers alone that no void exists today. While certainly more contemporary material can be written, the study literature available today seems significant in number to meet the technical needs found in contemporary music.

One by one, many of these same scholars and pedagogues that cited a lack of contemporary literature contributed to filling the perceived void by either suggesting little known contemporary etude books, or writing completely new, contemporary etudes. The present study has uncovered that the void today is not the lack of available, contemporary etudes for the violin. The void is to be found in the present state of violin literature research. Specifically lacking is the recognition that there appears to be a significant number of contemporary etude books to equip a violinist to successfully perform contemporary music. Also missing are discussions of such existing etude books. This monograph seeks to address these two issues.

After the body of available, contemporary violin etude books was identified, a tool was created to assist in discussing the technical aspects of five, selected violin etude books. This tool, called the *Content Analysis Form for Contemporary Violin Etude*

Books, capsulated those skills considered important and unique for the successful performance of contemporary music. This tool accurately reflects the technical content of a wide variety of contemporary etude books, regardless of a composer's style or placement in history. The contemporary etude books chosen for this study represent a broad time period, from the mid 1920's to the mid 1990's. The extent of coverage for each book, highlighting noteworthy strengths and weaknesses, is discussed for each etude. The composers chosen have international reputations. The five books are *Meadowmount Etudes*, by Samuel Adler, *Freeman Studies*, by John Cage, *Studies for Violinists*, by Paul Hindemith, Rhythmic Studies, by Bohuslav Martinu, and *Ten Preludes*, by Eugène Ysaÿe.

CHAPTER 1: INTRODUCTION

The use of etudes or caprices in the training of a violinist has long been regarded as an important aspect of study. The etude, the French word for 'study,' has been described as fundamental,[1] integral,[2] and indispensable.[3] In the violin repertoire, the caprice has traditionally served in the same capacity as the etude, that is, as a study piece. The earliest example of the caprice as a study piece for violin is Pietro Locatelli's (1695-1764), *The Art of the Violin*, op. 3 (1733). Since then, many studies have appeared with the word etude, caprice, or both in the title. Although the violin etude/caprice does not lend itself to public performance,[4] the purpose of the etude/caprice is to present a technical problem or challenge in the context of a musical setting. It is the teacher's responsibility to carefully choose those etudes/caprices that will aid in the development of the student. Such careful consideration will serve as "an asset in the overall development of the student's technical powers"[5] by enlarging the student's technical abilities[6] and contributing to a well-rounded technique.

In the twentieth-century, certain etude books have become standard. Rodolphe Kreutzer's (1766-1831), *Forty-Two Etudes* (1799), has come to occupy "a central position in violin pedagogy."[7] Flesch states that his "appreciation is the greatest" for the

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[1]Joyce Keith Dubach, "An Encyclopedic Index of Commonly Used Violin Etudes Catalogued and Organized Pedagogically by Technical Difficulty" (D.A. diss., Ball State University, 1997), 11.

[2]Albert Lazan, "A Few Moments of Beauty," in *New Concepts in String Playing: Reflections by Artist-Teachers at the Indiana University School of Music*, ed. Murray Grodner, 62-69 (Bloomington and London: Indiana University Press, 1979), 63.

[3]Samuel and Sada Applebaum, *The Way They Play* (Neptune City, N.J.: Paganiniana Publications, 1972), 354.

[4]Carl Flesch, *The Art of Violin Playing*, Book I (New York: Carl Fischer, 1930), 91.

[5] Joseph Berljawsky, "Reflections on Violin Pedagogy," *Strad* LXXVI (Nov 1965): 237.

[6]Flesch, *The Art of Violin*, Book I, 91.

[7]Walter Kolneder, *The Amadeus Book of the Violin: Construction, History, and Music*, (Portland Oregon: Amadeus Press, 1998), 359.

Kreutzer *Etudes.*[8] Havas refers to the Kreutzer etudes as "the violinist's bible,"[9] and Szigeti writes that they "were a key influence in the formation of my equipment."[10] Other etude books have become standard as well. As students advance in ability, many teachers use a sequence of studies. Elizabeth A. H. Green has described Galamian's sequence as "the standard etude books."[11] If one compares the published sequences of Leopold Auer (1850-1930), Carl Flesch (1873-1944), and Ivan Galamian (1903-1981), three internationally recognized violin pedagogues of the twentieth-century, one can see duplicate choices in repertoire. As shown in Figure 1.1, all three pedagogues share the Kreutzer *Etudes,* Rode *Caprices,* and Dont *Etudes.* The Paganini *Caprices* are found in the sequences of Auer and Flesch. Both Flesch and Galamian contain the Filorillo *Etudes,* Wieniawski *L'ecole moderne,* and Suazay *Le violon harmonique.*

Also apparent from Figure 1.1 are the publishing dates. If one examines the publishing dates, it is clear that most of these were published before the twentieth-century. Further examination of the etudes and caprices that were published around the turn of the century, such as those by Sauzay, Schradieck, and Sevcik, reveal the use of tonal practices from the nineteenth-century. Most of the studies listed here are often referred to as the 'classical school,' or the 'Classical French school.' This 'school' was a style of playing that was cultivated at the Paris Conservatoire, ca. 1800. Its first violin professors, Francois de Sales Baillot, Rodolphe Kreutzer, Pierre Gavinies, and Pierre Rode, were influential in perpetuating high standards through the publication of etude

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[8]Flesch, *The Art of Violin,* Book I, 91.

[9]Kato Havas, *A New Approach to Violin Playing,* (London: Bosworth, 1961), 64.

[10]Joseph Szigeti, *Szigeti on the Violin,* (Toronto, Ontario: General Publishing Company, 1969), 7.

[11]Ivan Galamian, *Principles of Violin Playing and Teaching, with a postscript by Elizabeth A. H. Green,* second edition (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1985), 120.

books. Later, their students would continue this tradition with the publication of their own method books. Such influence extends into the twentieth-century. Carl Flesch states that he wrote his *Scale Studies* so that his students would be mindful of "the fluent methods of the classic[al] French school of violin playing."[12]

Leopold Auer[13]

- Kreutzer, *Forty-Two Etudes* (1799)
- Rode, *Twenty-Four Caprices* (1813)
- Rovelli, *Twelve Caprices*, opp. 3 and 5 (1820/22)
- Dont, *Twenty-Four Etudes*, op. 35 (1849)
- Paganini, *Twenty-Four Caprices*, op. 1 (1820)

Carl Flesch[14]

- Kreutzer, *Forty-Two Etudes* (1799)
- Filorillo, *Thirty-Six Etudes* (1790)
- Rode, *Twenty-Four Caprices* (1813)
- Sauzay, *Le violon harmonique* (1889)
- Vieuxtemps, *Six Concert Etudes*, op. 16 (1846)
- Dont, *Twenty-Four Etudes*, op. 35 (1849)
- Schradieck, *Twenty-Four Studies* (ca. 1900)
- Wieniawski, *L'ecole-moderne*, op. 10 (1854)
- Sauret, *Eighteen Etudes*, op. 24 (1886)
- Paganini, *Twenty-Four Caprices*, op. 1 (1820)
- Ernst, *Six Polyphonic Etudes* (1865)
- (one can intersperse the following Sevick exercises as one sees fit)
    - Sevcik, *School of Violin Technique*, op. 1 (1881)
    - Sevcik, *School of Bowing*, op. 2 (1895)
    - Sevcik, *Violin School*, op. 8 (1904/5)

Ivan Galamian[15]

- Kreutzer, *Forty-Two Etudes* (1799)
- Filorillo, *Thirty-Six Etudes* (1790)
- Rode, *Twenty-Four Caprices* (1813)
- Gavinies, *Twenty-Four Etudes* (ca. 1800)
- Dont, *Twenty-Four Etudes*, op. 35 (1849)
- Dancla, *Twenty Etudes*, op. 73 (ca. 1870)
- Sauzay, *Le violon harmonique* (1889)
- Wieniawski, *L'ecole-moderne*, op. 10 (1854)

Figure 1.1. Etude sequences, listed in pedagogical order.

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[12]Carl Flesch, *Scale System: Scale Exercises in All Major and Minor Key for Daily Study (A supplement to Book I of the Art of Violin Playing)*, revised and enlarged edition by Max Rostal (New York: Carl Fischer, 1987), preface.

[13]Leopold Auer, *Violin Playing As I Teach It*, (Toronto, Ontario: General Publishing Company, 1980), 96-98.

[14]Flesch, *The Art of Violin*, Book I, 93.

[15]Galamian, *Principles of Violin Playing*, 120.

In Figure 1.2, one can see the inter-connectedness among the authors of these classical etude books. All are part of the 'Classical French School.' All were either directly influenced by their studies with Kreutzer, Baillot, or Rode (the founders of the Classical French School), or indirectly influenced by their studies with the students of Kreutzer, Baillot, and Rode.

Today, the standard method books are still relevant, as well as essential, for the development of high technical and artistic standards. Max Rostal, a former student of Carl Flesch, and an internationally acclaimed violinist and teacher, is an advocate of expanding violin technique to reflect contemporary music practices. Yet, in his zeal for

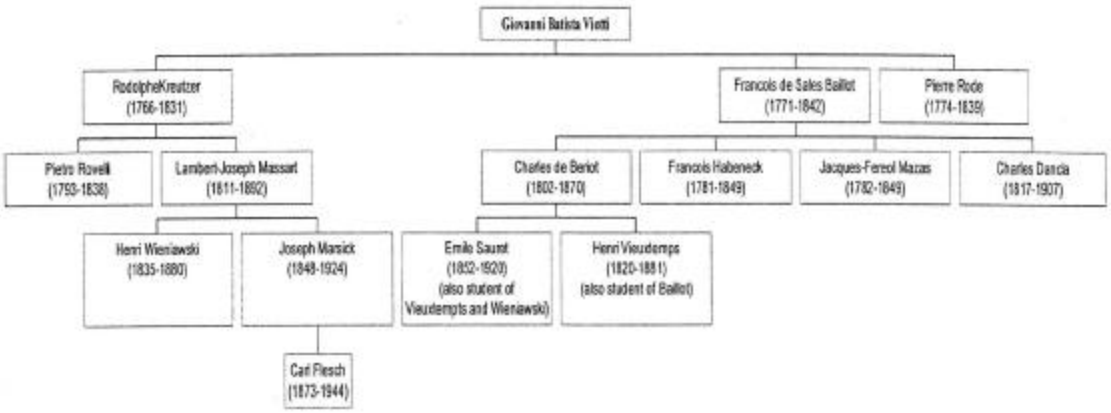

Figure 1.2. Method book writers from the Classical French School.

contemporary music, he does not dismiss the value of classical training when he states, "the fundamental ideas [of violin technique] are still valid."[16] Rostal is in agreement with other scholars when it is recognized that classical training alone will not prepare one for the rigors of performing contemporary music. The internationally recognized violin historian, Robin Stowell, describes this lack of preparedness due to a reliance on "a comparatively small select corpus of study material drawn principally from the Classical

[16]Carl Flesch, *Scale System*, (New York: Carl Fischer, 1987), editor's preface.

French violin school of Rode, Baillot, Kreutzer, Mazas, Habeneck, and others."[17] The Soviet music historian and theoretician I. M. Yampolsky writes that contemporary left-hand demands are left out of "the classical collections of studies of Kreutzer, Rode, Gavinies, Lvov, Dont, and others."[18] The violinist and author Harold Berkley writes that contemporary right-hand demands are not addressed in "the classic curriculum of violin studies---Kayser, Mazas, Kreutzer, Fiorillo, Rode, Dancla, Dont, deBeriot, etc."[19]

The purpose of this research is not to dismiss the value of the Classical French school. Giesy,[20] Pereira,[21] Read,[22] Walters,[23] and Zukofsky[24] state that what we encounter in contemporary repertoire is not necessarily new technique. What causes discomfort for the violinist is the new ways in which already established technical ideas are used. Adessa,[25] Duguid,[26] Reitz,[27] and Walters[28] agree that the 'classical' training will always remain a necessary and integral part of a violinist's education. The four also

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[17]Robin Stowell, "The Pedagogical Literature," in *The Cambridge Companion to the Violin,* ed. Robin Stowell, 224-233 (Cambridge: Cambridge University Press, 1992), 232.

[18]I. M. Yampolsky, *The Principles of Violin Fingering*, preface by David Oistrakh, translated by Alan Lumsden (London: Oxford University Press, 1967), 60.

[19] Harold Berkley, *The Modern Technique of Violin Bowing: An Analysis of the Principles of Modern Bowing*. (New York: G. Schirmer, Inc., 1947), 7.

[20] Marya Hannum Giesy, "A Study of the Similarities in Fingering Principles of the Eighteenth and Twentieth Centuries" (D.M.A. diss., Ohio State University, 1979), 2.

[21] Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 18-19.

[22]Gardner Read, *Contemporary Instrumental Techniques* (New York: Schirmer Books, 1976), 3.

[23] Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 238.

[24] Paul Zukofsky, "Aspects of Contemporary Technique (with Comments about Cage, Feldman, Scelsi, and Babbitt)," in The Cambridge Companion to the Violin, ed. Robin Stowell, 143-147 (Cambridge: Cambridge University Press, 1992), 143-144.

[25]Anthony Thomas Adessa, "Contemporary Violin Technique: Its Nature and Difficulties" (D.M. diss., Indiana University, 1981), 104.

[26]Carle Douglas Duguid, "A Pedagogical Study of Selected Intermediate Violin Pieces" (Ph.D. diss., 1988), 229.

[27]Heiner Reitz, *12 Caprices for Violin Solo: Studies to Twentieth-Century Music,* op. 3 (Zurich: Edition Eulenburg, 1972), forward.

[28]Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 16.

agree, however, that preparatory material must be expanded to include method books that incorporate new, twentieth-century practices.

While more contemporary studies written for the violin could be written, this present research has demonstrated that there appears to be a significant number of commercially available contemporary etude literature for the violin. Over the course of the twentieth-century, the very same violin scholars and pedagogues who cited a lack of contemporary etude material also recommended little known etude publications, and sometimes wrote original, contemporary etudes themselves. Over time, a corpus of contemporary etude books emerged. When one looks at these writings comprehensively and compiles the suggested etude publications and original etudes, one finds that there is no apparent void in the number of available etude books. What is missing is the recognition by scholars and pedagogues that there seems to be a sizable number of commercially available etude books in the contemporary idiom. This monograph is the first to address this void.

Once these etude books are identified, it then becomes the purpose of this study to first capsulate those skills considered important and unique for the successful performance of contemporary music onto an instrument that can accurately reflect the technical content of a wide variety of contemporary etude books, regardless of a composer's style, a particular school of composition, or time in history, and secondly, to use this newly created instrument, the *Content Analysis Form for Contemporary Violin Etude Books*, to analyze five selected contemporary etude books. The books chosen for this study will be based on commercial availability and the composer's international reputation. Thus, *Meadowmountetudes*, by Samuel Adler, *Freeman Studies* by John

Cage, *Studies for Violinists*, by Paul Hindemith, *Rhythmic Studies* by Bohuslav Martinu, and *Ten Preludes*, by Eugène Ysaÿe, were chosen for this study.

It is important to stress that this study is not a conventional theoretical analysis of the chosen works. The *Content Analysis Form for Contemporary Violin Etude Books* is designed to record only those technical matters that are important and unique for the successful performance of violin music written during the twentieth-century.

CHAPTER 2: REVIEW OF LITERATURE

Many authors have documented the lack of contemporary etude material throughout the course of the twentieth-century. One of the earliest examples is by Carl Flesch in *The Art of Violin Playing,* Book I. He laments the "lack [of] modern study material, which might serve as a preparation for atonal violin concertos."[1] Harold Berkley, while recognizing that the classical etude is invaluable in building a well-rounded technique states that these same etudes provide insufficient preparation for the successful performance of contemporary music. In *The Modern Technique of Violin Bowing,* he states that in the nineteenth-century, "the demands of the bow-arm were not what they are today."[2]

Sol Babitz points out the changes in left-hand technique in *Principles of Extensions in Violin Fingering.* He writes, "the advent of modern music has not been accompanied by an equally important change in violin technique and philosophy."[3] The change he is referring to is the shift from the traditional use of diatonic fingerings to a more contemporary method. Simply put, diatonic fingerings are established when playing in one of the twenty-four diatonic keys. Violinists recognize four, basic diatonic patterns. In Figure 2.1, all five-finger patterns are represented on the A-string in first position, and the "/\" symbol represents a half step.

1st finger pattern: A 1 2^3 4
2nd finger pattern: A 1^2 3 4
3rd finger pattern: A 1 2 3^4
4th finger pattern: A 1 2 3 4

Figure 2.1. Diatonic patterns in first position on the A-string.

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[1]Flesch, *The Art of Violin,* Book I, 91.
[2]Berkley, *The Modern Technique of Violin Bowing,* 7.
[3]Sol Babitz, *Principles of Extensions in Violin Fingering* (Los Angles: Delkas, 1947), 6.

In contemporary music, any sense of these four patterns is destroyed. Any one finger may have to either travel outside of a particular pattern, or contract within a particular pattern. Patterns may change drastically from string to string. Successful performance of contemporary music requires the fingers to act independently of one another, and not be confined to set, established patterns. Incidentally, Babitz was not the first to advocate the use of independent fingers. Demetrius Constantine Dounis (1886-1954) taught this concept, as found in his *Absolute Independence of the Fingers,* op. 15 (1924).

The *Ten Preludes for Violin Solo,* op. 35, by Eugène Ysaÿe, is a posthumous work. Probably written in the year 1928, the *Preludes* were later found in sketchbook form by Charles Radoux Rogier. Rogier pieced together what he could from the sketchbooks. Originally, thirteen preludes were planned, but only ten were found. Ysaÿe writes in these sketchbooks that new harmonic discoveries push instrumental technique along,[4] and because of this, he desires to create a method book that can develop "advanced modern technique."[5] This work, which is a study of all double stops, from the unison to the tenth, as well as "exercises in various rhythms,"[6] is in Ysaÿe's words, "in direct emanation of the flowering harmonics of the last twenty five years."[7]

Bohuslav Martinu's *Rhythmical Etudes* (1932) are a set of seven studies withmoderately challenging rhythmic complexities. A unique feature is the *Etudes'*

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[4]Eugene Ysaÿe, *Ten Preludes for Violin Solo: Essay on the Modern Technic of the Violin,* op. 35 (op. posth.), edited by Charles Radoux Rogier (Bruxelles and Paris: Schott Freres, 1952), 5.

[5]Ibid., 7.

[6]Ibid., 8.

[7]Ibid., 8.

incorporation of a piano accompaniment part that provides a greater rhythmic challenge for the student when played together.

Bernard Fischer reiterates the value and need for the classical etude literature because it establishes "a basis of technique for the study of [music] written before our era."[8] His original etudes for the intermediate student, *Violin Etudes in the Modern Style*, provide training for the "additional technique" found in twentieth-century scores.[9]

Walters' dissertation, "Technical Problems in Modern Violin Music as Found in Selected Concertos, with Related Original Exercises and Etudes," is the first study to document the technical skills needed in the performance of twentieth-century music. Walters took these findings and incorporated them into original etudes. Most notable of the findings was an increase in the use of fourths, sevenths, ninths, and elevenths, regardless of the particular style of the composer.[10]

The violinist and composer, Samuel Gardner was driven to write *Essays for Solo Violin* because the contemporary techniques and idioms were not yet incorporated into the pedagogical literature.[11] Recognizing that diatonic finger patterns are no longer useful in contemporary music, he writes that the violinist will have a "new sensation in his fingers" when studying his etudes.[12]

Paul Hindemith originally composed *Studies for Violinists* in 1926, but did not have them published until 1957. Apparently, he did not feel them worthy of publication in 1926. Later in life, he rediscovered the *Studies* and determined that they would be

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[8]Bernard Fischer, *Violin Etudes in the Modern Style* (New York: Belwin, Inc., 1953), 2.
[9]Ibid.
[10]Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 236
[11]Samuel Gardner, *Essays for Solo Violin: Based on Advanced Harmonic and Rhythmic Idioms and Styles of the Mediaeval Modes* (Pittsburgh: Volkwein Bros., 1975), i.
[12]Ibid.

beneficial to the violinist.[13] Writing on the lack of contemporary etudes, Kolneder states, "the Kreutzer *Etudes* for our time have yet to be written."[14] Perhaps the Hindemith *Studies* may one day attain such a lofty status. Among all the books reviewed in the present study, *Studies for Violinists* was the most cited set of contemporary etudes. Seven authors: Gleam[15], Kolneder[16], Marcan[17], Pereira[18], Sarch[19], Stowell[20], and Szigeti[21] wrote of Hindemith's contribution. The next most cited set of etudes was Eugene Ysaÿe's *Ten Preludes.* Gleam[22], Pereira[23], Sarch[24], and Walters[25] have commented on the uniqueness of these *Ten Preludes.*

The next ten years (1962-1972), witnessed progress towards filling the contemporary etude void with the following works. Charles Norma Ashley's dissertation, "The Composition of Fundamental Exercises for Violin in Representative Idioms of the Twentieth-Century," is a set of contemporary etudes for the intermediate

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[13]Paul Hindemith, *Studies for Violinist* (Schott: New York, 1967), i.

[14]Walter Kolneder, *The Amadeus Book of the Violin: Construction, History, and Music,* (Portland, Oregon: Amadeus Press, 1998), 507.

[15]Elfreda Sewell Gleam, "A Selected, Graded List of Compositions for Unaccompanied Violin with Preparatory Studies" (D.A. diss., Ball State University, 1979), 3.

[16]Kolneder, *The Amadeus Book of the Violin*, 507.

[17]Peter Marcan, *Music for Solo Violin Unaccompanied: A Performer's Guide to the Published Literature of the Seventeenth, Eighteenth, Nineteenth, and Twentieth Centuries* (High Wycombe, Bucks, England, U.K.: P. Marcan Publications, 1983), 17.

[18]Erenest Perira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 23.

[19]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University , School for the Arts, 1982), 78.

[20]Robin Stowell, "Violin: Since 1820; Sources of Information and Pedagogical Literature," in *The New Grove Dictionary of Music and Musicians,* ed. Stanlie Sadie, vol. 26, 731. (London and New York: Macmillan Publishers Limited, 2001), 731.

[21]Szigeti, *Szigeti on the Violin*, 7.

[22]Elfreda Sewell Gleam, "A Selected, Graded List of Compositions for Unaccompanied Violin with Preparatory Studies" (D.A. diss., Ball State University, 1979), 3.

[23]Erenest Perira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 24.

[24]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University , School for the Arts, 1982), 92 .

[25]Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 74.

student.[26] Elizabeth A.H. Green, the noted author of conducting and string educational texts, was also an accomplished violinist and composer. In *Twelve Modern Etudes for the Advanced Violinist or Violist,* she writes of "a wide-spread acknowledgement of the scarcity of etude material that will isolate for the violinist the new facets of technique that have come into being concurrently with the music of the twentieth-century."[27] Another set of etudes intended for the advanced student is *Twelve Caprices for Violin Solo: Studies to Twentieth-Century Music,* by Heiner Reitz. Reitz wrote these *Caprices* because he thought that the violin student was well served by an abundance of traditional, classical etude literature. When faced with contemporary music, the student was "left to his own devices," meaning that his/her training only equipped him/her to successfully perform pre-twentieth-century, tonal music.[28] There are some resemblances of the *Twelve Caprices* to Hindemith's *Studies,* most notably is Reitz's Etude VIII and Hindemith's Etude I. Both are studies utilizing non-diatonic fingerings to crawl or creep through the various positions of the violin, without shifting between positions. Margaret Farish, the editor of *New Directions for Strings,* a set of three contemporary works for the beginning violin student, cites the lack of contemporary study material for this group. "Educational materials [for the beginner] have provided little preparation for twentieth-century compositional practices."[29]

In spite of these contributions, Paul Zukofsky, an internationally recognized expert of contemporary violin music and technique, writes, "while the stylistic and

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[26]Charles Norman Ashley, "The Composition of Fundamental Exercises for Violin in Representative Idioms of the Twentieth-Century" (M.A. Thesis, Ball State University, 1962).

[27]Elizabeth A.H. Green, *Twelve Modern Etudes for the Advanced Violinist or Violist,* (Pittsburg: Elkan-Vogel, 1964), 2.

[28]Reitz, *Studies for Violin Solo*, forward.

[29]Seymour Shifrin, *New Directions for Strings,* Margaret Farish, General Editor, (Bryn Mawr, PA: Theodore Presser Company, 1972), i.

technical demands of music have been evolving throughout this century at an ever-accelerating rate, the training material for violinists has remained at a total standstill."[30] He felt it was important to publish his *All-Interval Scale Book* because traditional scale studies were no longer, in his opinion, useful. By adding unisons, seconds, fourths, tritones, fifths, sevenths, and ninths, to double-stop scales in the *All-Interval Scale Book*, he felt such an addition would serve both to exercise and expand the aural and technical skills needed in contemporary music.

Elfreda Sewell Gleam's dissertation, "A Selected, Graded List of Compositions for Unaccompanied Violin with Preparatory Studies," documents the technical skills required in ten, unaccompanied violin pieces, of which five are written in the twentieth-century. Her study recognizes a continuing need for beginning level study material "which will familiarize students with current non-tonal styles and with the rhythmic complexities which characterize much music of this century."[31]

The *Freeman Etudes* (1981/1992) by John Cage represents some of the most difficult music written for the violin. James Pritchett, a Cage scholar, writes that Cage made these *Etudes* as difficult as he possibly could.[32] The violinist it was written for, Paul Zukofsky, found some parts too difficult to play.[33] Nevertheless, the *Freeman Etudes* represent some of the most contemporary of etude books. Such a distinction can be seen in its attempt to create different timbres by a combination of different bowing techniques, executed at quick tempos.

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[30]Paul Zukofsky, *All-Interval Scale Book: Including a Chart of Harmonics for the Violin,* (New York: G. Schirmer, 1977), ii.

[31]Elfreda Sewell Gleam, "A Selected, Graded List of Compositions for Unaccompanied Violin with Preparatory Studies" (D.A. diss., Ball State University, 1979), iii.

[32]James Pritchett, *The Freeman Etudes,* (http://www.music.princeton.edu/~jwp/texts/freeman, 1994.

[33] Ibid.

"Contemporary Violin Technique: Its Nature and Difficulties," by Anthony Thomas Adessa, is a dissertation that is similar to Walters' dissertation in that it analyzes the technical content of selected violin compositions. It differs, however, in that Adessa does not include original compositions. Adessa writes that preparatory material is still insufficient at this late date in the twentieth-century by pointing to a "general dearth of and consequent great need for suitable study material in the atonal idiom."[34]

Unlike the dissertations of Adessa and Walters, which are essentially surveys of selected works, Kenneth Lee Sarch's dissertation, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" represents a milestone in the writings of contemporary violin technique. This treatise is the first to document every conceivable technical practice found in twentieth-century solo, chamber, and orchestral music for the violin.[35] It is organized into left- and right-hand techniques, as well as an "other" category, that includes such things as knocking on the violin and sound amplification. "The Twentieth-Century Violin" serves as an excellent reference book for the various techniques found in twentieth-century scores and also provides pedagogical tips for the facilitation of such techniques.

The same year saw the publication of *Sixteen Contemporary Violin Etudes for Study and Performance*. Commissioned by the American String Teachers' Association, *Sixteen Contemporary Violin Etudes* is a set of advanced violin etudes written by five different composers and edited by the violinist and pedagogue, Eugene Gratovich.

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[34]Anthony Thomas Adessa, "Contemporary Violin Technique, : Its Nature and Difficulties" (D.M. diss., Indiana University, 1981), 102.

[35]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 1.

Writing that "the mind, ears, and hands need to be stretched beyond the confines of tonality,"[36] these compositions represent not only contemporary, atonal intervals, but also they are the first known etudes to incorporate other sounds not common to the violin. These include such things as vocal and percussive sounds.

In 1987, Max Rostal revised Carl Flesch's *Scale System* to reflect the new demands of violin playing. He writes, "violin playing has undergone such rapid development over the past six decades that I felt the need to respond to the new demands of the standards it has attained today."[37] Rostal uses fingerings that do not conform to diatonic patterns: four octave scales to reflect the increased use of higher positions, double-stops in unisons, fourths, fifths, and sevenths, and whole-tone and quarter-tone scales.[38]

Today, the internet has widened the access to information. Three relevant sources were found via the world-wide web. The first is "Etude in Fifths" by Jody Gatwood,[39] an Associate Professor of Violin at Catholic University of America. The etude appears in its entirety and readers are welcomed to copy "Etude". Professor Gatwood specifically states, "This music is in the public domain and may be copied freely."[40] He further writes that, in addition to being "ridiculously difficult to play in tune,"[41] his etude fills a gap in the traditional literature, which is lacking in its use of fifths.

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[36]Eugene Gratovich, ed., *Sixteen Contemporary Violin Etudes for Study and Performance*, (Bryn Mawr: Theodore Presser Company, 1982), 81.

[37]Carl Flesch, *Scale System: Scale Exercises in All Major and Minor Key for Daily Study (A Supplement to Book I of the Art of Violin Playing)*, revised and enlarged edition by Max Rostal (New York: Carl Fischer, 1987), editors preface.

[38]Ibid.

[39]Jody Gatwood, *Etude in Fifths*, http://music.cue.edu/html/gatwood/Fifths.html, date unknown.

[40]Ibid.

[41]Ibid.

A second etude book is *Contemporary Rhythm and Meter Studies for Treble Clef Instruments* by Elliot Del Borgo. This is a set of 28 etudes written for any treble clef instrument. In addition to including the rhythmic and metric complexities found in twentieth-century music, the etudes are constructed on twentieth-century harmonies, such as non-traditional scales, 12-tone rows, and modal scales.

A third etude book is *Experimental Etudes* (1996) by Arthur Jarvien. Similar to Del Borgo's *Studies*, the *Experimental Etudes*, are meant to be played by any instrument, not just the violin, and not just treble clef instruments. They are the most contemporary of etudes reviewed for this study, more so than John Cage's *Freeman Etudes*. Jarvien's *Etudes* incorporate non-traditional notations, extra-musical performance cues, improvisation, performer realization of the score, and coordination with tape. Included is a pedagogically valuable demonstration CD.

One of the latest treatises on contemporary violin technique, and perhaps the only published treatise on contemporary violin technique (the other treatises reviewed in this study were dissertations), is Patricia and Allen Strange's *The Contemporary Violin: Extended Performance Techniques.*[42] It is somewhat similar in format to Sarch's dissertation, *The Twentieth-Century Violin.* There are numerous musical examples as well as explanations as to the execution of the featured techniques.

In spite of the contributions thus far, the availability of contemporary etudes does not approach the availability of the classical etudes. Robin Stowell, writing in *The Cambridge Companion to the Violin*, states "the twentieth-century etude literature for the instrument is extremely sparse in comparison with the peak of the previous century."[43]

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[42]Patricia Strange and Allen Strange, *The Contemporary Violin: Extended Performance Techniques* (Berkley and Los Angles: University of California Press, 2001).

Writing again in *The New Grove Dictionary of Music and Musicians,* he reiterates his position: "Few [violin etudes] account for the extended harmonic, diversity of styles, and the resultant technical and rhythmical demands of much contemporary music."[44]

Throughout the course of the twentieth-century, and as recently as 2001 (Stowell), the pedagogical literature underscores the great need for contemporary study material. However, at least in number, there appears to be a significant number of contemporary etude literature for the violin. The very authors that decried the need for such material also contributed to the body of contemporary etudes and contemporary violin treatises that exist today. These authors brought to light little known contemporary etudes, wrote treatises on the various aspects of twentieth-century violin technique, and/or wrote original contemporary violin etudes themselves. Over time, the list grew, and now includes a body of twenty-six works. Appendixes B and C contain those works cited and/or composed by the authors in this review of literature. Appendix B is a list of works that are commercially available in the United States, and Appendix C is a list of works that are not commercially available in the United States.

Having identified these modern etude books for the violin, it was the purpose of this study to identify the technical content of the five selected, commercially available etude books. To aid in this task, an instrument was created to document those technical skills that are considered important and unique for the successful performance of contemporary violin music. This instrument, or *Content Analysis Form for Recording Contemporary Violin Etudes,* was then used to analyze five contemporary etude books

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[43]Robin Stowell, "The Pedagogical Literature," in *The Cambridge Companion,* 232.

[44]Robin Stowell, "Violin: Since 1820; Sources of Information and Pedagogical Literature," in *The New Grove Dictionary of Music and Musicians,* ed. Stanlie Sadie, vol. 26, 731 (New York: Macmillan Publishers Limited, 2001), 731.

for contemporary, technical content. The selection of the etude books was based on commercial availability in the United States and the composer's international reputation. The books chosen for this study were *Meadowmountetudes* by Samuel Adler, *Freeman Etudes*, by John Cage, *Studies for Violinists*, by Paul Hindemith, *Rhythmic Studies* by Bohuslav Martinu, and *Ten Preludes* by Eugène Ysaÿe.

CHAPTER 3: THE CREATION OF A CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Over time, certain violin etude books, most of which were written during the nineteenth century, have come to be accepted and widely used in the violin studio. These etude books, described in the literature as standard and classic, provide excellent training for the fundamentals of violin technique from the earliest stages of instruction to very advanced levels. These standard etude books also prove to be insufficient for the preparation of contemporary and post twentieth-century art music. One solution would be to supplement the violinist's repertoire with etude books in a contemporary idiom. An initial search for these important etude books can lead one to believe that such literature is lacking. Both violin scholars and pedagogues have repeatedly stated throughout the twentieth-century that such etudes are scarce. In an attempt to underscore their point, these scholars and pedagogues cited little known contemporary etude books for the violin. Others, such as Elizabeth A.H. Green, wrote original, contemporary etudes. Over the course of the twentieth-century, a sizable corpus of contemporary etudes can be pieced together by referring to the writings of these scholars. Thus, what is lacking today is not a lack of contemporary etude books for the violin, but simply the recognition that there exists a significant number of contemporary etude books for the violin. This monograph is the first to not only compile a list of commercially available, contemporary etude books for the violin (commercially available in the United States), but also the first to recognize what appears to be a significant number of contemporary etude books for the violin. With this new recognition, a new question arises. How does the violin teacher go about choosing an appropriate, contemporary etude book for his/her students?

Many of the standard etude books have become familiar due to their long history of use. Also, the composers of these standard etudes were the leading violinists and teachers of their day. Such notoriety of the composers gave these etudes a certain stamp of legitimacy, and thus, were quickly adopted. Today, contemporary etudes do not have a long history of use and as such, are not familiar to the general population of violinists. In fact, some of these contemporary etudes were not even written by violinists. Perhaps, the violin teacher could begin by selecting etudes written by those composers with international reputations, such as the composers chosen for this research: those by Adler, Cage, Hindemith, Martinu, and Ysaÿe. After selecting a composer, it would be helpful for the violin teacher to assess what contemporary skills are featured.

Assessing these skills became the major purpose of this study: to create an instrument that could record the various and unique aspects of contemporary violin technique. The creation of this instrument, or *Content Analysis Form for Contemporary Violin Etude Books*, will be the focus of this chapter. In its completed state, the *Content Analysis Form* will then be used to record the important and unique technical aspects found in commercially available, contemporary violin etude books by Adler, Cage, Hindemith, Martinu, and Ysaÿe. The *Content Analysis Form* is constructed to not only be useful for the purposes of this study, but also intended to aid the violinist as he/she considers any contemporary violin etude book for technical content.

Overview of Violin Performance Techniques, Traditional Through Contemporary

The following overview of violin performance techniques discusses traditional through contemporary technique from which aspects of the *Content Analysis Form* will emanate. Traditionally, the violin has been utilized as a vocal instrument, an instrument

that was to mimic the human voice. The violin historian Kolneder writes that by the early seventeenth-century, the violin was the bel canto instrument, par excellence.[1] Auer describes the violin as "a singing instrument,"[2] as well as an instrument "imbued with the singing quality of the human voice."[3] Flesch describes the violin as "an indirect vocal instrument."[4] Dounis spoke of the cantabile tone as being a part of the normal violin sound.[5] Sarch writes that the violin has been treated throughout the centuries as "a singing, sustaining instrument."[6] Marcan describes the qualities of the violin tone as "lyrical."[7] Adessa speaks of a long tradition of "an instrument whose function and purpose is to produce a beautiful, singing tone."[8]

The development of this singing quality would be the primary goal of violin instruction and study. Auer writes that this goal is most important[9] and "should be the ultimate goal of every player."[10] Achieving a beautiful, singing tone is described by Rolland as "the greatest single success factor in string performance and study."[11]

This singing quality is dependent on many factors, and takes years to acquire, but in its simplest form, it requires two techniques. One technique required is a straight bow.

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[1]Kolneder, *The Amadeus Book of the Violin*, 262.

[2]Auer, *Violin Playing*, 33.

[3]Leopold Auer and Gustav Saenger, *Grade Course of Violin Playing*, Book VII (New York: Carl Fischer, 1926), 16.

[4]Flesch, *The Art of Violin Playing*, Book I, 21.

[5]Sybil Eaton, "Two Great Violin Teachers," in *The Score and I.M.A. Magazine* (March 1955), 16.

[6]Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 189.

[7]Peter Marcan, *Music for Solo Violin Unaccompanied: A Performer's Guide to the Published Literature of the Seventeenth, Eighteenth, Nineteenth, and Twentieth Centuries* (High Wycombe, Bucks, England, U.K.: P. Marcan Publications, 1983), ii.

[8]Adessa, "Contemporary Violin Technique: Its Nature and Difficulties" (D.M. diss., Indiana University, 1981), 101-102.

[9]Auer, *Violin Playing*, 33.

[10]Auer and Saenger, *Grade Course*, Book I, 15.

[11]Paul Rolland, *Basic Principles of Violin Playing: A Report Prepared for the MENC Committee on String Instruction in the Schools* (Washington, D.C.: Music Educators National Conference, 1959), 38.

Auer calls a crooked-bow "the worst of all bad habits."[12] The crooked bow will "impair the quality"[13] and even "damage" the desired sound.[14] A straight bow is defined as drawing the bow "straight across the strings about half-way between the bridge and fingerboard"[15] with the hair of the bow "forming a right angle to the string."[16] The production of a good tone is dependent upon this motion.[17] Drawing the bow in this manner will produce a tone that is "most full and sonorous,"[18] "even,"[19] and "free from accompanying noises."[20]

The second technique required for a singing tone is what can be called a steady bow. A steady bow is a combination of three factors: bow speed, pressure, and contact point. An incorrect balance of these factors will produce a tone that is "spoiled,"[21] "undesirable,"[22] and "marred by extraneous noises."[23] Other adjectives used to describe such undesired tones are "scratching and rasping to whistling and squeaking," by Galamian,[24] and "thin…whistling…scratchy…choked," by Rolland.[25]

Of the three factors, bow pressure, specifically using *too much* bow pressure, is most strongly warned against. Auer cautions against forcing the bow "upon the strings with undue pressure."[26] Galamian describes the use of too much pressure as "dead

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[12]Auer and Saenger, *Grade Course,* Book I, 15.
[13]Galamian, *Principles of Violin Playing*, 51.
[14]Rolland, *Basic Principles*, 41.
[15]Auer and Saenger, *Grade Course,* Book I, 15.
[16]Rolland, *Basic Principles*, 32.
[17]Galamian, *Principles of Violin Playing*, 51.
[18]Auer, *Violin Playing*, 21.
[19]Rolland, *Basic Principles*, 32.
[20]Flesch, *The Art of Violin*, Book I, 62.
[21]Rolland, *Basic Principles*, 43.
[22]Galamian, *Principles of Violin Playing*, 63.
[23]Flesch, *The Art of Violin Playing*, Book I, 67.
[24]Galamian, *Principles of Violin Playing*, 63.
[25]Rolland, *Basic Principles*, 16.
[26]Auer and Saenger, *Grade Course,* Book I, 15.

weight," and states such action will "crush the vibrations."[27] Rolland implores the violinist to "avoid excessive pressure."[28] Dounis' concept of tone production is of a tone that is "pulled," and neither "pushed" nor "pressed."[29] All of these descriptors of excessive pressure produce what Flesch calls a "scratchy" tone.[30] He considers having a scratchy tone as one of "the most disturbing factors in tone production."[31]

A time-honored method for developing a steady bow, and thus cultivating a singing tone, is the practice of *son filé*. Defined by Rolland as "an intensively pulled singing tone,"[32] the study of *son filé* is "probably as old as the study of scales."[33] Sustaining a single note as long as possible without changing the bow stroke is the practice of *son filé*. The duration of this single note can vary: Auer cites one to sixty seconds,[34] while Flesch cites one to fifteen seconds.[35] The length, at minimum, must be "long enough to receive a singing character," and anything shorter than one second is essentially a détaché stroke.[36] The longer a violinist can sustain an even, steady bow, the greater skill he/she has in producing a singing, cantabile tone. Galamian favorably compares this "ability to sustain a long tone or musical phrase without having to change bow" to a singer with very good breath control. Such a singer has "the ability to sing long phrases without having to interrupt them for a new breath."[37]

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[27]Galamian, *Principles of Violin Playing*, 57.
[28]Rolland, *Basic Principles*, 16.
[29]Chris A. Costantakos, *Demetrios Constantine Dounis: His Method in Teaching the Violin* (New York: Peter Lang Publishing, Inc., 1997), 3.
[30]Flesch, *The Art of Violin Playing*, Book I, 65.
[31]Ibid.
[32]Rolland, *Basic Principles*, 47.
[33]Galamian, *Principles of Violin Playing*, 103.
[34]Auer and Saenger, *Grade Course*, Book VII, 44.
[35]Flesch, *The Art of Violin Playing*, Book I, 46.
[36]Ibid.
[37]Galamian, *Principles of Violin Playing*, 103.

Twentieth-Century Changes

The practices of the twentieth-century up to the present time, however, would bring changes in this long established tradition. The demands of the composer today are the opposite of past tradition.[38] The "production of a big, beautiful sound…is no longer the only preferred mode of expression."[39] Auer laments this change. "Genuine melody has suffered, and its medium of expression, the vocal or instrumental legato, has been thrust into the background."[40] In fact, the warm, lyrical tone of the violin is only a small portion of the type of sounds the violin is capable of producing.[41] Rolland writes, "Surprising tonal effects can be produced by purposeful deviation from the normal sounds."[42] Flesch observes that if one looks beyond the notes the violin is capable of producing and considers "tones which differ from each other in color as well as pitch," one can count twice as many tones.[43] With the new demands of composers, it is important that the *Content Analysis Form for Contemporary Violin Etude Books* reflect the tonal demands that deviate from established practice.

Established Sounds and New Tonal Demands

"The modern composer seeks new sounds."[44] The interest in timbre among twentieth-century composers is not limited to a group, style or period, but includes "composers of all stylistic persuasions."[45] Ashley found a "wide use of special effects for

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[38]Adessa, "Contemporary Violin Technique: Its Nature and Difficulties" (D.M. diss., Indiana University, 1981), 101-102.

[39]Patricia Strange and Allen Strange, *The Contemporary Violin: Extended Performance Technique* (Berkley: University of California Press, 2001), 1.

[40]Auer, *Violin Playing*, 33.

[41]Strange and Strange, *The Contemporary Violin*, xi.

[42]Rolland, *Basic Principles*, 42.

[43]Flesch, *The Art of Violin Playing*, Book I, 7.

[44]Gratovich, ed., *Sixteen Contemporary Violin Etudes*, 81.

[45]Gardner Read, *Contemporary Instrumental Techniques* (New York: Schirmer Books, 1976), 229.

the change of timbre."[46] Gleam found timbre to be "an important aspect and an ever developing one."[47] In addition to finding "a heightened interest" in timbre,[48] Pereira found that timbre is "perhaps the most noticeable trend in twentieth-century violin music."[49] This trend saw a "significant rise" in the second half of the twentieth-century,[50] and the use of timbre "has moved to the compositional forefront."[51] Such timbral possibilities of the violin "seem endless."[52]

What are these new sounds? Zukofsky writes, "little is new."[53] Such new technical requirements "have developed from well established techniques"[54] and "are essentially an expansion of this basic technique."[55] The tone colors the violin is capable of producing are techniques not new to modern times.[56] Such techniques are either expanded or receive more extensive use.[57] Ashley lists right- and left-hand pizzicato, harmonics, tremolo, sul ponticello, and glissando as being the most widely used effects in twentieth-century music.[58] Pereira lists col legno, tremolo, sul ponticello, sul tasto, pizzicato, natural and false harmonics, double-stop harmonics, glissando, trills, vibrato,

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[46]Charles Norman Ashley, "The Composition of Fundamental Exercises for Violin in Representative Idioms of the Twentieth-Century" (M.A. Thesis, Ball State University, 1962), 23.

[47]Elfreda Sewell Gleam, "A Selected, Graded List of Compositions for Unaccompanied Violin with Preparatory Studies" (D.A. diss., Ball State University, 1979), abstract.

[48]Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 27.

[49]Ibid., 110.

[50]Strange and Strange, *The Contemporary Violin,* xi.

[51]Ibid., 51.

[52]Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 107.

[53]Zukofsky, "Aspects of Contemporary Technique," in *The Cambridge Companion,* 143-144.

[54]Read, *Contemporary Instrumental Techniques,* 3.

[55]Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 236.

[56]Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 7.

[57] Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987),18.

[58]Ashley, "The Composition of Fundamental Exercises for Violin in Representative Idioms of the Twentieth-Century" (M.A. Thesis, Ball State University, 1962), 43.

double-stops, mutes, percussive sounds, and a wide range of dynamics as those techniques that existed before the twentieth-century and receive more use in twentieth-century music.[59]

Pizzicato is perhaps one of the oldest variants of sound. It is widely believed that bowed instruments were originally plucked before they were bowed, as the bow would come into existence in the tenth-century. One of the earliest records of left-hand pizzicato is found in Claudio Monteverdi's (c. 1567-1643) opera, *Il combattimento de Tancredi e Clarinda* (1624). Monteverdi also claimed to have invented the tremolo, but the tremolo is found in *Affetti musicali* (1617), a composition by the violinist and composer, Biago Marini (c. 1597-1655). Vibrato was first used in the Renaissance (1400-1650) as a cadencial ornament, and would eventually come to be accepted and practiced as the continuous vibrato we know today. The violinist Fritz Kreisler (1875-1962) is the artist credited as the first to use continuous vibrato. Sul ponticello, col legno, glissandi, harmonics, and tremolo are used in Carlo Farina's (c. 1604-1639) *Capriccio Stravagante* (1627). The first appearance of mutes in a score was Jean-Baptiste Lully's (1632-1687) opera *Armide* (1686). Dynamics are first found in Giovanni Gabrieli's (c. 1557-1612) *Sonata pian 'e forte* from his *Sacrae symphoniae* (1597). Even percussive sounds are found in scores before the twentieth-century. Gioachino Rossini (1792-1868) instructed the violins to tap their music stands with their bows in the overture to *Il Signor Bruschino* (1813).

The performance of twentieth-century and other modern violin compositions do not necessarily require the performer to learn new techniques, but rather to apply

[59]Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 17.

established techniques in new ways. Read recognizes this when he states, "…there are, after all, only so many ways in which a bow can be held by the hand, moved with the arm, and pressed against a string."[60]

Rapid Changes Between Techniques

In contemporary compositions, the rate of change between techniques can occur more frequently. Pereira writes that such rate of change "is greatly accelerated"[61] and "patently twentieth-century."[62] Read found that the composer frequently asks "the player to alternate rapidly between [techniques]."[63] Strange and Strange state, "The performer is often asked to make fast changes between techniques."[64] These frequent and rapid changes between techniques require "…a great deal of coordination and agility"[65] because the "durations between one type of right-arm use to another is brief."[66] Zukofsky observes that such rapid changes between the various techniques "disturb us [violinists]."[67] Pereira goes further to say that this aspect of contemporary music "presents the greatest difficulty" for the violinist.[68]

The never-ending quest for new sounds has also led the composer to combine the existing, established techniques in unique and interesting ways. The combination of techniques, however, is not a new idea. Galamian writes of two major types of tone production: closer to the bridge and further away from the bridge. Over his career, he

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[60]Read, *Contemporary Instrumental Techniques*, 3.

[61]Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 110.

[62]Ibid., 71.

[63]Read, *Contemporary Instrumental Techniques*, 217.

[64]Strange and Strange, *The Contemporary Violin*, 51.

[65]Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987),71.

[66]Zukofsky, "Aspects of Contemporary Technique," in *The Cambridge Companion,* 143-144.

[67]Zukofsky, *All-Interval Scale Book*, ii.

[68]Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 110.

observed that the majority of violinists utilize only one type of tone production, that is, they play either predominantly closer to the bridge or farther away from the bridge, thus limiting their expressive potential.[69] Flesch also notes "few violinists know how to mix the colors in their palette."[70] Doing so, "limits severely the expressive scope of their playing."[71] He encourages the violinist to not only master these two types of tone production but "to learn to mix them in all sorts of combinations and thereby to achieve command over a wide range of sound-character and timbre."[72]

The combination of these bowing skills can also be further combined with other left-hand techniques. Referring to vibrato, Galamian states that the combination of the bow with different shading of vibrato, can yield a "diversified palette" of color and sounds[73] by the violinist. Combinations of the various left- and right-hand techniques can seem to be endless. Read's *Contemporary Instrumental Techniques* includes hundreds of musical examples that "frequently illustrate more than one unusual technical or expressive device."[74] Such combinations further the difficulty in performing contemporary violin compositions. Thus, the *Content Analysis Form for Contemporary Violin Etude Books* needs to be constructed so as to reflect any quick changes between techniques.

New Compositional Ideas Using Established Techniques

This is not to say that there have not been some patently new compositional ideas brought forth in modern times. One example is the bitone. The bitone is described by

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[69]Galamian, *Principles of Violin Playing*, 62.
[70]Flesch, *The Art of Violin Playing*, Book I, 76.
[71]Galamian, *Principles of Violin Playing*, 62.
[72]Ibid.
[73]Ibid.
[74]Read, *Contemporary Instrumental Techniques*, 4.

Strange and Strange as two notes, "created by stopping a note swiftly and firmly without plucking or bowing…a different pitch will be produced on either side of the stopped note."[75] The bitone, while certainly a new compositional idea, does not require any new skills or technique. One simply depresses the string quickly and with great pressure.

The éffleure is another new idea in composition that requires traditional technique. Éffleure is a combination of right and left hand techniques in which "the left hand fingers do not depress the string completely as if producing a harmonic [not on a node]."[76] The right hand then can execute whatever technique the composer desires (pizzicato, arco, staccato, etc.). Adjectives used to describe the resulting sound are 'dead' and 'muffled.'

The creation of new tonal concepts can be endless and, therefore, would prove cumbersome if listed on the *Content Analysis Form*. It will have greater flexibility if the user simply listed any new techniques. Therefore, the *Content Analysis Form for Contemporary Violin Etude Books* must provide room to list and describe those techniques that are truly new.

Right-Hand Use: Bow

Although the violin is capable of producing many timbres, the typical violin sound before the twentieth-century is associated with the bel canto tone produced by the bow. Simply stated, this tone is achieved by drawing the bow back and forth across the strings, at about midpoint between the bridge and fingerboard, and applying a constant pressure with the right hand. With the expansion of timbre in composition, the bow, which is responsible for producing the majority of sound from the instrument, would be

[75]Strange and Strange, *The Contemporary Violin*, 68.
[76]Ibid., 70.

"the area of greatest expansion of technique."[77] In addition to being one of the primary means for setting the strings into vibration, it is capable, as discussed earlier, of creating a variety of colors. Rolland noted that "the quality of the tone [timbre]…changes considerably" when one deviated from traditional usage of the bow.[78] According to Strange and Strange, "application of any part of the bow…is fair game."[79] This means using parts of the bow once thought unimaginable, such as plucking with the screw of the frog or drawing across the strings with the wood of the bow. All parts of the bow can and will be utilized by the creative composer.

Bow techniques found in contemporary scores include col legno, sul ponticello, sul tasto, tremolo, and "all types of bowing seen as standard [such as détaché, spiccato, staccato, etc.]."[80] The composers of the twentieth-century would come to favor these techniques by executing rapid alternations between sul ponticello and sul tasto and/or normale. Such alternations would come to be "highly regarded."[81] Strange and Strange state that sul ponticello would be "extensively developed"[82] and "several variants"[83] were noted by Read as existing in the literature. Strange and Strange also noted that sul tasto would be "greatly developed"[84] and the possibilities of col legno would be "extended. "[85] The use of tremolo in contemporary compositions "has expanded"[86] and has become the

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[77]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 6.

[78]Rolland, *Basic Principles*, 42.

[79]Strange and Strange, *The Contemporary Violin*, 55.

[80]Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987),17.

[81]Read, *Contemporary Instrumental Techniques*, 217.

[82]Strange and Strange, *The Contemporary Violin*, 3.

[83]Read, *Contemporary Instrumental Techniques*, 212.

[84]Strange and Strange, *The Contemporary Violin*, 6-7.

[85]Ibid., 104.

[86]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 320.

"most prevalent"[87] of bowing techniques according to Read. It is interesting to note the observations of Flesch regarding sul ponticello and sul tasto at the early part of the twentieth-century. He writes that sul ponticello should be avoided because it results in "a strange and bizarre mixture of sound and noise."[88] A few paragraphs later, sul tasto is described as "a little-known, exceedingly charming effect."[89]

On the *Content Analysis Form for Contemporary Violin Etude Books*, providing simple checklists of these specific sound variants; col legno, sul ponticello, sul tasto, and tremolo can indicate the etude's worthiness for contemporary, technical study. Additional space to record combination techniques and other verbal descriptions can provide the user an idea of the breadth and depth of coverage. A final clue would be to record the publication date. A publication date that is later in the twentieth-century could indicate a higher degree of importance placed on effect and timbre.

There are other new compositional ideas involving the bow that have entered the literature, such as bowing on the tailpiece, bowing under the strings, bowing behind the left- hand fingers, and bowing on the strings in the peg box. Thus, in the creation of the checklist, it would not be feasible to have categories for every conceivable way one can bow the instrument. Such classifications would be too numerous. Strange and Strange, however, provide a good model. They classify the bow as having two basic functions: "point of generation" (where the bow is placed) and a "manner of generation" (how the bow is drawn across the strings).[90] For the purposes of the checklist, placing the various,

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[87]Read, *Contemporary Instrumental Techniques*, 206.
[88]Flesch, *The Art of Violin Playing*, Book I, 77.
[89]Ibid.
[90]Strange and Strange, *The Contemporary Violin*, 7.

established bowing techniques under these two categories will help to simplify the checklist as well as to enhance the flexibility of its use. In addition, under Strange and Strange's "manner of generation" category, they describe non-traditional bow usage, such as placing the bow at sharp angles to the string, bowing in circular motions, and even bowing under the strings. This non-traditional bowing category will be useful in content analysis when encountering new technical ideas.

Left-Hand Use: Vibrato

The left- hand is capable of producing a wide variety of colors. One of the sounds associated with the bel canto tone is vibrato. Auer calls vibrato, "the most important means at [the] command of the violinist for beautifying the tone."[91] Over the centuries, vibrato went from being an ornament for embellishing cadences to the continuous oscillation practiced today. This continual oscillation, considered to be a part of the normal cantabile tone of the violin, was not always seen as an acceptable practice. Auer described vibrating on every tone a "physical defect."[92] Flesch writes that vibrato should be used only when "musically justifiable," such as to heighten expression at the climax of a section.[93] Fritz Kreisler is given credit for making the practice of continuous vibrato acceptable. Flesch notes that a fundamental shift in regards to vibrato has happened, and that the contemporary violinist will need to consider this in his/her training.[94]

Today, the violinist must continue to expand his concept of vibrato in new and different ways. Vibrato should not always be assumed. While it is desirable to be able to

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[91]Auer, *Graded Course*, Book VI, 26.
[92]Auer, *Violin Playing*, 23.
[93]Flesch, *The Art of Violin*, Book I, 24.
[94]Ibid.

control the width and speed of vibrato, contemporary music calls for even "greater control of both the width and speed of vibrato."[95] Today's composer will ask for vibrato "in unusual and non-traditional ways"[96] and occasionally ask for "vibrato extremes."[97] The most common vibrato in contemporary scores is a "slow and wide vibrato that oscillates the length of a quarter tone from the starting pitch."[98]

Left-Hand Use: Glissandi

Strange and Strange describe glissando as "one of the most idiomatic sounds that string instruments can produce."[99] The traditional concept of glissando is gliding to the target note at the last possible minute. Rolland writes that glissando should be discreet, with only "the last portion of the slide…heard faintly."[100] In twentieth-century and contemporary scores, however, composers often desire that the glissando begin immediately from the beginning note to the target note, thus the slide takes place for the duration of the beginning note. The glissando is most often combined with other techniques. Doing so can produce "a variety of timbres."[101]

Left-Hand Use: High Positions

With the "continuing and increasing use of higher positions,"[102] the violinist must expand his concept of what constitutes a high position. Over the course of the violin's four hundred year history, violinists have always been confronted with increasing demands regarding the high positions. Early in the violin's history, one rarely traveled

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[95]Gratovich, ed., *Sixteen Contemporary Violin Etudes*, 81.

[96]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 177.

[97]Ibid.

[98]Read, *Contemporary Instrumental Techniques*, 109.

[99]Strange and Strange, *The Contemporary Violin*, 79.

[100]Rolland, *Basic Principles*, 31.

[101]Strange and Strange, *The Contemporary Violin*, 85.

[102]Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 94.

far up the fingerboard. Arcangelo Corelli (1653-1713) is a famous example of a performer who rarely went past the third position. This is not to say that there have not been attempts at acrobatic feats. Antonio Vivaldi's (1680-1743) compositions, particularly the violin concertos, utilized the high positions. Pietro Locatelli (1695-1764) in his *L'Arte del Violion,* op. 3 (1733), reaches a c"" (16th position) on the E-string. Niccolo Paganini (1782-1840), who was influenced by Locatelli, quite often goes close to the edge of the fingerboard in his compositions. The great violin concertos of the nineteenth century (i.e. Beethoven, Brahms, Tchaikovsky, etc.) would make training in the high registers a prerequisite.

In the realm of traditional training, this usually meant no further than seventh position. An examination of four out of a total of five position exercise books for this research confirms this. *Graded Course of Violin Playing: Advanced Grade, (The Higher Positions, continued),* Book VI, by Leopold Auer and Gustav Saenger,[103] *Exercises for Change of Position* by Gaylord Yost,[104] *School of Violin Technics, Part II, Exercises in the Second to Seventh Position,* op. 1 by Otakar Sevcik,[105] and *The School of Violin-Technics: Exercises for Promoting Dexterity in the Various Positions,* Book I, by Henri Schradieck,[106] do not go past the seventh position. Upon examination of the fifth exercise book, *Shifting and Preparatory Scale Studies,* op. 8, by Sevcik, this research notes that Sevcik apparently, may have foreseen the need to extend the use of position training. Consisting of a total of fifty-six shifting exercises, exercises 8, 16, 24, 26-28,

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[103]Leopold Auer and Gustav Saenger, *Graded Course,* Book VI.

[104]Gaylord Yost, *Exercises for Change of Position* (Pittsburg: Volkwein Bros., Inc., 1928).

[105]Otakar Sevcik, *School of Violin Technics, Part II, Exercises in the Second to Seventh Position,* op. 1 (New York: G. Schirmer, 1881).

[106]Henri Schradieck, *Exercises for Promoting Dexterity in the Various Positions, Book I* (New York: G Schirmer, 1928).

and 30-31 go as high as the eighth position. Exercises 23, 29, and 32-37 go as high as the ninth position. Exercises 38-46 reach the tenth position, and exercises 47-56 reach the eleventh position. It is these higher positions, past the seventh position, that are frequently found in contemporary scores. Sarch writes, "modern composers frequently call for violinists to play in the very high positions (above seventh position)."[107] According to Read, the high positions are "an important segment of modern instrumental potentiality"[108] and "are deliberately exploited" by composers.[109] To successfully play in these new, high positions, the violinist must further develop technique.[110] He/she must train the fingers, hand, and arm to comfortably maneuver around the instrument on all strings.

Left-Hand Use: Trills

Not much is written on the trill, but it is certainly a method of providing color to a note and is found in music from all ages. Auer describes the ability to execute a good trill as "one of the virtuoso's most striking accomplishments."[111] Flesch writes that an accomplished violinist "should also be accomplished in the area of the trill."[112] An acceptable trill is one that "begins slowly and grows more rapid."[113] Contrary to what was traditionally considered desirable and accepted, contemporary composers are finding different ways to execute the trill. These include trills that begin fast and purposely slow down, or trills that fluctuate in speed over the duration of the note. It is also common to combine the trill with other techniques. An early example of such a combination is in the

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[107]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 129.
[108]Read, *Contemporary Instrumental Techniques*, 6.
[109]Ibid., 2.
[110]Ibid., 6.
[111]Auer, *Violin Playing*, 120.
[112]Flesch, *The Art of Violin Playing*, Book I, 30.
[113]Ibid.

last measures of the *Finale* in Claude Debussy's *Violin and Piano Sonata.* Pereira notes that the appearance of a trill combined with glissandi in this work is the first instance of this combination.[114]

Left-Hand Use: Harmonics

On the use of harmonics, Flesch writes, "they ought to be mastered by any violinist who aspires to a complete technique."[115] While harmonics have existed as far back as Carlo Farina's, *Capriccio Stravagante* (1627), the use of harmonics, including artificial harmonics, were not accepted until the compositions of Paganini.[116] The first use of double-stop harmonics is also attributed to Paganini.[117]

String players are often unaware that there can be several ways to execute one harmonic pitch, and each way can produce "significant variations in timbre."[118] Zukofsky notes that no area is as misunderstood as the area of harmonics.[119] Strange and Strange write "the execution of harmonics has presented the most confusion for both composers and performers."[120] The violinist must not only be familiar with "the most commonly used artificial harmonic" of the perfect fourth,[121] but also "be able to play artificial harmonics of five types [as well as know their resultant pitches]: the minor third, the major third, the perfect fourth, the perfect fifth, and the major sixth harmonics."[122]

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[114]Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 36.

[115]Flesch, *The Art of Violin Playing*, Book I, 32.

[116]Ibid.

[117]Yampolsky, *Principles of Violin Fingering*, 114.

[118]Strange and Strange, *The Contemporary Violin*, 113.

[119]Zukofsky, *All-Interval Scale Book*, iv.

[120]Strange and Strange, *The Contemporary Violin*, 113.

[121]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 150.

[122]Ibid., 143.

Yampolsky writes that "the use of harmonics enriches the violin's palette of colors, greatly enlarges the expressive resources of the instrument, and in many cases serves also as an important means of simplifying execution."[123] While Yampolsky's book on fingering is based on the traditional, tonal literature, his statement is a good summary of the value of harmonics to the contemporary composer. Sarch writes, "in the contemporary expansion of tone colors, harmonics play an important role for many composers."[124]

Left-Hand Use: Microtones

The violin is "capable of a virtual infinity of different pitches"[125] and can be a great resource "for exploring the infinite spaces between the notes of twelve-tone equal temperament."[126] The use of microtones can be used "as the basis of an entirely new scale format…[but] the majority employ them purely as colorist agents, to modify or to enhance existing pitches in the traditional chromatic scale."[127] The use of quarter-tones "are both theoretically and practically the most feasible."[128] Unlike some of the techniques that were present before the twentieth-century, quarter-tones as colorist devices are "patently new"[129] and date from around the turn of the twentieth-century.[130] One of the earliest uses of quarter-tones as a device for color is Charles Ives' *Quarter-Tone Choral for String Orchestra* (1913).

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[123]Yampolsky, *Principles of Violin Fingering*, 114.

[124]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 143.

[125]Strange and Strange, *The Contemporary Violin*, 141.

[126]Ibid., 74.

[127]Read, *Contemporary Instrumental Techniques*, 109.

[128]Ibid.

[129]Ibid., 3.

[130]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 107.

Pizzicato

"Up to the closing years of the nineteenth-century, pizzicato was basically a one-dimensional device…the string [was plucked] with the tip of the right- hand index finger."[131] Auer notes that pizzicato "must never be done with the nail but always with the fleshy part of the tip."[132] Auer,[133] Flesch,[134] and Leland[135] remark that the motion of the plucking finger should not be done with an upward movement, because doing so would cause the string to strike against the fingerboard, thus creating what Auer calls a "disagreeable accompanying noise."[136] The motion should be left to right, or moving in the direction from the G to E string. Plucking in this manner allows the string to vibrate freely. As the interest in timbre rose, "pizzicato gradually acquired certain notable variant forms, both in manners of production and in resultant sound."[137] Walter Alexander Mony's dissertation, "Avant-Garde String Technique: 1950-1975," classifies sixteen types of pizzicato.[138] Strange and Strange simplify the classification of pizzicato into four categories: using the flesh of the finger, using the nail of the finger, using a combination of flesh and nail and using a plectrum.[139] Of these four types, Read found the nail pizzicato to be the most prevalent.[140] One can find the first example of nail pizzicato in *Music for String, Percussion and Celesta* (1936), by Bela Bartok.

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[131]Read, *Contemporary Instrumental Techniques*, 220.
[132]Auer, *Graded Course*, Book IV, 14.
[133]Ibid.
[134]Flesch, *The Art of Violin Playing*, Book I, 33.
[135]Valborg Leland, *The Dounis Principles of Violin Playing, Their Meaning, and Practical Application*, (London: Strad, 1949), 58-59.
[136]Auer, *Graded Course*, Book IV, 14.
[137]Read, *Contemporary Instrumental Techniques*, 4.
[138]Walter Alexander Mony, "Avant-Garde String Technique: 1950-1975" (Ph.D. diss., University of the Witwatersrand, Johanesburg, 1982), 225-243.
[139]Strange and Strange, *The Contemporary Violin*, 57.
[140]Read, *Contemporary Instrumental Techniques*, 223.

On the *Content Analysis Form for Contemporary Violin Etude Books,* under the category left-hand use, vibrato, glissandi, high positions, trills, harmonics, and microtones will be listed. Additional space to record details of each technique will facilitate recording how a particular technique is to be executed and provide a picture of the breadth and depth of use. An addition sub-category, pizzicato will reflect Strange and Strange's classification of pizzicato.

Intervals

Flesch lists thirteen basic elements of left-hand technique. Those of intervallic concern are the chromatic and diatonic scales, arpeggios that include seventh chords, and intervals of the third, sixth, octave, and tenth.[141] Traditional diatonic training typically utilizes the intervals of the third, sixth, octave, and tenth in the study of scales. These intervals reinforce melodic formulas found in tonal music. These traditional scale studies are described as "popular" by Sarch,[142] and as "limiting" by Zukofsky.[143] Zukofsky, an internationally recognized expert in the performance of twentieth-century and contemporary music, recognizes that the standard scale books, which emphasize the above mentioned tonal intervals, do not adequately train the violinist to cope with the demands of modern composition. New, contemporary scale formulas have been described as "unconventional,"[144] "unusual,"[145] as well as "unfamiliar and awkward."[146] In Ashley's dissertation, "The Composition of Fundamental Exercises for Violin in Representative Idioms of the Twentieth-Century," eight specific problems in the

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[141]Flesch, *The Art of Violin Playing*, Book I, 24.
[142]Ibid, 68-69.
[143]Zukofsky, *All-Interval Scale Book*, ii.
[144]Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 117.
[145]Ibid., 237.

contemporary literature were found, of which three were related to the intervallic issues of changing scale patterns, new arpeggiated figures, and intervals difficult to hear.[147] Walters' dissertation, "Technical Problems in Modern Violin Music as Found in Selected Concertos, with Related Original Exercises and Etudes," documented the use of "disjunct melodies…a wide pitch range…and unusual scales and pitch relationships."[148] In *Twelve Modern Etudes for the Advanced Violinist or Violist*, Green cites the use of "atonal intervallic relationships" as one of the many challenges in contemporary scores.[149]

The new intervals confronting the violinist are the use of fourths and the "difficult" major seventh.[150] Walters found "successive intervals of the fourth"[151] in addition to "the occurrence of unisons and major seconds...with increasing frequency."[152] Walters also found that melodic lines can "leap over a wide range, with fourths, sevenths, ninths, and elevenths being required more often."[153] Adessa found a prevalence of seconds, fourths, fifths, sevenths, ninths and elevenths.[154] Sarch recommends, "scales and formulas of…seconds, fourths, fifths, sevenths, and ninths, need to be added to the more popular thirds, sixths, octaves, and tenths."[155] Zukofsky stresses that today, the violinist must "be aurally at ease in all intervals."[156] Expanding one's training to include these modern intervals is not difficult. The difficulty is due to "an appalling lack of

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[146]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 68-69.

[147]Charles Norman Ashley, "The Composition of Fundamental Exercises for Violin in Representative Idioms of the Twentieth-Century" (M.A. Thesis, Ball State University, 1962), 23.

[148]Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 22.

[149]Green, *Twelve Modern Etudes*, 2.

[150]Ibid.

[151]Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 74.

[152]Ibid., 92.

[153]Ibid., 236.

[154]Anthony Thomas Adessa, "Contemporary Violin Technique: Its Nature and Difficulties" (D.M. diss., Indiana University, 1981), 101.

acquaintance with them that has bred the technical shortcomings."[157] Likewise, the use of all intervals in scale studies is not a new idea. Francesco Geminiani (1687-1762) in his treatise, *The Art of Playing on the Violin* (1751), included all intervals from the unison to the octave. Training in just the diatonic intervals is limiting, even in traditional, classical music. Such diatonic training only can result in "awkward fingering, unmusical slides and shifts, faulty intonation, and a lack of technical precision."[158]

Double-Stops and Chords

The intervals prevalent in contemporary scores (seconds, fourths, tritones, fifths, seventh, ninths and eleventhes), will be found in double-stops and chords as well. Walters discovered "a large number of…unisons, seconds, fourths, fifths, and sevenths"[159] in double stops. Sarch's observations of double stops and chords yielded, "unisons, seconds, fourths, tritones, sevenths, and ninths."[160] Ashley describes these non-traditional double-stops as "double-stops of new types."[161] Sarch notes that the violinist is "unprepared" for these new double-stops and chords,[162] and that the difficulty level of modern chords has risen.[163]

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[155]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 68-69.

[156]Zukofsky, *All-Interval Scale Book*, ii.

[157]Anthony Thomas Adessa, "Contemporary Violin Technique: Its Nature and Difficulties" (D.M. diss., Indiana University, 1981), 101.

[158]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 70.

[159]Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 236.

[160]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 88.

[161]Charles Norman Ashley, "The Composition of Fundamental Exercises for Violin in Representative Idioms of the Twentieth-Century" (M.A. Thesis, Ball State University, 1962), 23.

[162]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 70.

[163]Ibid., 102.

Chords are essentially compound double stops. For example, a C-major triad is a union of a major third on the bottom and a minor third on the top. A C-minor triad is a union of a minor third on the bottom and a major third on the top. The double-stops inherent in contemporary music will also be found in contemporary chords. This does not mean, however, that the problems encountered in contemporary double stops will be transferable to modern chords. Chords have their own, unique technical problems, especially if chords follow one another in quick succession. Galamian writes that such chords require "great agility in the fingers, since often several fingers (sometimes all four of them) have to move simultaneously from one place to another."[164] Also, a fingering that is appropriate for a double stop may not work when that same double-stop is part of a chord. When executing the double-stop of a major or minor third, for example, the violinist will typically use the first and third finger. If a major or minor third exists on the bottom two notes of a four-note chord, however, the violinist may need to use the first and second fingers for the third, leaving the third and fourth fingers to negotiate the upper half of the chord. In what appears to be a guide for the composer, Strange and Strange notate the widest possible intervals between adjacent fingers.[165] Depending on what position the violinist is in, Strange and Strange notate the following stretches: fingers 1 and 2 can reach a span of a major seventh to a major ninth; fingers 1 and 3 can reach a span of a minor ninth to a minor eleventh; fingers 1 and 4 can reach a span of a major ninth to a minor twelfth; fingers 2 and 4 can reach a span of an octave to a minor eleventh; and fingers 3 and 4 can reach a span of a minor seventh to a major ninth. With the increased use of the intervals of the second, fourth, tritone, fifth, seventh, ninth and

[164]Galamian, *Principles of Violin Playing*, 29.
[165]Strange and Strange, *The Contemporary Violin*, 94.

eleventh, the execution of chords becomes more difficult, and any contemporary etude that incorporates such chords will be of value.

Recording Intervals, Double-Stops, and Chords

A method is needed to determine if a particular contemporary etude in question does indeed contain those intervals, double-stops, and chords, deemed important for a wide range of contemporary music. The issue of intervals and double-stops are related, and will be explained first.

Counting all the specific intervals and double-stops present in a particular etude, from the unison to the eleventh, and computing percentages of each category (unisons, major and minor seconds, major and minor thirds, etc.) that are based on the overall number of intervals (or double-stops) present will provide a clear picture. The question now becomes finding a standard for the counting task.

The New Grove Dictionary of Music and Musicians defines the interval as "the distance between two [linear] pitches" (as opposed to a "harmonic interval," in which two tones are heard simultaneously.)[166] *The New Harvard Dictionary of Music* defines the interval as spanning the "distance between an upper and a lower pitch."[167] It goes on to say that the interval is "convenient for the inventories of tempered scales."[168]

According to *New Grove*, "Intervals are traditionally labeled according to the number of steps they embrace in a diatonic scale [i.e. second, third, fourth, etc.]…Qualifying adjectives [such as major and minor] lend precision to this

[166]Mark Lindley and Murray Campbell, "Interval," in *The New Grove Dictionary of Music and Musicians*, ed. Stanlie Sadie, vol. 12, 500-502 (London and New York: Macmillan Publishers Limited, 2001), 500.

[167]Don Michael Randel, ed. *The New Harvard Dictionary of Music* (Cambridge and London: Harvard University Press, 1999), 399.

[168]Ibid.

terminology."[169] The *Harvard Dictionary* defines the classification of intervals in a similar fashion. "Intervals are named according to the number of diatonic scale degrees…and the number of semitones between two pitches…indicated by a qualifying adjective (perfect, major, minor, diminished, or augmented)."[170]

Thus, in establishing counting procedures for this study, only melodic intervals, or the distance between two *single* pitches in the twelve-tone scale will be counted as an interval. If a single note is preceded or followed by a double-stop or a chord, then no interval will be counted. If a single note is preceded or followed by a altered tone, or what was referred to earlier as a microtone, then the interval will not be counted.

Double-Stops are harmonic intervals, or two notes heard simultaneously. Specifically, the term double-stop applies to string instruments, when two notes are stopped and played simultaneously. The term also applies when one stopped note is played simultaneously with an open string. To count and classify double-stops, one simply records the double-stops that occur. Double-stops that contain microtones are not included, because no qualifying adjective exists to describe distances not found within the twelve-tone scale used in Western music.

Chords are multiple stops of three or four notes, and are not easily classified. Intervals and double-stops fit neatly into categories, such as minor second, major ninth, etc. Chords, on the other hand, are essentially compound double stops, and have a wide variety of combinations. For the purposes of the *Content Analysis Form for Contemporary Violin Etude Books*, it will be best to record the chords on a five line staff.

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[169]Lindley and Campbel, "Interval," in *New Grove*, 500.

[170]Don Michael Randel, ed. *The New Harvard Dictionary of Music* (Cambridge and London: Harvard University Press, 1999), 399.

This way, the violinist can quickly understand the extent of chord usage. In addition, one will clearly see the difficulty level of chords used.

Rhythm and Meter

The rhythm found in many contemporary scores can be quite complex. No longer are multiples of two and four common.[171] The rhythmic component has become exponentially complicated and, therefore, has changed the way a violinist must be trained. Weisberg writes that many of the problems confronting musicians in twentieth-century scores are related to rhythm.[172] Sarch also writes of a concentrated interest in rhythm[173] and of the increasing use of complicated rhythms.[174] He also writes that rhythm "has changed the technical demands which contemporary music makes upon performers."[175]

Other writers of contemporary violin technique have come to similar conclusions regarding rhythm. Weisberg notes that irregular meter and cross-rhythms are prevalent.[176] Walters found complex and unusual rhythms, irregular accents, and changing meters.[177] Green lists difficult rhythmic successions.[178] Gratovich writes of the asymmetrical subdivision of the beat, frequent and rapid changes of meter, and cross-rhythms.[179] For the present study, the findings of Weisberg, Walters, Green and Gratovich were condensed into four categories: Complex rhythm (also called additive

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[171]Paul Zukofsky, "Schoenberg for Performers: the Prequel," in *Journal of the Arnold Schoenberg Institute* XV/1 (June 1993): 160.

[172]Arthur Weisberg, *Performing Twentieth-Century Music: A Handbook for Conductors and Instrumentalists* (New Haven: Yale University Press, 1993), 1.

[173]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 190.

[174]Ibid., 213.

[175]Ibid., 190.

[176]Weisberg, *Performing Twentieth-Century Music*, 1.

[177]Walters, "Technical Problems," 22.

[178]Green, *Twelve Modern Etudes*, 2.

[179]Gratovich, ed., *Sixteen Contemporary Violin Etudes*, 78.

rhythm), irregular accents, changing meter, and cross-rhythms. Rhythm groups are the foundation on which the four categories rest.

A rhythm group can be a single note, such as a whole note, half note, or a quarter note. A rhythm group can also be a group of notes that can fit into one beat. Two eighth-notes and four sixteenth- notes, are other examples of rhythm groups. There can also be variations of these rhythm groups, as seen in Figure 3.1.

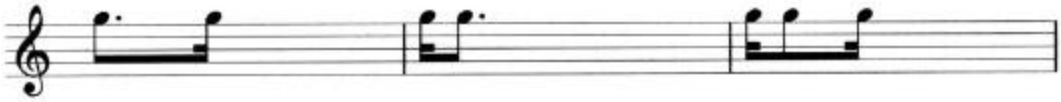

Figure 3.1. Variations of rhythm groups.

Exposure to rhythm groups are basic to most music instruction, but exposure to those rhythm groups found in contemporary music, such as the quintuplet and septuplet, as seen in Figure 3.2, are limited.[180] A mastery of these contemporary rhythm groups are the foundation on which understanding and successful performance of additive rhythms and cross-rhythms lie.

Figure 3.2. Contemporary rhythm groups.

An additive rhythm is a merger of rhythm groups. An additive rhythm most often takes place within one beat. Figure 3.3 is an example of an additive rhythm consisting of a duple and a triple rhythm. Knowing how to perform the basic rhythm groups make it easier to understand and perform the additive rhythm.[181]

[180]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 193.

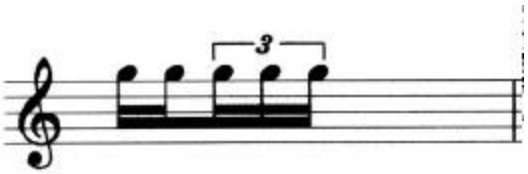

Figure 3.3. Additive rhythm.

A cross-rhythm is the performance of a particular rhythm group against another rhythm group. This means that the two, opposing rhythms are not divisible with one another.

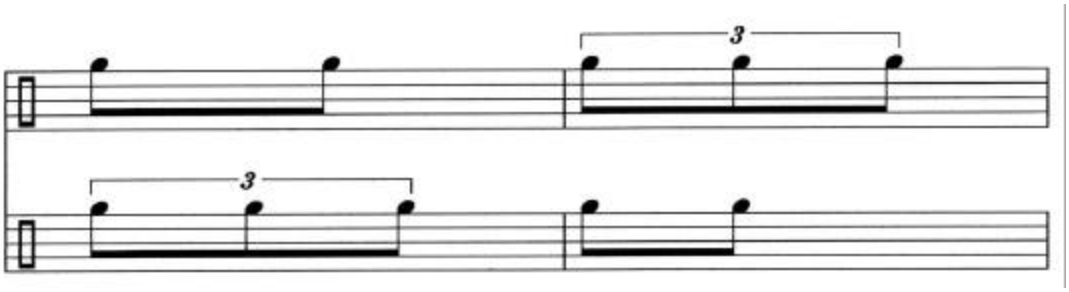

Figure 3.4. Cross-rhythm.

A two against three, or a three against two cross-rhythm, as seen in Figure 3.4, is an example of a cross-rhythm. Sarch writes that if a student masters rhythm groups, he/she will be better prepared to successfully coordinate rhythmic counterpoint.[182]

The next two categories, changing meter and irregular accents, are somewhat difficult to coordinate with the bow. Irregular accents create "rhythmic patterns that are irregular and contrary to the pulse."[183] Irregular accents can be created in three different ways: the placement of accents contrary to the regular pulse, the placement of intermittent rests within a rhythm group, and the placement of slurs which cause one to

[181]Ibid., 195.
[182]Ibid., 213.
[183]Ibid., 208.

change the bow contrary to the regular pulse. Both the placement of intermittent rests within the larger beat and the use of irregular slurs in effect, create accents.

Dynamics

The sudden and drastic changes in dynamics are another device that performers can expect to see in contemporary compositions. Much like the quick changes of timbre produced by the bow, the "contemporary composer often requires frequent and sudden dynamic changes."[184]

Mutes

Flesch states that the mute will soften or diminish the volume of sound.[185] This is a misconception. Mutes amplify certain partials while suppressing others, thus, different mutes will amplify and suppress different partials, creating unique sounds from mute to mute. Because of this, Strange and Strange find it surprising that "few composers have taken advantage of the mute."[186]

Theater

There is a final area of contemporary technique that does not involve the skills found in traditional violin instruction. These include percussive effects, such as knocking on the instrument, stomping the foot, and playing an auxiliary instrument. There are also vocal effects, such as singing, humming, shouting, and any other imaginable vocal effect. While these effects are not necessarily difficult to incorporate in performance, these effects do affect the way one plays, and therefore, must be considered.

This expansion of timbral devices is what Strange and Strange call theater. "The moment a performer does something apart from the ordinary performance vocabulary---

[184]Ibid., 144.
[185]Flesch, *The Art of Violin Playing*, Book I, 79.
[186] Strange and Strange, *The Contemporary Violin*, 188.

such as whistling or singing while playing, bowing a gong or popping a balloon---they have intentionally or innocently entered the world of theater."[187] Read writes that in addition to being the "newest and most radical"[188] of devices, theatrical effects are also "currently high in favor,"[189] and being used "with increasing frequency."[190] Strange and Strange write that such an extension into theater is "a logical option" for the composer.[191] These theatrical elements will require the violinist to train him/herself in new and different ways because such devices "are not part of legitimate technique…[and] will effect the way a violinist plays."[192] As such, the violinist must learn to "negotiate the playing of musical sounds" aside from those produced by bowing and/or plucking.[193] While such training will be new to the traditionally trained violinist, the use of theatrical effects is not new. Sarch points to guitar knocking in Spanish guitar pieces, country fiddle stomping, and the one-man band as examples of these effects in other musical genres.[194] An example from cited earlier is Rossini's overture to *Il Signor Bruschino*, where the violinists are instructed to tap the music stands with their bows.

Aural Training

"No amount of verbal description can substitute for actually hearing the intervals."[195] Traditional etudes are not accompanied with corresponding recordings, but

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[187]Ibid., xi.
[188]Read, *Contemporary Instrumental Techniques*, 3.
[189]Ibid., 86.
[190]Ibid., 123.
[191]Strange and Strange, *The Contemporary Violin*, 192.
[192]Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 107.
[193]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 273.
[194]Ibid, 230.
[195]David B. Doty, *The Just Intonation Primer: An Introduction to the Theory and Practice of Just Intonation* (San Francisco, CA: Just Intonation Network, 1993), 71-72.

perhaps it is necessary to have such guides when tackling a twentieth-century etude. Walters found that hearing new intervals was "one of the primary problems encountered."[196] The best way to overcome such deficiencies in learning contemporary music is ear training. Galamian writes that the fingers "are continually helped, guided, and controlled by the ear."[197] Sarch states that ear training is "essential to the mastery of technical skills on the violin."[198] Training the ear will also save time when practicing contemporary compositions. If one has difficulty finding intervals, the problem is most often aural, and not mechanical. If the ear is thoroughly trained, the hand will instinctively reach for the correct interval.[199] Adessa writes, "the left-hand will solve its new sensory-muscular tasks sooner" with aural training.[200] Walters writes, "the fingers have a tendency to follow what the ear hears in patterns of previous tonal experience,"[201] and that "the security of all extended motions of the left- hand and fingers lies first in this aural anticipation."[202] A final category on this checklist will be to note if a recording exists. Such a recording will prove invaluable in assisting the student with the new and unfamiliar sounds of modern times.

The resulting instrument, the *Content Analysis Form for Contemporary Violin Etudes* is based on the technical aspects of contemporary, post twentieth-century, violin music. The instrument, found in Appendix A, was designed to provide a comprehensive

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[196]Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 239.

[197]Galamian, *Principles of Violin Playing*, 19.

[198]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 116.

[199]Flesch, *The Art of Violin Playing*, Book I, 11.

[200]Anthony Thomas Adessa, "Contemporary Violin Technique: Its Nature and Difficulties" (D.M. diss., Indiana University, 1981), 103.

[201]Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 32.

[202]Ibid., 61.

means of isolating and recording the content of contemporary violin etude books. Its viability and usefulness were examined via the content analysis of five etude books by noted composers. The etude books chosen are *Meadowmountetudes* by Samuel Adler, *Freeman Etudes* by John Cage, *Studies of Violinists* by Paul Hindemith, *Rhythmic Studies* by Bohuslav Martinu, and *Ten Preludes* by Eugène Ysaÿe.

CHAPTER 4: RHYTHMICAL ETUDES (1932), BOHUSLAV MARTINU

Bohuslav (Jan) Martinu (1890-1959) is a composer in the tradition of the European nationalists of the late nineteenth- and early twentieth-centuries. After Leoš Janácek (1854-1928), Martinu is regarded as "one of the most substantial Czech composers of the twentieth-century."[1] *The New Grove Dictionary of Music and Musicians* further states that he was prolific, "possessing a faculty that allowed him to write in virtually every instrumental and vocal genre."[2]

His studies in music began with violin lessons at the age of seven, and he would later be employed as a second violinist in the Czech Philharmonic during the years of 1913-1914, and 1918-1923. Martinu studied at the Prague Conservatory from 1906-1910, but failed to complete his studies due to poor attendance and failing grades. His formal training in composition began when he re-entered the Conservatory after World War I, studying with Josef Suk (1874-1935), and later in Paris with Albert Roussel (1869-1937). It would in Paris that Martinu would come to be known as a composer. Especially helpful for his career was Maestro Koussevitzky's (Boston Symphony Orchestra) premiere of Martinu's *La bagarre* in 1927.

With the approaching German occupation of France, Martinu left Paris, first for Portugal, and finally in 1941, New York City. His career in America, from 1941-1953 was as successful as it had been in Europe. He taught composition at Tangelwood, was a visiting professor at Princeton University, and in 1947, Koussevitzky would again seek a commission. This time for his *First Symphony*. In 1952, Martinu would become a

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[1]Jan Smaczny, "Bohuslav (Jan) Martinu," in *The New Grove Dictionary of Music and Musicians*, ed. Stanlie Sadie, vol. 15, 939-945 (London and New York: Macmillan Publishers Limited, 2001), 939.

[2]Ibid., 941.

naturalized U.S. citizen, and in 1953, he moved back to Europe, spending the last two years of his life in Switzerland.

Martinu's *Rhythmische Etüden (Rhythmical Etudes)* is composed with a piano accompaniment part. The use of a second, accompaniment part might seem strange or foreign today, but such accompaniment parts, usually consisting of a second violin part, were composed in profusion during the nineteenth-century. Kolneder writes that the quantity of such duets "defies our imagination, for the genre is now nearly defunct."[3] The reason for the large volume was due to an accepted manner of teaching that would test a student's ability, knowledge, and skill by immediately applying what he/she had practiced to duet playing.[4] Such testing was used to prepare the student for what he/she might encounter in orchestra and chamber music.[5]

Regarding the *Etüden*, a question arises: is the use of the piano accompaniment part absolutely necessary? Gratovich writes that the *Etüden* "can be played with or without the piano."[6] Certainly, with the careful use of a metronome, one can gain a good, accurate sense of the rhythms that occur in the *Etüden*. Of course, the addition of the piano part will only enhance and develop one's rhythmic sense. If a violin teacher does not play the piano, he/she can play the accompaniment part on the violin in a way that outlines the important rhythmic complexities. Either way, with or without the piano accompaniment, the student can gain a better understanding of contemporary rhythmic issues through the study of these *Etüden*.

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[3]Walter Kolneder, *The Amadeus Book of the Violin: Construction, History, and Music*, (Portland, Oregon: Amadeus Press, 1998),439.

[4]Ibid., 439.

[5]Ibid., 439.

[6]Eugene Gratovich, ed., *Sixteen Contemporary Violin Etudes for Study and Performance*, (Bryn Mawr: Theodore Presser Company, 1982), 78.

Each etude was examined according to the categories on the *Content Analysis Form for Contemporary Violin Etude Books*. The text which follows presents the most salient findings resulting from this process.

Etude I, Allegro

The meter, which is constant, is one half- note per measure. The piano accompaniment part keeps a constant, eighth-note ostinato. The performer will do best to keep in mind this eighth-note pulse. Using small subdivisions of the primary beat is necessary for the successful performance of complicated rhythmic passages, which are frequently found in contemporary scores.[7]

There are two differently notated bar lines: a dotted bar line in the violin part, and a solid bar line in both parts. These dotted bar lines help center the violinist visually in relation to the piano part. One quickly discovers that the violin part does not always line-up in relation to the continuing, eighth-note ostinato of the piano. At measure 1, the violin begins playing one eighth-note later than the piano, and even has the appearance of being off-set from the piano part, as seen in Figure 4.1.

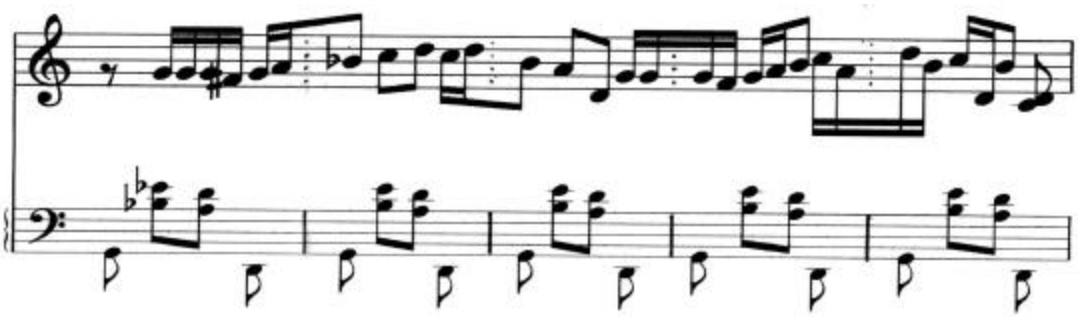

Figure 4.1. Off-Set violin part, measures 1-5.

[7]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.M.A. diss., Boston University, School for the Arts, 1982), 215.

In addition, complicating the matters of alignment is the violin's grouping of eighth notes. Sometimes the eighth-note groupings suggest a quarter-note pulse, and sometimes they suggest a dotted quarter-note pulse, as seen in Figure 4.2.

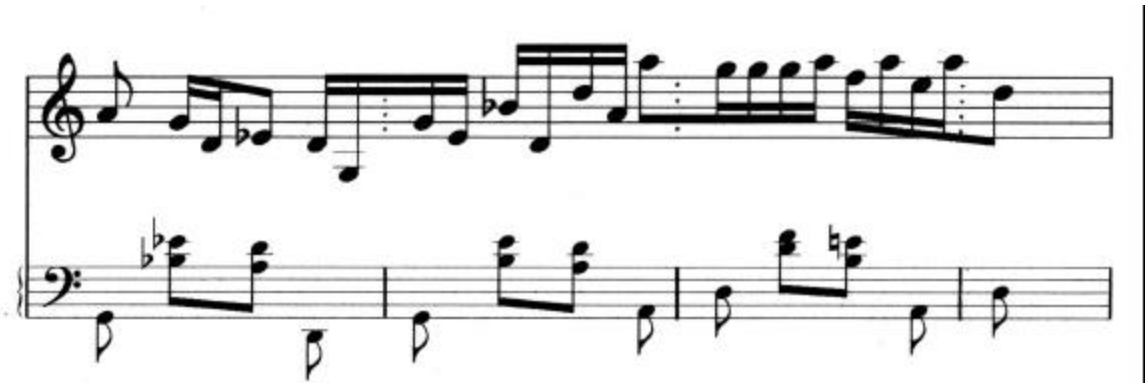

Figure 4.2. Quarter- and dotted quarter- note pulse, measures 6-9.

In Etude I, irregular accents are created in three ways: by irregular slurs, by phrases or sub-phrases that begin on off-beats, and by the placement of accents on offbeats. Irregular slurs occur in measures 5, 9, 12, 13, 27, 31, 33, 34, 35, and 58. Phrases or sub-phrases that begin on off-beats occur in measures 1, 11, 27, 30, 33, 48, and 52, and accents placed on off-beats occur in measures 11, 17-19, 23, 24, 26, 34, 40, 41-44, and 59. There are additional features in measures 17-19, 23, 26, 41-44, and 49-50, that emphasize the sense of irregular accents. In the violin part, continuous sixteenth-notes are grouped as triplets, but in matters of time, they are played at exactly the same speed as sixteenth-notes grouped as duplets. Helping to emphasize the irregular placement of sixteenths in the violin part is the continuing ostinato pattern of eighth-notes in the piano part, as seen in Figure 4.3.

There are a total of 310 intervals, of which 48, or 15.48% are tonal, and 221, or 71.29% are contemporary. The majority of intervals that occur are seconds, which

occur 179 times, or 57.74%. The minor second occurs 73 times, or 23.55%, and the major second occurs 106 times, or 34.19%. The next most frequently occurring interval is the unison, which occurs 41 times, or 13.23%.

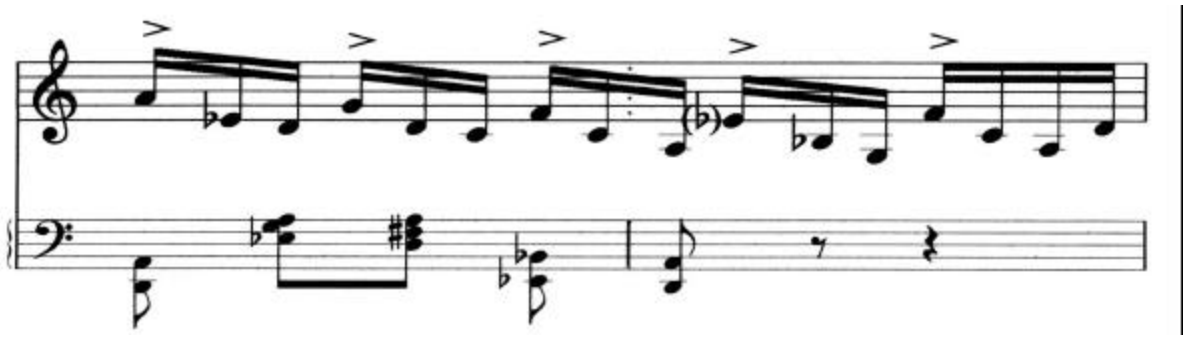

Figure 4.3. Sixteenths grouped as triplets, measures 18-19.

There are 21 double-stops, of which 20, or 95.24% are tonal, and one, or 4.76% is contemporary. The octave occurs 20 times, or 95.24%, and the major second occurs once, or 4.76%.

Placement of bow and use of bow are traditional. Uses of bow include détaché, slurred-staccato, and staccato. There are no special timbres created by the left-hand, no pizzicato, no meter changes, no chords, no sudden dynamic changes, no use of mute, and no theatrical effects.

Etude II, in 5/8, Poco allegretto

The meter is a constant 5/8 and does not change. The division, or grouping of eighth-notes in each measure alternates between 2+3 and 3+2. The piano accompaniment part either mirrors the violin grouping, or will play a grouping of three eighth-notes over the course of three measures. This happens twice, in measures 10-12, and 20-22, as seen in Figure 4.4a and Figure 4.4b.

In Etude II, irregular accents are created in one of two ways: by irregular slurs or by phrases and sub-phrases that begin on off-beats. Irregular slurring occurs in measures 13-19, 23-26, 42-43, and 45. Phrases or sub-phrases that begin on off-beats occur in measures 10-12, 31-34, 67-68, 70-71, and 74-75.

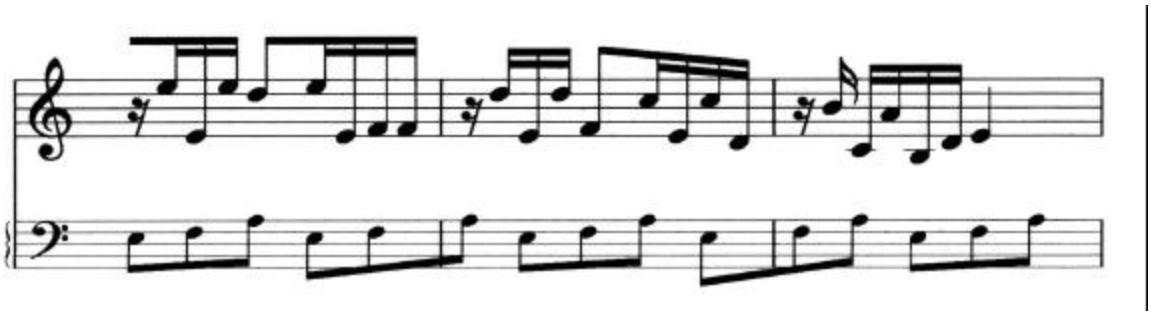

Figure 4.4a. 3+3 grouping of piano eighth-notes, measures 10-12.

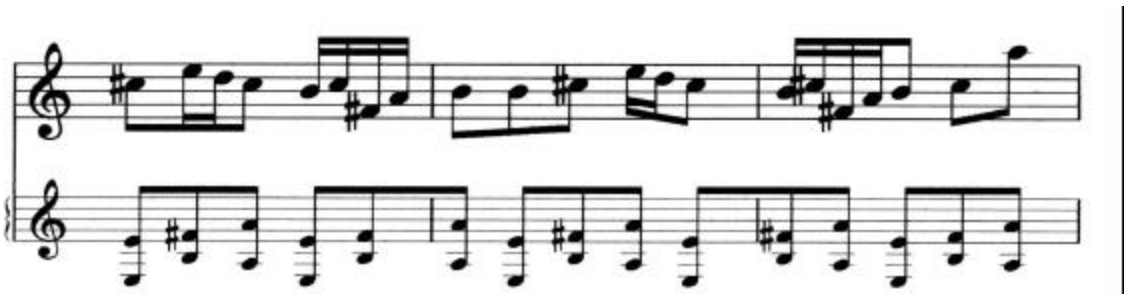

Figure 4.4b. 3+3 grouping of piano eighth-notes, measures 20-22.

There are a total of 440 intervals, of which 171, or 38.86% are tonal, and 226, or 51.36% are contemporary. The majority of intervals that occur are seconds, which occurs 174 times, or 39.55%. The minor second occurs 55 times, or 12.50%, and the major second occurs 119 times, or 27.05%. The next most frequently occurring interval is the third, which occurs 136 times, or 30.91%. The minor third occurs 107 times, or 24.32%, and the major third occurs 29 times, or 6.59%. There are no double-stops, but

there is one chord that is repeated five times. This chord, seen in Figure 4.5, is essentially an A- major chord, to be played *pizzicato.*

The devices used to create different timbres are minimal, and represent traditional, tonal practices. The pizzicato represented in Figure 4.5 is right-hand pizzicato played in the traditional fashion, with the right-hand index finger plucking the string.

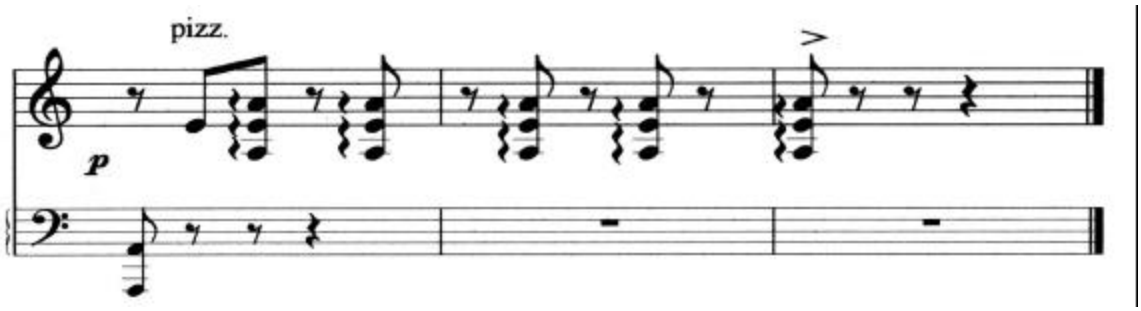

Figure 4.5. Pizzicato chords that occur in measures 74-76.

Placement of bow and use of bow are traditional. Traditional uses of bow include détaché, legato, slurred-staccato, and staccato. If one chooses, spiccato can be used in place of staccato in the sixteenth-note passages that are marked staccato. Two sudden dynamic changes occur in measures 19-20, and measures 46-47. Measure 19 is *poco forte* and measure 20 is immediately *piano*. Measure 46 is *forte* followed by a crescendo, and measure 47 is immediately *piano*. There are no special timbres created by the left-hand, no change of meter, no use of mute, and no theatrical effects.

Etude III, in 7/8, 10/8, 11/8, Moderato

This etude is divided into three sections. The first section, measure 1, begins in 7/8. The second section, measure 24, changes meter to 10/8, and the third section,

measure 34, changes meter to 11/8. Irregular accents occur either by irregular slurs or by phrases and sub-phrases that begin on off-beats. Irregular slurs occur in measures 1-2, 4-5, 12-14, 19, 22-23, 25, and 28-38. Phrases or sub-phrases that begin on off-beats occur in measures 8-9, 12, 17, 24, 28, 30-31, and 38.

There are a total of 374 intervals, of which 108, or 28.88% are tonal, and 235, or 62.83% are contemporary. The next most frequently occurring interval is the second, which occurs 183 times, or 48.93%. The minor second occurs 78 times or 20.86%, and the major second occurs 105 times, or 28.07%. The next frequently occurring interval is the third, which occurs 71 times, or 18.98%. The minor third occurs 47 times, or 12.57%, and the major third occurs 24 times, or 6.42%. There are no double-stops or chords.

The placement of bow and use of bow are traditional. Traditional uses of bow include détaché, legato-slurs, staccato, and spiccato. There are no special timbres created by the left-hand, no pizzicato, no sudden dynamic changes, no use of mute, and no theatrical effects.

Etude IV, Allegretto moderato

There are many meter changes. In this 88 measure etude, there are a total of 59 meter changes. The meters that occur are 4/16, 3/8, 4/8, 5/8, 6/8, 7/8, 2/4, ¾, and 4/4, and roughly half of these meter changes happen at each measure. Those measures in which the meter changes at every measure are 1-15, 22-27, 40-46, 53-74.

Irregular accents are created either by irregular slurs or by phrases and sub-phrases that begin on off-beats. Irregular slurs occur in measures 1, 5, 9-11, 12-15, 17, 20, 25, 37-40, 46-47, 49-50, 52, 54, 56, 58-59, 61-62, 64-65, 67-68, 71, 74, 76, and

78-87. Phrases or sub-phrases that begin on off-beats occur in measures 31 and 37. Notable are measures 51-53, as seen in Figure 4.6. In these measures, the 5/8 meter takes place over three measures. Here, the sixteenth-notes are grouped together in groups of six, creating a meter that is actually 3/8 over the course of five measures. Bringing an extra challenge for the violinist is the piano accompaniment part, which outlines a definite 2+3 pattern over three bars. One can even look at measures 51-53 as one large cross rhythm of 5:3.

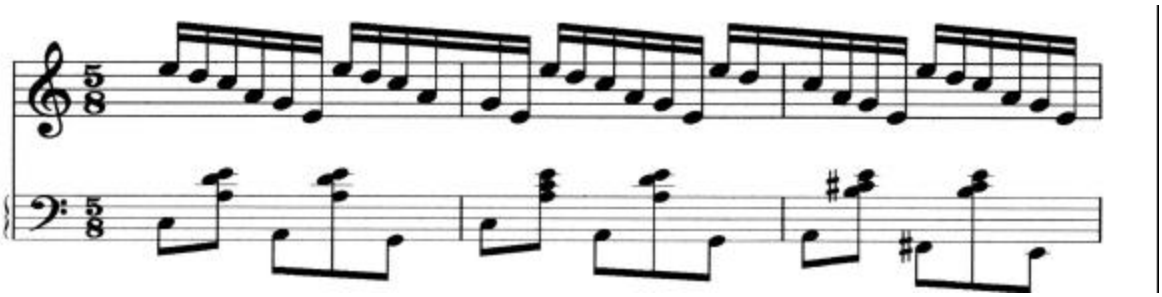

Figure 4.6. Grouping of sixteenth- notes over bar line, measures 51-53.

There are a total of 303 intervals, of which 88, or 29.04% are tonal, and 193, or 63.70%, are contemporary. The majority of intervals that occur are seconds, which occurs 166 times, or 54.79%. The minor second occurs 26 times, or 8.58%, and the major second occurs 140 times, or 46.20%. The next most frequently occurring interval is the third, which occurs 80 times, or 26.40%. The minor third occurs 64 times, or 21.12%, and the major third occurs 16 times, or 5.28%.

There are a total of 31 double stops, of which 20, or 64.52%, are tonal and 11, or 35.48%, are contemporary. The majority of double-stops that occur are sixths, which occur 10 times, or 32.26%. The minor sixth occurs 6 times, or 19.35%, and the major sixth occurs 4 times, or 12.90%. The next most frequently occurring double-stop

is the third, which occurs 9 times, or 29.03%. The minor third occurs 3 times, or 9.68%, and the major third occurs 6 times, or 19.35%. The perfect fifth double-stop occurs frequently as well, occurring a total of 8 times, or 25.81%.

There are a total of eight chords that appear in Etude IV. Six of these chords are tonal, and are classified in Figure 4.7. Two of these chords, the c'-g'-a' chord in measure 4, and the d'-b'-e'' chord in measure 9, have contemporary qualities. The chord in measure 4 consists of the perfect fifth and the major second, and the chord in measure 9 consists of the perfect fifth and the perfect fourth. (All chords are notated as quarter-notes in order to provide clarity for the reader).

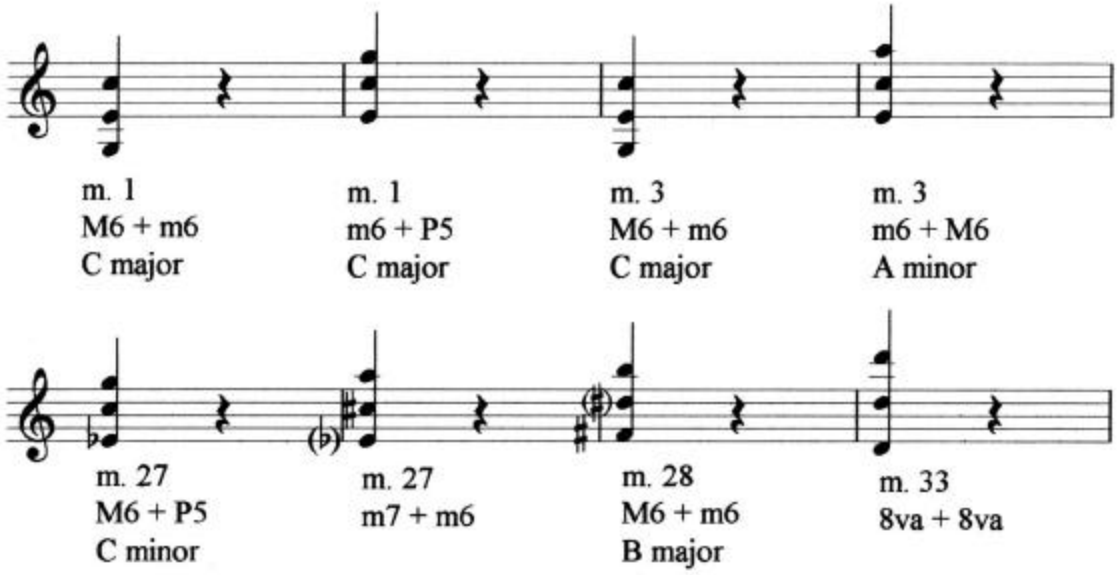

Figure 4.7. Chords that occur in Etude IV.

Placement of bow and the use of bow are traditional. The uses of bow are détaché, legato-slurs, spiccato, and staccato. There are no special timbres created by the left-hand, no pizzicato, no sudden dynamic changes, no use of mute, and no theatrical effects.

Etude V, in 3/8, Andantino

At the beginning, the meter is marked 3/8 (9/16), indicating that it is sometimes necessary to use either an eighth-note pulse, or a sixteenth- note pulse. Precisely, what is required is the use of the duple sub-division of the primary beat, which is suggested by the 3/8 meter, and the use of a triple sub-division of the primary beat, which is suggested by the 9/16 meter. In the violin part (the piano part not withstanding), the duple division *only* occurs in measures 9-12, 19-20, 22, and 39-40. Also, the violin part contains mixtures of duple, triple, and even quintuple sub-divisions with a single measure. These mixtures occur in measures 6-10, 18, 21, 27-28, and 31-32.

In Etude V, irregular accents occur either by irregular slurs or by phrases and sub-phrases that begin on off-beats. Irregular slurs occur in measures 3, 5, 17-22, 27-31, 33, and 38-44, and phrases or sub-phrases that begin on off-beats occur in measures 6, 8-9, 11, 18, 21, 27-28, and 32-33. The quintuplet is the only occurring contemporary rhythm group and is found in measures 7, 13-14, 35, and 37. The quintuplet in 7, 13, and 14 is grouped as thirty-second notes and as such, takes place over one primary beat. The quintuplet in measures 35 and 37 are notated as eighth-notes, and as such, take place over the entire measure.

Etude V also displays a variety of cross-rhythms. In measures 15-17, the 3:2 cross rhythm occurs between the violin and piano. In the violin part, a triplet pattern that takes place over two primary beats in the violin and in the piano part, a duple pattern of eighth-notes. Here, it is wise to keep in mind a sixteenth-note subdivision of the beat. This task of sub-division is made somewhat easier by the occurrence of running sixteenth-notes in the piano. A 2:3 cross rhythm, again between the violin and piano,

occur in measure 24 and 26. In measures 34-37, two different cross rhythms alternate measure by measure. Throughout these measures, the piano provides two, primary pulses by the combined use of dotted eighth-notes and a sixteenth-note ostinato pattern. It is the violin part that provides the rhythmic variation. At measure 34, the violin has three primary pulses, thus creating a 3:2 cross rhythm. At measure 35, the violin has five primary pulses, creating a 5:2 cross rhythm. The rhythmic patterns of measures 34 and 35 are repeated in measure 36 and 37.

Etude V also contains several small cross rhythms over one primary beat. Most often, these cross rhythms occur when the piano has a triplet subdivision of the primary beat and the violin has a different subdivision of the primary beat. These small cross rhythms occur in measures 6 (2:3), 7 (2:3 and 5:3), 8-12 (2:3), 13-14 (4:3 and 5:3), 18 (2:3), 19-22 (2:3 and 4:3). In measure 29-33 and measure 38, the expected pattern is reversed. The piano has duple subdivisions of the primary beat while the violin has triple subdivisions. This combination produces many 3:2 cross rhythms.

There are a total of 306 intervals, of which 84, or 27.45% are tonal, and 202, or 66.01%, are contemporary. The majority of intervals that occur are seconds, which occurs 172 times, or 56.21%. The minor second occurs 54 times, or 17.65%, and the major second occurs 118 times, or 38.56%. The next most frequently occurring interval is the third, which occurs 81 times, or 26.47%. The minor third occurs 54 times, or 17.65%, and the major third occurs 27 times, or 8.82%. There are no double-stops or chords.

There are two, sudden dynamic changes. Measure 8 is *mezzo forte*, followed by a sixteenth-note rest, followed by a sudden *piano* in measure 9. A *mezzo forte* in measure

35, is followed by an eighth-note rest, then followed by a sudden *piano* in measure 36.

Placement of bow and use of bow are traditional. The traditional uses of bow include détaché, legato-slurs, and staccato. There are no special timbres created by the left- hand, no pizzicato, no meter changes, no use of mute, and no theatrical effects.

Etude VI, Jazz Rhythms, Allegro moderato

Although the meter of "Jazz Rhythms" is a constant 4/4, the sense of a steady pulse on primary beats is not constant due to many irregular accents. One primary means of irregular accent is the frequent use of a particular syncopated pattern: a sixteenth-note, followed by an eighth-note, followed by a sixteenth-note. It also occurs as four sixteenths, with the middle two sixteenths tied together. This "jazz rhythm," as seen in Figure 4.8, can be found in measures 1-5, 7-8, 10-19, 26-28, 31, 33, 39, 40-41, and 43-44.

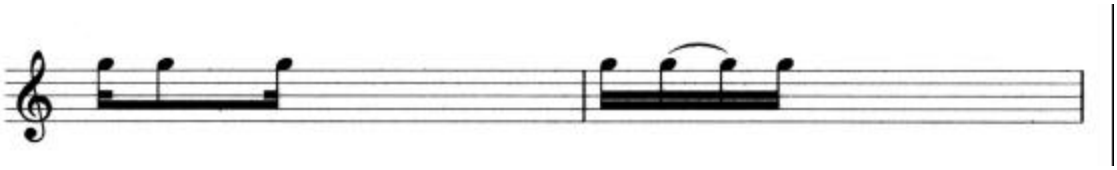

Figure 4.8. Syncopated rhythms.

Other ways of creating irregular accents are by the use of accents on off-beats, by the use of irregular slurs, and by phrases or sub-phrases that begin on off-beats. Accents on off-beats, many of which occur at the beginning, or ictus, of an irregular slur, can be found in measures 1, 3, 27-38, and 40-46. Those irregular slurs that do not contain accents and are not a part of the previously mentioned syncopated rhythm in Figure 4.8, occur in measures 20-25, 29-30, 32, 42, and 43. Phrases or sub-phrases that begin on off-beats occur in measures 8-9, 11, 17-19, 27-28, 30, 34, and 40.

There are a total of 437 intervals, of which 155, or 35.47% are tonal, and 241, or 55.15% are contemporary. The majority of intervals that occur are seconds, which occur

170 times, or 38.90%. The minor second occurs 97 times, or 22.20%, and the major second occurs 73 times, or 16.70%. The next most frequently occurring interval is the third, which occurs 115 times, or 26.32%. The minor third occurs 88 times, or 20.14%, and the major third occurs 27 times, or 6.18%.

There are a total of 6 double stops, all of which are tonal. There are 5 octave double-stops and one, major sixth double-stop. Of the 8 chords that occur, only one represents contemporary practices. This contemporary chord, the second chord in measure 27, is built upon the minor seventh and the minor sixth. The remaining chords are either major or minor tonalities. All eight chords of Etude VI, as seen in Figure 4.9, are notated as quarter-notes in order to provide clarity for the reader.

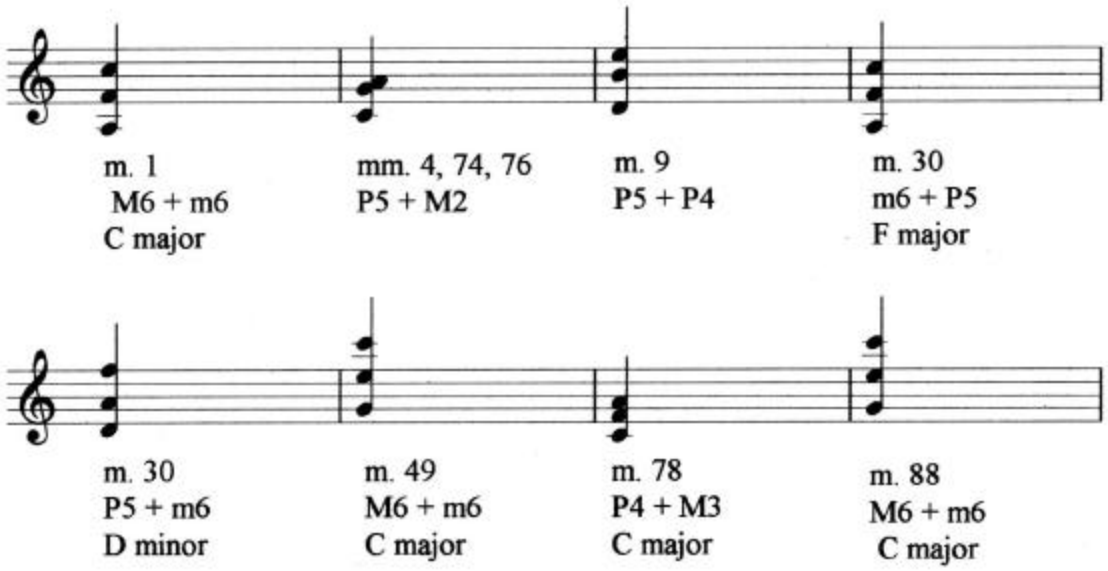

Figure 4.9. Chords that occur in Etude VI.

Two sudden dynamic changes happen in close proximity. Measure 19 is *forte*, and begins a crescendo on the 'and-of-three,' and continues through the fourth beat of measure 19, where suddenly the dynamic changes to *piano* in measure 20. In measure

21, a *mezzo forte* is sustained throughout the measure and in measure 22, there is an immediate *forte.*

The placement of bow and use of bow are traditional. Traditional uses of bow are détaché, legato-slurs, slurred-staccato, and staccato. Due to the moderately fast tempo, one can choose to use spiccato in place of staccato.

There are no special timbres created by the left-hand, no pizzicato, no changing meter, no use of mute, and no theatrical effects.

Etude VII, mit Pausen, Allegretto

"Mit Pausen," which means "with rests," is 67 measures long and has a total of 46 meter changes. The meters used are 2/4, ¾, 1/8, 2/8, 3/8, 4/8, 5/8, 6/8, 7/8, 3/16, and 4/16. A large portion of these meter changes happen at every measure. Those measures which remain in a given meter are measures 2-3 (2/3), 23-24 (2/4), 32-34 (4/8), 36-37 (2/8), 38-39 (3/8), 40-41 (2/8), 42-43 (7/8), 52-55 (5/8), and 57-64 (3/16).

Irregular accents are created by phrases or sub-phrases that begin on either offbeats or weak beats. Examples of this can be found in almost every measure. Also, the constant change of meter further contributes to the sense of instability and irregularity.

There are a total of 200 intervals, of which 64, or 32.00% are tonal, and 133, or 66.50% are contemporary. The majority of intervals that occur are seconds, which occur 111 times, or 55.50%. The minor second occurs 51 times, or 25.50%, and the major second occurs 60 times, or 30.00%. The next most frequently occurring interval is the third, which occurs 50 times, or 25.00%. The minor third occurs 31 times, or

15.50%, and the major third occurs 19 times, or 9.50%. There are no double-stops or chords.

The placement of bow and the use of bow are traditional. Traditional uses of bow are legato-slurs, slurred-staccato, and spiccato. There are no special timbres created by the left-hand, no pizzicato, no sudden changes of dynamic, no use of mute, and no theatrical effects.

Conclusions

The *Rhythmical Etudes* by Bohuslav Martinu display a strong concentration of contemporary rhythmic and metrical practices. The most consistent challenges are his use of irregular slurs in Etudes I-VI, and his practice of beginning phrases on off- or weak beats in Etudes I-VII. Other notable rhythmic challenges are his use of frequently changing meter in Etudes IV and VII, and his use of cross rhythms and quintuplets in Etude V.

The choice of intervals used by Martinu is consistently contemporary. All seven *Etudes* have contemporary intervals as the majority of intervals present, and all seven *Etudes* have the interval of the second as the most frequently occurring interval. The other techniques that occur in the *Etudes* are largely traditional techniques. There are no effects of any kind, whether produced by the bow or by the left-hand. Double-stops, as found in Etudes I, III, and VI, are largely tonal. Likewise, the chords that occur in Etudes IV and VI, are tonal as well. Sudden dynamic changes are few, occurring twice in Etude II and twice in Etude V. The use of mutes and theatrical effects do not occur at all, and no recording of the *Etudes* exists.

CHAPTER 5: TEN PRELUDES FOR SOLO VIOLIN, OP. 35, (1952), EUGÈNE YSAŸE

Eugène Ysaÿe (1858-1931) began violin studies at the age of four and would later continue violin studies with some of the most famous teachers of his day: Lambert-Joseph Massart (1811-1892), Henri Wieniawski (1835-1880), and Henri Vieuxtemps (1820-1881). As a professional, Ysaÿe would come to be known throughout the world as a performer, teacher, and conductor, even conducting the Cincinnati Symphony Orchestra (United States) from 1918-1922. His association with two, new music concert groups, the Twenty Club and Concert Ysaÿe, gave him the opportunity not only to play and perform the new music of the day, but also meet some of the leading composers of Europe. In *Ysaÿe, His Life, Work, and Influence*, Ysaÿe and Ratcliffe write that "almost every piece of chamber music produced at the end of the nineteenth-century was given a hearing there [at the Twenty Club]."[1] The composers César Franck (1822-1890) and Claude Debussy (1862-1918) would both dedicate compositions to him. Franck dedicated his *Violin Sonata* in 1886, and Debussy dedicated his *String Quartet* in 1893.

As a composer, Ysaÿe began composing at the age of fourteen and produced over the course of his life a large volume of works. While the majority of his opus is for the violin, having composed six concerti, and many small pieces for violin and orchestra or violin and piano, he also wrote chamber music and one opera. Of all his compositions, Ysaÿe is chiefly known through his *Six Sonatas*, op. 27. Of these *Sonatas*, David Oistrakh writes that Ysaÿe is "the greatest innovator after Paganini,"[2] and Joseph Gingold

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[1]Antoine Ysaÿe and Bertram Ratcliffee, *Ysaÿe, His Life, Work, and Influence*, (St. Slair Shores, Michigan: Scholarly Press, Inc., 1978), 171.

[2]Lev Ginsburg, *Ysaÿe*, (Neptune City, NJ: Paganiniana Publications, 1980), 331.

finds value in these *Sonatas* in that they "bridge the gap between the old and new schools of technique."[3]

The *Dix Preludes pour Violon seul*, op. 35 (*Ten Preludes for Solo Violin*, op. 35) was published posthumously in 1952. The manuscripts were discovered by chance. Charles Radoux Rogier had been commissioned by the city of Liège (Brussels) to inventory and categorize everything in Ysaÿe's studio and library. It was during this assignment that Rogier stumbled upon sketchbooks containing material for *The Ten Preludes.* Upon closer examination it became apparent to Rogier that thirteen preludes had been planned, but he could only identify ten. The materials in the sketchbooks were near complete, and in those places where the manuscript could not be read or appeared to be a work in progress, Rogier edited or, as he called it, "reconstituted" what he thought would best represent Ysaÿe's intentions. Those reconstituted portions are indicated with brackets above the staff.

The nature of the *Preludes* is that they focus on one interval at a time. In a letter Ysaÿe wrote to a friend, dated April 18, 1928, he explained the nature of these preludes: "Some time ago I planned a work of advanced modern technique based on the playing of intervals for the unison to the tenth…for instance, I work with the fifth, it will be a prelude made up of fifths."[4] Each *Prelude* is divided into smaller sections that are labeled "Exercises." The number of "Exercises" in each prelude vary from two in Prelude Five, three in Preludes One, Two, Three, Nine, and Ten, and four in Preludes Four, Six, Seven, and Eight.

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[3]Ibid., 533.

[4]Eugène Ysaÿe, *Ten Preludes for Solo Violin: Essay on the Modern Technic of the Violin*, op. 35, reconstituted by Charles Radoux Rogier, (Brussels and Paris: Schott Frères, 1952), 7.

Prelude I, Unisons, Molto moderato

"Unisons" is divided into three sections: Exercise 1, *Molto moderato,* begins at measure 1; Exercise 2, *a Tempo,* begins at measure 17; Exercise 3, *Poco più vivo,* begins at measure 25.

The successful performance of the unison, either as an interval or double-stop, is the primary purpose of this etude. Unison double-stops are the only kind of double-stops that occur, and the unison interval makes up the majority of intervals. There are 354 intervals, of which the unison represents 222, or 62.71% of intervals. Other intervals, from the minor second to the octave, occur but they represent only a fraction of all intervals present. The next most frequently occurring interval is the minor second, which occurs 30 times, or 8.47%.

The remaining, contemporary, technical aspects of this etude are small. Harmonics occur, but only natural harmonics. The first node on the A-string, or a", occurs in measures 19, 27, and 35. The first node on the D-string, or d", occurs in measures 11 and 15. The first node on the G-string, or g', occurs in measure 23, and the second node on the D-string, or d''', occurs in the penultimate measure, measure 40.

A combined technique of the double-stop plus a trill occurs in measures 1-4. These trills take place on the note that is fingered by the first finger, as the unison double-stops descend scale-wise, from a'' to d.'

Rhythmic complexities are small, and consist of irregular accents and one additive rhythm. The additive rhythm, a duple plus triple, occurs in measure 6. The irregular accent occurs in measure 16, where accents are placed over the second and fourth eighth-notes of a continuous eighth-note passage. Irregular accents, in the form of irregular

slurring, occurs in measures 30-32, and 34, but these slurs do not present contemporary difficulties because the slurs happen in a continuous fashion on the second and fourth note of each set of sixteenths.

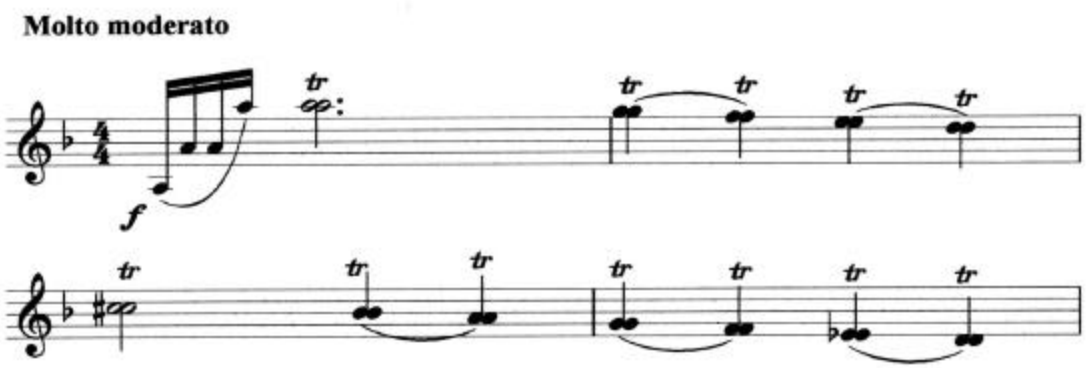

Figure 5.1. Double-stop plus trill, measures 1-4.

Figure 5.2. Off-beat accents, measure 16.

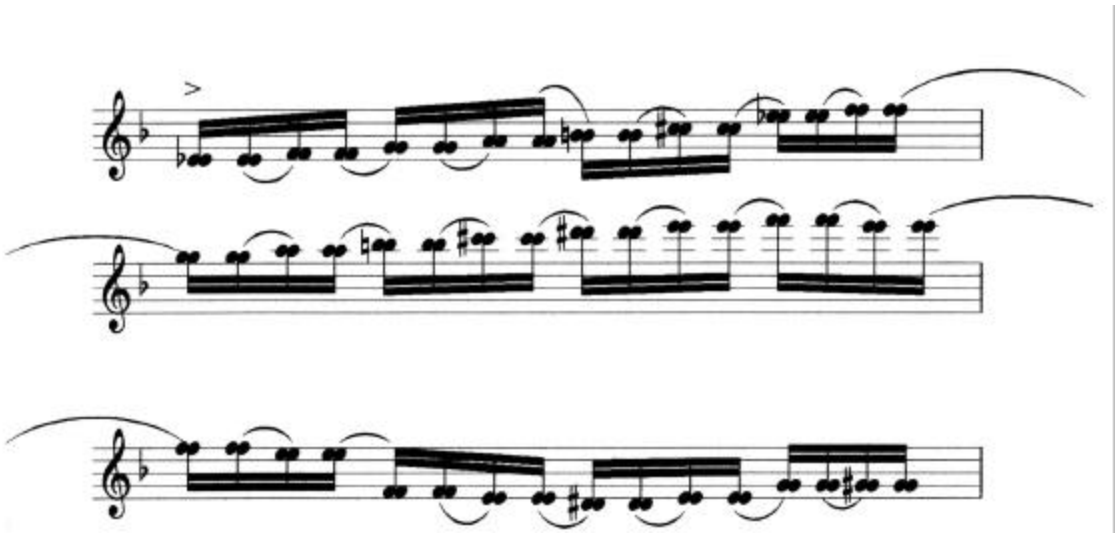

Figure 5.3a. Irregular slurs, measures 30-32.

Figure 5.3b. Irregular slurs, measure 34.

There is one sudden dynamic change. In measure 16-17, a sudden dynamic change from *forte* to *piano* occurs, yet this sudden dynamic change does not pose difficulties because it occurs between two, separate sections; the end of Exercise 1 in measure 16, and the beginning of Exercise 2 in measure 17.

Placement of bow and use of bow are traditional. Traditional uses of bow include détaché, legato-slurs, and spiccato. There are no meter changes, no chords, no use of mute, and no theatrical effects.

Prelude II, Seconds

"Seconds" is divided into three Exercises: Exercise 4 begins on the first line; Exercise 5 begins on the third line; and Exercise 6 begins on the ninth line. The need to refer to line numbers as opposed to measure numbers is due to Exercise 5, which is a cadenza-like passage that does not have measures. The other two sections, Exercises 4 and 6 do have measures. Exercise 4, marked *Allegro assez vif*, is in common time, or 4/4. Exercise 6, marked *Allegro molto*, begins in common time, changes meter to ¾ at measure 6 of Exercise 6, and stays in ¾ through the end of the prelude.

There are a total of 275 intervals, of which, the second occurs 212 times, or 77.09%. The major second is the most frequently occurring interval and occurs 110 times, or 40.00%. The minor second is the next most frequently occurring interval, occurring 102 times, or 37.09%. Other intervals, from the unison to the eleventh occur, but their numbers are nominal. For example, the next most frequently occurring interval after the second are the major third and octave, which appear 10 times each, or 3.65% each.

Double-stops occur a total of 77 times. The major second is the most frequently occurring double-stop, and occurs 63 times, or 81.82%. The minor second is the next most frequently occurring double-stop and occurs 9 times, or 11.69%. Combined, the major and minor second appear 72 times, or 93.51%. Other double-stops are the minor third, which occurs 4 times, or 5.19%, and the minor ninth, which occurs once, or 1.30%.

Different timbres produced by the left-hand include harmonics and trills. Natural harmonics occur twice on line 5 and both are on the 2/3 node of the D-string, producing the resultant pitch, a''. The 1/3 node on the G-string, producing the resultant pitch, d'', occurs on line 6. In addition, line 6 has an extended passage of natural, perfect fourth, and perfect fifth harmonics. Their resultant pitches, illustrated in Figure 5.4, are as follows: d'', e'', f-sharp'', g'', a'', b-flat'', c''', d''', e''', f-sharp''', g''', a''', b-flat''', b''', c'''', and c-sharp''''.

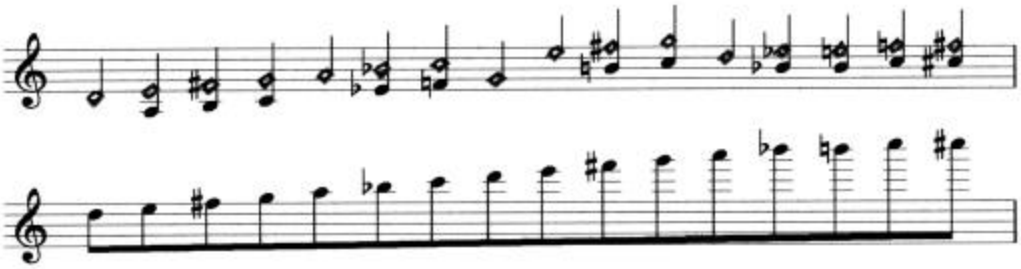

Figure 5.4. Extended passage of harmonics and their resultant pitches, line 6.

The use of trills is found throughout this prelude. The g''' to a''' trill occurs in line 3. In line 4, the b-flat''' to c'''' trill is executed in the high position, or 11th position. Line 5 has four different trills that are accompanied by written out turns; e' to f', e'' to f'', a'' to b-flat'', and b-flat' to c''. Line 6 has two trills accompanied by written out turns. The first is from e' to f', and the second is from e-flat' to f'. Line 7 has four trills. Two occur within a rapid, grace-note pattern of six notes. The first of these is from d'' to e'' and the second is from d'' to e-flat''. The other two trills in line 7 are combined with

a double-stop. The first double-stop is a major second, d'-e', and the trill is from e' to f-sharp'. The second double-stop is a minor second, d'-e-flat', and the trill is from e-flat' to f-flat'.

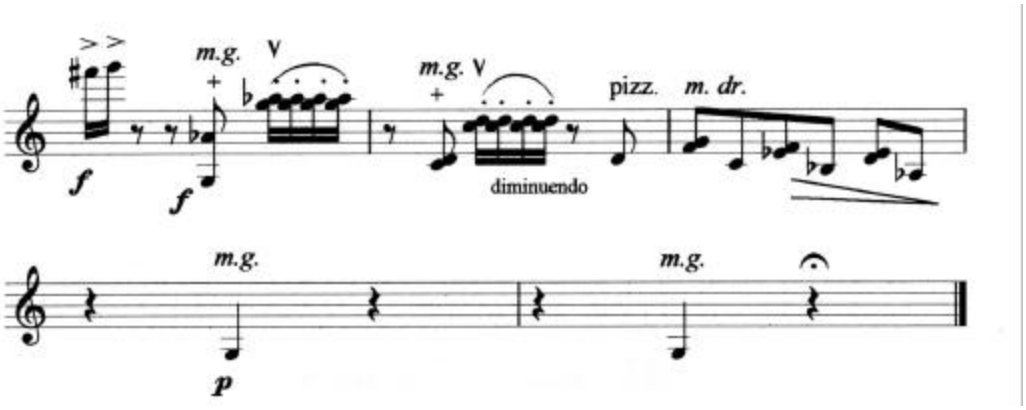

Figure 5.5. Left- and right-hand pizzicato, Exercise 6, measures 9-13.

There are a limited number of traditional left- and right-hand pizzicato that occur in the last measures of the prelude. In Figure 5.5, left-hand pizzicato, is marked in the score as *m. g*. The full French spelling is *la main gauche*, which literally translates as *hand left*. The left-hand pizzicato in Prelude II occurs in Exercise 6, measures 9-10 and 12-13. The first is a g-a-flat', minor ninth double-stop. The second is a c'-d', major second double-stop. The open G-string, or g, plucked by the left-hand, concludes the Prelude in measures 12 and 13. Right-hand pizzicato, marked *m. dr.* (*la main droit*), occurs in Exercise 6, measures 10 and 11. In these measures, three single note pitches occurring on off-beats, d'-c'-b-flat, outline a descending whole-tone scale. In addition, these measures contain three double-stops occurring on primary beats, and also move downward but in a traditional, scale-wise fashion. There are two, major second double-

stops, f'-g', and e-flat'-f', on the first and second beats, and one minor second double-stop, a d'-e-flat', on the third beat.

Prelude II has sudden dynamic changes. At line 3, on the very first note of Exercise 5, a sustained b, is *forte*, followed by a c' at *piano* dynamic. On line 5, a *mezzo forte* e''' is followed by a *piano* d'''. Line 7 has two sudden dynamic changes. The first is a *poco forte*, perfect fourth harmonic with a resultant pitch of d'''', that is followed by an eighth-note rest, followed by the same perfect fourth harmonic at *pianissisimo*. The second, sudden dynamic change on line 7 is from *pianissisimo*, followed by a quarter-note rest, followed by a e-flat'-f', major second double-stop at *piano* dynamic. At the conclusion of Exercise 5, a major second, d'-d', at *pianissimo* dynamic is followed by a quarter-note rest. This leads into measure 1 of Exercise 6, which begins with another quarter-note rest that is followed by a major second, c'-d', that is marked *forte deciso*. At measure 6 of Exercise 6 (the meter change to ¾), the measure begins *forte* and is quickly followed by *piano subito* on the note, b.

There is only one chord. This chord is a five-note chord found in Exercise 4, measure 7. As seen in Figure 5.6, it is constructed of a perfect fifth, minor seventh, perfect fourth, and a major third, and the resultant pitches are g-d'-c''-f''-a''. In order to provide clarity, the chord in Figure 5.6 is notated as a quarter-note. The suggested fingering for this five-note chord takes place in third position: 0 (g), 4 (c''), 0 (d'), 3 (f''), and 1 (a'').

The placement of bow and the use of bow are traditional. The traditional uses of bow include détaché, legato-slurs, spiccato, and slurred-spiccato. There are no mute or theatrical effects.

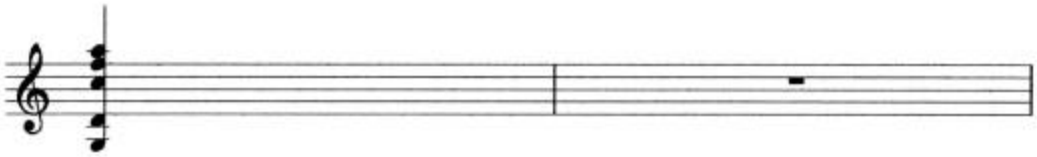

Figure 5.6. Five- note chord, Exercise 4, measure 7.

Prelude III, Thirds

"Thirds" is divided into three sections. Exercise 7, *Moderato,* begins at measure 1. Exercise 8, *Lento assai,* begins at measure 24, and Exercise 9, *Vivo-con bravura,* begins at measure 60.

"Thirds" consists primarily of double-stops. In Ysaye's instructional notes at the beginning and end of this prelude, the whole-tone scale in thirds is notated without any explanation. One could infer that "Thirds" is constructed on the whole-tone scale. If this is the case, then only major thirds should be present. After classifying the double-stops, it was found that minor thirds were used as well, but the overwhelming majority of thirds were the major third. Of the 457 double-stops present, 440, or 96.28% are thirds. The major third occurs 358 times, or 78.34%, and the minor third occurs 82 times, or 17.94%. The major second, perfect fourth, perfect fifth, minor sixth, major sixth, and minor tenth occur as well, but their numbers are minuscule.

There are various sections of "Thirds" that are exclusively made up of one classification of double-stop, that is, they are either all major or all minor. For example, Exercise 7 is exclusively made up of major thirds. Exercise 8 (measure 24) begins with

major thirds and continues in this fashion for 10 measures. At this point, from measure 34 until the first beat of measure 36, only the minor third is used. On the second beat of measure 36, and going through measure 41, only major thirds occurs. In measure 42-49, only the minor third occurs. In measure 50-53, only one minor third, e'-g', occurs in measure 51. In all of Exercise 9 (begins at measure 60) there is an even mix of both the major and minor thirds. Here, the major third occurs 15 times and the minor third occurs 16 times. Measures 64-77 contain only major thirds. Measures 76-79 contain not only major thirds, but other double-stops as well, including the major second, minor sixth, major sixth, perfect fourth, perfect fifth, minor tenth, and a single note, e''.

Left-hand timbre changes can be found in measure 31-32. In measure 31, the last major third double-stop, c'''-e''', quickly glissandos downward the length of a major second to a major third double-stop, b-flat''-d'''. The high positions can be found in measures 30 and 31. The 8th, 9th, and 10th positions occur in measure 30, and the 8th position occurs for one, minor third double-stop, f-sharp'''-a''', in measure 31. There are no trills, but mordents occur in measures 17-21. All mordents move upward by a whole step and occur on the highest note of a double-stop. In measure 17, the mordent moves from f#'' to g#''. In measure 18, the mordent moves from e''' to f#'''. In measure 19, the mordent moves from b#'' to c-double-sharp''. In measure 20, the mordent moves from g#'' to a#'', and finally, in measure 21, the mordent moves from c'' to d''.

There are several instances of irregular accents that are created by the beginning of notes on weak beats, by the beginning of phrases or sub-phrases on off-beats, and by the use of irregular slurs. Examples of notes beginning on weak beats occur in measures 2, 5, 7, 10, and 55-57. Accents created by beginning notes on off-beats occur in

measures 9, 11, 15-17, 19, 21, 24-26, 33, 37, 39, 41, 44, 54, 77, and 80-83. Accents created by irregular slurring occur in measures 11-12, 19, 21, 23-26, 28, and 36-39.

There are seven instances of chords, of which six are pizzicato chords. These chords are illustrated in Figures 5.7a and 5.7b. The pizzicato chords occur in measures 55, 56, 57, and 83, and serve to conclude two, separate sections. Measures 55-57 conclude Exercise 8, and measure 83 concludes Exercise 9. All seven chords have contemporary traits, containing either the tritone, perfect fifth, and/or the minor seventh. Only one chord, the chord in measure 56, can be ruled out as contemporary. This is because it clearly outlines a G-major chord.

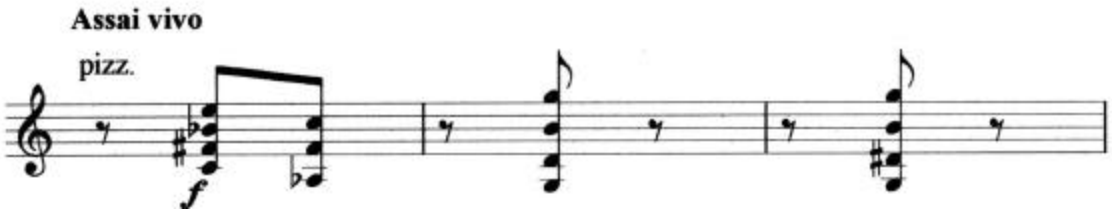

Figure 5.7a. Chords that occur in "Thirds," measures 55-57.

Figure 5.7b. Chords that occur in Thirds, measures 82-83.

Only one occurrence of a sudden dynamic change takes place in measure 80-81. For the entire measure of 80, and culminating on the first sixteenth note (double-stop) of measure 81, is a *fortissimo* dynamic. This is followed by two, sixteenth-note rests, followed by a *pianissimo*, double-stop, c''-e''. This double-stop is also coupled with the indication to play *flautando*.

Placement of bow and use of bow are traditional, with one brief exception of the *flautando* marking in measure 81-82. Traditional uses of bow include détaché, legato-slurs, slurred-staccato, spiccato, and staccato. There are no use of mute and theatrical effects.

Prelude IV, Fourths

Left-hand timbre changes occur by mordents, harmonics, and portamento. The use of mordents occur in measures 2, 13, 16, 32, and 33. In each case, the mordents happen on the lower note of a perfect fourth double-stop. With the exception of a half-step mordent in measure 33, all other mordents are whole-steps. There are no glissandi, although there are instances of shifting chromatically on one finger (portamento) in measures 24-25 and 36-40. Harmonics for the purpose of timbre change are not written, but harmonics can be used to facilitate the execution of an a'' within an e''-a'', double-stop in measure 11-12 and the c''''' in measure 43.

"Fourths" is divided into four sections. Exercise 10, marked *Moderato*, is in ¾ meter. Exercise 11 (measure 18), continues the ¾ meter but is marked *Lento*. Exercise 12 (measure 26), is marked *a Tempo*. The ¾ meter continues until measure 31. Measure 31 brings Exercise 12 to a close with a *ritardando* in 4/4 meter. Exercise 13, marked

Tempo I, changes back to the original meter of ¾, and remains in ¾ until the end of the prelude.

There is one instance of irregular accent that occurs by the beginning of a note on an off-beat. At measure 42, a sixteenth-note triplet pattern begins on the 'and-of-2.' Additionally, there appears to be an example of an irregular slur in measure 6-7, yet when executed, there will not be an irregular accent because the chord still has to be re-articulated in measure 7. Measures 6 and 7 are reproduced in Figure 5.8.

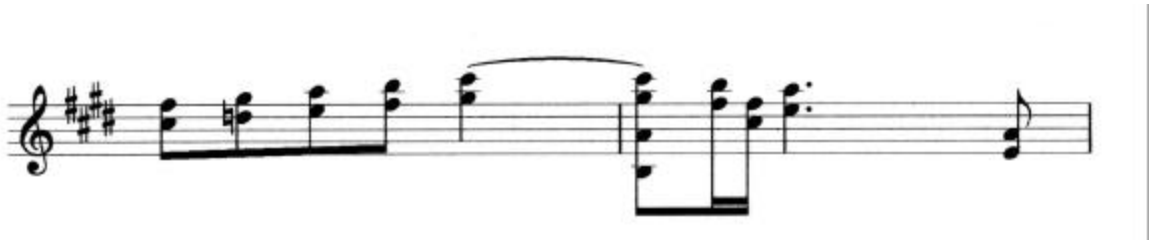

Figure 5.8. Re-articulation, measures 6-7.

There are no horizontal intervals in "Fourths." There are 394 double-stops, of which 288, or 73.10% are perfect fourths. The next most frequently occurring interval is the tritone, which occurs 105 times, or 26.65%. The tritones occur in one of two ways, either within passages of perfect fourths, as in measures 4, 20, 21, 27-30, 39, and 42, or in succession, as in measures 22-25 and 31. The only other occurring double-stop is the major sixth, and it occurs once, or 0.25%.

There are a total of twenty-one chords, all of which can be considered contemporary. These chords, as seen in Figure 5.9, are notated as quarter notes in order to provide clarity for the reader. They contain the perfect fourth, the tritone, or both. The

perfect fourth is most often found at top of the chord, (the two, highest notes of a chord). The exception to this is in measures 19-20, where the top of the chord is a tritone, and in measure 43, where the perfect fourth occurs as the middle notes of a chord.

In addition to the 3- and 4-note chords, there also exist 5- and 7-note chords. The five-note chords occur in measures 10, 18, and 33, and the seven-note chord occurs in measure 43. Such 5- and 7-note chords can only be played in a broken fashion, meaning that the notes will be heard in quick succession of one another, and not simultaneously. This aspect of chord technique, in which the notes follow in quick succession, is similar to 4-note chord technique. Unlike 4-note chords, which can be executed by the bow traveling in one direction, such as from the lowest string to the highest string, or vice versa, the performance of 5- or more-note chords requires that the violinist change the direction of the bow in order to set all the notes into vibration. An example of this can be seen in Figure 5.10. Figure 5.10 compares the direction of bow for a typical 4-note chord and the direction of bow for the 7-note chord found in measure 43.

There are three sudden dynamic changes from *forte* to *piano*. These occur in measures 9-10, 11-12, and 13-14. Additionally, in measures 25-26, there is a sudden dynamic change from *pianissimo* to *piano*. This particular change does not present difficulties because measure 25 (*pianissimo)* is the conclusion of Exercise 11, and measure 26 (*piano)* is the beginning of Exercise 12.

Placement of bow is traditional, with the exception of one directive that begins in measure 18 and runs through measure 20. Measure 18 is marked *near the point, velvety.* One might imagine a "velvety" tone as being performed in a *sul tasto* manner. The use of bow is traditional. Traditional uses of bow include détaché and legato-slurs.

There are no pizzicato, no use of mute, and no theatrical effects.

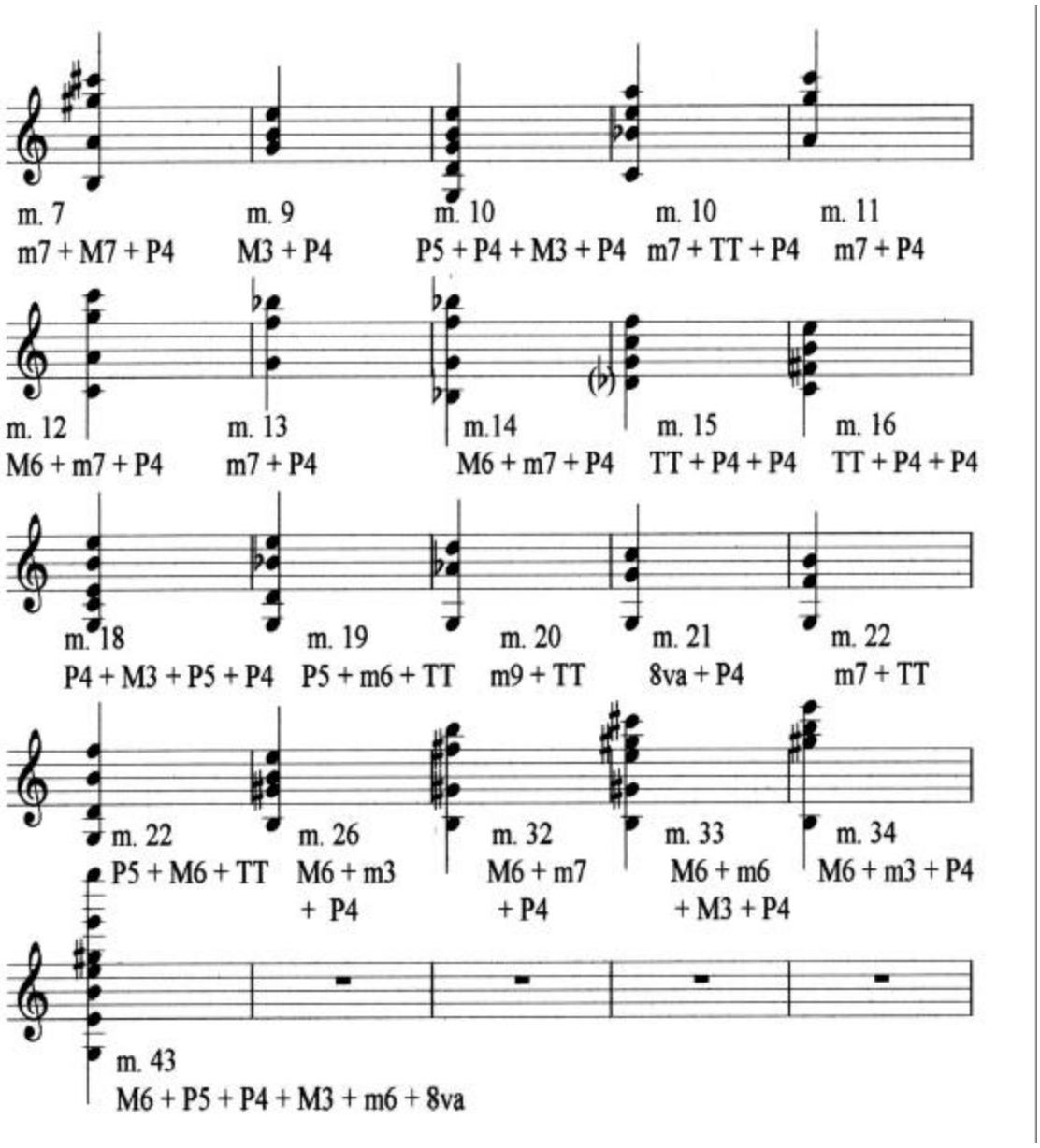

Figure 5.9. Chords that occur in Fourths.

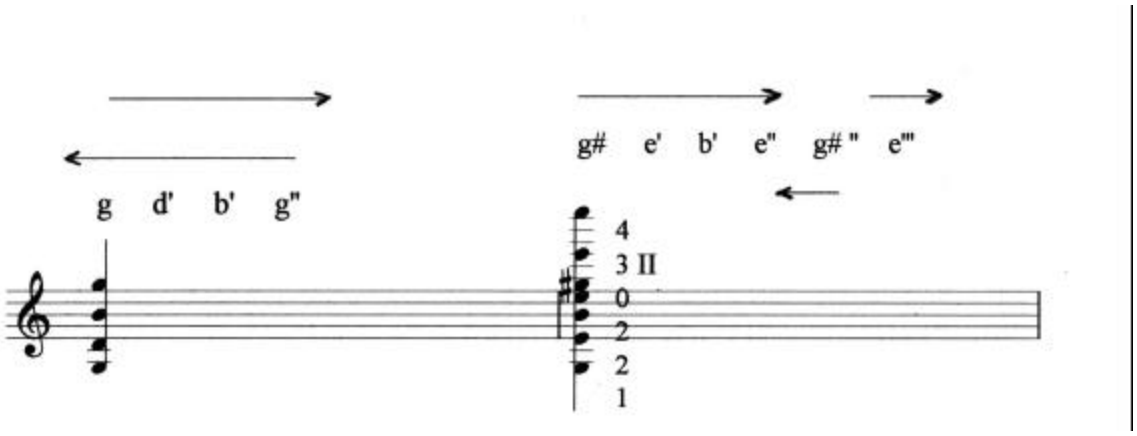

Figure 5.10. Bow direction of 4- and 7-note chord.

Prelude V, Fifths

"Fifths" is in two sections, Exercise 14 and Exercise 15. There are no bar lines, and thus, no meter indication. The tempo marking is *Molto moderato*, and the eighth-note is marked as the primary pulse. Although this is the case, the actual grouping of eighth-notes and sixteenth-notes suggest a quarter-note pulse. This first line of music is illustrated in Figure 5.11.

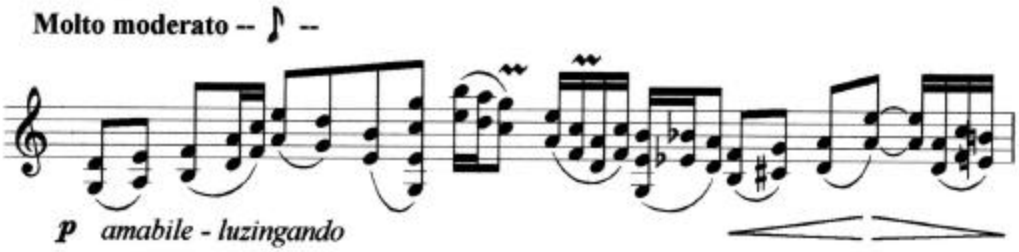

Figure 5.11. First line of Fifths.

There are several other tempo indications, in addition to the *Molto moderato* in the beginning. There is *cédez* (yielding) on the third line, lasting for two beats and

returning after a brief pause, to the original tempo. On line 5, the fourth beat, is marked "without haste." On line 5, at the anacrusis to beat 5, is another *cédez,* lasting two beats to conclude Exercise 14. Exercise 15 resumes the original tempo, and an *accelerando* is marked on the fourth beat of Exercise 15, which continues for 11 beats. Right after this *accelerando*, which is third beat of the last line, there is a final return to the original tempo, *Tempo*, with an accompanying marking of *calando* (to diminuendo and slow down) that continues for 9 beats and concludes the prelude.

Irregular accents happen through the use of quick mordents on off-beats and by the occurrence of irregular slurs. The mordents appear on: line 1, on the g'' of beat 5, and the c'' of beat 6; line 2, on the a-flat'' of beat 6; line 3, on the b'' of beat 7; line 4, on the b' of beat 5, and the b' of beat 7; line 5, on two separate b-flats'' of beat 6; and lastly, line 7, on the b' of beat 2. Irregular slurring occurs on: line 1, beats 9-10; line 4, beats 2-3 and beat 6; and line 9, beats 1-2.

The use of additive rhythms, as notated in Figure 5.12, occur three times and consist of the same rhythm groups, a triple and duple: Line 2, beats 2-3; line 5, beat 5; and line 6, beat 1.

Figure 5.12. Triple plus duple additive rhythm.

"Fifths" is overwhelmingly double-stops. There are no horizontal intervals and a total of 248 double-stops, of which 230, or 92.74% are perfect fifths. There are three other occurring double-stops: the tritone occurs 16 times, or 6.45%; the perfect fourth occurs once, or 0.40%; and the minor sixth occurs once, or 0.40%.

There are eight chords, which are notated as quarter notes in Figure 5.13. Six of these chords are either 3- or 4-note chords that contain a sixth and a perfect fifth. One of the chords is constructed entirely of perfect fifths (line 4, beat 6), and the concluding, final chord is an 8-note broken chord consisting of a perfect fourth, major third, minor third, major second, perfect fifth, unison, and perfect fifth. (In order to provide clarity, all chords in Figure 13 are notated as quarter-notes).

There is little in the way of timbre changes produced by the left hand. A double-stop consisting of two perfect fifths, a g' and d'' that are harmonics on the ½ node of the G- and D- strings occurs on line 1, beat 3. Another double-stop, on line 7, beat 2,

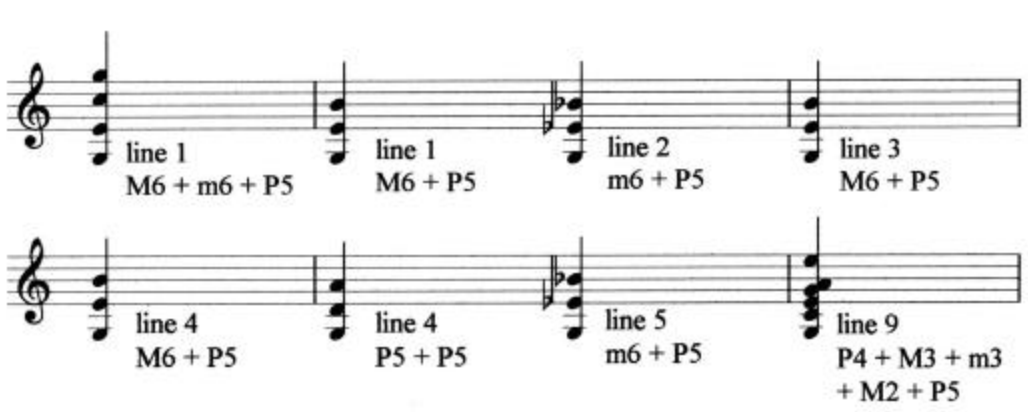

Figure 5.13. Chords that occur in Fifths.

consisting of two, ½ node harmonics, this time on the D- and A-strings, produce the resultant notes, d'' and a''. A trill on line 8 provides one other instance of timbre change. This trill is a long, 4-beat trill, from the double-stop g''-d''' to a''-e'''.

Placement of bow and use of bow are traditional. Traditional uses of bow include détaché and legato-slurs. There are no pizzicato, no sudden dynamic changes, no use of mute, and no theatrical effects.

Prelude VI, Sixths

The majority of this prelude are sixth double-stops. Out of a total of 282 double-stops, sixths occur 276 times, or 97.87%. The minor sixth occurs 247 times, or 97.87%, and the major sixth occurs 29 times, or 10.28%. The majority of major sixth double-stops occur in succession, as in measure 26, which is illustrated in Figure 5.14.

Interestingly, there are a large number of major second intervals. Of the 189 intervals, there are 151 major seconds, occurring 79.89% of the time. The major seconds occur mainly in the form of whole-tone scales, as in measures 8, 21-23, 36, and 40.

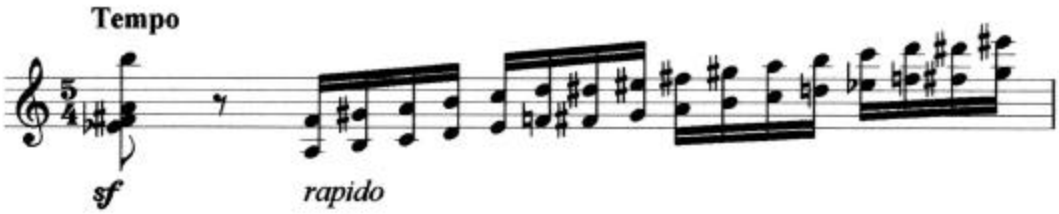

Figure 5.14. Succession of major sixths, measure 26.

Left-hand timbre changes are produced by the high positions. In measures 13-14, the 8th, 9th, and 10th positions occur. In measure 31, the 8th, 9th, and 10th positions occur. In measure 32, the 9th and 11th positions occur. In measure 45, the 8th and 9th positions occur. In measure 46, the 9th, 10th, and 11th positions occur, and in measure 47, the 9th and 11th positions occur.

There are a total of twenty-six contemporary chords. Seventeen of these chords occur in succession in measures 27-31, and have been reproduced in Figure 5.15. This passage can be considered difficult because each note of each chord moves upward by

whole-step, outlining a partial, whole-tone scale. There are two scales outlined in this fashion, the first in measures 27-29, and the second in measures 29-31.

An interesting combination technique occurs in measure 58, and has been reproduced in Figure 5.16. Here, combining left-hand pizzicato and a legato, sustained bow creates a 4-note chord. A minor seventh double-stop, g-f', is marked left-hand *pizzicato*, while a tritone double-stop, e-flat''-a'' is sustained with the bow.

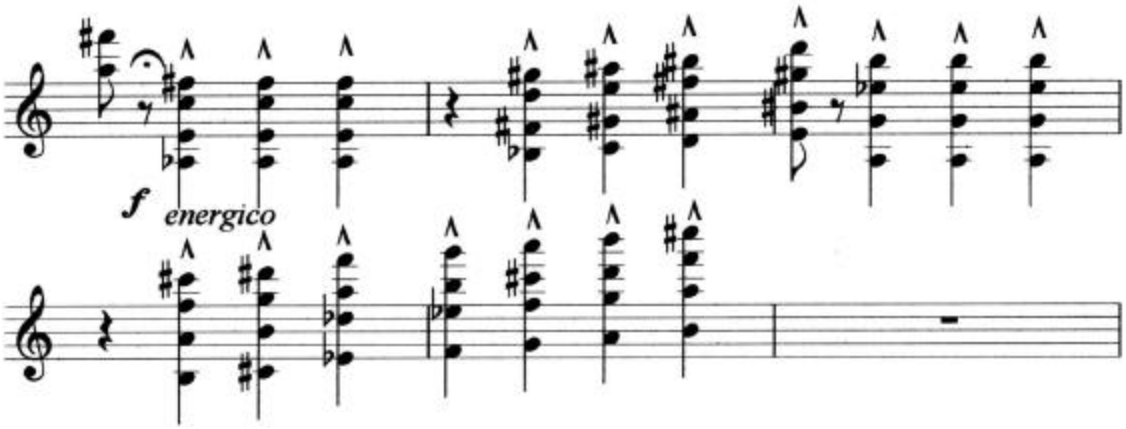

Figure 5.15. Whole-tone progression of chords, measures 27-31.

In addition to developing greater skill and control of the minor sixth double-stop, "Sixths" also displays a variety of meter and tempo changes. The prelude is divided into four large sections: Exercise 16 (measure 1), Exercise 17, (measure 10), Exercise 18 (measure 21) and Exercise 19 (measure 40). The first section, Exercise 16, is in 6/8 meter and has a tempo marking of *Lent*. Exercise 17, has a tempo marking of *poco più vivo* and changes meter to 3/8. Exercise 18 is faster, marked *Allegro non troppo*, and changes meter to common time, or 4/4. In measure 24-25, a tempo indication of *poco*

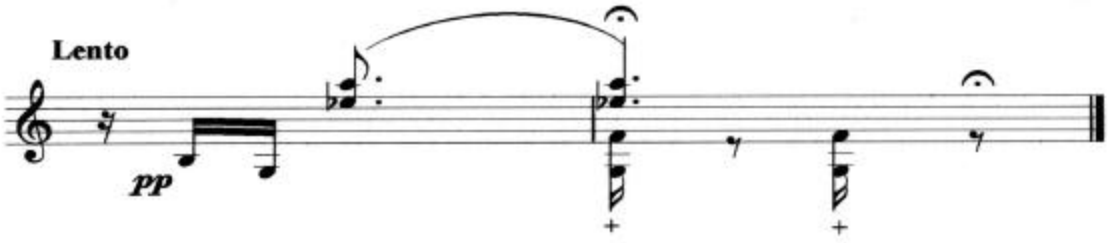

Figure 5.16. Combination technique, left-hand pizzicato/legato bow, measure 58.

lento---stringendo, slows down and gradually speeds up to the original tempo, *Allegro non troppo*, in measure 26. Measure 26 also changes meter to 5/4, only to change back to 4/4 in measure 27. Measure 32, marked *più vivo-con fuoco*, pushes faster and continues this motion through the beginning of measure 34. A *ritardando* on the 2nd beat of measure 34 leads into a quasi, cadenza-like passage for one measure, measure 35, and is marked *Lento.* Following this "cadenza," measure 36 is marked *Andante---recitative*, which concludes Exercise 18 four measures later. Exercise 19 begins with an abrupt change of meter and tempo. The meter alternates between 6/16 and 2/8, and the tempo marking is *Allegro*; *scherzoso poco vivo.* Exercise 19 quickly races through a flurry of sixth double-stops until a *poco a poco ritardando* in measure 53 slowly brings Exercise 19 to the tempo marking of *Lento* in the penultimate measure, measure 57.

There are a limited number of sudden dynamic changes. There is a sudden dynamic change from *fortisisimo*, followed by a quarter-note rest that is held by a fermata, followed by a *forte* in measure 39. There is another sudden dynamic change from *forte* to *piano* in measure 41.

Pizzicato occurs as traditional, left-hand pizzicato. An open A-string, or a', is plucked in measures 54-56. The chord in measure 58 contains the minor seventh, g-f', that is plucked with the left-hand, while a tritone, e-flat''-a'', is sustained with the bow (Figure 16). The Prelude ends in measure 58, with the left-hand plucking the g-f', minor seventh.

Placement of bow and use of bow are traditional. Traditional uses of bow are détaché, legato-slurs, repeated down-bows, slurred-staccato, and if one desires, spiccato in Exercise 19. There are no uses of mute and no theatrical effects.

Prelude VII, Sevenths

Of the 471 intervals present, 218, or 46.28% are sevenths. The minor seventh occurs 169 times, or 35.88%, and the major seventh occurs 49 times, or 10.40%. Unlike the previous six preludes, "Sevenths" exercises a variety of other intervals. Notable contemporary intervals include the second, which occurs 70 times or 14.86%, the tritone, which occurs 27 times, or 5.73%, and the perfect fifth, which occurs 24 times, or 5.10%. The percentage of contemporary intervals present, far outweigh the tonal intervals. This is due to the large number of sevenths. If one did not calculate the sevenths, the percentages of contemporary to tonal intervals are somewhat even. There would be only 253 intervals, of which the contemporary intervals would occur 131 times, or 51.78%, and the tonal intervals would occur 118 times, or 46.64%.

Double-stops occur for the first time in measure 28 and continue through measure 32. All of the double-stops that occur in this prelude occur in these measures only. All the double-stops are sevenths. Minor sevenths occurs 68 times, or 68.00%, and major sevenths occur 22 times, or 22.00%.

While this is a difficult prelude, the only other contemporary concerns are the occurrences of many 3- and 4-note chords, all of which contain the minor seventh. Measure 28 contains the first occurrence of 3-note chords, and is illustrated in Figure 5.17a. These chords alternate with double-stops within a continuous, 64-second note passage. In measure 33, which is illustrated in Figure 5.17b, a series of four, 3-note chords played by successive down-bows, moves upward by thirds. Following a sixteenth-note rest that is held by a fermata, two, 4-note chords marked pizzicato, lead into measure 34, where a 3-note chord containing a major tenth and an octave is marked *arco.*

Other contemporary traits can be found, but their occurrences are minimal. For example, the meter changes twice. Prelude VII begins in a meter of 3/8, and changes to 2/8 meter for one measure in measure 16, a change that is also accompanied by a *poco ritardando.* At measure 17, the meter changes back to the original 3/8 meter. Irregular accents happen through the use of irregular bowing in measure 19. The additive rhythm

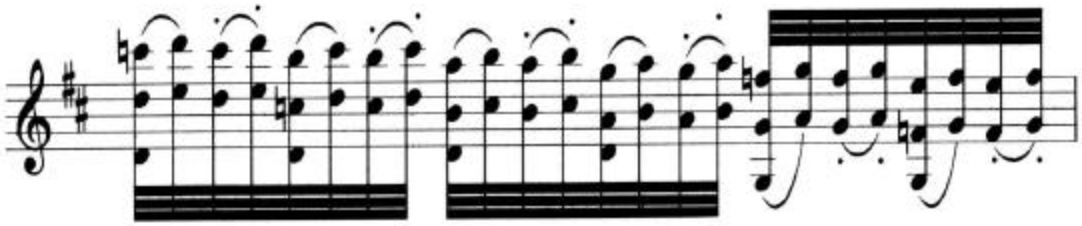

Figure 5.17a. Chords that occur in “Sevenths,” measure 28.

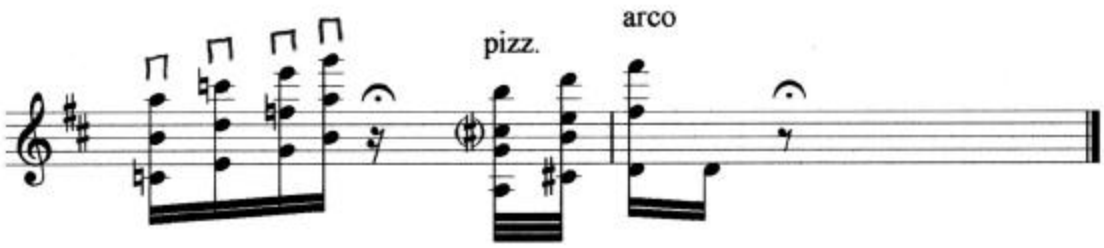

Figure 5.17b. Chords that occur in "Sevenths," measures 33-34.

of the duple and triple, or vice versa, the triple and the duple, occur in measure 2 and 10-14. One sudden dynamic change, from *forte* to *piano*, takes place in measures 28-29. There are rapid changes between techniques, of which Ysaÿe warns the performer in measure 1, with the statement, *Coups d'archet nodules et bariolés* (Alterating bowings that are varied and diverse), but the techniques presented, especially in terms of bow placement and bow usage, are traditional. For example, in measure 23, small, 2-note legato-slurs precede a spiccato passage in measure 24; in measure 28, 3-note chords quickly alternate with double-stops; up-bow spiccato in measure 28 is followed by broken, legato double-stops in measure 29; spiccato in measure 30 precedes 4-note legato slurs in measure 31. These same 4-note legato-slurs revert back to spiccato in measure 32. The spiccato notes quickly change in measure 33 to successive, 3-note chords played down-bow. After a sixteenth-note rest, a 3-note chord, marked down-bow and arco, follows two, 4-note chords, marked pizzicato.

There is one harmonic, the 1/3 node on the G-string, or d'', found in measure 12. The high positions, the 8th and 9th positions, can be found in measure 30. There are no use of mute and no theatrical effects.

Prelude VIII, Octaves

"Octaves" is a study of both the fingered, double-stop octave, and the continuous fingering, double-stop octave. The use of fingered octaves, which is illustrated in Figure 5.18a, means that the left-hand fingers are used in alternative fashion between octaves, thus octaves alternate between the fingers 1-3, and 2-4. The use of the continuous fingering, illustrated in Figure 5.18b, means that a fingering of 1-3, or 1-4 is used during a succession of octaves.

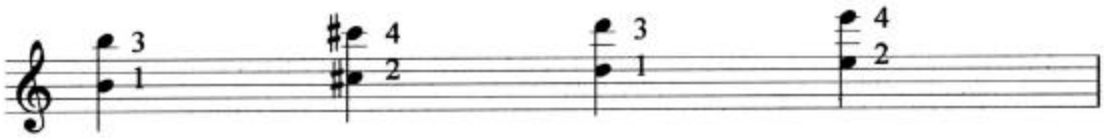

Figure 5.18a. Fingered octaves.

Figure 5.18b. Continuous fingering.

While the octave is certainly a tonal interval, the use of fingered octaves, which is found in every measure of "Octaves," is considered a part of contemporary technique. Leopold Auer writes that the fingered octave emerged as a new technical device during the last quarter of the nineteenth-century.[5] Ysaÿe describes the use of fingered octaves as

[5]Leopold Auer, *Violin Playing As I Teach It,* (Toronto, Ontario: General Publishing Company, 1980), 49.

being "one of the gems of modern technique.[6] While the octave is certainly a tonal interval, Walters describe the fingered octave as occurring more and more frequently in contemporary compositions.[7]

"Octaves" is made up almost entirely of octave double-stops. Exceptions include three chords in measures 4, 7, 25, and a single note, a, in measure 25. There are 369 double-stops, and all are octaves. Because octaves represent the same note, just in a different register, the intervals between octave double-stops were also categorized as if they were single-note intervals. Thus, when classified this way, there were a total of 366 "intervals," of which 77, or 21.04% were tonal and 281, or 76.78% were contemporary. The most frequently occurring "interval" was the second, occurring 259 times, or 70.77%. The major second occurs 138 times, or 37.70%. The minor second occurs 121 times, or 33.06%. The next most frequently occurring "interval" was the third, which occurred 58 times, or 15.85%. The major third occurs 6 times, or 1.64%, and the minor third occurs 52 times, or 14.21%.

The only other significant contemporary technique practiced in this prelude is the use of high positions. When determining these high positions, it is important to remember that when using fingered octaves, the higher numbered finger will be one position higher than the lower numbered finger. For example, as seen in Figure 5.19, if the notes d'' and d''' are fingered with the first and third fingers, the third finger is in fourth position, while the first finger is in third position.

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[6] Eugène Ysaÿe, *Ten Preludes for Violin: Essay on the Modern Technic of the Violin*, op. 35, reconstituted by Charles Radoux Rogier, (Brussels and Paris: Schott Frères, 1952), 28.

[7] Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 238.

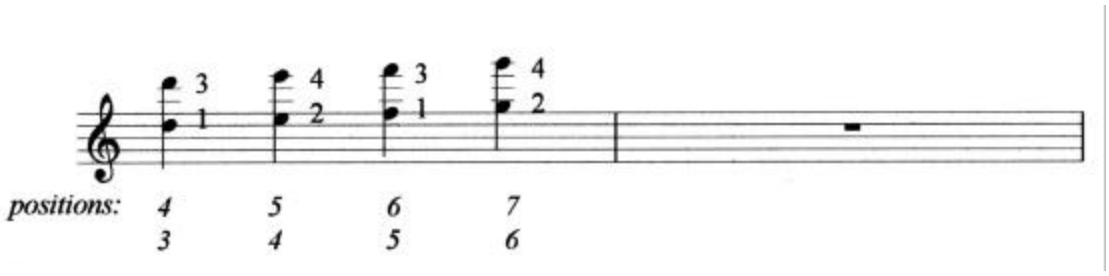

Figure 5.19. Position of fingers, fingered octaves.

When determining the high positions of double-stops and chords, the higher numbered finger (the highest note of the octave) will be documented. This is because it is recommended that the fourth finger (the higher pitched note) remain fixed while the first finger stretches downwards. Jacoby writes that "…the position represented by the location of the fourth finger is usually the most effective…"[8] and that "…the first finger can reach downwards almost indefinitely."[9] On the subjects of executing tenths, which involves stretching the left-hand, Bronstein writes that the fourth finger is to be set as to allow the first finger to extend back.[10] On the subject of continuous fingering octaves, Bronstein writes that "…the fourth finger stays fixed in relation to the rest of the hand…"[11] The technique of reaching back is even recommended for beginners. Krayk writes, "the finger pattern in the first position requires certain stretches between the fingers. These stretches are easier to learn if the first three fingers are stretched back from the correct fourth finger position."[12]

Thus, with this criteria, the high positions occur at measure 2, the 9th position occurs; measure 5, the 8th and 10th positions; measure 6, the 9th position; measure 7, the

[8]Robert Jacoby, *Violin Technique: A Practical Analysis for Performers,* (Borough Green, Sevenoaks, Kent, United Kingdom: Novello and Company Limited, 1985), 42.

[9]Ibid., 39.

[10]Raphael Bronstein, *The Science of Violin Playing,* (Neptune, New Jersey: Paganiniana Publications, Inc., 1977), 14.

[11]Ibid., 14.

[12]Stefan Krayk, *The Violin Guide for Performers, Teachers and Students,* (Reston, VA: American String Teacher's Association, 1995), 15

8th, 9th, 10th, and 11th positions; measure 8, the 8th, 9th, and 10th positions; measure 10, the 8th and 9th positions; measure 11, the 9th position; measure 12, the 8th position; measures 13 and 16, the 8th and 9th position; measure 17, the 9th, 11th, and 13th positions; measure 18, the 9th, 11th, 13th, and 14th positions; measure 19, the 8th, 9th, 10th, and 11th positions; measure 21, the 8th, 9th, 10th, and 12th positions; measure 24, the 9th position; and measure 25, the 10th position.

In "Octaves," irregular accents occur in the form of irregular slurs. One type of irregular slur is a quarter-note tied into the following beat. This occurs in measures 1-2, 4, 9, and 12. Another type of irregular slur is represented by repeated patterns. One such pattern, in measures 14-15, and has been reproduced in Figure 5.20a. In this figure, eighth-notes tied to the first, sixteenth-note of a triplet pattern. A second, repeated pattern, reproduced in Figure 5.20b, happens within a triplet in measure 19. Here, the irregular slur occurs on the third note of each triplet pattern. Finally, irregular slurs, which are reproduced in Figure 5.20c, occur in measure 24. Here, the irregular slurs take place on the second, thirty-second-note, in a group of eight, thirty-second-notes.

Irregular accents also occur as accents placed on off-beats. In measure 20, off-beat accents occur on the octave double-stops of g#-g#', g#''-g#''', a-a', and a''-a'''. In measure 21, an off-beat accent is placed over the octave double-stop, d'''-d''''.

Placement of bow and use of bow are traditional. Uses of bow include détaché, slurred-legato, and slurred-staccato. There are three chords, all of which are tonal due to their use of octaves. There is one trill. The unison double-stop a''-a''', containing a ½ step trill from a''' to b-flat''', occurs in measure 23. There are no pizzicato, no meter changes, no sudden dynamic changes, no use of mute, and no theatrical effects.

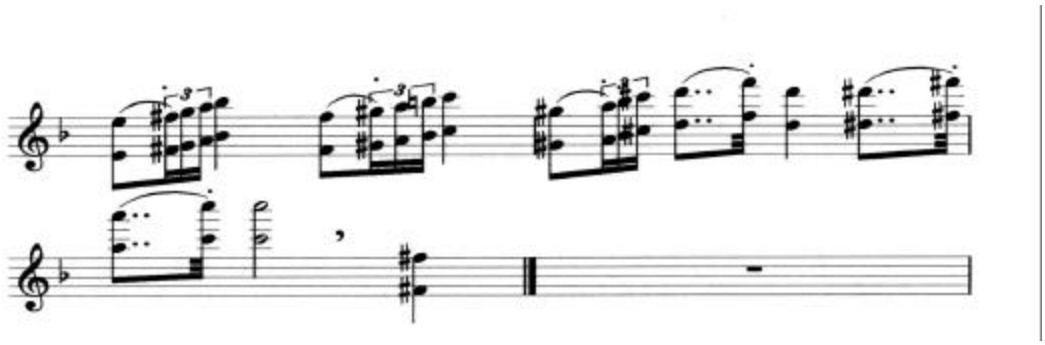

Figure 5.20a. Irregular slurs in a repeated pattern, measures 14 and 15.

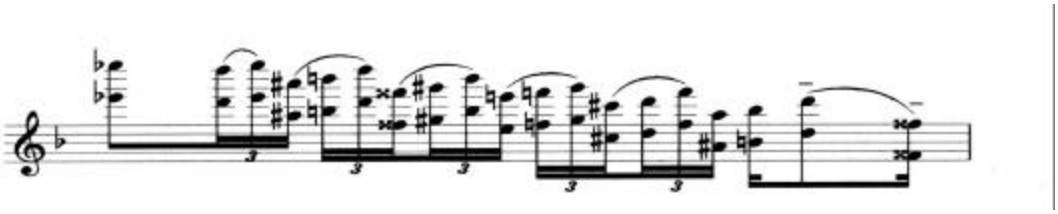

Figure 5.20b. Irregular slurs in a repeated pattern, measure 19.

Figure 5.20c. Irregular slurs in a repeated pattern, measure 24.

Prelude IX, Ninths

"Ninths" utilizes both the interval and double-stop. The majority of double-stops occur at the beginning, in measure 1-8, and at the end, in measures 37-40. There are a total of 68 double-stops. Sixty-seven, or 98.53% are ninth double-stops. The major ninth double-stop occurs 64 times, or 94.12%, and the minor ninth double-stop occurs 3 times, or 4.41%. The major ninth is also the most frequently occurring interval. Out of a total of 219 intervals, the ninth occurs 120 times, or 54.79%. The major ninth occurs 103 times, or 47.03%, and the minor ninth occurs 17 times, or 7.76%. A large majority of the intervals can be classified as contemporary. Contemporary intervals occur 165 times, or 75.34% of the time. Tonal intervals occur 45 times, or 20.55%.

Ninths are fingered in the same manner as tenths, with the first and fourth fingers in an extended, open position. This stretch, combined with the aural challenges of the ninth, accounts for the primary difficulties of this prelude. Other technical and contemporary concerns are the irregular accents. These accents happen either as irregular slurs or by the beginning of phrases or sub-phrases on off-beats. The irregular slurs occur in measures 15-18, 20-21, 23, 28-29, and 37. Additional irregular slurs in measures 31-33 require explanation. In measure 31, the c' that is tied over from measure 30, constitutes an irregular slur. This is because the c' is not re-articulated on the first beat of 31, and as such, the primary pulse is "lost." The same can be said for measures 32-33, where another c' is tied over the bar-line. The irregular accents that are created by the beginning of phrases or sub-phrases on off-beats occur in measures 1-2, 5-12, 14-15, 17, 23, 25, 27, 29-30, and 40. Also, in spite of the absence of rests, the b-flat in measure 33, and the a'' in measure 35 begin new phrases on off-beats.

Other timbre and contemporary practices are negligible. Placement of bow and use of bow are traditional. Traditional uses of bow include legato-slurs, staccato, and spiccato. Notable are two bowing directives. The first, at measure 33, is marked, "at the nut, rather heavy," and the second, at measure 35, is marked *léger,* meaning to play lightly.

There are three, natural harmonics, but all are used to facilitate the execution of various passages. In measure 1, the ½ node on the A-string, or a'' is notated. In measure 2, the 2/3 node on the E-string, or a''' is notated. In measure 14, the ¾ node on the E-string, or e'''' notated.

The high positions occur briefly, three times. The method used to determine the position is the same as for octaves and tenths, that is, the placement of the fourth finger will determine position (see Prelude VIII, "Octaves). Therefore, with this criteria, at measure 2, the 8th position occurs on an a''-b''' double-stop. In measure 14, the 12th position occurs on a single-note, e'''', and at measure 35, the 8th position occurs on a single-note, b'''.

There are three contemporary chords: In measure 40, there is a 4-note chord consisting of a perfect fifth, minor tenth, and a major ninth. In the same measure, there is also a 3-note chord consisting of a perfect fifth and a major ninth, and in measure 41, there is a 4-note chord consisting of a perfect fifth, major sixth, and a minor sixth.

There is only one sudden dynamic change, a *forte* in measure 19 to *piano* on the second sixteenth-note, the g, in measure 20. There are no pizzicato, no use of mute, and no theatrical effects.

Prelude X, Tenths

"Tenths" is an even mixture of intervals and double-stops. There are a total of 184 intervals and 181 double-stops. In both cases, the minor tenth makes up the majority. There are 85 tenth intervals, of which the minor tenth occurs 76 times, or 41.30%, and the major tenth occurs 9 times, or 4.89%. The next most frequently occurring interval is the second, which occurs 37 times, or 20.11%. The minor second occurs 30 times, or 16.30%, and the major second occurs 7 times, or 3.80%.

The tenth double-stop occurs 167 times, or 92.27%. The minor tenth double-stop occurs 134 times, or 74.03%, and the major tenth double-stop occurs 33 times or 18.23%. There are very few occurrences of other classifications of double-stop. The next most frequently occurring double-stop is the minor third, which occurs 8 times, or 4.42%.

The uses of chords play another significant, contemporary factor in this prelude. Chords occur 19 times, and have been notated as quarter notes in Figure 5.21. These chords frequently contain the interval of the perfect fifth, minor sixth, and major sixth. With the exception of two chords, these chords also contain the interval of the minor tenth. At measure 31, the third occurring chord contains the interval of the major tenth, and in measures 33-34, chords are built entirely on the major sixth, and do not contain the interval of the tenth.

The high positions occur frequently. This prelude is 42 measures long, and 27 of those measures utilize the high positions. The nature of high-position use in tenths is as such: the position(s) that occur, occurs only for the duration of the note and/or double-stop. This is because tenths are played with one fingering, the successive use of 1-4, also called a continuous fingering. This is illustrated in Figure 5.22.

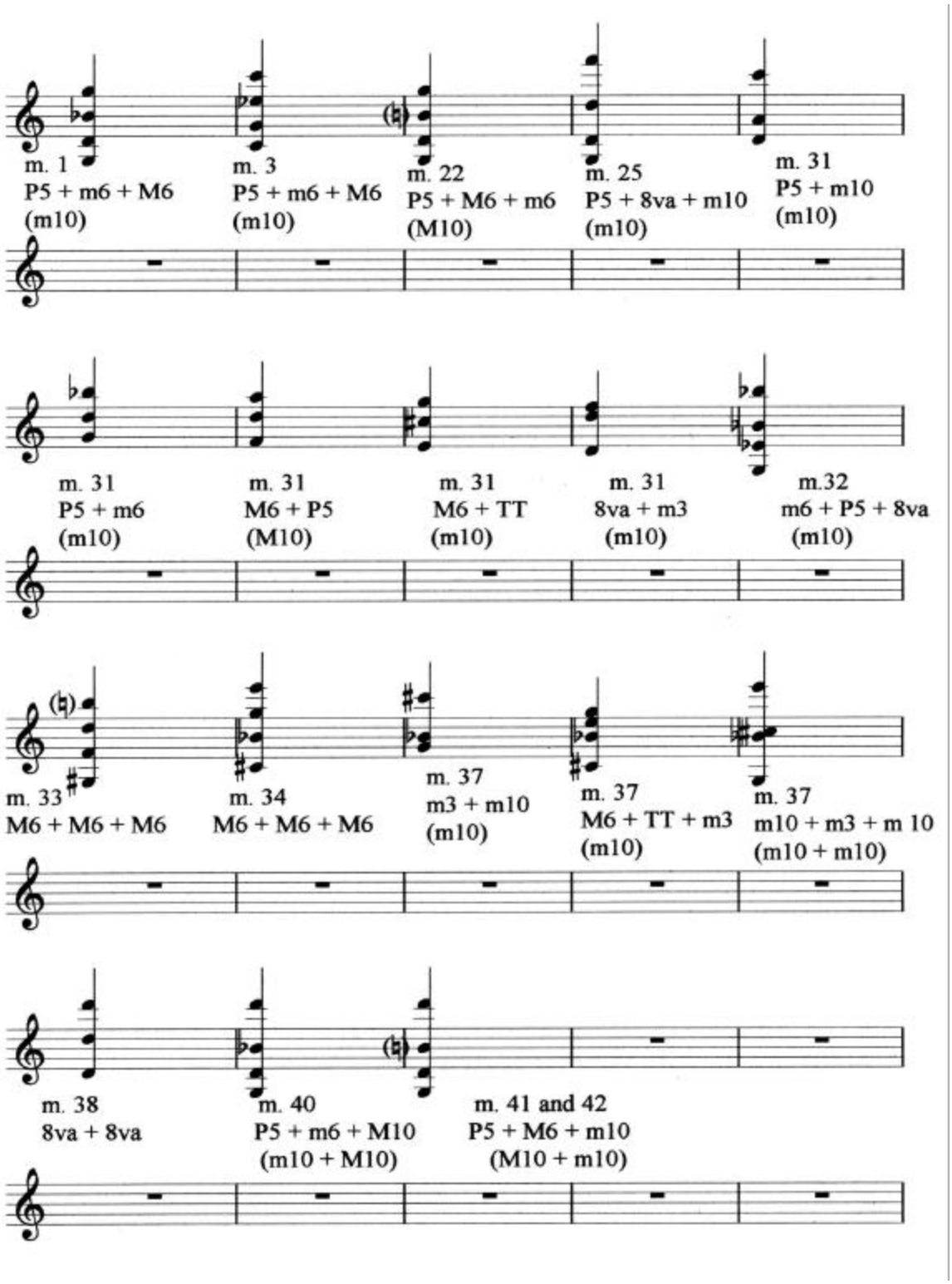

Figure 5.21. Chords that occur in Tenths.

Figure 5.22. Fingering for playing tenths.

The high positions in this prelude were determined in the same fashion as they were in "Octaves." The higher note, the note that is fingered with the fourth finger, is the note that to determines the position (See page 104, Prelude VIII, "Octaves").

Thus, the combination of both the 8th and 9th positions occurs in measures 1, 2, 4, 6, 30, 35, and 38. The 8th position only occurs in measures 3, 12, 14, 19, 24, and 32. The combination of the 9th, 10th, and 11th positions occur in measures 5 and 25. The combination of the 8th, 9th, and 10th positions occur in measures 15, 28, and 41. The combination of the 10th, 11th, and 12th positions occur in measures 16, and 39. The 10th position only occurs in measures 17, 36, and 40. The 9th position only occurs in measures 18 and 29. The combination of the 8th, 9th, 10th, and 11th positions occur in measure 26, and the combination of the 8th and 10th positions occur in measure 27.

"Tenths" is in three sections, labeled Exercise 31, (measure 1), Exercise 32 (measure 10), and Exercise 33 (measure 22). Exercise 31 begins at a slow tempo, *Lento maestoso*, in a 6/8 meter. At Exercise 32, a meter change to ¾, is accompanied by the tempo indication, *pochissimo, Più mosso,* which means to play slightly faster. The tempo pushes even faster at Exercise 33 (measure 22), which is marked *più animato-agitato.* This fast pace changes to *Largamente* in measure 38 and remains *Largamente* until the conclusion of the Prelude in measure 42.

Irregular accents happen minimally and occur as either irregular slurs, phrases or sub-phrases that begin on off-beats, or syncopations. Irregular slurs can be found in measures 8, 9, and 41. Phrases or sub-phrase that begin on off-beats occur in measures 23 and 24, and syncopation occurs in measures 27 and 29. At measure 23, in addition to being classified as a phrase or sub-phrase that begins on an off-beat, this measure is also an irregular slur. The major tenth double-stop, g-b', that occurs after an eighth-note rest, is tied into the same major tenth double-stop, g-b', that occurs on the second beat.

There is one, sudden dynamic change. The end of Exercise 32 (measure 21) is *forte*, followed by a *forzando* chord that is the length of an eighth note, followed by a sixteenth- and eighth-note rest, which is finally followed by a sudden dynamic change to *mezzo forte*.

Both the placement of bow and the use of bow are traditional. The uses of bow include détaché, legato-slurs, and a series of repeated down-bow chords in measures 31 and 37. Incidentally, Walters consider the use of repeated down-bows a contemporary [13] There are no instances of pizzicato, no use of mute, and no theatrical effects.

Conclusions

Many of the techniques found in the *Ten Preludes* are traditional. When contemporary techniques occur, they happen briefly, most often within the duration of one measure. Examples of these brief occurrences are most noticeable as right-hand techniques. Contemporary placement of bow techniques occurs in Preludes III and IV. Two measures that are marked *flautando* in Prelude III can be played in a *sul tasto* fashion. A bowing directive in Prelude IV, marked "near the point, velvety," can be

[13]Willard Gibson Walters, "Technical Problems in Modern Violin Concertos, with Related Original Exercises and Etudes" (Ph.D. diss., State University of Iowa, 1958), 238.

interpreted as *sul tasto* as well. A contemporary, use of bow trait of alternating back and forth between different bow techniques occurs in Prelude VII, yet this alternation involves only traditional bow techniques, such as between *spiccato* and *detache*.

While contemporary, left-hand use techniques are found in greater frequency, traditional techniques still dominate. The categories of harmonics and high positions occur the most frequently. An extended passage of perfect fourth and perfect fifth harmonics occurs in Prelude II. Extensive use of high positions occurs in Preludes VI, VIII, and X. The high positions occur in the other Preludes as well, but most often occur within the span of one measure.

Timbre changes by the use of pizzicato occur in Preludes I, II, III, VI, and VII, but such pizzicato occurrences are produced traditionally, that is, with the flesh of the finger. Each occurrence of pizzicato happens briefly, most often within the span of one measure.

Issues of rhythm and meter are best displayed in Prelude VI, VII, and IX. Prelude VI has the extensive use of changing meter, Prelude VII has many additive rhythms of the duple plus triple or triple plus duple, and Prelude IX has an abundance of irregular accents in the form of irregular slurs. Irregular accents in Prelude IX are also created by beginning phrases on off-beats.

The use of sudden dynamic changes can be found in all but two of the Preludes. When they occur, they normally occur only once in the Prelude. Two exceptions are Prelude II and Prelude IV. Prelude II has six, sudden dynamic changes, and Prelude IV has four, sudden dynamic changes.

It is the primary focus of these Preludes to exercise the violinists' aural skills in

its construction on the various intervals from the unison to the tenth. When the frequency of intervals and double-stops were recorded, many of the Preludes, as expected, contained a majority of contemporary intervals and double-stops. Exceptions were found in those Preludes that were based on tonal intervals and double-stops, such as Preludes III, VI, VIII, and X, which represented the third, sixth, octave, and tenth, respectively.

None of the *Preludes* contain the use of mute or theatrical effects. Presently, there is no recording available.

CHAPTER 6: STUDIES FOR VIOLINISTS (1967), PAUL HINDEMITH

Paul Hindemith (1895-1963) is a name recognized by performers and concertgoers worldwide. He is described in *The New Groves Dictionary of Music and Musicians* as the "foremost German composer of his generation,"[1] as well as the "most prolific and frequently performed composer of his generation."[2] Baker's Biographical Dictionary describes Hindemith as "one of the leading masters of twentieth-century music."[3]

Hindemith began formal studies in composition at the Hoch Conservatory in Frankfurt in 1912, where he was already a student in violin performance. His professional career as a composer can be placed at 1919, when Hindemith himself organized a "composition evening" in Frankfurt, which was a showcase of his works. This concert was well received and led the publisher of B. Schott Söhne, Mainz, to become the exclusive publisher of his music. The future success of his compositions would lead to appointments at the composition faculties at the Berlin Musikhochschule, (1927-1938), Yale University (1940-1953), and the University of Zurich (1951-1955). Hindemith's notable composition students in America include Leonard Bernstein, Norman Dello Joio, Lukas Foss, and Harold Shapiro. Other accomplishments have been his election to membership into the National Institute of Arts and Letter, the Charles Eliot Norton Lecturer at Harvard University, and a recipient of the Sibelius Award.

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[1]Giselher Schubert, "Paul Hindemith," in *The New Groves Dictionary of Music and Musicians*, ed. Stanlie Sadie, vol 11, 523-538 (London and New York: Macmillan Publishers Limited, 2001), 523.

[2]Ibid., 524.

[3]Nicolas Slonimsky, ed., "Paul Hindemith," in *Baker's Biographical Dictionary of Musicians*, Eighth Edition, 775-777 (New York: Schirmer Books, 1992), 775.

The violin etude book, *Übungen für Geiger (Studies for Violinists)*, was composed in 1926. At that time, he did not find the "worthy of publication."[4] It was only toward the end of his career that he found them of value. Writing in 1957, Hindemith remarks that it is only now, later in his life, that he sees the technical value of these etudes. The value he attributes to these works is that they present the problems of fingering and bowing found in modern music.[5]

Etude I, Ohne Lagenwechsel durch die Lagen, Sehr lebhaft

The translation of the title is "Exercise across the position without change of position." This movement across the fingerboard is also done quickly. *Sehr lebhaft* means very lively, and the metronome marking is a dotted half-note equaling 92 beats per second.

To accomplish this task of movement throughout the length of the fingerboard without shifting, one employs the use of extensions and contractions. The resulting finger patterns are chromatic and therefore do not conform to the five, tonal finger patters found in traditional study. Therefore, one of the primary skills that is exercised is the use of chromatic finger patterns. Because of this, the resulting intervals are overwhelmingly contemporary. There are a total of 772 intervals, of which, 201, or 26.04% are tonal, and 571, or 73.96% are contemporary. The most frequently occurring interval is the second, which occurs 392 times, or 50.78%. The minor second occurs 301 times, or 38.99%, and the major second occurs 91 times, or 11.79%. The next most frequently occurring interval is the third, which occurs 197 times, or 25.52%. The minor third occurs 100

[4]Paul Hindemith, *Studies for Violinists*, (Mainz: B. Schott's Söhne, 1967), i.
[5]Ibid., i.

times, or 12.95%, and the major third occurs 97 times, or 12.56%. The perfect fourth follows close behind the third. The perfect fourth occurs 166 times, or 21.50%.

In the beginning, no initial or primary meter is notated, although one can infer that the meter is 6/4 from the almost exclusive use of eighth-notes, combined with a tempo marking of the dotted half-note equaling 92 beats-per-second. In addition, the last measure of the etude occupies six beats: a quarter-note followed by two, quarter-rests and a dotted, half-note rest.

Upon closer examination, issues of rhythm and meter also play an important role. There is the extended practice of irregular accents in the form of irregular bowing and the occasional use of meter changes that further the difficulty of the frequent, irregular bow changes. Legato-slurs are the primary means of sound production and typically, the performer would expect slurs that happen on primary beats. In the case of this etude, a "normal" legato slur happens either at the beginning of the measure and lasts for the duration of the measure (twelve eighth-notes per bow) or the bow changes direction on the primary beats of the measure, beats one and two (six eighth-notes per bow). In Etude I, deviations from these bowing patterns happen quickly. Irregular bowing patterns occur in measures 3-5 and 7-8. In measures 11-12, 13-14, illustrated in Figure 6.1, a quick, three-note meter change to 3/8 forces the performer into an irregular bowing pattern of ten eighth-notes on a down-bow and fifteen eighth-notes on an up-bow. In measures 17, 18 and 19, illustrated in Figure 6.2, a four-note meter change again forces an irregular bowing pattern. In this case, although the slur occurs within one measure, the measure is "missing" two, eighth-notes, thus creating a quicker bow change from the expected twelve notes per bow.

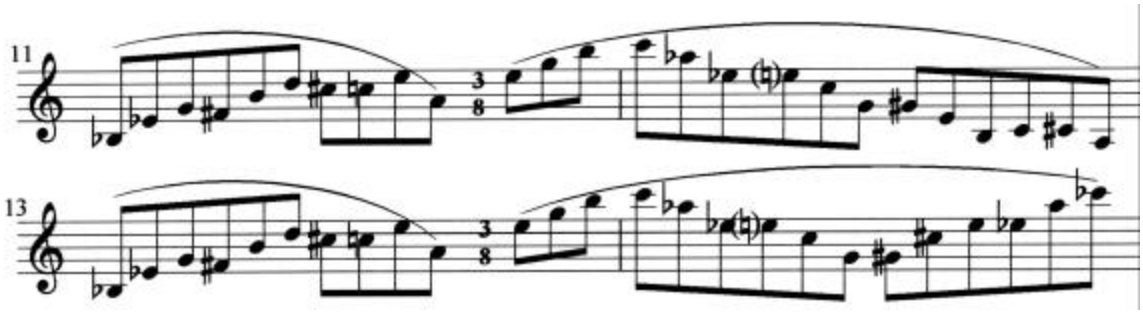


Figure 6.1. Meter changes, measures 11-12 and 13-14.

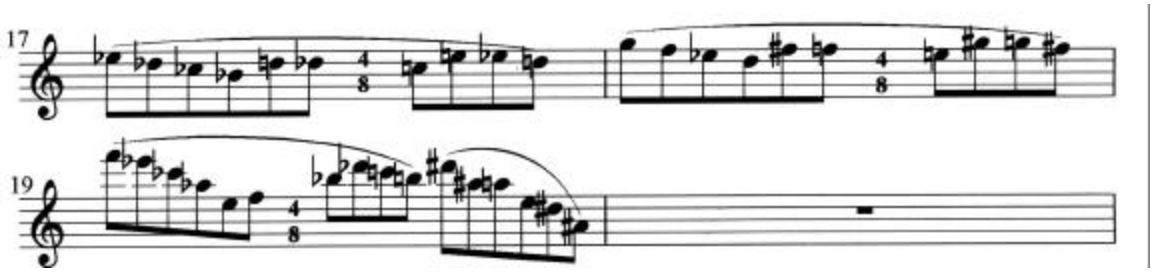


Figure 6.2. Meter changes, measures 17, 18, and 19.

The normal bowing pattern of either six- or twelve-notes to a bow resumes in measures 20 through 27. New bowing techniques, beginning in the second half of measure 27 and continuing to the end of the etude, require the performer to use very long bows that can span over three measures. Issues of irregular bowing during these long bow passages are brought about by meter changes within one continuous bow. Such meter changes "disturb" the natural flow of eighth-notes in the expected 6/4 meter. These meter changes, illustrated in Figures 6.3a, 6.3b, and 6.3c, occur in measures 31 (9/4), 32 (8/8), 37 (3/8), 48 (4/8), 52 (4/8), and 56 (4/8).

Placement of bow and use of bow are normal, of which, the use of bow is legato-slurs. There are no dynamics, although accents exist in measures 3, 4, and 58-61. Special timbres created by the left-hand are minimal. The high positions, the 8th and 11th

positions, occur in measures 61-63. Also, a trill from d''' to e-flat''' occurs in the penultimate measure, measure 64. There are no chords, no pizzicato, no use of mute, and no theatrical effects.

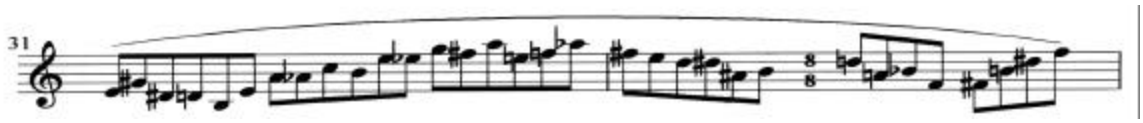


Figure 6.3a. Meter change, measure 32.

Figure 6.3b. Meter change, measure 36.

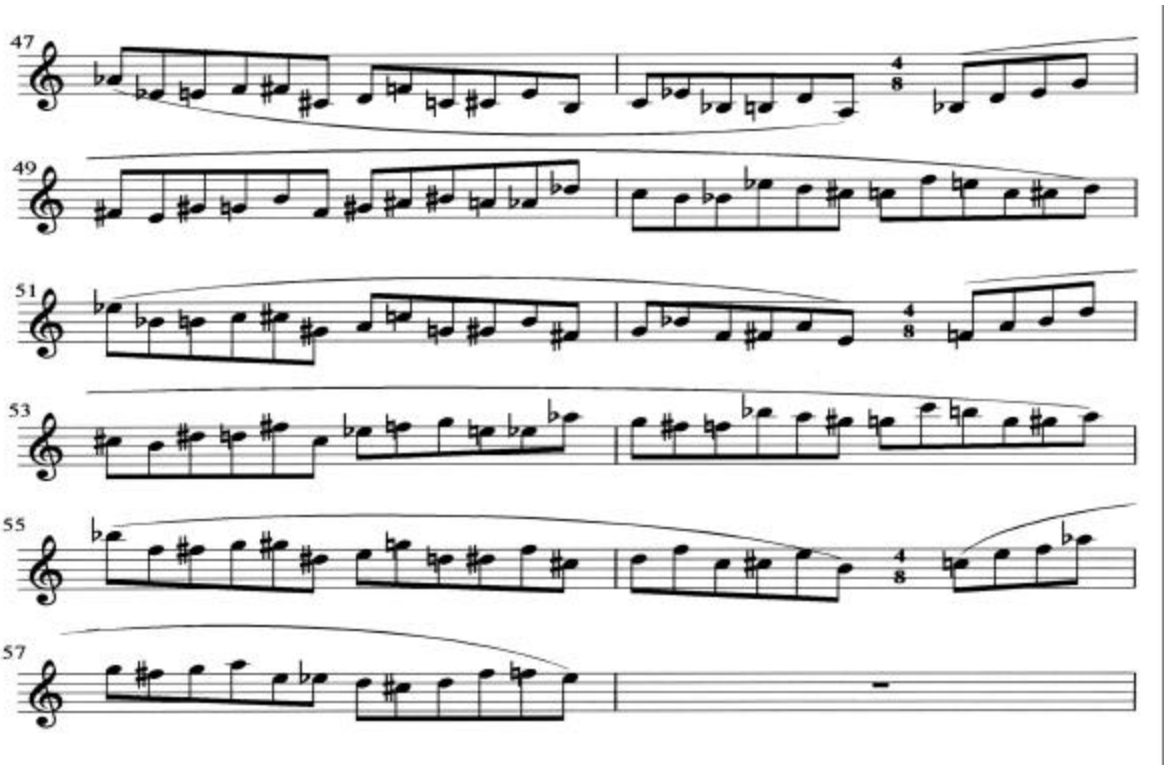


Figure 6.3c Meter changes that occur at measures 48, 52, and 56.

Etude II. Gewandtheit des Bogens bei rhythmischem Wechsel, Mässig bewegte Achtel

The title of this etude can be translated as "The Skillful Maneuvering Through Rhythmic Changes." Underneath the title appears, "Diese Ubung spielt man am besten mit Zuhilfenahme eines Metronoms." Here, Hindemith advises, "it would be best if this etude is practiced with the help of a metronome." The tempo and metronome marking, *Mässig bewegte Achtel (etwa 84)*, can be translated as *Moderately agitated eighth-note, at approximately 84 beats-per-second*, and informs the performer that the eighth-note is the fundamental pulse. Thus, the title, tempo indications, and notes to the performer clearly indicate that rhythm is to be the primary focus of this etude. Contemporary rhythmic challenges found are the use of changing meter, contemporary rhythm groups, and the extensive use of additive rhythms.

In addition to the contemporary rhythm groups of quintuplets found in measures 5, 6, 11, 16, and 25, and septuplets is in measures 4 and 25, there are a variety, yet limited number of traditional rhythm groups are found throughout this etude, and notated in Figure 6.4. What makes this etude extremely difficult is that the entire composition is rhythmically constructed on additive rhythms. In fact, most of the measures do not repeat a previous measure's pattern of additive rhythms. Complete notations of the rhythms that occur in Etude II follow Figure 6.4. The only measures that rhythmically correspond to one another are measures 1 and 22, 2 and 23, 3 and 24, and 4 and 25. In order to provide clarity for the reader, rhythms are notated as: 1) a single pitch, and 2) quarter-note subdivisions.

Meter changes and irregular slurring further complicate the rhythmic complexities. The meters that used are 3/8, 4/8, 6/8, and the meter changes that occur our

found in measures 2, 3, 10, 12, 14, 15, 20, 21, 23, and 24. Irregular slurring can be found in measures 3-4, 6-8, and 10-29.

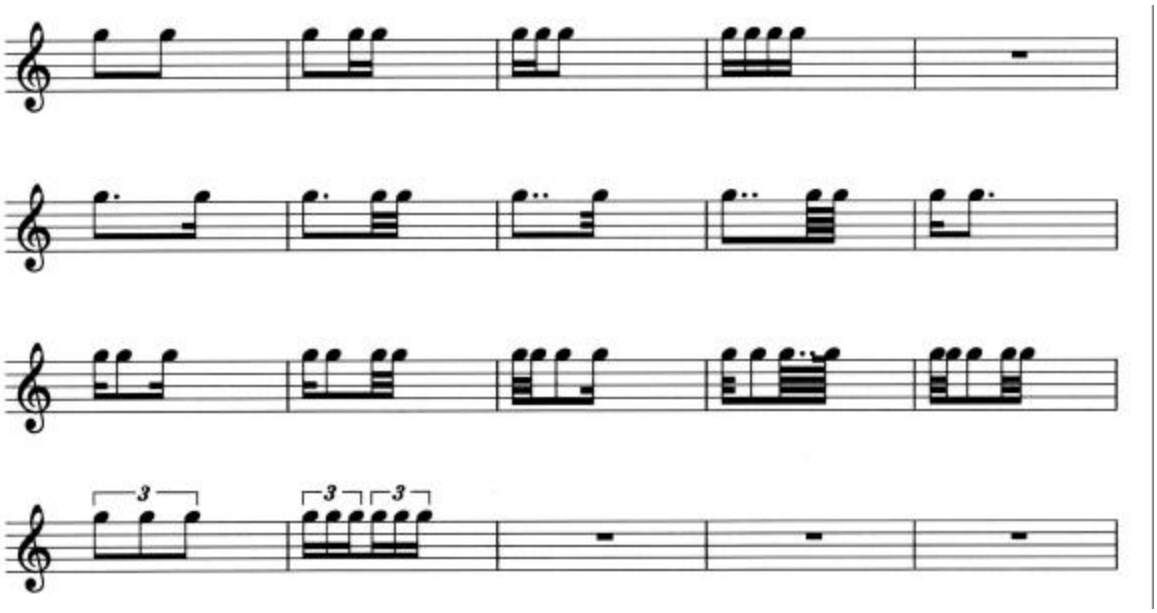


Figure 6.4. Traditional rhythm groups that occur in Etude II.

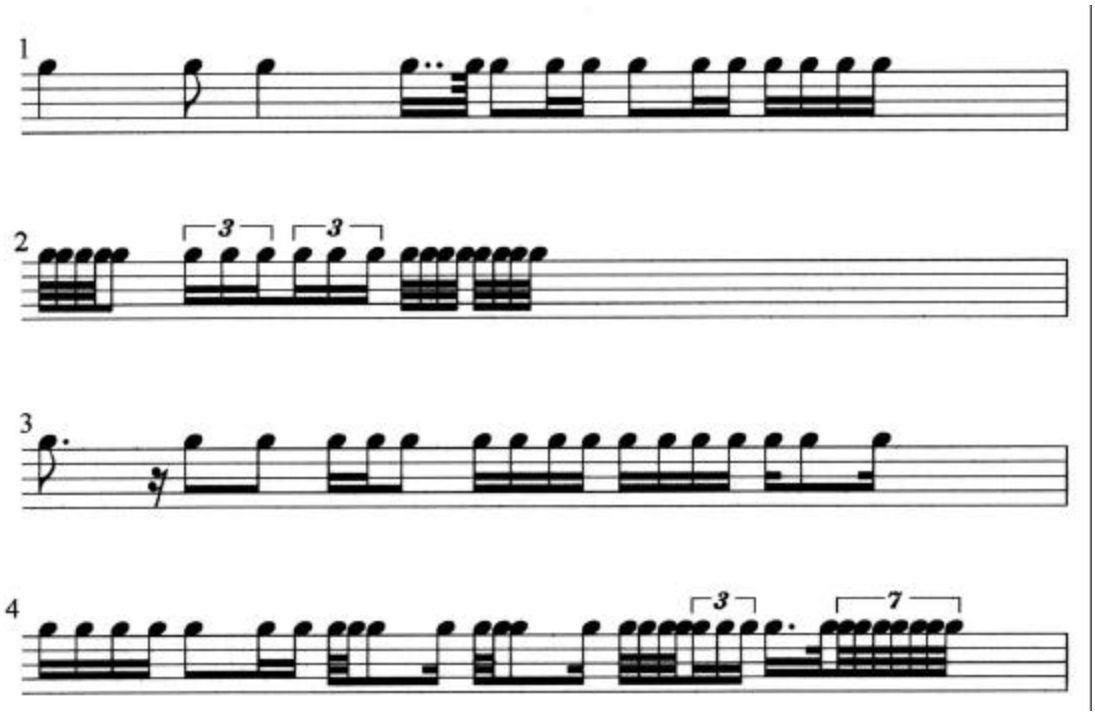


Figure 6.5. Notation of the rhythms in Etude II.

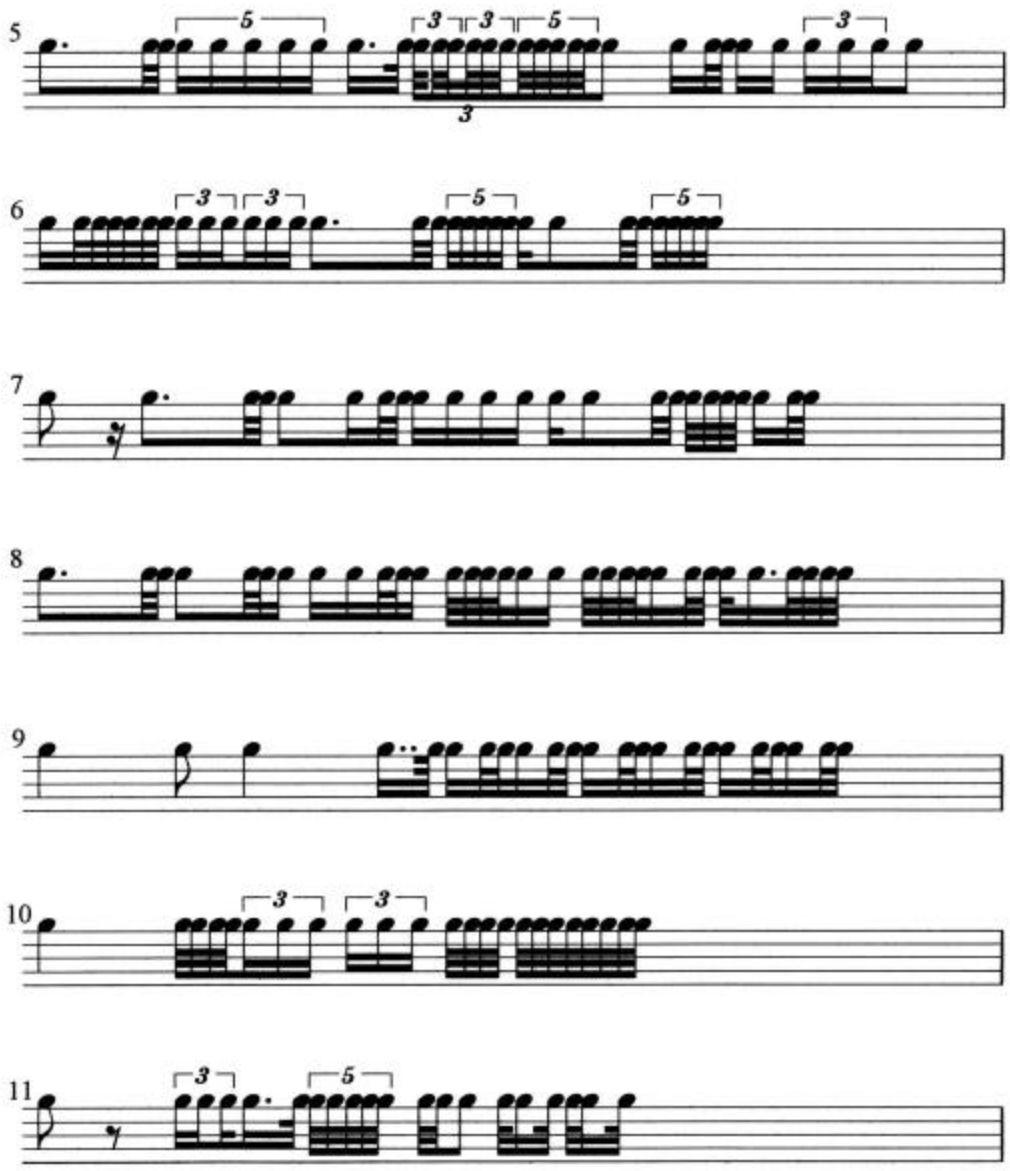
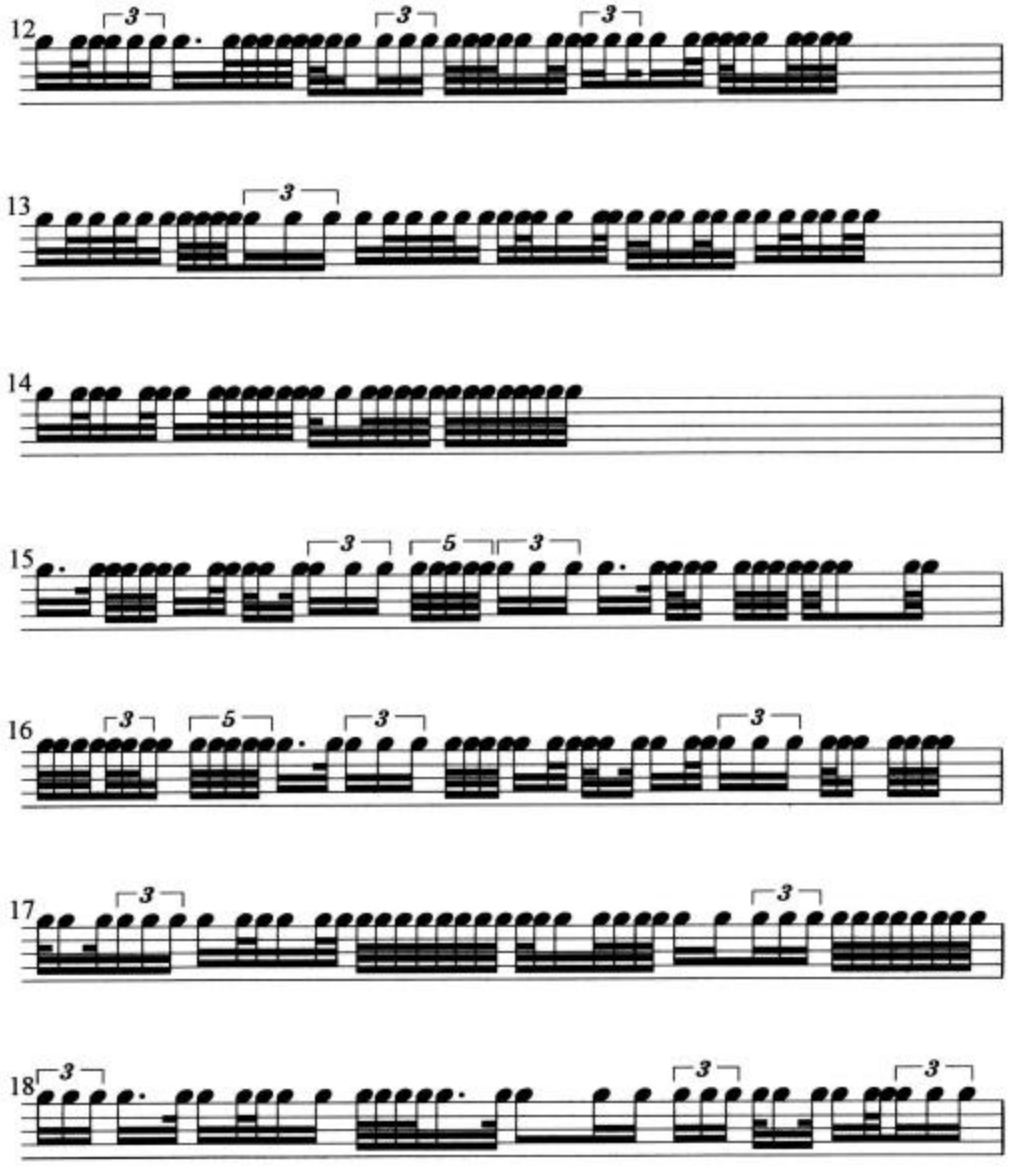


Figure 6.5 continued.



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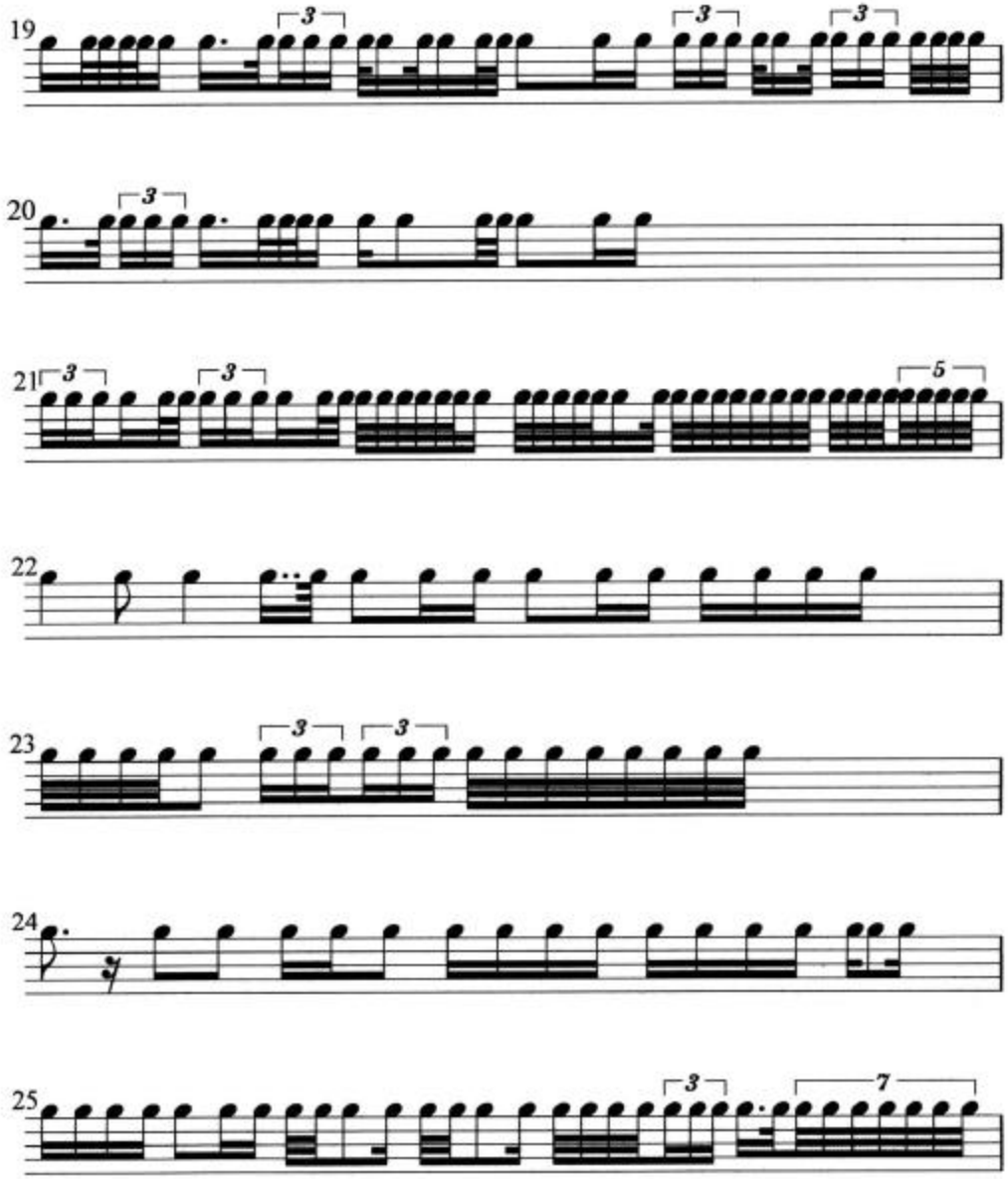

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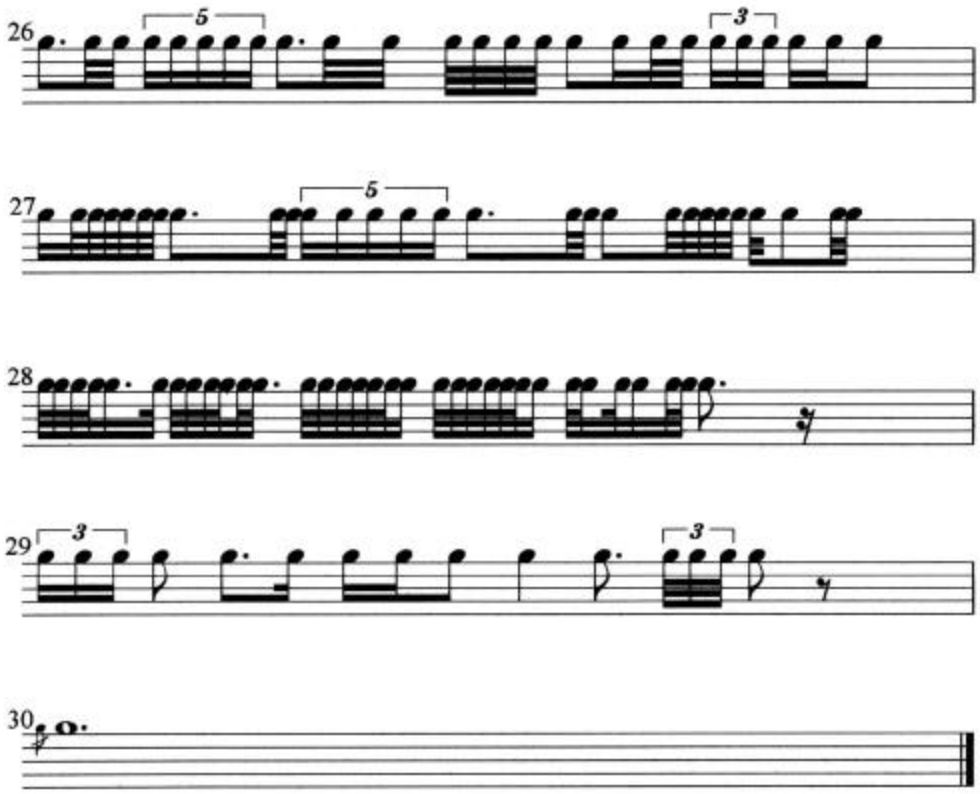

Figure 6.5 continued.

The use of contemporary chords, notated as quarter-notes in Figure 6.6, provides a secondary concern for the performer. The majorities of chords are built upon a minor sixth, and occur in measures 12, 13, 17, 18, 19, 20, and 29. An exception is one chord comprised of a perfect fourth and tritone, and occurs in measure 16.

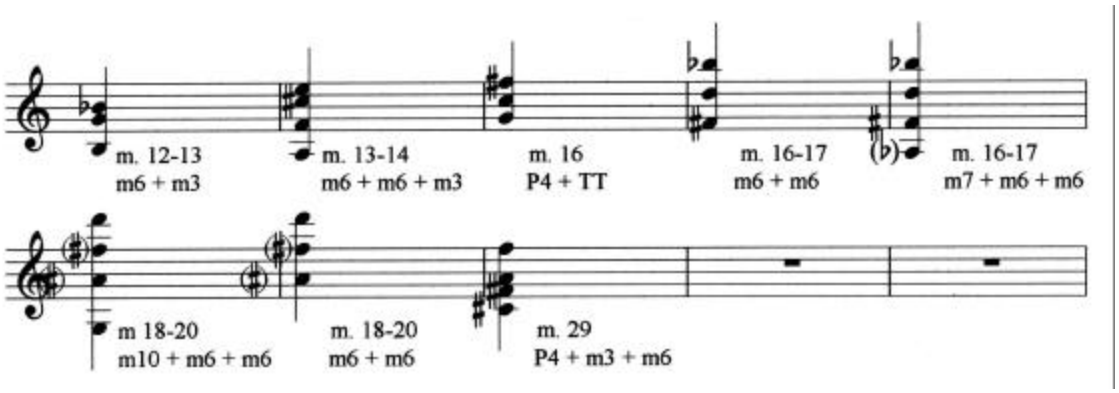

Figure 6.6. Chords that occur in Etude II.

Of the 465 intervals that occur, 120, or 15.80% are tonal, and 306, or 65.81% are contemporary. The most frequently occurring interval is the second, which occurs 199 times, or 42.79%. The minor second occurs 117 times, or 25.16%, and the major second occurs 82 times, or 17.63%. The next most frequently occurring interval is the third, which occurs 100 times, or 21.50%. The minor third occurs 76 times, or 16.34%, and the major third occurs 24 times, or 5.16%. Like Etude I, the perfect fourth is the third most frequently occurring interval, and occurs 80 times, or 17.20%.

There are a total of 107 double-stops, of which 40, or 37.38% are tonal, and 67, or 62.62% are contemporary. The most frequently occurring double-stop is the third, and occurs 33 times, or 30.84%. The minor third occurs 7 times, or 6.54%, and the major third occurs 26 times, or 24.30%. The next most frequently occurring double-stop is the perfect fourth, and it occurs 34 times, or 31.78%.

Placement of the bow and use of the bow are normal. Uses of bow include détaché, legato, legato-slurs, and staccato. There are no dynamics, although accents can be found in measures 1, 3, 4, 5, 6, 8, 9, 10, 24, 25, and 28. Special timbres created by the left-hand are minimal. The high positions occur in measures 17-21. The 8th position occurs at measure 17 and the 8th, 9th, 10th, and 11th positions occur at measure 21. A trill, followed by a written out turn, signals the end of the etude in measure 29. There are no pizzicato, no sudden dynamic changes, no use of mute, and no theatrical effects.

Etude III. Saitenwechsel, Langsam

Saitenwechsel or "change of strings" has the tempo indication *Langsam*, which means *slowly*. In spite of this marking, this etude requires the rapid alternation of different pitches on different, usually adjacent strings. What makes this etude difficult is

that the visual impression of notes does not always correspond with what might be expected technically. Such contradictory impressions are a hallmark of contemporary music.[6] For example, one can look at in measure 10, which is reproduced in Figure 6.7. Beginning with the fifth and sixth notes, the d' and e-flat', one typically does not expect to go to a lower string to play a note that is higher in pitch.

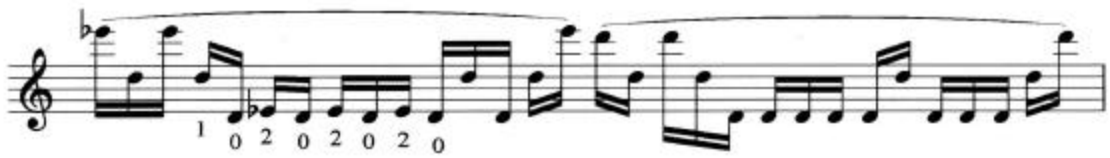

Figure 6.7. Contradictory visual impressions, measure 10.

It has been suggested in the literature that this particular etude is an exercise in playing unisons. Szigeti writes that Etude III is constructed on the unison hand position.[7] Pereira describes this etude as having difficult string crossings and the inclusion of many unisons.[8] Yet, upon analysis of the 1,898 intervals present, unisons occur 221 times, or 11.64%. The most prevalent interval is the second, which occurs 339 times, or 17.86%. The minor second occurs 187 times, or 9.85%, and the major second occurs 152 times, or 8.01%. The octave is the next most frequently occurring interval, and it occurs 335 times, or 17.65%. The next most frequently occurring interval after the octave is the sixth, and it occurs 292 times, or 15.38%. The minor sixth occurs 134 times, or 7.06%, and the major sixth occurs 158 times, or 8.32%. Of the three most frequently occurring

[6]Charles Norman Ashley, "The Composition of Fundamental Exercises for Violin in Representative Idioms of the Twentieth-Century" (M.A. Thesis, Ball State University, 1962), 17.

[7]Joseph Szigeti, *Szigeti on the Violin*, (New York: Dover Publications, 1979), 77.

[8]Ernest Pereira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 23.

intervals, the second, the octave, and the sixth, none of these require the extension, or stretch of the left-hand that the unison demands.

Once the violinist is secure with the variety of intervals, issues of meter and rhythm play a large, secondary role. The rhythmic scheme is overwhelmingly additive rhythms of the duple and triple and because of this, the ability to quickly alternate between the duple and triple while negotiating string crossings is practiced to a high degree. There are also irregular slurs in measures 7, 14-15, 17-22, 25-26, 33, and 39-45. The uses of such slurs are not severe, but do cause some level of discomfort in the established meter of 18/8. The use of irregular slurs in measures 15, 18, 20, and 21 group the sixteenth-notes in such a way that it in effect, creates a meter change, although a meter change is not marked. In measures 15 and 18, the sixteenths are grouped and slurred in a manner that suggests a 3/8 meter that changes to a 6/4 meter. In measures 20 and 21, the grouping of sixteenths is the opposite: a 6/4 meter changes to a 3/8 meter.

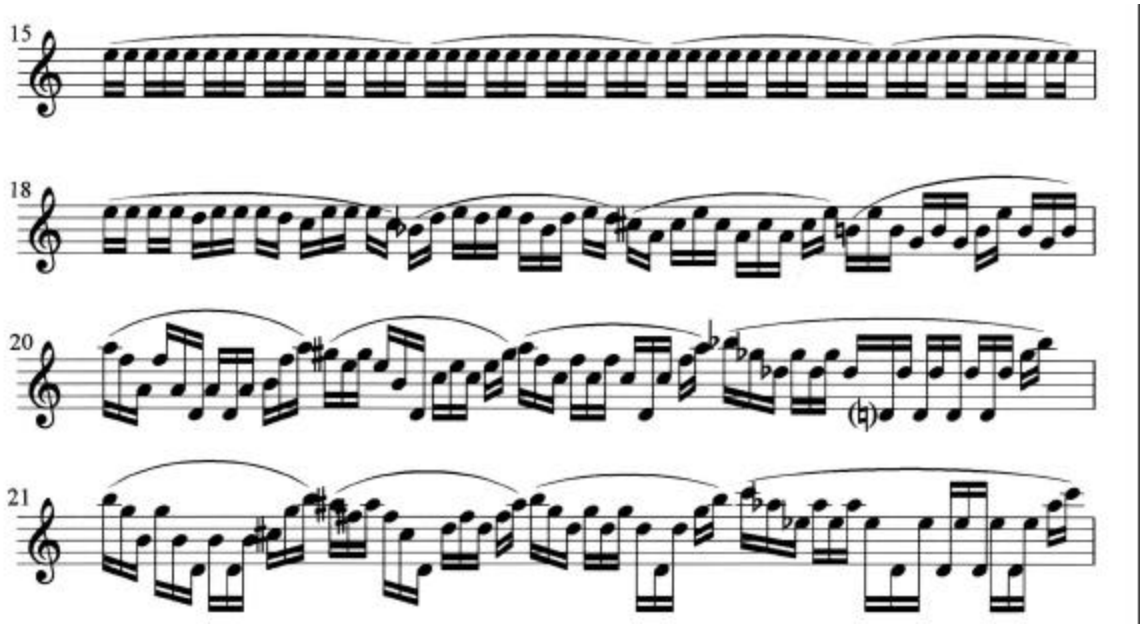

Figure 6.8. Irregular groupings of sixteenth-notes, measures 15, 18, 20 and 21.

Placement of bow and use of bow are normal, with the primary use of bow occurring as legato-slurs. Special timbres created by the left-hand are brief. In measure 45, there is a brief foray into the 8th position. There are two tempo indications that provide some expressive opportunities. A *poco ritenuto*, returning to *a Tempo*, occurs in measures 24-25, and the indication of *Etwas ruhiger*, meaning *somewhat calm*, in measure 40. There are no piccicato, no dynamics, no contemporary chords, use of mute, or theatrical effects.

Etude IV. Gebrochene Akkorde, Sehr lebhaft

"Gebrochene Akkorde," translated as "Broken Chords," is a continuing series of arpeggios built upon modern intervals at a *Sehr lebhaft* tempo, or *very lively* tempo. The most frequently occurring interval is the third, which occurs 516 times, or 42.75%. The minor third occurs 331 times, or 27.42%, and the major third occurs 185 times, or 15.33%. The next most frequently occurring interval is the perfect fourth, and it occurs 328 times, or 27.17%. Following behind the perfect fourth, the interval of the second in the third most frequently occurring interval, and occurs 219 times, or 18.14%. The minor second occurs 152 times, or 12.59%, and the major second occurs 67 times, or 5.55%.

Most often, one can expect to find arpeggios constructed on both the third (major or minor) and the perfect fourth. Finding a majority of thirds in this broken chord exercise should not lead one to believe that the etude exercises tonal skills. Ashley states, "…arpeggios in varied third and combinations of thirds, fourths, and seconds, will be most useful to the violinist."[9] Also, Galamian and Neumann include contemporary. scales built on the repeating minor third in their violin scale book, *Contemporary Violin*

[9]Charles Norman Ashley, "The Composition of Fundamental Exercises for Violin in Representative Idioms of the Twentieth-Century" (M.A. Thesis, Ball State University, 1962), 33.

Technique.[10] Yet, in spite of the high occurrence of thirds in Etude IV, the majority of intervals are contemporary. Of the 1,207 intervals present, 549, or 45.48% of the intervals are tonal and 655, or 54.27% of the intervals are contemporary.

In addition to reorienting the ear and fingers to these non-traditional arpeggios, there is a good amount of practice in the high positions. The use the of 8th position occurs in measures 35, 63, 77, 89, and 93-94. The ninth position occurs in measures 25, 30-33, 36, and 92, and the 10th position occurs in measures 27, 42-43, and 71-72. There are also passages that begin in one high position and extend to an even higher position. In measures 30, 31, and 90, the hand is set in 9th position and reaches into the 10th position. In measures 32-33, the left-hand is set in 9th position and extends into 11th position. In measures 71-72, the left-hand is set in 10th position and extends into 11th position. In measures 90 and 98, the left-hand is set in 12th position and extends into 13th position. In measure 100, the left-hand is set in 10th position and extends into 12th position. In measure 102, the left-hand is set in 7th position and reaches into the 12th position, and finally in measure 104, the left-hand is set in 8th position and extends into the 10th position.

The primary meter of ¾ is not notated but can be easily determined from two factors: the tempo indication of the quarter-note equaling 152 beats-per-minute, and the almost exclusive use of sixteenth-notes. There exists a few meter changes: a 2/4 meter occurs in measures 13, 55, and 86, and a 4/4 meter is found in measure 89. In each instance, the meter reverts back in the following measure to the original ¾ meter. The rhythmic challenges that occur are found in the irregular bowing patterns. Irregular

[10]Ivan Galamian and Frederick Neumann, *Contemporary Violin Technique*, (New York: Galaxy Music Corporation, 1966), 66.

slurring occurs in almost every measure of this etude. The measures in which irregular slurring does not occur are measures 5, 16, 21, 22, 26, 31, 32, 45, and 78.

Placement of the bow and use of the bow are normal. Traditional uses of the bow include détaché, legato-slurs, slurred-staccato, spiccato, and staccato. There are no dynamics, although accents occur in measures 40, 42, 44, 74, 92, 93, 95, 97, 99, and 101. There are no instances pizzicato, no contemporary chords, no use of mute, and no theatrical effects.

Etude V. Doppelgriffe und Saitenwechsel, Mässig schnell Viertel

"Doppelgriffe und Saitenwechsel," *Mässig schnell Viertel*, can be translated as "Double-stops and String Alterations," with moderately fast quarter-notes. Etude V is similar in concept to Etude III, "String Crossings," in that the performer must rapidly negotiate adjacent string crossings. Additional to Etude V is the execution of double-stop while crossing adjacent strings. Because of this, the performer must not only execute the string crossings in a fluid manner, but also refine the ability to play two strings at once. An additional factor of irregular slurs further complicates the ability to play double-stops while negotiating string crossings. These irregular slurs occur in measures 6-9, 10-12, 14-16, 19, 22-44, 47-58, 62-63, 66-67, 73-79, 81-83, and 86.

Very few intervals occur. There are a total of 30 intervals, of which two, or 6.67% are tonal, and 28, or 93.33% are contemporary. Only two intervals are represented, the second and the third. The second occurs 28 times, or 93.33%. The minor second occurs 15 times, or 50.00%, and the major second occurs 13 times, or 43.33%. The minor third is the only classification of third that occurs, and it occurs two times, or 6.67%.

Double-stops occur more frequently. There are a total of 434 double-stops, of which 266, or 61.29% are tonal, and 168, or 38.71% are contemporary. The most frequently occurring double-stop is the sixth, and it occurs 156 times, or 35.95%. The minor sixth occurs 113 times, or 26.04%, and the major sixth occurs 43 times, or 9.91%. The next most frequently occurring double-stop is the seventh, which occurs 129 times, or 29.72%. The minor seventh occurs 103 times, or 23.73%, and the major seventh occurs 26 times, or 5.99%. Following behind the seventh is the third, which occurs 79 times, or 18.21%. The minor third occurs 40 times, or 9.22%, and the major third occurs 39 times, or 8.99%.

The use of chords is 3-note chords containing the octave double-stop that is combined with a third note that is frequently an open string. The left-hand technique required for these chords is the same as if one fingers a continuous fingering double-stop octave (see Ysaÿe sub-chapter, "Octaves"). Exceptions can be found in measures 19-21, 86-88, and 89-90. In measures 19-21 and 86-88, the octave double-stop, e-flat'-e-flat'', occurs within the context of a 3-note chord, and is fingered with the 3rd finger on the G-string and the 2nd finger on the A-string. In measure 89-90, the same pitches, e-flat'-e-flat'', occur within the context of a 4-note chord, as is fingered with the 2nd finger on the G-string and the 1st finger on the A-string. Both fingerings for the recurring e-flat'-e-flat'' are similar to the placement of a perfect fourth, and the use of this fingering allows the open D-string, or d', to ring.

There are some timbre changes created by the left-hand through the use of high positions and one trill. The ninth position occurs in measures 59-62 and 64-65. The 10th position occurs in measures 67-73. The trill is in the penultimate measure, measure 91.

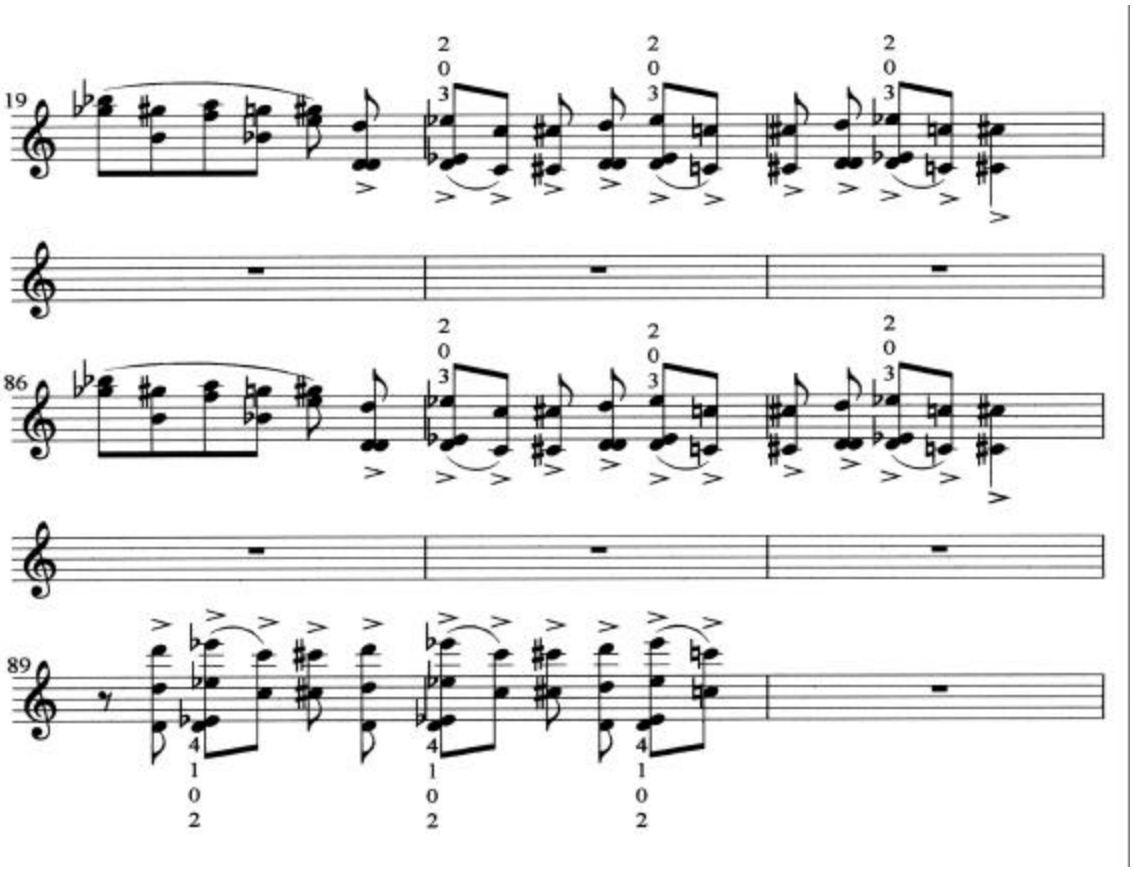

Figure 6.9. Octave fingered as a perfect fourth, measures 19-21, 86-88, and 89-90.

Placement of the bow is normal. Primary uses of bow are détaché and legato-slurs. No dynamics occur, although there are accents, which happen on either double-stop octaves or triple-stops in measures 14-15, 19-21, 31-32, 44-46, 81-82, and 86-90. There are no pizzicato, no sudden dynamic changes, no use of mute, and no theatrical effects.

Conclusions

The titles of the individual etudes found in Hindemith's *Studies for Violinists* reveal a focus on specific areas of contemporary violin technique. Etude I, "Exercise Across the Fingerboard Without Shifting," focuses on chromatic fingerings that do not

conform to traditional, diatonic patterns. Etude II, "The Skillful Maneuvering Through Rhythmic Changes," is a study of difficult, contemporary rhythms. Etude III, "Change of Strings," is an exercise in reconciling conflicting visual and motoric reactions. Etude IV, "Broken Chords," is an etude of contemporary arpeggios. Finally, Etude V, "Double-Stops and String Alternation," is a study of contemporary double-stops and reconciling conflicting visual and motoric reactions.

A closer examination of the *Studies*, using the *Content Analysis Form for Recording Contemporary Violin Etudes*, revealed other, contemporary benefits. Four of the five etudes contain a majority of contemporary intervals. The exception was Etude III, which contain a majority of tonal intervals. Four of the five etudes have the interval of the second as the most frequently occurring interval. The exception here is Etude IV, which contains the third as the most frequently occurring interval.

The use of different timbres and effects, both important practices of contemporary music, are lacking in these studies. Timbres and effects created by the bow are largely traditional. Timbres and effects created by the left-hand are limited to the use of high positions and trills. The use of the high positions is best represented by Etude IV and Etude V. The use of trills occurs in Etudes I and II. In the case of trills, the occurrences are brief, occurring only one time in each Etude.

The study of double-stops occurs in Etude II, "The Skillful Manuevering Through Rhythmic Changes," and Etude V, "Double-Stops and String Alternation." When classifying the double-stops of both etudes, it was found that Etude V, the designated double-stop study, had a majority of tonal double-stops. Surprisingly, it was Etude II, the designated rhythmic study piece, contained not only many double-stops, but contained a

majority of contemporary double-stops. Thus, Etude II is a better choice for the practice of contemporary double-stops. Additionally, Etude II contains the best chord practice, with the occurrence of eight, contemporary chords.

Contemporary rhythm and meter study is centered around Etude II, the designated rhythm and meter study. It is overwhelmingly built on additive rhythms, has frequent meter changes, and contains quituplets and septuplets. A distant second, in terms of its rhythmic study value, is Etude III, an etude designed to reconcile the conflicting visual and motoric reactions of a violinist. This etude is built primarily on the additive rhythm of the duple plus triple or its opposite, the triple plus duple.

Joseph Szigeti in his book, *Szigeti on the Violin*,[11] and Erenest Perira in his dissertation, "Twentieth-Century Violin Technique,"[12] describes Etude III, "String Alternations," as a study for exercising the unison stretch of the left-hand. While unisons do exist in Etude III, the *Content Analysis Form for Recording Contemporary Violin Etudes* revealed that the unison is not the most frequently occurring interval. The unison occurs only 11.64%, while the second and the octave occur most frequently, at 17.86% and 17.65% respectively. Both the second and the octave have a similar span or stretch of the left- hand, which is an interval of a fourth, and as such, does not require the stretch the unison requires, which is a stretch of a perfect fifth.

[11]Joseph Szigeti, *Szigeti on the Violin*, (Toronto, Ontario: General Publishing Company, 1969), 7.
[12]Erenest Perira, "Twentieth-Century Violin Technique," (D.M.A. dissertation, The University of Texas, 1987), 23.

CHAPTER 7: FREEMAN ETUDES (1981), JOHN CAGE

John Milton Cage, Jr. (1912-1992) was an American composer who, according to *The New Grove Dictionary of Music and Musicians*, "has had a greater impact on music in the twentieth-century than any other American composer."[1] His composition teachers include Henry Cowell and Arnold Schoenberg. Innovations credited to Cage are the use of unmusical sounds, or noise, an example of which can be seen (and heard) in another one of his innovations, the prepared piano. A prepared piano is one that is prepared by placing various objects, such as screws, metal objects, rubber bands, and etcetera, on and in-between the strings of a piano. Doing so creates different sounds, timbre, and even different pitches when the hammer strikes a prepared string. Cage is also one of the first composers to use electronic means in composition. His *William Mix for Magnetic Tape* (1952) was one of the firsts of its kind in the United States.[2]

Baker's Dictionary states that Cage's "principal contribution to the history of music was his establishment of the principle of indeterminacy in composition."[3] Using the element of chance, Cage would first compose the various musical events that he wanted to occur in a composition, but the order of such events would be determined at random. The ordering of events could take place by a variety of means, such as the throwing of dice, the throwing of coins on a chart, by using a random number table, and even by having a computer generate random numbers. Such indeterminacy took place not only in the ordering of events by the composer, but also could take place by the

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[1]James Pritchett and Laura Kuhn, "Cage, John," in *The New Grove Dictionary of Music and Musicians*, ed. Stanlie Sadie, vol. 4, 796-800 (London and New York: Macmillan Publishers Limited, 2001), 796.

[2]Ibid., 798.

[3]Nicolas Slonimsky, Laura Kuhn, and Dennis McIntire, Cage, John (Milton Fr.)," in *Baker's Biographical Dictionary of Musicians*, Eighth Edition, 540-544 (New York: Schirmer Books, 1992), 543.

performer as well. In some of his compositions, the music notation was purposely vague. The purpose of such notation forced the performer to not only interpret the music, but play a part in composing the music. Most often, this would lead to one-time-only, or unique performances.

Honors and awards include the Guggenheim Foundation (1949), the National Academy of Arts and Letters (1949), election to the American Academy and Institute of Arts and Letters (1968), election to the American Academy of Arts and Sciences (1978), election to the American Academy of Arts and Letters (1989), receiving the Commander of the Order of Arts and Letters by the French Minister of Culture (1982), and the Kyoto Prize in Japan (1989).

Freeman Etudes

Betty Freeman commissioned the *Freeman Etudes* in 1977 for the violinist Paul Zukofsky.[4] Cage had in mind to compose four books with eight etudes each. The first two books were published in 1981, and Books 3 and 4 were published in 1992. Per Zukofsky's request, musical notes were written in traditional notation, but the choice of notes and their rhythm were chosen by chance. Specifically, Cage used the tracing of star maps to determine pitch and rhythm.[5] Other aspects of the note, as the use of bow, intonation, timbre, and loudness were chosen by another method of chance, specifically, the coin oracle of *I Ching*. The *I Ching*, is an ancient, Chinese oracle in which a set of 64 images on a chart are selected at random by throwing a stick or coin on to the chart.

James Pritchett, a Cage scholar who assisted Cage in completing Books 3 and 4 of the *Freeman Etudes*, describes all four books of the *Freeman Etudes* as "extremely

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[4]James Pritchett, *Freeman Etudes*, (http://www.music.princeton.edu/~jwp/texts/freeman.html , 1994).

[5]Ibid.

difficult pieces of music."[6] Cage has said of the *Etudes* that he made them as difficult as possible.[7] Even Zukofsky found some of the *Etudes* impossible to play.[8] Regarding their difficulty, one is reminded of Ysaÿe's statement: "…study, will-power and patience can overcome the most arduous difficulties, this more on account of their novelty rather than of their actual difficulty."[9] Cage's philosophy of music was somewhat similar: "work, hard work, and no end to it."[10]

In the preface to the *Freeman Etudes*, Cage explains some of the compositional ideas. First of all, there is a different concept of meter and rhythm. One can refer to Figure 7.1 for the following discussion. Below each staff of music, there are two lines. The bottom line marks the measures and the top line marks the approximate point in time as to where the notes should be played. Cage writes that each measure last approximately three seconds. The rhythm, or top line, is somewhat determined by the performer. The closer the perpendicular lines are to one another, the closer in time the notes it corresponds to are to be played. In Figure 7.1, the c is followed, after approximately 1.5 seconds, by a *col legno* e-flat''' at *forte* dynamic, and is immediately followed by a perfect fourth harmonic, with the sounding pitch, b-flat'''', at *mezzo forte* dynamic.

As mentioned earlier, Cage uses conventional means to notate pitches, meaning, he uses conventional note-heads, but not all the pitches are to be played in a conventional manner. Tones can be microtonally sharp or flat, with its degree of sharpness or flatness

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[6]Ibid.
[7]Ibid.
[8]Ibid.
[9]Eugenè Ysaÿe, *Ten Preludes for Violin : Essay on the Modern Technic of the Violin*, op. 35, reconstituted by Charles Radoux Rogier, (Brussels and Paris: Schott Frères, 1952), 5.
[10]James Pritchett, *Freeman Etudes*, (http://www.music.princeton.edu/~jwp/texts/freeman.html, 1994).

being left up to the performer.[11] Tones that are microtonally sharp are notated in Figure 7.2, and tones that are microtonally sharp are notated in Figure 7.3. Tones can also be "slightly inflected"[12], and uses the symbols in Figure 7.4.

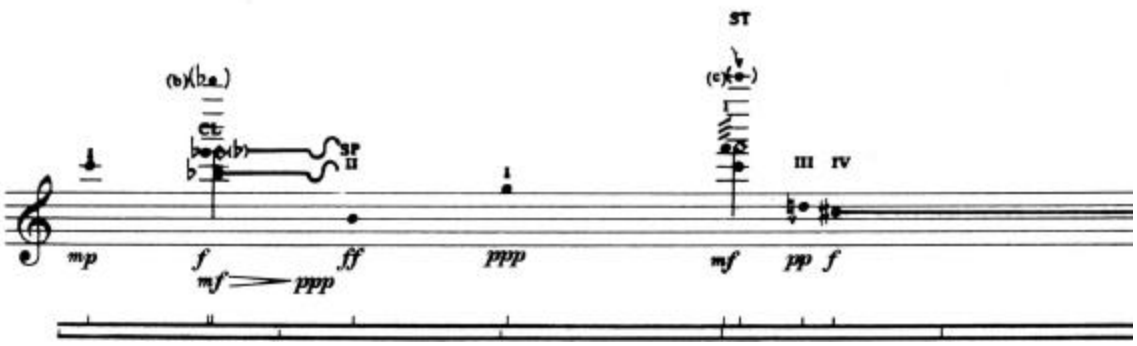

Figure 7.1. Etude I, measures 1-5.

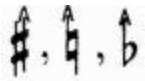

Figure 7.2. Microtonally sharp.

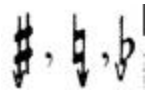

Figure 7.3. Microtonally flat.

Figure 7.4. Inflection symbols.

[11]John Cage, *Freeman Etudes,* I-XVI, Books I-II, for Betty Freeman, edited with Paul Zukofsky, (New York: C.F. Peters Corporation, 1981), i.

[12]Ibid., i.

The *Freeman Etudes* display a wide variety of timbre that is produced by the bow. In additional to the traditional placement of the bow between the bridge and the fingerboard, Cage marks the use of *col legno*, *sul ponticello*, *sul tasto*, *tremolo*, and four kinds of *martellato*, or hammered stroke. The descriptions of the four kinds of martellato, along with its corresponding symbols, are found in the preface and are featured in Figure 7.5. Moving from left to right, they are as follows: "beginning in space, ending on the string; starting on the string, ending in space; beginning and ending in space, hammering the string between; beginning and ending on the string."[13]

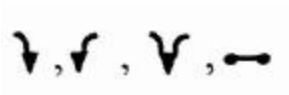

Figure 7.5. Martelatto symbols.

The performer will find that many of the above named bowing techniques happen rapidly and change quickly from one technique to another. For example, in Etude I, measure 15, which is illustrated in Figure 7.6, one can see a variety of changes that happen in a fraction of a second. Beginning with the second note, this *normale* f-sharp''' is followed by a *normale*, inflected, and microtonally low b''', followed by a *sul ponticello* a-sharp'', followed by a *normale*, microtonally high c-sharp''''', followed by a *sul tasto* double-stop, a'''-c-sharp''''', (c-sharp''''' is microtonally high), followed by a *normale* d''''. In regards to the rapid changes of bowing techniques, as in measure 15, the violinist Eugene Gratovich has described such use and placement of bow in contemporary music as the "virtuosic timbre changes of the bow…"[14]

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[13]Ibid., i.

[14]Eugene Gratovich, ed., *Sixteen Contemporary Violin Etudes for Study and Performance*, (Bryn Mawr: Theodore Presser Company, 1982), 81.

A recording of the *Freeman Etudes* is available from Mode Records, with Irvine Arditti as the violinist.

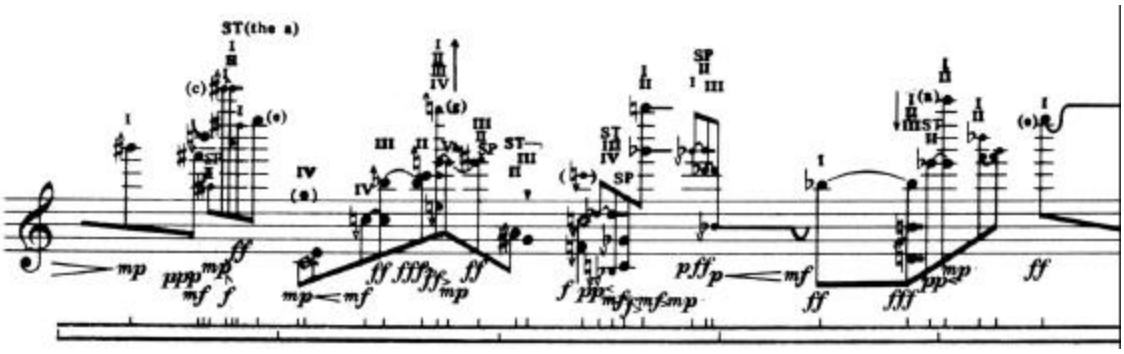

Figure 7.6. Rapid bow changes, Etude I, measure 15-19.

Etude I

Placement of bow involves traditional, *sul ponticello*, and *sul tasto* techniques. The *sul ponticello* techniques occur on the following notes: measure 2, the b' at *mezzo forte* dynamic; measure 9, the microtonally low b-flat'' at *fortisisimo* dynamic; measure 12, the microtonally high f''' at *fortisisimo* dynamic; measure 15, the a-sharp'' at *mezzo piano* dynamic; measure 16, the major second double-stop, e'''-f-sharp'''' at *fortissimo* dynamic; measure 17 contains two, *sul ponticello* events. The first, a tritone double-stop, c'-microtonally low g-flat', at *forte* dynamic. The second, a perfect fourth double-stop, d-flat'''-microtonally low g-flat''', at *fortissimo* dynamic; measure 26, the minor seventh double-stop, e'''-d'''', at *mezzo piano* dynamic; measure 30, the microtonally low and inflected c''''' at *mezzo forte* dynamic that *crescendos* toward a *fortissimo* in approximately 1 second; measure 38, the microtonally low d-flat' at *pianisisimo* dynamic that *crescendos* over approximately 3 seconds to *piano* dynamic; measure 40, the microtonally low c-sharp' at *mezzo forte* dynamic; measure 46, the b-flat at *mezzo forte*

dynamic; measure 65, the microtonally low b at *mezzo forte* dynamic; measure 72, the microtonally high f''' at *mezzo piano* dynamic; and measure 80, the 4-note chord, consisting of the pitches, microtonally high g-sharp', f-sharp'', microtonally low c''', and b''', at *piano* dynamic.

The *sul tasto* techniques occur as follows: measure 4, the perfect fourth harmonic with the resultant pitch c''''', at *mezzo forte* dynamic; measure 8, the microtonally low b'' that begins *pianissimo* and rapidly *crescendos* to *fortissimo* in less than ½ second; measure 10, the e-flat' at *pianisisimo*; measure 14, microtonally low, unison double-stop that is made up of two harmonics, a microtonally low, perfect fourth harmonic, with the resultant pitch e''', and a natural harmonic, with the resultant pitch, e'''. This unison double-stop also has the indication to play slightly out of tune ("beating"); measure 15, the major tenth double-stop, a'''-microtonally high c-sharp'''', at fortisisimo dynamic; measure 17 has three, *sul tasto* events. The first, a microtonally high a-sharp' at *fortissimo* dynamic, the second, a martelatto g' at *fortissimo* dynamic, and the third, a minor tenth double-stop, microtonally low b-flat-d-flat', at *mezzo forte* dynamic; measure 18, the e-flat''' at *piano* dynamic; measure 20 has three *sul tasto* events. The first is a 4-note chord, consisting of the pitches, microtonally high g-sharp', microtonally high f'', e''', and microtonally low g-sharp''', at *mezzo piano* dynamic. The second, a microtonally low, perfect fourth harmonic, with the resultant pitch a'''', at *pianisisimo* dynamic, and the third, a b'' at *forte* dynamic; measure 30, the microtonally high g' at *forte* dynamic; measure 33, the g-flat''' at *mezzo piano* dynamic; measure 45, the g-flat' at *mezzo forte* dynamic; measure 62, the microtonally low g-flat' at *mezzo piano* dynamic; measure 64, the tritone, b-flat'-microtonally low e', that begins at

fortissimo and *crescendos* for less than ½ second, then immediately drops in dynamic to *mezzo forte*; measure 71, the d-sharp' at *mezzo piano* dynamic; measure 74, the microtonally low, 3-note chord, rolled from the highest note to the lowest note, consisting of the pitches, c'''', d-sharp''', e'', at *fortissimo* dynamic; and in measure 77, the f'' at *pianisisimo* dynamic.

There are many rapid changes between the three, placement of bow techniques of traditional, *sul ponticello,* and *sul tasto.* Those rapid changes that involve *sul ponticello* occur in the following measures: measure 9, the *normale* b' at *pianisisimo* dynamic is followed by a *sul ponticello*, microtonally low b-flat'', followed by a *normale* a' at *mezzo piano* dynamic; measure 12 the *normale* c-sharp''''' at *piano* dynamic, *crescendos* in less than ½ second to a *sul ponticello*, microtonally high f''' at *fortisisimo*, followed by a microtonally high d''''' at *pianissimo* dynamic; measure 26, the *normale* c-sharp''' at *forte* dynamic is followed by the *sul ponticello*, minor seventh double-stop, e'''-d''''; measure 38-39, the *sul ponticello* and microtonally low d-flat' at *pianisisimo* dynamic, *crescendos* over approximately 2 ½ seconds to *piano* dynamic, and is followed by a *normale*, microtonally high, perfect fourth harmonic with the resultant pitch, c''', at *fortissimo* dynamic; measure 40, the *normale*, perfect fourth harmonic with the resultant tone, c-sharp'''', at *pianissimo* dynamic, *crescendos* over approximately 1 second to a *sul ponticello* and microtonally low c-sharp' at *mezzo forte* dynamic, and is followed by a *normale*, microtonally low f-sharp'' at *fortisisimo* dynamic; measure 65, the *normale* and microtonally low d-sharp'''' at *piano* dynamic, *crescendos* in less than one second to *fortissimo*, and is followed by a *sul ponticello* and microtonally high b at *mezzo forte* dynamic; and in measure 78-81, a *normale*, microtonally low g-sharp at *fortissimo*

dynamic, *decrescendos* for approximately 4 ½ seconds to a *sul ponticello* 4-note chord, consisting of the pitches, microtonally high g-sharp', f-sharp'', c''', and b''', at *forte*, followed by a *normale* e' at *fortissimo* dynamic that *crescendos* for approximately 2 seconds to fortisisimo dynamic.

Rapid changes involving *sul tasto* occur in the following measures: measure 4, the *tremolo* f''' at *mezzo forte* dynamic is followed by a *sul tasto*, martellato, perfect fourth harmonic, with the resultant pitch, c''''', at *mezzo forte* dynamic; measure 8, the *sul tasto* and microtonally low b'' at *pianissimo* dynamic, *crescendos* to a microtonally high, perfect fifth harmonic with the resultant pitch, d'''', at *fortissimo* dynamic; measure 10, the *normale* f' at *fortissimo* dynamic is followed by a *sul tasto* e-flat' at *pianisisimo*, then *crescendos* in less than ½ second to a *normale* c at *mezzo forte* dynamic; measure 13-14, the microtonally high, perfect fifth double-stop, a-e', at *mezzo forte* dynamic, *decrescendos* over approximately 2 ½ seconds to a *sul tasto*, unison double-stop, consisting of harmonics with the resultant pitches, microtonally low e'''-e''', at *pianisisimo* dynamic, and is followed by a microtonally low c' at *fortissimo* dynamic; measure 18-19, the *normale*, 3-note chord, rolled from the highest note to the lowest note, consisting of the notes, microtonally high b-flat'', microtonally low b', and microtonally high d', at *fortisisimo* dynamic, followed by a *sul tasto* e-flat''' at *pianissimo* dynamic, then *crescendos* in less than ½ second to a *normale*, major eleventh double-stop, e-flat'''-a'''', at *mezzo piano* dynamic; measure 19-20, the *normale* and microtonally high b-flat at *fortisisimo* dynamic, *decrescendos* over approximately 1 second to a *sul tasto*, 4-note chord, consisting of the pitches, microtonally high g-sharp', microtonally high f'', e''', and microtonally high g-sharp''', at *mezzo piano* dynamic, followed by a *sul tasto*,

microtonally low, perfect fourth harmonic with the resultant pitch, a’’’’, at *pianisisimo* dynamic, followed by a *sul tasto* b’’ at *forte* dynamic, and finally followed by a *normale*, microtonally low, perfect fourth harmonic with the resultant pitch, b-flat’’’, at *mezzo piano* dynamic; measure 33, the *sul tasto* g-flat’’’ at *mezzo piano* dynamic is followed by a *normale* b-flat’ at *mezzo forte* dynamic; measure 45-46, the *sul tasto* g-flat’ at *mezzo forte* dynamic is slurred into a *normale*, major sixth (diminished seventh) double-stop, microtonally high a-g-flat’, at *mezzo piano* dynamic; measure 61-62, a *normale*, microtonally high, minor third double-stop, b-flat’’’-d-flat’’’’, at *fortissimo* dynamic, *decrescendos* over approximately 3 seconds to a *sul tasto* and microtonally low b-flat’ at *mezzo piano* dynamic, followed by a *normale*, major third harmonic with the resultant pitch, c-sharp’’’’’, at *piano* dynamic; measure 62, a *normale* b-flat at *fortissimo* dynamic, is sustained for approximately 6 seconds, then slurred in measure 64 into a *sul tasto* tritone, b-flat-microtonally low e’, and *crescendos* for less than ½ second, then drops its volume immediately to *mezzo forte*, and is finally followed by a *normale* a’’’’ at *forte* dynamic; and in measure 77, a *normale* and microtonally high b at *mezzo piano* dynamic, *decrescendos* in less than ½ second to a *sul tasto* f’’ at *pianissimo* dynamic, followed by a *normale* and microtonally high b’’ at *fortissimo* dynamic.

Rapid changes involving both *sul ponticello* and *sul tasto* occur in the following measures: measure 15, the *normale*, microtonally low and inflected b’’’ at *mezzo forte* is followed by a *sul ponticello* a-sharp’’ at *mezzo forte* dynamic, followed by a *normale*, microtonally high c-sharp’’’’’ at *mezzo piano* that *crescendos* in less than ½ second to a *sul tasto* minor tenth (augmented 9th), f’’’-microtonally high c-sharp’’’’’, at *forte* dynamic, and finally followed by a *normale* d’’’’ at *fortissimo* dynamic; measure 16-17,

the *normale*, microtonally high e’’’, with the indication to vibrato, at *mezzo piano* dynamic, is followed by a *sul ponticello*, major second double-stop, microtonally high e’’’-f-sharp’’’, at *fortissimo* dynamic, followed by a *sul tasto*, a-sharp’ at *fortissimo* dynamic, and finally followed by a *sul tasto*, *martelatto*, and microtonally high g-sharp’ at *fortissimo* dynamic; measure 17, the *normale* d-flat’’ at *pianissimo*, *crescendos* in less than ½ second to a *sul tasto*, major tenth double-stop, microtonally low b-flat-d-flat’’, at *mezzo forte* dynamic, which *crescendos* in less than ½ second to a *sul ponticello*, microtonally low tritone, c’-g-flat’, at *forte* dynamic, that *decrescendos* in less than ½ to a *normale*, minor ninth (augmented unison), g-flat’’’-g’’’’ at *mezzo forte* dynamic that further *decrescendos* in less than ½ second to *mezzo piano*, followed by a *normale*, microtonally low g-flat’’’ at *piano* dynamic, followed by a *sul ponticello*, perfect fourth double-stop, d-flat’’’-g-flat’’’, at *fortissimo* dynamic, and finally followed by a *normale*, minor tenth double-stop, microtonally low b-flat’-d-flat’’’, at *piano* dynamic; measure 30, the *sul ponticello*, microtonally low and inflected c’’’’’ at *mezzo forte* dynamic, *crescendos* over approximately ½ second to *fortissimo*, followed by a *normale* and inflected d’’’’’ at fortisisisimo dynamic, followed by a *normale* e-flat’’’ at *pianissimo* dynamic, and finally followed by a *sul tasto*, microtonally high g’ at *forte* dynamic; measure 68, the *sul ponticello*, perfect fourth harmonic with the resultant pitch, f’’’’, at *pianisisimo* dynamic, is sustained for approximately 9 seconds, and is followed in measure 71 by a *sul tasto*, microtonally low d-sharp’ at *mezzo piano* dynamic; and in measure 74, the *sul ponticello* d-flat’’ at *mezzo piano* is followed by a *normale* and microtonally low b-flat at *piano* dynamic, *crescendos* in approximately less than ½ second to *mezzo forte* dynamic, followed by a *sul tasto* and microtonally low 3-note

chord that is rolled from the highest note to the lowest note, consisting of the pitches, c’’’’-d-sharp’’’-e’’.

Uses of bow include the traditional techniques of *détaché, legato, marcatto, martellato,* and *ricochet*, as well as the occasional use of *col legno* and *tremolo.* The occurrence of *col legno* can be found in the following measures: measure 1, the e-flat’’’ at *forte* dynamic; measure 36, the four-note chord, consisting of the pitches, b’’, c’’’, e’’’, and d’’’’’, at *fortisisimo* dynamic, and in measure 46, the augmented 2nd (minor third) double-stop, a-flat’’-b’’, at *mezzo forte* dynamic. The use of *tremolo* occurs in only one measure, at measure 4, the f’’’ is marked *tremolo* at *mezzo forte* dynamic.

Rapid changes involving *col legno* occurs in the following measures: measure 1, a *col legno* e-flat’’’ at *forte* dynamic, is followed by a *normale*, perfect fourth harmonic with the resultant pitch, b-flat’’’’, at *mezzo forte* dynamic; measure 36, the *normale, martelatto,* and microtonally low e’’’ at *pianisisimo* dynamic, followed by a *col legno*, 4-note chord consisting of the pitches, b’’, microtonally high c’’’, microtonally low e’’’, and d’’’’, at *fortisisimo* dynamic, and finally followed by a *normale* f’’’ at *pianissimo* dynamic; and in measure 46, a *normale*, microtonally high grace note, c’’’’, at *mezzo piano* dynamic, is followed by a *col legno*, minor third (augmented second) double-stop, a-flat’’-b’’, at *mezzo forte* dynamic, then *decrescendos* over approximately 1 second to *piano* dynamic.

The one occurrence of *tremolo* is also combined with a rapid change. In measure 4, the *tremolo* f’’’ at *mezzo forte* dynamic is followed by a *sul tasto*, perfect fourth harmonic with the resultant pitch, c’’’’’, at *mezzo forte* dynamic.

The left-hand provides timbre changes in a variety of ways. These include the use of inflections, or small bends of pitch, harmonics of the major third, perfect fourth, and perfect fifth, the use of high positions, microtones, and the indication to vibrato certain notes.

The occurrence of inflections, which are recorded in the "Left-hand use; Glissando" category on the *Content Analysis Form*, are illustrated in Figure 7.7. The inflected harmonic in measures 1-2 is illustrated in Figure 7.8, "Harmonics that occur in Etude I." A description of the inflections is as follows: measure 1-2, the perfect fourth

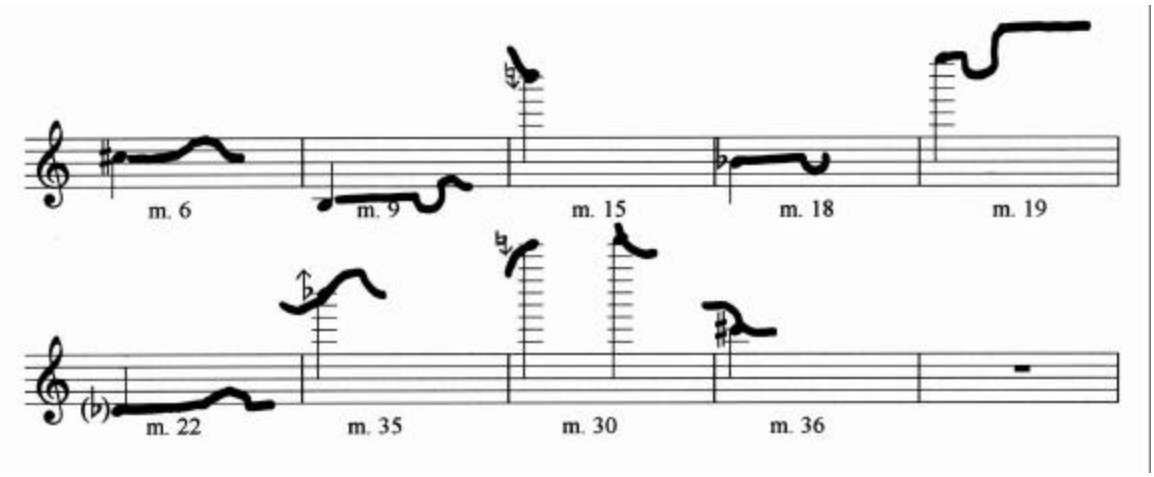

Figure 7.7. Inflections that occur in Etude I.

harmonic with the resultant pitch, b-flat'''', at *mezzo forte, decrescendos* over approximately 1 second to *pianisisimo* dynamic, then is inflected below, then above the original pitch; measure 4-6, the c-sharp'' at *forte* dynamic is sustained for approximately 4½ seconds, then is inflected above, then below, and finally ending on the original pitch in measure 6; measure 8-9, the b at *piano* dynamic, that *crescendos* over approximately 1 second, is then inflected below, then above, and finally ending on the original pitch at *fortissimo* dynamic; the microtonally low b''' at *mezzo forte* dynamic, begins above the notated pitch, bends downward, and finally ends on the notated pitch; measure 17-18, the

microtonally low b-flat' at *piano* dynamic, *crescendos* over approximately 1 second, is then inflected below, and finally ending on the original pitch at *mezzo forte* dynamic; measure 19, the e'''' at *fortissimo* dynamic is inflected below, then above the original pitch, and is then sustained for approximately 1 second; measure 22, the d-flat' at *mezzo piano, decrescendos* for approximately 1 second to *pianissimo*, is then inflected above, then below the original pitch; measure 30, the *sul ponticello* and microtonally low c''''' begins below, then bends upward to the notated pitch, then *crescendos* for approximately ½ second to *fortissimo*; measure 30, the d''''' begins above the notated pitch, bends below, and finally bends upward, ending on the notated pitch at *fortisisimo* dynamic; measure 31, the perfect fifth harmonic, with the resultant pitch, f''', is inflected below, then above, and finally ending on the notated pitch; measure 35, the microtonally high d-flat begins below the notated pitch, bends above, then downward, ending on the notated pitch at *piano* dynamic; and in measure 36, the c-sharp''' which begins at *forte* dynamic, *decrescendos* in less than ½ second to *mezzo piano* dynamic, begins above the notated pitch, bends below, then upward, and finally ending on the notated pitch at *mezzo piano* dynamic.

There are a total of two, major third harmonics, notated in Figure 7.8, and occur in the following measures: measure 39 contains two, major third harmonics. The first has the resultant pitch, f-sharp'''', and the second has the resultant pitch, g''''; and in measure 62, the resultant pitch is c-sharp'''''.

The occurrences of perfect fourth harmonics, also notated in Figure 7.8, occur in the following measures: measure 1-2 has the resultant pitch, b-flat''''; measure 4 has the resultant pitch, c''''; measure 20 contain two, perfect fourth harmonics. The first has the

resultant pitch, a microtonally low a’’’’, and the second has the resultant pitch, a microtonally low b-flat’’’; measure 25, has the resultant pitch, a microtonally high a’’’’; measure 39 has the resultant pitch, a microtonally high c’’’; measure 40 has the resultant pitch, c-sharp’’’’; measure 41 has the resultant pitch, a microtonally low g-sharp’’’’; measure 68 has the resultant pitch, f’’’’; and measure 73 has the resultant pitch, a microtonally high b’’’.

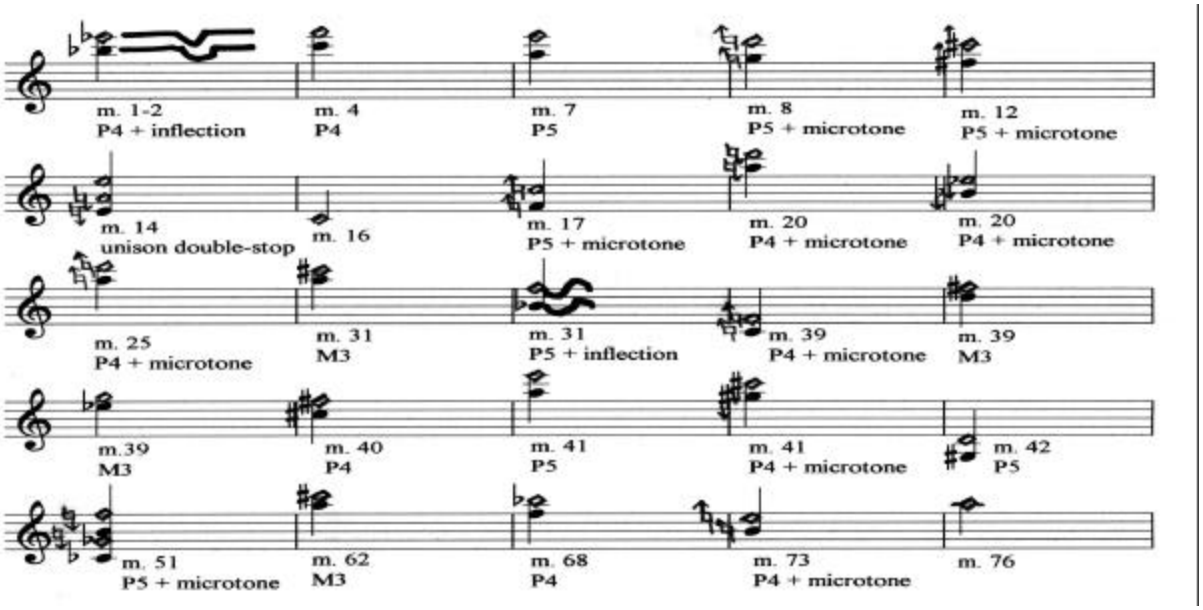

Figure 7.8. Harmonics that occur in Etude I.

The occurrence of perfect fifth harmonics, likewise notated in Figure 7.8, occur in the following measures: measure 7 has the resultant pitch, e’’’’; measure 8 has the resultant pitch, a microtonally high d’’’’; measure 12 has the resultant pitch, a microtonally high c-sharp’’’’; measure 17 has the resultant pitch, a microtonally low c’’’; measure 31 has the resultant pitch f’’’; measure 41 has the resultant pitch, a microtonally low e’’’’; and measure 42 has the resultant pitch, d-sharp’’. There is one double-stop and one chord that contain at least one harmonic. In measure 14, a unison double-stop consisting of a perfect fourth harmonic, has the resultant pitch, a microtonally low e’’’,

and a natural harmonic, with the resultant pitch, e'''. In measure 51, a 3-note chord contains one, perfect fifth harmonic, with the resultant pitch, g-flat''.

There is extensive use of the high positions. To determine the specific position used, it was necessary to devise a fingering for each of the high-position passages in question. This task was made somewhat easier in that the editor of Cage's *Freeman Etudes*, Paul Zukofsky, indicated with Roman numerals, which string to use for the various high position passages. Zukofsky also included fingerings for most of the chords. With these references, a fingering was devised for the high position passages and can be seen in Figure 7.9. The various inflections, bowing indications, and "rhythms" are left out of Figure 7.9 in order to provide clarity for the reader. All notes are notated as quarter-notes.

The fingerings for the double-stops and chords require explanation. When stopping notes during the performance of double-stops and chords, it is sometimes necessary for the individual fingers to reach into different positions when executing double-stops and chords, especially when they occur in the high positions. In Figure 12, the position numbers are placed in the same order as one would place fingerings on a double-stop or chord: The number that is placed at the top of an imaginary perpendicular line represents the highest note of the double-stop/chord. The number that is at the bottom of this imaginary line represents the lowest note of the double-stop/chord.

Thus, with the newly devised fingerings, the high positions occur in the following measures: measure 12, the 17th and 18th positions; measure 15, the 8th, 12th, and 16th positions; measure 16, the 8th, 9th, 10th, and 13th positions; measure 17, the 13th position; measure 18, the 9th, 10th, 11th, 12th, and 14th positions; measure 20, the 8th position;

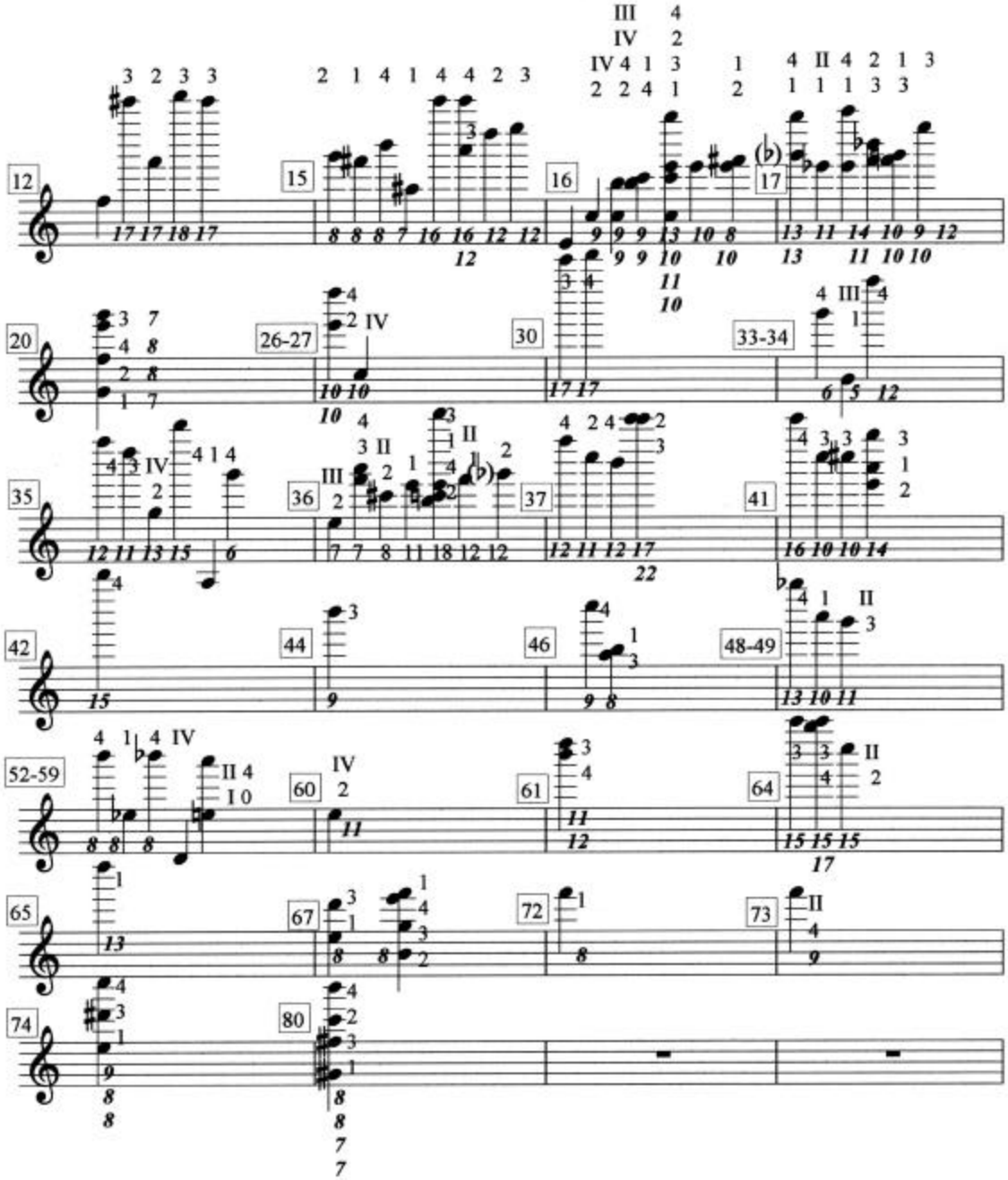

Figure 7.9. High position passages with newly devised fingerings, Etude I.

measure 26-27, the 10th position; measure 30, the 17th position; measure 34, the 12th position; measure 35, the 11th, 12th, 13th, and 15th positions; measure 36, the 8th, 11th, 12th,

and 18th positions; measure 37, 11th, 12th, and 22nd positions; measure 41, the 10th, 14th, and 16th positions; measure 42, the 15th position; measure 44, the 9th position; measure 46, the 8th and 9th positions; measure 48-49, the 10th, 11th, and 12th positions; measure 52-56, the 8th position; measure 60, the 11th position; measure61, the 12th position; measure 64, the 15th and 17th positions; measure 65, the 13th position; measure 67, the 8th position; measure 72, the 8th position; measure 73, the 9th position; measure 74, the 9th position; and measure 80, the 8th position.

The use of microtones constitutes a significant way Cage provides timbral changes. Microtones occur as single-notes as well as within double-stops and chords. The following discussion on microtones does not include microtones that occur with harmonics. Those harmonics that include microtones can be found in the discussion of harmonics.

The occurrence of microtones as single-notes are notated in Figure 7.10, can be found in the following measures: measure 4, a microtonally low d'' at *pianissimo* dynamic; measure 6, a microtonally low a' at *pianisisimo* dynamic that *crescendos* over approximately ½ second to *fortisisimo* dynamic; measure 8, a microtonally low, *sul tasto* b'' at *pianissimo* dynamic that *crescendos* in less than ½ second to *fortissimo*, followed by a microtonally high, perfect fifth harmonic with the resultant tone, d'''', at *mezzo forte* dynamic, that *decrescendos* over approximately ½ second to *piano* dynamic; measure 9 contains two microtones that occur as single notes. The first is a microtonally high, *sul ponticello* b-flat'' at *fortisisimo* dynamic, and the second is a microtonally low c' at *mezzo piano* that *decrescendos* in less than ½ second to *pianisisimo* dynamic; measure 11, a microtonally low d'' at *forte* that *crescendos* in less than ½ second to *fortisisimo*

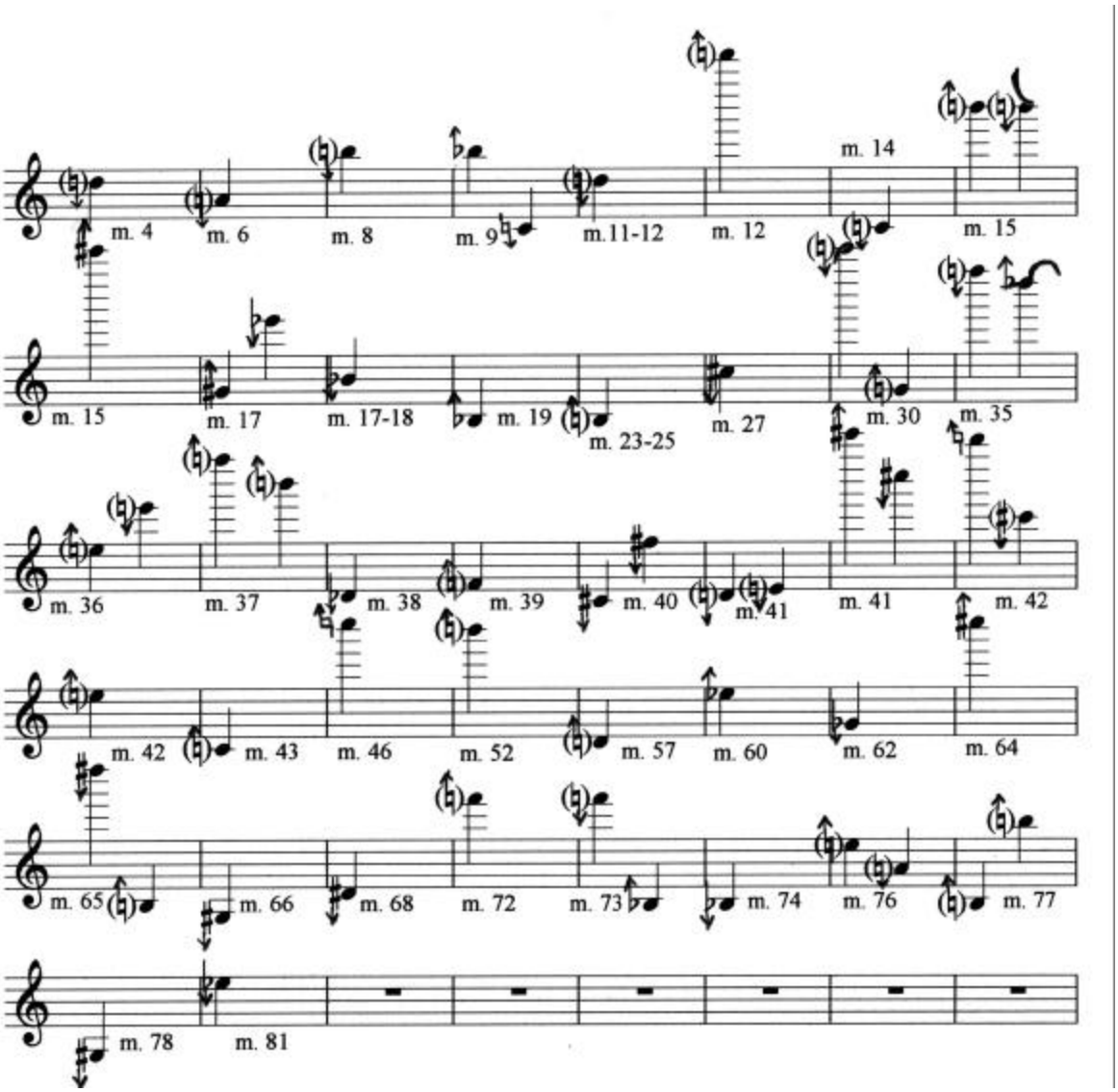

Figure 7.10. Single-note microtones that occur in Etude I.

dynamic; measure 12 has three, single-note microtones. The first is a microtonally high, perfect fifth harmonic with the resultant pitch, c-sharp’’’’, at *fortisisimo* dynamic. The second is a microtonally high, *sul ponticello* f’’’ at *fortisisimo* dynamic, and the third is a microtonally high d’’’’’ at *pianissimo* dynamic; measure 13-14, a microtonally high, perfect fifth double-stop, a-e’, at *mezzo forte* dynamic, *decrescendos* over approximately 3 seconds to *pianisisimo* dynamic; measure 14, a unison double-stop consisting of two harmonics, a perfect fourth harmonic, with the resultant pitch, a microtonally low e’’’,

and a natural harmonic, with the resultant tone, e’’’, at *pianisisimo* dynamic; measure 14-15, a microtonally low c’ at *fortissimo* dynamic that *decrescendos* over approximately 1 second to a microtonally high g-sharp’’’ at *mezzo piano* dynamic; measure 15 contains two, single-note microtones. The first is a microtonally low and inflected b’’’ at *mezzo forte* dynamic, and the second is a microtonally high c-sharp’’’’’ at *forte* dynamic; measure 17, a *sul tasto*, martelatto, and microtonally high g-sharp’ at *fortissimo* dynamic; measure 19, a microtonally high b-flat at *fortisisimo* dynamic that *decrescendos* over approximately 1 second to *mezzo piano*; measure 23-25, a microtonally high b at *mezzo forte* dynamic that *decrescendos* over approximately 5 seconds to *pianisisimo* dynamic; measure 27, a microtonally low c-sharp’’ at *pianissimo* dynamic that *crescendos* for approximately ½ second to *forte*; measure 30 contains two, single-note microtones. The first is a *sul ponticello*, inflected, and microtonally low c’’’’’ at *mezzo forte* that *crescendos* for approximately ½ second to *fortissimo* dynamic, and the second is a *sul tasto*, microtonally high g’ at *forte*; measure 35 contains two, single-note microtones. The first is a microtonally low f’’’’ at *forte* dynamic that *decrescendos* in less than ½ second to *pianissimo* dynamic, and the second is a ricochet, inflected, and microtonally high e-flat’’’’ at *piano* dynamic; measure 36 contains two, single-note microtones. The first is a microtonally high e’’ at *fortisisimo* dynamic that *decrescendos* in less than ½ second to *forte*, and the second is a martelatto and microtonally low e’’’ at *pianisisimo* dynamic; measure 37 contains two, single-note microtones. The first is a microtonally high f’’’’ at *mezzo forte* dynamic, and the second is a ricochet, microtonally high b’’’ at *mezzo forte* dynamic; measure 38-39, a microtonally low d-flat’ at *pianisisimo* dynamic that *crescendos* over approximately 2 ½ seconds to *piano* dynamic; measure 39, a

microtonally high f' at *fortisisimo* dynamic; measure 40 contains two, single-note microtones. The first is a *sul ponticello*, microtonally low c-sharp' at *mezzo forte* dynamic, and the second is a microtonally low f-sharp'' at *fortisisimo* dynamic; measure 41 contains four, single-note microtones. The first is a microtonally low d' at *fortissimo* dynamic that *decrescendos* in less than ½ second to *mezzo forte.* The second is a microtonally low e' at *fortisisimo* dynamic. The third is a microtonally high c-sharp''''' at *fortissimo* dynamic, and the fourth is a microtonally low c-sharp'''' at *fortissimo* dynamic; measure 42 contains three, single-note microtones. The first is a microtonally high b'''' at *forte* that *decrescendos* in less than ½ second to *pianisisimo* dynamic. The second, and subsequent third occurrence is a martelatto and microtonally low c-sharp''' at *mezzo forte* dynamic that *decrescendos* over approximately ½ second to a micronally high e'' at *mezzo piano*, and further *crescendos* in less than ½ second to *fortisisimo* dynamic; measure 43 contains two, single-note microtones. They are a microtonally high c' at *piano* dynamic that *crescendos* in less than ½ second to a g' at *mezzo forte* dynamic; measure 46, a microtonally high grace note, c''''; measure 52-56, a microtonally high b''' at *piano* dynamic; measure 57-59, a microtonally high d' at *mezzo piano* dynamic; measure 60, a microtonally high e-flat'' at *pianisisimo* dynamic that *crescendos* over approximately 1 second to a minor third at *fortissimo* dynamic; measure 62, a *sul tasto*, microtonally low g-flat' at *mezzo piano* dynamic; measure 64, a microtonally high c-sharp'''' at *pianisisimo* dynamic; measure 65, a microtonally low d-sharp'''' at *piano* dynamic that *crescendos* in less than ½ second to *fortissimo* dynamic; measure 65-66, a microtonally high b at *mezzo forte* dynamic that *crescendos* for approximately 3 seconds to *fortissimo* dynamic; measure 66, a microtonally low g-sharp at *pianissimo* dynamic;

measure 71, a *sul tasto*, microtonally low d-sharp' at *mezzo piano* dynamic; measure 72, a *sul ponticello*, microtonally high f''' at *fortisisimo* dynamic; measure 73 contains two, single-note microtones. The first is a *sul ponticello* and microtonally low f''' at *mezzo forte*, and the second is a *sul ponticello*, microtonally high b-flat at *mezzo forte* that *decrescendos* over approximately 1 second to *pianissimo* dynamic; measure 74, a microtonally low b-flat at *piano* dynamic that *crescendos* in less than ½ second to *mezzo forte* dynamic; measure 76, a microtonal high e'' at *mezzo forte* dynamic; measure 76-77 contains two, single-note microtones. They are a microtonally low a' at *forte* dynamic that *decrescendos* over approximately 4 seconds to a microtonally high b at *mezzo piano* dynamic that further *decrescendos* in less than ½ second to a *sul tasto* f'' at *pianisisimo* dynamic; measure 77-78, a microtonally high b'' at *fortissimo* dynamic; measure 78, a microtonally low g-sharp at *fortissimo* dynamic that *decrescendos* over approximately 4 seconds to a 4-note chord at *piano* dynamic; and measure 81, a microtonally low e-flat'' at *pianisisimo* dynamic.

Microtones that occur within double-stops are notated in Figure 7.11, can be found in the following measures: measure 13, a microtonally high perfect fifth, a-e', at *mezzo forte* dynamic; measure 15, a *sul tasto*, major tenth, c'''-microtonally high c-sharp''''', at *forte* harmonic; measure 16 has three double-stops that contain microtones. The first is a minor seventh, a microtonally low c''-microtonally high b-flat'', at *fortissimo* dynamic. The second is a microtonally high major second, b-flat''-c''', at *fortisisimo* dynamic, and the third is a *sul ponticello* major second, a microtonally high e'''-f-sharp''', at *fortissimo* dynamic; measure 17 has four double-stops that contain microtones. The first two are a *sul tasto*, minor tenth, a microtonally low b-flat-d-flat'',

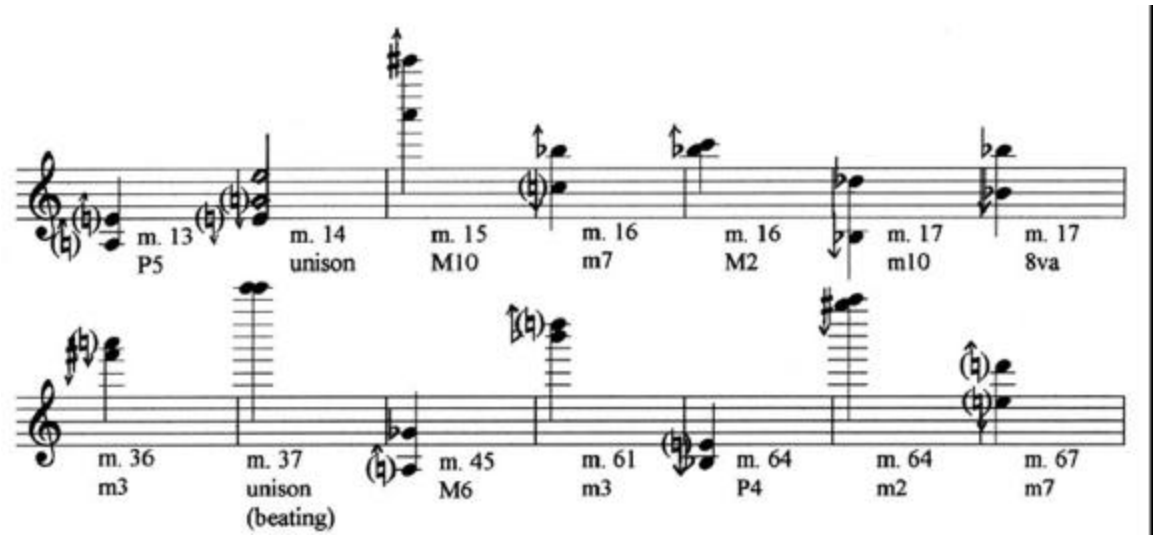

Figure 7.11. Microtones that occur within double-stops.

at *mezzo forte* dynamic that *crescendos* in less than ½ second to a microtonally low tritone, c'-g-flat' at *forte* dynamic. The third is a *sul ponticello* perfect fourth, d-flat''-microtonally low g-flat''' at *fortissimo* dynamic, and the fourth is a minor tenth, a microtonally low b-flat'-d-flat'', at *piano* dynamic; measure 36, a microtonally low minor tenth, f-sharp'''-a''', at *pianisisimo* dynamic; measure 37, a unison double-stop that is made up of two harmonics, a microtonally low, perfect fourth harmonic, with the resultant pitch e''', and a natural harmonic, with the resultant pitch, e'''. This unison double-stop also has the indication to play slightly out of tune ("beating"); measure 45, a microtonally high major sixth (diminished seventh), a-g-flat', at *mezzo piano* dynamic; measure 61 has two double-stops that contain microtones. They are a microtonally high minor third, b-flat'''-d-flat'''', at *fortissimo* dynamic that *decrescendos* over approximately 3 seconds to a *sul tasto* and microtonally low g-flat at *mezzo piano* dynamic; measure 64 has two double-stops that contain microtones. The first is a *sul tasto* tritone, b-flat-microtonally low e', at *fortissimo* dynamic that *crescendos* over approximately ¼ second, and then immediately drops in volume to *mezzo forte.* The

second is a minor second, a microtonally low g-sharp’’’’-a’’’’ at *fortisisimo* that *decrescendos* in less than ½ second to a microtonally high c-sharp’’’’ at *pianisisimo* dynamic; and measure 67, a minor seventh, a microtonally low e’’-microtonally high d’’’, at *mezzo forte* dynamic that *crescendos* over approximately 1 second to a 4-note chord at *forte* dynamic.

All chords that occur in Etude I are notated in Figure 7.12. Every chord contains microtones and can be found in the following measures: measure 16, a 4-note chord

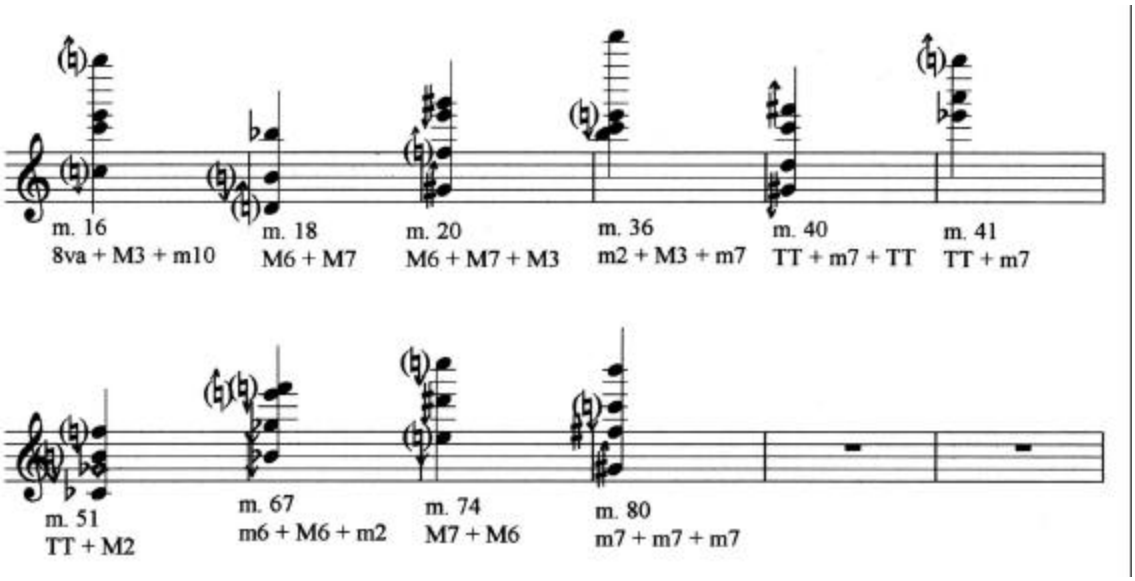

Figure 7.12. Chords that occur in Etude I.

containing the pitches, microtonally low e’’, c’’’, microtonally high e’’’, and microtonally high g’’’’, at *fortissimo* dynamic; measure 18, a 3-note chord containing the pitches, microtonally high d’, microtonally b’, and b-flat’’, at *fortisisimo* dynamic; measure 20, a *sul tasto*, 4-note chord containing the pitches, microtonally high g-sharp’, microtonally high f’’, e’’’, and microtonally low g-sharp’’’, at *mezzo piano* dynamic; measure 36, a *col legno*, 4-note chord containing the pitches, b’’, microtonally high c’’’, microtonally low e’’’, and d’’’’’, at *fortisisimo* dynamic; measure 40, a 4-note chord

containing the pitches, microtonally low g-sharp', d'', c''', and microtonally high f-sharp''', at *mezzo piano* dynamic; measure 41, a 3-note chord containing the pitches, microtonally high e-flat''', a''', microtonally high g'''', at *forte* dynamic; measure 67, a 4-note chord, consisting of the notes, microtonally low b-flat', microtonally low g-flat'', microtonally high e''', and microtonally low f''', at *forte* dynamic that *decrescendos* over approximately 2 seconds to *pianissimo* dynamic; measure 74, a *sul tasto*, microtonally low, 3-note chord consisting of the pitches, e'', d-sharp''', and c'''', at *fortissimo* dynamic; and in measure 80, a *sul ponticello*, 4-note chord consisting of the pitches, microtonally high g-sharp', f-sharp'', microtonally low c''', and b''', at *piano* dynamic.

There are no occurrences of trills, but there are two instances of indications to vibrato certain notes, and these occur in measures 16 and 35. In measure 16, there is a microtonally high e''' at *mezzo piano* dynamic, and in measure 35 there is an a-sharp at *fortissimo* dynamic.

In addition to the wide use of different timbres, there is also the creation of yet even different timbres by the combining of the various technical effects. The following discussion on combined effects categorizes the use of combined effects within each left-hand use category found in the *Content Analysis Form*

Combined effects within "gliss" category, or more accurately, timbral effects that are combined with the inflection: measure 1-2, the perfect fourth harmonic with the resultant tone, b-flat'''', is combined with the harmonic; measure 15, the microtonally low b''' is combined with the microtone; measure 17-18, the microtonally low b-flat' is combined with the microtone; measure 30, the microtonally low c''''' is combined with

the microtone and *sul ponticello*; and in measure 35, the microtonally high d-flat'''' is combined with the microtone.

Combined effects that occur in the "harmonics" category combine the perfect fourth, the perfect fifth, and harmonics occur in double-stops and chords. The most prevalent combination is with the microtone. The following discussion categorizes the combinations into type of harmonic (perfect fourth or fifth) with type of microtone (flattened or sharpened).

Perfect fourth harmonics that are combined with the flattened microtone occur three times. The first and second are in measure 20. The first is the perfect fourth harmonic with the resultant pitch, a'''', and the second is the perfect fourth harmonic with the resultant pitch, b-flat'''. The third occurrence is in measure 41, the perfect fourth harmonic with the resultant pitch, g-sharp''''.

Perfect fourth harmonics that are combined with the sharpened microtone occur three times. The first is in measure 25, the perfect fourth harmonic with the resultant pitch, a''''. The second is in measure 39, the perfect fourth harmonic with the resultant pitch, c'''. The third is in measure 73, the perfect fourth harmonic with the resultant pitch, b'''.

Perfect fifth harmonics that are combined with the flattened microtone occur twice. The first is in measure 17, the perfect fifth harmonic with the resultant pitch, c'''. The second is in measure 41, the perfect fifth harmonic with the resultant pitch, e''''.

Perfect fifth harmonics that are combined with the sharpened microtone occur twice. The first is in measure 8, the perfect fifth harmonic with the resultant pitch, d''''. The second is in measure 12, the perfect fifth harmonic with the resultant pitch, c-

sharp’’’’. Other harmonics that combined different techniques occur in measures 14, 31, and 51. In measure 14, the unison double-stop, microtonally low e’’’-e’’’, is combined with the microtone. In measure 31, the perfect fifth harmonic with the resultant pitch, f’’’, is combined with the inflection, and in measure 51, the perfect fifth harmonic with the resultant pitch, g-flat’’, is contained within a 3-note chord.

There is extensive use of combined effects that occur in the “high positions” category and are found in the following measures. (the high positions in the following discussion are based on the fingerings devised by the author of this research): measure 12 has two different combinations that involve the high positions. The first is the microtonally low f’’’. It combines the microtone, *sul ponticello*, and the 17th position. The second is the microtonally high d’’’’. It combines the microtone and the 18th position; measure 15 has four different combined events. The first is the microtonally high g-sharp’’’, and it combines the microtone and the 8th position. The second is the microtonally low and inflected b’’’, and it combines the microtone, inflection, and the 8th position. The third is the microtonally high c-sharp’’’’’, and it combines the microtone and the 16th position. The fourth is the major tenth double-stop, a’’’-microtonally high c-sharp’’’’’, and it combines the microtone, *sul tasto*, and the 16th position; measure 16 has six separate combined events. The first is the microtonally low c’’, and it combines the microtone and the 9th position. The second is the minor seventh double-stop, microtonally low c’’-microtonally high b-flat’’, and it combines the microtone and the 9th position. The third is the major second double-stop, microtonally high b-flat’’-c’’’, and it combines the microtone and the 9th position. The fourth is the 4 note chord containing the notes, microtonally low e’’, c’’’, microtonally high e’’’, and microtonally high g’’’’, and

it combines the microtone and the 13th position. The fifth is the microtonally high e’’’, and it combines the microtone, the indication to vibrato, and the 10th position. The sixth is a major second, microtonally high e’’’-f-sharp’’’, and it combines the microtone, *sul ponticello*, and the tenth position; measure 17 has two separate combined events. The first is the e-flat’’’, and it combines *sul tasto* with the 11th position. The second is the e’’’’, and it combines the inflection and the 12th position; measure 20, the 4-note chord consisting of the notes, microtonally high g-sharp’, microtonally high f’’, e’’’, and microtonally low g-sharp’’’, combines the microtone, *sul tasto*, and the 8th position; measure 26, the minor seventh double-stop, c’’’-d’’’’, combines the *sul ponticello* and the 10th position; measure 27, the microtonally low c-sharp’’ on the G-string, combines the microtone and the 10th position; measure 30 has two separate combined events. The first is the microtonally low and inflected c’’’’’, and it combines the microtone, inflection, and the 17th position. The second is the inflected d’’’’’, and it combines the inflection and the 17th position; measure 34, the f’’’’ combines the *pizzicato* and the 12th position; measure 35 has two separate combined events. The first is the microtonally low f’’’’, and it combines the microtone and the 12th position. The second is the microtonally high and inflected d-flat’’’’, and it combines the microtone, inflection, ricochet, and the 11th position; measure 36 has three separate combined events. The first is the inflected c-sharp’’’, and it combines the inflection and the 8th position. The second is the microtonally low e’’’, and it combines the microtone and the 11th position. The third is the 4-note chord, containing the pitches, b’’, microtonally low c’’’, microtonally low e’’’, and d’’’’’, combines the microtone, *col legno*, and the 18th position; measure 37 has three separate combined events. The first is the microtonally high f’’’’, and it combines the

microtone and the 12th position. The second is the b’’’, and it combines the microtone, ricochet, and the 12th position. The third is the unison double-stop, c’’’’’-c’’’’’, and it combines the indication to play slightly out of tune (“beating”), and the 22nd position. measure 41 has three separate combined events. The first is the microtonally high c-sharp’’’’’, and it combines the microtone and the 16th position. The second is the microtonally low c-sharp’’’’, and it combines the microtone and the 10th position. The third is the 3-note chord, containing the notes, microtonally high e-flat’’’, a’’, and microtonally high g’’’’, combines the microtone and the 14th position; measure 42, the microtonally high b’’’’ combines the microtone and the 15th position; measure 44, the b-flat’’’ combines the nail *pizzicato* and the 9th position; measure 46 has two separate combined events. The first is the grace note, a microtonally high c’’’’ that combines the microtone and the 9th position. The second is the minor third (augmented second), a-flat’’-b’’, and it combines *col legno* and the 8th position; measure 48, the a’’’ combines the *tremolo* and the 10th position; measure 52, the microtonally high b’’’ combines the microtone and the 8th position; measure 60, the microtonally high e-flat’’ on the G-string, combines the microtone and the 11th position; measure 61, the minor third, microtonally high b-flat’’’-d-flat’’’’ combines the microtone and the 12th position; measure 64 has two separate combined events. The first is the minor second, microtonally low g-sharp’’’’-a’’’’, and it combines the microtone and the 17th position. The second is the microtonally high c-sharp, and the combines the microtone and the 15th position; measure 65, the microtonally low d-sharp’’’ combines the microtone and the 13th position; measure 67 has two separate combined events. The first is the minor seventh, microtonally low e’’-microtonally high d’’’, and it combines the microtone and the 8th position. The second is

the 4-note chord, consisting of the notes, microtonally low b-flat', microtonally low g-flat'', microtonally high e''', and microtonally low f''', and it combines the microtone and the 8th position; measure 72, the microtonally high f''' combines the microtone, *sul ponticello*, and the 8th position; measure the microtonally low f''' combines the microtone, *sul ponticello*, and the 9th position; measure 74, the microtonally low, 3-note chord, consisting of the notes, e'', d-sharp''', and c'''', combines the microtone, *sul tasto*, and the 9th position; and in measure 80, the 4-note chord, consisting of the notes, microtonally high g-sharp', f-sharp'', microtonally low c''', and b''', combines the microtone and the 8th position.

Combined effects that occur in the category "single-note microtones" occur in the following measures: measure 8, the microtonally low b'' is combined with *sul tasto*, and the microtonally high, perfect fifth harmonic with the resultant pitch, d'''', is combined with the harmonic; measure 9, the microtonally high b-flat'' is combined with *sul ponticello*; measure 12 has two combined events. First, the microtonally high, perfect fifth harmonic with the resultant pitch, c-sharp'''', is combined with the harmonic, and the second is the microtonally high f''', and it is combined with *sul ponticello*; measure 14, the unison double-stop, that contains the perfect fourth harmonic with the resultant pitch, microtonally low e''', is combined with the harmonic; measure 15, the microtonally low b''' is combined with the inflection; measure 17, the microtonally high g-sharp' is combined with *sul tasto* and martelatto; measure 30, the microtonally low c''''' is combined with the inflection ad *sul ponticello*, and the microtonally high g' is combined with *sul tasto*; measure 35, the microtonally high d-flat'''', is combined with the inflection and ricochet; measure 36, the microtonally low e''' is combined with

martelatto; measure 37, the microtonally high b''' is combined with ricochet; measure 38-39, the microtonally low d-flat' is combined with *sul ponticello*; measure 40, the microtonally low c-sharp' is combined with *sul ponticello*; measure 42, the microtonally low c-sharp''' is combined with the martelatto; measure 62, the microtonally low g-flat' is combined with *sul tasto*; measure 71, the microtonally low d-sharp' is combined with *sul tasto*; measure 72, the microtonally high f''' is combined with *sul ponticello*, and in measure 73, the microtonally low f''' is combined with *sul ponticello*, and the microtonally high b-flat is combined with *sul ponticello*.

Combined effects in the category, "microtones that occur in double-stops," occur in the following measures: measure 15, the major tenth, a'''-microtonally high c-sharp''''', is combined with *sul tasto*; measure 16, the major second, microtonally high e'''-f-sharp''', is combined with *sul ponticello*; measure 17, the minor tenth, microtonally low b-flat-d-flat'', is combined with *sul tasto*, and the perfect fourth, d-flat''-microtonally low g-flat''', is combined with *sul ponticello*; measure 61, the microtonally low g-flat is combined with *sul tasto*; and in measure 64, the tritone, b-flat-microtonally low e', is combined with *sul tasto.*

Combined effects in the category, "microtones that occur in chords," occur in the following measures: measure 20, the 4-note chord, consisting of the pitches, microtonally high g-sharp, microtonally high f'', e''', and microtonally low g-sharp''', is combined with *sul tasto*; measure 36, the 4-note chord, consisting of the pitches, b'', microtonally high c''', microtonally low e''', and d''''' is combined with *col legno*; measure 51, the 3-note chord contains a perfect fifth harmonic with the resultant pitch, g-flat'', is combined with the harmonic; measure 74, the microtonally low, 3-note chord,

consisting of the pitches, e'', d-sharp''', and c'''', is combined with *sul tasto*; and in measure 80, the 4-note chord, consisting of the pitches microtonally high g-sharp', f-sharp'', microtonally low c''', and b''', is combined with *sul ponticello*.

Of the two indications to vibrato, only one is combined with another technique. In measure 16, the microtonally high e''' is combined with the microtone.

The use of pizzicato is minimal, but each instance provides practice in the use of contemporary techniques. In measure 34, a *pizzicato* f'''' is accompanied with the indication to "mute the other strings." There are no instructions as to how this is to be accomplished, but one can depress the GDA-strings with the first, three fingers of the left hand, and finger the f''' with the fourth finger. The execution of this *pizzicato* is illustrated in Figure 7.13. The second indication to pizzicato occurs in measure 44, a *pizzicato* b''' is accompanied with the indication to use the fingernail, "nail." This is simply accomplished by plucking the string with the fingernail of the right-hand, index finger. These two instances of pizzicato also combine the use of high positions. The f'''' in measure 34 utilizes the 12th position, and the b''' in measure 44 utilizes the 9th position.

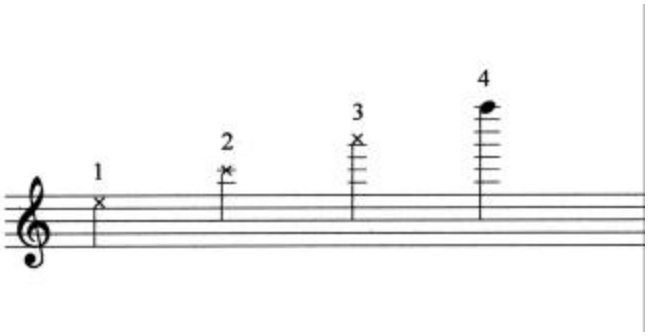

Figure 7.13. Placement of fingers in order to dampen strings, measure 34.

With the frequent use of microtones, a question arises. Does the microtonal inflection affect the classification of intervals and double-stops into the "traditional"

categories of major and minor? The answer is no. While there have been attempts to divide the octave into more than eight notes, and using such a division as a basis for composition, Western music views the semitone as the smallest division of the octave.[15] Even the contemporary music advocate and violinist, Paul Zukofsky discourages the practicing quarter-tones in a scalar format, writing that such practice is "impractical."[16] In addition, James Pritchett, a Cage scholar at Princeton University who also assisted Cage in completing Books 3 and 4 of the *Freeman Etudes*, writes that microtones in found in all the *Etudes* as to "be played slightly out of tune,"[17] and does not refer to them as a new tuning system. Therefore, for the purposes of this monograph, the classification of intervals will not change.

There are a total of 129 intervals, of which 42, or 32.56% are tonal, and 70, or 54.26% are contemporary. The second is the most frequently occurring interval and occurs 22 times, or 17.05%. The minor second occurs 10 times, or 7.75%, and the major second occurs 12 times, or 9.30%. There are also four other classification of intervals that occur at roughly the same frequency. The first is the seventh, and it occurs 19 times, or 14.73%. The minor seventh occurs 8 times, or 6.20%, and the major seventh occurs 11 times, or 8.53%. The second most occurring interval in this group of four is the unison, and it occurs 17 times, or 13.18%. The third most occurring interval in this group of four is the sixth, and it occurs 16 times, or 12.40%. The minor sixth occurs 9 times, or 6.98%, and the major sixth occurs 7 times, or 5.43%. The fourth interval in this group is

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[15]Kenneth Lee Sarch, "The Twentieth-Century Violin: A Treatise on Contemporary Violin Technique" (D.MEASUREA. diss., Boston University, School for the Arts, 1982), 107.

[16]Paul Zukofsky, *All-Interval Scale Book: Including a Chart of Harmonics for the Violin*, (New York: G. Schirmer, 1977), v.

[17]James Pritchett, *Freeman Etudes*, (http://www.music.princeton.edu/~jwp/texts/freeman.html , 1994).

the third, and it occurs fifteen times, or 11.63%. The minor third occurs nine times, or 6.98%, and the major third occurs six times, or 4.65%.

There are a total of 21 double-stops. Eight of the double-stops, or 38.10%, are tonal, and 13 of the double-stops, or 61.90%, are contemporary. The most frequently occurring double-stop is the second, and it occurs four times, or 19.05%. The minor second occurs once, or 4.76%, and the major second occurs three times, or 14.29%. Of all the double-stops, the octave is the only classification that does not occur. All other double-stops, from the unison to the 11th, occur somewhat evenly, occurring either once, twice, or three times each.

Sudden changes of dynamic play a large role in this Etude. Etude I is 84 measures long, and there are a total of 118, sudden dynamic changes. The majority of these changes happen rapidly and can occur as frequently as three times per measure. In addition, the dynamic ranges can be quite extreme, changing at least two dynamic shades upward or downward. Table 7.1 documents these sudden dynamic changes as they happen in each measure.

In addition to these sudden dynamic changes, there are rapidly occurring *crescendos* and *decrescendos*. These rapidly occurring *crescendos* and *decrescendos* are documented in Tables 7.2, 7.3, 7.4, and 7.5. Many happen quickly and cover a wide range of dynamics. In order to gain a better understanding of the speed needed to execute these *crescendos* and *decrescendos*, each *crescendo/decrescendos* was measured and grouped according to size. Keeping in mind that each measure last approximately 3 seconds, the measure length was recorded as well. Each measure was found to be 3.5 centimeters, or 35 millimeters, therefore 12 millimeters equals one second of sound.

Table 7.1. Table of sudden dynamic changes.

Measure	Sudden Dynamic Change(s)	Measure	Sudden Dynamic Change(s)
1	mp-f-mf	36	f-ppp-f
2-6	ppp-ff-ppp-mf-pp-f-ppp	36-37	mp-ppp-fff-pp-mf-pp
6-8	fff-mf-pp	37	fff-mf-ppp
8	ff-mf	39	p-ff-mp-ff-fff
9	fff-ppp-fff-mp	40	mp-pp/mf-fff
9-10	ppp-ff-pp	41	p-f-/mf-fff-ff-mf
10-11	mf-f	42-43	ppp-mf-p
12-	fff-p	43-44-45-46	mp-fff-mf-mp-mf-mp-mf
12-13	fff-pp-ppp-mf	48-49	p-fff-p
14	ppp-ff	50-56	mf-f-p-ppp
15	mp-ppp-mf-mp	56-59	pp-mp-mf
15-16	f-ff-mp	60	f-ppp
16	mf-ff-fff	62-64	mp-p-ff
17	mp-p-ff-p	64	mf-f
18	mf-ff-fff-pp	64-65	ppp-p
19	mp-ff-fff	65	ff-mf
20	mp-ppp-f-mp	66-67	ff-pp-mf
21-22	mf-mp	68-73	pp-ppp-mp-fff-mf
22-23	pp-mf	73	pp-mp
25-26	ppp-mp-f-mp	74	mf-p/mf-ff
28	f-ff	76	pp-mf-f
30-31	ff-fff-pp-f-mp	77	ppp-ff
33	mf-mp-mf	80	p-ff
34-35	ppp-f	81	fff-ppp
35	pp-p-mf-fff-ff-fff		

Each *crescendo/decrescendo* was placed into one of four categories: less than one second; between 1 and 2 seconds; between 2 and 3 seconds; and more than 3 seconds. It was found that the majority of *crescendos/decrescendo* were 1 millimeter in length, and thus, lasting or taking place in a fraction of a second.

Conclusions for Etude I

Etude I contains a wealth of contemporary techniques that range from different uses of the bow, rapid changes between bowing techniques, a variety of timbres produced

by the left-hand that include microtones, inflections of pitch, and harmonics of the third, fourth and fifth, as well as the use of harmonics within double-stops, and chords. There is a different concept of meter and rhythm that requires a different notation. To become comfortable with the different notation of measure and rhythm in the *Freeman Etudes* can be good preparation for reading avant-garde scores. There are a plethora of sudden and extreme dynamics, and combined with the various placement and uses of bow,

Table 7.2. Less than one second.

Less than one second (approximately less than 1.2 centimeters)					
Size	Measure	Dynamic	Size	Measure	Dynamic
0.1	8	pp<ff	0.3	36	fff>f
	9	mp>ppp		39	fff>pp
	10	ppp<mf		64	ff<mf
	12	p<fff			f<fff
	15	mp<f			
	16	fff>ff	0.4	16	mp<mf
		ff>mp			
	17	pp<mf	0.5	8	mf>p
		mf<f			
		f>mf	0.6	30	mf<ff
		mf>mp			
	18-19	pp<mp	0.65	6	pp<fff
	36	f>mp			
	37	pp<fff	0.7	27-28	mp<f
	41	mf<f		28	ff>mp
	42	mp<fff		43	mf>mp
	64	fff>ppp			
	65	p<ff	0.8	42	mf>mp
	73	mp<mf		46-47	mf>p
	77	mf>ppp			
			0.9	17-18	p<mf
0.15	11-12	f<fff		40	pp<mf
0.2	35	f>pp	1.0	1-2	mf>ppp
	41	f<ff		60-61	ppp<ff
		ff>mf			
	43	p<mf			
	74	p<mf			

Table 7.3. Between 1 and 2 seconds.

Between 1 and 2 seconds (approximately between 1.2 and 2.4 centimeters)		
Size	Measure	Dynamic
1.2	14-15	ff>mp
	19-20	fff>mp
1.3	8-9	p<fff
	67	mf<f
1.5	22	mp>pp
	73	mf>pp
1.7	33-34	mf>ppp
2.3	20-21	mp<mf
2.4	56	ppp<pp

Table 7.4. Between 2 and 3 seconds.

Between 2 and 3 seconds (approximately between 2.5 and 3.5 centimeters)		
Size	Measure	Dynamic
2.5	13-14	mf>ppp
	80-81	ff<fff
2.6	67-68	f>pp
2.9	38-39	ppp<p
3.0	49-50	p<mf
3.2	61-62	ff>mp

Table 7.5. More than 3 seconds.

More than 3 seconds (more than 3.5 centimeters)		
Size	Measure	Dynamic
3.6	65-66	mf<ff
4.2	59-60	mf<f
4.5	76-77	f>mp
4.7	78-80	ff>p
4.9	23-25	mf>ppp

provide opportunities to practice what Gratovich has called the "virtuosic timbre changes of the bow."[18] Although there are only two pizzicato, both employ non-traditional means of sound production. Regarding the *Content Analysis Form*, the events that do not occur are non-traditional uses of bow, use of mutes, and theatrical effects.

[18]Gratovich, *Sixteen Contemporary Etudes*, 81.

CHAPTER 8: MEADOWMOUNTETUDES (1996), SAMUEL ADLER

Samuel Adler (1928-) is a German born, American composer and conductor with over two hundred published works. His compositions are published by: Boosey and Hawkes, Carl Fischer, Ludwig, Peters, Presser, and G. Schirmer. He has received grants from the Rockefeller and Ford foundations, has served on the compositional faculties of The Eastman School of Music and The Juilliard School, and has had his works performed by major orchestras in Europe, Israel, South America, and the United States.[1]

On the title page is written, "A recording of this work is available on Gasparo GSCD-297, William Steck, violin." As of this writing, the recording can still be purchased from the publisher, Gasparo Records. Another notable observation is that the four etudes do not include any theatrical effects or the use of mutes.

Etude I, Irregular Meter

With a metronome marking of the quarter note equaling 132 beats per minute, this etude changes meter every measure, with the exception of measures 1-2, which stay in 2/4; measures 14-15 are in 2/4; 42-43 stay in 7/8; 44-45 stay in 8/8; 55-57 in 8/8; 63-64 in 5/8; and measures 70-71 stay in 5/8. In measures 55-57, while the meter does not change, the groupings of the eighth note change (3+3+2; 3+2+3; 3+3+2). Eighth note groupings also change in measures 63-64 (2+3; 3+2), and measures 70-71 (3+2; 2+3). There are no irregular accents or complex rhythms, and the rhythm groups used can be described as traditional (i.e. quarter notes, dotted quarter notes, duplets and triples). Also representing traditional usage are the use of bow and left-hand. Changes of color/timbre do happen, but sparingly. There are two natural harmonics in measure 48, and a single

[1]Marie Rolf, "Samuel (Hans) Adler," in *The New Grove Dictionary of Music and Musicians*, ed. Stanlie Sadie, vol. 1, 160-161. (New York: Macmillan Publishers Limited, 2001), 160-161.

pizzicato, marked *sff* in the last measure. These timbral changes represent traditional usage of such effects.

Dynamics represent excellent practice in the modern concept of extreme dynamic changes. With the exception of *mp*, all dynamics between *pp* and *ff* are included for a total of thirteen dynamic changes. In addition, there are five instances of *crescendi* and six instances of *subito* changes in dynamics.

The intervals, double stops, and chords found in this etude represent those intervals considered important to contemporary music. If one simply counts the intervals present, that is, counting *only* the movement from single interval to single interval, the combined percentage of contemporary intervals, (second, fourth, Tritone, fifth, seventh, ninth, and eleventh) is 78.17%, of which the perfect fourth represents 49.30%. A similar amount of contemporary double stops are used as well. The combined total of unisons, seconds, fourths, Tritones, fifths, sevenths, ninths, and elevenths is 77.32%, of which the tritone represents the most frequently occurring double stop at 24.23%. The minor second double stop follows close behind at 23.71%. Only three chords are used, and have been notated in Figure 8.1. These chords contain important, contemporary intervals, most notable the perfect fifth and the major seventh. Also, they do not pose any major difficulty due to the use of open strings.

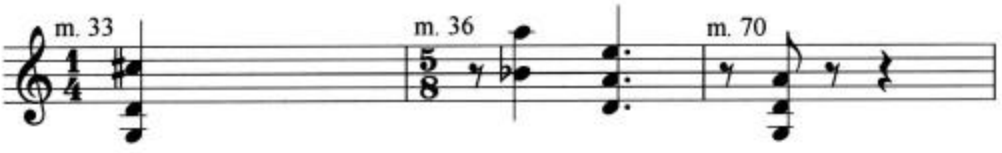

Figure 8.1. Chords, measures 33, 36, 70.

In review, “Irregular Meters” provides good training in changing meter, a wide range of dynamic changes that include quick, subito changes, contemporary intervals with an abundance of perfect fourths, and a large percentage of contemporary double stops, of which the tritone and minor second predominate.

Etude II, A Waltz in Fast Shifting Tonalities

This fast moving waltz, in which the dotted half equals 72 beats per second, moves quickly in and out of various key centers. Minor thirds represent the various key areas the melody might be in for the moment, while movement in minor seconds represents a shift from the present key area to a new key area. Extended eighth note passages, usually no longer than three measures, tend to be bi-tonal.

Bow use can be considered traditional. Different colors are provided by détaché and spiccato passages. There is a large range of dynamics. All dynamics from *pp* to *ff* are included, but no subito demands are made. Left-hand use is traditional as well. Color or change of timbre is provided briefly with natural harmonics in measure 24 and measure 26. Traditional, right-hand pizzicato is found in measures 38-40, and measure 112.

All intervals, from the second to the tenth are present, of which 46.57% are contemporary. The most used contemporary interval is the minor second, which is chiefly used to move to other key centers. The minor second appears 25.77% of the time. The minor third, representing the various key centers, is the most frequently occurring interval, at 28.60%. There are no double stops or chords.

This Waltz provides excellent training in contemporary practices of rhythm and meter. Irregular accents, in the form of irregular slurs, take place in 48 of the 112 measure etude.

In summary, this waltz can develop the skills of irregular accents, in the form of irregular bowings. In addition, it utilizes both tonal and contemporary intervals, of which the minor second and minor third are most prevalent.

Etude III, Large Skips and Harmonics

As the title suggests, large skips and harmonics play a significant role in these etudes. Some of the leaps in pitch are made considerably easier by the use of harmonics. A closer examination of the harmonics in this etude reveals that only the natural and fourth harmonics (artificial harmonic) are used.

Bow usage is détaché and legato, and, therefore, can be described as traditional. The student's bow skills are developed, however, through the extensive use of dynamics. All dynamics, from *ppp* to *fff* are presented, for a total of 40 dynamic changes in a composition that is only 17 measures long. Measures 2, 3, 6, 8, 11-12, and 13-14 display sudden or *subito* changes which happen without rests in between.

The left-hand provides some amount of color, with *glissandi* in measures 6, 7, 10 and 13. A small and quick foray into the high position (eleventh position if one uses the third finger), by way of a *glissando*, happens in measure 10. A *glissando* is combined with the major sixth double stop in measure 7. A combination *glissando* and double stop in measure 13 is interesting in that it begins on a minor sixth and moves upward into the position of a major sixth.

All intervals from the second to the tenth are used, of which 33.33% are contemporary, and 45.30% are traditional. Contemporary double stops appear more frequently at 51.79%, versus the 48.21% occurrence of traditional double stops. Sevenths are the most used contemporary double stop, appearing 35.71% of the time, and sixth represent the most used traditional double stop, appearing 32.14% of the time. There is only one chord, notated in Figure 8.2, and found in measure 6. It is a combination of the major seventh and perfect fourth. The chord is not difficult, in that it fits within the span of the hand and no stretches are required. In addition, the slow tempo gives the violinist plenty of time to execute this chord.

Figure 8.2. Chord, measure 6.

This etude proves to be a very good exercise in contemporary issues of rhythm and meter. The meter itself changes every measure with the exception of measures 12 and 13. The fundamental pulse of most measures is the quarter note, exceptions occurring in measures 4, 9, 10, 12, and 13, which have meters of 13/8, 27/8, 17/8, 17/8, respectively. There are irregular accents in the form of intermittent rests, or rests that do not fall on primary subdivisions of the beat, in measures 2, 4, 7, 9, 13, 14, 15 and 16. Irregular slurring occurs in measures 1, 2, 3, 4, 5, 6, 9, 11, 12, 13, 14, 15 and 16. It should be noted that at such a slow tempo of the quarter note equaling 56 beats per minute, this irregularity does not pose too much difficulty. There are contemporary rhythm groups of quintuplets in measures 6, 10 and 16, septuplets in measures 6 and 8,

cross rhythms in measures 4, 5, 9 and 12 (3:2 or 3:4, depending how one is subdividing the pulse), and a 5:2 (or 5:4) cross rhythm in measure 10.

"Large Skips and Harmonics" utilizes harmonics to facilitate leaps, thus making some of the leaps easier, as well as providing good aural training in octave displacement. These harmonics do not provide the training in those artificial harmonics important to contemporary technique, namely the harmonics of the minor third, major third, perfect fifth, and minor sixth. Approximately only 1/3 of the intervals are contemporary. Half of the double stops are contemporary, with the seventh double stop occurring most frequently. The very wide range of dynamics include many subito changes, and provides excellent practice in this necessary, contemporary bowing skill. With the exception of the occurrences of harmonics, the timbres explored are minimal and consist of a few glissandi. Rhythm skills are extensively developed, with changing meters, irregular accents, and contemporary rhythm groups. The slow tempo can allow a student who might be uncomfortable, or unfamiliar with, this aspect of rhythm to incorporate these skills in a non-threatening way.

Etude IV, A Fast and Furious Not To Tonal Perpetual Motion

With a quick pace of a quarter note equaling 116 beats per minute, it becomes a challenge to negotiate the 'not to tonal' intervals, double stops and chords found in this etude. With the exception of the octave, all intervals from the second to the eleventh are found. A majority of the intervals are contemporary, and appear 63.26% of the time. The majority of double stops are contemporary as well, occurring 68.22% of the time. Of these contemporary double stops, only the perfect fourth, tritone, and major/minor seventh appear. There are a variety of contemporary chords utilized.

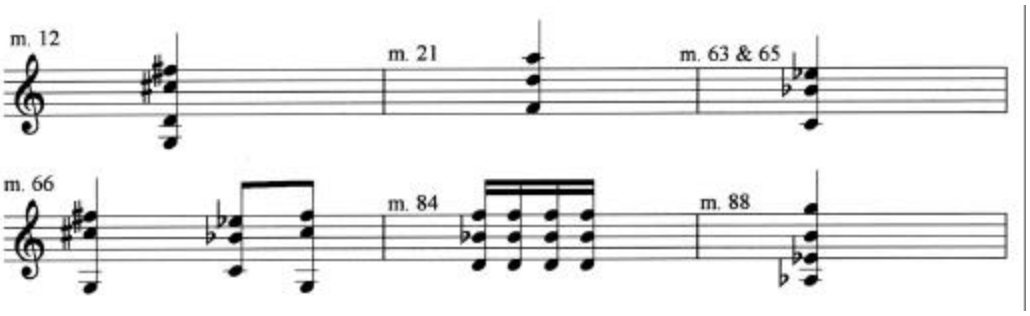

Figure 8.3. Chords, measures 12, 21, 63 & 65, 66, 84, 88.

Like the other etudes in this collection, bow usage is traditional. Détaché and staccato are the primary technical uses of the bow. Because of the quick tempo, a student may choose to use spiccato. The dynamic is predominantly *forté*, with the exception of a *subito pp* in measure 20. This *pp* quickly crescendos in just one measure back to *forté* in measure 21.

Left-hand usage, as it relates to timbre, is minimal. A combination of a glissando to a high B harmonic in measures 42 and 56 are identical.

The meter is predominantly 2/4, with occasional changes of meter in measures 11, 27, 38-40, 46, 64 and 80, with meters of 3/8, ¾, 5/8, 5/8, 3/8, and 5/8, respectively. Irregular accents, in the form of irregular bowings, form the primary rhythmic challenge. Irregular bowings can be found in measures 4, 6, 19, 26, 28, 29, 37, 67, 68, 73, 74-76, and 83.

Of the four *Meadowmoutetudes*, "Perpetual Motion" best supplies the violinist with training in contemporary intervals, double stops, and chords. The ability to negotiate the large number of contemporary intervals at a fast tempo is one of the largest benefits of learning this work. In addition, one can have meaningful practice with the irregular accents, in the form of irregular bowings.

Conclusions

As a whole, the *Meadowmountetudes* contain techniques that make them overwhelmingly traditional, as well as techniques that emphasize contemporary concerns. Completely traditional are both the placement and use of bow. Left-hand categories on the *Content Analysis Form for Recording Contemporary Violin Etudes* reveal some timbre changes, but most often, those changes happen infrequently, or they are produced in a traditional fashion. For example, harmonics occur in all four etudes, yet all harmonics are natural harmonics. Pizzicato occurs in these etudes, but all pizzicato is produced with the flesh of the right-hand index finger. There are also fleeting instances of timbre change. Glissandi and the high positions occur, but occur within the span of one measure. There is no use of mute or any theatrical effects found in any of the *Meadowmountetude*s.

Nevertheless, there exist techniques that provide significant, contemporary practice. These areas include rhythm and meter, intervals, double-stops, and to a lesser extent, the sudden change of dynamic and the use of contemporary chords. Frequent meter changes occur in Etudes I and IV. Irregular accents, in the form of irregular bowing, occur in Etudes II and IV, and finally, the use of cross rhythms and contemporary rhythmic groups occur in Etude III.

Intervals, double-stops, and chords are overwhelming contemporary. Exceptions are found in Etude II, which contain no occurrences of double-stops, and Etude II, which contain a majority of tonal intervals. The use of contemporary chords occurs anywhere from none in Etude II to six in Etude IV. Similarly, the use of sudden dynamic changes mirrors the frequency of contemporary chords, from none in Etude II to six in Etude III.

Thus, the best contemporary uses of the *Meadowmountetudes* by Samuel Adler are his use of rhythm and meter, intervals and double-stops, and to a lesser extent, the use of contemporary chords and sudden dynamic changes.

CHAPTER 9: CONCLUSION

Many of the newer techniques and technical devices found in contemporary scores for the violin are not necessarily new skills, but old skills used in new ways. Many, if not most were created and/or discovered long ago. Placement of the bow to create different timbres such as *sul ponticello* and *sul tasto* can be found as far back as the seventeenth century, as can different ways of employing the bow, such as the use of *col legno* and *tremolo*. In addition, the use of pizzicato and harmonics can be found as far back as the sixteenth and seventeenth centuries. Even the use of percussive devices is not new, as demonstrated by Rossini's Opera, *Il Signor Bruschin*o, where the violins are instructed to tap the stands with their bows. What gives these technical devices new meaning is the way in which they are used today. In the past, many of the aforementioned techniques were rarely used. Today, these effects can be found in profusion. In addition, many of these technical devices are combined with other technical devices in a myriad of different ways, as the composer seeks to create ever-new timbres, sounds, and effects.

The use of traditional or standard training methods, specifically those etude and method books that were written in the nineteenth century, leave the violinist unprepared for the challenges of music written in the twentieth century. These traditional method books are not to be discarded, for they provide good, fundamental grounding in the basics of violin playing. Scholars contend that the use of contemporary study material must not replace, but supplement the already existing and widely used traditional, etude books. When seeking out these contemporary etude books, there is a perception that contemporary study material is scarce or unavailable. This research has uncovered

sixteen, commercially available books. Thus, there appears to be a significant number of contemporary etude books for the violin. In addition, these publications have been written by some of the greatest composers of the twentieth-century. The documentation of these commercially available books[1] concludes the first part of this study.

The second part of this study sought to create a way for the teacher to discern the value any particular contemporary book might have for a student. Many of the traditional and standard etude books used today have a long history of use, and have gained a foothold in the studio. The newer, contemporary etudes do not have such a long history of use, and may be one of the reasons that they are not widely used. When faced with the possibility of choosing from a sixteen, commercially available contemporary etude books, a tool was created to assist the teacher in determining the precise nature of contemporary techniques presented.

To create this tool, all of the techniques found in contemporary scores, as documented by scholars, were compiled and organized into an objective form called a *Content Analysis Form for Contemporary Violin Etude Books*. This form is not meant to be a tool for theoretical analysis. Its function is to record those techniques deemed important for the successful performance of contemporary music. It is intended to be useful in examining the nature and extent of contemporary practices in any and all violin etudes, not just those included in the present study.

The third and last part of this study was to demonstrate the use of this form on five, selected contemporary etude books. The selected etude books were written by composers with international reputations, those composers who shaped compositional thought during the twentieth century. In fact, one of the composers chosen, John Cage,

[1]Commercially available in the United States.

has been described as one of the most influential composers of the twentieth-century.[2]

When one examines the completed *Content Analysis Forms* from this study, it is easy to see that many of them emphasize a limited area of contemporary skills. The narrow focus of certain technical skills is not uncommon for an etude. In fact, the purpose of the etude is to present a technical problem or challenge in the context of a musical setting. For example, the etudes of Ysaÿe use specific intervals and double-stops, thus stressing left-hand and aural skills. The etudes of Martinu stress rhythmic skills. While the etudes of Adler and Hindemith cover a variety of issues, the individual etudes in each set focus on one, sometimes two facets of contemporary violin technique. Even the *Freeman Etudes* by John Cage, with its diverse array of techniques, can be seen as etudes that focus on one skill, that of abruptly switching back and forth between techniques.

The Cage *Freeman Etudes* stand apart in their incorporation of many types of contemporary technique. The *Content Analysis Forms* demonstrate that the *Freeman Etudes* display both a large number of contemporary techniques as well as providing depth of coverage. Of the five etude books analyzed using the *Content Analysis Form*, this research has determined that the *Freeman Etudes* provides the best coverage, both depth and breadth, of twentieth-century violin techniques. Especially notable are the use of expanded timbres and the rapid change between techniques.

With the exception of any non-traditional uses of bow, (such as bowing under the strings of the violin or bowing the strings of the peg box), the trill, percussive effects, and the use of mute, the two etudes analyzed utilized every other aspect of contemporary

[2]James Pritchett and Laura Kuhn. "Cage, John," in *The New Grove Dictionary of Music and Musicians*, ed. Stanlie Sadie, vol. 4, 796-800 (New York: Macmillan Publishers Limited, 2001), 796.

violin technique. Most notable were the rapid changes of bow placement and the rapid uses of bow. These technical feats were most often accompanied by the rapid and drastic changes of dynamic that further increased the difficulty level. Also notable were the use of time and meter. Measures are notated in a non-traditional fashion, and are marked under the staff. The grouping of notes within a measure represented a different practice of marking time. Within a frame of 3½ seconds per measure, one could estimate how close in time adjacent notes are to be played by their proximity to one another. The closer two notes are together, the closer in time they are to be played. This different way of marking time is not too far removed from the traditional expectations of meter, and can be good preparation for the reading of modern scores that do not incorporate a traditional meter. Overall, the *Freeman Etudes* represent the most difficult etudes chosen for this study and have been cited as among the most difficult music for the violin ever written.[3]

In comparison, the other four etude books written by Adler, Hindemith, Martinu, and Ysaÿe are limited in their use of contemporary technique. Missing in these four books is the incorporation of different timbres, timbres different from the traditional, bel canto style of violin playing. For example, while the Ysaÿe *Preludes* provide the violinist with good aural practice through the incorporation of contemporary intervals, double-stops, and chords, much of those aural sounds are produced in a traditional fashion. Two small exceptions are found in Prelude III, "Thirds", with a marking of *flautando,* which can be interpreted as *sul tasto,* and a marking in Prelude IV, "Fourths", with a marking of *velvety,* which can be interpreted as *sul tasto* as well.

The Martinu *Rhythmic Etudes* provide the violinist with at least the capability to

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[3]James Pritchett, *The Freeman Etudes,* (http://www.music.princeton.edu/~jwp/texts/freeman, 1994).

play up to the fourth position excellent variety of different contemporary rhythmic issues. These *Etudes* can be recommended for even the advanced violinist who might not have a strong background in rhythm. Yet again, the way of producing the tone is by traditional means.

Adler's *Meadowmountetudes* presents a variety of contemporary technical skills. Strongest are concepts of contemporary rhythm and meter as well as incorporating a variety of contemporary intervals and double-stops. To a lesser extent, one can find sudden dynamic changes and the use of contemporary chords. Yet, the *Content Analysis Forms* reveal a production of sound that is traditional.

The Hindemith *Studies for Violinists* are similar to Adler's *Meadowmountetudes* in the use of a variety of contemporary techniques. Both describe in individual etude titles what skill is represented. Difficulty differentiates the two. The Adler is best suited to the late intermediate to early advanced player, while the Hindemith is best utilized by the most advanced student or professional. For the Hindemith, the *Content Analysis Form* indicated that an additional skill was being represented, in addition to what was specified in the etude title. Notable were two findings. Etude II, the designated contemporary rhythmic etude, also presented contemporary double-stops. In fact, the *Content Analysis Form* indicated that Etude II is a better choice for the practice of contemporary double-stops than the designated double-stop etude, Etude V. The second finding involved Etude III. Both Perira[4] and Szigeti[5] have suggested that Etude III has a majority of unisons, which is a stretch of a fifth with the left-hand. This is not the case. The most frequently occurring intervals are the second and the octave, both of

[4]Erenest Perira, "Twentieth-Century Violin Technique" (D.M.A. diss., The University of Texas, 1987), 23.

[5]Joseph Szigeti, *Szigeti on the Violin*, (Toronto, Ontario: General Publishing Company, 1969), 7.

which have a stretch of a fourth of the left-hand.

Comparing the completed *Content Analysis Forms* of the Adler, Hindemith, Martinu, and Ysaÿe, this research found noticeable skills lacking in all four books. *Sul ponticello* is completely missing. With the exception of the markings of *flautando* and *velvety* in Preludes III and IV by Ysaÿe, *sul tasto* is missing also. Any type of non-traditional bowing, such as bowing in a circular motion, bowing under the strings, bowing behind the left- hand, or any other conceivable way of bowing, does not exist. There are no instances of tremolo, microtones, variations of vibrato, unconventional uses of pizzicato, and uses of mute or theatrical effects.

When comparing the completed *Content Analysis Forms* of all five etude books in this study (Adler, Cage, Hindemith, Martinu, and Ysaÿe), it was found that there still were some techniques missing. All five are missing non-traditional uses of bow. All five do not incorporate a mute. There are no theatrical effects of any kind, whether vocal or percussive, and with the exception of one pizzicato marked "nail" in Etude II by Cage, there are no other types of non-traditional pizzicato.

Overall, the *Content Analysis Form for Contemporary Violin Etudes* worked as expected. It documented and revealed those skills considered essential for the performance of contemporary violin scores. It also revealed skills that were missing. The simple act of documenting what does and does not exist gave a clear idea of the breadth and depth of any particular skill on the *Content Analysis Form.* This is not to say that some aspects of the form could be improved to provide even more clarity for the user.

In the Left-Hand category, the techniques could be placed in a hierarchal fashion,

meaning that some skills that have occurred in Western music more recently in history, such as microtones and variations in vibrato, could be place first. Those techniques that have existed longer could be placed further down the list. For example, at the bottom could be placed the tremolo and the trill.

The Pizzicato category did not see much use, due to the fact that only traditional pizzicato was predominant. In retrospect, it would be wise to place an additional category of "other." For example, there is no way to currently document a Bartok pizzicato, a type of pizzicato that is produced by pulling the string vertically in such a fashion that it impacts the fingerboard when released. Certainly, a creative composer will find new ways to produce sound.

The category of Meter and Rhythm is clearly conceived. It covers all aspects of contemporary rhythm and meter found in the etude books by Adler, Hindemith, Martinu, and Ysaÿe. This category, however, did not work at all with Cage's *Freeman Etudes.* Cage's concept of rhythm and meter is clearly different than the long established pattern of grouping beats into measures and further subdividing those beats. Do the *Freeman Etudes* make this section obsolete? Not necessarily. Much contemporary music incorporates traditional concepts of meter and rhythm. For greater clarity on the *Content Analysis Form*, however, it would be helpful to add an additional sub-category of "other" to briefly describe any non-traditional notation of meter.

The counting and classifying of intervals was a time consuming task. One of the concerns was to question the task itself. Was it worthwhile? Typically, the task of counting and classifying intervals for each etude book took several days to complete.

The *Content Analysis Form for Contemporary Etude Books* is meant to assist the teacher or violinist in determining the contemporary worthiness of any etude book. It is not meant to be an analytical project that can take days to complete. Also, there is a possible flaw with the counting and classifying of intervals. For example, if one were to count and classify the intervals of a diatonic scale book, one might reach the conclusion that the diatonic scale book has a majority of contemporary intervals, because the majority of intervals present are seconds. Does the majority of seconds make the diatonic scale book a good tool for developing contemporary skills? The answer is no. Perhaps, as far as the *Content Analysis Form* is concerned, some sort of finger pattern anaylsis could be devised.

The category for dynamics worked well. A clear picture was seen after documenting the existing dynamic changes. It was easy to determine both frequency and difficulty level.

None of the five books examined contained the use of mute or theatrical effects of any kind, whether percussive or vocal, so the value of these categories on the *Content Analysis Form* is unknown at this time. It is possible, based on my experience with other parts of the *Content Analysis Form* that it might be beneficial to provide additional room to describe any uses of specific mutes, such as mutes made of wood or metal. Different mutes amplify and suppress different partials, and as such, could lead the composer to choose a specific mute.

Checking yes or no as to the availability of a recording is good. It can be even more helpful to provide room to record where the recording can be purchased.

The use of non-traditional bowing, the incorporation of non-traditional pizzicato, the use of mutes, as well as the use of different kinds of mutes, and the coordination of theatrical effects, both percussive and vocal are missing from the five etude books examined for this study. The Cage *Freeman Etudes* incorporate the most technical variety, yet is accessible only the most advanced player.

Suggestions for further study would be to analyze other commercially available, contemporary violin etude books, using a revised *Content Analysis Form.* One book of particular interest might be the *Sixteen Contemporary Etudes for Study and Performanc*e, edited by Eugene Gratovich. During this research's initial stages, it was noted that this score included vocal and percussive effects.

Today's violinist must be ever mindful that music is constantly evolving and changing. The compositional techniques found in music of the twentieth century to the music of today incorporate a wide variety of different tonalities, sounds, and effects. To realize these tonalities, different, but not necessarily new techniques must be used. The violin etudes that are used today are primarily those that have been written in the nineteenth century, and utilize limited ways of producing sound. Etudes that reflect new compositional thought do exist and are commercially available. In order to better prepare the violinist for the rigors of contemporary music, these materials must be incorporated as an integral part of violin study. This will not only better prepare the violinist as he/she encounters solo, chamber, and orchestral works, but he/she will also gain a better appreciation of some of the great minds of modern times.

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APPENDIX A

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: _____
Title of Etude Book: _____
Title/# of Etude: _____
Year of Publication: _____
Publisher: _____

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ❑ Traditional (roughly between bridge and fingerboard)
- ❑ Sul ponticello (describe)

_____
_____

- ❑ Sul tasto (describe)

_____
_____

- ❑ Describe any rapid changes between techniques

_____
_____
_____
_____

Use of bow---how the bow is drawn across the strings

- ❑ Traditional (detache, spiccato, etc.---list or describe)

_____
_____

- ❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc. Describe)

_____
_____

- ❑ Col legno (describe)

_____
_____

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe

- Right hand
  - Flesh/pad

    _____

    _____

  - Fingernail

    _____

    _____

  - Combination of flesh and fingernail

    _____

    _____

  - Use of plectrum

    _____

    _____

- Left Hand
  - Flesh/pad

    _____

    _____

  - Fingernail

    _____

    _____

  - Combination of flesh and fingernail

    _____

    _____

  - Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing Meter

- ❑ Irregular Accents

- ❑ Cross Rhythms

- ❑ Contemporary Rhythm groups

- ❑ Additive Rhythms

  - o List rhythm groups used in additive rhythms

Intervals

	Minor		**Major**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Intervals (including unisons) _____
Total # and % of Tonal Intervals (3/6/8/10) _____ _____
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11) _____ _____

Double-Stops

	Minor		**Major**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Double Stops (including unisons) _____
Total # and % of Tonal Double Stops (3/6/8/10) _____ _____
Total # and % of Contemporary
Double Stops (unison/2/4/TT/5/7/9/11) _____ _____

Chords (list)

Dynamics: List and Describe Sudden Dynamic Changes

Mutes

- ❑ Yes
- ❑ No

Theatrical Effects

- ❑ Percussive effects (describe)

- ❑ Vocal effects (describe)

Does a Recording Exist?

- ❑ Yes
- ❑ No

APPENDIX B

WORKS COMMERCIALLY AVAILABLE IN THE UNITED STATES

Adler, Samuel. *Meadowmount Etudes: Four Studies of Twentieth-Century Technique for Solo Violin.* Bryn Mawr, PA: Theodore Presser Co., 1996

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Ysaÿe, Eugene. *Ten Preludes for Violin Solo: Essay on the Modern Technic of the Violin,* op. 35 (op. posth.), edited by Charles Radoux Rogier. Brussells and Paris: Schott Freres, 1952.

APPENDIX C

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Fischer, Bernard. *Violin Etudes in the Modern Style*. New York: Belwin, Inc., 1953.

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Green, Elizabeth A. H. *Twelve Modern Etudes for the Advanced Violinists or Violist*. Pittsburg: Elkan-Vogel, 1964.

Grummer, Margot. *Harmonisch neue tägliche Übungen: für Violone*. Berlin: Ed. Bote and G. Bock, 1954.

Haba, Karel. *Moderne Violintechnik*, op. 12. Mainz and New York: B. Schott's Söhne; Associated Music Publishers, 1928.

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Zamecnik, Evzen. *Twelve Studies for Violin, For Technical Problems in Contemporary Music*. Kassel: Bärenreiter-Verlag, 1973.

Zukofsky, Paul. *All-Interval Scale Book: Including a Chart of Harmonics for the Violin*. New York: G. Schirmer, 1977.

APPENDIX D

CONTENT ANALYSIS FORMS FOR RHYTHMICAL ETUDES BY BOHUSLAV MARTINU

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Bohuslav Martinu
Title of Etude Book: Rhythmische Etüden (Rhythmical Etudes)
Title of Etude: I. Allegro
Year of Publication: 1932
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

_____

_____

❑ Sul tasto (describe)

_____

_____

❑ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, slurred-staccato, and staccato

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

❑ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing meter

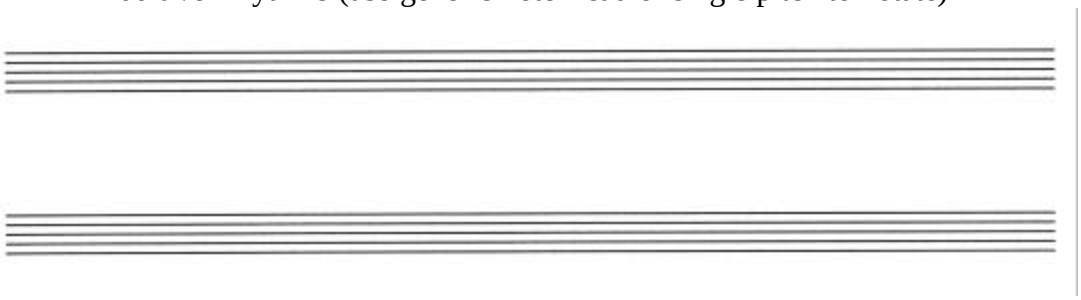
- ☑ Irregular Accents

irregular slurring in measures 5, 9, 12, 13, 34, 58, and 35; the beginning of phrases or sub-phrases on off-beats in measures 1, 11, 27, 30, 33, 48, and 52; accents of off-beats in measures 11, 17-19, 23, 24, 26, 34, 40, 41-44, and 59; irregular groupings of sixteenth-notes (grouped in a triplet pattern) in measures 49-50.

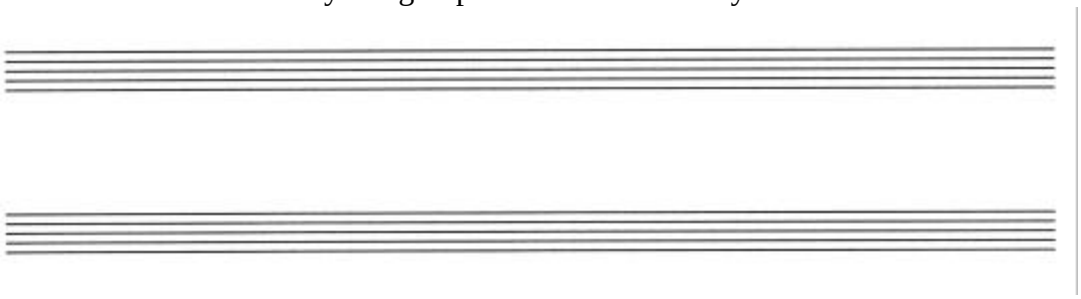
- ❑ Cross Rhythms

- ❑ Contemporary Rhythm groups

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)



  - o List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	41	13.23
2nd	73	23.55	106	34.19	179	57.74
3rd	20	6.45	15	4.84	35	11.29
Perfect 4th	-	-	-	-	22	7.10
Tritone	-	-	-	-	4	1.29
Perfect 5th	-	-	-	-	10	3.23
6th	4	1.29	-	-	4	1.29
7th	3	0.97	1	0.32	4	1.29
Octave	-	-	-	-	8	2.58
9th	-	-	1	0.32	1	0.32
10th	-	-	1	0.32	1	0.32
11th	1	0.32	-	-	1	0.32

Total # of Intervals (including unisons)	310	
Total # and % of Tonal Intervals (3/6/8/10)	48	15.48%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	221	71.29%

NOTE: All percentages are rounded to the nearest hundredth

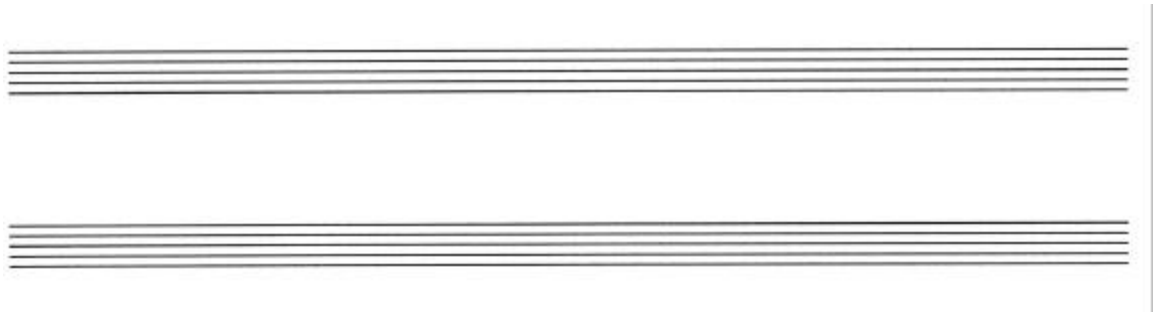
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	1	4.76	1	4.76
3rd	-	-	-	-	-	-
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	-	-
6th	-	-	-	-	-	-
7th	-	-	-	-	-	-
Octave	-	-	-	-	20	95.24
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	21	
Total # and % of Tonal Double-Stops (3/6/8/10)	20	95.24%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	1	4.76%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

  _____

  _____

- ❑ Vocal effects (describe)

  _____

  _____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Bohuslav Martinu
Title of Etude Book: Rhythmische Etüden (Rhythmical Etudes)
Title of Etude: II. "in 5/8" Poco allegretto
Year of Publication: 1932
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ☑ Traditional (roughly between bridge and fingerboard)
- ❑ Sul ponticello (describe)

_____

_____

- ❑ Sul tasto (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

- ☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, legato, slurred-staccato, and staccato

- ❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

_____

- ❑ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ☑ Right hand
  - ☑ Flesh/pad

    measures 71-76; measures 71-73 are continuous eighth-notes and measures 74-76 are broken, rolled, three-note chords

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing meter

_____

_____

- ☑ Irregular Accents

irregular slurring in measures 13-19, 23-26, 42-43, and 45; beginning notes on off-beats in measures 10-12, 31-34, 67-68, 70-71, and 74-75

- ❑ Cross Rhythms

_____

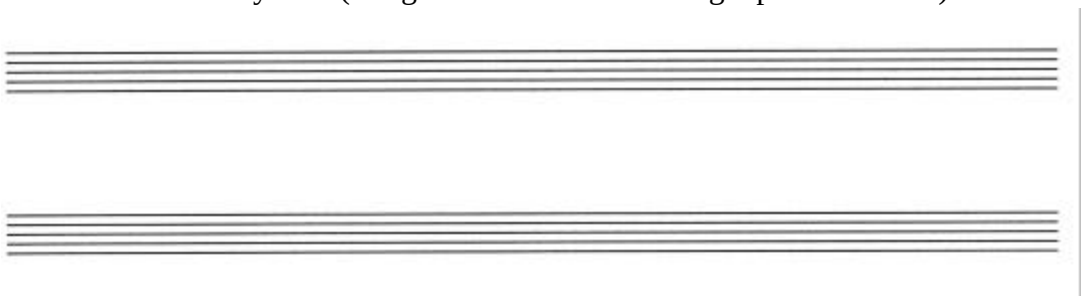
_____

- ❑ Contemporary Rhythm groups

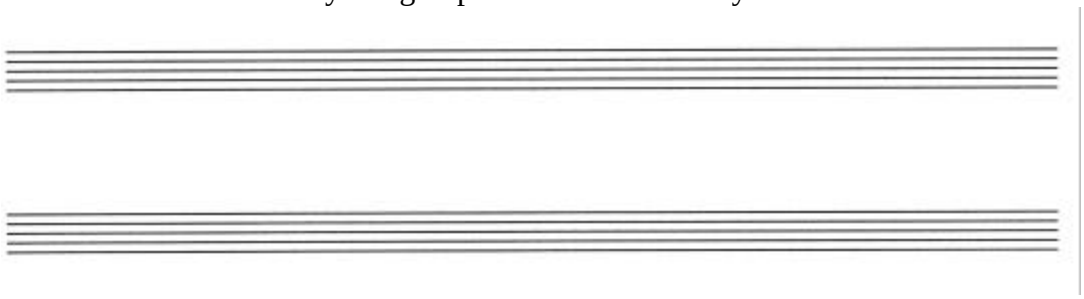
_____

_____

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)



  - o List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	43	9.77
2nd	55	12.50	119	27.05	174	39.55
3rd	107	24.32	29	6.59	136	30.91
Perfect 4th	-	-	-	-	16	3.64
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	29	6.59
6th	12	2.73	6	1.36	18	4.09
7th	6	1.36	1	0.23	7	1.59
Octave	-	-	-	-	17	3.86
9th						
10th						
11th						

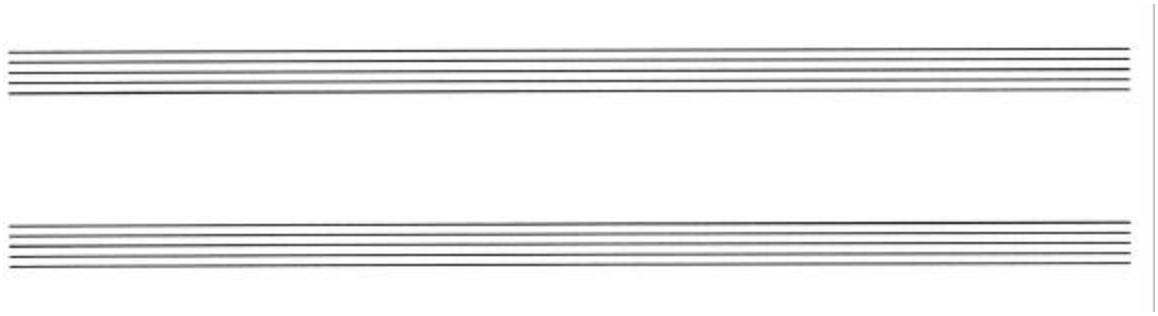
Total # of Intervals (including unisons) 440
Total # and % of Tonal Intervals (3/6/8/10) 171 38.86%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11) 226 51.36%
NOTE: All percentages are rounded to the nearest hundredth

***Double-Stops* ---N/A to this etude**

	Minor		Major		Total	
	#	%	#	%	#	%
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Double-Stops (including unisons)
Total # and % of Tonal Double-Stops (3/6/8/10)
Total # and % of Contemporary
Double-Stops (Unison/2/4/TT/5/7/9/11)
NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

measure 19-20, *poco forte* to *piano;* measure 46-47, *forte* AND *crescendo* followed by a *piano*

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

_____

_____

- ❑ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Bohuslav Martinu
Title of Etude Book: Rhythmische Etüden (Rhythmical Etudes)
Title of Etude: III. "in 7/8, 10/8, 11/8" Moderato
Year of Publication: 1932
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ☑ Traditional (roughly between bridge and fingerboard)
- ❑ Sul ponticello (describe)

_____

_____

- ❑ Sul tasto (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

- ☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, legato-slurs, spiccato and staccato

- ❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

_____

- ❑ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

measures 1-23 are in 7/8; measures 24-33 are in 10/8; and measures 34-42 are in 11/8

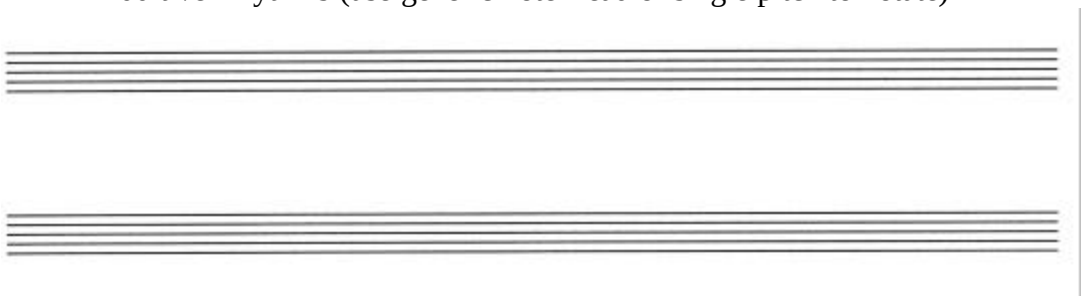
☑ Irregular Accents

irregular slurring in measures 1-2, 4-5, 12-14, 19, 22-23, 25, and 28-38; beginning phrases or sub-phrases on off-beats in measures 8-9, 12, 17, 24, 28, 30-31, and 38

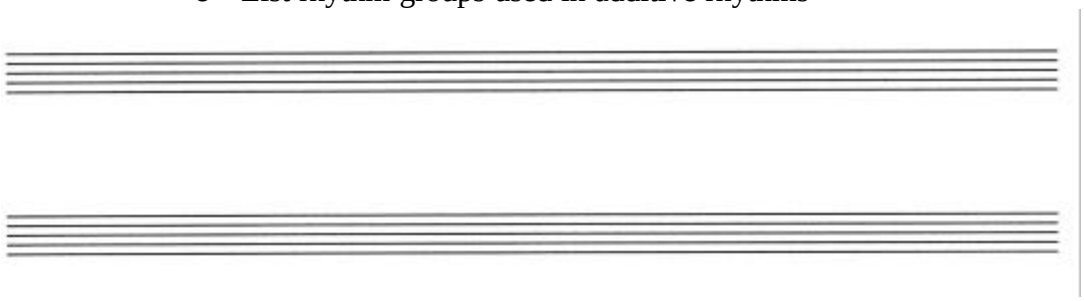
❑ Cross Rhythms

❑ Contemporary Rhythm groups

❑ Additive Rhythms (use generic note-head or single pitch to notate)



o List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	31	8.29
2nd	78	20.86	105	28.07	183	48.93
3rd	47	12.57	24	6.42	71	18.98
Perfect 4th	-	-	-	-	26	6.95
Tritone	-	-	-	-	8	2.14
Perfect 5th	-	-	-	-	3	0.80
6th	9	2.41	13	3.48	22	5.88
7th	7	1.87	2	0.53	9	2.41
Octave	-	-	-	-	11	2.94
9th	1	0.27	2	0.53	3	0.80
10th	1	0.27	3	0.80	4	1.07
11th	2	0.53	1	0.27	3	0.80

Total # of Intervals (including unisons)	374	
Total # and % of Tonal Intervals (3/6/8/10)	108	28.88%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	235	62.83%

NOTE: All percentages are rounded to the nearest hundredth

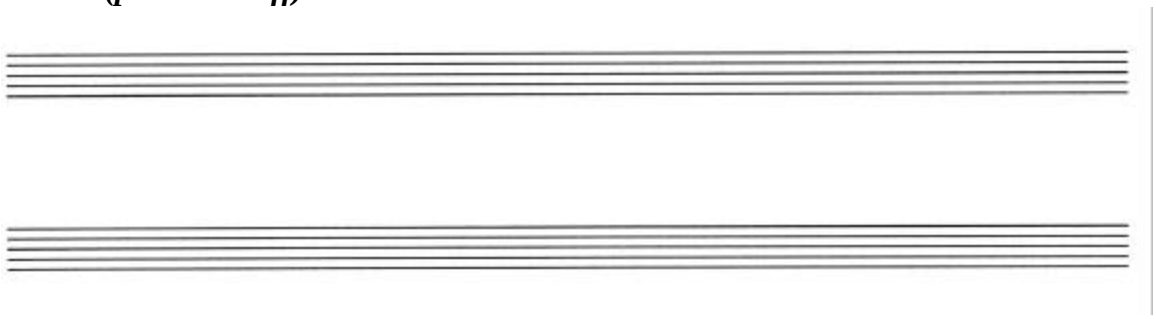
***Double-Stops* --- N/A to this etude**

	Minor		Major		Total	
	#	%	#	%	#	%
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Double-Stops (including unisons)
Total # and % of Tonal Double-Stops (3/6/8/10)
Total # and % of Contemporary
Double-Stops (Unison/2/4/TT/5/7/9/11)

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

  _____

  _____

- ❑ Vocal effects (describe)

  _____

  _____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Bohuslav Martinu
Title of Etude Book: Rhythmische Etüden (Rhythmical Etudes)
Title of Etude: IV. Allegretto moderato
Year of Publication: 1932
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ☑ Traditional (roughly between bridge and fingerboard)
- ☐ Sul ponticello (describe)

_____

_____

- ☐ Sul tasto (describe)

_____

_____

- ☐ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

- ☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, slurred-staccato, slurred-staccato, spiccato, and staccato

- ☐ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

_____

- ☐ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

The meter changes in EVERY measure: 1-15, 41-46, and 54-74. The meters used are 4/16, 3/8, 4/8, 5/8, 6/8, 7/8, ¾, and 4/4 (common time)

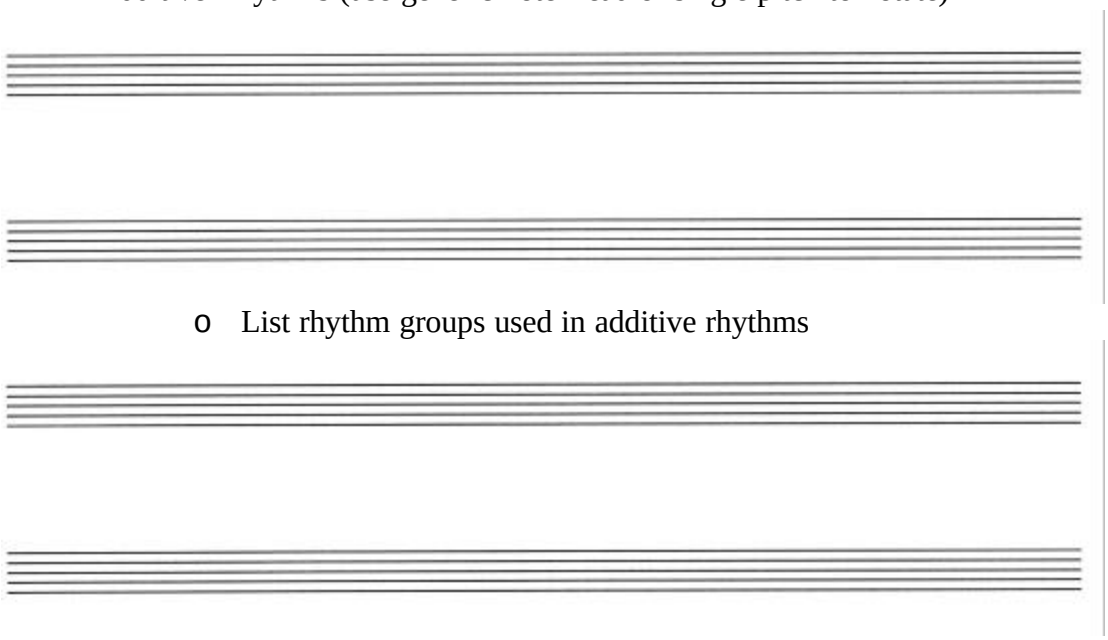
☑ Irregular Accents

irregular slurring in measures 1, 5, 9-11, 12-15, 17, 20, 25, 37-40, 46-47, 49-50, 52, 54, 56, 58-59, 61-62, 64-65, 67-68, 71, 74, 76, and 78-87; the beginning of phrases or sub-phrases on off-beats in measures 31 and 37; the irregular grouping of sixteenth-notes in measures 51-53

❑ Cross Rhythms

❑ Contemporary Rhythm groups

❑ Additive Rhythms (use generic note-head or single pitch to notate)



- List rhythm groups used in additive rhythms

Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	22	7.26
2nd	26	8.58	140	46.20	166	54.79
3rd	64	21.12	16	5.28	80	26.40
Perfect 4th	-	-	-	-	19	6.27
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	5	1.65
6th	-	-	-	-	-	-
7th	1	0.33	-	-	1	0.33
Octave	-	-	-	-	8	2.64
9th	-	-	1	0.33	1	0.33
10th	-	-	-	-	-	-
11th	-	-	1	0.33	1	0.33

Total # of Intervals (including unisons)	303	
Total # and % of Tonal Intervals (3/6/8/10)	88	29.04%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	193	63.70%

NOTE: All percentages are rounded to the nearest hundredth

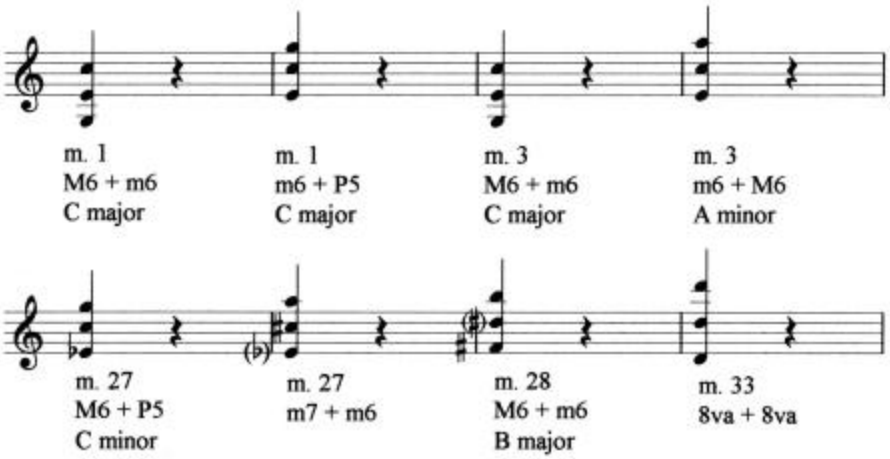
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	-	-	-	-
3rd	3	9.68	6	19.35	9	29.03
Perfect 4th	-	-	-	-	3	9.68
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	8	25.81
6th	6	19.35	4	12.90	10	32.26
7th	-	-	-	-	-	-
Octave	-	-	-	-	-	-
9th	-	-	-	-	-	-
10th	1	3.23	-	-	1	3.23
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	31	
Total # and % of Tonal Double-Stops (3/6/8/10)	20	64.52%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	11	35.48%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

  _____

  _____

- ❑ Vocal effects (describe)

  _____

  _____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Bohuslav Martinu
Title of Etude Book: Rhythmische Etüden (Rhythmical Etudes)
Title of Etude: V. "in 5/8" Andantino
Year of Publication: 1932
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ☑ Traditional (roughly between bridge and fingerboard)
- ☐ Sul ponticello (describe)

_____

_____

- ☐ Sul tasto (describe)

_____

_____

- ☐ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

- ☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, legato-slurs, and staccato

- ☐ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

_____

- ☐ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing meter

_____

_____

- ☑ Irregular Accents

irregular slurring in measures 5, 18-22, 27-31, 33, and 38-44; the beginning of phrases or sub-phrases on off-beats in measures 6, 8-9, 11, 18, 21, 27-28, and 32-33

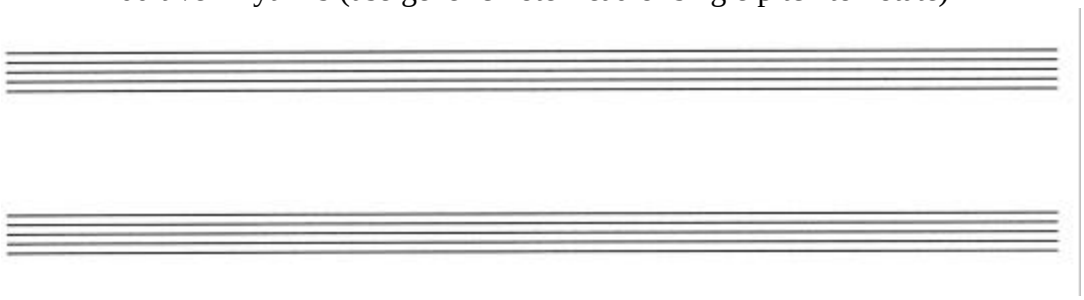
- ☑ Cross Rhythms

measures 15-17, 3:2; measures 24-25, 2:3; measures 35 and 37, 5:3

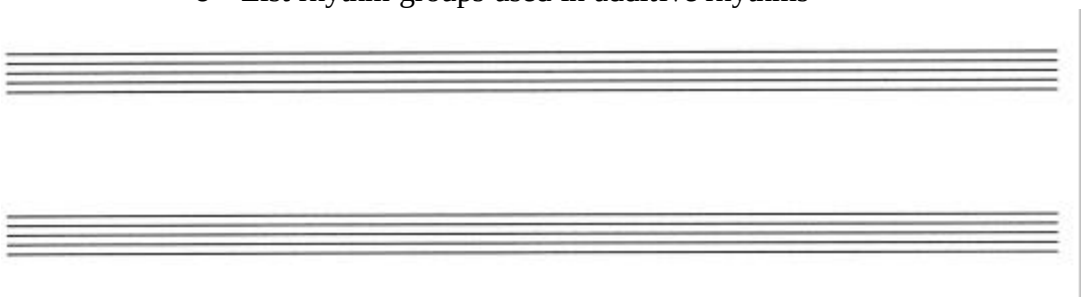
- ☑ Contemporary Rhythm groups

quintuplets in measures 7, 13, 14, and 35

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)



  - o List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	18	5.88
2nd	54	17.65	118	38.56	172	56.21
3rd	54	17.65	27	8.82	81	26.47
Perfect 4th	-	-	-	-	21	6.86
Tritone	-	-	-	-	2	0.65
Perfect 5th	-	-	-	-	7	2.29
6th	1	0.33	-	-	1	0.33
7th	2	0.65	-	-	2	0.65
Octave	-	-	-	-	2	0.65
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Intervals (including unisons)	306	
Total # and % of Tonal Intervals (3/6/8/10)	84	27.45%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	204	66.67%

NOTE: All percentages are rounded to the nearest hundredth

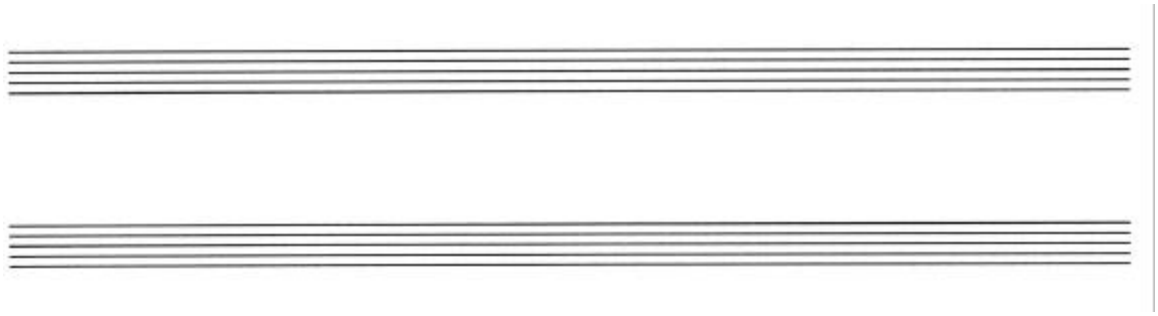
***Double-Stops* --- N/A to this etude**

	Minor		Major		Total	
	#	%	#	%	#	%
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Double-Stops (including unisons)
Total # and % of Tonal Double-Stops (3/6/8/10)
Total # and % of Contemporary
Double-Stops (Unison/2/4/TT/5/7/9/11)

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

Measures 8-9, *mezzo forte* followed by a sixteenth-note rest, followed by a *piano;* measures 35-36, *mezzo forte*, followed by an eighth-note rest, followed by a *piano*

Mutes

- ☐ Yes
- ☑ No

Theatrical Effects

- ☐ Percussive effects (describe)

_____

_____

- ☐ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ☐ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Bohuslav Martinu
Title of Etude Book: Rhythmische Etüden (Rhythmical Etudes)
Title of Etude: VI. "Jazz Rhythms" Allegro moderato
Year of Publication: 1932
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ☑ Traditional (roughly between bridge and fingerboard)
- ☐ Sul ponticello (describe)

_____

_____

- ☐ Sul tasto (describe)

_____

_____

- ☐ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

- ☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, legato-slurs, staccato, and if desired, spiccato

- ☐ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

_____

- ☐ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing meter

_____

_____

- ☑ Irregular Accents

irregular accents created primarily by the syncopated figure in measures 1-5, 7-8, 10-19, 26-28, 31, 33, 39-41, and 43-44; irregular slurring (without accents) in measures 20-25, 29-30, 32, 42-43; the beginning of phrases and sub-phrases on off-beats in measures 8-9, 11, 17-19, 27-28, 30, 34, and 40; accents in measures 1, 3, 27-38, and 40-46.

- ❑ Cross Rhythms

_____

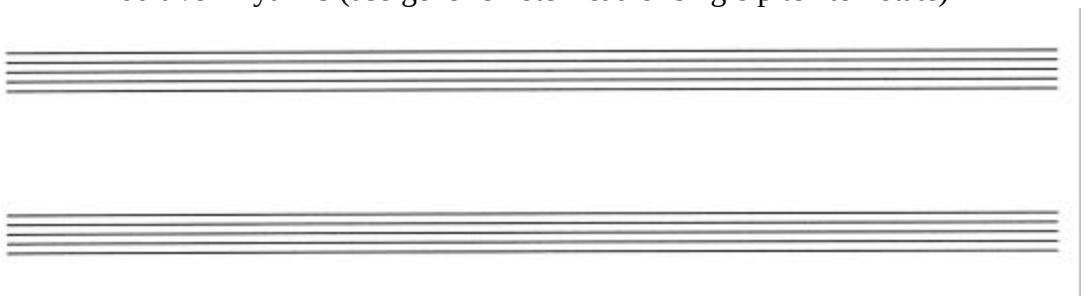
_____

- ❑ Contemporary Rhythm groups

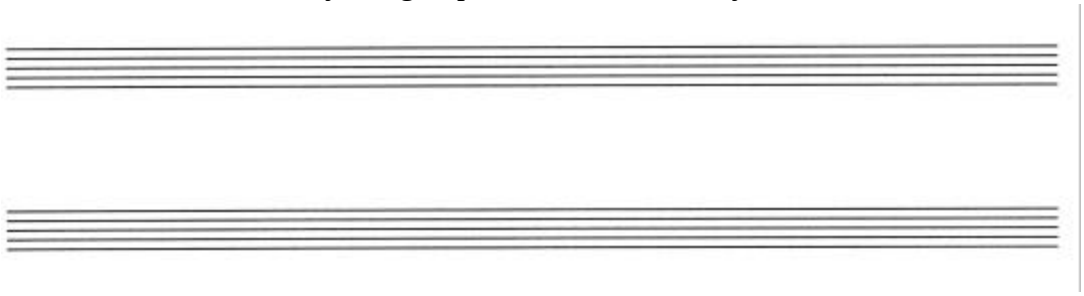
_____

_____

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)



  - o List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	41	9.38
2nd	97	22.20	73	16.70	170	38.90
3rd	88	20.14	27	6.18	115	26.32
Perfect 4th	-	-	-	-	34	7.78
Tritone	-	-	-	-	11	2.52
Perfect 5th	-	-	-	-	16	3.66
6th	15	3.43	15	3.43	30	6.86
7th	5	1.14	4	0.92	9	2.06
Octave	-	-	-	-	10	2.29
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	1	0.23	-	-	1	0.23

Total # of Intervals (including unisons)	437	
Total # and % of Tonal Intervals (3/6/8/10)	155	35.47%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	241	55.15%

NOTE: All percentages are rounded to the nearest hundredth

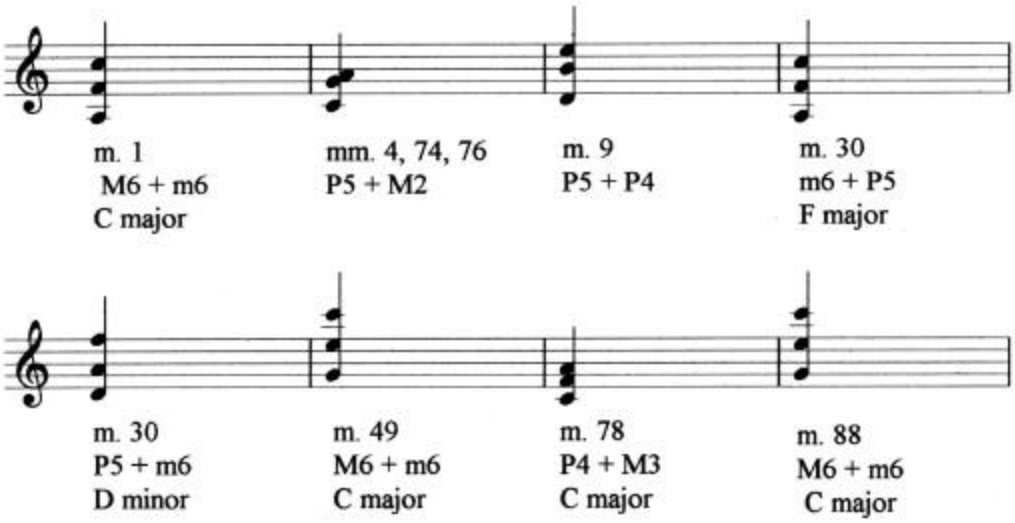
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	-	-	-	-
3rd	-	-	-	-	-	-
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	-	-
6th	-	-	1	16.67	1	16.67
7th	-	-	-	-	-	-
Octave	-	-	-	-	5	83.33
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	6	
Total # and % of Tonal Double-Stops (3/6/8/10)	6	100.00%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	0	0.00%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

_____

_____

- ❑ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Bohuslav Martinu
Title of Etude Book: Rhythmische Etüden (Rhythmical Etudes)
Title of Etude: VII. "mit Pausen" Allegretto
Year of Publication: 1932
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ☑ Traditional (roughly between bridge and fingerboard)
- ☐ Sul ponticello (describe)

_____

_____

- ☐ Sul tasto (describe)

_____

_____

- ☐ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

- ☑ Traditional (détaché, spiccato, etc---list or describe)

legato-slurs, slurred-staccato, and spiccato

- ☐ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

_____

- ☐ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

There are 46 meter changes. The meters used are 2/4, ¾, 1/8, 2/8, 3/8, 4/8, 5/8, 6/8, 7/8, 3/16, and 4/16.

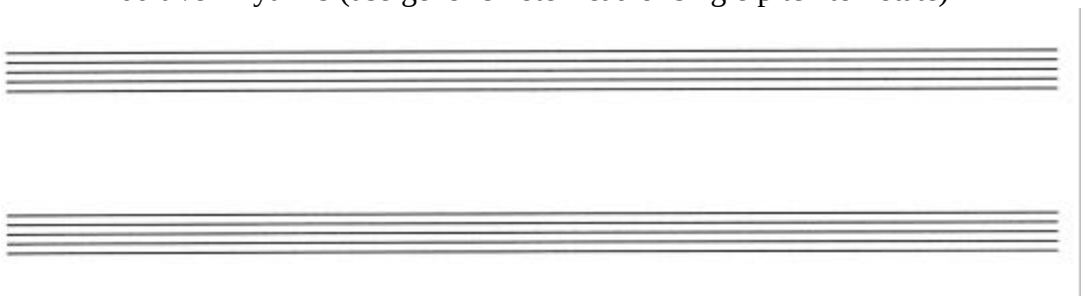
☑ Irregular Accents

mit Pausen means "with rests," therefore, almost every phrase or sub-phrase begins on a wek beat or an off-beat

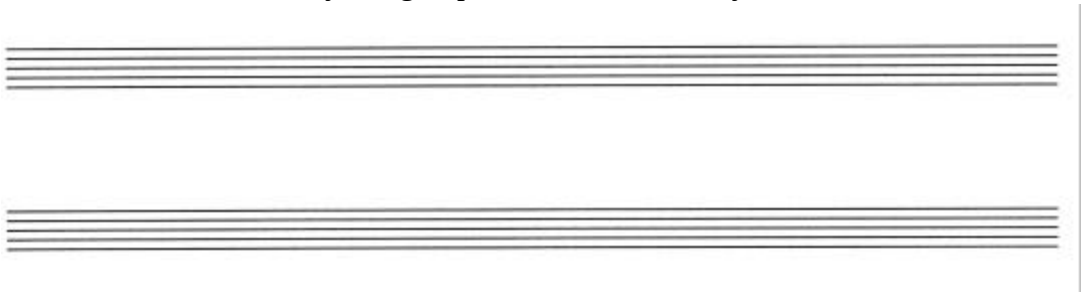
❑ Cross Rhythms

❑ Contemporary Rhythm groups

❑ Additive Rhythms (use generic note-head or single pitch to notate)



- List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	3	1.50
2nd	51	25.50	60	30.00	111	55.50
3rd	31	15.50	19	9.50	50	25.00
Perfect 4th	-	-	-	-	14	7.00
Tritone	-	-	-	-	2	1.00
Perfect 5th	-	-	-	-	4	2.00
6th	6	3.00	1	0.50	7	3.50
7th	1	0.50	-	-	1	0.50
Octave	-	-	-	-	5	2.50
9th	-	-	-	-	-	-
10th	1	0.50	1	0.50	2	1.00
11th	1	0.50	-	-	1	0.50

Total # of Intervals (including unisons)	200	
Total # and % of Tonal Intervals (3/6/8/10)	64	32.00%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	133	66.50%

NOTE: All percentages are rounded to the nearest hundredth

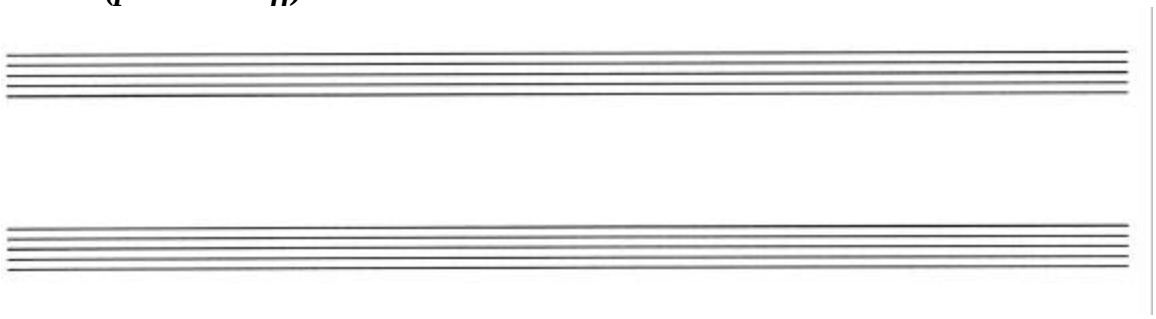
***Double-Stops* --- N/A to this etude**

	Minor		Major		Total	
	#	%	#	%	#	%
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Double-Stops (including unisons)
Total # and % of Tonal Double-Stops (3/6/8/10)
Total # and % of Contemporary
Double-Stops (Unison/2/4/TT/5/7/9/11)

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

  _____

  _____

- ❑ Vocal effects (describe)

  _____

  _____

Does a Recording Exist?

- ❑ Yes
- ☑ No

APPENDIX E

CONTENT ANALYSIS FORMS FOR TEN PRELUDES BY EUGÈNE YSAŸE

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Eugène Ysaÿe
Title of Etude Book: Dix Preludes pour Violon seul, op. 35 (Ten Preludes for Solo Violin)
Title of Etude: Prelude I, Unisons
Year of Publication: 1952
Publisher: Schott Freres

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ☑ Traditional (roughly between bridge and fingerboard)
- ☐ Sul ponticello (describe)

_____

_____

- ☐ Sul tasto (describe)

_____

_____

- ☐ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

- ☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, legato-slurs, spiccato

- ☐ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

_____

- ☐ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

_____

_____

- ☑ Describe any rapid changes between techniques

Adjustment of bow speed to accommodate few notes to many notes during legato-slurs. Measures 27-28 demonstrate a typical example.

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ☑ Harmonics

Natural harmonics only: mm. 19, 27, and 35, 1st node on the A-string, or a''; mm. 11and 15, 1st node on the D-string, or d''; m23, 1st node on the G-string, or g'; m. 40, 2nd node on the D-string, or d'''.

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ☑ Trills

measures 1-4

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ☑ Right hand
  - ☑ Flesh/pad
    measures 40 and 41 _____
    - o Fingernail
      _____
      _____
    - o Combination of flesh and fingernail
      _____
      _____
    - o Use of plectrum
      _____
      _____
      _____

- ☑ Left hand
  - ☑ Flesh/pad
    measure 41 _____
    _____
    - o Fingernail
      _____
      _____
    - o Combination of flesh and fingernail
      _____
      _____
    - o Use of plectrum
      _____
      _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing meter

- ☑ Irregular Accents

irregular slurring in measures 30-32, and 34; accents placed on off-beats in measure 16

- ❑ Cross Rhythms

- ❑ Contemporary Rhythm groups

- ☑ Additive Rhythms (use generic note-head or single pitch to notate)

☑ List rhythm groups used in additive rhythms

The triple plus the duple appears once in measure 6

Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	222	62.71
2nd	30	8.47	21	5.93	51	14.41
3rd	15	4.24	7	1.98	22	6.21
Perfect 4th	-	-	-	-	12	3.39
Tritone	-	-	-	-	1	0.28
Perfect 5th	-	-	-	-	19	5.37
6th	5	1.41	1	0.28	6	1.69
7th	4	1.13	1	0.28	5	1.41
Octave	-	-	-	-	16	4.52
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Intervals (including unisons)	354	
Total # and % of Tonal Intervals (3/6/8/10)	44	12.43%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	88	24.86%

NOTE: All percentages are rounded to the nearest hundredth

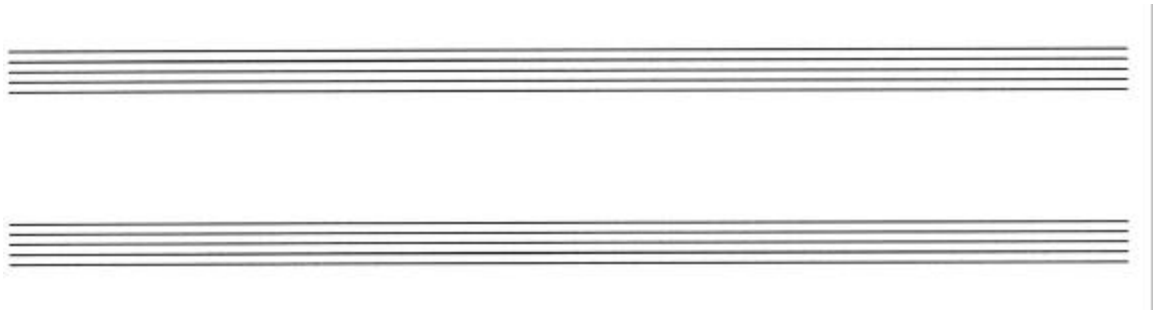
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	155	100.00
2nd	-	-	-	-	-	-
3rd	-	-	-	-	-	-
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	-	-
6th	-	-	-	-	-	-
7th	-	-	-	-	-	-
Octave	-	-	-	-	-	-
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	155	
Total # and % of Tonal Double-Stops (3/6/8/10)	0	0.00%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	155	100.00%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

m. 16-17, *forte* to *piano*

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

- ❑ Vocal effects (describe)

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Eugène Ysaÿe
Title of Etude Book: Dix Preludes pour Violon seul, op. 35 (Ten Preludes for Solo Violin)
Title of Etude: Prelude II, Seconds
Year of Publication: 1952
Publisher: Schott Freres

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

❑ Sul tasto (describe)

❑ Describe any rapid changes between techniques

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)
détaché, legato-slurs, slurred-spiccato, and spiccato

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

❑ Col legno (describe)

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ☑ Harmonics

5th line, 2/3 node on the D-string, or a'' (two, separate times); 6th line, 1/3 node on the G-string, or d''; 6th line, extended passage of natural, perfect fourth, and perfect fifth harmonics with the sounding notes, d'', e'', f-sharp'', g'', a'', b-flat'', c''', d''', e''', f-sharp''', g''', a''', b-flat''', b''', c'''', and c-sharp''''

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ☑ Trills

line 3, g'''to a'''; line 4, b-flat''' to c'''' (in 11th position); line 5, 4 trills, e' to f', e''to f'', a'' to b-flat'', and b-flat' to c''; line 6, e' to f' (two separate times); line 7, two separate, single-note trills, d'' to e'', and d'' to e-flat''; line 7, two separate trills that are combined with a double stop, e' to f-sharp', and e'flat' to f'flat'

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

Pizzicato---list and describe if necessary

- ☑ Right hand
  - ☑ Flesh/pad

    Exercise 6, measures 10-13

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ☑ Left hand
  - ☑ Flesh/pad

    Exercise 6, measures 9 and 10

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

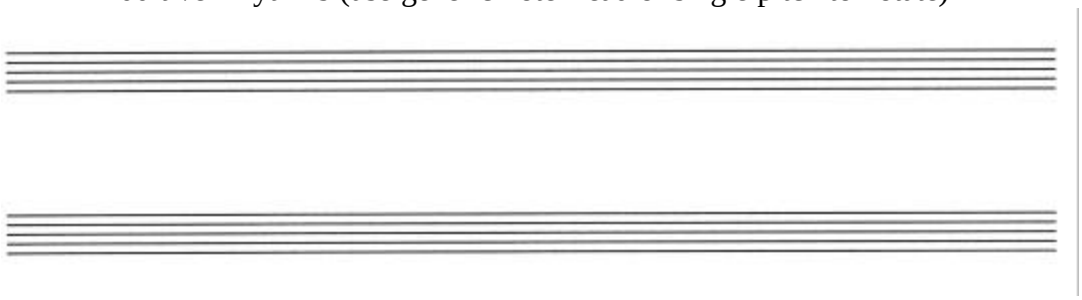
Exercise 4, m. 1 (beginning), 4/4; Exercise 5, beginning (no measures, cadenza-like); Exercise 6, m. 1, 4/4; Exercise 6, m. 6, ¾;

❑ Irregular Accents

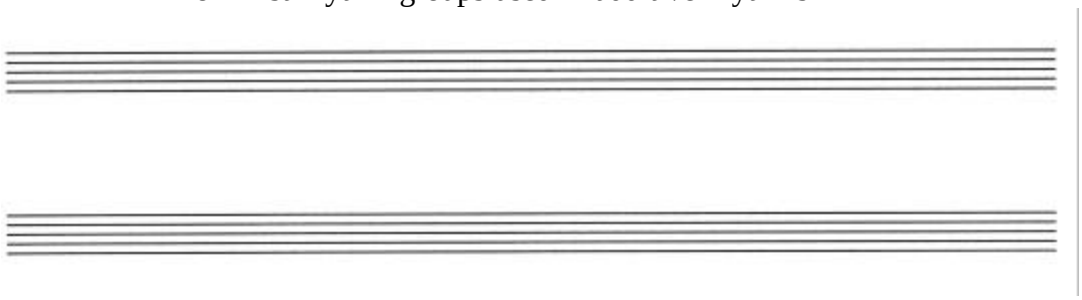
❑ Cross Rhythms

❑ Contemporary Rhythm groups

❑ Additive Rhythms (use generic note-head or single pitch to notate)



o List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	6	2.18
2nd	102	37.09	110	40.00	212	77.09
3rd	6	2.18	10	3.64	16	5.82
Perfect 4th	-	-	-	-	3	1.09
Tritone	-	-	-	-	5	1.82
Perfect 5th	-	-	-	-	3	1.09
6th	5	1.82	2	0.73	7	2.55
7th	4	1.45	4	1.45	8	2.91
Octave	-	-	-	-	10	3.64
9th	1	0.36	2	0.73	3	1.09
10th	-	-	1	0.36	1	0.36
11th	-	-	1	0.36	1	0.36

Total # of Intervals (including unisons)	275	
Total # and % of Tonal Intervals (3/6/8/10)	34	12.36%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	235	85.45%

NOTE: All percentages are rounded to the nearest hundredth

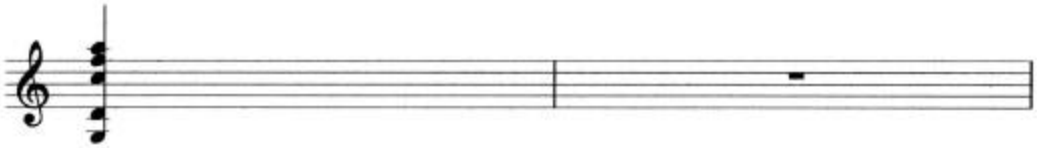
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	9	11.69	63	81.82	72	93.51
3rd	4	5.19	-	-	4	5.19
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	-	-
6th	-	-	-	-	-	-
7th	-	-	-	-	-	-
Octave	-	-	-	-	-	-
9th	1	1.30	-	-	1	1.30
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	77	
Total # and % of Tonal Double-Stops (3/6/8/10)	4	5.19%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	73	94.81%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Exercise 4, measure 7

Dynamics: List and Describe Sudden Dynamic Changes

Exercise 5, measure 1, *forte* to *piano;* Line 5, *mezzo forte* to *piano;* Line 7, *poco forte*, followed by an eighth-note rest, followed by *pianissisimo (ppp)*; Line 7, *pianissisimo (ppp),* followed by a quarter-note rest, followed by *piano.* Line 8, (end of Exercise 5), concludes with *pianissimo (pp),* followed by two, quarter-note rest, and followed by the beginning of Exercise 6, measure 1 at *forte deciso*; Exercise 6, measure 6, *forte* to *piano subito.*

Mutes

- ☐ Yes
- ☑ No

Theatrical Effects

- ☐ Percussive effects (describe)

_____

_____

- ☐ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ☐ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Eugène Ysaÿe
Title of Etude Book: Dix Preludes pour Violon seul, op. 35 (Ten Preludes for Solo Violin)
Title of Etude: Prelude III, Thirds
Year of Publication: 1952
Publisher: Schott Freres

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

☑ Sul tasto (describe)

measure 81-82, marked *flantando*

❑ Describe any rapid changes between techniques

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)
détaché, legato-slurs, slurred-staccato, staccato, and spiccato

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

❑ Col legno (describe)

- ❑ Tremolo (describe)

- ❑ Describe any rapid changes between techniques

Adjustment of bow speed to accommodate few notes to many notes during legato-slurs. Measures 27-28 demonstrate a typical example.

Left hand use---in each instance, list and describe

- ☑ Glissando

measure 31

- ☑ Harmonics

- ☑ High positions (past 7th position)

measure 30, 8th, 9th, and 10th positions; measure 31, 8th position (for one double-stop)

- ❑ Microtones

- ☑ Trills

no trills, but mordents occur in measures 17-21. All mordents move upward by whole-step

- ❑ Vibrato

- ❑ Combined effects

Pizzicato---list and describe if necessary

- ☑ Right hand
  - ☑ Flesh/pad

    measures 55-57, and 83

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing meter

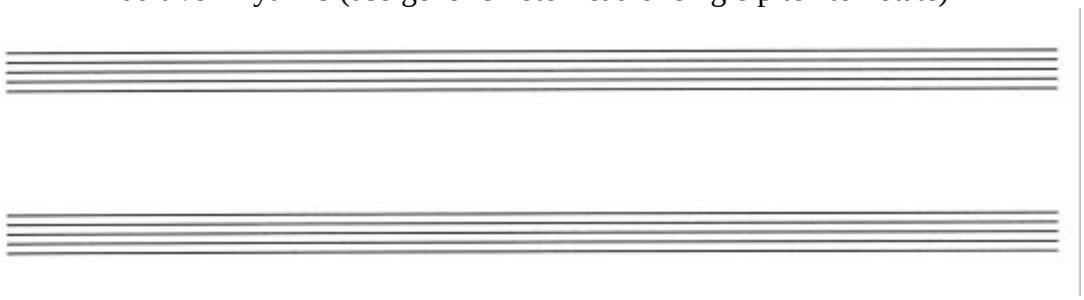
- ☑ Irregular Accents

beginning notes on off-beats in measures 9, 11, 15-17, 19, 21, 24-26, 33, 37, 39, 41, 44, 54, 77, and 80-83; beginning notes on weak beats in measures 2, 5, 7, 10, and 55-57

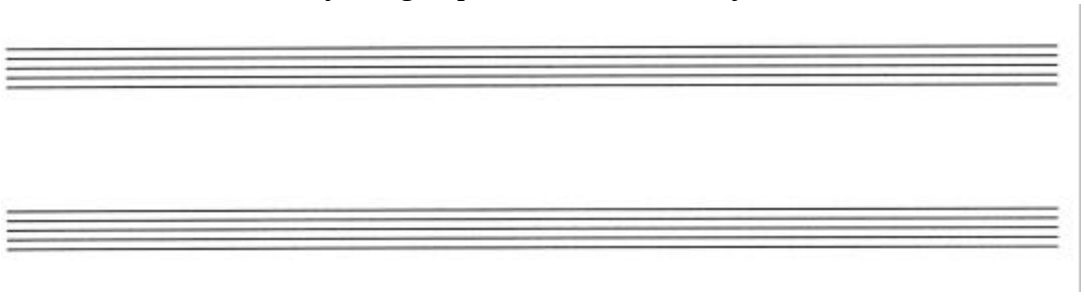
- ❑ Cross Rhythms

- ❑ Contemporary Rhythm groups

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)



  - o List rhythm groups used in additive rhythms



Intervals --- N/A for this prelude

	Minor		Major		Total	
	#	%	#	%	#	%
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Intervals (including unisons)
Total # and % of Tonal Intervals (3/6/8/10)
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)
NOTE: All percentages are rounded to the nearest hundredth

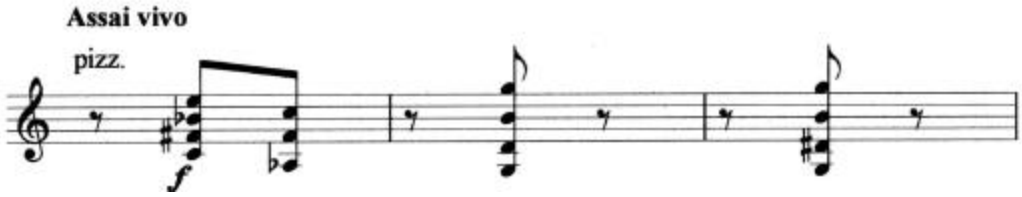
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	4	0.88	4	0.88
3rd	82	17.94	358	78.34	440	96.28
Perfect 4th	-	-	-	-	3	0.66
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	2	0.44
6th	5	1.09	2	0.44	7	1.53
7th	-	-	-	-	-	-
Octave	-	-	-	-	-	-
9th	-	-	-	-	-	-
10th	1	0.22	-	-	1	0.22
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	457	
Total # and % of Tonal Double-Stops (3/6/8/10)	448	98.03%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	9	1.97%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Measures 55-57.

Measures 82-83.

Dynamics: List and Describe Sudden Dynamic Changes

Measure 80-81: the entire measure of 80 and culminating at the first, sixteenth-note (a double-stop) of measure 81 is played at *fortissimo (ff).* This is followed by two, sixteenth-note rests, followed by a *pianissimo (pp)* that is also accompanied with the marking, *flautando.*

Mutes

- ☐ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

_____

_____

- ❑ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Eugène Ysaÿe
Title of Etude Book: Dix Preludes pour Violon seul, op. 35 (Ten Preludes for Solo Violin)
Title of Etude: Prelude IV, Fourths
Year of Publication: 1952
Publisher: Schott Freres

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

☑ Sul tasto (describe)

measures 18-20 is marked "near the point, velvety"

❑ Describe any rapid changes between techniques

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)
détaché, legato-slurs

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

❑ Col legno (describe)

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ☑ Glissando

no glissando, but uses portamento in measures 24-25, and 36-40

- ☑ Harmonics

natural harmonics used to help facilitate execution of passages in measures 11-12,

and 43

- ❑ High positions (past 7th position)

_____

- ❑ Microtones

_____

_____

- ☑ Trills

no trills, but mordents occur in measures 2, 13, 16, 32, and 33. All mordents are on the lower note of a perfect fourth, double-stop. All mordents are whole-steps EXCEPT for the occurrence of a half-stop mordent in measure 33.

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

Measure 1, ¾; measure 31, 4/4; measure 32, ¾

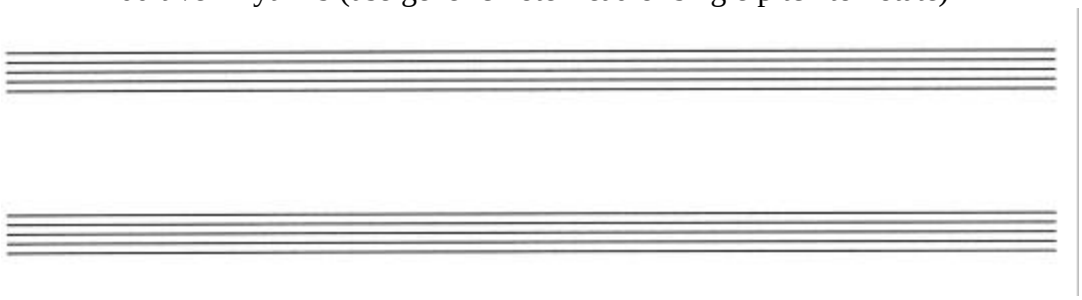
☑ Irregular Accents

beginning a note on an off-beat in measure 42

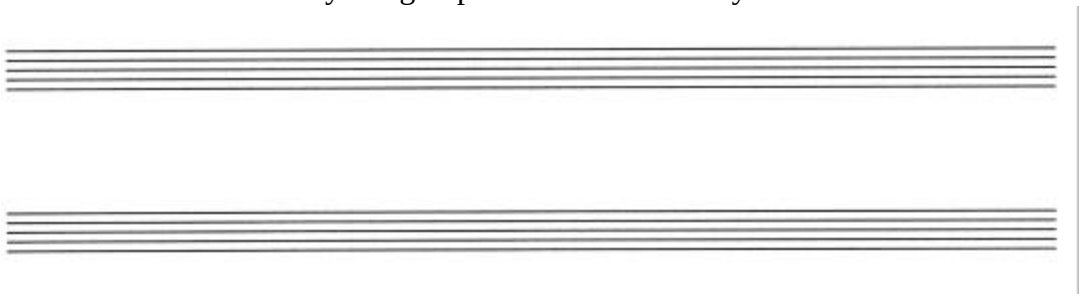
❑ Cross Rhythms

❑ Contemporary Rhythm groups

❑ Additive Rhythms (use generic note-head or single pitch to notate)



o List rhythm groups used in additive rhythms



Intervals --- N/A for this prelude

	Minor		Major		Total	
	#	%	#	%	#	%
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Intervals (including unisons)
Total # and % of Tonal Intervals (3/6/8/10)
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)
NOTE: All percentages are rounded to the nearest hundredth

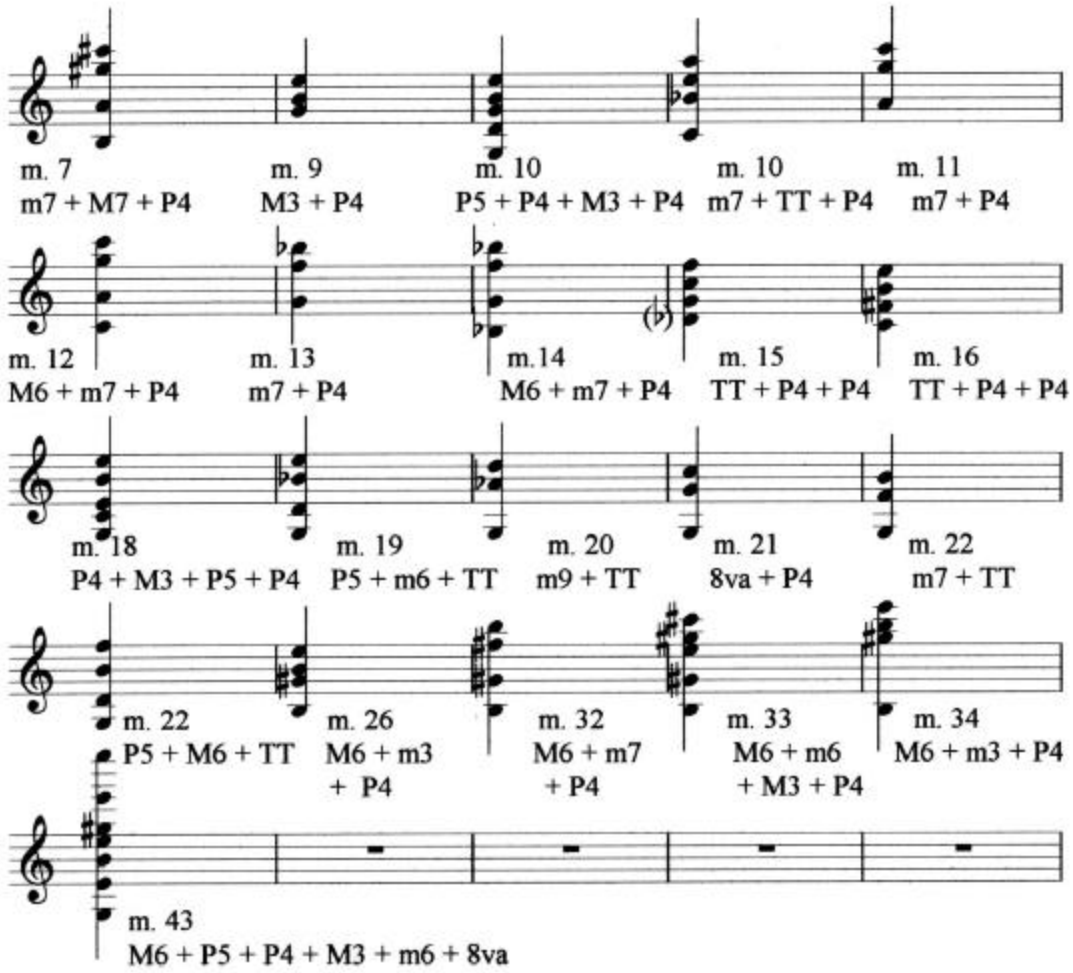
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	-	-	-	-
3rd	-	-	-	-	-	-
Perfect 4th	-	-	-	-	288	73.10
Tritone	-	-	-	-	105	26.65
Perfect 5th	-	-	-	-	-	-
6th	-	-	1	0.25	1	0.25
7th	-	-	-	-	-	-
Octave	-	-	-	-	-	-
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	394	
Total # and % of Tonal Double-Stops (3/6/8/10)	1	0.25%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	393	99.75%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

Measures 9-10, *forte* to *piano;* measures 11-12, *forte* to *piano;* measures 13-14, *forte* to *piano;* and measures 25-26, *pianissimo (*pp*)*, to *piano*.

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

_____

_____

- ❑ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Eugène Ysaÿe
Title of Etude Book: Dix Preludes pour Violon seul, op. 35 (Ten Preludes for Solo Violin)
Title of Etude: Prelude V, Fifths
Year of Publication: 1952
Publisher: Schott Freres

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

❑ Sul tasto (describe)

❑ Describe any rapid changes between techniques

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)
détaché and legato-slurs,

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

❑ Col legno (describe)

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ☑ Harmonics

line 1, beat 3, ½ node on the G- and D-strings, sounding the notes g' and d'' as a double-stop; line 7, beat 2, ½ node on the D- and A-strings, sounding the notes d'' and a'' as a double-stop

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ☑ Trills

line 8, double-stop trill (perfect fifths) for 4 beats: g''-d''' to a''-e'''

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing Meter

there are no bar lines or meter indications. The pulse is most likely a quarter-note pulse. There are tempo indications: The beginning is marked *Molto moderato;* Line 3 is marked cédez (yielding); Line 5 is marked "without haste"; Line 5, cédez; Exercise 15, Tempo I; 4th beat of Exercise 15, accelerando for 11 beats, with a return to the original tempo on the 12th beat. This 12th beat begins a calando (getting softer and slower) that continues for 9 beats.

☑ Irregular Accents

☑

irregular slurring on line 1, beats 9-10; line 4, beats 2-3, and 6; line 9, beats 1-2 mordents on off-beats on line 1, g'' of beat 5; line 1, c'' of beat 6; line 2, a-flat'' of beat 6; line 3, b'' of beat 7; line 4, b' of beat 5; line 4, b' of beat 7; line 5, two b-flats'' of beat 6; and line 7, b' of beat 2.

❑ Cross Rhythms

❑ Contemporary Rhythm groups

☑ Additive Rhythms (use generic note-head or single pitch to notate)

☑ List rhythm groups used in additive rhythms

Triple plus duple occurs in line 2 and 5. In line 6, there is a similar rhythm as the above example, a triple plus a triple

Intervals --- N/A to this prelude

	Minor		Major		Total	
	#	%	#	%	#	%
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Intervals (including unisons)
Total # and % of Tonal Intervals (3/6/8/10)
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)
NOTE: All percentages are rounded to the nearest hundredth

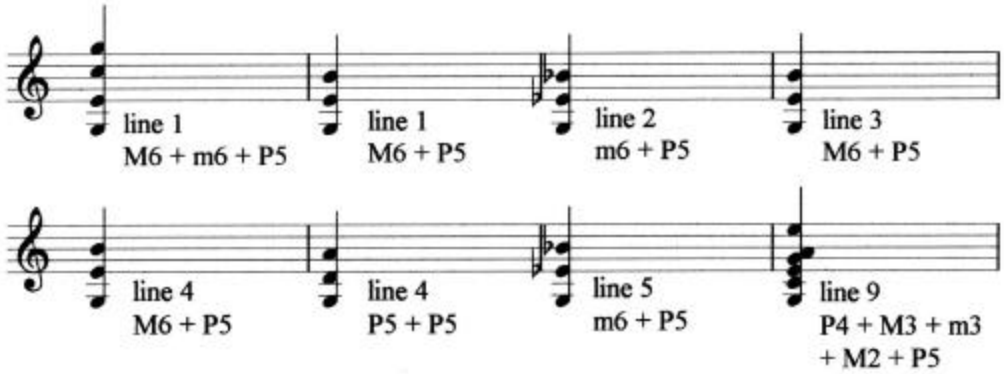
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	-	-	-	-
3rd	-	-	-	-	-	-
Perfect 4th	-	-	-	-	1	0.40
Tritone	-	-	-	-	16	6.45
Perfect 5th	-	-	-	-	230	92.74
6th	1	0.40	-	-	1	0.40
7th	-	-	-	-	-	-
Octave	-	-	-	-	-	-
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	248	
Total # and % of Tonal Double-Stops (3/6/8/10)	1	0.40%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	247	99.60%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ☐ Yes
- ☑ No

Theatrical Effects

- ☐ Percussive effects (describe)

_____

_____

- ☐ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ☐ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Eugène Ysaÿe
Title of Etude Book: Dix Preludes pour Violon seul, op. 35 (Ten Preludes for Solo Violin)
Title of Etude: Prelude VI, Sixths
Year of Publication: 1952
Publisher: Schott Freres

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

❑ Sul tasto (describe)

❑ Describe any rapid changes between techniques

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)
détaché, legato-slurs, repeated down-bows, slurred-staccato, and if one desires, spiccato in Exercise 19

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

❑ Col legno (describe)

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ☑ High positions (past 7th position)

measures 13-14, and 31, 8th, 9th, and 10th positions, measures 32 and 47, 9th and 11th positions; measure 45, 8th and 9th position; measure 46, 9th, 10th, and 11th positions.

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ☐ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ☑ Left hand
  - ☑ Flesh/pad

    measures 54-56, a' (open A-string) is plucked with the fourth finger; measure 58, the minor 7th, g and f-, are pizzicato, while a tritone, e-flat'' and a'' are sustained with the bow

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ ***Changing meter***

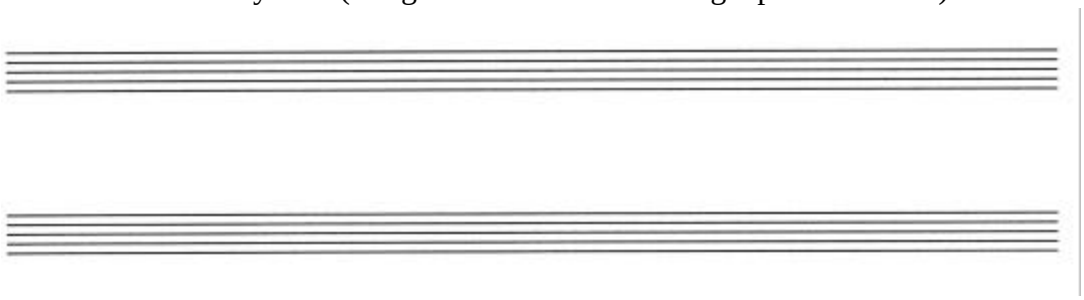
measure 1, 6/8; measure 10, 3/8; measure 21, 4/4; measure 26, 5/4; measure 27, 4/4; measure 35 is a quasi-cadenza for one measure, marked Lento in a "free" meter; measure 36, although marked Andante-recitiative, is clearly back in 4/4; m. 40 alternates (not regularly) from 6/16 and 2/8. The 6/16 measures have grouping of 16th-notes in triplets and the 2/8 measures have duple (quadruple) grouping of 30-second notes

- ❑ Irregular Accents

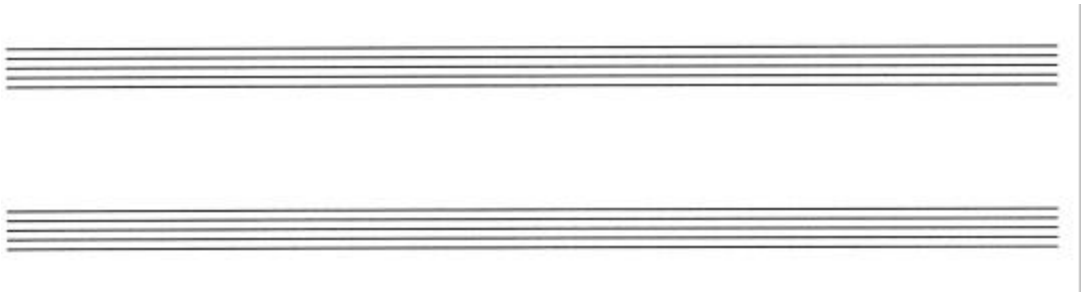
- ❑ Cross Rhythms

- ❑ Contemporary Rhythm groups

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)



  - o List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	1	0.53	151	79.89	152	80.42
3rd	1	0.53	12	6.35	13	6.87
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	5	2.65
Perfect 5th	-	-	-	-	-	-
6th	5	2.65	-	-	5	2.65
7th	7	3.70	-	-	7	3.70
Octave	-	-	-	-	1	0.53
9th	-	-	4	2.12	4	2.12
10th	-	-	1	0.53	1	0.53
11th	-	-	1	0.53	1	0.53

Total # of Intervals (including unisons)	189	
Total # and % of Tonal Intervals (3/6/8/10)	20	10.58%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	169	89.42%

NOTE: All percentages are rounded to the nearest hundredth

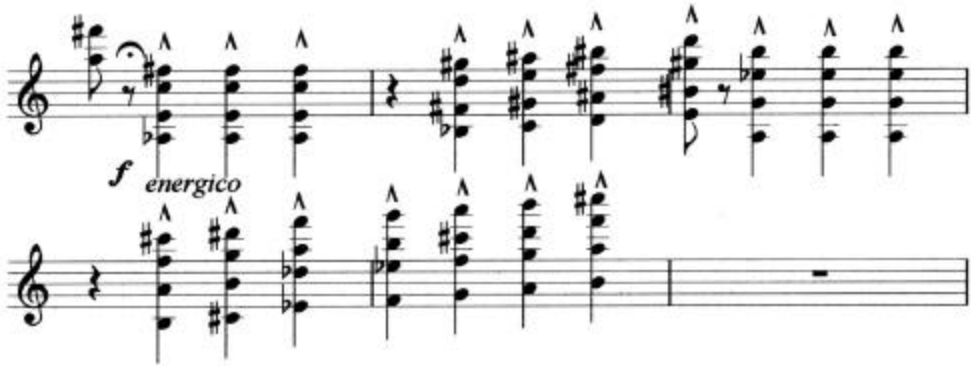
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	-	-	-	-
3rd	-	-	-	-	-	-
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	1	0.35
Perfect 5th	-	-	-	-	1	0.35
6th	247	87.59	29	10.28	276	97.87
7th	2	0.71	-	-	2	0.71
Octave	-	-	-	-	2	0.71
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

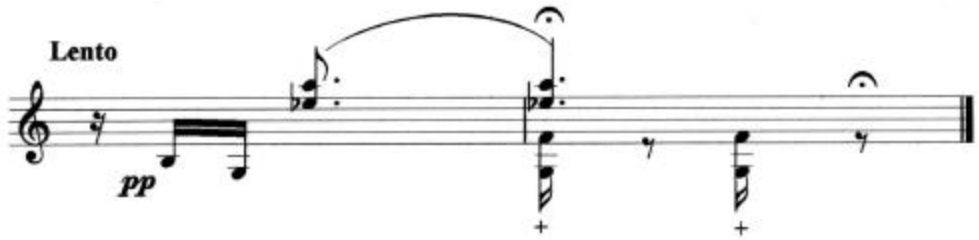
Total # of Double-Stops (including unisons)	282	
Total # and % of Tonal Double-Stops (3/6/8/10)	278	98.58%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	4	1.42%

NOTE: All percentages are rounded to the nearest hundredth

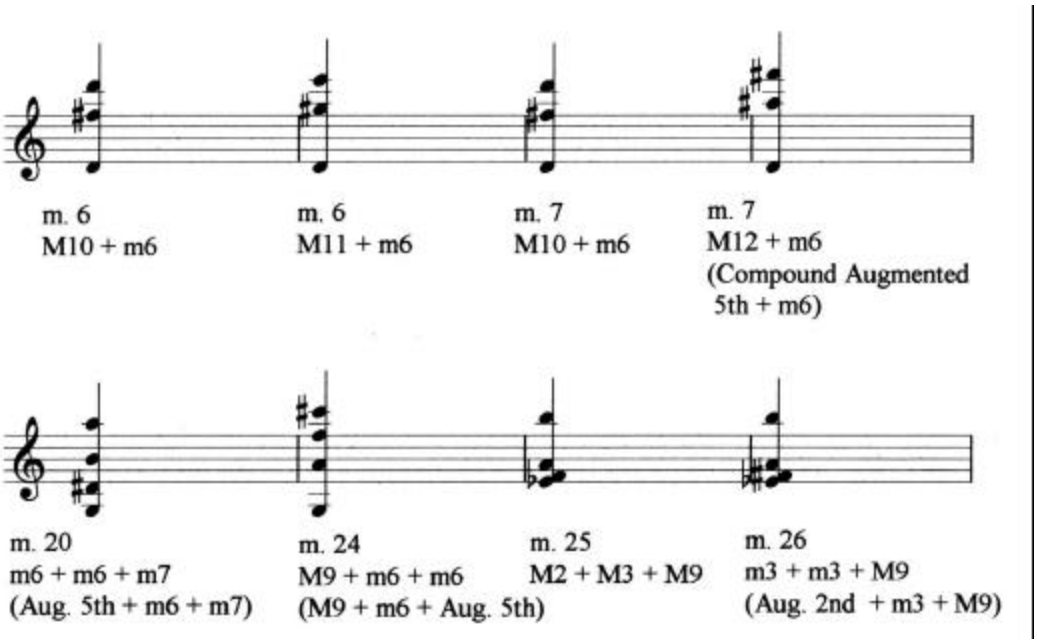
Chords (place on staff)



Measures 27-31.



Measures 57-58.



Other, occurring chords.

Dynamics: List and Describe Sudden Dynamic Changes

Measure 39, fortissimo, followed by a quarter-note rest, followed by a forte; Measure 41, *forte* to *piano*

Mutes

- ☐ Yes
- ☑ No

Theatrical Effects

- ☐ Percussive effects (describe)

_____

_____

- ☐ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ☐ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Eugène Ysaÿe
Title of Etude Book: Dix Preludes pour Violon seul, op. 35 (Ten Preludes for Solo Violin)
Title of Etude: Prelude VII, Sevenths
Year of Publication: 1952
Publisher: Schott Freres

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

❑ Sul tasto (describe)

❑ Describe any rapid changes between techniques

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, repeated down-bows, spiccato, up-bow spiccato, and legato-slurs.

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

❑ Col legno (describe)

- ❑ Tremolo (describe)

☑ Describe any rapid changes between techniques

It is marked in measure 1, "undulated and variegated bowing" (alternating bowings that are varied and diverse). There are rapid changes between bowing techniques, but the techniques presented are traditional. In measures 23-24, two-note legato slurs to spiccato; measure 28, up-bow spiccato to broken double-stops (bowing of broken-double-stops is similar to two-note, legato slurs); measure 28, three-note chords alternate with double-stops; measures 30-31, spiccato to four-note legato slurs; measures 31-32, four-note legato slurs to spiccato double-stops; measures 32-33, spiccato double-stops to three-note chord (chords are repeated down-bows); measure 33, four-note, pizzicato chords to arco, three-note chords (chords are repeated down-bows);

Left hand use---in each instance, list and describe

- ❑ Glissando

☑ Harmonics

measure 12, 1/3 node on the G-string, dounding the note, d''

☑ High positions (past 7th position)

measure 30, 8th and 9th positions

- ❑ Microtones

- ❑ Trills

- ❑ Vibrato

- ❑ Combined effects

Pizzicato---list and describe if necessary

- ☑ Right hand
  - ☑ Flesh/pad

    measure 33, pizzicato of two, four-note chords

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

measure 1, 3/8; measure 16, 2/8; measure 17, 3/8

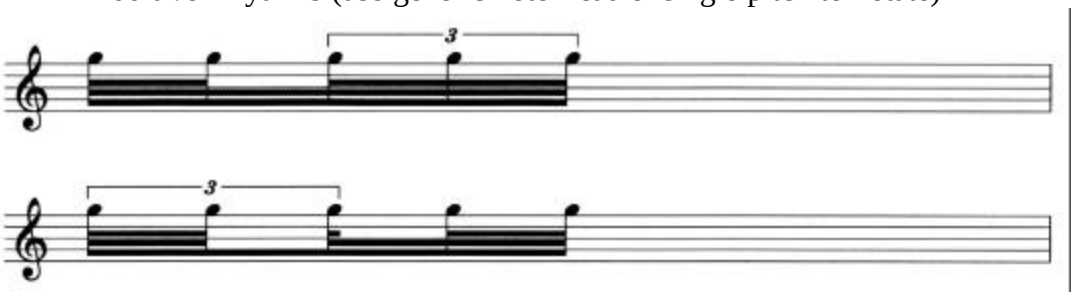
☑ Irregular Accents

irregular slurring in measure 19

❑ Cross Rhythms

❑ Contemporary Rhythm groups

☑ Additive Rhythms (use generic note-head or single pitch to notate)



☑ List rhythm groups used in additive rhythms

The duple plus triple occurs once in measure 2. Both the duple plus triple and the triple plus duple occur throughout Exercise 21.

Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	4	0.85
2nd	34	7.22	36	7.64	70	14.86
3rd	11	2.34	6	1.27	17	3.61
Perfect 4th	-	-	-	-	5	1.06
Tritone	-	-	-	-	27	5.73
Perfect 5th	-	-	-	-	24	5.10
6th	25	5.31	49	10.40	74	15.71
7th	169	35.88	49	10.40	218	46.28
Octave	-	-	-	-	25	5.31
9th	1	0.21	2	0.42	3	0.64
10th	-	-	2	0.42	2	0.42
11th	2	0.42	-	-	2	0.42

Total # of Intervals (including unisons)	471	
Total # and % of Tonal Intervals (3/6/8/10)	118	25.05%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	349	74.10%

NOTE: All percentages are rounded to the nearest hundredth

Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	-	-	-	-
3rd	-	-	-	-	-	-
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	-	-
6th	-	-	-	-	-	-
7th	68	68.00	22	22.00	90	100.00
Octave	-	-	-	-	-	-
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	90	
Total # and % of Tonal Double-Stops (3/6/8/10)	0	0.00%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	90	100.00%

NOTE: All percentages are rounded to the nearest hundredth

Intervals --- not including 7^{ths}

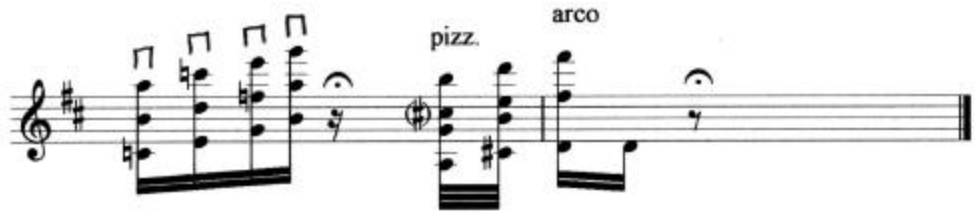
	Minor		**Major**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**
Unison	-	-	-	-	4	1.58
2nd	34	13.44	36	14.23	70	27.67
3rd	11	4.35	6	2.37	17	6.72
Perfect 4th	-	-	-	-	5	1.98
Tritone	-	-	-	-	27	10.67
Perfect 5th	-	-	-	-	24	9.49
6th	25	9.88	49	19.37	74	29.25
7th	-	-	-	-	-	-
Octave	-	-	-	-	25	9.88
9th	1	0.40	2	0.79	3	1.19
10th	-	-	2	0.79	2	0.79
11th	2	0.79	-	-	2	0.79

Total # of Intervals (including unisons)	253	
Total # and % of Tonal Intervals (3/6/8/10)	118	46.64%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	131	51.78%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)

Measure 28.



Measures33-34.

Dynamics: List and Describe Sudden Dynamic Changes

Measures 28-29, *forte* to *piano subito*

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

_____

_____

- ❑ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Eugène Ysaÿe
Title of Etude Book: Dix Preludes pour Violon seul, op. 35 (Ten Preludes for Solo Violin)
Title of Etude: Prelude VIII, Octaves
Year of Publication: 1952
Publisher: Schott Freres

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

❑ Sul tasto (describe)

❑ Describe any rapid changes between techniques

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)
détaché, legato-slurs, and slurred staccato

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

❑ Col legno (describe)

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ☑ High positions (past 7th position)

measures 2, 6, 11, and 24, 9th position; measure 5, 8th and 10th positions; measures 7 and 19, 8th 9th 10th, and 11th positions; measure 8, 8th 9th, and 10th positions; measures 10, 13, and 16, 8th and 9th position; measure 12, 8th position; measure 17, 9th 11th, and 13th positions; measure 18, 9th, 11th, 13th, and 14th positions; measure 21, 8th 9th, 10th, and 12th positions; and in measure 25, 10th position.

- ❑ Microtones

_____

_____

- ☑ Trills

measure 23, half-step trill on a''' (a''' to b-flat''')

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing meter

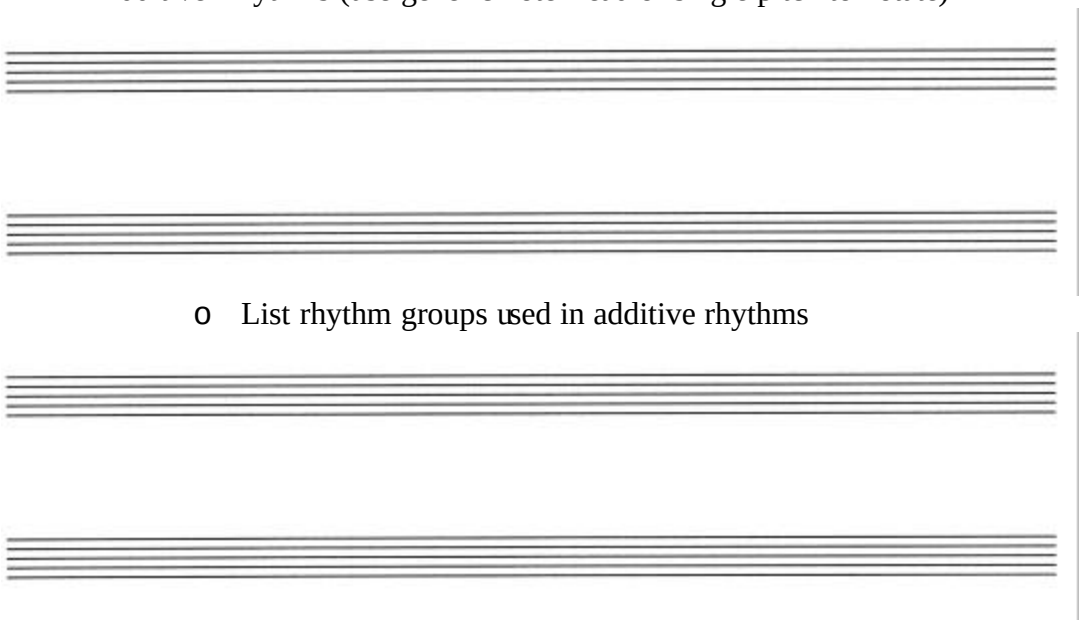
- ☑ Irregular Accents

irregular slurring in measures 1-2, 4, 9, 12, 14-15, 19, and 24; accents on off-beats in measures 20 and 21

- ❑ Cross Rhythms

- ❑ Contemporary Rhythm groups

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)



  - o List rhythm groups used in additive rhythms

Intervals **(There are no real intervals in Prelude 8. These figures are the intervals between octave double-stops)**

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	8	2.19
2nd	121	33.06	138	37.70	259	70.77
3rd	52	14.21	6	1.64	58	15.85
Perfect 4th	-	-	-	-	6	1.64
Tritone	-	-	-	-	2	0.55
Perfect 5th	-	-	-	-	7	1.91
6th	-	-	2	0.55	2	0.55
7th	-	-	5	1.37	5	1.37
Octave	-	-	-	-	16	4.37
9th	-	-	-	-	-	-
10th	-	-	1	0.27	1	0.27
11th	1	0.27	1	0.27	2	0.55

Total # of Intervals (including unisons)	366	
Total # and % of Tonal Intervals (3/6/8/10)	77	21.04%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	281	76.78%

NOTE: All percentages are rounded to the nearest hundredth

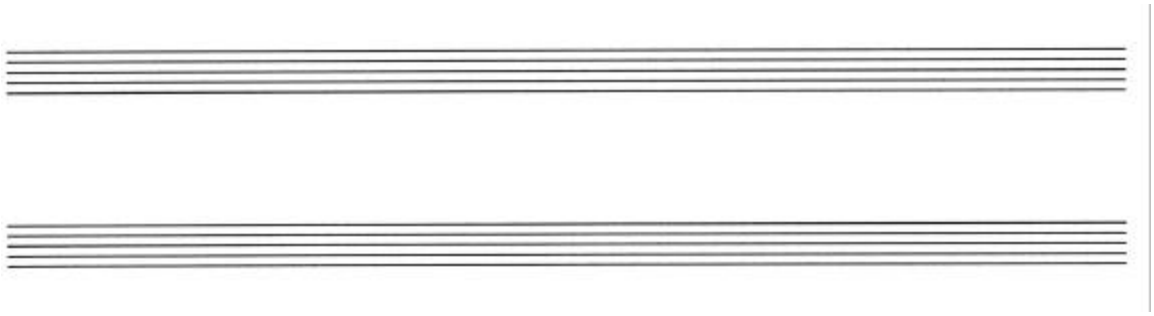
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	-	-	-	-
3rd	-	-	-	-	-	-
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	-	-
6th	-	-	-	-	-	-
7th	-	-	-	-	-	-
Octave	-	-	-	-	369	100.00
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	369	
Total # and % of Tonal Double-Stops (3/6/8/10)	369	100.00%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	0	0.00%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

  _____

  _____

- ❑ Vocal effects (describe)

  _____

  _____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Eugène Ysaÿe
Title of Etude Book: Dix Preludes pour Violon seul, op. 35 (Ten Preludes for Solo Violin)
Title of Etude: Prelude IX, Ninths
Year of Publication: 1952
Publisher: Schott Freres

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

❑ Sul tasto (describe)

❑ Describe any rapid changes between techniques

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)

legato-slurs, spiccato, and staccato

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

❑ Col legno (describe)

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ☑ Harmonics

Natural harmonics to help facilate execution of passages: measure 1, the ½ node on the A-string, or a''; measure 2, the 2/3 node on the E-string, or a'''; and measure 14, the ¾ node on the E-string, or e''''.

- ☑ High positions (past 7th position)

measure 2, 8th position (for one note); measure 14, 12th position (for one note); measure 35, 8th position (one note that is repeated two times)

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing meter

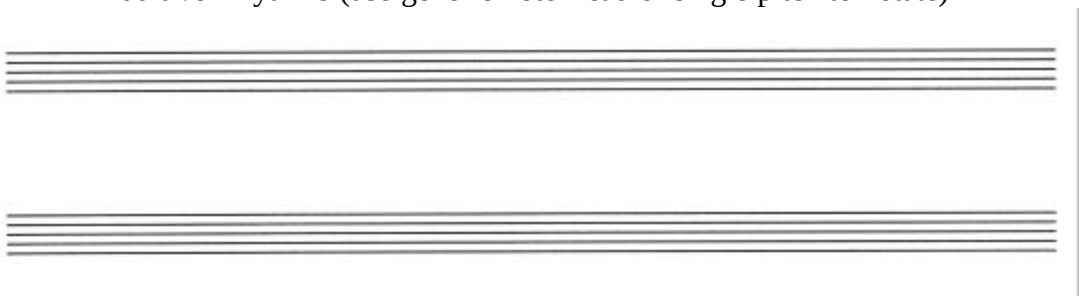
- ☑ Irregular Accents

irregular slurring in measures 15-18, 20-21, 23, 28-29, and 31. Also, measures 30-31, the c', is tied over the measure; use of beginning phrases or sub-phrases on off-beats in measures 1-2, 5-12, 14-15, 17, 23, 25, 27, 29-30, and 40. Also, measures 33 and 35 represent the beginning of phrases or sub-phrases on off-beats, even though they are not preceeded by rests.

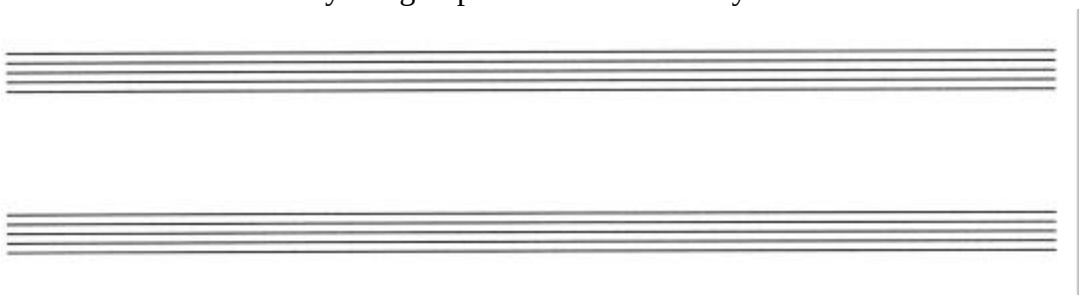
- ❑ Cross Rhythms

- ❑ Contemporary Rhythm groups

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)



  - o List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	9	4.11
2nd	10	4.57	26	11.87	36	16.44
3rd	2	0.91	2	0.91	4	1.83
Perfect 4th	-	-	-	-	3	1.37
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	2	0.91
6th	3	1.37	3	1.37	6	2.74
7th	1	0.46	1	0.46	2	0.91
Octave	-	-	-	-	30	13.70
9th	17	7.76	103	47.03	120	54.79
10th	3	1.37	2	0.91	5	2.28
11th	-	-	2	-	2	0.91

Total # of Intervals (including unisons)	219	
Total # and % of Tonal Intervals (3/6/8/10)	45	20.55%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	165	75.34%

NOTE: All percentages are rounded to the nearest hundredth

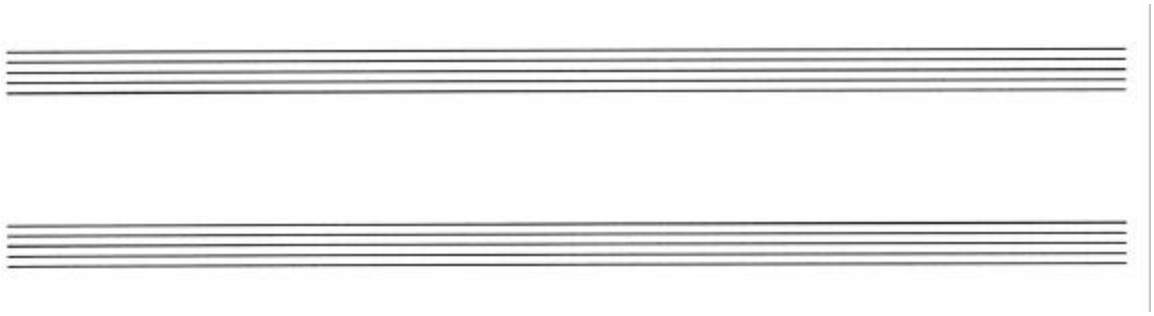
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	-	-	-	-
3rd	-	-	-	-	-	-
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	-	-
6th	-	-	-	-	-	-
7th	-	-	-	-	-	-
Octave	-	-	-	-	-	-
9th	3	4.41	64	94.12	67	98.53
10th	1	1.47	-	-	1	1.47
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	68	
Total # and % of Tonal Double-Stops (3/6/8/10)	1	1.47%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	67	98.53%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

Measures 19-20, *forte* to *piano*

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

- ❑ Vocal effects (describe)

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Eugène Ysaÿe
Title of Etude Book: Dix Preludes pour Violon seul, op. 35 (Ten Preludes for Solo Violin)
Title of Etude: Prelude X, Tenths
Year of Publication: 1952
Publisher: Schott Freres

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

❑ Sul tasto (describe)

❑ Describe any rapid changes between techniques

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, legato-slurs, and repeated down-bow chords in measures 31 and 37

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

❑ Col legno (describe)

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ☑ High positions (past 7th position)

Measures 1-2, 4, 6, 30, 35, and 38, 8th and 9th positions; measures 3, 12, 14, 19, 24, and 32, 8th position; measures 5 and 25, 9th 10th, and 11th positions; measures 15, 28, and 41, 8th, 9th, and 10th positions; measures 16 and 39, 10th, 11th, and 12th positions; measures 17, 36, and 40, 10th position; measures 18th and 29th positions, 9th position; measure 26, 8th, 9th, 10, and 11th positions; measures 27, 8th and 10th positions.

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

measure 1, 6/8; measure 10, ¾

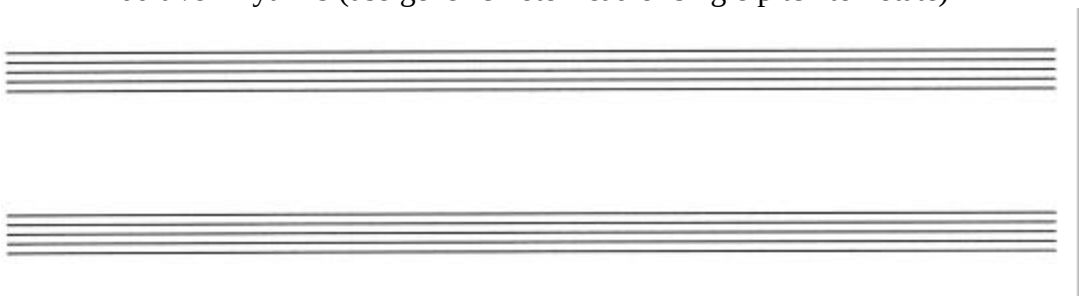
☑ Irregular Accents

irregular slurring in measures 8, 9, and 41. Also, the g-b' major 10th double-stop at the beginning of measure 23 is also an irregular slur in that it ties into the same g-b' major 10th double-stop on the second beat; the beginning of a phrase or sub-phrase on an off-beat in measures 23-24; syncopation in measures 27 and 29

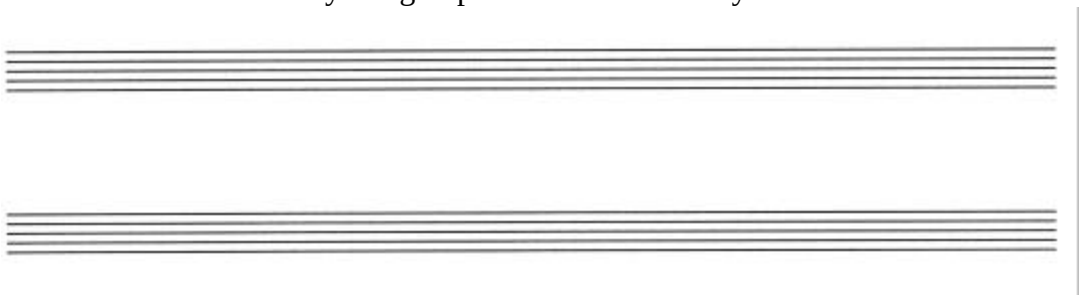
❑ Cross Rhythms

❑ Contemporary Rhythm groups

❑ Additive Rhythms (use generic note-head or single pitch to notate)



- List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	16	8.70
2nd	30	16.30	7	3.80	37	20.11
3rd	6	3.26	-	-	6	3.26
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	-	-
6th	-	-	1	0.54	1	0.54
7th	-	-	1	0.54	1	0.54
Octave	-	-	-	-	14	7.61
9th	6	3.26	12	6.52	18	9.78
10th	76	41.30	9	4.89	85	46.20
11th	1	0.54	5	2.72	6	3.26

Total # of Intervals (including unisons)	184	
Total # and % of Tonal Intervals (3/6/8/10)	106	57.61%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	62	33.70%

NOTE: All percentages are rounded to the nearest hundredth

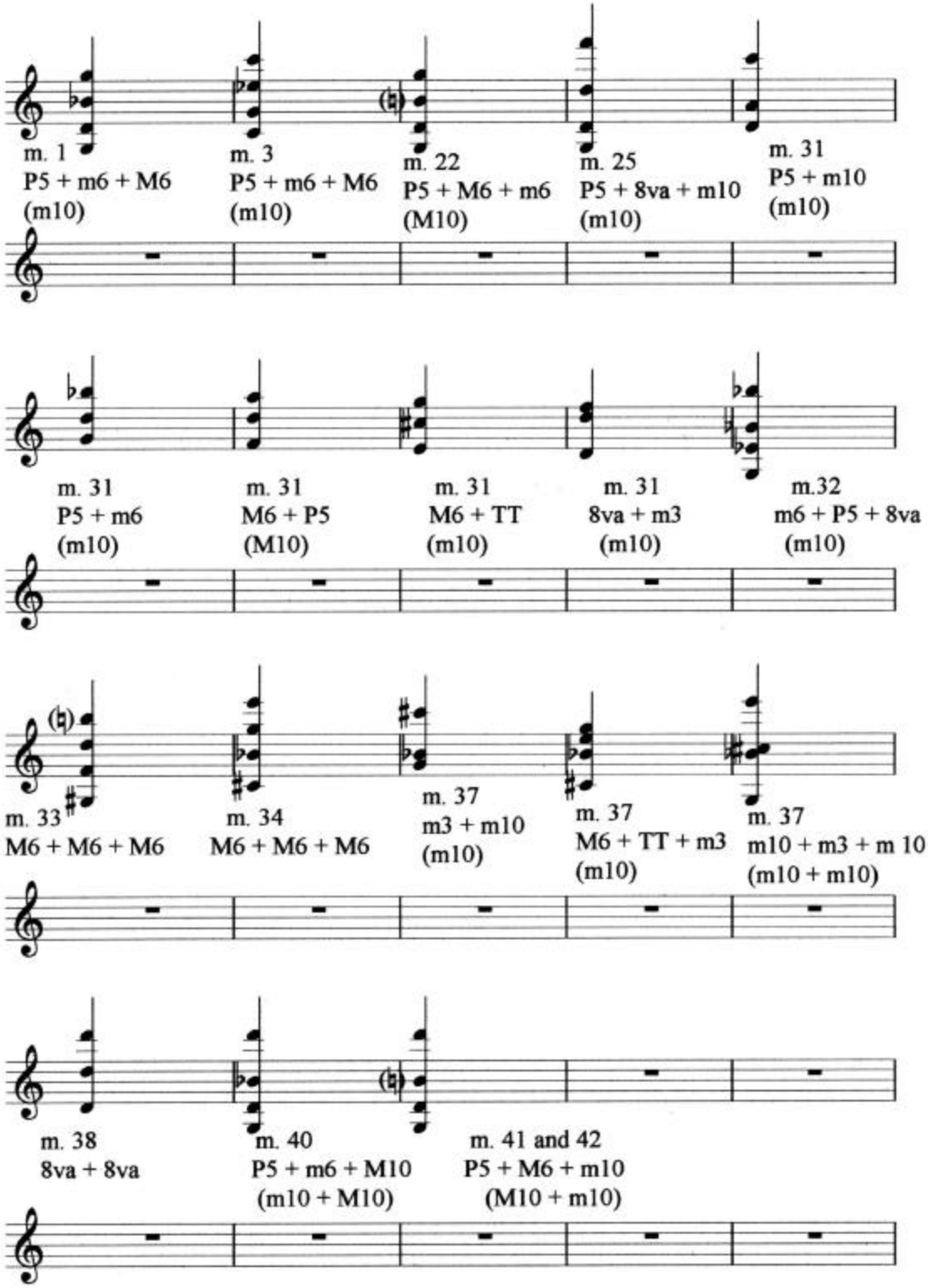
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	-	-	-	-
3rd	8	4.42	-	-	8	4.42
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	1	0.55
6th	2	1.10	-	-	2	1.10
7th	1	0.55	1	0.55	2	1.10
Octave	-	-	-	-	1	0.55
9th	-	-	-	-	-	-
10th	134	74.03	33	18.23	167	92.27
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	181	
Total # and % of Tonal Double-Stops (3/6/8/10)	178	98.34%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	3	1.66%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

Measure 21-22 are as follows: measure 21 is *forte*, measure 22 has a *fortzando (sf)*, followed by one, sixteenth-note AND one eighth-note rest, followed by a *mezzo forte*.

Mutes

- ☐ Yes
- ☑ No

Theatrical Effects

- ☐ Percussive effects (describe)

_____

_____

- ☐ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ☐ Yes
- ☑ No

APPENDIX F

CONTENT ANALYSIS FORMS FOR STUDIES FOR VIOLINISTS BY PAUL HINDEMITH

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDES

Composer: Paul Hindemith
Title of Etude Book: Übungen für Geiger (Studies for Violinists)
Title of Etude: I. Ohne Lagenwechsel durch die Lagen (Moving Through the Positions Without Shifting
Year of Publication: Originally 1926; First Published in 1957; Present copyright, 1967
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ☑ Traditional (roughly between bridge and fingerboard)
- ❑ Sul ponticello (describe)

_____

_____

- ❑ Sul tasto (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

- ☑ Traditional (détaché, spiccato, etc---list or describe)
legato-slurs

- ❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

_____

- ❑ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

☑ Describe any rapid changes between techniques

Adjustment of bow speed to accommodate few notes to many notes during legato-slurs. Measures 27-28 demonstrate a typical example.

Left hand use---in each instance, list and describe

- ❑ Glissando

- ❑ Harmonics

☑ High positions (past 7th position)

measure 61, 8th and 10th positions; measure 62, 10th and 11th positions; measure 63, 10th and 11th positions

- ❑ Microtones

☑ Trills

measure 64

- ❑ Vibrato

- ❑ Combined effects

Pizzicato---list and describe if necessary

- Right hand
  - Flesh/pad

    _____

    _____

  - Fingernail

    _____

    _____

  - Combination of flesh and fingernail

    _____

    _____

  - Use of plectrum

    _____

    _____

- Left hand
  - Flesh/pad

    _____

    _____

  - Fingernail

    _____

    _____

  - Combination of flesh and fingernail

    _____

    _____

  - Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

m. 11, 3/8; m. 13, 3/8; m. 32, 8/8; m. 37, 3/8; m. 39, 3/8; m. 41, 3/8, m. 48, 4/8; m. 52, 4/8

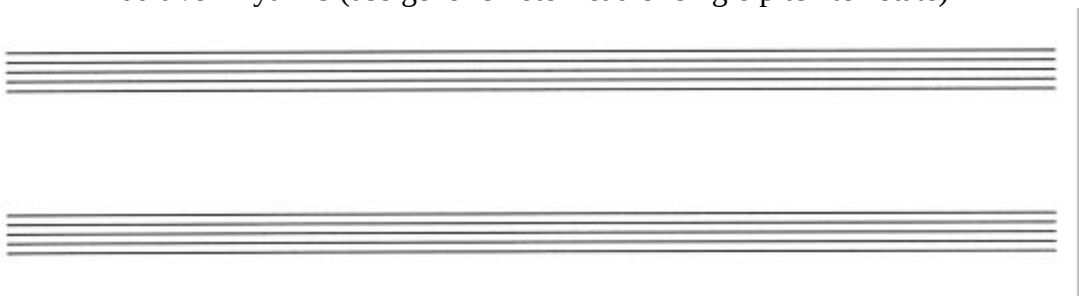
☑ Irregular Accents

Irregular slurring in measures 3-5, 7-8, 11-14, 17-19, and 39-41

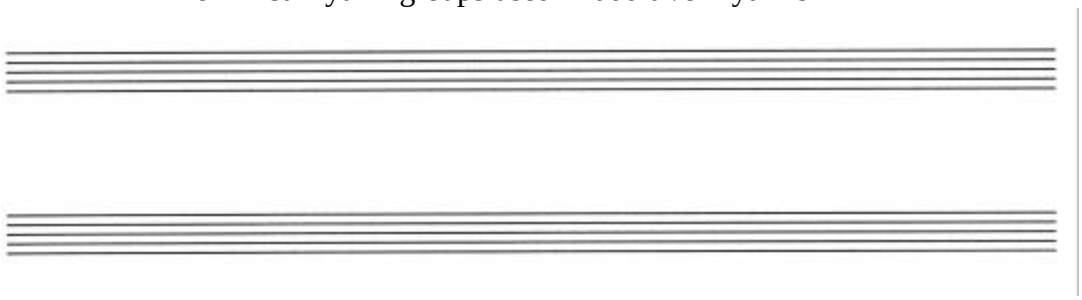
❑ Cross Rhythms

❑ Contemporary Rhythm groups

❑ Additive Rhythms (use generic note-head or single pitch to notate)



- List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	301	38.99	91	11.79	392	50.78
3rd	100	12.95	97	12.56	197	25.52
Perfect 4th	-	-	-	-	166	21.50
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	12	1.55
6th	3	0.39	-	-	3	0.39
7th	-	-	1	0.13	1	0.13
Octave	-	-	-	-	1	0.13
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Intervals (including unisons)	772	
Total # and % of Tonal Intervals (3/6/8/10)	201	26.04%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	571	73.96%

NOTE: All percentages are rounded to the nearest hundredth

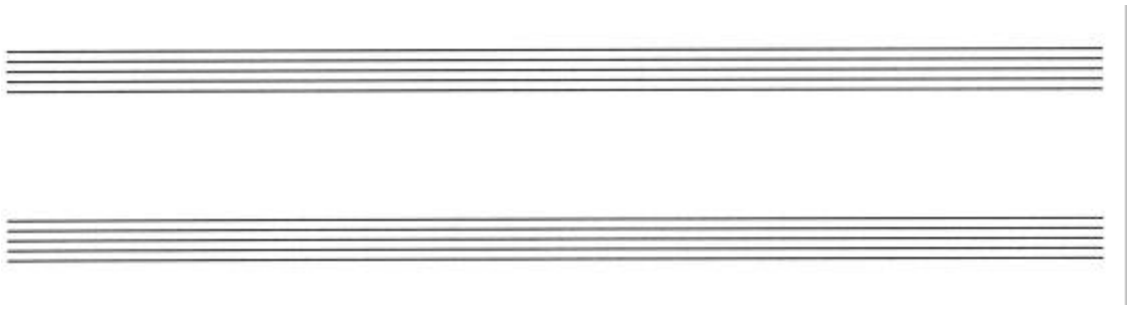
Double-Stops --- N/A for this etude

	Minor		Major		Total	
	#	%	#	%	#	%
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Double-Stops (including unisons)	_____	
Total # and % of Tonal Double-Stops (3/6/8/10)	_____	_____
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	_____	_____

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

  _____

  _____

- ❑ Vocal effects (describe)

  _____

  _____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Paul Hindemith
Title of Etude Book: Übungen für Geiger (Studies for Violinists)
Title of Etude: II. Gewandtheit des Bogens bei rhythmischem Wechsel (The Skillfull
Maneuvering Through Rhythmic Changes
Year of Publication: Originally written in 1926; First Published in 1957; Present copyright, 1967
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ☑ Traditional (roughly between bridge and fingerboard)
- ❑ Sul ponticello (describe)

_____

_____

- ❑ Sul tasto (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

- ☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, legato, legato slurs, staccato

- ❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

_____

- ❑ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ☑ High positions (past 7th position)

m17, 8th position; m. 21, 8th and 10th position

- ❑ Microtones

_____

_____

- ☑ Trills

m. 29

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

m. 1, 6/8; m. 2, 3/8; m. 3, 4/8; m. 10, 4/8; m. 12, 6/8; m. 14, 4/8; m. 15, 6/8; m. 20, 4/8; m. 21, 6/8; m. 23, 3/8; m. 24, 6/8

☑ Irregular Accents

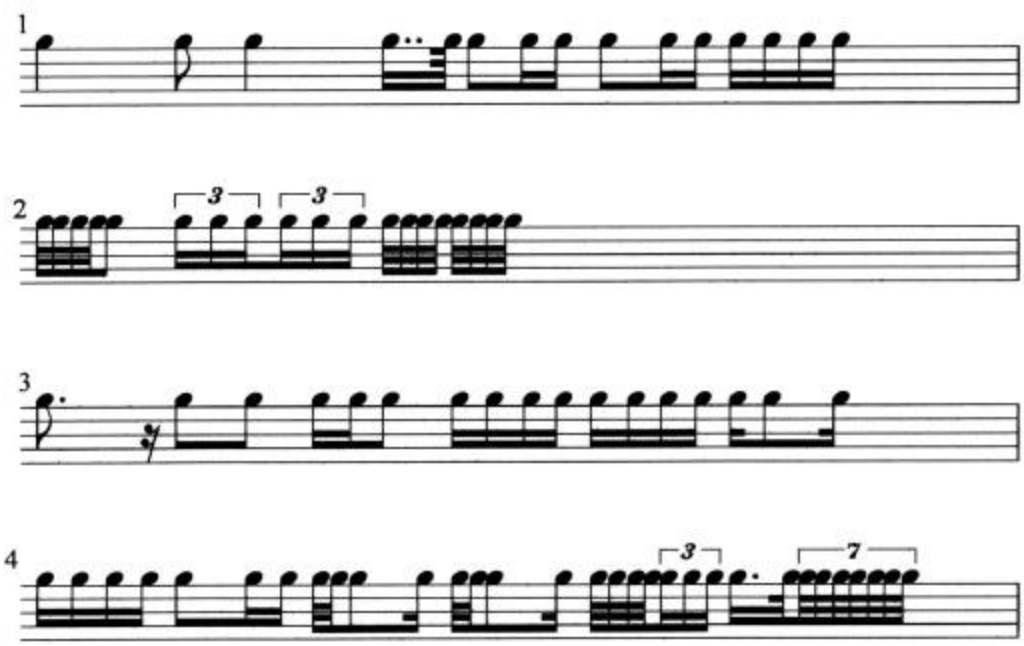
Irregular slurring in measures 3-4, 6-8, and 10-29

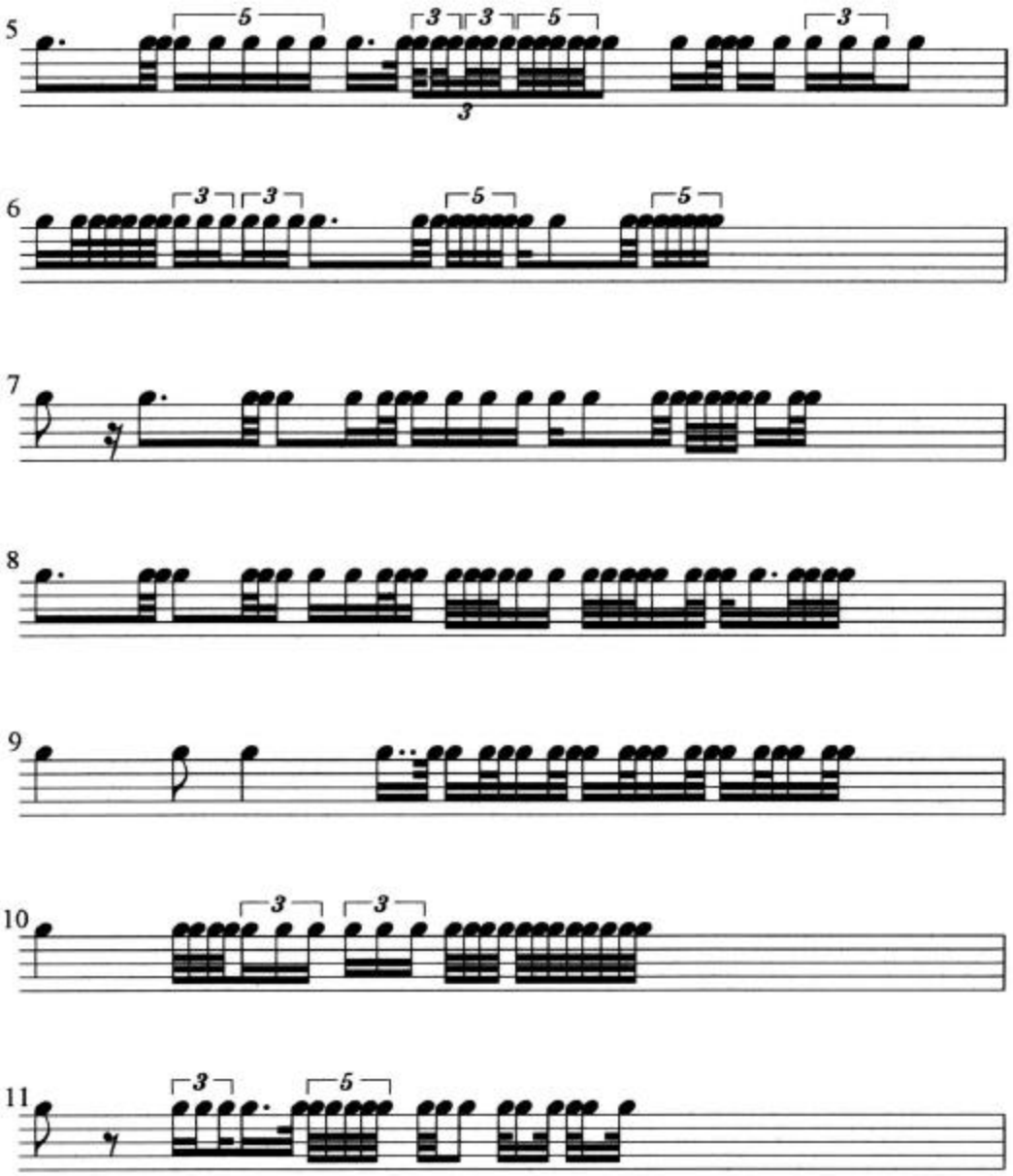
❑ Cross Rhythms

❑ Contemporary Rhythm groups

Quintuplet in measures 5-6, 11, 16, and 21
Septuplet in measures 4 and 25

☑ Additive Rhythms (use generic note-head or single pitch to notate)
Almost every measure is different in its construction of different patterns of additive rhythms:




5
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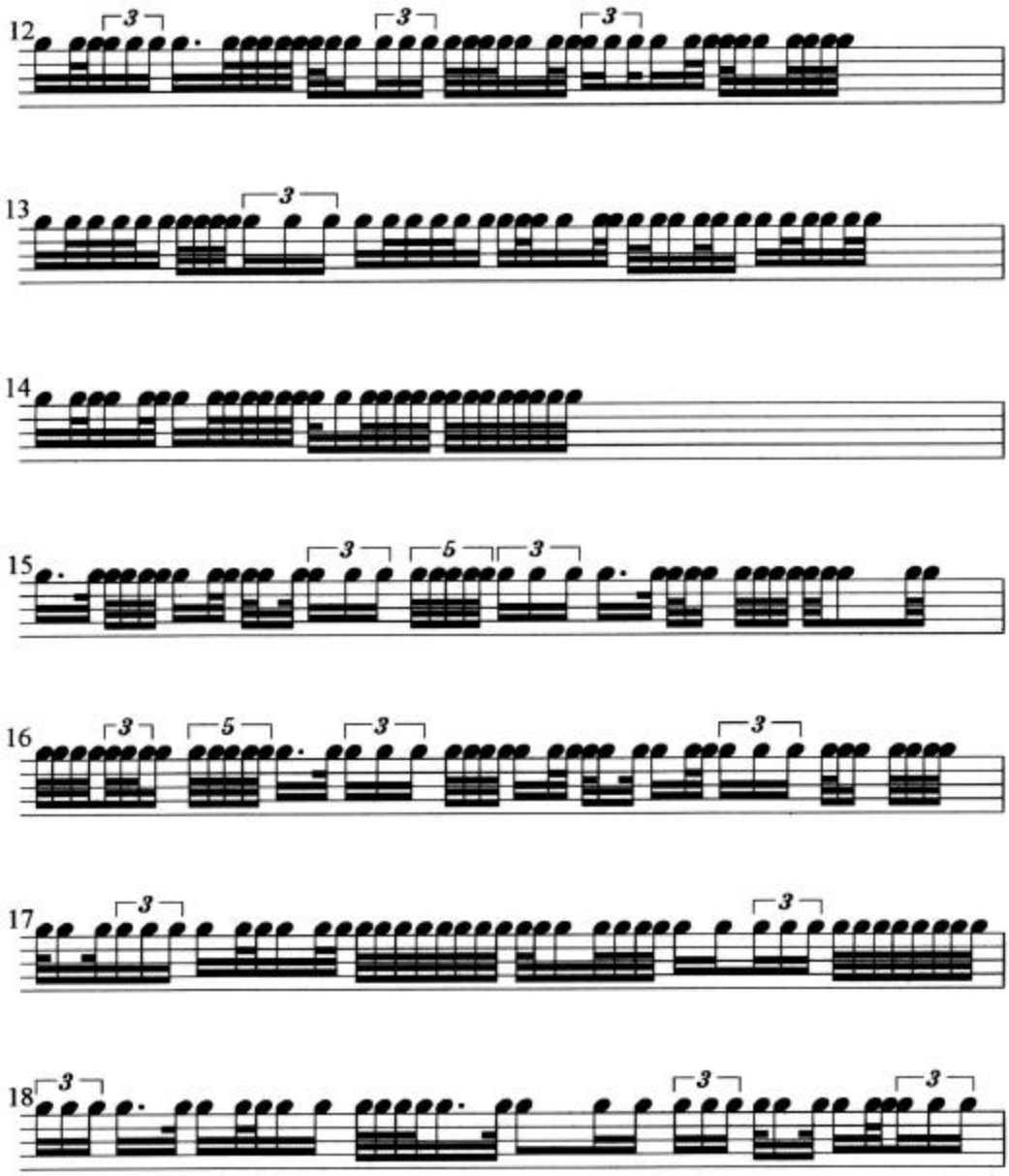
12
13
14
15
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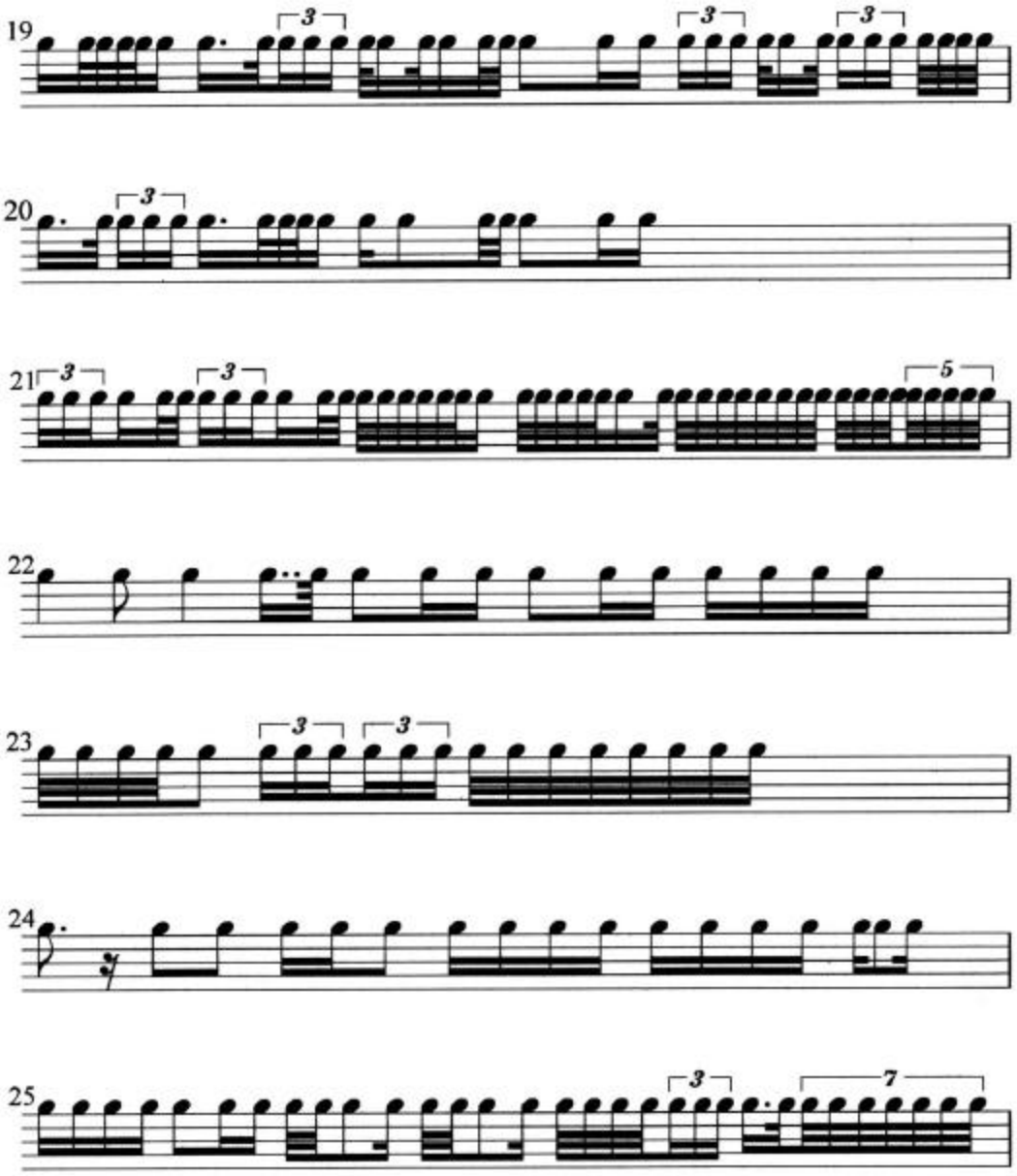
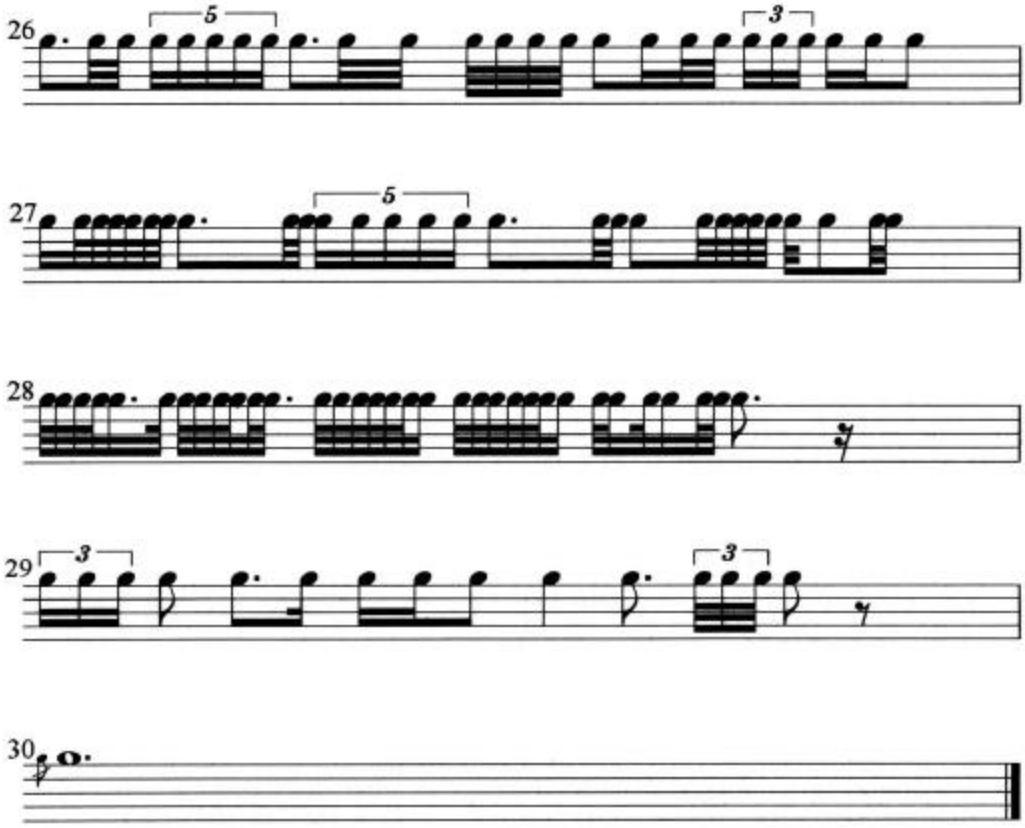
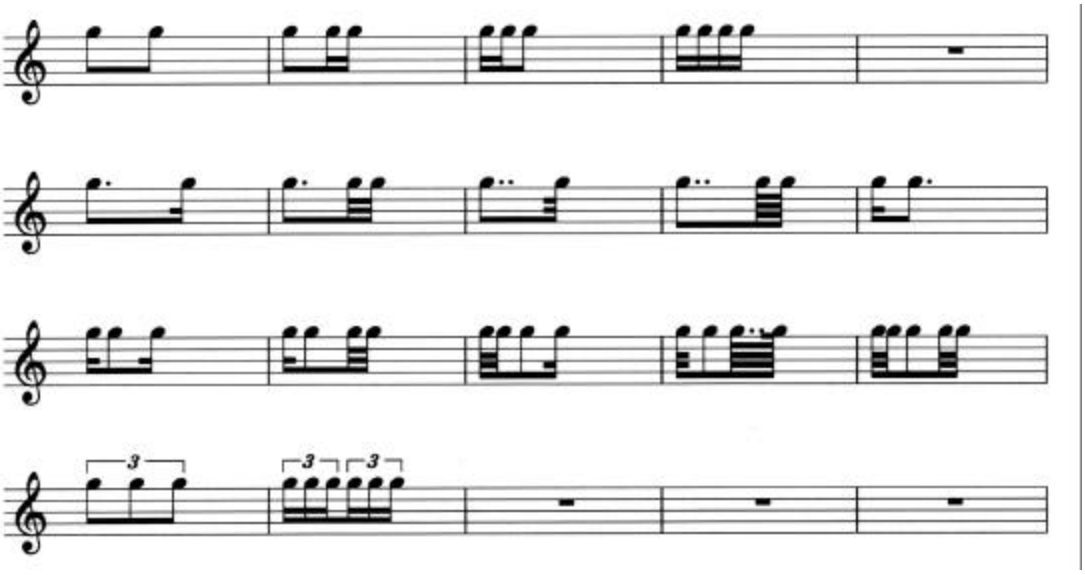
18


19
20
21
22
23
24
25



- List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	39	8.39
2nd	117	25.16	82	17.63	199	42.79
3rd	76	16.34	24	5.16	100	21.50
Perfect 4th	-	-	-	-	80	17.20
Tritone	-	-	-	-	13	2.80
Perfect 5th	-	-	-	-	7	1.51
6th	12	2.58	8	1.72	20	4.30
7th	5	1.07	1	0.22	6	1.29
Octave	-	-	-	-	-	-
9th	1	0.22	-	-	1	0.22
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Intervals (including unisons)	465	
Total # and % of Tonal Intervals (3/6/8/10)	120	25.80%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	306	65.81%

NOTE: All percentages are rounded to the nearest hundredth

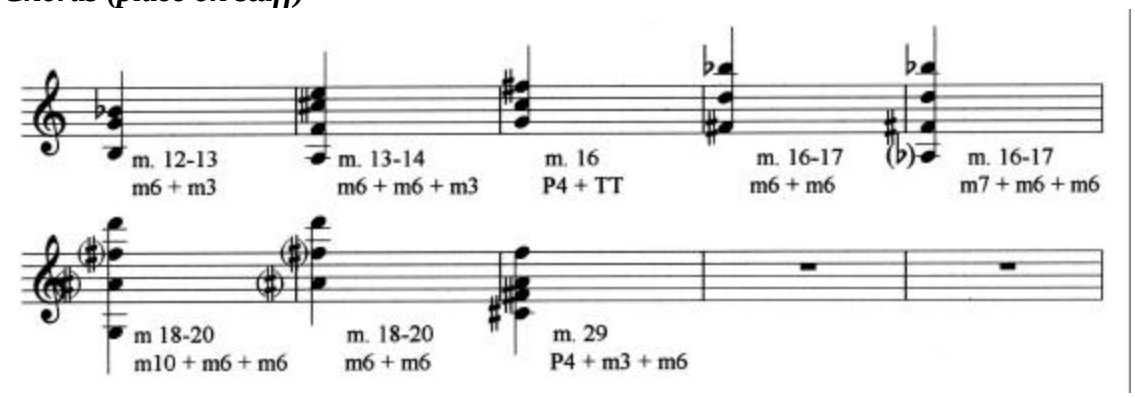
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	3	2.80
2nd	-	-	-	-	-	-
3rd	7	6.54	26	24.30	33	30.84
Perfect 4th	-	-	-	-	34	31.78
Tritone	-	-	-	-	22	20.56
Perfect 5th	-	-	-	-	-	-
6th	5	4.67	2	1.87	7	6.54
7th	5	4.67	2	1.87	7	6.54
Octave	-	-	-	-	-	-
9th	1	0.94	-	-	1	0.94
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	107	
Total # and % of Tonal Double-Stops (3/6/8/10)	40	37.38%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	67	62.62%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ☐ Yes
- ☑ No

Theatrical Effects

- ☐ Percussive effects (describe)

_____

_____

- ☐ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ☐ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Paul Hindemith
Title of Etude Book: Übungen für Geiger (Studies for Violinists)
Title of Etude: III. Saitenwechsel (String Alterations)
Year of Publication: Originally written in 1926; First Published in 1957; Present copyright, 1967
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

_____

_____

❑ Sul tasto (describe)

_____

_____

❑ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)
legato-slurs

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

_____

❑ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ☑ High positions (past 7th position)

m. 45, 3 notes in 8th position

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

m. 1, 6/4 or 6/ --- the grouping/slurring of notes creates a meter change in measures 15 and 18 (3/8 to 6/4) and vice versa in measures 20 and 21 (6/4 to 3/8)

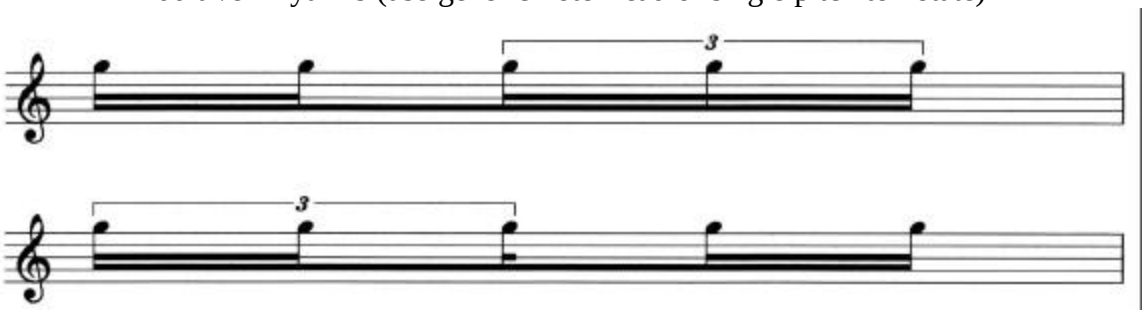
☑ Irregular Accents

Irregular slurring in measures 7, 14-15, 17-22, 25-26, 33, 39-45

❑ Cross Rhythms

❑ Contemporary Rhythm groups

☑ Additive Rhythms (use generic note-head or single pitch to notate)



☑ List rhythm groups used in additive rhythms

Duple plus triple, or triple plus duple

Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	221	11.64
2nd	187	9.85	152	8.01	339	17.86
3rd	108	5.69	146	7.69	254	13.38
Perfect 4th	-	-	-	-	84	4.43
Tritone	-	-	-	-	43	2.27
Perfect 5th	-	-	-	-	89	4.69
6th	134	7.06	158	8.32	292	15.38
7th	109	5.74	49	2.58	158	8.32
Octave	-	-	-	-	335	17.65
9th	18	0.95	19	1.00	37	1.95
10th	33	1.74	1	0.05	34	1.79
11th	12	0.63	-	-	12	0.63

Total # of Intervals (including unisons)	1,898	
Total # and % of Tonal Intervals (3/6/8/10)	915	48.21%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	762	40.15%

NOTE: All percentages are rounded to the nearest hundredth

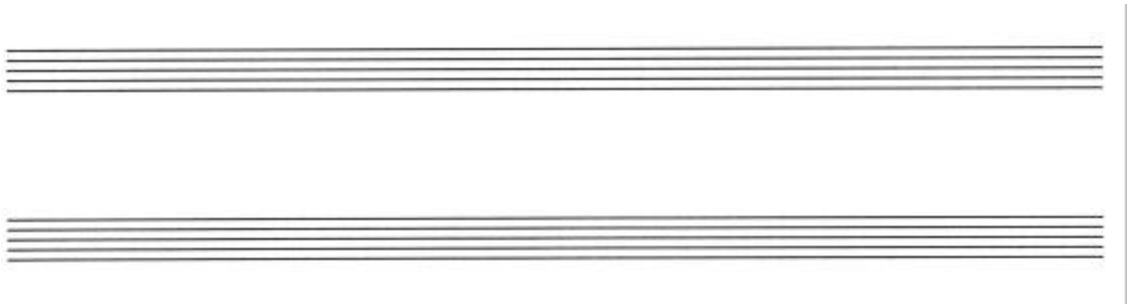
Double-Stops --- N/A for this etude

	Minor		Major		Total	
	#	%	#	%	#	%
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Double-Stops (including unisons)	_____	
Total # and % of Tonal Double-Stops (3/6/8/10)	_____	_____
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	_____	_____

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

  _____

  _____

- ❑ Vocal effects (describe)

  _____

  _____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Paul Hindemith
Title of Etude Book: Übungen für Geiger (Studies for Violinists)
Title of Etude: IV. Gebrochene Akkorde (Broken Chords)
Year of Publication: Originally written in 1926; First Published in 1957; Present copyright, 1967
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

☐ Sul ponticello (describe)

☐ Sul tasto (describe)

☑ Describe any rapid changes between techniques
rapid changes between legato to staccato, legato to spiccato, staccato to legato, and spiccato to legato are found throughout Etude IV

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)
détaché, legato, legato-slurs, slurred-staccato, staccato, and spiccato

☐ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

☐ Col legno (describe)

- ❑ Tremolo (describe)

- ❑ Describe any rapid changes between techniques

Left hand use---in each instance, list and describe

- ❑ Glissando

- ❑ Harmonics

- ☑ High positions (past 7th position)

8th position in m. 35, 63, 77, 89, and 93; 9th position in m. 25, 30-33, 36, and 92; 10th position in measures 27, 42-43, and 71-72. **Also, extentions from** 9th to 10th positions in m. 30-31, and 90; 9th to 11th positions in m. 32-33; 10th to 11th positions in m. 71-72; 12th to 13th positions in m. 90-98; 10th to 12th positions in m. 100; 7th to 12th positions in m. 102; 8th to 10th positions in m. 104.

- ❑ Microtones

- ❑ Trills

- ❑ Vibrato

- ❑ Combined effects

Pizzicato---list and describe if necessary

- Right hand
  - Flesh/pad

    _____

    _____

  - Fingernail

    _____

    _____

  - Combination of flesh and fingernail

    _____

    _____

  - Use of plectrum

    _____

    _____

- Left hand
  - Flesh/pad

    _____

    _____

  - Fingernail

    _____

    _____

  - Combination of flesh and fingernail

    _____

    _____

  - Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

m. 1, ¾; m. 13, 2/4; m. 14, ¾; m. 55, 2/4; m. 56, ¾; m. 86, 2/4; m. 87, ¾; m. 89, 4/4; m. 90, ¾

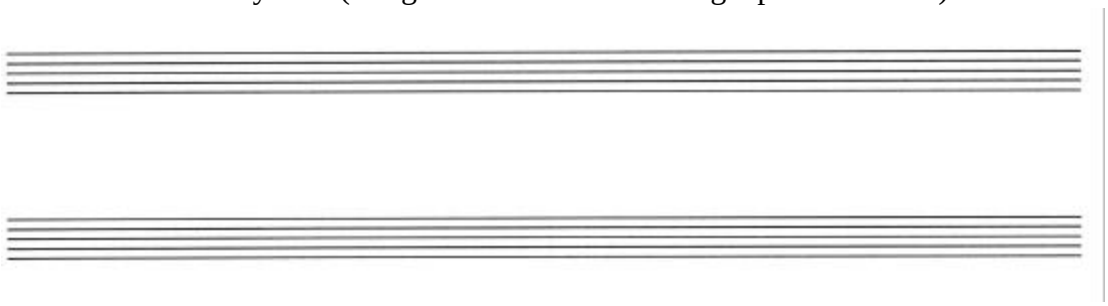
☑ Irregular Accents

Irregular slurring in every measure EXCEPT measures 5, 16, 21-22, 26, 31-32, 45, and 78

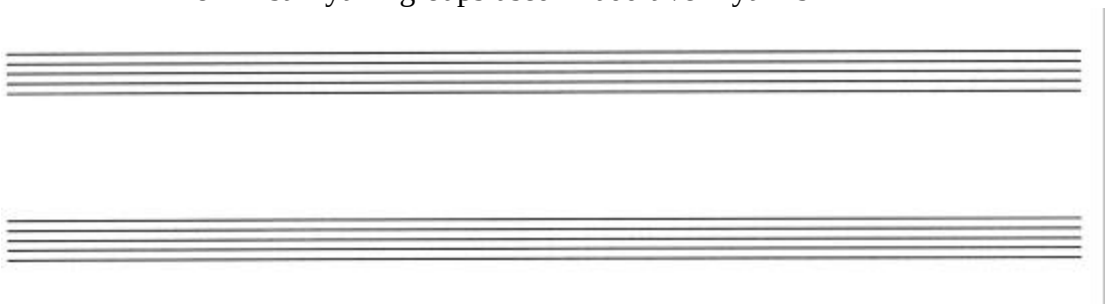
❑ Cross Rhythms

❑ Contemporary Rhythm groups

❑ Additive Rhythms (use generic note-head or single pitch to notate)



o List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	3	0.25
2nd	152	12.59	67	5.55	219	18.14
3rd	331	27.42	185	15.33	516	42.75
Perfect 4th	-	-	-	-	328	27.17
Tritone	-	-	-	-	15	1.24
Perfect 5th	-	-	-	-	36	2.98
6th	13	1.08	4	0.33	17	1.41
7th	12	0.99	10	0.83	22	1.82
Octave	-	-	-	-	1	0.08
9th	9	0.75	2	0.17	11	0.92
10th	7	0.58	8	0.66	15	1.24
11th	11	0.92	13	1.08	24	2.00

Total # of Intervals (including unisons)	1,207	
Total # and % of Tonal Intervals (3/6/8/10)	549	45.48%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	655	54.27%

NOTE: All percentages are rounded to the nearest hundredth

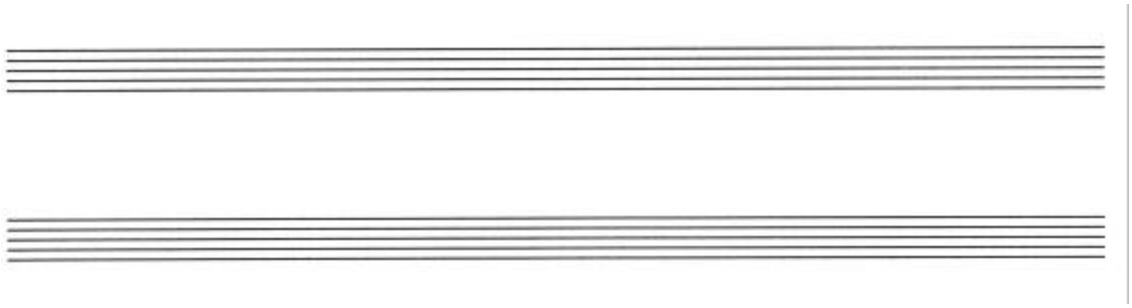
Double-Stops --- N/A for this etude

	Minor		Major		Total	
	#	%	#	%	#	%
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Double-Stops (including unisons)	_____	
Total # and % of Tonal Double-Stops (3/6/8/10)	_____	_____
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	_____	_____

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

  _____

  _____

- ❑ Vocal effects (describe)

  _____

  _____

Does a Recording Exist?

- ❑ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Paul Hindemith
Title of Etude Book: Übungen für Geiger (Studies for Violinists)
Title of Etude: V. Doppelgriffe und Saitenwechsel (Double-Stops and String Alterations)
Year of Publication: Originally written in 1926; First Published in 1957; Present copyright, 1967
Publisher: Schott

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ☑ Traditional (roughly between bridge and fingerboard)
- ☐ Sul ponticello (describe)

_____

_____

- ☐ Sul tasto (describe)

_____

_____

- ☐ Describe any rapid changes between techniques

_____

_____

Use of bow---how the bow is drawn across the strings

- ☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, legato-slurs

- ☐ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

_____

_____

- ☐ Col legno (describe)

_____

_____

- ❑ Tremolo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ❑ Harmonics

_____

_____

- ☑ High positions (past 7th position)

9th position in measures 59-62 and 64-65; 10th position in measures 67-73

- ❑ Microtones

_____

_____

- ☑ Trills

m. 91

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- Right hand
  - Flesh/pad

    _____

    _____

  - Fingernail

    _____

    _____

  - Combination of flesh and fingernail

    _____

    _____

  - Use of plectrum

    _____

    _____

- Left hand
  - Flesh/pad

    _____

    _____

  - Fingernail

    _____

    _____

  - Combination of flesh and fingernail

    _____

    _____

  - Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing meter

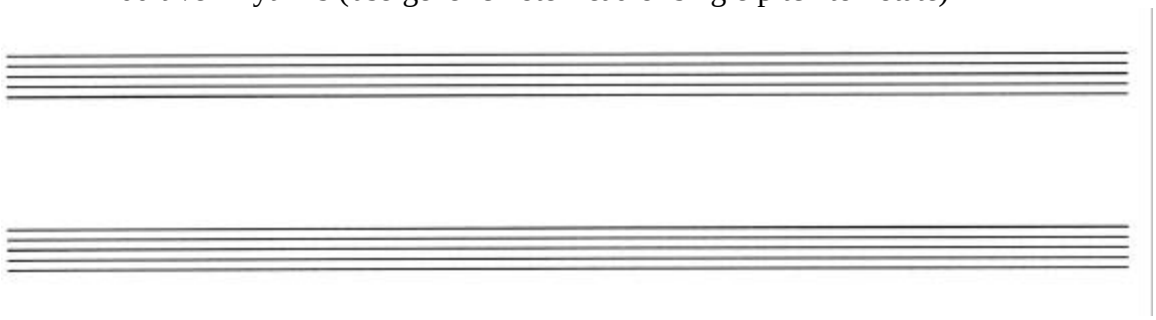
- ☑ Irregular Accents

Irregular slurring in measures 6-9, 10-12, 14-16, 19, 22-44, 47-48, 62-63, 66-67, 73-79, 81-83, and 86

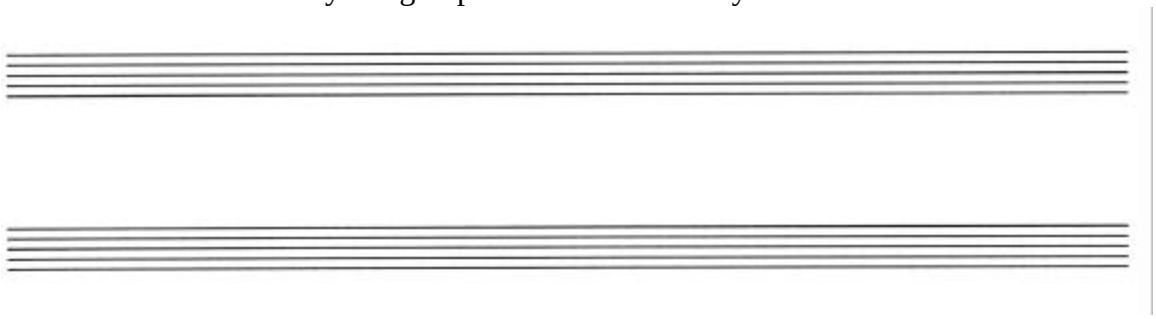
- ❑ Cross Rhythms

- ❑ Contemporary Rhythm groups

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)



  - o List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	15	50.00	13	43.33	28	93.33
3rd	2	6.67	-	-	2	6.67
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	-	-
6th	-	-	-	-	-	-
7th	-	-	-	-	-	-
Octave	-	-	-	-	-	-
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Intervals (including unisons)	30	
Total # and % of Tonal Intervals (3/6/8/10)	2	6.67%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	28	93.33%

NOTE: All percentages are rounded to the nearest hundredth

Double-Stops --- N/A for this etude

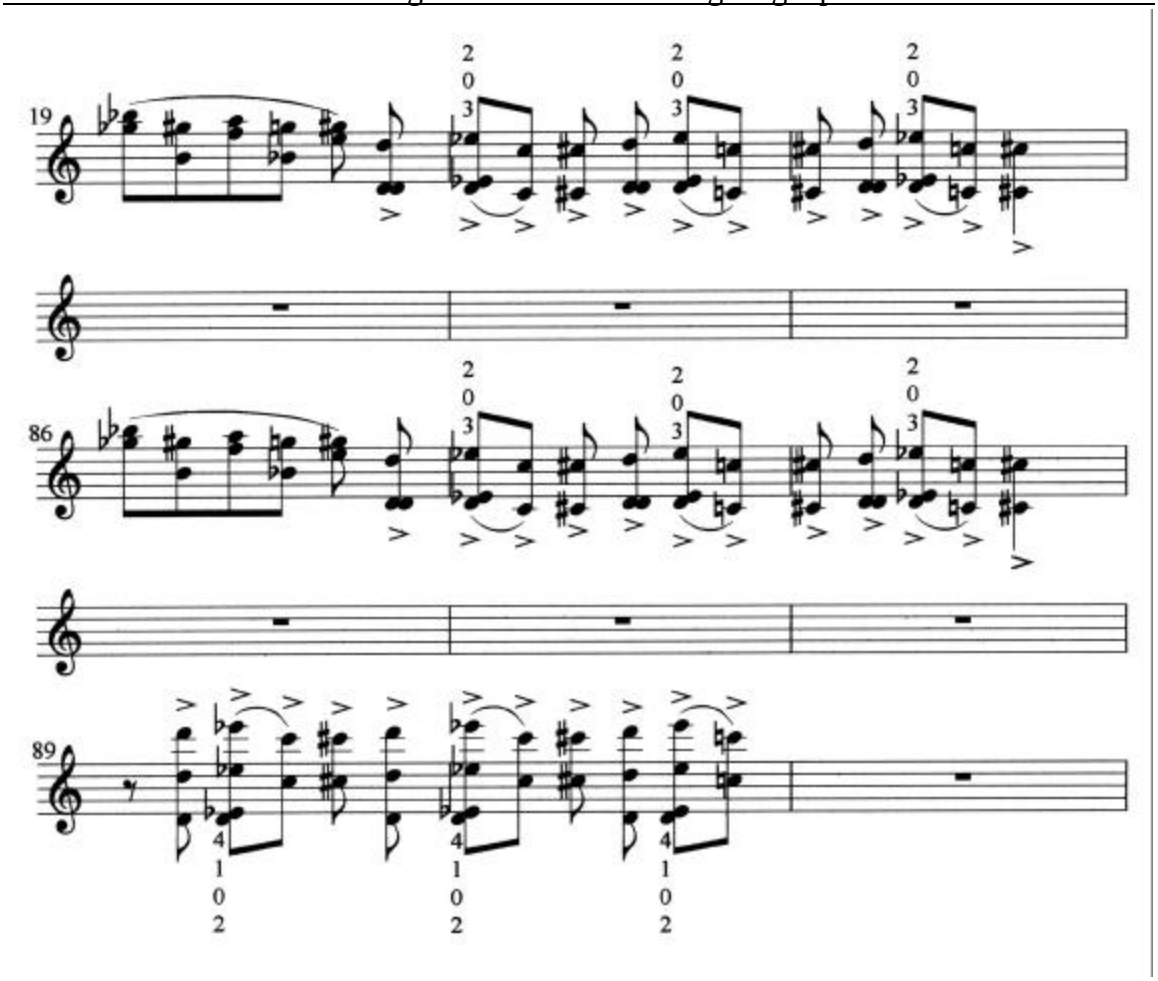
	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	-	-
2nd	-	-	1	0.23	1	0.23
3rd	40	9.22	39	8.99	79	18.21
Perfect 4th	-	-	-	-	1	0.23
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	4	0.92
6th	113	26.04	43	9.91	156	35.95
7th	103	23.73	26	5.99	129	29.72
Octave	-	-	-	-	25	5.76
9th	21	4.84	12	2.76	33	7.60
10th	6	1.38	-	-	6	1.38
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	434	
Total # and % of Tonal Double-Stops (3/6/8/10)	266	61.29%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	168	38.71%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)

The use of chords are 3-note chords containing the octave double-stop that is combined with a third note that is frequently an open string. The left-hand technique required for these chords is the same as if one fingers a continuous fingering double-stop octave. Exceptions can be found in measures 19-21, 86-88, and 89-90. Here, the octave within the 3-note chord needs to be fingered as if one were fingering a perfect fourth.



Measures 19-21, 86-88, and 89-90.

Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

_____

_____

- ❑ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ❑ Yes
- ☑ No

APPENDIX G

CONTENT ANALYSIS FORMS FOR FREEMAN ETUDES BY JOHN CAGE

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: John Cage
Title of Etude Book: Freeman Etudes for Violin Solo
Title of Etude: I
Year of Publication: 1981
Publisher: C. F. Peters

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

☑ Sul ponticello (describe)

m. 2, b' at *mezzo forte* dyanamic; m. 9, microtonally low b-flat'' at *fortissisimo* dynamic; m. 12, microtonally high f''' at *fortissisimo* dynamic; m. 15, a-sharp'' at *mezzo piano* dynamic; m. 16, major second double-stop, e'''-f-sharp'''' at *fortissimo* dynamic; m. 17 contains two, *sul ponticello* events. The first, a tritone double-stop, c'-microtonally low g-flat' at *forte* dyanamic. The second, a perfect fourth double-stop, d-flat'''-microtonally low g-flat''' a *fortissimo* dyanamic; m. 26, minor seventh double-stop, e'''-d'''' at *mezzo piano* dynamic; m. 30, microtonally low, inflected c''''' at *mezzo forte* that *crescendos* toward a *fortissimo* in approximately 1 second; m. 38, microtonally low d-flat' at *pianissisimo* dynamic that *crescendos* over approximately 3 seconds to *piano* dynamic; m. 40, microtonally low e-sharp' at *mezzo forte* dynamic; m. 46, b-flat at *mezzo forte* dynamic; m. 65, microtonally low b at *mezzo forte* dynamic; m. 72, microtonally high f''' at *mezzo piano* dynamic; and m. 80, a 4-note chord, consisting of the pitches, microtonally high g-sharp', f-sharp'', microtonally low c''', and b''' at *piano* dynamic;

☑ Sul tasto (describe)

m. 4, perfect fourth harmonic, with the resultant pitch c''''', at *mezzo forte* dyanamic; m. 8, microtonally low b'' that begins *pianissimo* and rapidly *crescendos* to *fortissimo* in less than ½ second; m. 10, e-flat' at *pianissisimo*; m. 14, microtonally low unison double-stop that is made up of two harmonics, a microtonally low, perfect fourth harmonic, with the resultant pitch e''', and a natural harmonic, the ??? node on the E-string, with the resultant pitch, e'''. This unison double-stop also has the indication to play slightly out of tune ("beating"); m. 15, major tenth double-stop, a'''-microtonally high c-sharp'''', at fortisisimo dynamic; m. 17 has three *sul tasto* events. The first, a microtonally high a-sharp' at *fortissimo* dynamic, the second, a martelatto g' at *fortissimo* dynamic, and the third, a minor tenth double-stop, microtonally low b-flat-d-flat', at *mezzo forte* dynamic; m. 18, e-flat''' at *piano* dynamic; m. 20 has three *sul tasto* events. The first, a 4-note chord, microtonally high g-sharp'-microtonally high f''-e'''-microtonally low g-sharp''', at *mezzo piano* dynamic, the second, a microtonally low, perfect fourth harmonic, with the resultant pitch a'''', at *pianissisimo* dynamic, and the third, a b'' at *forte* dynamic; m. 30, microtonally high g' at *forte* dynamic; m. 33, g-flat''' at *mezzo piano* dynamic; m. 45, g-flat' at *mezzo forte* dynamic; m. 62, microtonally low g-flat' at *mezzo piano* dynamic; m. 64, tritone, b-flat'-microtonallly low e', that begins at *fortissimo* dynamic, *crescendos* for

less than ½ second, then immediately drops in dynamic to *mezzo forte*; m. 71, d-sharp' at *mezzo piano* dynamic; m. 74, 3-note chord with all notes microtonally low, rolled from the highest note to the lowest note, c''''-d-sharp'''-e'', at *fortissimo* dynamic; and m. 77, f'' at *pianissisimo* dynamic.

☑ Describe any rapid changes between techniques

Rapid changes involving *sul ponticello*: m. 9, *normale* b' at *pianissisimo* dynamic, followed by a *sul ponticello*, microtonally low b-flat'', followed by a *normale* a' at *mezzo piano* dynamic; m. 12 *normale* c-sharp''''' at *piano* dynamic that *crescendos* in less than ½ second to a *sul ponticello*, microtonally high f''' at *fortissisimo*, followed by a microtonally high d''''' at *pianissimo* dynamic; m. 26, a *normale* c-sharp''' at *forte* dynamic is followed by a *sul ponticello*, minor seventh double-stop, e'''-d''''; m. 38-39, a *sul ponticello* and microtonally low d-flat' at *pianissisimo* dynamic, *crescendos* over approximately 2 ½ seconds to *piano* dynamic, followed by a *normale*, microtonally high perfect fourth harmonic with the resultant pitch, c''', at *fortissimo* dynamic; m. 40, a *normale*, perfect fourth harmonic with the resultant tone, c-sharp'''', at *pianissimo* dynamic, *crescendos* over approximately 1 second to a *sul ponticello* and microtonally low c-sharp' at *mezzo forte* dynamic, followed by a *normale*, microtonally low f-sharp'' at *fortissisimo* dynamic; m. 65, a *normale* and microtonally low d-sharp'''' at *piano* dynamic, *crescendos* in less than one second to *fortissimo*, followed by a *sul ponticello* and microtonally high b at *mezzo forte* dynamic; and m. 78-81, a *normale*, microtonally low g-sharp at *fortissimo* dynamic, de*crescendos* for approximately 4 ½ seconds to a *sul ponticello* 4-note chord, a microtonally high g-sharp'-f-sharp''-c'''-b''', at *forte*, followed by a *normale* e' at *fortissimo* dynamic that *crescendos* for approximately 2 seconds to fortisisimo dynamic.

Rapid changes involving *sul tasto*: m. 4, a *tremolo* f''' at *mezzo forte* dyanamic is followed by a *sul tasto*, martellato, perfect fourth harmonic with the resultant pitch, c''''', at *mezzo forte* dynamic; m. 8, a *sul tasto* and microtonally low b'' at *pianissimo* dynamic, *crescendos* to a microtonally high, perfect fifth harmonic with the resultant pitch, d'''', at *fortissimo* dynamic; m. 10, a *normale* f' at *fortissimo* is followed by a *sul tasto* e-flat' at *pianissisimo*, *crescendos* in less than ½ second to a *normale* c at *mezzo forte* dynamic; m. 13-14, a microtonally high, perfect fifth double-stop, a-e', at *mezzo forte* dynamic, de*crescendos* over approximately 2 ½ seconds to a *sul tasto*, unison double-stop, consisting of harmonics with the resultant pitches, a microtonally low e'''-e''', at *pianissisimo* dynamic, followed by a microtonally low c' at *fortissimo* dynamic; m. 18-19, a *normale*, 3-note chord, rolled from the highest note to the lowest note, consisting of the notes, a microtonally high b-flat'', a microtonally low b', and a microtonally high d', at *fortissisimo* dynamic, followed by a *sul tasto* e-flat''' at *pianissimo* dynamic, *crescendos* in less than ½ second to a *normale*, major eleventh double-stop, e-flat'''-a'''', at *mezzo piano* dynamic; m. 19-20, a *normale* and microtonally high b-flat at *fortissisimo* dynamic, de*crescendos* over approximately 1 second to a *sul tasto*, 4-note chord, consisting of a microtonally high g-sharp', a microtonally high f'', an e''', and a microtonally high g-sharp''' at *mezzo piano* dynamic, followed by a *sul tasto*, microtonally low, perfect fourth harmonic with the resultant pitch, a'''' at *pianissisimo* dynamic, followed by a *sul tasto* b'' at

forte dynamic, followed by a *normale*, microtonally low, perfect fourth harmonic with the resultant pitch, b-flat’’’, at *mezzo piano* dynamic; m. 33, a *sul tasto* g-flat’’’ at *mezzo piano* is followed by a *normale* b-flat’ at *mezzo forte* dynamic; m. 45-46, a *sul tasto* g-flat’ at *mezzo forte* dynamic is slurred into a *normale*, major sixth (diminished seventh) double-stop, a microtonally high a-g-flat’, at *mezzo piano* dynamic; m. 61-62, a *normale*, microtonally high, minor third double-stop, b-flat’’’-d-flat’’’’, at *fortissimo* dynamic, de*crescendos* over approximately 3 seconds to a *sul tasto* and microtonally low b-flat’ at *mezzo piano* dynamic, followed by a *normale*, major third harmonic with the resultant pitch, c-sharp’’’’’, at *piano* dynamic; m. 62, a *normale* b-flat at *fortissimo* dynamic, is sustained for approximately 6 seconds, is slurred in m. 64 into a *sul tasto* tritone, b-flat-microtonally low e’, and *crescendos* for less than ½ second, then immediately drops its volume to *mezzo forte*, and finally followed by a *normale* a’’’’ at *forte* dyanamic; and in m. 77, a *normale* and microtonally high b at *mezzo piano* dynamic, de*crescendos* in less than ½ second to a *sul tasto* f’’ at *pianissimo* dynamic, followed by a *normale* and microtonally high b’’ at *fortissimo* dynamic;

Rapid changes involving both *sul ponticello* and *sul tasto*: m. 15, *normale*, microtonally low and inflected b’’’ at *mezzo forte* is followed by a *sul ponticello* a-sharp’’at *mezzo forte*, followed by a *normale*, microtonally high c-sharp’’’’’ at *mezzo piano* that *crescendos* in less than ½ second to a *sul tasto* minor tenth (augmented 9th), f’’’-microtonally high c-sharp’’’’’, at *forte* dynamic, followed by a *normale* d’’’’ at *fortissimo* dynamic; m. 16-17, a *normale*, microtonally high e’’’, with the indication to vibrato at *mezzo piano* dynamic, is followed by a *sul ponticello*, major second double-stop, microtonally high e’’’-f-sharp’’’, at *fortissimo* dynamic, followed by a *sul tasto*, a-sharp’ at *fortissimo* dynamic, followed by a *sul tasto*, martellato, and microtonally high g-sharp’ at *fortissimo* dynamic; m. 17, a *normale* d-flat’’ at *pianissimo*, *crescendos* in less than ½ second to a *sul tasto*, major tenth double-stop, microtonally low b-flat-d-flat’’ at *mezzo forte* dynamic, which *crescendos* in less than ½ second to a *sul ponticello*, microtonally low tritone, c’-g-flat’, at *forte* dynamic that de*crescendos* in less than ½ to a *normale*, minor ninth (augmented unison), g-flat’’’-g’’’’ at *mezzo forte* dynamic that de*crescendos* in less than ½ second to *mezzo piano*, followed by a *normale*, microtonally low g-flat’’’ at *piano* dynamic, followed by a *sul ponticello*, perfect fourth double-stop, d-flat’’’-g-flat’’’, at *fortissimo* dynamic, followed by a *normale*, minor tenth double-stop, microtonally low b-flat’-d-flat’’’, at *piano* dynamic; m. 30, a *sul ponticello*, microtonally low and inflected c’’’’’ at *mezzo forte* dynamic, *crescendos* over approximately ½ second to *fortissimo*, followed by a *normale* and inflected d’’’’’ at fortisisisimo dynamic, followed by a *normale* e-flat’’’ at *pianissimo* dynamic, and finally followed by a *sul tasto*, microtonally high g’ at *forte* dynamic; m. 68, a *sul ponticello*, perfect fourth harmonic with the resultant pitch, f’’’’, at *pianissisimo* dynamic, is sustained for approximately 9 seconds, followed in m. 71 by a *sul tasto*, microtonally low d-sharp’ at *mezzo piano* dynamic; m. 74, a *sul ponticello* d-flat’’ at *mezzo piano* is followed by a *normale* and microtonally low b-flat at *piano* dynamic, *crescendos* in approximately less than ½ second to *mezzo forte* dynamic, followed by a *sul tasto* and microtonally low 3-note chord that is rolled from the highest note to the lowest note, c’’’’-d-sharp’’’-e’’;

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, legato, marcatto, martellato, and ricochet

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc., describe)

☑ *Col legno* (describe)

measure 1, e-flat''' at *forte;* measure 36, a four-note chord, b''-c'''-e'''-d''''' at *fortissisimo*, and measure 46, an augmented 2nd (minor third) double-stop a-flat''-b'' at *mezzo forte*

☑ Tremolo (describe)

m. 4, f''' at *mezzo forte* dynamic.

☑ Describe any rapid changes between techniques

Rapid changes involving *col legno*: m. 1, a *col legno* e-flat''' at *forte* is followed by a *normale*, perfect fourth harmonic with the resultant pitch, b-flat'''', at *mezzo forte* dynamic; m. 36, a *normale*, martelatto, and microtonally low e''' at *pianissisimo* dynamic, followed by a *col legno*, 4-note chord consisting of the notes, b'', a microtonally high c''', a microtonally low e''', and d'''', at *fortissisimo* dynamic, and finally followed by a *normale* f''' at *pianissimo* dynamic; and in m. 46, a *normale*, microtonally high grace note, c'''', at *mezzo piano* dynamic, is followed by a *col legno*, minor third (augmented second) double-stop, a-flat''-b'', at *mezzo forte* dynamic, then dimuendos over approximately 1 second to *piano* dynamic.
Rapid changes involving *tremolo*: a *tremolo* f''' at *mezzo forte* is followed by a *sul tasto*, perfect fourth harmonic with the resultant pitch, c''''', at *mezzo forte* dynamic.

Left hand use---in each instance, list and describe

☑ Glissando

There are no glissandi, but there is the use of inflections, or the bending of pitch: m. 1-2, a perfect fourth harmonic with the resultant pitch, b-flat'''', at *mezzo forte*, de*crescendos* over approximately 1 second to *pianissisimo* dynamic, then is inflected below, then above the original pitch; m. 4-6, a c-sharp'' at *forte* dynamic is sustained

for approximately 4 ½ seconds, then is inflected above, then below, and finally ending on the original pitch in m. 6; m. 8-9, a b at *piano* dynamic, *crescendos* over approximately 1 second, is then inflected below, then above, and finally ending on the original pitch at *fortissimo* dynamic; a microtonally low b''' at *mezzo forte*, begins above the notated pitch, bends downward, and finally ends on the notated pitch; m. 17-18, a microtonally low b-flat' at *piano* dynamic, *crescendos* over approximately 1 second, is then inflected below and finally ending on the original pitch at *mezzo forte* dynamic; m. 19, e'''' at *fortissimo* dynamic is inflected below, then above the original pitch, and is then sustained for approximately 1 second; m. 22, a d-flat' at *mezzo piano*, de*crescendos* for approximately 1 second to *pianissimo*, is then inflected above, then below the original pitch; m. 30, a *sul ponticello* and microtonally low c''''' begins below, then bends upward to the notated pitch, then *crescendos* for approximately ½ second to *fortissimo*; m. 30, a d''''' begins above the notated pitch, bends below, and finally bends upward, ending on the notated pitch at *fortissisimo* dynamic; m. 31, a perfect fifth harmonic, with the resultant pitch, f''', is inflected below, then above, and finally ending on the notated pitch; m. 35, a microtonally high d-flat begins below the notated pitch, bends above, then downward, ending on the notated pitch at *piano* dynamic; and in m. 36, a c-sharp''' which begins at *forte* dynamic and decrescendo in less than ½ second to *mezzo piano* dynamic, begins above the notated pitch, bends below, then upward, and finally ending on the notated pitch at *mezzo piano* dynamic.

☑ Harmonics

Natural harmonics: m. 16, m. 76

Major third harmonics: m. 39 contains two, major third harmonics. The first has the resultant pitch, f-sharp'''', and the second has the resultant pitch, g''''; m. 62 has the resultant pitch, c-sharp''''';

Perfect fourth harmonics: m. 1-2 has the resultant pitch, b-flat''''; m. 4 has the resultant pitch, c''''; m. 20 contains two, perfect fourth harmonics. The first has the resultant pitch, a microtonally low a'''', and the second has the resultant pitch, a microtonally low b-flat'''; m. 25, has the resultant pitch, a microtonally high a''''; m. 39 has the resultant pitch, a microtonally high c'''; m. 40 has the resultant pitch, c-sharp''''; m. 41 has the resultant pitch, a microtonally low g-sharp''''; m. 68 has the resultant pitch, f''''; m. 73 has the resultant pitch, a microtonally high b''';

Perfect fifth harmonics: m. 7 has the resultant pitch, e''''; m. 8 has the resultant pitch, a microtonally high d''''; m. 12 has the resultant pitch, a microtonally high c-sharp''''; m. 17 has the resultant pitch, a microtonally low c'''; m. 31 has the resultant pitch f'''; m. 41 has the resultant pitch, a microtonally low e''''; m. 42 has the resultant pitch, d-sharp'';

Double-stops that contain harmonics: m. 14, a unison double-stop consisting of a perfect fourth harmonic, has the resultant pitch, a microtonally low e''', and a natural harmonic, the ??? node on the E-string, has the resultant pitch, e''';

Chords that contain harmonics: m. 51 has a 3-note chord that contains a perfect fifth harmonic, with the resultant pitch, g-flat'';

☑ High positions (past 7th position)

The high positions are based on the fingerings devised by the author: the high positions occur in the following measures: m. 12, the 17th and 18th positions; m. 15, the 8th, 12th, and 16th positions; m. 16, the 8th, 9th, 10th, and 13th position; m. 17, the 13th positions; m. 18, the 9th, 10th, 11th, 12th, and 14th positions; m. 20, the 8th position; m. 26-27, the 10th position; m. 30, the 17th position; m. 34, the 12th position; m. 35, the 11th, 12th, 13th, and 15th positions; m. 36, the 8th, 11th, 12th, and 18th positions; m. 37, 11th, 12th, and 22nd positions; m. 41, the 10th, 14th, and 16th positions; m. 42, the 15th position; m. 44, the 9th position; m. 46, the 8th and 9th positions; m. 48-49, the 10th, 11th, and 12th positions; m. 52-56, the 8th position; m. 60, the 11th position; m.61, the 12th position; m. 64, the 15th and 17th positions; m. 65, the 13th position; m. 67, the 8th position; m. 72, the 8th position; m. 73, the 9th position; m. 74, the 9th position; and m. 80, the 8th position.

☑ Microtones

Microtones that occur as single notes (does not include harmonics): m. 4, a microtonally low d'' at *pianissimo* dynamic; m. 6, a microtonally low a' at *pianissisimo* dynamic that *crescendos* over approximately ½ second to *fortissisimo* dynamic; m. 8, a microtonally low, *sul tasto* b'' at *pianissimo* dynamic that *crescendos* in less than ½ second to *fortissimo*, followed by a microtonally high, perfect fifth harmonic with the resultant tone, d'''', at *mezzo forte* dynamic, that de*crescendos* over approximately ½ second to *piano* dynamic; m. 9 contains two microtones that occur as single notes. The first is a microtonally high, *sul ponticello* b-flat'' at *fortissisimo* dynamic, and the second is a microtonally low c' at *mezzo piano* that de*crescendos* in less than ½ second to *pianissisimo* dynamic; m. 11, a microtonally low d'' at *forte* that *crescendos* in less than ½ second to *fortissisimo* dynamic; m. 12 has three, single-note microtones. The first is a microtonally high, perfect fifth harmonic with the resultant pitch, c-sharp'''', at *fortissisimo* dynamic. The second is a microtonally high, *sul ponticello* f''' at *fortissisimo* dynamic, and the third is a microtonally high d''''' at *pianissimo* dynamic; m. 13-14, a microtonally high, perfect fifth double-stop, a-e', at *mezzo forte* dynamic, de*crescendos* over approximately 3 seconds to *pianissisimo* dynamic; m. 14, a unison double-stop consisting of two harmonics, a perfect fourth harmonic, with the resultant pitch, a microtonally low e''', and a natural harmonic, the ??? node on the E-string, with the resultant tone, e''', at *pianissisimo* dynamic; m. 14-15, a microtonally low c' at *fortissimo* dynamic that de*crescendos* over approximately 1 second to a microtonally high g-sharp''' at *mezzo piano* dynamic; m. 15 contains two, single-note microtones. The first is a microtonally low and inflected b''' at *mezzo forte* dynamic, and the second is a microtonally high c-sharp''''' at *forte* dynamic; m. 17, a *sul tasto*, martelatto, and microtonally high g-sharp' at *fortissimo* dynamic; m. 19, a microtonally high b-flat at *fortissisimo* dynamic that de*crescendos* over approximately 1 second to *mezzo piano*; m. 23-25, a microtonally high b at *mezzo forte* dynamic that de*crescendos* over approximately 5 seconds to *pianissisimo* dynamic; m. 27, a microtonally low c-sharp'' at *pianissimo* dynamic that *crescendos*

for approximately ½ second to *forte*; m. 30 contains two, single-note microtones. The first is a *sul ponticello*, inflected, and microtonally low c''''' at *mezzo forte* that *crescendos* for approximately ½ second to *fortissimo* dynamic, and the second is a *sul tasto*, microtonally high g' at *forte*; m. 35 contains two, single-note microtones. The first is a microtonally low f'''' at *forte* dynamic that de*crescendos* in less than ½ second to *pianissimo* dynamic, and the second is a ricochet, inflected, and microtonally high e-flat'''' at *piano* dynamic; m. 36 contains two, single-note microtones. The first is a microtonally high e'' at *fortissisimo* dynamic that de*crescendos* in less than ½ second to *forte*, and the second is a martelatto and microtonally low e''' at *pianissisimo* dynamic; m. 37 contains two, single-note microtones. The first is a microtonally high f'''' at *mezzo forte* dynamic, and the second is a ricochet, microtonally high b''' at *mezzo forte* dynamic; m. 38-39, a microtonally low d-flat' at *pianissisimo* dynamic that *crescendos* over approximately 2 ½ seconds to *piano* dynamic; m. 39, a microtonally high f' at *fortissisimo* dynamic; m. 40 contains two, single-note microtones. The first is a *sul ponticello*, microtonally low c-sharp' at *mezzo forte* dynamic, and the second is a microtonally low f-sharp'' at *fortissisimo* dynamic; m. 41 contains four, single-note microtones. The first is a microtonally low d' at *fortissimo* dynamic that de*crescendos* in less than ½ second to *mezzo forte*. The second is a microtonally low e' at *fortissisimo* dynamic. The third is a microtonally high c-sharp''''' at *fortissimo* dynamic, and the fourth is a microtonally low c-sharp'''' at *fortissimo* dynamic; m. 42 contains three, single-note microtones. The first is a microtonally high b'''' at *forte* that de*crescendos* in less than ½ second to *pianissisimo* dynamic. The second, and subsequent third occurance is a martelatto and microtonally low c-sharp''' at *mezzo forte* dynamic that de*crescendos* over approximately ½ second to a micronally high e'' at *mezzo piano*, and further *crescendos* in less than ½ second to *fortissisimo* dynamic; m. 43 contains two, single-note microtones. They are a microtonally high c' at *piano* dynamic that *crescendos* in less than ½ second to a g' at *mezzo forte* dynamic; m. 46, a microtonally high grace note, c''''; m. 52-56, a microtonally high b''' at *piano* dynamic; m. 57-59, a microtonally high d' at *mezzo piano* dynamic; m. 60, a microtonally high e-flat'' at *pianissisimo* dynamic that *crescendos* over approximately 1 second to a minor third at *fortissimo* dynamic; m. 62, a *sul tasto*, microtonally low g-flat' at *mezzo piano* dynamic; m. 64, a microtonally high c-sharp'''' at *pianissisimo* dynamic; m. 65, a microtonally low d-sharp'''' at *piano* dynamic that *crescendos* in less than ½ second to *fortissimo* dynamic; m. 65-66, a microtonally high b at *mezzo forte* dynamic that *crescendos* for approximately 3 seconds to *fortissimo* dynamic; m. 66, a microtonally low g-sharp at *pianissimo* dynamic; m. 71, a *sul tasto*, microtonally low d-sharp' at *mezzo piano* dynamic; m. 72, a *sul ponticello*, microtonally high f''' at *fortissisimo* dynamic; m. 73 contains two, single-note microtones. The first is a *sul ponticello* and microtonally low f''' at *mezzo forte*, and the second is a *sul ponticello*, microtonally high b-flat at *mezzo forte* that de*crescendos* over approximately 1 second to *pianissimo* dynamic; m. 74, a microtonally low b-flat at *piano* dynamic that *crescendos* in less than ½ second to *mezzo forte* dyanamic; m. 76, a microtonal high e'' at *mezzo forte* dynamic; m. 76-77 contains two, single-note microtones. They are a microtonally low a' at *forte* dynamic that de*crescendos* over approximately 4 seconds to a microtonally high b at

mezzo piano dynamic that further de*crescendos* in less than ½ second to a *sul tasto* f'' at *pianississimo* dynamic; m. 77-78, a microtonally high b'' at *fortissimo* dynamic; m. 78, a microtonally low g-sharp at *fortissimo* dynamic that de*crescendos* over approximately 4 seconds to a 4-note chord at *piano* dynamic; and m. 81, a microtonally low e-flat'' at *pianississimo* dynamic.

Microtones that occur within double-stops (does not include harmonics): m. 13, a microtonally high perfect fifth, a-e', at *mezzo forte* dynamic; m. 15, a *sul tasto*, major tenth, c'''-microtonally high c-sharp'''', at *forte* harmonic; m. 16 contains three double-stops that contain microtones. The first is a minor seventh, a microtonally low c''-microtonally high b-flat'', at *fortissimo* dynamic. The second is a microtonally high major second, b-flat''-c''', at *fortissisimo* dynamic, and the third is a *sul ponticello* major second, a microtonally high e'''-f-sharp''', at *fortissimo* dynamic; m. 17 has four double-stops that contain microtones. The first two are a *sul tasto*, minor tenth, a microtonally low b-flat-d-flat'', at *mezzo forte* dynamic that *crescendos* in less than ½ second to a microtonally low tritone, c'-g-flat' at *forte* dynamic. The third is a *sul ponticello* perfect fourth, d-flat''-microtonally low g-flat''' at *fortissimo* dynamic, and the fourth is a minor tenth, a microtonally low b-flat'-d-flat'', at *piano* dynamic; m. 36, a microtonally low minor tenth, f-sharp'''-a''', at *pianississimo* dynamic; m. 37, a unison double-stop that is made up of two harmonics, a microtonally low, perfect fourth harmonic, with the resultant pitch e''', and a natural harmonic, the ??? node on the E-string, with the resultant pitch, e'''. This unison double-stop also has the indication to play slightly out of tune ("beating"); m. 45, a microtonally high major sixth (diminished seventh), a-g-flat', at *mezzo piano* dynamic; m. 61 has two double-stops that contain microtones. They are a microtonally high minor third, b-flat'''-d-flat'''', at *fortissimo* dynamic that de*crescendos* over approximately 3 seconds to a *sul tasto* and microtonally low g-flat at *mezzo piano* dynamic; m. 64 has two double-stops that contain microtones. The first is a *sul tasto* tritone, b-flat-microtonally low e', at *fortissimo* dynamic that *crescendos* over approximately ¼ second, then immediately drops in volume to *mezzo forte*. The second is a minor second, a microtonally low g-sharp''''-a'''' at *fortissisimo* that de*crescendos* in less than ½ second to a microtonally high c-sharp'''' at *pianississimo* dynamic; and m. 67, a minor seventh, a microtonally low e''-microtonally high d''', at *mezzo forte* dynamic that *crescendos* over approximately 1 second to a 4-note chord at *forte* dynamic.

Microtones that occur within chords (does not include harmonics): m. 16, a 4-note chord containing the pitches, microtonally low e'', c''', microtonally high e''', and microtonally high g'''', at *fortissimo* dynamic; m. 18, a 3-note chord containing the pitches, microtonally high d', microtonally b', and b-flat'', at *fortissisimo* dynamic; m. 20, a *sul tasto*, 4-note chord containing the pitches, microtonally high g-sharp', microtonally high f'', e''', and microtonally low g-sharp''', at *mezzo piano* dynamic; m. 36, a *col legno*, 4-note chord containing the pitches, b'', microtonally high c''', microtonally low e''', and d''''', at *fortissisimo* dynamic; m. 40, a 4-note chord containing the pitches, microtonally low g-sharp', d'', c''', and microtonally high f-sharp''', at *mezzo piano* dynamic; m. 41, a 3-note chord containing the pitches, microtonally high e-flat''', a''', microtonally high g'''', at *forte* dynamic; m. 67, a 4-note chord, consisting of the notes, microtonally low b-flat', microtonally low g-

flat'', microtonally high e''', and microtonally low f''', at *forte* dynamic that de*crescendos* over approximately 2 seconds to *pianissimo* dynamic; m. 74, a *sul tasto*, microtonally low, 3-note chord consisting of the pitches, e'', d-sharp''', and c'''', at *fortissimo* dynamic; and in m. 80, a *sul ponticello*, 4-note chord consisting of the pitches, microtonally high g-sharp', f-sharp'', microtonally low c''', and b''', at *piano* dynamic.

- Trills

☑ Vibrato

The indication to vibrato specific, single notes occur in measures 16 and 35. Measure 16 is a microtonally high e''' at *mezzo piano* dynamic, and measure 35 is an a-sharp at *fortissimo* dynamic.

☑ Combined effects

Combined effects within "gliss" category (inflections): m. 1-2, the perfect fourth harmonic with the resultant tone, b-flat'''', is combined with the harmonic; m. 15, the microtonally low b''' is combined with the microtone; m. 17-18, the microtonally low b-flat' is combined with the microtone; m. 30, the microtonally low c''''' is combined with the microtone and sul ponticello; and in m. 35, the microtonally high d-flat'''' is combined with the microtone.

Combined effects that occur in the "harmonics" category:

1) **Perfect fourth harmonics that are combined with the flattened microtone occur in** m. 20, the perfect fourth harmonic with the resultant pitch, a'''', and the perfect fourth harmonic with the resultant pitch, b-flat'''; and in m. 41, the perfect fourth harmonic with the resultant pitch, g-sharp''''.
2) **Perfect fourth harmonics that are combined with the sharpened microtone occur in** m. 25, the perfect fourth harmonic with the resultant pitch, a''''; m. 39, the perfect fourth harmonic with the resultant pitch, c'''; and in m. 73, the perfect fourth harmonic with the resultant pitch, b'''.
3) **Perfect fifth harmonics that are combined with the flattened microtone occur in** m. 17, the perfect fifth harmonic with the resultant pitch, c'''; and in m. 41, the perfect fifth harmonic with the resultant pitch, e''''.
4) **Perfect fifth harmonics that are combined with the sharpened microtone occur in** m. 8, the perfect fifth harmonic with the resultant pitch, d''''; and in m. 12, the perfect fifth harmonic with the resultant pitch, c-sharp''''.
5) **Other:** In m. 14, the unison double-stop, microtonally low e'''-e''', is combined with the microtone; in m. 31, the perfect fifth harmonic with the resultant pitch, f''', is combined with the inflection; and in m. 51,the perfect fifth harmonic with the resultant pitch, g-flat'', is contained within a 3-note chord.

Combined effects that occur in the "high positions" category (based on fingerings devised by the author): m. 12 has two different combinations that

involve the high positions. The first is the microtonally low f’’’. It combines the microtone, *sul ponticello*, and the 17th position. The second is the microtonally high d’’’’. It combines the microtone and the 18th position; m. 15 has four different combined events. The first is the microtonally high g-sharp’’’, and it combines the microtone and the 8th position. The second is the microtonally low and inflected b’’’, and it combines the microtone, inflection, and the 8th position. The third is the microtonally high c-sharp’’’’’, and it combines the microtone and the 16th position. The fourth is the major tenth double-stop, a’’’-microtonally high c-sharp’’’’’, and it combines the microtone, *sul tasto*, and the 16th position; m. 16 has six separate combined events. The first is the microtonally low c’’, and it combines the microtone and the 9th position. The second is the minor seventh double-stop, microtonally low c’’-microtonally high b-flat’’, and it combines the microtone and the 9th position. The third is the major second double-stop, microtonally high b-flat’’-c’’’, and it combines the microtone and the 9th position. The fourth is the 4 note chord containing the notes, microtonally low e’’, c’’’, microtonally high e’’’, amd microtonally high g’’’’, and it combines the microtone and the 13th position. The fifth is the microtonally high e’’’, and it combines the microtone, the indication to vibrato, and the 10th position. The sixth is a major second, microtonally high e’’’-f-sharp’’’, and it mbines the microtone, *sul ponticello*, and the tenth position; m. 17 has two separate combined events. The first is the e-flat’’’, and it combines *sul tasto* with the 11th position. The second is the e’’’’, and it combines the inflection and the 12th position; m. 20, the 4-note chord consisting of the notes, microtonally high g-sharp’, microtonally high f’’, e’’’, and microtonally low g-sharp’’’, combines the microtone, *sul tasto*, and the 8th position; m. 26, the minor seventh double-stop, c’’’-d’’’’, combines the *sul ponticello* and the 10th position; m. 27, the microtonally low c-sharp’’ on the G-string, combines the microtone and the 10th position; m. 30 has two separate combined events. The first is the microtonally low and inflected c’’’’’, and it combines the microtone, inflection, and the 17th position. The second is the inflected d’’’’’, and it combines the inflection and the 17th position; m. 34, the f’’’’ combines the *pizzicato* and the 12th position; m. 35 has two separate combined events. The first is the microtonally low f’’’’, and it combines the microtone and the 12th position. The second is the microtonally high and inflected d-flat’’’’, and it combines the microtone, inflection, ricochet, and the 11th position; m. 36 has three separate combined events. The first is the inflected c-sharp’’’, and it combines the inflection and the 8th position. The second is the microtonally low e’’’, and it combines the microtone and the 11th position. The third is the 4-note chord, containing the pitches, b’’, microtonally low c’’’, microtonally low e’’’, and d’’’’’, combines the microtone, *col legno*, and the 18th position; m. 37 has three separate combined events. The first is the microtonally high f’’’’, and it combines the microtone and the 12th position. The second is the b’’’, and it combines the microtone, ricochet, and the 12th position. The third is the unison double-stop, c’’’’’-c’’’’’, and it combines the indication to play slightly out of tune (“beating”), and the 22nd position. m. 41 has three separate combined events. The first is the microtonally high c-sharp’’’’’, and it combines the microtone and the 16th position. The second is the microtonally low c-sharp’’’’, and it combines the microtone and the 10th position. The third is the 3-note chord, containing the notes, microtonally high e-flat’’’, a’’, and microtonally high g’’’’, combines the microtone

and the 14th position; m. 42, the microtonally high b'''' combines the microtoe and the 15th position; m. 44, the b-flat''' combines the nail *pizzicato* and the 9th position; m. 46 has two separate combied events. The first is the grace note, a microtonally high c'''' that combines the microtone and the 9th position. The second is the minor third (augumented second), a-flat''-b'', and it combines *col legno* and the 8th position; m. 48, the a''' combines the *tremolo* and the 10th position; m. 52, the microtonally high b''' combines the microtone and the 8th position; m. 60, the microtonally high e-flat'' on the G-string, combines the microtone and the 11th position; m. 61, the minor third, microtonally high b-flat'''-d-flat'''' combines the microtone and the 12th position; m. 64 has two separate combined events. The first is the minor second, microtonally low g-sharp''''-a'''', and it combines the microtone and the 17th position. The second is the microtonally high c-sharp, and the combines the microtone and the 15th position; m. 65, the microtonally low d-sharp''' combines the microtone and the 13th position; m. 67 has two separate combined events. The first is the minor seventh, microtonally low e''-microtonally high d''', and itcombines the microtone and the 8th position. The second is the 4-note chord, consisting of the notes, microtonally low b-flat', microtonally low g-flat'', microtonally high e''', and microtonally low f''', and it combines the microtone and the 8th position; m. 72, the microtonally high f''' combines the microtone, *sul ponticello*, and the 8th position; m. the microtonally low f''' combines the microtone, *sul ponticello*, and the 9th position; m. 74, the microtonally low, 3-note chord, consisting of the notes, e'', d-sharp''', amd c'''', combines the microtone, *sul tasto*, and the 9th position; and in m. 80, the 4-note chord, consisting of the notes, microtonally high g-sharp', f-sharp'', microtonally low c''', and b''', combines the microtone and the 8th position.

Combined effects that occur in the category "single-note microtones": m. 8, the microtonally low b'' is combined with sul tasto, and the microtonally high, perfect fifth harmonic with the resultant pitch, d'''', is combined with the harmonic; m. 9, the microtonally high b-flat'' is combined with sul ponticello; m. 12, the microtonally high, perfect fifth harmonic with the resultant pitch, c-sharp'''', is combined with the harmonic, and the microtonally high f'''is combined with sul ponticello; m. 14, the unison double-stop, that contains the perfect fourth harmonic with the resultant pitch, microtonally low e''', is combined with the harmonic; m. 15, the microtonally low b''' is combined with the inflection; m. 17, the microtonally high g-sharp' is combined with sul tasto and martelatto; m. 30, the microtonally low c''''' is combined with the inflection ad sul ponticello, and the microtonally high g' is combined with sul tasto; m. 35, the microtonally high d-flat'''', is combined with the inflection and ricochet; m. 36, the microtonally low e''' is combined with martelatto; m. 37, the microtonally high b''' is combined with ricochet; m. 38-39, the microtonally low d-flat' is combined with sul ponticello; m. 40, the microtonally low c-sharp' is combined with sul ponticello; m. 42, the microtonally low c-sharp''' is combined with the martelatto; m. 62, the microtonally low g-flat' is combined with sul tasto; m. 71, the microtonally low d-sharp' is combined with sul tasto; m. 72, the microtonally high f''' is combined with sul ponticello, and in measure 73, the microtonally low f''' is combined with sul ponticello, and the microtonally high b-flat is combined with sul ponticello.

Combined effects in the category "microtones that occur in double-stops": m. 15, the major tenth, a'''-microtonally high c-sharp''''' is combined with sul tasto; m. 16, the major second, microtonally high e'''-f-sharp''' is combined with sul ponticello; m. 17, the minor tenth, microtonally low b-flat-d-flat'' is combined with sul tasto, and the perfect fourth, d-flat''-microtonally low g-flat''' is combined with sul ponticello; m. 61, the microtonally low g-flat is combined with sul tasto; and in m. 64, the tritone, b-flat-microtonally low e', is combined with sul tasto.

Combined effects in the category "microtones that occur in chords": m. 20, the 4-note chord, consisting of the pitches, microtonally high g-sharp, microtonally high f'', e''', and microtonally low g-sharp''', is combined with sul tasto; m. 36, the 4-note chord, consisting of the pitches, b'', microtonally high c''', microtonally low e''', and d''''' is combined with col legno; m. 51, the 3-note chord contains a perfect fifth harmonic with the resultant pitch, g-flat'', is combined with the harmonic; m. 74, the microtonally low, 3-note chord, consisting of the pitches, e'', d-sharp''', and c'''', is combined with sul tasto; and in m. 80, the 4-note chord, consisting of the pitches microtonally high g-sharp', f-sharp'', microtonally low c''', and b''', is combined with sul ponticello.

Combined effects that occur in the "vibrato" category: in m. 16, the microtonally high e''' is combined with the microtone.

Pizzicato---list and describe if necessary

- ☑ Right hand
  - ☑ Flesh/pad

    measure 34, a *pizzicato* f'''' is accompanied with the indication to "mute the other strings." (depress the GDA-strings with the first, three fingers of the left hand, and finger the f''' with the fourth finger

  - ☑ Fingernail

    measure 44, a *pizzicato* b''' is accompanied with the indication to use the fingernail, "nail"

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

- Fingernail

_____

_____

- Combination of flesh and fingernail

_____

_____

- Use of plectrum

_____

_____

Meter and Rhythm---list, describe, or place on a musical staff

- Changing meter

There is a different concept of meter and rhythm in these etudes. Below each staff, there are two lines, the bottom line marks the 'measures' and the top line marks the approximate point as to where the note is to be sounded. Cage writes that each measure is to last approximately 3 seconds, thus, one can describe this 'meter' as 3 seconds/measure. Within this time frame of three seconds, the violinist can determine his/her own 'rhythm', which will be based on the performers technical capabilities as well as Cage's intention (demonstrated by the top line) for the various notes to be sounded closer or further apart in time. This 'rhythm' is indicated by small, perpendicular lines that line up with the notes in question. All of the etudes are constructed in this manner

- Irregular Accents

_____

_____

- Cross Rhythms

_____

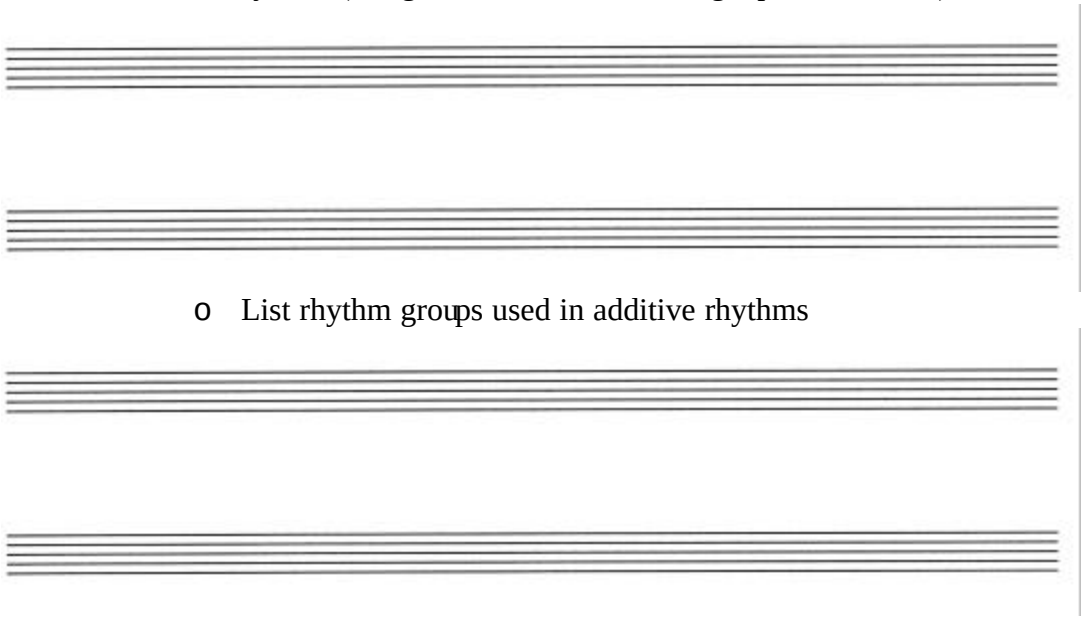
_____

- Contemporary Rhythm groups

_____

_____

- Additive Rhythms (use generic note-head or single pitch to notate)



  - List rhythm groups used in additive rhythms

Intervals

	Minor		**Major**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**
Unison	-	-	-	-	17	13.18
2nd	10	7.75	12	9.30	22	17.05
3rd	9	6.98	6	4.65	15	11.63
Perfect 4th	-	-	-	-	5	3.88
Tritone	-	-	-	-	5	3.88
Perfect 5th	-	-	-	-	10	7.75
6th	9	6.98	7	5.43	16	12.40
7th	8	6.20	11	8.53	19	14.73
Octave	-	-	-	-	5	3.88
9th	3	2.33	-	-	3	2.33
10th	4	3.10	2	1.55	6	4.65
11th	2	1.55	4	3.10	6	4.65

Total # of Intervals (including unisons)	129	
Total # and % of Tonal Intervals (3/6/8/10)	42	32.56%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	70	54.26%

NOTE: All percentages are rounded to the nearest hundredth

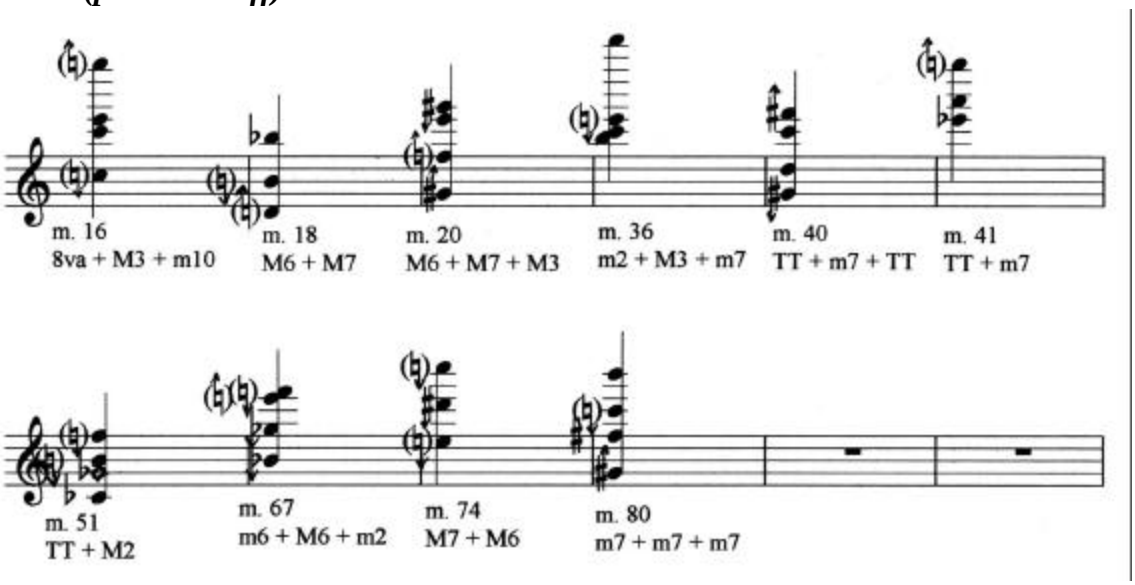
Double-Stops

	Minor		**Major**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**
Unison	-	-	-	-	1	4.76
2nd	1	4.76	3	14.29	4	19.05
3rd	3	14.29	-	-	3	14.29
Perfect 4th	-	-	-	-	2	9.52
Tritone	-	-	-	-	1	4.76
Perfect 5th	-	-	-	-	1	4.76
6th	1	4.76	1	4.76	2	9.52
7th	2	9.52	-	-	2	9.52
Octave	-	-	-	-	-	-
9th	1	4.76	-	-	1	4.76
10th	1	4.76	2	9.52	3	14.29
11th	-	-	1	4.76	1	4.76

Total # of Double-Stops (including unisons)	21	
Total # and % of Tonal Double-Stops (3/6/8/10)	8	38.10%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	13	61.90%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

Table of sudden dynamic changes.

Measure	**Sudden Dynamic Change(s)**	**Measure**	**Sudden Dynamic Change(s)**
1	mp-f-mf	36	f-ppp-f
2-6	ppp-ff-ppp-mf-pp-f-ppp	36-37	mp-ppp-fff-pp-mf-pp
6-8	fff-mf-pp	37	fff-mf-ppp
8	ff-mf	39	p-ff-mp-ff-fff
9	fff-ppp-fff-mp	40	mp-pp/mf-fff
9-10	ppp-ff-pp	41	p-f-/mf-fff-ff-mf
10-11	mf-f	42-43	ppp-mf-p
12-	fff-p	43-44-45-46	mp-fff-mf-mp-mf-mp-mf
12-13	fff-pp-ppp-mf	48-49	p-fff-p
14	ppp-ff	50-56	mf-f-p-ppp
15	mp-ppp-mf-mp	56-59	pp-mp-mf
15-16	f-ff-mp	60	f-ppp
16	mf-ff-fff	62-64	mp-p-ff
17	mp-p-ff-p	64	mf-f
18	mf-ff-fff-pp	64-65	ppp-p
19	mp-ff-fff	65	ff-mf
20	mp-ppp-f-mp	66-67	ff-pp-mf
21-22	mf-mp	68-73	pp-ppp-mp-fff-mf
22-23	pp-mf	73	pp-mp
25-26	ppp-mp-f-mp	74	mf-p/mf-ff
28	f-ff	76	pp-mf-f
30-31	ff-fff-pp-f-mp	77	ppp-ff
33	mf-mp-mf	80	p-ff
34-35	ppp-f	81	fff-ppp
35	pp-p-mf-fff-ff-fff		

Crescendos and Decrescendos that occur in less than one second, approximately less than 1.2 centimetes in length.

Size in cm.	Measure	Dynamic	Size	Measure	Dynamic
0.1	8	pp<ff	0.3	36	fff>f
	9	mp>ppp		39	fff>pp
	10	ppp<mf		64	ff<mf
	12	p<fff			f<fff
	15	mp<f			
	16	fff>ff	0.4	16	mp<mf
		ff>mp			
	17	pp<mf	0.5	8	mf>p
		mf<f			
		f>mf	0.6	30	mf<ff
		mf>mp			
	18-19	pp<mp	0.65	6	pp<fff
	36	f>mp			
	37	pp<fff	0.7	27-28	mp<f
	41	mf<f		28	ff>mp
	42	mp<fff		43	mf>mp
	64	fff>ppp			
	65	p<ff	0.8	42	mf>mp
	73	mp<mf		46-47	mf>p
	77	mf>ppp			
			0.9	17-18	p<mf
0.15	11-12	f<fff		40	pp<mf
0.2	35	f>pp	1.0	1-2	mf>ppp
	41	f<ff		60-61	ppp<ff
		ff>mf			
	43	p<mf			
	74	p<mf			

Crescendos and Decrescendos that occur between 1 and 2 seconds, approximately between 1.2 and 2.4 centimeters in length.

Size in cm.	Measure	Dynamic
1.2	14-15	ff>mp
	19-20	fff>mp
1.3	8-9	p<fff
	67	mf<f
1.5	22	mp>pp
	73	mf>pp
1.7	33-34	mf>ppp
2.3	20-21	mp<mf
2.4	56	ppp<pp

Crescendos and Decrescendos that occur between 2 and 3 seconds, approximately between 2.5 and 3.5 centimeters in length.

Size in cm.	Measure	Dynamic
2.5	13-14	mf>ppp
	80-81	ff<fff
2.6	67-68	f>pp
2.9	38-39	ppp<p
3.0	49-50	p<mf
3.2	61-62	ff>mp

Crescendos and Decrescendos that occur in over 3 seconds, more than 3.5 centimeters

Size	Measure	Dynamic
3.6	65-66	mf<ff
4.2	59-60	mf<f
4.5	76-77	f>mp
4.7	78-80	ff>p
4.9	23-25	mf>ppp

Mutes

- ☐ Yes
- ☑ No

Theatrical Effects

- ☐ Percussive effects (describe)

_____

_____

- ☐ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ☐ Yes
- ☑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: John Cage
Title of Etude Book: Freeman Etudes
Title of Etude: II
Year of Publication: 1980
Publisher: C. F. Peters

Placement of Bow---in relation to its proximity to the bridge and fingerboard

- ❑ Traditional (roughly between bridge and fingerboard)

- ❑ Sul ponticello (describe)

m. 12, microtonally low a'' at *piano* dynamic; m. 15, microtonally low and inflected b''' at *mezzo piano* dynamic; m. 39, c-flat', with an indication to vibrato at *pianissisimo* dynamic; m. 48, microtonally high, unison double-stop, b''-b'', that is indicated "beating," meaning to play slightly out of tune, a *pianissimo* dynamic; m. 56, microtonally low f-sharp'''' at *pianissisimo* dynamic; m. 75, microtonally high e-flat''' at *pianissisimo* dynamic; m. 79, minor sixth double-stop, c'''-a-flat''', at *fortissimo* dynamic; m. 81, microtonally low f-sharp'' that is played on the A-string with an indication to vibrato, at *forte* dynamic; m. 82, microtonally low e-flat''' at *mezzo piano* dynamic; m. 83, microtonally low e-flat' at *fortissisimo* dynamic; and m. 84, microtonally high d-flat'''' at *mezzo piano* dynamic.

- ❑ Sul tasto (describe)

m. 4, microtonally high f-sharp''' at *pianissisimo* dynamic; m. 49, microtonally low, unison double-stop, g''-g'' that is to be played slightly out of tune (beating), at *pianissisimo* dynamic; m. 77, microtonally high and inflected b-flat'''' at *pianissisimo* dynamic; m. 81, microtonally low minor sixth, f-sharp''-d'''; and m. 84, microtonally high d-flat'''' at *mezzo piano* dynamic.

- ❑ Describe any rapid changes between techniques

Rapid changes involving Sul Ponticello: m. 12, *sul ponticello*, microtonally low a''at *piano* dynamic, followed by a *normale* a at *pianissisimo* dynamic; m. 15, *sul ponticello*, microtonally low, inflected b''' at *mezzo piano* dynamic, followed by a *normale* c''''' at *pianissimo* dynamic; m. 39, *normale* a-flat'' at *pianissimo*, followed by a rapid diminuendo, at which point a *sul ponticello* e-flat' that has an indication to vibrato, is played at *pianissisimo* dynamic; m. 48 *normale g'* on the G-string at *pianissimo*, is followed by a *sul ponticello*, microtonally high, unison double-stop, b''-b'' that also has the indication to be played slightly out of tune (beating), at *pianissimo* dynamic; m. 75-76, *sul ponticello*, microtonally high e-flat''' at *pianissisimo* dynamic, quickly alternates back and forth in tremolo fashion, with a

normale, microtonally low e-flat''' at *pianissimo;* m.79, *normale* a-flat''' at *pianissisimo* dynamic is slurred into a *sul ponticello*, minor sixth double-stop, c'''-a-flat''', at *fortissimo* dynamic; m. 81, *normale*, microtonally high b at *forte* dynamic is followed by a *sul ponticello* f-sharp'' that also has an indication to vibrato, at *forte* dynamic; m. 82-83, *normale* c' at *pianissisimo* dynamic, is followed by a *sul ponticello* e-flat''' at *mezzo piano* dynamic, followed by a *normale*, perfect fourth harmonic that has the resultant pitch, d''''', at *mezzo forte* dynamic, followed by a *sul ponticello*, microtonally low e-flat' on the G-string, at *fortissisimo* dynamic; and m. 84, *sul ponticello*, microtonally high d-flat''''' at *mezzo piano* dynamic, is followed by a *normale*, microtonally low e' at *fortissimo* dynamic.

Rapid changes involving sul tasto: m. 4, *normale* g-sharp'' at *fortissimo* dynamic is followed by a *sul tasto* f-sharp''' at *pianissisimo* dynamic; m. 49, *normale* b'' at pianissisimo dynamic is followed by a *sul tasto*, microtonally low, unision double-stop, g''-g'' at *mezzo piano* dynamic; m. 76-77, *normale*, microtonally low d''''' at *mezzo forte* dynamic is followed by a *sul tasto*, microtonally high and inflected b-flat'''' , at *pianissisimo* dynamic, further followed by a *normal* a at *fortissimo* dynamic; and m. 84, *sul tasto* and microtonally high d-flat'''' at *mezzo piano* dynamic, is followed by a *normale* e' on the G-string, at *fortissimo* dynamic.

Use of bow---how the bow is drawn across the strings

- Traditional (détaché, spiccato, etc---list or describe)

Détaché, legato, martelatto, and spiccato

- Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc. Describe)

- Col legno (describe)

m. 25, g-sharp at *pianissisimo* dynamic; m. 33, microtonally low and inflected g'' on the G-string at *mezzo forte* dynamic; m. 35, f-sharp'''' at *pianissimo* dynamic; m. 43, unison double-stop, f''-f'', that is to be played slightly out of tune (beating), at *mezzo piano* dynamic; m. 70, microtonally high b-sharp at *pianissimo* dynamic; m. 74, g at *pianissimo* dynamic; m. 74 (again), c''' at *mezzo piano* dynamic; m. 76, c'' on the G-string at *pianissimo* dynamic; m. 76, (second time), e'' at *piano* dynamic; m. 76 (third time), inflected e'' that is on the A-string at *fortissimo* dynamic; m. 77, microtonally low, perfect fourth harmonic with the resultant tone, c'''', at *piano* dynamic; m. 80, major sixth double-stop, c'''-a'''' (a compound major sixth), at *forte* dynamic; m. 80 (second time), e' on the G-string at *mezzo forte* dynamic; m. 80 (third time), b at *pianissimo* dynamic; and measure 82, microtonally low e-flat''' on the A-string at *forte* dynamic.

- Tremolo (describe)

m. 9, microtonally high g at *piano* dynamic is sustained for approximately 2 seconds; m. 41, f-sharp''' at *pianissisimo* that *crescendos* for approximately 1 second to *mezzo piano*; m. 50, microtonally low d-flat' at *fortissisimo* dynamic, *diminuendos* over approximately 3 seconds to *pianissisimo*; m. 70, microtonally low c-sharp' at *piano* dynamic, *diminuendos* over approximately 1 second to *pianissimo*; m. 74, e-flat''' at *forte* dynamic, *diminuendos* to *mezzo piano* in less that 1 second.

- Describe any rapid changes between techniques

Rapid changes involving col legno: m. 25, *normale*, perfect fifth double-stop, d'-a', with the a' occurring as microtonally low, at *pianissimo* dynamic is followed by a *col legno* g-sharp at *pianissisimo* dynamic; m. 35, *normale*, a-flat'''' at *piano* dynamic that *diminuendos* to a *col legno* f-sharp'''' at *pianissimo* dynamic, that further *diminuendos* to a *normale*, microtonally high g at *pianissisimo* dynamic; m. 74, a *col legno* g at *pianissimo* dynamic, *crescendos* while alternating back and forth, in *tremolo* fashion, with a *normale*, perfect fourth harmonic, with the resultant tone of e-flat'''. This *tremolo* g-e-flat''' is further followed by a *tremolo* e-flat''' at *forte* dynamic that quickly *diminuendos* to a *normale*, microtonally low f'' at *mezzo piano* dynamic, and followed by a *col legno* d''' at *mezzo piano* dynamic; m. 76-77; *col legno* and inflected e'' on the A-string at *mezzo forte* dynamic, followed by a normale, microtonally low d''''' at *mezzo forte* dynamic, followed by a *sul tasto*, microtonally high and inflected b-flat at *pianissisimo* dynamic, followed by a *normale* a at *fortissimo* dynamic, followed by a *col legno*, microtonally low, perfect fourth harmonic with the resultant tone, c'''', at *piano* dynamic, followed by a *normale*, microtonally low, perfect fourth harmonic with the resultant tone, b-flat''', at *piano* dynamic; m. 80-81, *col legno* b at *pianissimo* dynamic that *crescendos* to a *normale*, natural harmonic (the 1/3 node on the E-string), with the resultant tone, e'''', at *fortissimo* dynamic; and m. 82, *col legno* and microtonally low e-flat''' on the A-string at *forte* dynamic that quickly *diminuendos* to a *normale* c' at *pianissisimo* dynamic.

Rapid changes involving tremolo: m. 8-9, a *normale* e'' at *piano* dynamic *crescendos* over approximately 2 seconds to *fortissisimo*, at which point a microtonally high g is *tremolo* at *piano* dynamic; m. 41, a *tremolo* and microtonally low f-sharp''' at *pianissisimo* dynamic *crescendos* to a *normale* tritone double-stop, c'-f-sharp' at *mezzo piano* dynamic (c' is microtonally low and f-sharp' is microtonally high); m. 74, *tremolo* e-flat''' at *forte* dynamic rapidly *diminuendos* in less than 1 second to a *normale* and microtonally low f'' at *mezzo piano*.

Left hand use---in each instance, list and describe

- Glissando

Contains no glissando, but does contain inflections of pitch: m. 13, microtonally high g''' that quickly bends downward and upward in pitch; m. 15, microtonally low

b’’’ that bends downward and upward in pitch; m. 33, microtonally lows g’’ that first bends upward, then downward, then comes to rest on the original pitch; m. 72, microtonally high b-sharp, that is first sustained, then bends downward, then upward in pitch; m. 73, b’’ that begins by sustaining its pitch, then lowers its pitch; m. 75, a perfect fourth harmonic with the resultant tone, d’’’’’, that first sustains its pitch, then bends downward followed by an upward bend in pitch; m. 76, d’’’’ first sustains its pitch, then bends below followed by an upward bend in pitch; m. 76, e’’ that quickly bends downward then upward in pitch; and m. 77, microtonally high b-flat quickly bends downward then upward in pitch.

- Harmonics

Natural harmonics: m. 23, m. 36, m. and m. 81.
Major third harmonics: m. 39 with the resultant tone, c’’’’’; m. 75, with the resultant tone, d’’’’’; and m. 83, with the resultant tone, d’’’’’.
Perfect fourth harmonics: m. 9-10, resultant tone, b’’’’; m. 22, resultant tone, f’’’’; m. 47, resultant tone, b-flat’’’’; m. 49, resultant tone, g’’’’; m. 53, resultant tone, g-sharp’’’’; m. 60, microtonally high resultant tone, b-flat’’’’; m. 73, resultant tone, a’’’’; m. 77, microtonally low resultant tone, c’’’’, and a microtonally low resultant tone, b-flat’’’; m. 81, microtonally low resultant tone, a-flat’’’’; and m. 84, microtonally low resultant tone, d-flat’’’’.
Perfect fifth harmonics: m. 17, resultant tone, e’’; m. 36, microtonally high resultant tone, a’’’; m. 37, microtonally low resultant tone, d’’’; m. 53, microtonally high resultant tone, f-sharp’’’; and m. 63, resultant tone, e’’.

- High positions (past 7th position)

m. 5, 11th and 12th positions; m. 6, 12th position; m. 15, 9th, 11th, and 16th positions; m. 18, 17th position; m. 19, 16th position; m. 31, 8th position; m. 32, 14th position; m. 33, 14th position; m. 35, 13th and 14th position; m. 40, 11th and 12th position; m. 41, 11th position; m. 42, 9th position; m. 43, 9th and 10th positions; m. 47, 11th position; m. 49, 8th position; m. 52, 9th and 10th positions; m. 55, 10th and 17th positions; m. 76-77, 10th, 17th, and 18th positions; m. 79-80, 8th, 9th, and 14th positions; m. 82, 10th position; m. 83, 11th position; and m. 84, 18th position.

- Microtones

Microtones that occur as single notes: m. 4, microtonally low c-sharp’’’, microtonally high g-sharp’’, microtonally high f-sharp’’’, and microtonally high d’; m. 6, microtonally low b;, m. 9, microtonally high g; m. 11, microtonally high f’; m. 12, microtonally low a’’; m. 13, microtonally high g’’’, and a microtonally low e-flat’’’; m. 18, microtonally high f’’, and a microtonally high c’’’’’; m. 22, microtonally high a;, m. 29, microtonally high f-sharp’; m. 30, microtonally low e-flat’’’, and a microtonally low g-flat’’; m. 33, microtonally low and inflected g’’, and a microtonally high a’’’’; m. 35, microtonally high g; m. 39, microtonally high a’’; m. 40, microtonally high c-sharp’’, and a microtonally high f-sharp’’; m. 41,

microtonally low f-sharp'''; m. 42, microtonally low c'''; m. 43, microtonally low e-flat'''; m. 45, microtonally low b, and a microtonally low d-sharp''; m. 46, microtonally high a-sharp' and a microtonally high e-sharp''; m. 47, microtonally low f'', a microtonally high e''', and a microtonally low d'; m. 49, microtonally low c'; m. 50, microtonally low d-flat'; m. 52, microtonally low b''', a microtonally low g''', and a microtonally high c-sharp'''; m. 53, microtonally high e-sharp''' and a microtonally high b; m. 55, microtonally low d''''''; m. 56, microtonally low f-sharp''''; m. 59, microtonally high a; m. 67-68, microtonally high e''; m. 70, microtonally low c-sharp' and a microtonally high b-sharp; m. 74, microtonally low f''; m. 74-75, microtonally low b-flat''; m. 75, microtonally high e-flat''' and a microtonally low e-flat'''; m. 76, microtonally low d''''''; m. 77, microtonally high and inflected b-flat'''', a microtonally low f-flat', and a microtonally low, perfect fourth harmonic, with the resultant pitch, c''''; m. 81, microtonally high b-flat, a microtonally low f-sharp'', and a microtonally low g'; m. 82 has two, microtonally low e-flats'''; m. 83, microtonally low e-flat'; and m. 84, microtonally high d-flat''''' and a microtonally low e'.

Microtones that occur within double-stops: m. 25, microtonally low, perfect fifth, d'-a'; m. 41, a tritione that contains a microtonally low c' and a microtonally high f-sharp'; m. 43, a *col legno*, unison double-stop, f''-f'', with the indication, "beating," which means to play the double-stop slightly out of tune; m. 48, a *sul ponticello*, microtonally high, unison double-stop, b''-b'', with the indication, "beating"; m. 49, a *sul ponticello*, microtonally low, unison double-stop, g''-g'', with the indication, "beating"; m. 49 (again), a perfect fourth, made up of a microtonally high e-flat''' and an a-flat'''; m. 63, unison double-stop, f-sharp''-f-sharp'', with the indication, "beating"; m. 75, microtonally low, minor ninth double-stop, a'-b-flat''; m. 78, a tritone made up of a microtonally low f-flat' and a b-flat'; and m. 81, microtonally low, minor sixth, f-sharp''-d'''.

Microtones that occur within chords: m. 5, the first chord, a 4-note chord, contains the notes, microtonally low b-flat, a'-microtonally high c'', and microtonally low c-sharp'''. Also in m. 5, the second chord, a 3-note chord, contains the notes, d'-microtonally low e-flat''', and microtonally low e-flat''''; m. 23 contains one chord, a 3-note chord consisting of the notes, g-microtonally high f-sharp', and microtonally high a-sharp'; and m. 47, contains one chord, a 4-note chord consisting of the notes, e-flat'', microtonally low a'', microtonally high a''', and d''''.

- Trills

- Vibrato

Indications to vibrato occur on single notes only. They occur in m. 39 on a *sul ponticello* e-flat'; m. 53 on a perfect fourth harmonic with the resultant tone, g-sharp''''; m. 61 on an f'', m. 69 on an f-sharp'''; m. 77 on a microtonally low, perfect fourth harmonic with the resultant tone, b-flat''', and a microtonally low f-flat'; m. 81 on a *sul ponticello*, microtonally low f-sharp''; and in m. 82 on a d'.

- Combined effects

Combined effects within "gliss" category: m. 13, microtone is combined with inflection on the note, g'''; m. 15, *sul ponticello*, microtone, and inflection on the note, b'''; m. 33, *col legno* is combined with the microtone and inflection on the note, g''; m. 72, *col legno* is combined with the microtone and inflection on the note, b-sharp; m. 75, the major third harmonic, with the resultant tone, d''''', is combined with the inflection; m. 76, the high position (10th) is combined with the inflection on the note, d''''; m. 77, *sul tasto*, the microtone, and the high position (17th) is combined with the inflection on the note, b-flat''''.

Combined effects that occur in the "harmonics" category: m. 36, the perfect fifth harmonic, with the resultant tone, a''', is combined with the microtone; m. 37, the perfect fifth harmonic, with the resultant tone, d''', is combined with the microtone; m. 53 has two separate, combined events. The first, a perfect fourth harmonic with the resultant tone g-sharp''', is combined with the indication to vibrato. The second, the perfect fifth harmonic with a resultant tone, f-sharp'''', is combined with the microtone; m. 60, the perfect fourth harmonic with the resultant tone, b-flat'''', is combined with the microtone; m. 77 has two separate, combined events. The first, a perfect fourth harmonic with the resultant tone, c'''', is combined with both *col legno* and the microtone. The second, a perfect fourth harmonic with the resultant tone, b-flat''', is combined with the microtone and the indication to vibrato; m. 81, the perfect fourth harmonic with the resultant tone, a-flat'''', is combined with *sul tasto* and the microtone; and m. 84, the perfect fourth harmonic, with the resultant tone, d-flat'''', is combined with *sul tasto* and the microtone.

Combined effects that occur in the "high positions" category: m. 5, the 3-note chord, d'-microtonally low e-flat'''-microtonally low e-flat'''', combines the microtone with the 12th positions; m. 6, the f'''' combines *pizzicato* with the 12th position; m. 15, the microtonally low b''' combines the microtone, inflection, and *sul ponticello* with the 9th position. Also in m. 15, the c''''' combines the inflection with the 16th position; m. 18, the microtonally high c''''' combines the microtone, *martellato*, and the 17th position; m. 19, the b-flat'' combines the *martellato* and the 16th position; m. 33, the microtonally low g'' (on the G-string) combines the microtone, inflection, *col legno* and the 14th position. Also in m. 33, the microtonally high a'''' combines the microtone and the 14th position; m. 35, the f-sharp'''' combines the *col legno* and the 13th position; m. 40, the microtonally high f-sharp'' (on the G-string) combines the microtone and the 12th position; m. 41, the d'''' combines the *martellato* and the 11th position. Also in m. 41, the microtonally low f-sharp''' combines the microtone, *tremolo*, and the 11th position; m. 42, the microtonally low c'''combines the microtone and the 9th position; m. 47, the 4-note chord, e-flat''-microtonally low a''-microtonally high a'''-d'''', combines the microtone with the 11th position; m. 49, the perfect fourth double-stop, microtonally high e-flat'''-a-flat''', combines the microtone and the 9th position; m. 52, the microtonally low b''' combines the microtone and the 9th position. Also in m. 52, the microtonally low g''' combines the microtone with the 10th position; m. 55, the microtonally low d''''' combines the microtone and the 17th position; m. 56 the

microtonally low f-sharp'''' combines the microtone and *sul ponticello* with the 17th position; m. 76 has 5 events that are combined with the high positions: 1) the microtonally low e-flat''' is combined with the microtone and the 10th position. 2) the d'''' is combined with the inflection and the 10th position. 3) and 4) the c'' and e'' (both on the G-string) combine *col legno* with the 10th position, and 5) the microtonally low d''''' is combined with the microtone and the 18th position; m. 77, the microtonally high b-flat'''' combines the microtone, inflection, and *sul tasto* with the 17th position; m. 79, the minor sixth double-stop, c'''-a-flat''', combines *sul ponticello* with the 9th position; m. 80, the compound, major sixth (major 17th) is combineds the *col legno* and *martellato*, with the 14th position; m. 82, the microtonally low e-flat''' is combines the microtone and *col legno* with the 10th position; m. 83, the d-flat''' combines the *martellato* with the 11th position; and m. 84, the microtonally high d-flat''''' is combined with the microtone and the 18th position.

Combined effects that occur in the category "single-note microtones": m. 4, the f-sharp''' combines the microtone and *sul tasto*; m. 9, the g combines the microtone and the tremolo; m. 12, the a'' combines the microtone and *sul ponticello*; m. 13, the g''' combines the microtone and the inflection; m. 18, the c''''' combines the microtone and the *martelatto*; m. 33, the g'', combines the microtone, inflection, and *col legno*; m. 41, the f-sharp''', combines the microtone and the *tremolo*; m. 45, the d-sharp'' combines the microtone and the *martelatto*; m. 50, the d-flat' combines the microtone, *tremolo*, and *martelatto*; m. 56, the f-sharp'''' combines the microtone and *sul ponticello*; m. 67-68, the e'' is combined with the microtone and a left-hand tremolo to g-sharp'; m. 70, the c-sharp' combines the microtone and *tremolo*; also in m. 70, the b-sharp combines the microtone and *martelatto*; m. 75, the b-flat'' combines the microtone and a left-hand tremolo to e-flat'''; m. 75, the e-flat''' is combined with the microtone and *sul ponticello* as it displays left-hand *tremolo* between the *sul ponticello*, microtonally high e-flat''' and a *normale*, microtonally low e-flat'''; m. 77, the b-flat'''' is combined with the microtone, inflection and *sul tasto*; m. 77 also contains a f-flat' that combines the microtone and an indication to vibrato; m. 81, the f-sharp'' combines the microtone, an indication to vibrato, and *sul ponticello*; m. 82, the first e-flat''' combines the microtone and *col legno*. The second e-flat''' combines the microtone and *sul ponticello*; m. 83, the e-flat' combines the microtone and *sul ponticello*; and in m. 84, the d-flat''''' combines the microtone and *sul ponticello*.

Combined effects in the category "microtones that occur in double-stops": m. 43, a unison f''-f'', is combined with the indication, "beating," and *col legno*; m. 48, a microtonally high b'' is combined with *sul ponticello*; m. 49, a microtonally low, unison g''-g'' is combined with the indication, "beating," and *sul tasto*; and m. 81, a microtonally low, minor sixth is combined with *sul tasto.*

Combined effects in the category "microtones that occur in chords": m. 47, the following 4-note chord combines the high position, 11th position, with the following notes: e-flat'', microtonally low a'', microtonally high a''', and d''''.

Combined effects that occur in the "vibrato" category: m. 39, on the e-flat', *sul ponticello* is combined with the indication to vibrato; m. 53, the perfect fourth harmonic, with the resultant tone, g-sharp'''', is combined with the indication to

vibrato; m. 77, the microtonally low, perfect fourth harmonic, with the resultant tone, b-flat’’’, is combined with the indication to vibrato; and m. 81, the microtonally low f-sharp’’ is combined with the indication to vibrato.

Pizzicato---list and describe if necessary

- Right hand
  - Flesh/pad

    There is only one instance of pizzicato in measure 6. This *pizzicato* f’’’’is marked “damped near finger,” with an additional note that the f’’’’ can be substituted for plucking the E-string behind the bridge. One can either quickly damp or muffle the f’’’’ with the first finger of the right hand after plucking, or one can simple pluck the E-string behind the bridge.

  - Fingernail

    _____

    _____

  - Combination of flesh and fingernail

    _____

    _____

  - Use of plectrum

    _____

    _____

- Left hand
  - Flesh/pad

    _____

    _____

  - Fingernail

    _____

    _____

  - Combination of flesh and fingernail

    _____

    _____

  - Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing meter

The concept of rhythm and meter for all the *Freeman Etudes* is described in the "Meter and Rhythm" category of the Content Analysis Form of Etude I.

- ❑ Irregular Accents

_____

_____

- ❑ Cross Rhythms

_____

_____

- ❑ Contemporary Rhythm groups

_____

_____

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)

  - o List rhythm groups used in additive rhythms

Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	4	3.20	-	-	4	3.20
2nd	8	6.40	12	9.60	20	16.00
3rd	9	7.20	10	8.00	19	15.20
Perfect 4th	-	-	-	-	10	8.00
Tritone	-	-	-	-	5	4.00
Perfect 5th	-	-	-	-	11	8.80
6th	12	9.60	9	7.20	21	16.80
7th	11	8.80	11	8.80	22	17.60
Octave	-	-	-	-	2	1.60
9th	5	4.00	1	0.80	6	4.80
10th	-	-	3	2.40	3	2.40
11th	-	-	2	1.60	2	1.60

Total # of Intervals (including unisons)	125	
Total # and % of Tonal Intervals (3/6/8/10)	45	36.00%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	76	60.80%

NOTE: All percentages are rounded to the nearest hundredth

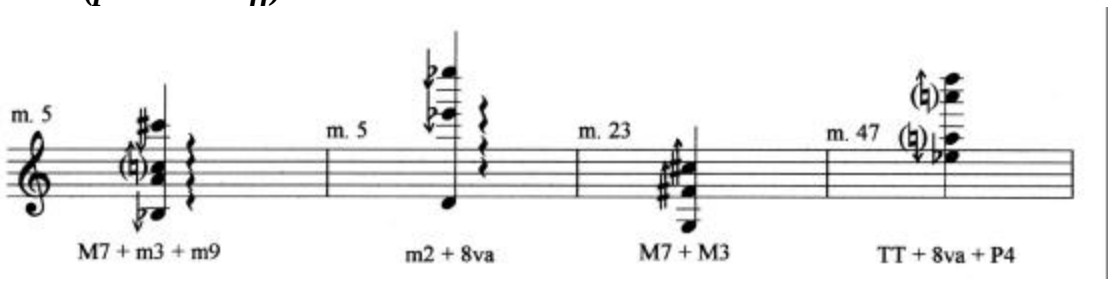
Double-Stops

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	4	26.67
2nd	-	-	-	-	-	-
3rd	1	6.67	-	-	1	6.67
Perfect 4th	-	-	-	-	-	-
Tritone	-	-	-	-	2	13.33
Perfect 5th	-	-	-	-	2	13.33
6th	2	13.33	1	6.67	3	20.00
7th	-	-	-	-	-	-
Octave	-	-	-	-	1	6.67
9th	1	6.67	1	6.67	2	13.33
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	15	
Total # and % of Tonal Double-Stops (3/6/8/10)	5	33.33%
Total # and % of Contemporary (2/4/TT/5/7/9/11) Double-Stops (Unison/2/4/TT/5/7/9/11)	10	66.67%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

Table of sudden dynamic changes

Measure	**Sudden Dynamic Change(s)**	**Measure**	**Sudden Dynamic Change(s)**
4	ff-ppp-mp-ppp	46-47	pp-fff
5-8	p-mp-f-mp-p	47	pp-fff
8-9	fff-p-mf	47-48	mf-pp
10-11	ff-mp	49	mp-ppp-mp
12-15	p-ppp-p-fff-p-mp-pp	51-52	ppp-ff
15-17	fff-f-ppp-ff	52-53	mp-f-fff
18	f-mf	53	pp-ppp
19	ppp-mf	53-55	mp-mf-mp
21-22	fff-p-mf	60-61	fff-f
23-25	pp-mp-pp-ppp	61-63	p-f
26-28	fff-p	64-70	pp-mp-p
29-30	f-ff-ppp	73	mf-ff
30-32	mf-ff-ff-mf	74	mp-ff
36-37	p-ff-ppp-pp	74-75	p-ff
40	mp-f	75-79	ppp-pp-p-ff-mf-ppp-ff-p-fff-ppp-ff
40-41	mf-p	80	f-mf
41	ff-ppp	81	f-ppp
43	mf-fff-ff-mp	81-82	mp-ff-mf-p
45	mp-ppp	82-83	ppp-mp-mf-fff-pp
46	fff-ff	84	ppp-mp-ff
46	pp-mf		

Crescendos and Decrescendos that occur in less than one second, approximately less than 1.2 centimetes in length.

Size in cm.	Measure	Dynamic	Size in cm.	Measure	Dynamic
0.1	30	ppp<mf	0.5	15	pp<fff
	35	pp>ppp		23	mp>pp
	39	mp>pp		35	p>pp
	39	pp>ppp		52	ff>mp
	45-46	ppp<fff			
	47	fff>pp	0.55	41	p<ff
	47	f>mf			
	53	ppp<mf	0.6	53	fff>pp
	53	mf>mp	0.7	22-23	mf>mp
	74	f>mp		46	mf>pp
	74-75	ff>p			
	81	ff>f	0.8	61	f>p
	81	ppp<mp		63-64	fff>pp
	82	f>ppp		70	p>pp
	84	ff<fff		80	mp>pp
0.2	47	ppp<f	0.9	42-23	mp<mf
	48	pp<mp			
	75	ff>f	1.0	46	ff>pp
				63	f<fff
0.25	40	f>mf		74	pp<f
	59	ppp<mp			
			1.1	73-74	ff>pp
0.3	41	ppp<mp		82	p<f
0.4	39-40	ppp<mp			
	80-81	pp<ff			

Crescendos and Decrescendos that occur between 1 and 2 seconds, approximately between 1.2 and 2.4 centimeters in length.

Size in cm.	Measure	Dynamic
1.2	8	p<fff
	18-19	mf>ppp
	35-36	ppp<p
1.4	49	mp<f
1.5	17-18	ff>f
1.6	75	f>ppp
2.0	4-5	ppp<p
	11-12	mp>p
	50-51	fff>ppp
2.1	33	mf>mp
	83-84	pp>ppp
2.4	59-60	mp<fff

Crescendos and Decrescendos that occur between 2 and 3 seconds, approximately between 2.5 and 3.5 centimenters

Size in cm.	Measure	Dynamic
2.5	28-29	p<f
2.6	25-26	ppp<fff
	55-56	mp>ppp
2.7	19-20	mf>mp
3.0	79-80	ff>f
3.2	72-73	f>mf
3.3	49-50	f<fff
3.4	9-10	mf<ff

Crescendos and Decrescendos that occur in over 3 seconds, more than 3.5 centimeters

More than 3 seconds (more than 3.5 centimeters)		
Size in cm.	Measure	Dynamic
4.1	20-21	mp<fff
5.8	37-39	pp<mp
5.9	33-35	mp>p
6.1	70-72	pp<f
10.8	1-4	f<ff

Mutes

- ☑ Yes
- ❑ No

Theatrical Effects

- ❑ Percussive effects (describe)

_____

_____

- ❑ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ☑ Yes
- ❑ No

APPENDIX H

CONTENT ANALYSIS FORMS FOR MEADOWMOUNTETUDES BY SAMUEL ADLER

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Samuel Adler
Title of Etude Book: Meadowmountetudes: Four Studies of 20th Century Techniques for Solo Violin
Title of Etude: I. Irregular Meters
Year of Publication: 1996
Publisher: Theodore Presser

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

_____

_____

❑ Sul tasto (describe)

_____

_____

❑ Describe any rapid changes between techniques

_____

_____

_____

_____

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)

détaché, slurs, slurred-staccato, spicatto

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc. Describe)

_____

_____

❑ Col legno (describe)

_____

_____

❑ Trempo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ☑ Harmonics

only natural harmonics in measure 48_____

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ☑ Right hand
  - ☑ Flesh/pad

    measure 71 (last measure), with a *sff* _____

    - o Fingernail

      _____

      _____

    - o Combination of flesh and fingernail

      _____

      _____

    - o Use of plectrum

      _____

      _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

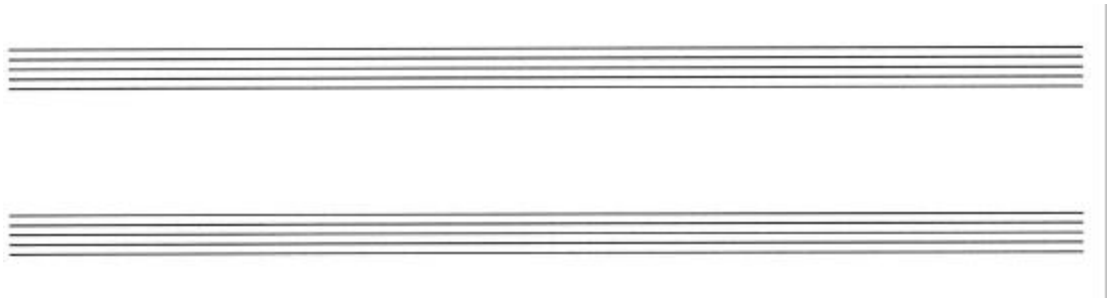
changes meter every meter except: 1-2, 14-15, 42-43, 44-45, 55-57, 63-64, and 70-71

- ❑ Irregular Accents

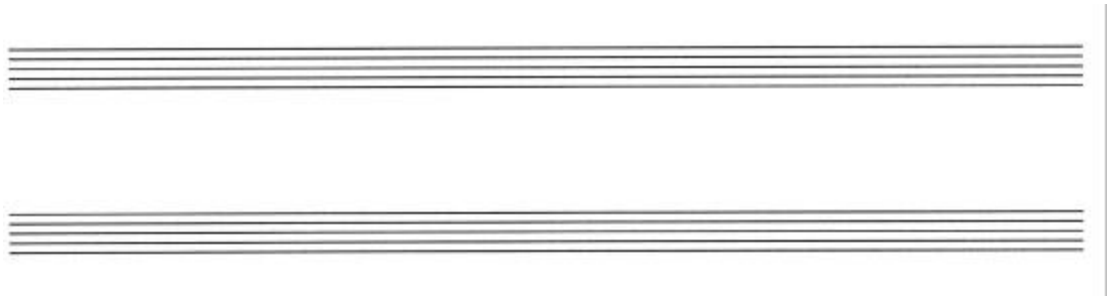
- ❑ Cross Rhythms

- ❑ Contemporary Rhythm groups

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)



  - o List rhythm groups used in additive rhythms



Intervals

	Minor		**Major**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**
Unison	-	-	-	-	-	-
2nd	11	7.75	3	2.11	14	9.86
3rd	7	4.93	14	9.86	21	14.79
Perfect 4th	-	-	-	-	70	49.30
Tritone	-	-	-	-	5	3.52
Perfect 5th	-	-	-	-	1	0.70
6th	1	0.70	8	5.63	9	6.33
7th	10	7.04	7	4.93	17	11.97
Octave	-	-	-	-	1	0.70
9th	3	2.11	-	-	3	2.11
10th	-	-	-	-	-	-
11th	1	0.70	-	-	1	0.70

Total # of Intervals (including unisons)	142	
Total # and % of Tonal Intervals (3/6/8/10)	31	21.83%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	111	78.17%

NOTE: All percentages are rounded to the nearest hundredth

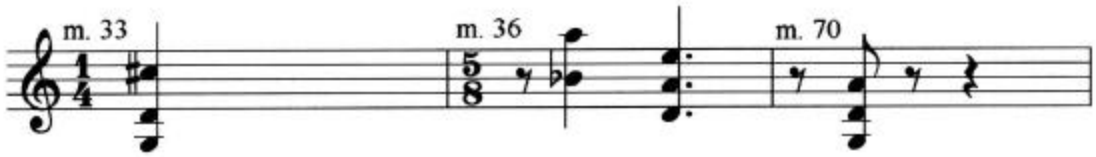
Double-Stops

	Minor		**Major**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 4th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Double-Stops (including unisons)	194	
Total # and % of Tonal Double-Stops (3/6/8/10)	44	22.68%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	150	77.32%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

m. 23, *f* to *p*; m. 38, *p* to *f*; m. 42, *f* to *pp*; m. 48, *ff* to *pp*; m. 49, *pp* to *f*

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

_____

_____

- ❑ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ☑ Yes
- ❑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Samuel Adler
Title of Etude Book: Meadowmountetudes: Four Studies of 20th Century Techniques for Solo Violin
Title of Etude: II. A Waltz in Fast Shifting Tonalities
Year of Publication: 1996
Publisher: Theodore Presser

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

_____

_____

❑ Sul tasto (describe)

_____

_____

☑ Describe any rapid changes between techniques
m. 40-41, *pizzicato* to *arco*

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)
détaché, slurs, slurred-staccato, and if one desires, spiccato

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc. Describe)

_____

_____

❑ Col legno (describe)

_____

_____

- ❑ Trempo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

_____

_____

Left hand use---in each instance, list and describe

- ❑ Glissando

_____

_____

- ☑ Harmonics

only natural harmonics in measures 2, 24, 26, 53, 57, and 95

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ☑ Right hand
  - ☑ Flesh/pad

    m. 38-40; m. 112

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

- ❑ Changing meter

_____

_____

- ☑ Irregular Accents

irregular slurs in measures 14; 34-35; 45; 82; 88; 89; 104; and 105

- ❑ Cross Rhythms

_____

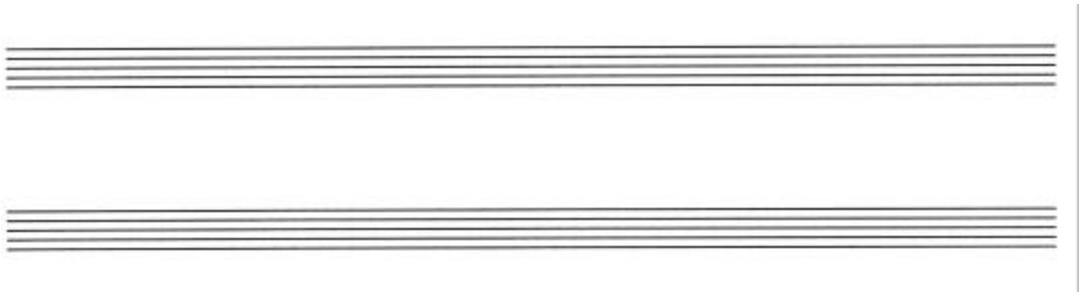
_____

- ❑ Contemporary Rhythm groups

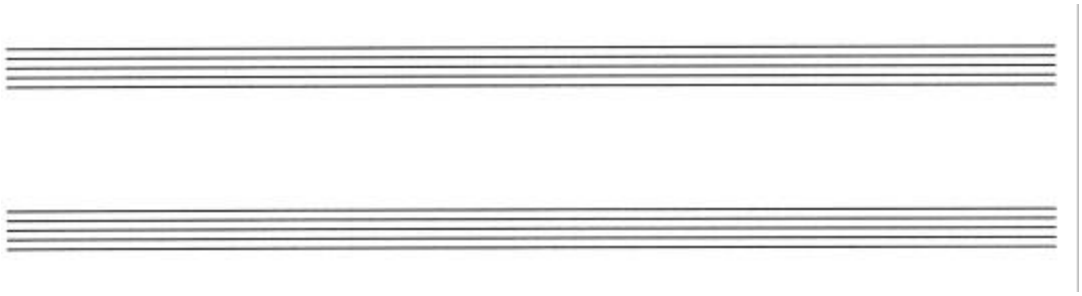
_____

_____

- ❑ Additive Rhythms (use generic note-head or single pitch to notate)



  - o List rhythm groups used in additive rhythms



Intervals

	Minor		Major		Total	
	#	%	#	%	#	%
Unison	-	-	-	-	52	12.29
2nd	109	25.77	30	7.09	139	32.86
3rd	121	28.60	29	6.86	150	35.46
Perfect 4th	-	-	-	-	27	6.38
Tritone	-	-	-	-	9	2.13
Perfect 5th	-	-	-	-	15	3.55
6th	7	1.65	13	3.07	20	4.73
7th	-	-	5	1.18	5	1.18
Octave	-	-	-	-	2	0.47
9th	2	0.47	-	-	2	0.47
10th	-	-	2	0.47	2	0.47
11th	-	-	-	-	-	-

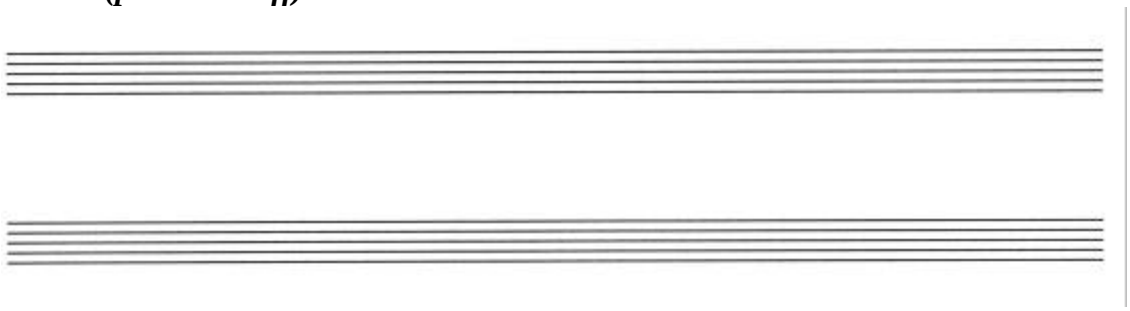
Total # of Intervals (including unisons) 423
Total # and % of Tonal Intervals (3/6/8/10) 174 41.13%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11) 197 46.57%
NOTE: All percentages are rounded to the nearest hundredth

Double-Stops---N/A to this etude

	Minor		Major		Total	
	#	%	#	%	#	%
Unison						
2nd						
3rd						
Perfect 4th						
Tritone						
Perfect 5th						
6th						
7th						
Octave						
9th						
10th						
11th						

Total # of Double-Stops (including unisons) _____
Total # and % of Tonal Double-Stops (3/6/8/10) _____ _____
Total # and % of Contemporary
Double-Stops (Unison/2/4/TT/5/7/9/11) _____ _____

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

_____

_____

_____

_____

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

  _____

  _____

- ❑ Vocal effects (describe)

  _____

  _____

Does a Recording Exist?

- ☑ Yes
- ❑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Samuel Adler
Title of Etude Book: Meadowmountetudes: Four Studies of 20th Century Techniques for Solo Violin
Title of Etude: III. Large Skips and Harmonics
Year of Publication: 1996
Publisher: Theodore Presser

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

_____

_____

❑ Sul tasto (describe)

_____

_____

❑ Describe any rapid changes between techniques

_____

_____

_____

_____

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)
détaché and legato-slurs

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc. Describe)

_____

_____

❑ Col legno (describe)

_____

_____

- ❑ Trempo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

_____

_____

Left hand use---in each instance, list and describe

- ☑ Glissando

m. 6, a quick gliss of a minor 10th; m. 7, a major sixth double-stop glisses down the interval of a perfect fourth

- ☑ Harmonics

natural harmonics in measures 3, 4, 6, 7, 9, 11, and 12

- ☑ High positions (past 7th position)

m. 10, gliss to the 11th position

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ☑ Combined effects

m. 10, gliss plus the high position; m. 13, double-stop plus gliss

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

Every measure utilizes a quarter-note pulse except measures 4, 9, 10, 12, and 13, which utilize an eighth-note pulse

❑ Irregular Accents

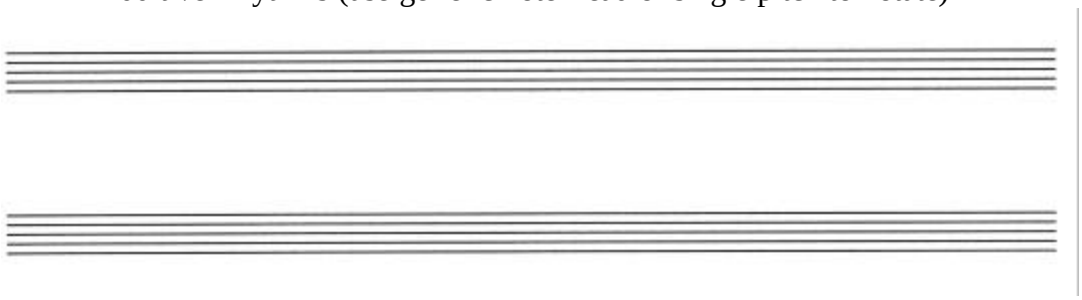
☑ Cross Rhythms

m. 9, 3:2; m. 10, 5:4

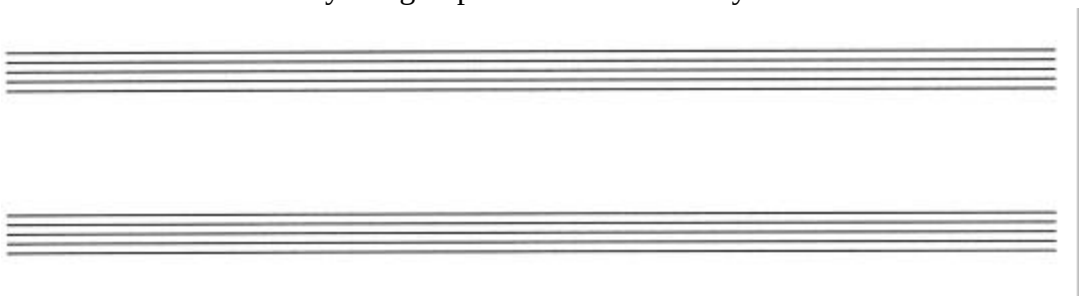
☑ Contemporary Rhythm groups

quintuplets in measures 6, 10, and 16; septuplets in measures 6 and 8

❑ Additive Rhythms (use generic note-head or single pitch to notate)



- List rhythm groups used in additive rhythms



Intervals

	Minor		**Major**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**
Unison	-	-	-	-	25	21.37
2nd	5	4.27	-	-	5	4.27
3rd	15	12.82	1	0.85	16	13.68
Perfect 4th	-	-	-	-	6	5.13
Tritone	-	-	-	-	1	0.85
Perfect 5th	-	-	-	-	3	2.56
6th	10	8.55	13	11.11	23	19.66
7th	7	5.98	10	8.55	17	14.53
Octave	-	-	-	-	1	0.85
9th	5	4.27	2	1.71	7	5.98
10th	9	7.69	4	3.41	13	11.11
11th	-	-	-	-	-	-

Total # of Intervals (including unisons)	117	
Total # and % of Tonal Intervals (3/6/8/10)	53	45.30%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	39	33.33%

NOTE: All percentages are rounded to the nearest hundredth

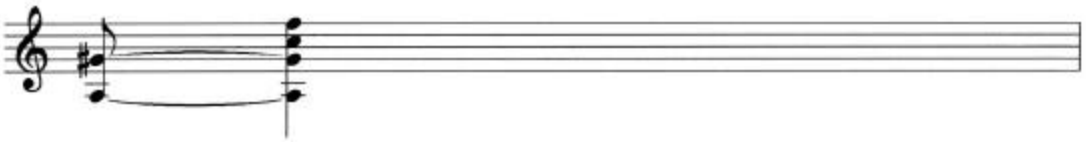
Double-Stops

	Minor		**Major**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**
Unison	-	-	-	-	-	-
2nd	2	3.57	-	-	2	3.57
3rd	6	10.71	1	1.79	7	12.50
Perfect 4th	-	-	--	-	3	5.36
Tritone	-	-	-	-	-	-
Perfect 5th	-	-	-	-	3	5.36
6th	7	12.50	11	19.64	18	32.14
7th	6	10.71	14	25.00	20	35.71
Octave	-	-	-	-	1	1.79
9th	-	-	1	1.79	1	1.79
10th	1	1.79	-	-	1	1.79
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	56	
Total # and % of Tonal Double-Stops (3/6/8/10)	27	48.21%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	29	51.79%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

m. 2, *ff* to *pp*; m. 3, *f* to *pp*; m. 6, *pp* to *f*; m. 8, *ppp* to *pp;* m. 11-12, *f* to *pp*;
m. 13-14, *ff* to *p*

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

_____

_____

- ❑ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ☑ Yes
- ❑ No

CONTENT ANALYSIS FORM FOR CONTEMPORARY VIOLIN ETUDE BOOKS

Composer: Samuel Adler
Title of Etude Book: Meadowmountetudes: Four Studies of 20th Century Techniques for Solo Violin
Title of Etude: IV. A Fast and Furious "Not to Tonal" Perpetual Motion
Year of Publication: 1996
Publisher: Theodore Presser

Placement of Bow---in relation to its proximity to the bridge and fingerboard

☑ Traditional (roughly between bridge and fingerboard)

❑ Sul ponticello (describe)

_____

_____

❑ Sul tasto (describe)

_____

_____

❑ Describe any rapid changes between techniques

_____

_____

_____

_____

Use of bow---how the bow is drawn across the strings

☑ Traditional (détaché, spiccato, etc---list or describe)
détaché, legato-slurs, slurred-staccato, spiccato, and staccato

❑ Non-traditional (such as bowing in a circular motion across the strings, bowing under the strings, bowing at an angle, etc. Describe)

_____

_____

❑ Col legno (describe)

_____

_____

- ❑ Trempo (describe)

_____

_____

- ❑ Describe any rapid changes between techniques

_____

_____

_____

_____

Left hand use---in each instance, list and describe

- ☑ Glissando

m. 42, major 7th gliss upward to a b’’’; m. 56, tritone gliss upward to a b’’’

- ☑ Harmonics

natural harmonics in measures 42 and 56

- ❑ High positions (past 7th position)

_____

_____

- ❑ Microtones

_____

_____

- ❑ Trills

_____

_____

- ❑ Vibrato

_____

_____

- ❑ Combined effects

_____

_____

Pizzicato---list and describe if necessary

- ❑ Right hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

- ❑ Left hand
  - o Flesh/pad

    _____

    _____

  - o Fingernail

    _____

    _____

  - o Combination of flesh and fingernail

    _____

    _____

  - o Use of plectrum

    _____

    _____

Meter and Rhythm---list, describe, or place on a musical staff

☑ Changing meter

original meter is 2/4. Meter changes in m. 11, 3/8; m. 12, 2/4; m. 27, ¾; m. 28, 2/4; m. 38, 5/8; m. 41, 2/4; m. 46 is 5/8; m. 48, 2/4; m. 64, 3/8; m. 65, 2/4; m. 80, 5/8; m. 81, 2/4

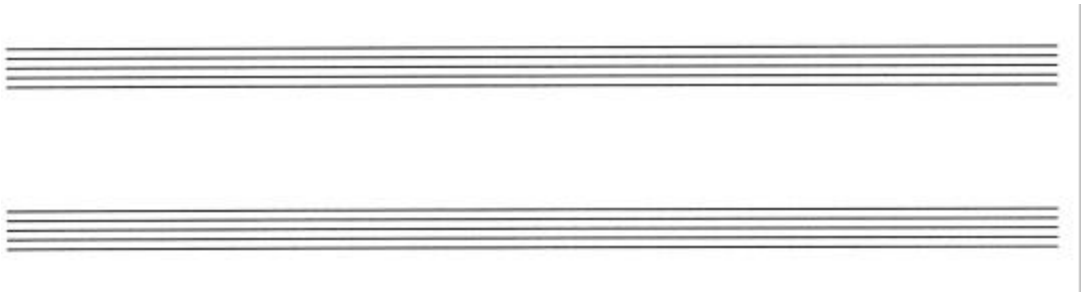
☑ Irregular Accents

Irregular bowing in measures 4, 19, 26, 28-29, 32, 37, 43, 67-69, 73-76, and 83

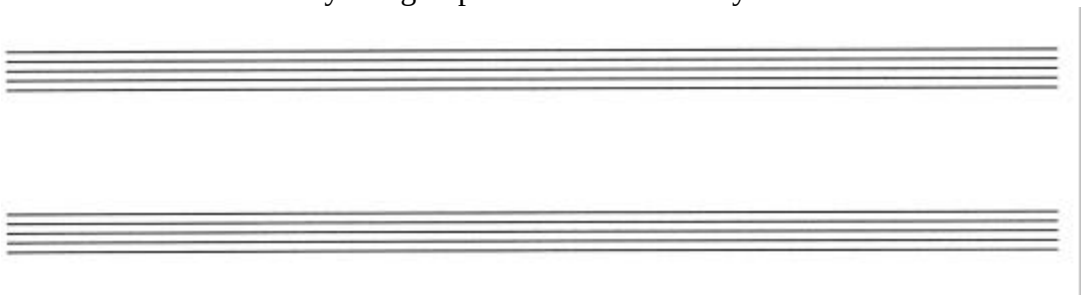
❑ Cross Rhythms

❑ Contemporary Rhythm groups

❑ Additive Rhythms (use generic note-head or single pitch to notate)



- List rhythm groups used in additive rhythms



Intervals

	Minor		**Major**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**
Unison	-	-	-	-	37	9.00
2nd	79	19.22	23	5.60	102	24.82
3rd	58	14.11	16	3.89	74	18.00
Perfect 4th	-	-	-	-	48	11.68
Tritone	-	-	-	-	44	10.71
Perfect 5th	-	-	-	-	23	5.60
6th	15	3.65	20	4.87	35	8.52
7th	18	4.38	22	5.35	40	9.73
Octave	-	-	-	-	-	-
9th	2	0.49	-	-	2	0.49
10th	3	0.73	2	0.49	5	1.22
11th	1	0.24	-	-	1	0.24

Total # of Intervals (including unisons)	411	
Total # and % of Tonal Intervals (3/6/8/10)	114	27.74%
Total # and % of Contemporary Intervals (2/4/TT/5/7/9/11)	260	63.26%

NOTE: All percentages are rounded to the nearest hundredth

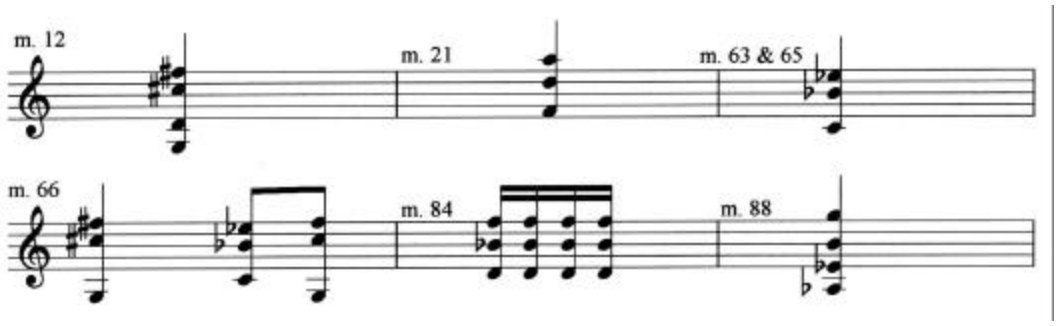
Double-Stops

	Minor		**Major**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**
Unison	-	-	-	-	-	-
2nd	-	-	-	-	-	-
3rd	3	2.80	3	2.80	6	5.60
Perfect 4th	-	-	-	-	13	12.15
Tritone	-	-	-	-	28	26.17
Perfect 5th	-	-	-	-	-	-
6th	23	21.50	5	4.67	28	26.17
7th	1	0.93	31	28.97	32	29.91
Octave	-	-	-	-	-	-
9th	-	-	-	-	-	-
10th	-	-	-	-	-	-
11th	-	-	-	-	-	-

Total # of Double-Stops (including unisons)	107	
Total # and % of Tonal Double-Stops (3/6/8/10)	34	31.78%
Total # and % of Contemporary Double-Stops (Unison/2/4/TT/5/7/9/11)	73	68.22%

NOTE: All percentages are rounded to the nearest hundredth

Chords (place on staff)



Dynamics: List and Describe Sudden Dynamic Changes

m. 20, *f* to *pp*

Mutes

- ❑ Yes
- ☑ No

Theatrical Effects

- ❑ Percussive effects (describe)

_____

_____

- ❑ Vocal effects (describe)

_____

_____

Does a Recording Exist?

- ☑ Yes
- ❑ No

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Prelude I, m. 1-4, 16, m. 30-32, and m. 34, only

Prelude II, line 6, exercise 6, m. 9-13, exercise 4, m. 7, only

Prelude III, m. 55-57, m. 82-82, only

Prelude IV, m. 6-7, only

Prelude V, First line of music, only

Prelude VI, m. 26-31, m. 58, only

Prelude VII, m. 28, m. 33-34, only

Prelude VIII, m. 14-15, m. 19, m. 24, only

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VITA

Michael Buckles is an Assistant Professor of Upper Strings and Music Education at McNeese State University in Lake Charles, Louisiana, and has previously taught at Dillard and Xavier Universities in New Orleans, Louisiana. He holds the Bachelor of Arts in Music from Tulane University in New Orleans, and the Master of Music in Violin Performance from The Cleveland Institute of Music in Cleveland, Ohio. His violin teachers have included David and Linda Cerone, Jeff Cox, Kevork Mardirossian, and David Updegraff. In addition to his teaching duties at the college level, Mr. Buckles, a registered Suzuki instructor, maintains an active Suzuki studio and regularly attends Suzuki Institutes during the summer months. He also maintains and active recital schedule and was previously a tenured member of the Louisiana Philharmonic Orchestra, the only full time, player managed orchestra in the United States.