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The University of Southern Mississippi

ADAPTING J. S. BACH'S SOLO VIOLIN SONATAS AND PARTITAS FOR THE MARIMBA: BROKEN CHORD AND ARPEGGIO PERFORMANCE PRACTICES

by

Jason Eugene Mathena

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Musical Arts

May 2013

ABSTRACT

ADAPTING J. S. BACH'S SOLO VIOLIN SONATAS AND PARTITAS FOR THE MARIMBA: BROKEN CHORD AND ARPEGGIO PERFORMANCE PRACTICES

by Jason Eugene Mathena

May 2013

This purpose of this study is to provide the keyboard percussionist with information and examples for breaking chords and properly executing arpeggio passages in J. S. Bach's solo violin Sonatas and Partitas. Primary sources included Baroque treatises on performance practice and recent scholarship of the past one hundred years. Various editions of the Sonatas and Partitas were surveyed for this document but, in the end, only Bach's autograph manuscript and Gunther Hausswald's critical edition were used for the musical examples as well as the marimba transcriptions included in appendices.

Topics covered are appropriate places to break chords and the various methods that can be employed. These decisions are grounded in historical practices, idiomatic specificities, and my own unprecedented ideas on how to enhance the music. Regarding arpeggio passages, I present a number of realizations on familiar passages, such as those from the G minor *Fuga*, *Ciaccona*, and C major *Fuga*, as well as some other phrases which have historically not been arpeggiated. This document will provide the marimbist with choices but also with information to make different choices based on the music itself and the limitations of the marimba.

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The University of Southern Mississippi

ADAPTING J. S. BACH'S SOLO VIOLIN SONATAS AND PARTITAS FOR THE MARIMBA: BROKEN CHORD AND ARPEGGIO PERFORMANCE PRACTICES

by

Jason Eugene Mathena

A Dissertation
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of The University of Southern Mississippi
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for the Degree of Doctor of Musical Arts

Approved:

John Wooton
Director

Thomas Fraschillo

Edward Hafer

Joe Brumbeloe

Richard Perry

Susan A. Siltanen
Dean of the Graduate School

May 2013

DEDICATION

This study would not have been possible without the encouragement, instruction, and information from the late Dana Ragsdale. She provided the guidance and inspiration to keep this study moving forward. I will forever be indebted to her, so therefore, I dedicate this paper to her. Her wisdom will forever be a part of me and I hope to pass it on to future generations. May she rest in peace.

ACKNOWLEDGMENTS

Acknowledgments must go to my committee, Richard Perry, Thomas Fraschillo, Joseph Brumbeloe, Edward Hafer, and John Wooton. Special thanks to Dr. Hafer and Dr. Brumbeloe for extra help in the actual writing and editing of this document and to Douglas Rust for deepening my understanding of the harmony of these works. Lastly, I would be remiss if I didn't thank my teachers who helped me craft the sonatas and partitas on the marimba: Troy Breaux, who refined my technique, Jeff Prosperie, who introduced me to the sonatas and partitas, John Wooton, who encouraged me to take chances and play music *musically*, and especially Dana Ragsdale, who so generously gave me enough knowledge to fill a lifetime.

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CHAPTER I

INTRODUCTION

Bach's solo violin works have been a staple of the violin repertoire since their publication in 1803. For over two centuries, composers and performers alike have crafted transcriptions and arrangements, with and without accompaniments, of the sonatas and partitas. Even Bach arranged various movements for other instruments.[1] To help the performer and transcriber, this document will discuss two similar performance aspects, broken chords and arpeggios, as they would be interpreted and performed on the marimba. My own transcriptions will serve as the musical examples. Complete transcriptions of selected movements can be found in Appendix B.

Terminology

Before one attempts to read this paper, a standard verbiage regarding chords, arpeggios, and percussion vocabulary must be established for one to understand this paper. As nouns, the terms *arpeggio* and *broken chord* will be used to delineate two separate ideas but *arpeggiate* as a verb will be used to describe both. Chords, executed in a broken manner, were not considered arpeggiated in the Baroque but in post-Baroque studies, the term *arpeggio* has been used when discussing broken chords as well as traditional arpeggiated passages. *Arpeggio* was derived from the word *harp* because a harpist must arpeggiate all chords and therefore arpeggios are meant to *harp-like*. For the purpose of this paper, one primary distinction between broken chords and arpeggios will serve as the defining characteristic—broken chords are unmetered and arpeggios are metered with a rhythm that can be quantized.

---

[1] Bach arranged both the G minor *Fuga* and E major *Preludio* for guitar and Sonata II for organ.

Regarding percussion terminology, a few terms must be addressed be better aid the reader. The term *roll* will be used as a verb to designate breaking chords, but in the percussion world, it is typically associated with alternating strokes between limbs or mallets producing successive repetitions on any given surface sometimes used to emulate a long, sustained pitch or sound,. *Tremolo*, a more accurate and universally accepted term for repetitive repercussions, will be used when discussing the percussion act of *rolling*. *Stickings* will be limited to *right hand* or *left hand* and *1, 2, 3, 4* for marimba mallets from left to right. Finally, *marimbist* will refer to one who plays the marimba but it will be used interchangeably with the more generic term, *keyboardist*.

Purpose of Study

Many percussionists have transcribed, arranged, or recorded works of Bach, and the violin sonatas, partitas, and cello suites have become staples of solo keyboard percussion repertoire. Early in the twentieth century, multiple keyboard mallets in one hand were being cultivated as a viable solo technique. Because of its usefulness, two mallets in each hand eventually became the most widespread multi-mallet technique. With no repertoire of significance, percussionists arranged and transcribed music from the common practice period, and over time, solo string compositions became the sources of arrangements and transcriptions.[2] This study is specifically for the marimbist who wishes to execute broken chords and arpeggios in a historically informed manner with artistry and creativity. Selections from the solo violin works of J. S. Bach will serve as examples for application.

---

[2] Four strings on the violin and cello allowed for an easy transference to keyboard percussion instruments played with four mallets.

Bach's sonatas and partitas for solo violin present several challenges to performance practice including the interpretation of three- and four-note chords. The dilemma arises from one simple constant—an orchestral string instrument can only sound two strings simultaneously with ease, three in some cases, but not without difficulty and abrasiveness, and never four.[3] Consequently, performers and scholars have considered how Bach might have intended to execute the contrapuntal portions of the sonatas and partitas.

While bowed instrumentalists have the limited ability to play three- and four-voice chords, keyboardists have choice. Not only does the keyboard player have the ability to play dyads, triads, tetrads, etc. without rolling or breaking them, he also has the capability of breaking or rolling them in a number of ways that may or may not be possible for a string player. The dilemma of choice is further heightened by another aspect and that is appropriateness. All musical aspects, rhythm, dynamics, mood, tempo, technical limitations, just to mention a few, determine when, where, and how to break chords. This is what keyboard players must take into account. String players also use this criteria but they are sometimes left with a broken chord whether or not the music dictates it. Where the string player must break some chords out of necessity, the keyboardist must choose to break chords or not to break them based solely on the music and not the technical limitations of the instrument.

---

[3] Albert Schweitzer, *J. S. Bach*, book one, translated by Ernest Newman (London: Breitkopf and Härtel, 1911). Even though recent research reveals strong evidence that the *Bach bow* or *Vega-Bach bow* did not exist in the time of Bach, early 20th century musicologists sought to create a curved bow capable of covering all four strings. Albert Schweitzer and others believed this is what Bach had in mind. Recent scholarship has largely discredited this theory.

Because of the *newness* of the solo marimba, many fine performers are unaware of Baroque performance practice and how it can be applied in an idiomatically effective, yet stylistically appropriate, manner. This document will alleviate some concern as to how one should approach chords and arpeggios, so the marimbist can offer an idiomatic and stylistically apt performance of Bach's solo violin sonatas and partitas.

Transcription

Even as idiomatic instrumental writing was coming to fruition in the Baroque, using whatever instruments at one's disposal, a Renaissance tradition which spilled into the next generation, was still generally regarded as an acceptable musical outlet. Beginning in the early Baroque, composers, such as Claudio Monteverdi and Domenico Gabrielli began to specify instrumentation in their music. Still, exact instrumentation and idiomatic writing did not preclude instrumentalists from transcribing and arranging works to fit other instruments. In a letter to Nikolaus Forkel regarding the violin sonatas and partitas, Bach's student, Johann Friedrich Agricola, reported that

> their author [Bach] often played them on the clavichord himself, adding as much harmony as he deemed necessary. Here, too, he acknowledged the need for resonant harmony of the sort that he could not wholly attain in the original composition.[4]

Even Bach, himself an accomplished violinist, found pleasure in playing the solo violin works on a keyboard instrument.

---

[4] Letter to Johann Nikolaus Forkel, end of 1774; published as no. 808 in Hans-Joachim Schulze: Dokumente zum Nachwirken J. S. Bachs 1750-1800 (Leipzig, 1972). This quote can be found in the preface to the Bärenreiter Urtext written by Peter Wollny, translated by J. Bradford Robinson. Revised edition was published in 2001. A facsimile of this letter is still being sought by the author.

Since the first publication of the sonatas and partitas as study pieces in 1803, musicians have expanded the collection through transcription or added accompaniment.[5] Selections have been transcribed or arranged for two violins, piano, viola, cello, flute, bassoon, guitar, harpsichord, organ, recorder, orchestra, choir, and, of course, percussion keyboard instruments, specifically the xylophone, vibraphone, and marimba.[6] Even famed composers, such as Mendelssohn and Schumann, produced their own piano accompaniment during the Bach revival of the mid-nineteenth century. Percussionists have a very young repertoire and the masters of the common practice period left nothing in the way of solo literature, therefore taking works meant for other instruments is the only way to connect to the past masters. The only justification for transcribing the sonatas and partitas was stated two paragraphs above—Bach did it, so others can as well.

Assumptions

Before a study of any facet of Baroque performance practice can be studied and applied, especially to a non-Baroque instrument like the marimba, certain ideas and theories of the day must be proposed. Below are assumptions that will be taken as truths for this document.

1. Baroque music is a performer-centered art, therefore improvisation and ornamentation can and should be employed.
2. Improvisation and ornamentation should vary and appear spontaneous in performance.

---

[5] The monumental *Ciaccona* from Partita II has been arranged for piano, orchestra, guitar, marimba, vibraphone, flute, viola, harpsichord, organ, saxophone ensemble, and probably numerous other instruments and ensembles.

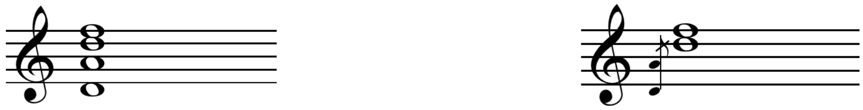
[6] Ferruccio Busoni, Alexander Siloti, Johannes Brahms, and Joachim Raff are a few of the important pianists to tackle arranging the *Ciaccona*.

3. Even when a work appears to contain written-out diminutions, the performer can improvise sparingly. This may include, but is not limited to, added ornaments, dynamics, or chord tones.
4. Only the idiosyncrasies of an instrument can limit the amount and variety of ornamentation and other aspects of performance
5. In Baroque music, the score is a start, not the end result. Performers should strive for individualized performances. This accounts for the lack of *directions* on many Baroque scores.

General Performance Suggestions

Performance practice scholarship has concluded that German Baroque music, specifically that of J. S. Bach, because of its lack of performance suggestions, was still open to ornamentation by the performer. Certain liberties were given to the performer, and it was expected that these liberties be implemented in performance. These freedoms could also vary by performer to performer and region. Essentially, the Baroque idea of an ornament was anything not notated by the composer and supplied by the performer in performance.

Bach's solo violin sonatas and partitas present difficulties to violinists due to the counterpoint and three- and four-voice chords. However, violinists have cultivated ways to execute multi-voice chords. Executing a four-note chord on the violin in the *two-and-two* method, a post-Baroque phenomenon, is how most modern players perform these chords. Below is an example of this technique.



Musical Figure 1. Notated chord and *two-and-two* execution.

Many agree that a Baroque violinist would not have done so, rather, they would have *rolled* the chord up, down, out, or in.[7] For example a four-note chord must be executed 1, 2, 3, 4 (up) or 4, 3, 2, 1 (down) or 2, 3, 1, 4 or 3, 2, 4, 1 (out) or 1, 4, 2, 3 or 4, 1, 2, 3 (in).[8] A keyboard instrument has no such limitation. Keyboardists can play all notes in a given chord simultaneously or broken. In keeping with the Baroque ideal of variety and spontaneity in performance, the keyboardist must thus use broken as well as unbroken chords. In Italian and German music, the performer made these decisions, whereas the French notated when and how to break chords with symbols.

Since the violin has only four strings, Bach wrote no chords with more than four notes in the sonatas and partitas. This allows for an easy transfer to a percussion keyboard, such as marimba or vibraphone. If one desires a historically-informed performance, the keyboard percussionist must interpret these works not as a Baroque violinist but as a Baroque keyboardist. Breaking all three- or four-note chords, a necessity for violinists, should be avoided and choices should be made according to the idiomatically appropriate methods for a keyboard instrument. A keyboardist has the luxury of choosing when and how to break chords.

---

[7] Refer to recordings of the sonatas and partitas by Baroque violinists, Jaap Schröder and Lucy Van Dael.

[8] These are not the only possibilities. For a complete list of all possible two-, three-, and four-note permutations see charts I, II, and III on pages 39-40.

Performers rarely play music exactly as the page dictates, no matter how ambiguously on specifically notated. Even with notated ornaments and other performance suggestions, to produce a meaningful and moving performance, musicians must add what is not written. This can be as simple as playing music how it *feels*, primarily relying on one's intuition, or it may be as involved as exhaustive research into the performance history of the work. Listening to significant players in concert, as well as on recordings, and studying performance editions are an adequate start. Treatises of the time are invaluable and scholarly interpretations of these treatises are of equal importance. Still, with all these resources at the performer's disposal, each individual is left with choices, and with more knowledge comes more choices. This paper will present a series of choices regarding the performance of broken chords and arpeggios with selections from J. S. Bach's violin sonatas and partitas serving as models.

Bach's solo violin sonatas and partitas are not nearly as notationally controlling as his French contemporaries, but rather, he subscribed to the Italian style of performer input and spontaneity in performance. He left many decisions, such as dynamics, articulation, phrasing and ornamentation, up to the discretion of the performer. For example, it is completely appropriate, and expected, to add crescendi, decrescendi, and other volume changes where one sees fit even where Bach did not indicate them. This is evident in every performance edition surveyed for this document.[9] In the entire set of violin sonatas and partitas, Bach indicated forte (*f*) and piano (*p*) only when he wanted sudden dynamic shifts for subito effects and even this was sparse and sometimes assumed, usually dependent upon the repetition of some small musical fragment. The only articulations indicated are slurs, considered by some to be merely bowings, and throughout the years, even those have differed from performer to performer. Phrasing can be determined by the material that is supplied, for example, meter, tempo, harmonic motion, melody, the dance style, title, or desired affect could all have a bearing on phrasing. In the eighteenth century, the time signature and, if applicable, the style of dance, dictated tempo but even this was flexible in the stylized dances of German composers. It is also appropriate for the performer to use rubato but only sparingly. Important cadences and ends of phrases are very fine places to use tempo rubato, but one may also *stretch* within a measure or short phrase accordingly. Ornaments, especially trills, were expected in certain instances and obligatory in others, like strong cadences at the end of large sections. Performers may also choose appropriate trill beginnings or endings, unless otherwise indicated by the composer by the accepted trill signs of the time. Other ornaments, such as appoggiaturas, acciaccaturas, or mordents, are only appropriate in cases where there is enough space, rhythmically, to include them. During passages of heavy polyphony or faster rhythmic activity, one typically avoided adding ornaments.

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[9] A list of editions, arrangements, and transcriptions can be found in the bibliography.

This document is not an all-encompassing Baroque performance practice treatise, but rather, it is a monograph on the practice of broken chords and arpeggios in marimba transcription. Violinists execute three- and four-note chords in a broken manner, but the marimbist can play these chords broken and blocked. This does pose a performance practice issue to be addressed—how and when does one break chords? Since Bach gave no indication in his solo string works to break certain chords and not to break others (he assumed a violinist would have had to break chords out of necessity), I have had to make choices based on research into performance practices and the idiosyncrasies of the marimba.

Another problem to be addressed is arpeggiating chords. Very little is written regarding how and when to arpeggiate in the Baroque treatises, so one has to rely on primary sources, recent scholarship, recordings, performance editions, (particularly those based on the autograph manuscript), and one's own technical and musical ability. To increase my selection of arpeggio choices, I have also used the thorough-bass treatises of the late seventeenth and early eighteenth centuries.[10] Türk, C. P. E. Bach, and Keller each discuss the appropriateness and inappropriateness of adding non-chord tones, ornaments, scalar figures and other elements not provided by the bass line and corresponding figures when realizing figured bass. I believe continuo ideas can be used to vary one's choices when realizing arpeggio passages.

This document will provide evidence for a historically-informed interpretation of broken chords and arpeggios in Bach's violin sonatas and partitas. I will analyze the writings from authors of the Baroque and of the past one hundred years and apply the information to Bach's sonatas and partitas. The result will be marimba performance transcriptions of the *Adagio*, *Fuga*, and *Siciliana* from Sonata I, BWV 1001, the *Sarabande* and *Tempo di Borea* from Partita I, BWV 1002, the *Andante* from Sonata II, BWV 1003, the *Sarabanda* and *Ciaccona* from Partita II, BWV 1004, the *Adagio* and

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[10] For thorough bass treatises see Daniel Gottlob, Türk's *School of Clavier Playing or Instructions in Playing the Clavier for Teachers and Students,* translated with notes by Raymond H. Haggh (Lincoln: University of Nebraska Press, 1982) (orig. pub. Leipzig, 1789); Hermann Keller, *Thoroughbass Method*, translated and edited by Carl Parrish (New York: W. W. Norton and Company, 1965); and C. P. E. Bach, *Essay on the True Art of Playing Keyboard Instruments*, translated and edited by William J. Mitchell (New York: W. W. Norton, 1949) (orig. pub. Eulenburg, 1753).

Fuga from Sonata III, BWV 1005, and the *Gavotte en Rondeau* and *Menuet I* from Partita III, BWV 1006. These can be found in Appendix B. Appendix A should be consulted first to familiarize oneself the notation symbols.

CHAPTER II

BROKEN CHORDS

Even though string players break most chords out of necessity, players of keyboard instruments, in particular, the marimba, have the luxury of choice, but it must not be made arbitrarily. The keyboardist must consider style, historical practices, rhythm, moving lines, and composer intent when determining what and how to break chords

There are those who believe all instrumentalists, even violinists for whom this set was written, should strive for block chords and only arpeggiate chords when notated. In his argument for the *Bach Bow*, the Bach scholar, Albert Schweitzer said

> Every one who has heard these sonatas must have realized how sadly his material enjoyment of them falls below his ideal enjoyment. There are many passages in them that the best player cannot render without a certain harshness. The arpeggio harmonies sometimes make a particularly bad effect, even in the finest playing. Polyphonic arpeggio playing is and must be an impossibility.[11]

Schweitzer was actually using the Sonatas and Partitas to make his case for a bow capable of sustaining all four strings at once. This has been largely discredited by recent scholars. In his response to a previous article by Dr. Emil Temányi, Sol Babitz said

> The following facts should be borne in mind:
> 1. No historical evidence can be found to support the theory that eighteenth century violinists sustained notes on three or four strings simultaneously.
> 2. There is ample historical evidence to show that chords were arpeggiated.
> 3. The internal evidence of the music supports the historical evidence.
> 4. The authentic bows of the eighteenth century, when used on authentic violins (with short necks and bass bars), with the authentic technique as described by Leopold Mozart, Geminiani and others do not permit the playing of sustained chords.[12]

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[11] Albert Schweitzer, *J. S. Bach,* I, translated by Ernest Newman (London: Breitkopf and Härtel, 1911) 388.

[12] Sol Babitz, "The Vega Bach Bow: A Reply to Dr. Emil Temányi," *Musical Times* 96, 1347 (May, 1955), 251-2.

> To be sure the 'traditional' way of playing chords, inherited from the nineteenth century, is unsatisfactory because it breaks the chords into choppy sections, putting the bass before he beat which is incorrect in the music of the Figured Bass era. Quite different from the modern 'traditional' breaking is the correct eighteenth-century arpeggiation of a chord, with the bass on the beat and a melodic rolling effect. This does not interfere with the cantilena but heightens the expressiveness which is so important a feature of the music composed when the doctrine of the affections (Affektenlehre) was accepted...It is thus clear that modern violinists who break chords instead of arpeggiating them are approximating more closely to the correct arpeggiated performance than those who try to play them as written. These new bows represent in fact a step away from the authentic performance.[13]

Still, some of the most revered string players of the past century found broken chords troublesome to an ideal performance of a work. According to Carl Flesch,

> The inability of most violinists to produce chords that sound well, even if not arpeggiated, has had the result to give the violin a bad name as a polyphonic instrument...It is also my opinion that, with really good bow technique, it is very possible to play three-part chords simultaneously, if they are not too long. The necessary arpeggiation of four-part chords can be accomplished in such a way that the listener hardly gets the impression of arpeggiation.[14]

Eduard Melkus believed the block chord to be the ideal solution and broken chords to be an essential element.

> if one considers the historical background of solo violin playing and how it was influenced by the way the *lira da braccio* was played, there can be no doubt that sounding the chord simultaneously was at least the ideal conception for the violinist; clearly, a broken, arpeggio chord was here merely a makeshift.[15]

Even though Flesch and Melkus are both well-respected string players, broken chords are needed for an expressive and individualized performance of the sonatas and partitas, in particular, the slow movements, but the faster movements can also be enhanced by arpeggiations as well. In *The Interpretation of Music*, Thurston Dart said to "play expressive sections slowly. Emphasize suspensions and dissonances by lingering over them, and use frequent arpeggios whenever the music shows signs of growing empty."[16]

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[13] Ibid., 252

[14] Carl Flesch, *The Art of Violin Playing*, book one, translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000), 63-4.

[15] Eduard Melkus, "The Bach Chaconne for Solo Violin: Some Thoughts on the History of its Interpretation," *The Bach Chaconne for Solo Violin: A Collection of Views*, edited by Jon F. Eiche (Bloomington, IL: American String Teacher's Association, 1985), 144.

One must keep in mind that Bach was an accomplished violinist, so he was well aware of what was capable on the instrument. In his argument against the *Bach bow* Sol Babitz asserted "Bach wrote these impossibilities not because he did not know how to write for the violin but because he knew too well that the chords would be arpeggiated according to the custom of the day."[17]

Broken chords can be used for musical effect and variety but also "to surprise the ear with their unexpected vehemence."[18] Using historical and recent scholarship into the subject, I will offer parameters suggesting when, how, and why to break chords. These ideas will then be applied to various movements from the sonatas and partitas. First, I will present four parameters for when broken chords are to be used and when they are not. These are mere suggestions and not applicable in every musical situation, still one should consider that these parameters are grounded in historical evidence. The next chapter will provide examples of broken chord permutations as well as some specific musical reasons to aid the performer choosing these permutations.

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[16] Thurston Dart, *The Interpretation of Music*, (New York: Harper and Row, 1963), 110.

[17] Babitz, 252.

[18] Johann Joachim Quantz, *On Playing the Flute,* 2nd edition, translated and notes by Edward R. Reilly (New York: Schirmer Books, 1985) (orig. pub. Berlin, 1752), 226-7.

Parameter 1. Chords can be broken but not always

Starting in the early twentieth century percussionists began transcribing common practice period string works for marimba and other percussion keyboard instruments and since then, the execution of chords has been debated. Below are three views from keyboard percussionists regarding when, how, and why to break chords.

In her 1991 DMA dissertation on a similar topic to mine, Cheryl Ann Grosso points out that "all multiple stops are played simultaneously" in the performance suggestions before her vibraphone transcriptions of Bach's Sonata II and Partita III.[19] She believed that the block chord was the ideal and the broken chord a mere necessity. Albert Schweitzer said chords in Bach's day were "played without any restlessness, and without arpeggios," because of the bow and therefore he believed "that this is the only correct and, from the artistic standpoint, satisfactory way of playing it."[20] But there are those who believe broken chords are a necessary embellishment.

According to Robert Donington, "in so far as the broken chord achieves a truly melodic pattern, it arose as part of the general tradition of free ornamentation, selected figures from which became to some extent established here as specific ornaments in the usual way."[21] Of embellishment, a term used interchangeably with ornamentation, Donington said "music hardly ever, if at all, consists only of its basic progressions. It must be embellished. This may mean far more than mere decoration."[22] He went on further to say, "our problem here is that even Baroque composers still left substantial proportions of their figuration to be supplied, more or less impromptu, by the performer."[23] If considered ornamentation, then according to Donington, broken chords are embellishments to be supplied by the performer.

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[19] Cheryl Ann Grosso, *A Comprehensive Performance Project in Percussion Performance with an Essay Comprised of a Performance and Pedagogical Analysis for Vibraphone of Sonata II and Partita III for Violin Solo by J. S. Bach* (DMA diss., University of Iowa, 1991), 81, 88, and 142.

[20] Schweitzer, 390.

[21] Robert Donington, *The Interpretation of Early Music*, new revised edition (New York: W. W. Norton, 1992), 278.

While percussion keyboard instruments can produce blocked chords that the violin simply cannot, some chords can and should be arpeggiated for pure musical reasons and not just out of convenience and never in an effort to imitate the violin. At times, Jack Van Geem seemed concerned with mimicking the violin instead of creating moments idiomatic to the marimba in his interpretation of select chords from the G minor *Fuga* and the *Ciaccona*. He said

> We do share one device with the violinist and that is the manner in which they play chords. The violin bow can only play two strings at a time. This means every time a chord appears of three or more notes, the violinist must decide how best to separate the notes of the chord. Bach certainly knew this and expected the effort of presenting these chords to add intensity to the music. The general idea is the notes will be ordered with the most important note last and more present. Four-mallet technique allows us to mimic the violinist exactly, however, we have the advantage of being able to play all notes at once mimicking the harpsichord or lute. This gives us a tool for showing increasing intensity of chords. As a series of chords grow in intensity, we can move from a simultaneous sounding of the chord to increasingly more apparent versions of broken chords.[24]

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[22] Ibid., 152.

[23] Ibid., 152-3.

[24] Jack Van Geem, *Marimba Master Class on Works by Schwantner, Schuller, and Bach*, edited by Anthony J. Cirone (Galesville, MD: Meredith Music, 2011), 43.

Van Geem agreed that some, but not necessarily all chords, should be broken and that the music should guide in the decision-making not necessity according to instrumental idiosyncrasies.

Brian Cole wrote about chords that should be broken for embellishment, *chordal arpeggio* was his term for this, and chords that should be broken to fill the space of longer note values, *linear arpeggio*. He believed the linear arpeggio should be "performed melodically with a definite rhythm" and could "include non-harmonic tones."[25] Cole believed broken chords should replace the tremolo but what Cole failed to realize is that a tremolo played soft, loose-wound mallets on a rosewood instrument with tuned resonators in a proper concert space could sound like a sustained pitch or pitches and the repercussions would be inaudible to the audience.

While the violinist breaks chords out of necessity, arpeggiating only those chords that a violinist must break seems unartistic and non-idiomatic. And what of the three-note chords capable of sounding simultaneously on the violin? Must they all be played as blocked chords? Artistry and musicianship should play a role in the decision-making process and violinists would break some chords for purely musical reasons as well. A contemporary of Bach, Johann Mattheson wrote that

> Not only does great ornamentation arise from this in the mentioned instrumental parts, but also at the same time endless variation, indeed, so to speak, an inexhaustible source of inventions. And that is the reason or the occasion for

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[25] Brian Cole, "Baroque Performance Practice and the Marimba Transcription," *Percussive Notes* (June 1991), 9.

> these breaks as well as their usefulness and superb application, which no one else has mentioned in writing, in solos of the mentioned instruments.[26]

If this was the consensus of Baroque musicians, then perhaps Bach gave no notated performance indications because it was expected that one would ornament and embellish the Sonatas and Partitas with broken chords not only out of necessity but for purely musical reasons as well. Some chords are broken because they have to be and some are broken because the performer chooses to break them. The twentieth-century Baroque violinist, Jaap Schröder believes this is not a curse but rather a blessing.

> The need to arpeggiate three- and four-note chords is most certainly not an unfortunate limitation of our instrumental technique. On the contrary, such arpeggiation heightens the rhetorical eloquence and should be carefully cultivated. Depending on the effect desired, a chord can be played either with a dramatic sweeping movement or as a leisurely spread arpeggio.[27]

Because of the ability to play block or broken chords, marimbists have more options for performance. These choices should be made for musical reasons only and never *because the violin has to*. Therefore, the marimbist can make educated choices regarding what chords to break and what chords to not break. The next three parameters will provide general guidelines for the performer to make informed decisions accompanied with specific passages incorporating broken chords. These are my own ideas that guide me through the decision-making process in practice and in performance.

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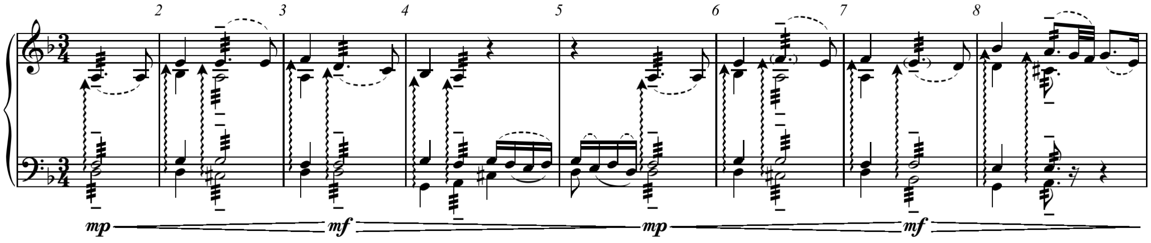
[26] Johann Mattheson, *The Complete Music Director*, revised and translated with critical commentary by Ernest C. Harris (Ann Arbor: University of Michigan Press, 1981) (orig. pub. Kassel, 1739), 670.

[27] Jaap Schröder, “The Chaconne and the Baroque Tradition,” *The Bach Chaconne for Solo Violin: A Collection of Views*, edited by Jon F. Eiche (Bloomington: American String Teacher’s Association, 1985), 133.

Parameter 2. Chords can be broken when there is enough space

When there is room before or after the chord, I recommend a broken approach with the manner of execution dependent upon the musical situation. Slower works are excellent for implementing parameter 2. Sometimes a passage can be slow and spacious enough that almost every chord can be broken without distorting the rhythm and tempo. An excellent example of a phrase where the performer should break every chord is the beginning of the *Ciaccona* from Partita II. The tempo of the *Ciaccona* should allow every chord to be broken. For the sake of variety, one can even vary the speed of the arpeggiation according to metric placement and dynamic.[28]


For mm. 1-16, the chords on the second beat should be slightly louder and broken slower than the chords on count one or three.

Musical Example 1. Ciaccona from Partita II, BWV 1004, mm. 1-8 by J. S. Bach, arr. J. Mathena.

Another movement that has many places where one should break the majority of the chords is the *Adagio* from Sonata I. Because of the slow tempo, every chord could be broken, but this would sound redundant and predictable. Still there are multiple ways to interpret the same passage. Regarding choice, Schröder wrote

> There is infinite variety in the ways the chords can be played, depending on their function, weight and affect. Chords can be executed briskly with one short

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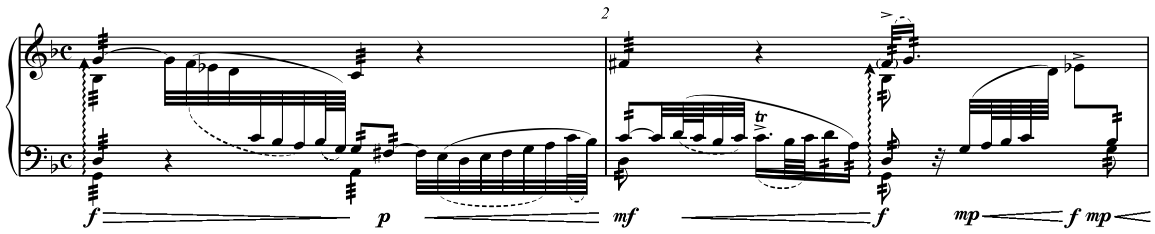
[28] Quarter note equals 50 to 70 beats per minute. Jaap Schröder, *Bach's Solo Violin Works: A Performer's Guide* (London: Yale University Press, 2007), 183; Eduard Herrmann, ed., Bach: Sonatas and Partitas for the Violin (New York: Schirmer, 1986), 34.

> impulse, but most will be arpeggiated, violently or leisurely, tightly or spread out, down-bow or up-bow. Their lowest note can start before or on the beat, but the bass line will have greater definition when it is played on the beat with some degree of lengthening. If the player takes care *not* to include a *crescendo* towards the highest note, not to put most intensity on the E string, the chord will sound better balanced and more resonant.[29]

I will apply some of Schröder's thoughts to the first two bars of the *Adagio* from Sonata I. The first chord can be broken low to high very slowly and stately, that is if one chooses a more aggressive beginning. If one chooses a somber, brooding beginning, then a leisurely arpeggiation that dies away can be employed. This very open approach, whether it is forceful or subtle, can be applied to chords with enough space before or after. I choose a very powerful approach to the opening chord. The next chord I break is on beat three of bar 2 and play the others in this passage simultaneously. This is done in an effort to not obscure the sixty-fourth-note figures that lead into beats three and one of measures 1 and 2 respectively. Below is my transcription.



Musical Example 2. Adagio from Sonata I, BWV 1001, mm. 1-2 by J. S. Bach, arr. J. Mathena.

Parameter 3. Break chords should not distort the notated rhythm

When dense rhythmic figures precedes the chord, I recommend a blocked approach. This will not disrupt the rhythmic flow and the audience will perceive the music as it was written. There is little mention of the execution of broken chords as they relate to the surrounding rhythms but Michel de Saint-Lambert said "[unmeasured] arpeggiation is only suitable in [unmeasured] preludes, where there is no strict measure; for in airs with [measured] movement (Airs de mouvement) it is necessary to strike the chords definitely in time with the bass."[30] Even though this quote does not specifically address parameter 3, Saint-Lambert's idea can be applied.

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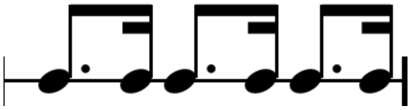
[29] Schröder, *Bach's Solo Violin Works,* 56.

There are moments when Bach wrote three- and four-voice chords amidst lively rhythmic activity. When violinists break these chords, it warps the rhythm and a listener, who is unfamiliar with the piece, may not perceive the rhythm as the player intended. Still, because the violin has to break these chords does not mean a keyboardist does and I recommend block chords in rhythmically dense passages. Of course, there are exceptions but these are sparse and can be saved for important moments, like interludes, episodes, and cadences.

On a violin, the *Adagio* from the Sonata III can sound awkward to anyone who is unfamiliar with the work. A problem is the interpretation of the following rhythm:



Musical Figure 2. Recurring rhythm of the *Adagio* from Sonata III, BWV 1005 by J. S. Bach.

This is not to say that this rhythm is difficult for the violin but rather this rhythm is difficult to execute accurately when accompanied by two or three voices sounding on the beat with this figure. In an effort to not mutate this rhythm, I break chords in only a few places in this movement and never during the motor rhythm. Below is my transcription of the first ten bars from the *Adagio* from Sonata III.

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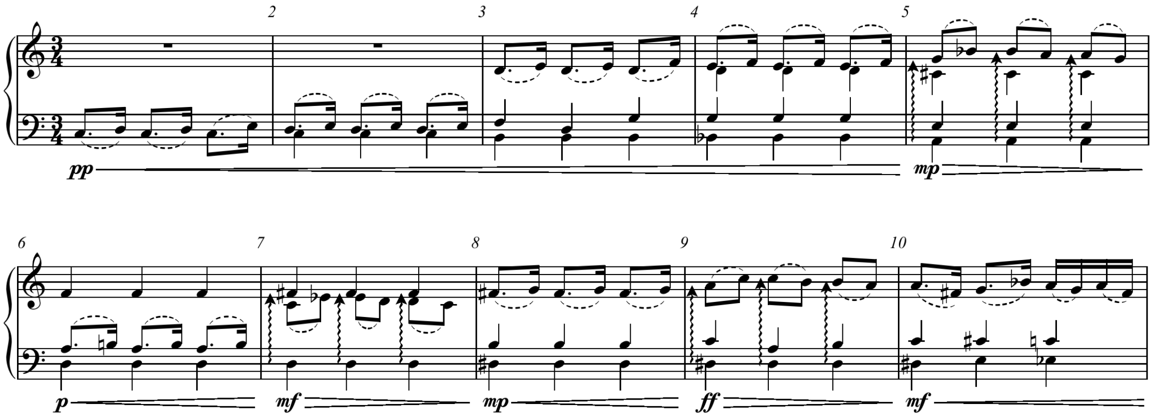
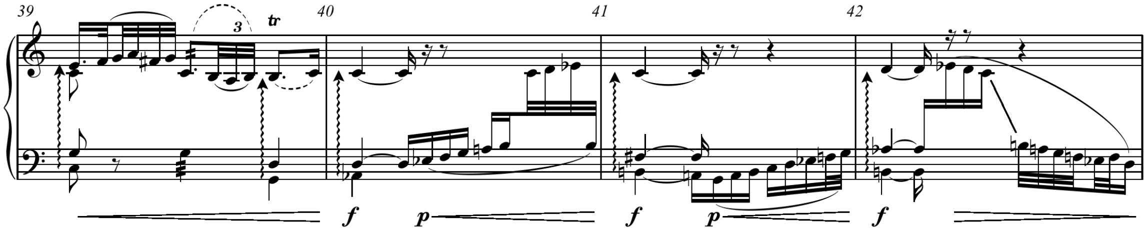
[30] Michel de Saint-Lambert, *Nouveau traité de l'accompagnement* (Paris: 1707), 130, quoted in Donington, *The Interpretation of Early Music*, 347.



Musical Example 3. *Adagio* from Sonata III, BWV 1005, mm. 1-10 by J. S. Bach, arr. J. Mathena.

Because of the steady eighth-note rhythm, which allows space for arpeggiated chords without disrupting the rhythm, the chords in mm. 5, 7, and 9 have been notated as broken. In an effort to be true to the rhythmic motive above, it is recommended that the chords around that rhythm, like in bars 3, 4, 6, 8, and 10 for example, be played blocked and not broken. The sixteenth-note to the dotted eighth-note can not be clear to the listener if a broken chord is wedged between those two notes.

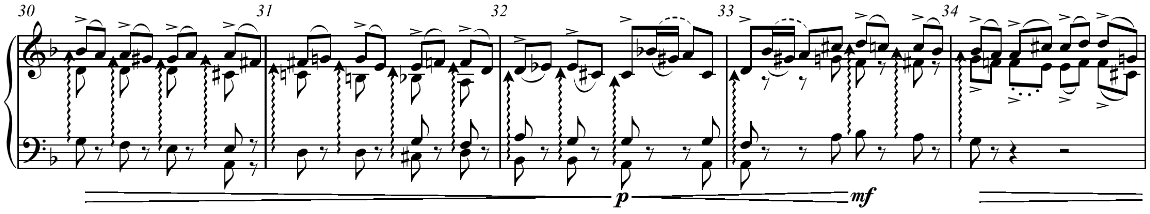
Even though the rhythmic density increases in bars 39-42, broken chords can be applied even if the preceding rhythm becomes mutated and rubato-like. This is in contrast to the previous two performance suggestions that warned against breaking chords preceded by faster rhythms, but at the end of the *Adagio* broken chords are quite appropriate given the harmony Bach has provided. Also one would do well to incorporate rubato.



Musical Example 4. Adagio from Sonata III, BWV 1005, mm. 39-42 by J. S. Bach, arr. J. Mathena.

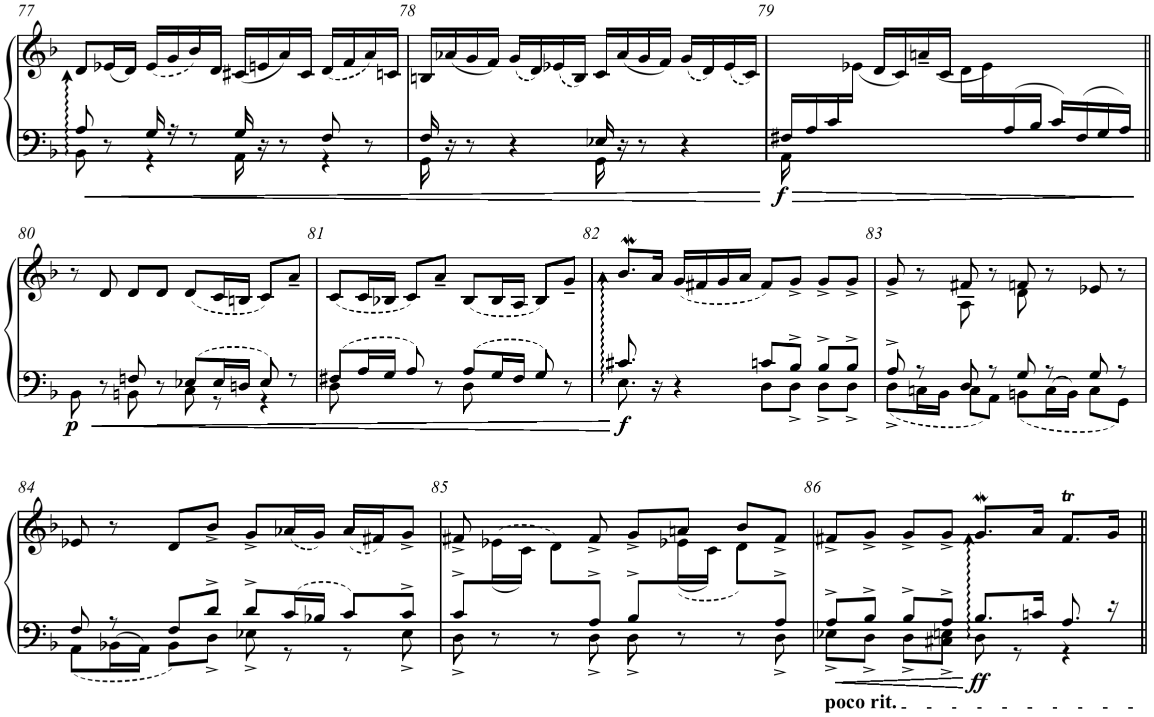
All of the above chords are broken and on the beat save one, count three of bar 39. This chord is executed left-right with the left hand playing the G and D simultaneously on the beat and the right hand taking the B slightly after the beat.

Unlike the slower and freer G minor *Adagio*, broken chords in the fugas should be more predictable and consistent but less frequent. For variety and the illusion of length, there are times in which all chords should be broken regardless of metric placement. All chords *on* the beat in mm. 30-4 can be broken while keeping the rhythmic integrity only if the chord is rolled *before* the beat. By rolling all chords in these bars, the long-short figure in the upper voice can be emulated on an instrument like the marimba, which has no sustaining capabilities besides the natural resonance of the bars.



Musical Example 5. Fuga from Sonata I, BWV 1001, mm. 30-4 by J. S. Bach, arr. J. Mathena.

In contrast to passages like the previous one, another example of a phrase where no chord should be broken because of the surrounding rhythms begins in m. 77 and continues through 86. Because of the sixteenth-notes in the right hand, the chords should be played blocked so the rhythm in the upper staff is not obstructed. In m. 80, the recapitulation begins with the main line in the bass with bits of the subject continuing in the tenor and alto voices. Because of the density of voices and low placement of the subject, it is recommended that no chords should be broken with the exception of the cadential 6/4 on count three in bar 86.



Musical Example 6. Fuga from Sonata I, BWV 1001, mm. 77-86 by J. S. Bach, arr. J. Mathena.

Parameter 4. If a passage is melody and accompaniment,
chords should be broken sparingly

Like other keyboard instruments, the marimba is capable of accompaniment and melody simultaneously. There are instances in the sonatas and partitas where chords occur when one line has the melody and the other voices are secondary in importance. I recommend breaking chords only in certain occasions. There is no specific evidence to support this idea but regarding Baroque accompaniment, Donington said "in many passages, perhaps a majority, a plain accompaniment serves best."[31]

Two movements from the Sonatas and Partitas that are clearly homophonic in texture are the *Siciliana* from Sonata I and the *Andante* from Sonata II. If one were to break all the three- and four-voice chords, then the melody and accompaniment could sound as one voice instead of separate lines. In these two movements, small interludes are dispersed throughout and these areas provide opportunities for some embellishments. Also cadence points can be ornamented with broken chords to emphasize the ends and beginnings of phrases.

In the pastoral *Siciliana*, the majority of the melodic material is found in the lower voice with the upper voices providing rhythmic and harmonic support. In an effort to not disrupt the rhythm of the melody and its accompaniment, I recommend that broken chords should be used sparingly, particularly at cadences, mm. 4, 14, 16, 19, and 20, and the brief interludes, mm. 8, 12-4, and 16-8. By not rolling the chords of bars 1-7 (with the possible exception of the tonic chord in bar 4) and 9-11, the rhythm of the melody and accompaniment, as well as which specific line is the melody and which is the accompaniment, are both clear to the listener.

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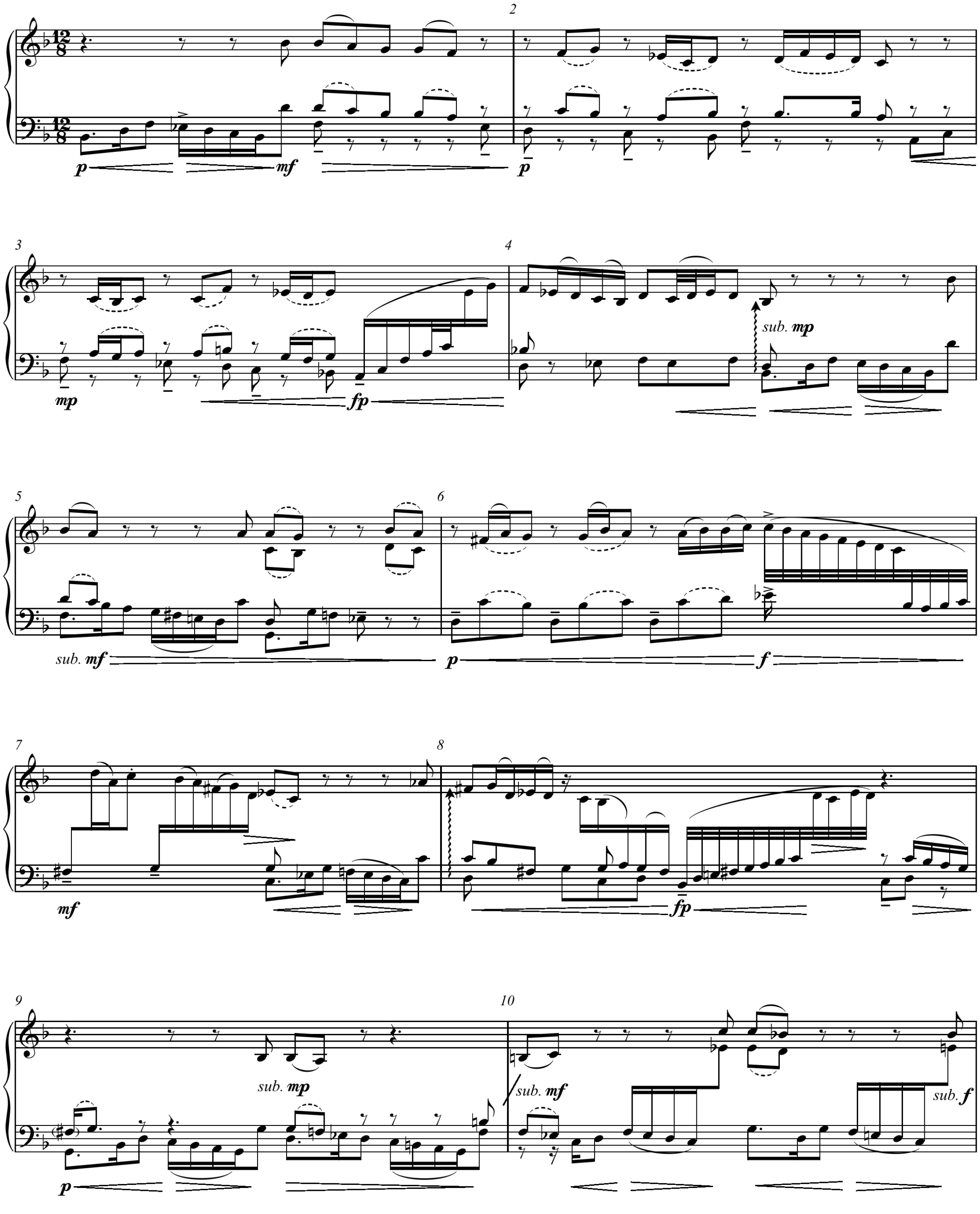
[31] Robert Donington, *Baroque Music: Style and Performance, A Handbook* (New York: W. W. Norton, 1982), 150.


2
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f
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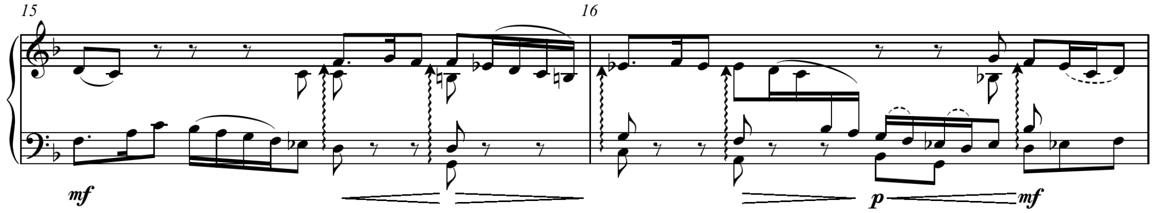
Musical Example 7. Siciliana from Sonata I, BWV 1001, mm. 1-10 by J. S. Bach, arr. J. Mathena.

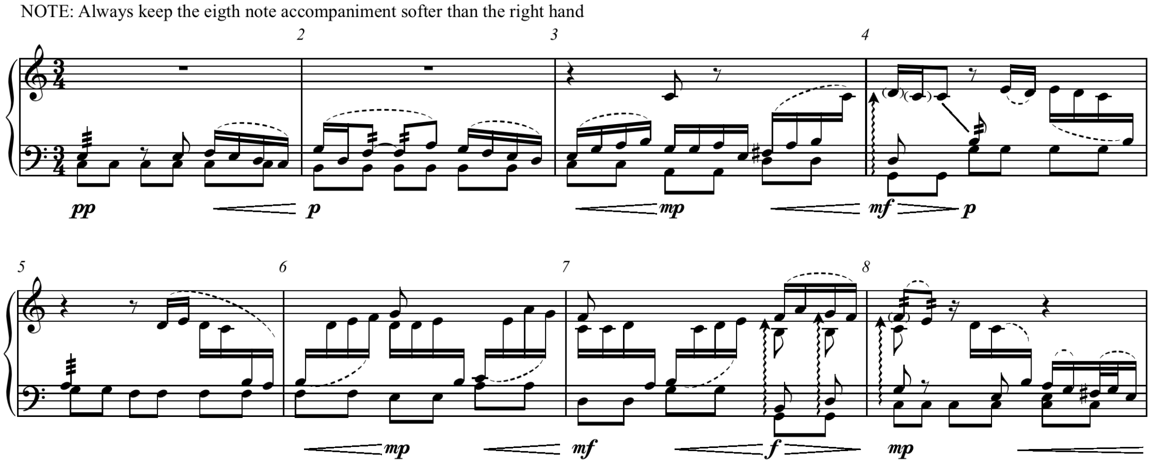
Since this movement is relatively slow and peaceful, one should vary the speed of the broken chord according to dynamics and dissonance. An example of this would be the G dominant 7 chord in bar 15 that resolves to the C minor triad on the downbeat of bar 16. It is recommended that the G dominant 7 chord be rolled more openly and dramatically than the C minor chord to emphasize the cadence.



Musical Example 8. *Siciliana* from Sonata I, BWV 1001, mm. 15-6 by J. S. Bach, arr. J. Mathena.

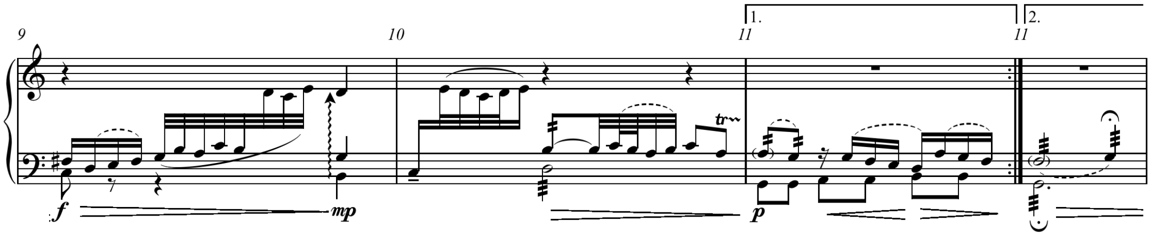
Like the *Siciliana*, the *Andante* from Sonata II is essentially melody with accompaniment, but in this movement the upper voice carries the main musical line with a steady eighth-note ostinato accompaniment underneath. As with the *Siciliana*, one must use broken chords sparingly so listener can easily distinguish what is the melody and what is not. This movement is hauntingly beautiful if one were to simply play just notes and rhythms. With added dynamics, phrasing, a few ornaments (especially on the repeats), and articulation, the *Andante* seems to come alive even without the aid of broken chords. Still, there are a few instances where a broken chord can render a lovely effect.

Cadences always provide an outlet for adding broken chords if the performer so chooses. I choose to arpeggiate the downbeat of bar 4 and 8 and sometimes the final two eighth notes of bar 7. These two passages mark the first two of three significant cadences of the A section.


NOTE: Always keep the eigth note accompaniment softer than the right hand
2
3
4
5
6
7
8
pp
p
mp
mf
p
mp
mf
f
mp

Musical Example 9. Andante from Sonata II, BWV 1003, mm. 1-8 by J. S. Bach, arr. J. Mathena.

The next broken chord can be found on count three of bar 9. To give a sense of rubato, I pull back the tempo for the first beat of this bar then push through the thirty-second-notes on count two only to land delicately on count three with a unique interpretation of the lower note sounding first followed by the two upper notes sounding simultaneously.


1.
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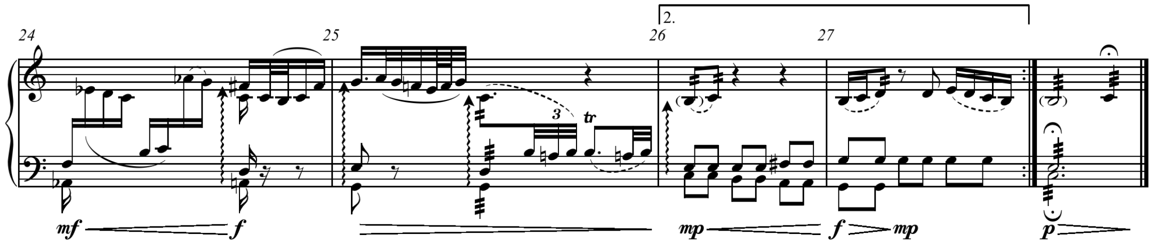
mp
p

Musical Example 10. Andante from Sonata II, BWV 1003, mm. 9-11 by J. S. Bach, arr. J. Mathena.

To clarify, the B is played on the beat with the left hand and the G and D come after the beat with the right. This will help the listener hear the ascending half step in the bass between mm. 9 and 10. Because of the rhythmic activity, these bars, if played sensitively, can suspend time without bending it too far. The same can be said for mm. 24 and 25.



Musical Example 11. Andante from Sonata II, BWV 1003, mm. 24-7 by J. S. Bach, arr. J. Mathena.

In bar 24, the sixteenth-note rhythm is purposefully jolted by the placement of a very wide and powerful chord executed thus: the A is struck rather forcefully then I accelerate and crescendo to the F#. Time does slow briefly but can be made up with the four notes that lead into bar 25. The dominant chord leading to the cadence at bar 26 is broken but once the eighth note accompaniment reenters, I go back to the steady tempo with no broken chords.

CHAPTER III

DIFFERENT APPROACHES TO BREAKING CHORDS

Now that I have verified when chords can be broken according to very general musical elements, musical examples displaying very specific places will be discussed. The main point one must remember is chords can be broken in a number of ways. If every broken chord within a given work or set was arpeggiated in the same manner every time, the performance would be stale and predictable. In his treatise on the Sonatas and Partitas, Richard Efrati said "above all, chords should not be regarded as pillars which support a homophonic line, but as the starting-points or bearers of several musical lines."[32]

Since they are the most common ways of breaking chords, I will first cover when to roll chords up or down. Later in his book, Efrati also wrote

> In cases where the lower voice is moving, editors suggest starting the chords from the upper string. This method of playing would however would be contrary to a rule given by Christofer Simpson (†1669) in his Tutor for the Viola da gamba: "When two, three, or more notes stand over another, they must be play'd as One, by sliding the Bow over those Strings which express the sound of the said Notes ... be sure to hit the lowest String first (insisting thereon as long as need requires) and let the Bow slide from it to the highest, touching in its passage those in the middle betwixt them."[33]

In contrast to Efrati's statements, Robert Donington believed in "ending on whichever note (top, bottom, or middle) continues the melody."[34] This is a fine interpretation that allows for more creativity and it also will provide much variety, but if the tempo or rhythm does not allow for it, this simply may not be possible. Arnold Dolmetsch also shared Donington's sentiments.

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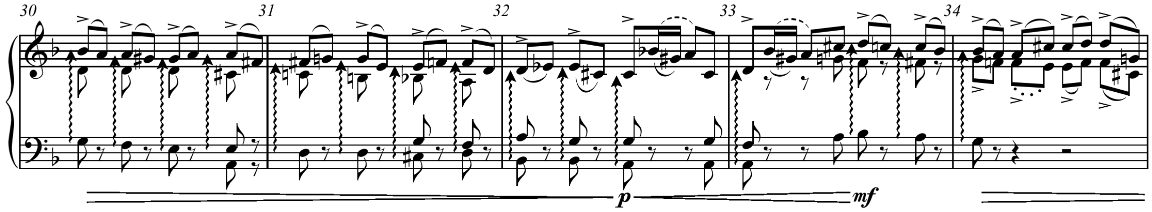
[32] Richard R. Efrati, *Treatise on the Execution and Interpretation of the Sonatas and Partitas for Solo Violin and the Suites for Solo Cello by Johann Sebastian Bach* (Zurich: Atlantis, 1979), 133.

[33] Ibid., 204.

[34] Donington, *The Interpretation of Early Music*, 544.

> In modern music, the chords, when broken, are nearly always broken upwards, beginning with the lowest note. In the old music many other forms were used. The player had to find out the best arrangement, and he was supposed to know how to fill up the time of each Arpeggio chord according to the style of the piece he was playing.[35]
>
> Dolmetsch enhanced his argument further using the writings of Rameau.
>
> In the advice to players prefacing the "Concerts en Trio" of Rameau (1741), there is a direction to the viol player which is most useful in indicating how to treat arpeggios containing important inner parts. Rameau says that in places where the violist cannot conveniently play two or more notes together, he must play them arpeggio, *finishing upon the one on the side of which the melody continues*. This is the key to the interpretation of many arpeggios of Bach.[36]

He believed the most important item to consider when breaking a chord is placement of the primary line. If the main voice is in the soprano, then the chord is broken from low to high, and if the main voice is in the bass, then high to low. For an example of chords broken from low to high, I will revisit a phrase from one of the episodes of the G minor *Fuga*. In example 9 the most important line is undeniably in the soprano, therefore I break all chords upward, starting before the beat.



Musical Example 12. *Fuga* from Sonata I, BWV 1001, mm. 30-4 by J. S. Bach, arr. J. Mathena.

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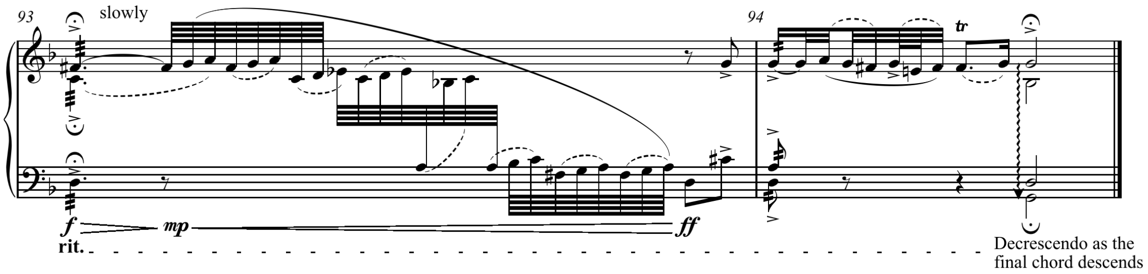
[35] Arnold Dolmetsch, *The Interpretation of the Music of the Seventeenth and Eighteenth Centuries: Revealed by Contemporary Evidence* (London: Novello, 1915), 260.

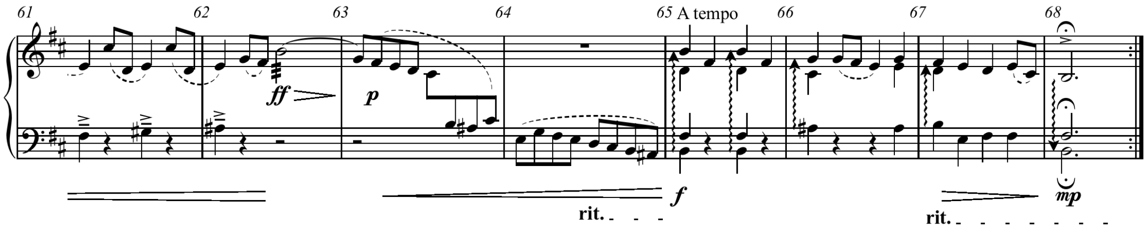
[36] Ibid., 270.

Examples of downward rolled chords are a bit harder to find in the sonatas and partitas. In certain musical instances, I agree with Efrati and start the chord from the bottom regardless of main line placement, but when that line is in the bass voice, I typically play all tones of the chord simultaneously. However, there are a few instances where I start at the top and roll down. Two specific chords will serve as examples.

Final chords are acceptable moments for a downward broken chord. Two movements, in particular, the G minor *Fuga* and the *Tempo di Borea*, I end with a downward broken chord that also decrescendos as it descends.

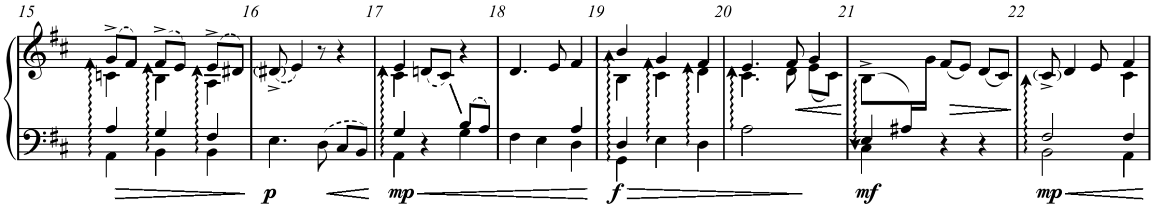


Musical Example 13. *Fuga* from Sonata I, BWV 1001, mm. 93-4 by J. S. Bach, arr. J. Mathena.

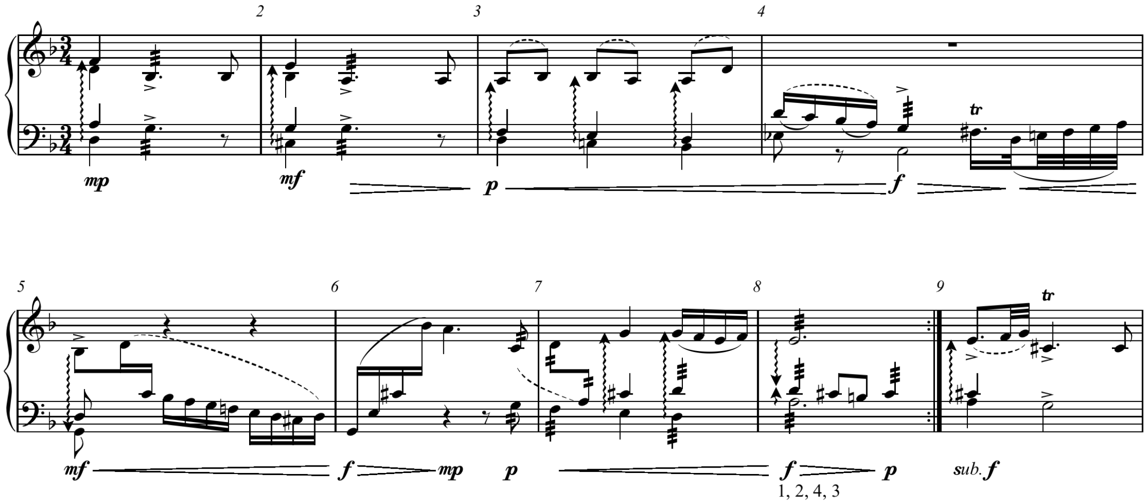


Musical Example 14. *Tempo di Borea* from Partita I, BWV 1002, mm. 61-8 by J. S. Bach, arr. J. Mathena.

Some chords can be broken high to low even when the main line is in the top voice. The key to executing this without blurring main note for the listener is to strike the top note *on* the beat and roll the chord downward *after* the beat swiftly and diminishing in volume as it descends. Bar 21 from the B minor *Sarabande* and bar 5 of the D minor *Sarabanda* are both places where I apply this concept. In the D minor *Sarabanda* it works well because of the thirty-second-note figure leading into bar 5. If one were to break the chord from low to high the resolution, the Bb, would come after the beat instead of on the beat where it belongs. The only other suitable option is to play a blocked chord in bar 5.



Musical Example 15. *Sarabande* from Partita I, BWV 1002, mm. 15-22 by J. S. Bach, arr. J. Mathena.



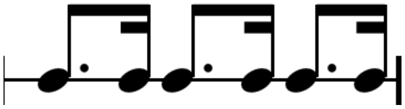
Musical Example 16. *Sarabanda* from Partita II, BWV 1004, mm. 1-9 by J. S. Bach, arr. J. Mathena.

In contrast to the relatively obvious decisions involving ascending or descending chords, problems arise when the principal line is in an inner voice. Some think that regardless of the primary moving line, all chords should be broken from bottom to top.

As open-minded as Jaap Schröder is on many issues, sometimes he was fervent in his belief that regardless of the principal line, chords should always go from bottom to top.

> According to Andreas Moser, a close friend of the violinist [Joseph Joachim], after hearing Joachim play bars 9-17 with the chords broken downward, from top to bottom, "Mendelssohn clapped his hands together over his head and shouted: How can you play in such an artificial way? Play Bach's music in the natural manner which you used before, and remember first of all that intelligent and truly musical people hear not only with the outer ear but also with their inner ear. Therefore they always know where a motive comes from and where it goes – for the unmusical listeners there is in any case no remedy such as you applied in this passage on the advice of David, Lipinsky, or someone else!" (The chordal passage in question presents the main line in the bass; breaking the chords downwards to stress those bass notes produces, in my mind, the effect of vomiting.)[37]

There are also some who believe the exact opposite of Schröder, Joachim, and Mendelssohn. Donington says "[end] on whichever note (top, bottom, or middle) continues the melody."[38] There is a unique phrase beginning in bar 9 of the *Ciaccona* where the primary focus is in an inner voice. To further complicate matters, the overriding motor rhythm is



Musical Figure 3. Recurring rhythm of mm. 9-16 of the *Ciaccona* from Partita II, BWV 1004 by J. S. Bach.

If the chords on counts one and two of the bars in question must be broken, this rhythm will be distorted and the primary voice still may not be distinguished by the listener. This would seem like a place to *not* break chords but I believe broken chords are actually the solution to bringing out the principal voice while still faithfully adhering to the rhythm.

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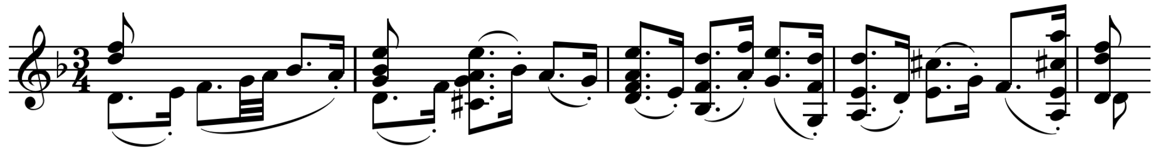
[37] Jaap Schröder, *Bach's Solo Violin Works,* 132. In reference to the *Ciaccona*. Ferdinand David (1810-1873), was the publisher of the second edition of the sonatas and partitas in 1843. According to Schröder, Karl Lipinsky was the "greatest Bach player of his time."

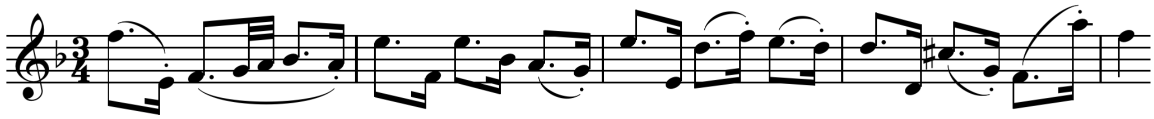
[38] Donington, *The Interpretation of Early Music*, 544.

Before I present my solution, Carl Flesch's interpretation will be examined. Regarding mm. 9-12 of the *Ciaccona* he asserted that "only the question remains how that breaking should be handled, when thematic considerations preclude the breaking from low to high strings."[39]



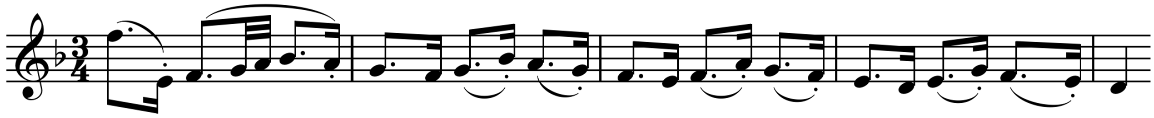
Musical Example 17. *Ciaccona* from Partita II, BWV 1004, mm. 9-12 by J. S. Bach, ed. Carl Flesch, *The Art of Violin Playing*, book one, translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000), 145.

> If the chords were broken in the ordinary way, the theme of this variation would sound thus:



Musical Example 18. *Ciaccona* from Partita II, BWV 1004, mm. 9-12 by J. S. Bach, reduction by Carl Flesch, *The Art of Violin Playing*, book one, translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000), 145.

> instead of:



Musical Example 19. *Ciaccona* from Partita II, BWV 1004, mm. 9-12 by J. S. Bach, reduction by Carl Flesch, *The Art of Violin Playing*, book one. Translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000) 145.

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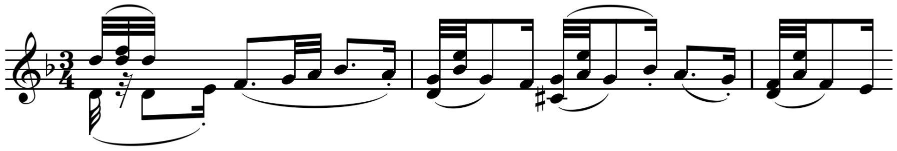
[39] Flesch, 145.

> From a thematic point of view, the only correct manner of execution would be notated:[40]



Musical Example 20. Ciaccona from Partita II, BWV 1004, mm. 9-11 by J. S. Bach, ed. Carl Flesch, *The Art of Violin Playing*, book one. Translated and edited by Eric Rosenblith (New York: Carl Fischer, 2000) 145.

Flesch's solution still alters the rhythm too much for my taste and when played on the marimba, it sounds awkward. To enhance the inner line, which is the principal voice, and also honor the dotted rhythms, I actually strike the melody note *on* the beat and break the chord *after* the beat. While the rhythm is still altered, if the melody note is played prominently on the beat and the chord is broken swiftly and quietly after the beat, the effect is almost echo-like and the listener should recognize the dotted rhythms right away and not the broken chord rhythm. The next page contains two examples of my own arrangement. The first is taken from my performance edition and the second is a reduction showing only the approximate rhythms as a result of broken chords.

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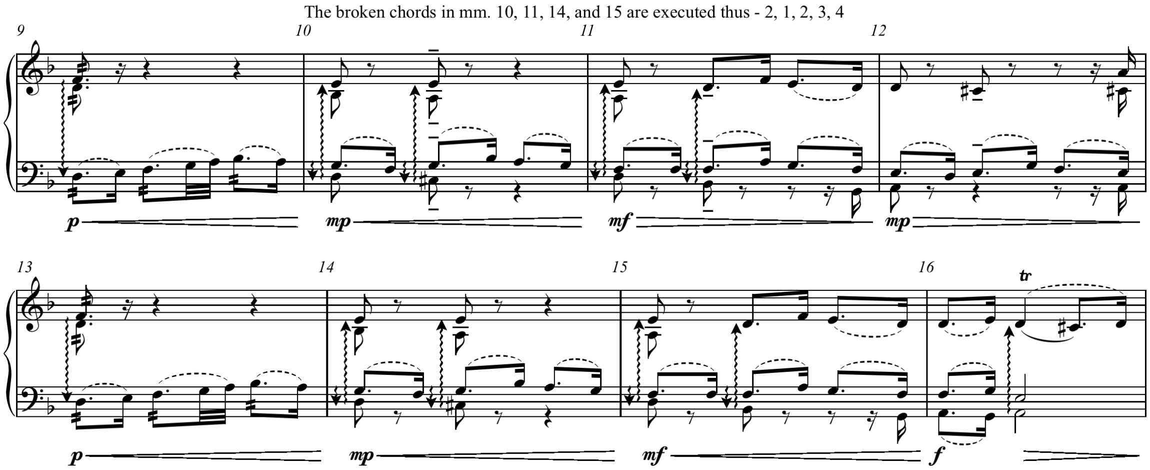
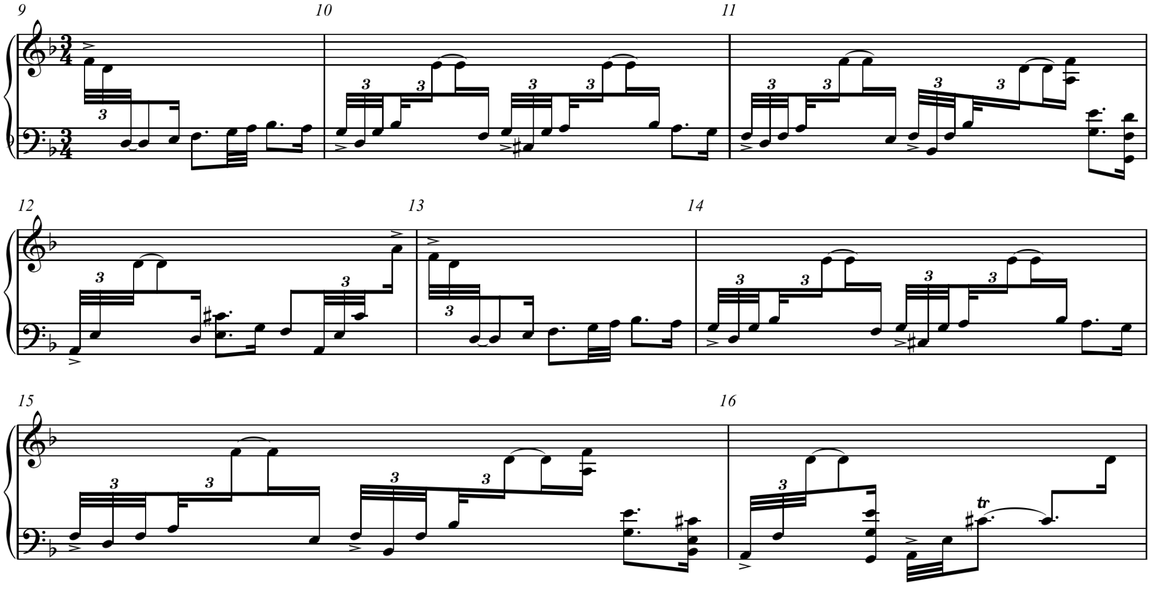
[40] Ibid., 145.


The broken chords in mm. 10, 11, 14, and 15 are executed thus - 2, 1, 2, 3, 4
9
10
11
12
13
14
15
16
tr
p
mp
mf
mp
p
mp
mf
f

Musical Example 21. *Ciaccona* from Partita II, BWV 1004, mm. 9-16 by J. S. Bach, arr. J. Mathena.


9
10
11
12
13
14
15
16
tr

Musical Example 22. *Ciaccona* from Partita II, BWV 1004, mm. 9-16 by J. S. Bach, rhythmic approximation by J. Mathena.

The downbeat of m. 10 from the G minor *Adagio* is another example of how to negotiate a situation where the important note is in an inner voice. Instead of starting on the focal note, one can also end on it according to Dolmetsch and Rameau.[41] The retardation in the alto is the focal point of this chord and therefore the chord is arpeggiated 1, 2, 4, 3. By ending on the alto the listener will be drawn to the dissonance and subsequent resolution.

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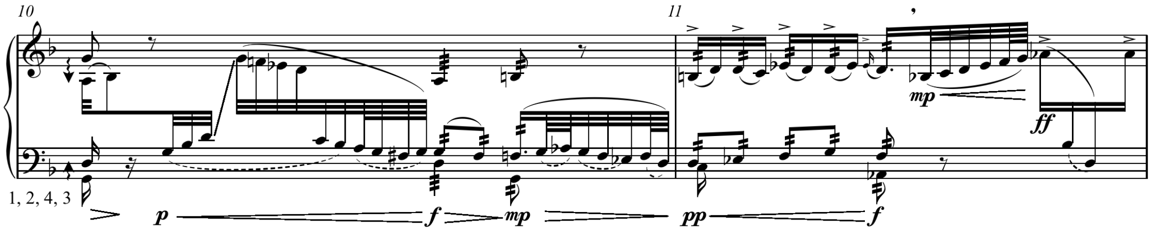
[41] See footnote 34 and 35.



Musical Example 23. Adagio from Sonata I, BWV 1001, mm. 10-1 by J. S. Bach, arr. J. Mathena.

These are but a few possible combinations, but they are the more accessible solutions to the marimbist and therefore more easily identifiable to the listener. Still, there are only a finite number of ways to execute broken chords. Below is a chart of all two-, three-, and four-note possibilities of broken chords for reference. Some of these permutations are used quite frequently by marimbists and some very rarely if ever due to there awkwardness.

Dyads

1. 12
2. 21
3. 1/2

Triads

1. 123
2. 321
3. 231
4. 312
5. 132
6. 312
7. 213
8. 1/2 3
9. 3 1/2
10. 1 2/3
11. 2/3 1
12. 1/3 2
13. 2 1/3
14. 1/2/3

Tetrads

1. 1234
2. 2341
3. 3412
4. 4123
5. 1342
6. 2413
7. 3124
8. 4231
9. 1423
10. 2134
11. 3241
12. 4312
13. 1432
14. 2143
15. 3214
16. 4321
17. 1324
18. 2431
19. 3142
20. 4213
21. 1243
26. 3/41/2
27. 1/42/3
28. 2/31/4
29. 1/32/4
30. 2/41/3
31. 1/2/34
32. 12/3/4
33. 41/2/3
34. 2/3/41
35. 1/3/42
36. 21/3/4
37. 1/2/43
38. 31/2/4
39. 1/234
40. 1/243
41. 341/2
42. 431/2
43. 41/23
44. 31/24
45. 123/4
46. 213/4
51. 12/34
52. 42/31
53. 2/314
54. 2/341
55. 142/3
56. 412/3
57. 1/324
58. 1/342
59. 21/34
60. 41/32
61. 241/3
62. 421/3
63. 132/4
64. 312/4
65. 12/43
66. 32/41
67. 2/413
68. 2/431
69. 1/423
70. 1/432
71. 21/43

22. 2314
23. 3421
24. 4132
25. 1/2 3/4
47. 3/4 1 2
48. 3/4 2 1
49. 1 3/4 2
50. 2 3/4 1
72. 31/42
73. 231/4
74. 321/4
75. 1/2/3/4

Chart 1. Permutations of all possible combinations of dyads, triads, and tetrads. Each number represents a tone in the chord from bottom to top (1234). If two numbers are connected with a slash, i.e. 1/2, they are to be played simultaneously. Arranged in rows from left to right.

How one breaks chords can be dictated by the placement of the main line, but other musical variables can also dictate when and how to apply these permutations, and to what degree these combinations can vary. The speed of arpeggiation is a variable factor and should be used according to certain musical aspects. A swift upward or downward motion can create intensity and excitement whereas a slow, open rolling of the chord can also create tension by suspending time. In an effort to make all four strings sound simultaneously, some violinists roll the chord as fast as possible. Some, including Mattheson, believe this to be the appropriate method.

> One might object: We want to perform it slowly. But I [Mattheson] reply that when that occurs then all arpeggiated things lose their real essence and true nature, which consists only of motions and always aims towards swiftness.[42]

In extreme contrast to Mattheson, Thurston Dart said

> arpeggios must be fairly slow, beginning from the bass and with each note clearly defined; their rhythm should be uneven, the upper notes of the arpeggio being delayed for quite a time after the bass has been sounded.[43]

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[42] Mattheson, 579.

[43] Dart, 116.

In contrast to both Mattheson and Dart, Jaap Schröder believed in a variety of approaches.

> Chords can be executed briskly with one short impulse, but most will be arpeggiated, violently or leisurely, tightly or spread out, down-bow or up-bow.[44] Many of the multiple stops do not ask for a big sound; a light arpeggiated gesture is most appropriate to keep the rhetorical monologue flowing. By contrast, some strong and sudden dissonant chords can have great impact when played with an energetic down-bow stroke...[45]

One should bear in mind that swiftness does not equal to loud chords and leisurely broken chords are not always associated with softer passages. Dynamics are an entirely different variable altogether. Mattheson probably warned against slow arpeggiations so one could avoid chords that have discernible rhythms. It is imperative that broken chords sound rhythmically ambiguous. Dart probably warned against swift arpeggiation so one would not roll chords so fast that they become harsh and unmusical. In *The Interpretation of Early Music,* Robert Donington offered two solutions to this problem.

> With a bridge as highly curved as the present standard [violin], and with strings as tense, it is not possible for the bow to hold down more strings than two except with great pressure. This leaves two alternative: either the chords are arpeggiated, and the polyphony touched on but not sustained, which permits an easy style while leaving something to the imagination; or the chords are made as nearly simultaneous as possible and as much of the polyphony is sustained as can be held down, which fills in some of the gaps in the sound, but imposes a very strenuous style. The first alternative is historically correct and gives by far the most musical results; but it can be given greater continuity of sound by a somewhat flatter bridge.[46]

Of the two broken chord options provided, Donington believed only one was "historically correct"—a standard arpeggiation where the polyphony, and at times the rhythmic values, was left to the "imagination."[47] Even though the contrasting method, making the chords sound "as nearly simultaneous as possible" but producing a very "strenuous" sound, was thought by Donington as being historically incorrect, sometimes one must strive for a simultaneous-like broken chord.[48] Loud and abrasive can sometimes be the desired effect and if the rhythmic motion is brisk, one must play chords as quickly as possible to avoid distortion of the meter. Keyboardists can arpeggiate chords rather leisurely, rather quickly, or play all tones of a given chord simultaneously.

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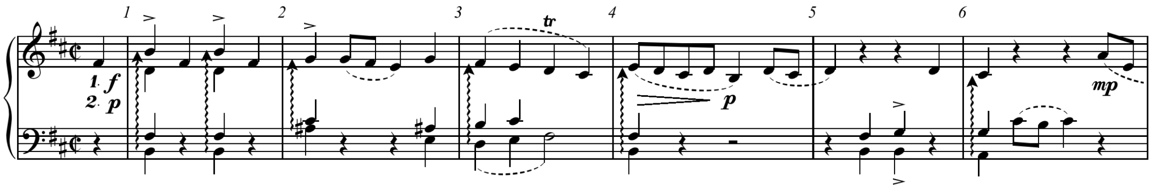
[44] Schröder, *Bach's Solo Violin Works,* 56.

[45] Ibid., 57. In reference to the Adagio from BWV 1001.

[46] Donington, *The Interpretation of Early Music*, 541.

Based on my studies with Dana Ragsdale, I have concluded that the speed of a broken chord is a variable that can determined by tempo, volume, and affect. For example, the *Tempo di Borea* is a moderately brisk, lively movement and therefore chords should be rolled rapidly, not harshly though, to maintain forward momentum. Notice the repeat is soft but the chords are still broken swiftly.[49] In this example, dynamics have no bearing on broken chords.



Musical Example 24. *Tempo di Borea* from Partita I, BWV 1002, mm.1-6 by J. S. Bach, arr. J. Mathena.

In contrast, the D minor *Sarabanda* is a slow, brooding work leaving the performer time to arpeggiate chords slowly and dramatically. Measure 21 is a wonderful opportunity to play two broken chords in two different manners. The metric characteristic of the *Sarabanda* is a strong second beat in each bar, therefore I roll the first chord rather slowly and the second very slow. Both should be forte but the second should obviously be noticeably stronger.

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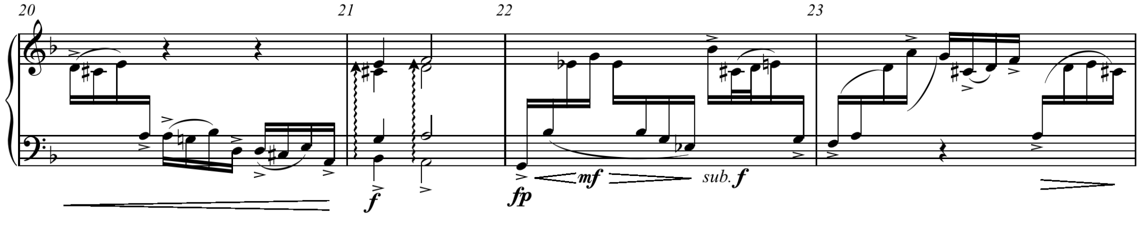
[47] Ibid.

[48] Ibid.

[49] One of the Baroque traditions was to play the A section of a binary dance soft on the repeat.



Musical Example 25. *Sarabanda* from Partita II, BWV 1004, mm. 20-3 by J. S. Bach, arr. J. Mathena.

Where the broken chord begins and ends is also of utmost importance to the performer. Just like those who are adamant about chords being broken only from low to high, there are some who think are chords should be broken *on* the beat, that is the first note sounds *on* the beat. In *The Interpretation of Bach's Keyboard Works*, Erwin Bodky wrote "in regard to the arpeggio, we need only mention here that it too, like all other embellishments, must be played *on* and not *before* the beat (as is customary nowadays)."[50]

In contrast to Erwin Bodky's fervent statement, it is again Jaap Schröder who supports options and choices rather than rules and regulations.

> Their lowest note can start before or on the beat, but the bass line will have greater definition when it is played on the beat with some degree of lengthening.[51] The chord must start either before or on the beat. If the chord stresses a note of the upper line, it must be played swiftly before the beat. If, on the contrary, the

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[50] Erwin Bodky, *The Interpretation of Bach's Keyboard Works,* trans. by Alfred Clayton (Cambridge: Harvard University Press, 1960), 182.

[51] Schröder, *Bach's Solo Violin* Works*,* 56.

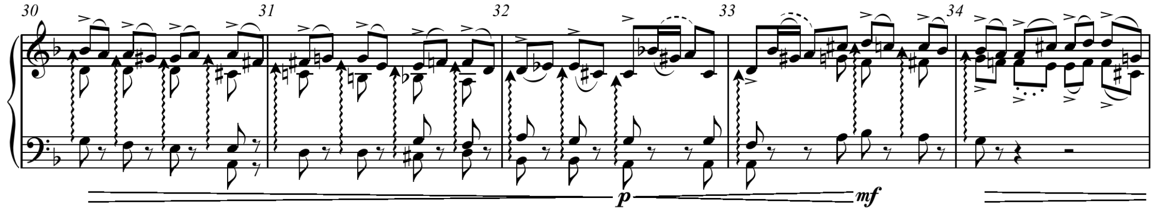
> lowest note deserves to remembered as part of a bass line, the chord must start on the beat and make a quick *diminuendo* upwards.[52]

Based on Schröder's above ideas and Baroque literature, which only rarely addresses *where* to break chords, I have narrowed the choices down to three.

1. Start before the beat and end on the beat
2. Start before the beat and end after the beat
3. Start on the the beat and end after the beat

Any of the combinations from Charts I can be applied to these three options.

Examples of the above three means will be drawn from the G minor *Fuga*, B minor *Sarabande*, D minor *Sarabanda*, and *Ciaccona*. First, I shall revisit mm. 30-4 of the G minor *Fuga* to provide an example of chords that are broken "before" the beat. To keep the eighth-note figures from sounding uneven, the bass note of these chords should sound before the beat and arpeggiate up to the soprano, which should sound on the beat. Example 26 is an example of this and example 27 a rhythmic approximation of what would actually be heard.



Musical Example 26. *Fuga* from Sonata I, BWV 1001, mm. 30-4 by J. S. Bach, arr. J. Mathena.

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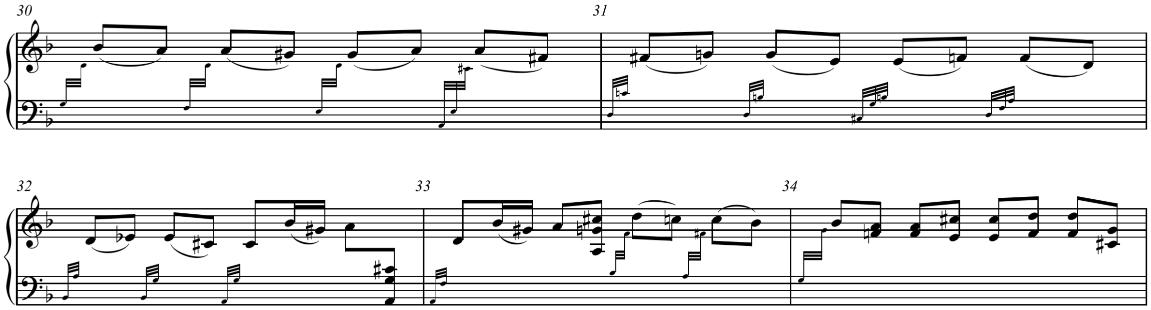
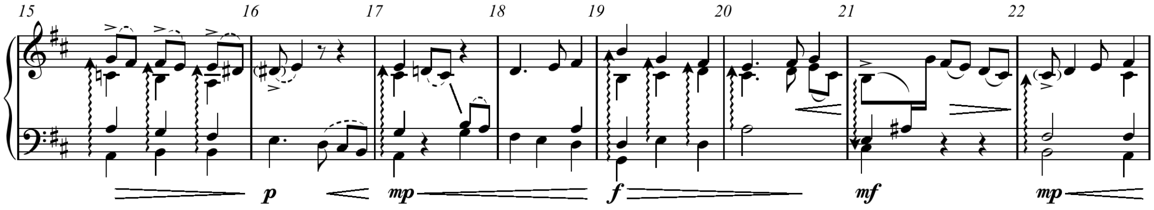
[52] Ibid., 66.



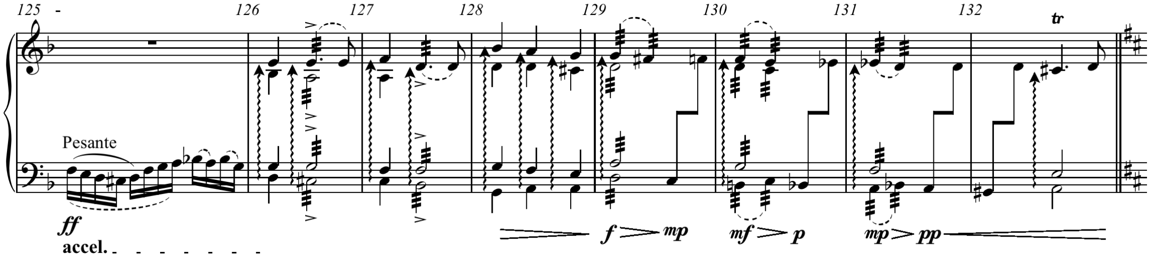
Musical Example 27. *Fuga* from Sonata I, BWV 1001, mm. 30-4 by J. S. Bach, rhythmic approximation by J. Mathena.

Tempo is more flexible in the slower movements of the sonatas and partitas, so liberties can be taken so long as the pulse remains somewhat steady throughout. With that being said, I will offer one performance suggestion for bar 15 of the B minor *Sarabande*. This measure is reminiscent of the example 26 from the G minor *Fuga*, but in contrast to the solution provided for the *Fuga*, I play the bass *on* the beat which would inevitably place the soprano *after* the beat. If one tries to keep the beat division exactly between the beat, the result will be a hesitant rhythm that will greater enhance the *sigh* effect that Bach has notated.



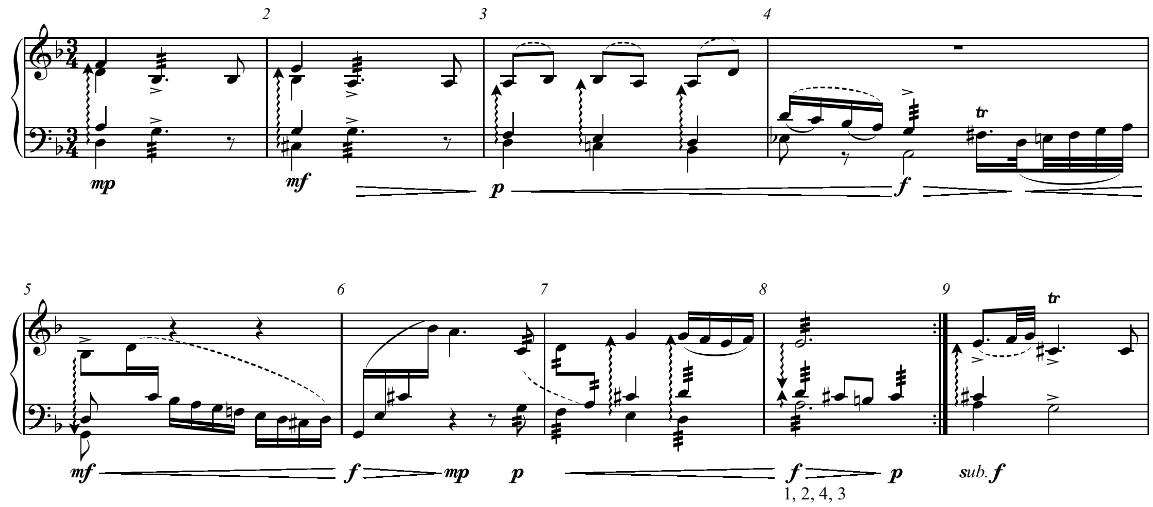
Musical Example 28. *Sarabande* from Partita I, BWV 1002, mm. 15-22 by J. S. Bach, arr. J. Mathena.

Most chords in the three thematic statements from the *Ciaccona*, mm. 1-9, 125-32, and 249-57, can be broken widely, dramatically, and *on* the beat. Any chord on a division of the beat can be broken as well but I recommend block chords. Another consideration I take into account is the relationship of count one to count two. Count one can be broken faster and a bit softer than count two, which is the prominent beat in the *Ciaccona*. Below is my transcription of the second statement of the main theme which concludes the first main section and ushers in the D major portion.


For mm. 126-32, the chords on the second beat should be broken slower and more openly than the chords on count one or three.

Musical Example 29. *Ciaccona* from Partita I, BWV 1004, mm. 125-32 by J. S. Bach, arr. J. Mathena.

Playing a chord that is broken beginning *before* the beat and ending *after* the beat is tricky and may not be perceptible to most listeners but nonetheless, it is a technique I have employed at times, even if only on rare occasions. The first two bars of the D minor *Sarabanda* each begin with a four-voice chord but since the metric accent is on count two, these chords are actually not the focal point of the measure. I try to establish rhythmic ambiguity by rolling these chords *through* the beat and then playing the rest of each measure in time. This may only be cerebral and not apparent to the listener, but rolling these chords does reinforce count two as the prominent beat in the bar.



Musical Example 30. Sarabanda from Partita II, BWV 1004, mm. 1-9 by J. S. Bach, arr. J. Mathena.

As mentioned earlier regarding the *Ciaccona*, metric accents, or metric stresses, also provide opportunities where the performer can roll chords. These metric stresses are determined by the dance and, if applicable, meter, and tempo. There is very little in the way of research into this topic so the majority of these ideas are my own passed down to me orally through my individual study with Baroque expert, Dana Ragsdale.

Because of the lack of specific writings on this subject one can only infer these ideas through more general statements on performance practice. In his violin treatise, L. Mozart asserted "the style of performing these broken chords is partly indicated by the composer; partly carried out by the violinist according to his own good taste.[53] Unfortunately Bach provided no indication in the sonatas and partitas and one can only speculate as to why. Maybe he knew an adept violinist would break only those chords requiring breaking in whatever manner he chose. Most three-voice chords and all four-voice chords would have to broken in some manner, so Bach knew necessity would inspire choice. But the inferred accent or accents of a given bar could also signal the player to do something more than just *stress* a certain beat. If chords occur on metric accents, they can be arpeggiated to further emphasize the specific stress of a measure, that is only if the rhythm and tempo allow for it. Jaap Schröder's comments on broken chords tell the performer to make choices based on musical factors. "Chords can be played in different ways, depending on their affect and function. The musical context determines whether a chord demands a leisurely *arpeggio* or a brisk strike."[54]

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[53] Leopold Mozart, *A Treatise on the Fundamental Principles of Violin Playing*, translated by Editha Knocker, 2nd edition (New York: Oxford University Press, 1985) (orig. pub. Augsburg, 1756), 161.

One should take heed to Schröder's use of the word *function*. I interpret this as sign to break chords that *function* as important landmarks leaving those chords on weak beats or on the division or subdivision of the beat to be broken sparsely if at all. With regards to slower and freer works, Richard Efrati said "in more lyrical passages, on the other hand, where an accent-free Cantabile is desirable, even chords over three strings should be broken.[55]

Since these gentlemen believe in a musical basis for breaking chords, then the defining characteristics of certain movements, namely the metric stress that delineates a dance from another dance, should also be employed in the decision-making process. First I will use some of the movements based on actual dances to demonstrate this.

Because they are based on actual dances, the sonata de camera[56] to be exact, Bach's solo violin partitas present the player with a clear metric stress or stresses in each bar. Each dance had specific body movements that corresponded to certain beats and therefore these agogic accents are to be emphasized in performance. Since the partitas fall under the category of *stylized* dances,[57] Bach did not always follow the agogic emphases emphatically, so one must be flexible in interpretation. Here are some examples applying the dance steps to the music and how broken chords can reinforce this.

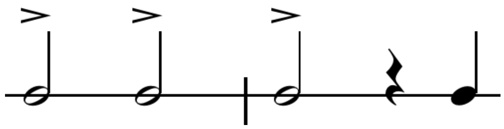
---

[54] Schröder, *Bach's Solo Violin Works*, 66.

[55] Efrati, 207.

[56] Sonata de camera is essentially a Baroque dance suite.

An important aspect of the *Tempo di Borea*, and the dance it is based on, the bourée, is the following rhythm.



Musical Figure 4. Dance rhythm of the bourée.

Hence one should feel the strong beats as 1- 2 - 1 throughout this movement. The quarter note at the end of the second bar is another characteristic of the bourée and is considered a pick-up to the next couplet.

To convey to the listener the correct *feel*, one need not only emphasize the above rhythmic figure but, when the moment presents itself, arpeggiate chords that happen to fall on these metric pulses. Example 31 is an example of this interpretation. Throughout this movement one can find examples of this and break chords on these beats for emphasis accordingly. To further emphasis the bourée rhythm, one can also *not* break any chord that falls outside this figure. The pick-up quarter note should never be emphasized as it belongs to the next beat and if a three- or four-voiced chord occurs on the pick-up, it should be executed as a blocked chord and not broken.

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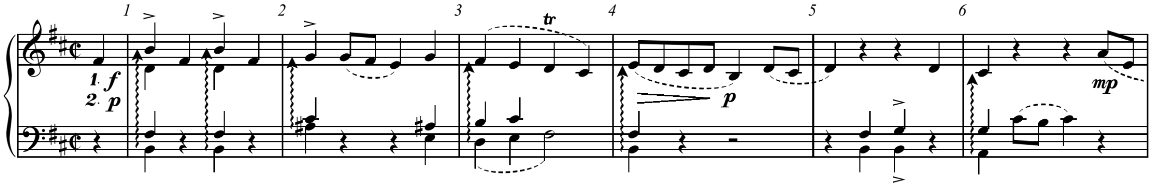
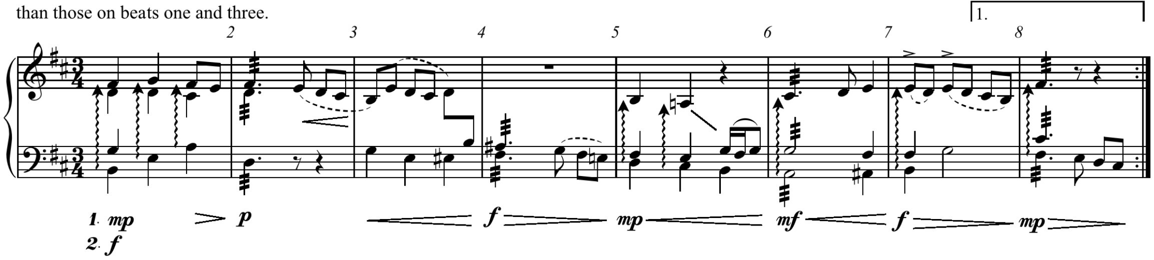
[57] Stylized dances followed the form and *feel* of the Baroque dances but were not meant to accompany dance.



Musical Example 31. Tempo di Borea from Partita I, BWV 1002, mm. 1-6 by J. S. Bach, arr. J. Mathena.

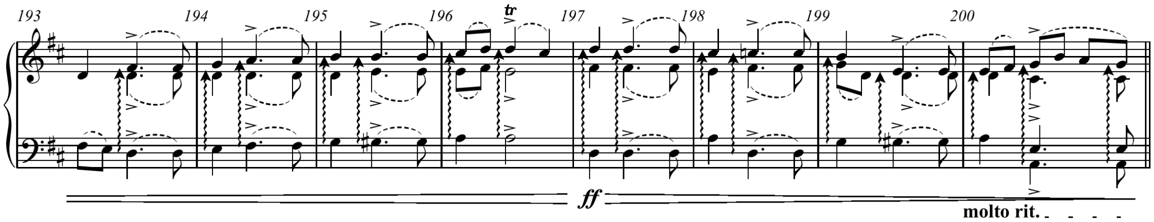
Another example, the B minor *Sarabande*, or saraband as the dance is commonly known, is characterized by a slow, rather solemn but stately feel with a metric emphasis on the second beat of each bar. The strong second beat coincides with the steps of the dance. Those bars of the B minor *Sarabande* that contain only three quarter notes, 1, 5 (with the exception of count 3), 9, 11, 15 (the eighth notes are notated appoggiaturas), 19, 25, and 29, deserve special attention. To provide the listener with the correct *feel* of a saraband, chords on count two of these bars can be broken slower than those on counts one and three. Said chords can also be played more prominently but always within the context of the overall dynamic. On my performance transcription there is a note for the player regarding this suggestion. See example 32 below.

NOTE: The brokens chords on the second beat should be broken slower than those on beats one and three.



Musical Example 32. Sarabande from Partita I, BWV 1002, mm. 15-22 by J. S. Bach, arr. J. Mathena.

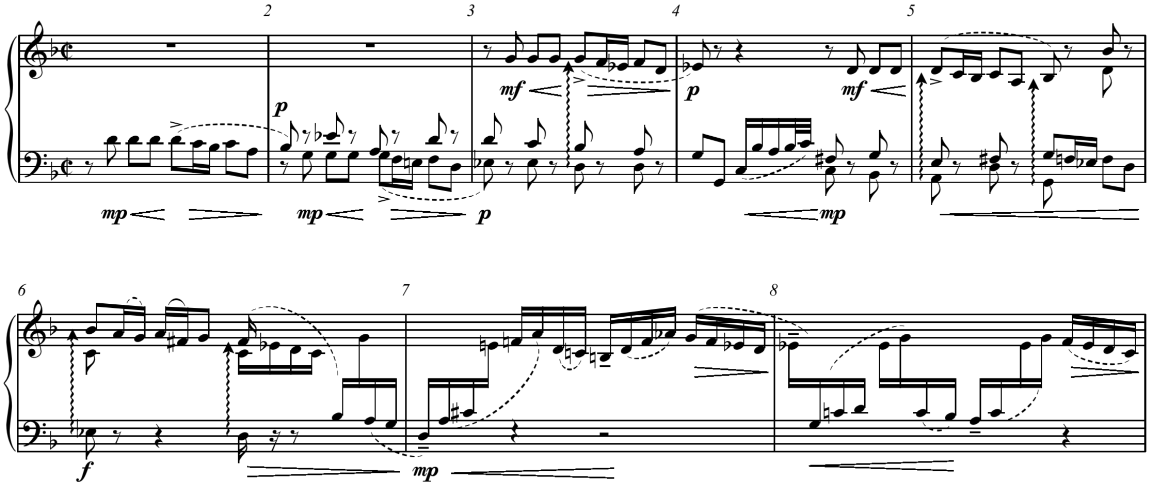
Like the *Sarabande*, the *Ciaccona* is also distinguished by a prominent beat two in each bar but the form is a series of variations. Some of the variations are not so metrically obvious so one should not feel bound to highlight the second beat all the time. During chordal variations, one should stress count two over count one. This can be achieved through dynamics but also with a broken chord that differs from the broken chord on count one. The climax of the D major section before the second arpeggio passage is a wonderful example where I break every chord on the first and second beat of each measure but the chord on count two is always broken wider and louder than count one.



Musical Example 33. *Ciaccona* from Partita II, BWV 1004, mm. 193-200 by J. S. Bach, arr. J. Mathena.

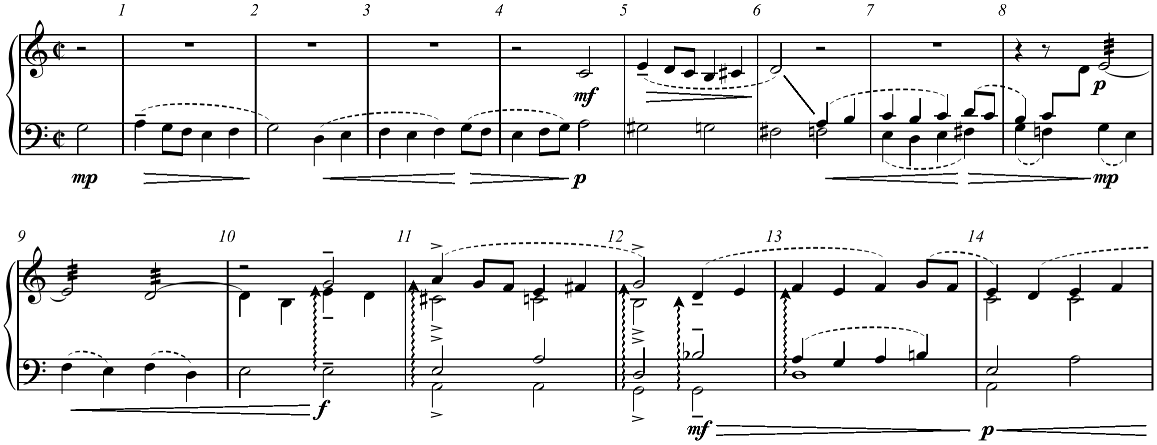
Bach's solo violin sonatas, in the church instrumental chamber style of the sonata da chiesa, are comprised of alternating slow and fast movements (slow, fast, slow, fast). While some movements share traits of the dance suite, the sonatas have a different overall feel than the partitas. One cannot find the metric accent of each bar based on dance moves because the movements of the sonatas are not grounded in Baroque dances. Instead, the time signature, tempo indication, if any, and the rhythms can show the performer the strong beats.

The time signature for the G minor *Fuga* is alla breve and there are two stresses per bar. In the example below note that the second emphasis should be more pronounced than the first and during statements of the subject. I break chords only on beats one and two during subject entires, but during the episodes I try to be less predictable. Measures 1-8 represent the exposition and beginning of the first episode. As the counterpoint becomes thicker, I break chords only on strong beats for variety and in an effort to not obscure the musical lines.



Musical Example 34. *Fuga* from Sonata I, BWV 1001, mm. 1-8 by J. S. Bach, arr. J. Mathena.

The C major *Fuga* from Sonata III is also in alla breve and the tempo is also rather brisk, but I prefer a slightly different approach from the G minor *Fuga*. Even though the time signature dictates two metric stresses per bar, I prefer to accent and arpeggiate the first chord of subject and answer entrances, count three, and then usually break the chord on the next beat, count one. The manner in which this fugue begins dictates these decisions. Other broken chords are influenced by harmony, in particular dominant to tonic figures. Below is the first 14 bars of the initial statement of the subject, the answer, and subsequent counterpoint.



Musical Example 35. *Fuga* from Sonata III, BWV 1006, mm. 1-14 by J. S. Bach, arr. J. Mathena.

The next issue that can effect broken chords is harmony. Again, writers on the subject do not insist upon this as a significant performance practice, but it is a viable clue for implementing broken chords. One piece of advice comes from Jaap Schröder: "Some strong and sudden dissonant chords can have great impact when played with an energetic down-bow stroke...[58] It is usually in good taste to emphasize dissonant chords and resolve them gently. Before the first extended episode in the C major *Fuga*, there is a chord progression that is fascinatingly unique. Bars 59-65 could be analyzed as such:

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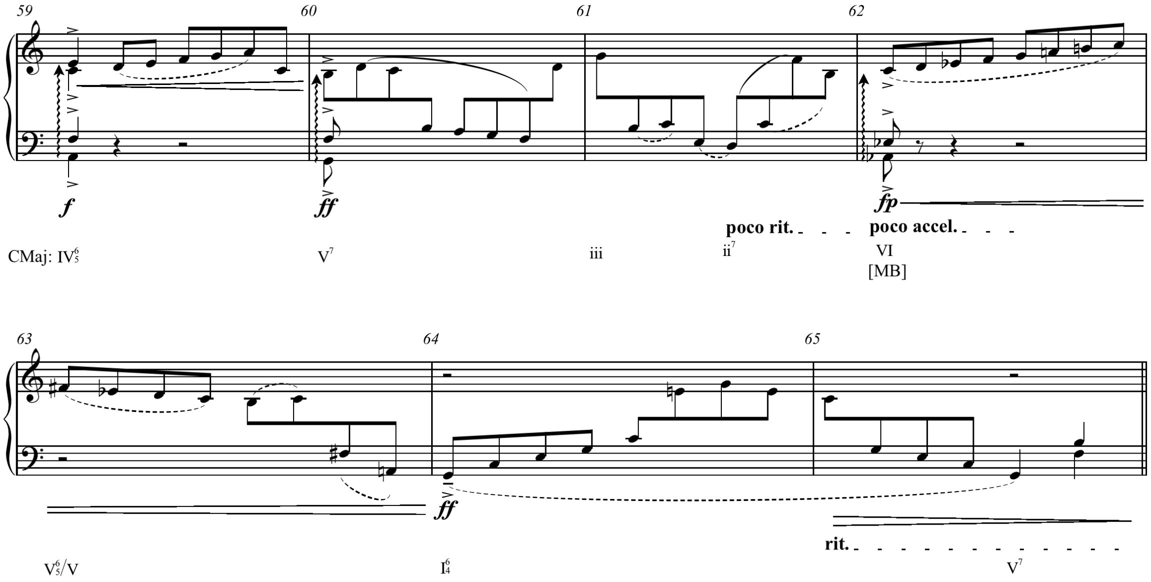
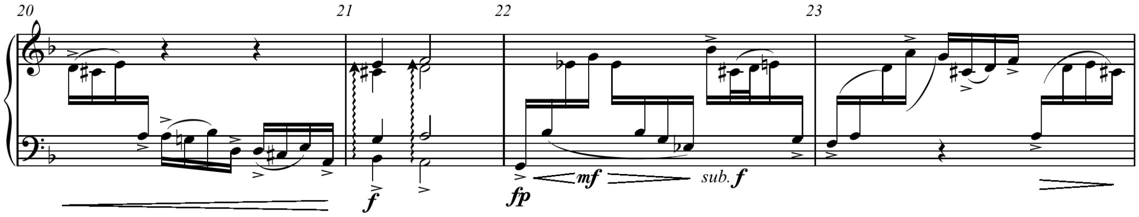
[58] Schröder, *Bach's Solo Violin* Works*,* 57.



Musical Example 36. *Fuga* from Sonata III, BWV 1005, mm. 59-65 by J. S. Bach, arr. and analyzed by J. Mathena.

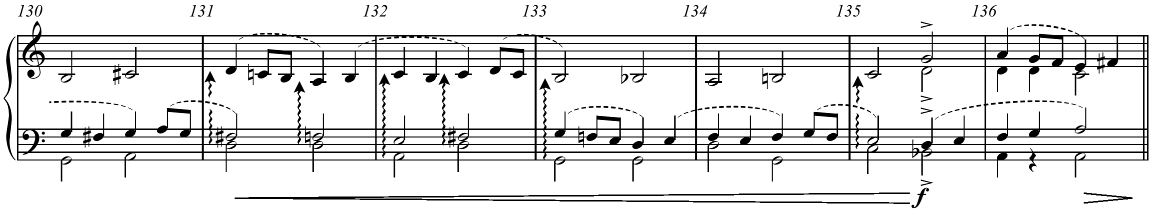
There are only three chords in the example above and they correspond to the following chords, IV^7, V^7, and the modally borrowed VI. Except the VI chord, which is unique because it occurs so abruptly and sounds out of place initially, the IV^7 and V^7 each contain a dissonance, a M7 and a tritone respectively. This is enough justification to roll these chords forcefully but for the VI chord I also pull back in tempo, break the chord very strongly and openly, then immediately drop in volume, accelerate back to tempo primo, and crescendo through the V/V.

Another example of harmony influencing broken chords can be found in the D minor *Sarabanda*. In this movement, bar 21 presents the performer with a unique problem. Emphasizing the dissonant chord and resolving it to a less emphasized consonant chord is common performance practice, but in bar 21 the significant chord is the $i^6{}_4$ because of its metric placement. Therefore the $vii^{o4}{}_2$ on count one should lead the listener to the cadential 6/4 on count two. Volume is one way but also the density of the broken chord can convey emphasis to the listener. I break the 6/4 chord slower than the diminished 7. Whether or not one plays these two chords *on*, *before*, or *during* the beat is of no consequence but I prefer playing the bass *on* the beat.



Musical Example 37. Sarabanda from Partita II, BWV 1004, mm. 20-3 by J. S. Bach, arr. J. Mathena.

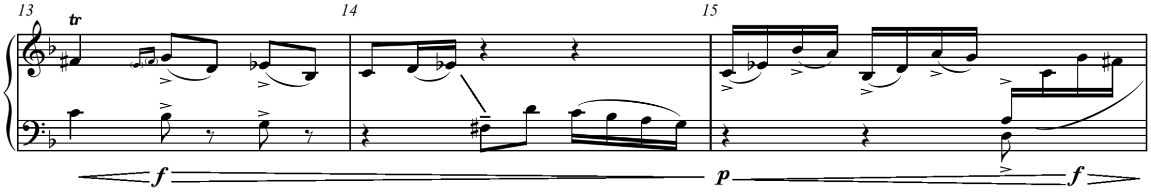
One final example of harmony dictated choices comes again from the C major *Fuga*, only this time the technical limitations of the marimba account for my decision. Count two of m. 135 is a G minor triad in first inversion. Because of the Bb in the bass voice and the octave between the tenor and alto, I choose not to break this chord. At this point there is a change of mode which I believe must be accentuated, a rolled chord simply does not have enough power to highlight the change from C major to G minor. It is because of the angle of my left arm that prohibits a firm bass note from sounding so I have found an accented blocked chord is the best option for me. Still, a broken chord would be perfectly acceptable there but I prefer a block chord.



Musical Example 38. Fuga from Sonata III, BWV 1005, mm. 130-6 by J. S. Bach, arr. J. Mathena.

Finally, added ornamentation to broken chords is the last topic of this chapter. "Baroque ornamentation is more than a decoration. It is a necessity. It is of course a very fluid necessity; but there has to be enough of it and of the right kinds."[59] This can be as simple as ending the chord with a mordent or unmarked trill ending and, in some cases, a retardation or appoggiatura. Even acciaccaturas have their place in certain broken chords, but, as with all ornamentation, anything added to a broken chord should be tasteful, not overdone, and sound spontaneous.

Ending a broken chord with a trill is very common and obligatory at cadences. There are too many examples to isolate any of significance but there is one that I add a turned ending. In bar 13 of the D minor *Sarabanda*, I add a turned ending to the trill to draw further attention to count two, the strong beat of the bar.



Musical Example 39. *Sarabanda* from Partita II, BWV 1004, mm. 13-5 by J. S. Bach, arr. J. Mathena.

A mordent at the end of a broken chord is also a nice addition. I reserve this for chords that end on the soprano, therefore the chord should begin *before* the beat leaving the mordent to sound *on* the beat. Examples 39 from my transcription of the G minor *Fuga* can provide a representation of the this in application. Count three of m. 86 contains a mordent on the cadential 6/4 chord.

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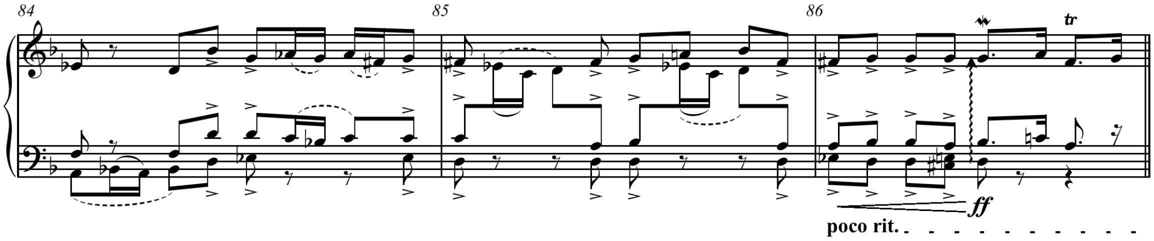
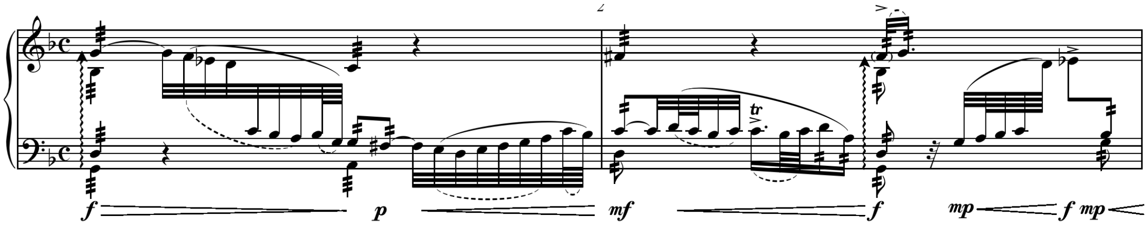
[59] Donington, *Baroque Music*, 91.



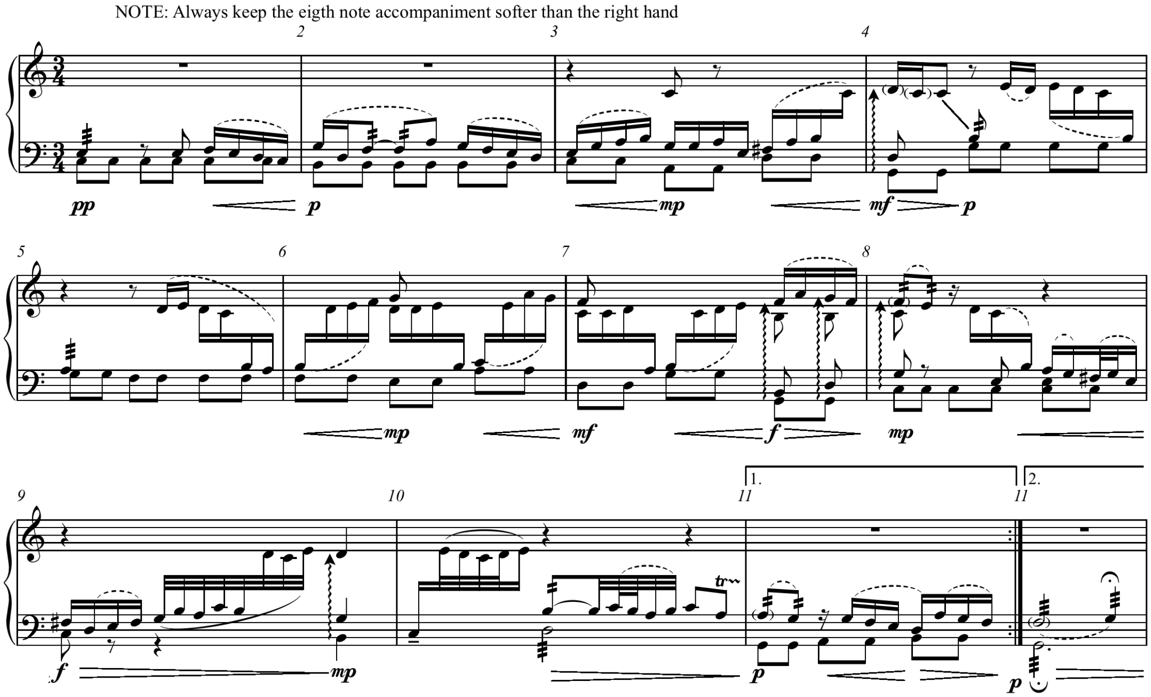
Musical Example 40. *Fuga* from Sonata I, BWV 1001, mm. 84-6 by J. S. Bach, arr. J. Mathena.

Like the mordent, appoggiaturas and retardations are two ornaments that can be played at the end of a broken chord for variety or emphasis. The next musical fragment is an example of a retardation that I place on the first cadence in the G minor *Adagio*.



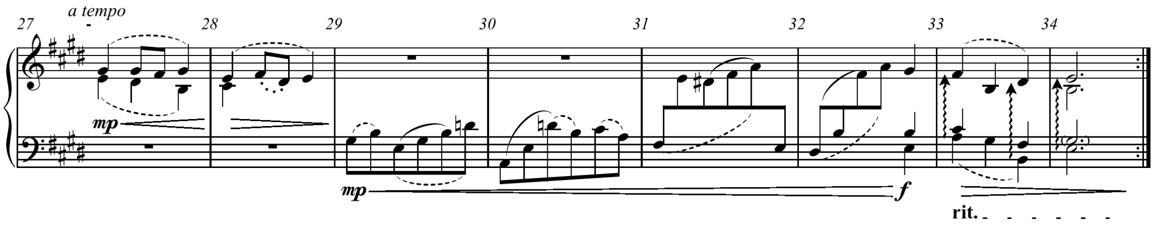
Musical Example 41. *Adagio* from Sonata I, BWV 1001, mm. 1-2 by J. S. Bach, arr. J. Mathena.

The next is an example of added appoggiaturas from the *Andante* from Sonata II. These occur in bars 4, 8, and 11, which all happen to be tonic resolutions of dominant chords. These additions could be reserved only for the repeat of the A section.


NOTE: Always keep the eigth note accompaniment softer than the right hand
2
3
4
pp
p
mp
mf
p
5
6
7
8
mp
mf
f
mp
9
10
11
11
1.
2.
tr
f
mp
p
p

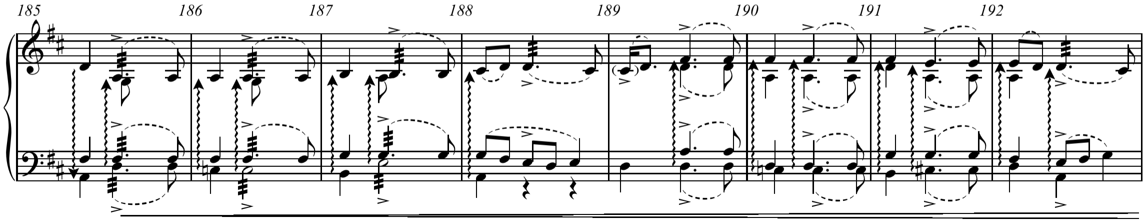
Musical Example 42. *Andante* from Sonata II, BWV 1003, mm. 1-11 by J. S. Bach, arr. J. Mathena.

There are a few moments where I add a missing chord tone, usually the third, when Bach has spelled the chord incompletely. Final chords are typically reserved for this idea. *Menuet I* ends on an open E major chord with no third but the V7 before it could resolve easily to a complete E major triad. I add the third only on the last time.


a tempo
27
28
29
30
31
32
33
34
mp
mp
f
rit.

Musical Example 43. *Menuet I* from Partita III, BWV 1006, mm. 27-34 by J. S. Bach, arr. J. Mathena.

Non-chord tones can also be added to Broken chords. Regarding this idea, Donington said "he is not obliged to confine himself to the notes written in the chords, provided he keeps to the harmony together with such extraneous notes as can be momentarily introduced as passing acciaccaturas..."[60] Even though he was speaking of arpeggio passages, this idea can still be applied to broken chords. Acciaccaturas may be placed between chord tones but this is ill-advised in most cases for the marimba. Because the marimbist cannot control note length, acciaccaturas may sound as part of the chord instead of an embellishment. One way around this is to use a tremolo and *roll* only the chord tones after the acciaccatura has sounded.[61] Bars 185-7 of the *Ciaccona* are three instances where I add acciaccaturas.



For mm. 185-200, the chords on the second beat
should be broken slower and more openly
than the chords on count one.
For mm. 185-7, the eighth note in the alto voice on count two is an added accicciatura.

Musical Example 44. *Ciaccona* from Partita II, BWV 1004, mm. 185-92 by J. S. Bach, arr. J. Mathena.

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[60] Donington, *The Interpretation of Early Music*, 280.

[61] I speak of the percussion term *roll* which is the same as the tremolo.

CHAPTER IV

ARPEGGIO PASSAGES

During the Baroque and into the early Classical era, the unwritten practice of arpeggio realization could be found in many instrumental solo works, in particular those written for string instruments. “In virtuoso violin music of the late baroque schools, passages occur which are written as chords but intended as arpeggiation.”[62] Based on this passage, one might think that these passages are interpreted as mere broken chords, but while the Baroque arpeggio section of a work shares characteristics with breaking chords, there is one significant difference—the arpeggiations of an arpeggio passage must have a rhythm that can be quantized as such. Robert Donington differentiated between these two practices.

> Where, in addition to spreading the chord in more or less elaborate patterns, the performer gives these patterns a melodic value, he makes not a plain arpeggio but a figurate arpeggio. He may do so exclusively from the notes proper to the chord; or he may diversify the chord by momentarily introducing notes which are foreign to it.[63]

In the previous chapter, I stressed the importance of ambiguity necessary for broken chords to appear as a chord and not a notated rhythmic figure. In this chapter the art of improvising an arpeggio passage, which the reader will discover differs from broken chords but still shares some attributes, will be discussed using literature from the Baroque through the present.

In its barest form, an arpeggio realization consists of rapid ascending and descending lines and the number of these peaks and valleys are dictated by the length of the chord and the speed of the rhythm. Many writers of the eighteenth century had very little to say on the manner of execution. In *Treatise on the Fundamental Principles of Violin Playing*, Leopold Mozart simply said "as the Arpeggio is indicated in the first bar...so must the following notes, written one above the other, be continued in the same manner."[64] Even J. S. Bach's own son, C. P. E. Bach, mentioned only briefly that "the word 'arpeggio' written over a long note calls for a chord broken upward and downward several times."[65] Johann Mattheson, recognized the freedom the performer was allowed in the arpeggio passage and thus determined these phrases were played "according to his [the performer] pleasure."[66] Still, the vagueness of which these writers discuss the arpeggio passage does allude to an overarching idea that the performer was allowed certain liberties, so long as the harmony and voice leading remain intact.

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[62] Donington, *The Interpretation of Early Music*, 541.

[63] Ibid., 277-8.

In contrast, some performance practice scholars of recent years have had much to say on the matter. Using these recent writings, I will present nine passages from the sonatas and partitas that represent a varied, creative, and artistic, but still historically grounded, approach to improvising an arpeggio passage on the marimba. Since I am only using five movements to present ten examples of arpeggio realizations, this chapter will be organized according to movement and not concept like the previous chapter.

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[64] Mozart, 161.

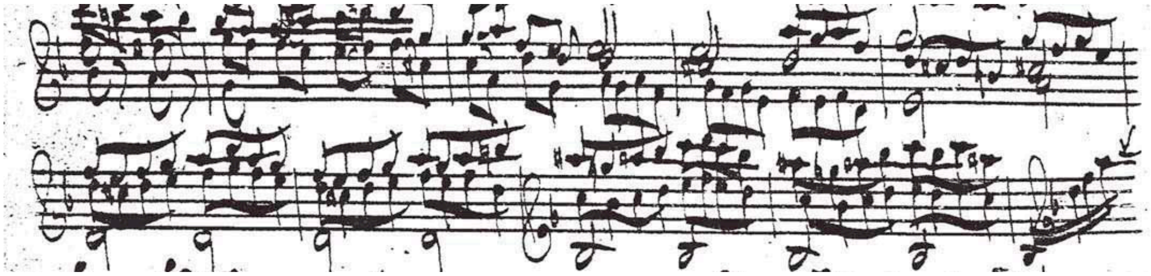
[65] C. P. E. Bach, *Essay on the True Art of Playing Keyboard Instruments*, translated and edited by William J. Mitchell (New York: W.W. Norton, 1949) (orig. pub. Eulenburg, 1753), 159.

[66] Mattheson, 578-9.

Fuga from Sonata I, BWV 1001

Bach sometimes signaled the start of an arpeggio passage with the word *arpeggio* and even provided a model to aid the performer in his rendering.[67] Sometimes, he did not. The *Fuga* from Sonata I contains a famous example of an arpeggio passage that is *not* indicated by Bach. In his writings on the violin, Joseph Szigeti made these remarks:

> The pedantically literal reading of a facsimile like that of the Bach Solo Sonatas can lead into absurdity. When Bach in the G minor Violin Fugue notates:



Musical Example 45. *Fuga* from Sonata I, BWV 1001, mm. 33-41 by J. S. Bach (autograph manuscript), 2.

> he undoubtedly means us to use some arpeggiated form of the sequence.[68] In this passage (bars 35-41) Bach only put down the melodic and harmonic progression, leaving it to the player to *realize* the text by arpeggiating it.[69]

Writers and performers since the days of Mendelssohn and the acclaimed nineteenth-century virtuoso violinist, Joseph Joachim, have realized this passage in a number of ways according to technical and musical ability and the particular instrumental idiosyncrasies. But how did they know that these seven bars were meant to be arpeggiated? Besides the possibility of an oral transmission, which we shall never know for sure, I believe Bach provided a few clues. The note values are all *full* and by that, I mean there are no rests and a literal rendering on the violin is impossible. This means Bach intended constant sound with no breaks. Thus arpeggiations of these figures would be the only logical choice because a violin cannot sustain two notes under one moving line or one voice over two moving lines. Regarding this dilemma, Arnold Dolmetsch cited the writings of Rameau.

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[67] Refer to the analysis of the *Ciaccona* later in this chapter for an example of this.

[68] Joseph Szigeti, *Szigeti of the Violin* (New York: Dover Publications, 1979), 108-9.

[69] Ibid., 110.

> In the advice to players prefacing the "Concerts en Trio" of Rameau (1741), there is a direction to the viol player which is most useful in indicating how to treat arpeggios containing important inner parts. Rameau says that in places where the violist cannot conveniently play two or more notes together, he must play them arpeggio, *finishing upon the one on the side of which the melody continues*. This is the key to the interpretation of many arpeggios of Bach.[70]

Harmonic motion provides another clue that this passage was be arpeggiated. A pedal D is introduced midway slowing the harmonic drive to a sustained dominant chord. This idea of pedal points as indications of arpeggio phrases will be discussed further in this chapter.

Some players have attempted to execute this phrase just as it is written, with the half notes in bars 35-7 played short allowing the eighth-notes to sound together.[71] "Practically speaking, a literal realization of such baroque polyphonic notation is not only erroneous, but in many cases simply impossible."[72] Even though some have attempted to interpret mm. 35-7 as notated, most agree on some sort of arpeggiation of bars 38-41, even if it is just elementary sixteenth notes.[73] Typically, players begin the arpeggiations in bar 35 on the & of two. The Baroque violin expert, Jaap Schröder, said “focus on the content of the chords, on their progression and not on the virtuoso quality of the right hand. A straightforward up-and-down movement on each chord is all that is needed.”[74]

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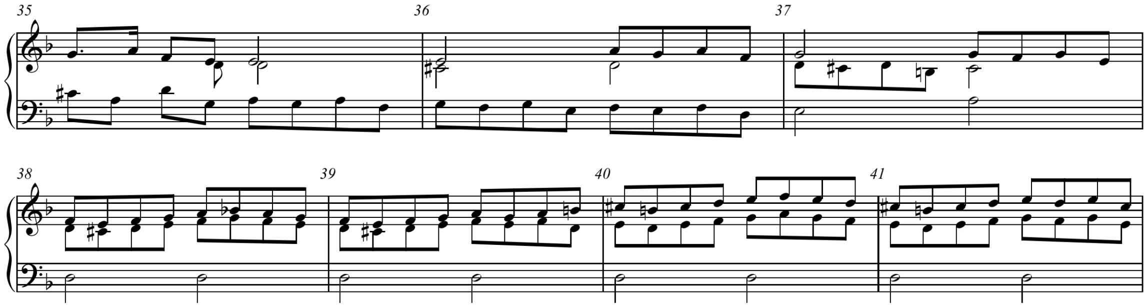
[70] Dolmetsch, 270.

[71] Jascha Heifetz and Itzhak Perlman have both performed bars 35-7 on recordings. Jascha Heifetz, *Bach: Sonatas & Partitas*, RCA Victor, LM 6105, CD, 1952. Itzhak Perlman, *J. S. Bach: Sonatas and Partitas for Solo Violin*, EMI Records, CDS 7 49483 2, 49484 2, and 49485 2, CD, 1988.

[72] Schröder, "The Chaconne and the Baroque Tradition," 134.

[73] See example 46. Note that the pedal D can be on the beat and the division or on the subdivision of each grouping of sixteenth notes.

There are only a finite number of ways to execute this section but the only convention a marimbist must remember is to consider the idiomatic idiosyncrasies of the marimba. Following example 46, which is Bach’s original, transposed down an octave for convenience of comparison, are two realizations of this phrase. Both interpretations are quite acceptable solutions, grounded in historical practices, and idiomatic to the marimba, but one is significantly more advanced than the other. Regardless of the technical difficulties, a marimbist must always play musically and only attempt those arpeggiations that allow for effortless expression.



Musical Example 46. Fuga from Sonata I, BWV 1001, mm. 35-41 by J. S. Bach transposed down one octave by J. Mathena.

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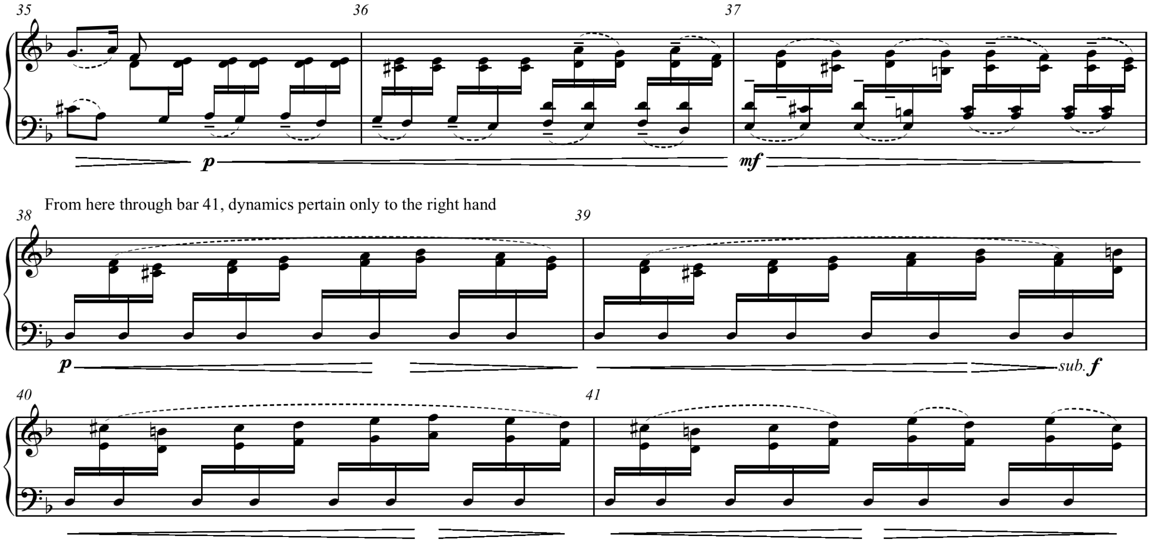
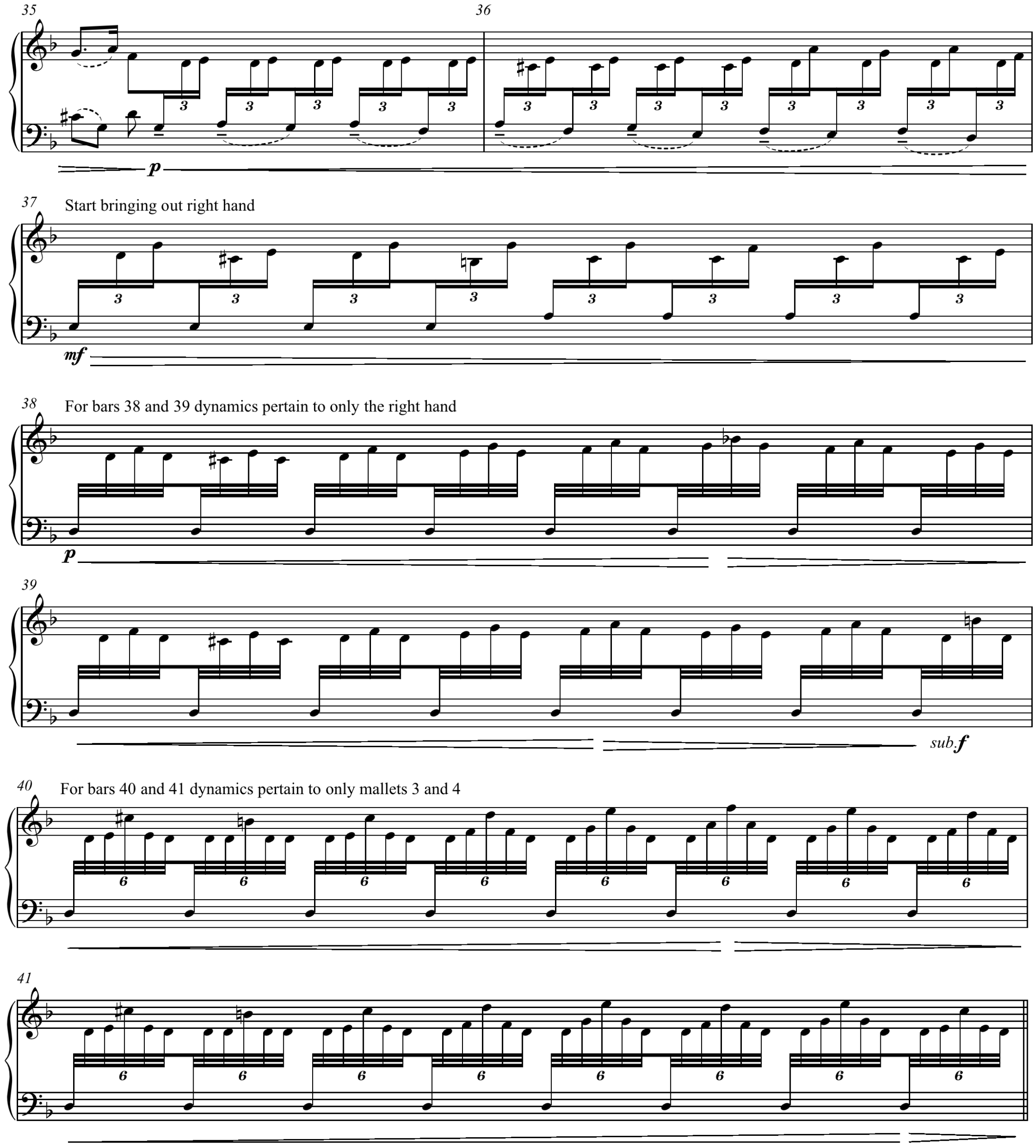
[71] Jaap Schröder, *Bach’s Solo Violin Works*, 67.


35
36
37
p
mf
From here through bar 41, dynamics pertain only to the right hand
38
39
p
sub. f
40
41

Musical Example 47. *Fuga* from Sonata I, BWV 1001, mm. 35-41 by J. S. Bach, arr. J. Mathena.

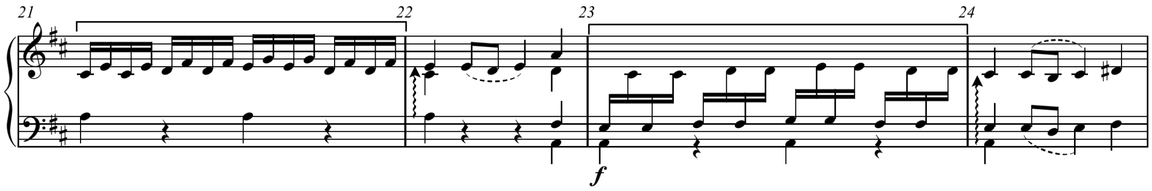
While example 47 is a fine rendition, players of more advanced technical facility can explore realizations such as the next example. As the harmonic motion increases over the D pedal, the rhythm becomes denser, moving from sixteenth-note triplets to thirty-second-notes and finishing in a frenzy of thirty-second-note triplets. This next realization is the one I prefer and is therefore found in the performance edition of this movement in Appendix B.


35
36
p
37
Start bringing out right hand
mf
38
For bars 38 and 39 dynamics pertain to only the right hand
p
39
sub.f
40
For bars 40 and 41 dynamics pertain to only mallets 3 and 4
41

Musical Example 48. *Fuga* from Sonata I, BWV 1001, mm. 35-41 by J. S. Bach, arr. J. Mathena.

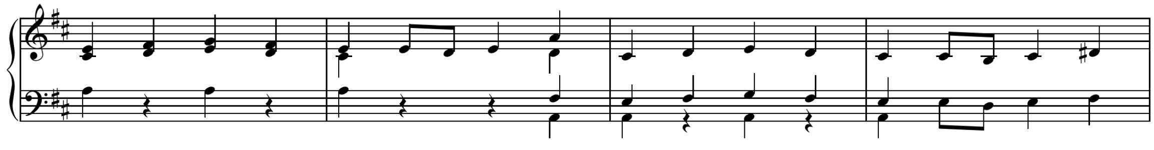
Tempo di Borea from Partita I, BWV 1002

In the *Tempo di Borea*, there are no notated arpeggio passages and historically, players, editions, or documents do not mention any added arpeggiations, but one must remember "the word 'arpeggio' is not always indicated in the manuscript."[75] Based on Efrati's obvious observation, I do not think this precludes anyone from experimenting with a few unorthodox arpeggio phrases for variety, especially on the repeat of the A and B sections. "*Never the same thing twice* is an old baroque principle, stated by Quantz and applicable to all repeats."[76] A brief arpeggio phrase the second time through the A or B section would certainly be in keeping with the Baroque ideal of embellishing the music the second time through a phrase. With these ideas in mind, I choose to play mm. 21-4 like



Musical Example 49. *Tempo di Borea* from Partita I, BWV 1002, mm. 21-4 by J. S. Bach, arr. J. Mathena.

but Bach actually notated it as



Musical Example 50. *Tempo di Borea* from Partita I, BWV 1002, mm. 21-4 by J. S. Bach, transposed down one octave by J. Mathena.

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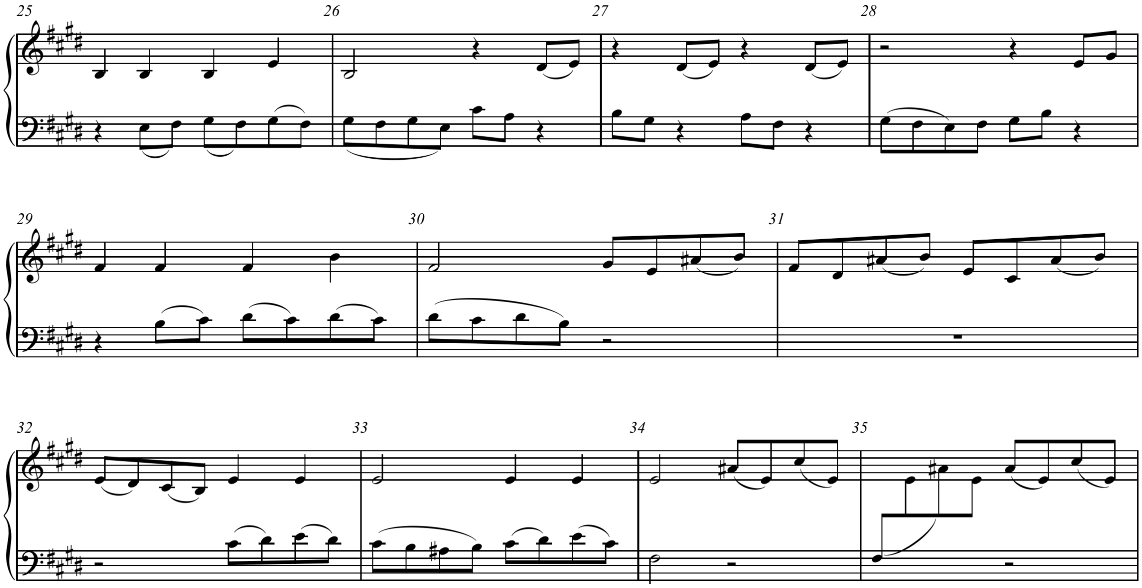
[75] Efrati, 193.

[76] Schröder, *Bach's Solo Violin Works*, 91.

He did not specify to take liberties during these bars but in the G minor *Fuga*, Bach also did not designate for one to begin an arpeggio phrase in bar 35 as well. The arpeggio section of the G minor *Fuga* has become such an accepted practice that if a performer did not arpeggiate these bars, he would be considered by most experts to have not accurately played the piece. Therefore, my argument contends that maybe there are other moments throughout the sonatas and partitas that can be arpeggiated whether or not Bach specified. This idea will be developed further in the *Ciaccona*, the C major *Fuga*, and the *Gavotte en Rondeau*.

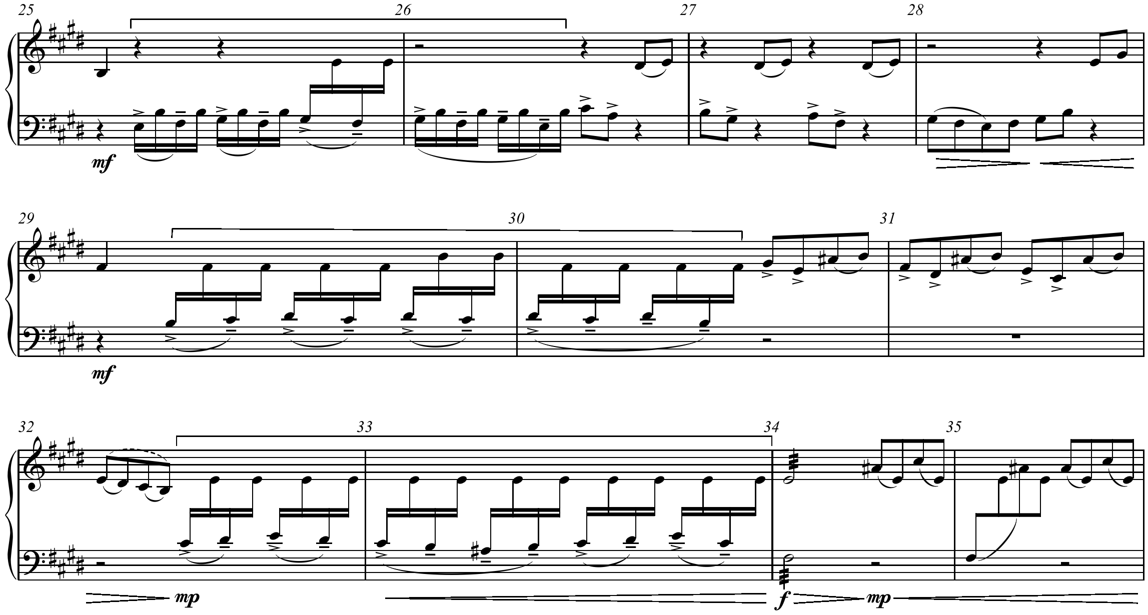
Gavotte en Rondeau from Partita III, BWV 1006

Like the *Tempo di Borea* and C major *Fuga*, the *Gavotte en Rondeau* has two moments which lend themselves quite easily to simple arpeggiations. For mm. 25-35, Bach wrote the following:



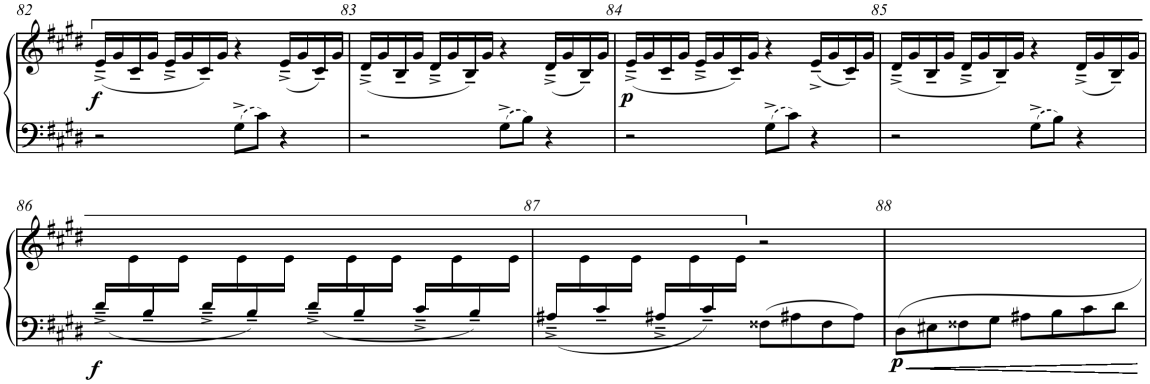
Musical Example 51. *Gavotte en Rondeau* from Partita III, BWV 1006, mm. 25-35 by J. S. Bach, transposed down one octave by J. Mathena.

Even though this passage as Bach wrote it can be easily executed on the marimba, this is a wonderful place for improvisation. In bars 25, 26, 29, 30, 32, and 33 I choose to play the right hand quarter- and eighth-notes as sixteenth-notes in between the left hand eighth notes. Below is my realization.



Musical Example 52. Gavotte en Rondeau from Partita III, BWV 1006, mm. 25-35 by J. S. Bach, arr. J. Mathena.

In the altered bars above, Bach's quarter- and half-note rhythms of the upper voice will not be audible to the listener, but the moving eighth-note motif in the left hand, clearly the main line, would be unaltered and understood by the listener as the principal focus. Later in this movement there is another instance very similar to the previous phrase. Because mm. 82-7 consist of an active left hand line accompanied by long notes in the right I also use the same realization for this passage.

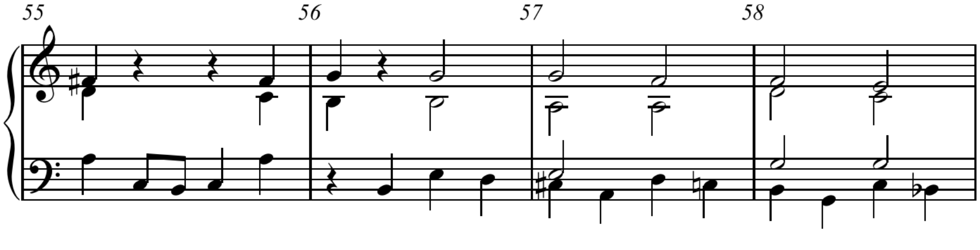


Musical Example 53. *Gavotte en Rondeau* from Partita III, BWV 1006, mm. 82-8, J. S. Bach, arr. J. Mathena.

In a resonant performance space, the soprano in mm. 82-7, if played soft enough with marimba mallets that have little to no contact sound, can sound like a sustained long tone. Based on this theory, the listener could perceive these pitches as the long notes that Bach wrote even though these tones are actively involved in rhythmic figures.

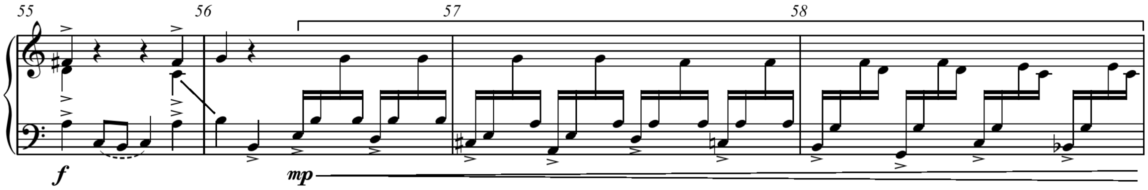
Fuga from Sonata III, BWV 1005

There are no indications for arpeggios in the C major *Fuga* but there are two passages which I believe appear similar to the accepted arpeggio passage from the G minor *Fuga*. In bar 56 of the C major *Fuga* the bass has the prominent line accompanied by half note chords in the upper three voices. This exact same phrase reappears in the recapitulation (mm. 343-6).



Musical Example 54. *Fuga* from Sonata III, BWV 1005, mm. 55-8 by J. S. Bach, transposed down one octave by J. Mathena.

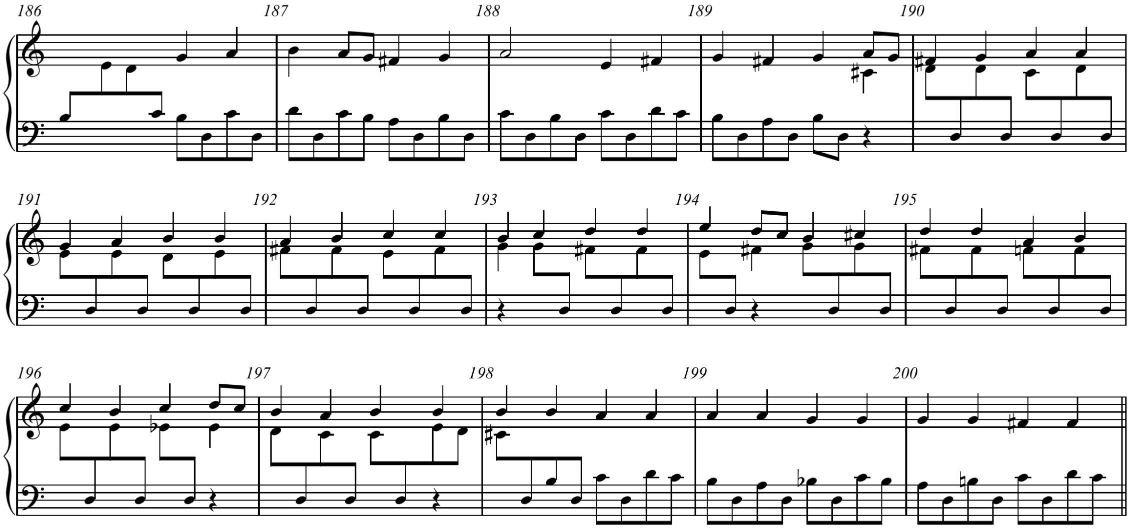
I choose to play these bars, as well as mm. 343-6, in the following manner. One should notice that the bass is unaltered, but the other voices are played in an exact sixteenth-note rhythm.



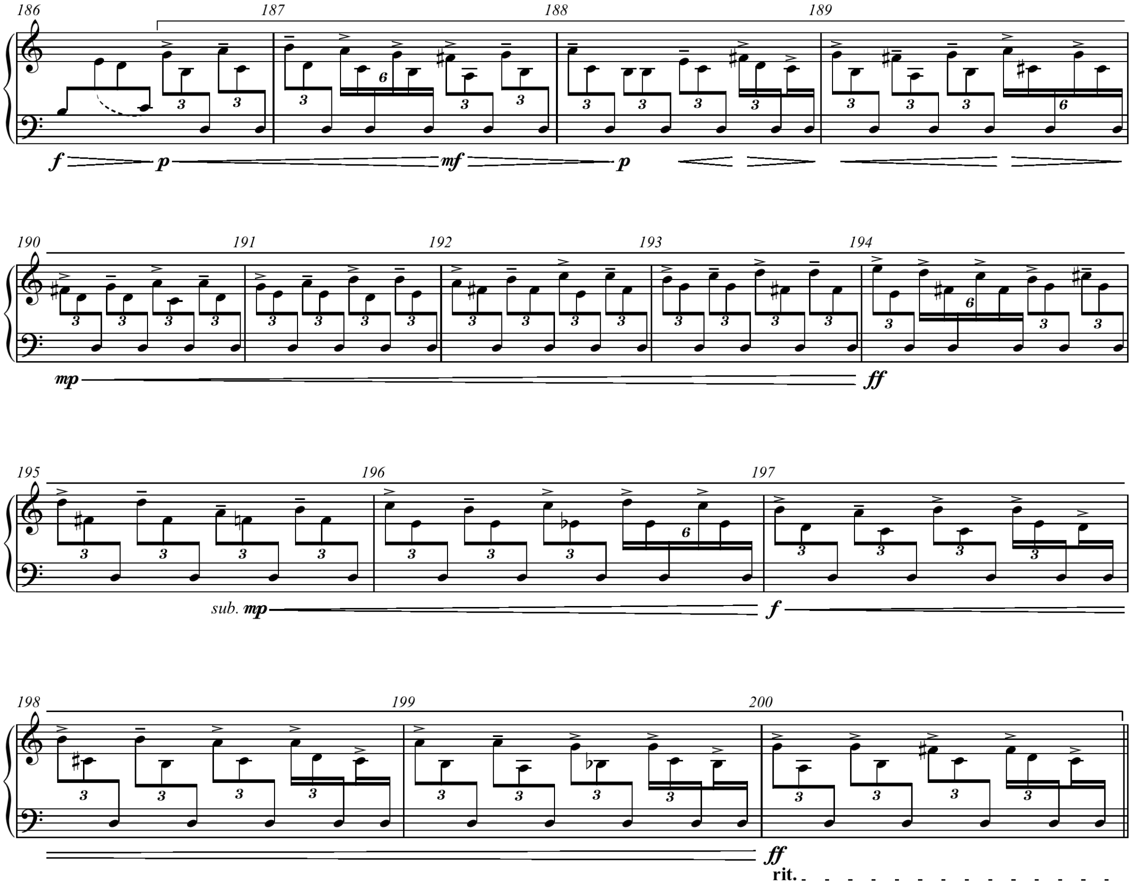
Musical Example 55. *Fuga* from Sonata III, BWV 1005, mm. 55-8, J. S. Bach, arr. J. Mathena.

During the course of this study, I could find no literature or source of any sort to substantiate this next idea, but I believe mm. 186-200 and 273-87 are actually Bach's notated arpeggio realizations. If this can be regarded as such, then the realizations that follow can be viewed as possible variations. Upon listening to these phrases and then comparing them to my realization of the arpeggio passage from the G minor *Fuga*, one will notice striking similarities. Therefore, these could be an arpeggio realizations. Earlier in this chapter, I made the observation that pedal points could be a clue to when a passage was to be arpeggiated. It certainly was true in the G minor *Fuga* and in no other movement, except the C Major *Fuga*, will one find any longer pedal points than those beginning at bar 186 and 273. Therefore, these could be an arpeggio realizations.

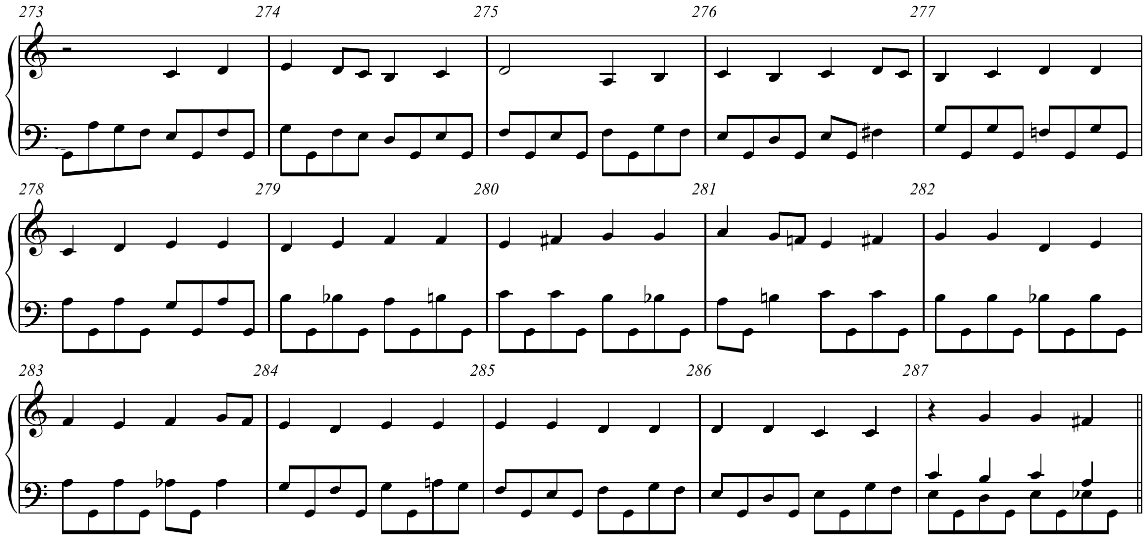
If they are indeed arpeggio realizations, then Bach's realization is only a suggestion, maybe only a shorthand simple solution to offer the performer a place to start, and therefore open to interpretation by the performer. Since these two phrases are almost identical in every way, except the tonal center, I suggest these realizations are analogous.


186
187
188
189
190
191
192
193
194
195
196
197
198
199
200

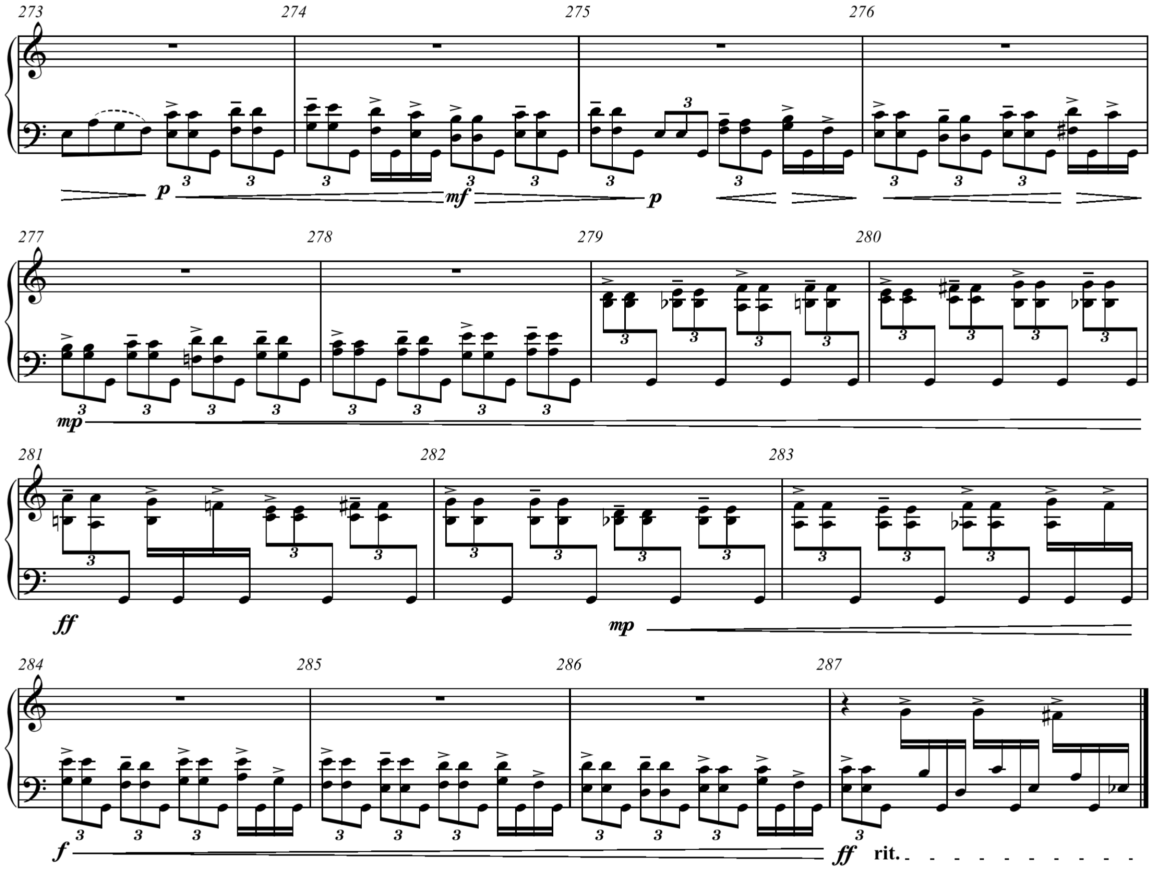
Musical Example 56. *Fuga* from Sonata III, BWV 1005, mm. 186-200 by J. S. Bach, transposed down one octave by J. Mathena.


186
187
188
189
f
p
mf
p
190
191
192
193
194
mp
ff
195
196
197
sub. mp
f
198
199
200
ff
rit.

Musical Example 57. *Fuga* from Sonata III, BWV 1005, mm. 186-200 by J. S. Bach, arr. J. Mathena.


273
274
275
276
277
278
279
280
281
282
283
284
285
286
287

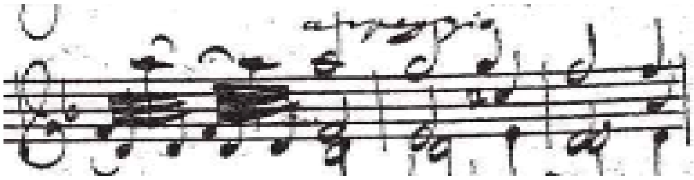
Musical Example 58. *Fuga* from Sonata III, BWV 1005, mm. 273-87 by J. S. Bach, transposed down one octave by J. Mathena.


273
274
275
276
p
mf
p
277
278
279
280
mp
281
282
283
ff
mp
284
285
286
287
f
ff
rit.

Musical Example 59. *Fuga* from Sonata III, BWV 1005, mm. 273-87 by J. S. Bach, arr. J. Mathena.

Ciaccona from Partita II, BWV 1004

I will conclude with a discussion of the probably the most performed and transcribed movement of the entire set of sonatas and partitas, the mighty *Ciaccona* from Partita II. There are two passages marked *arpeggio* by Bach; bar 89 and 201. On count one of m. 89, Bach provided a model of how one should arpeggiate this passage.[77] Some performers adhere to the thirty-second-note motif throughout but most transition to thirty-second-note triplets, or some other rhythmic variation, somewhere in the middle of this section. In m. 89, Bach wrote the following:



Musical Example 60. Ciaccona from Partita II, BWV 1004, mm. 89-91 by J. S. Bach (autograph manuscript), 14.

The word *arpeggio*, along with the first beat of measure 89, provides the performer with Bach's suggested interpretation. However, this pattern does not fit all chords well, and thus, performers vary the figuration and many alter the rhythm for expressive purposes. Even though, Bach provides one beat of realization, some performers and transcribers deviate instantly with no regard for what is written. For example, in Brahms's Piano Study No. 5 for the left hand, which is a piano transcription of the *Ciaccona*, he begins immediately with sextuplets.

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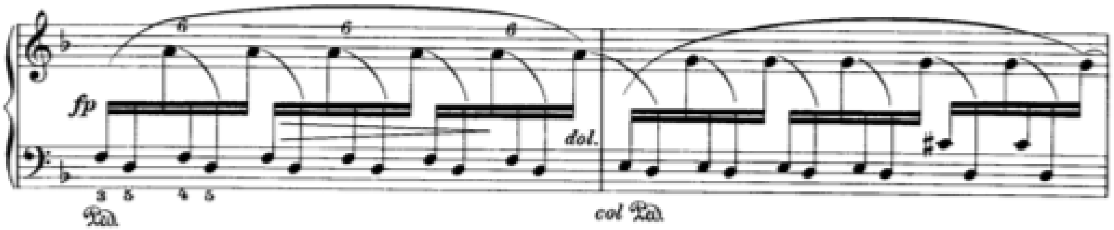
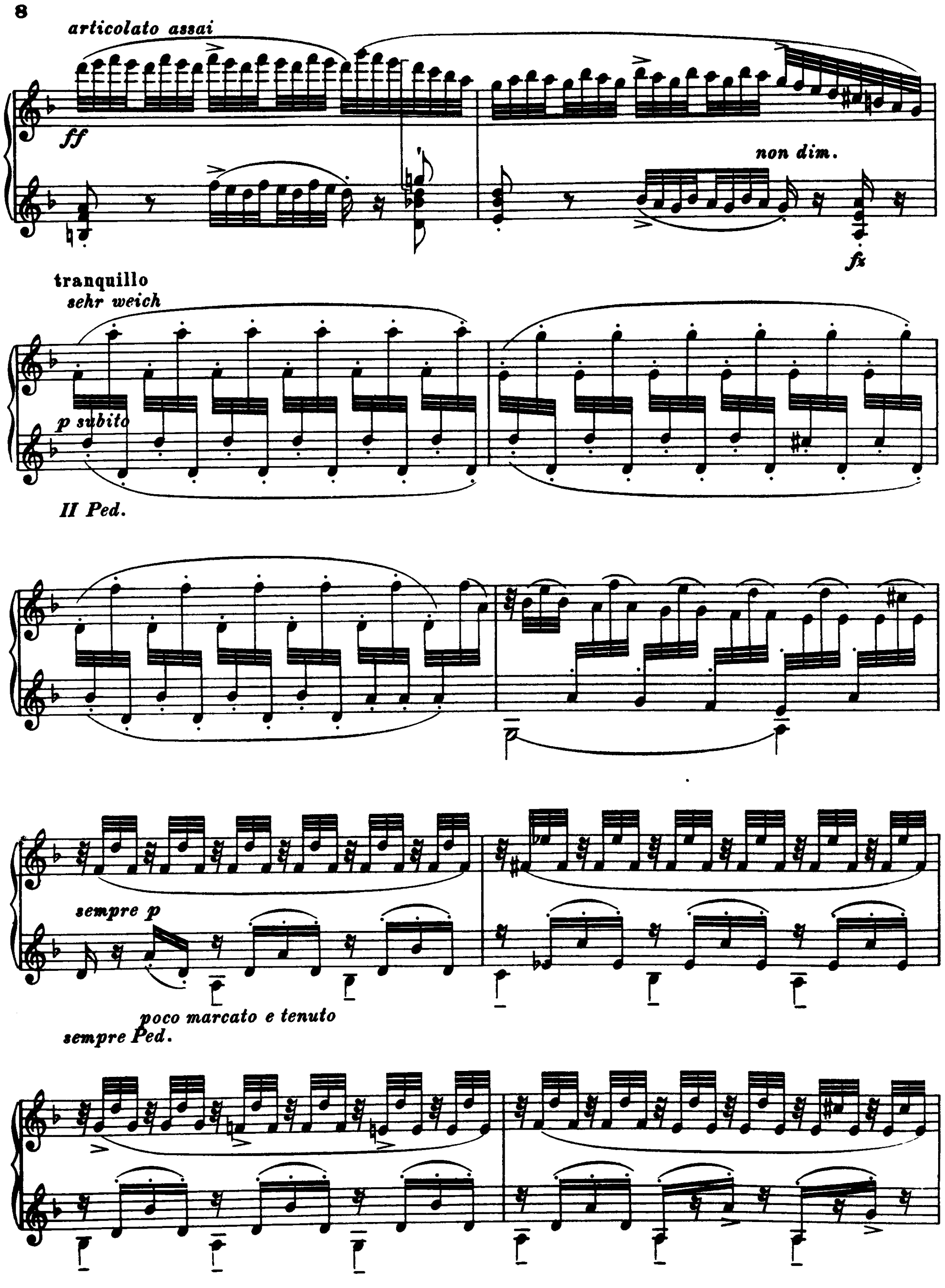
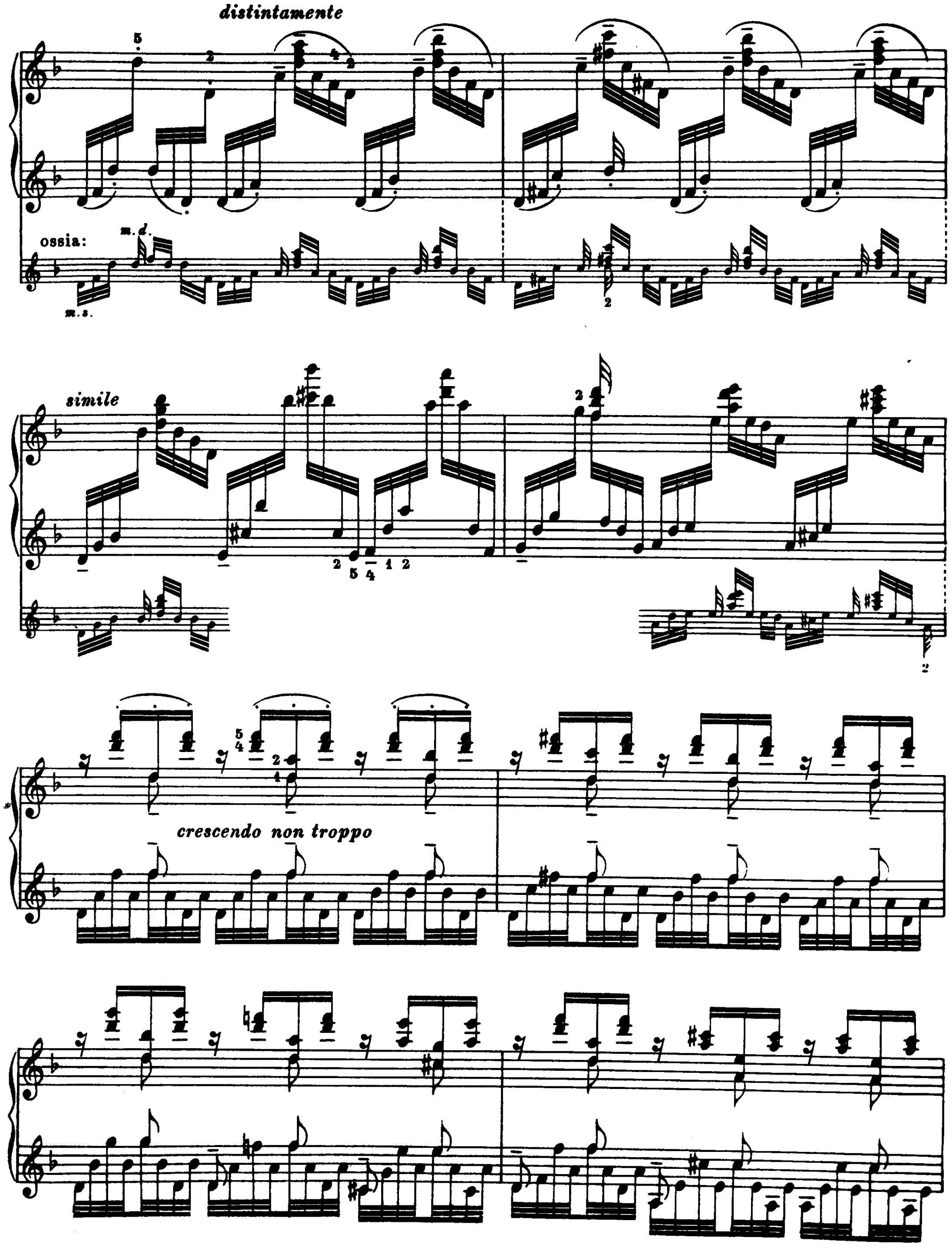
[77] For examples of this realization, see Carl Flesch, ed., Sonaten und Partiten (New York: C. F. Peters, 1930); Eduard Herrmann, ed., Bach: Sonatas and Partitas for the Violin (New York: Schirmer, 1986); Ivan Galamian, ed., 6 Sonatas and Partitas, S. 1001 – S. 1006 for Solo Violin (New York: International Music Company, 1971); and Joseph Joachim and Andreas Moser, eds., Bach: Six Sonatas and Partitas for the Violin (New York: Kalmus, 1942).

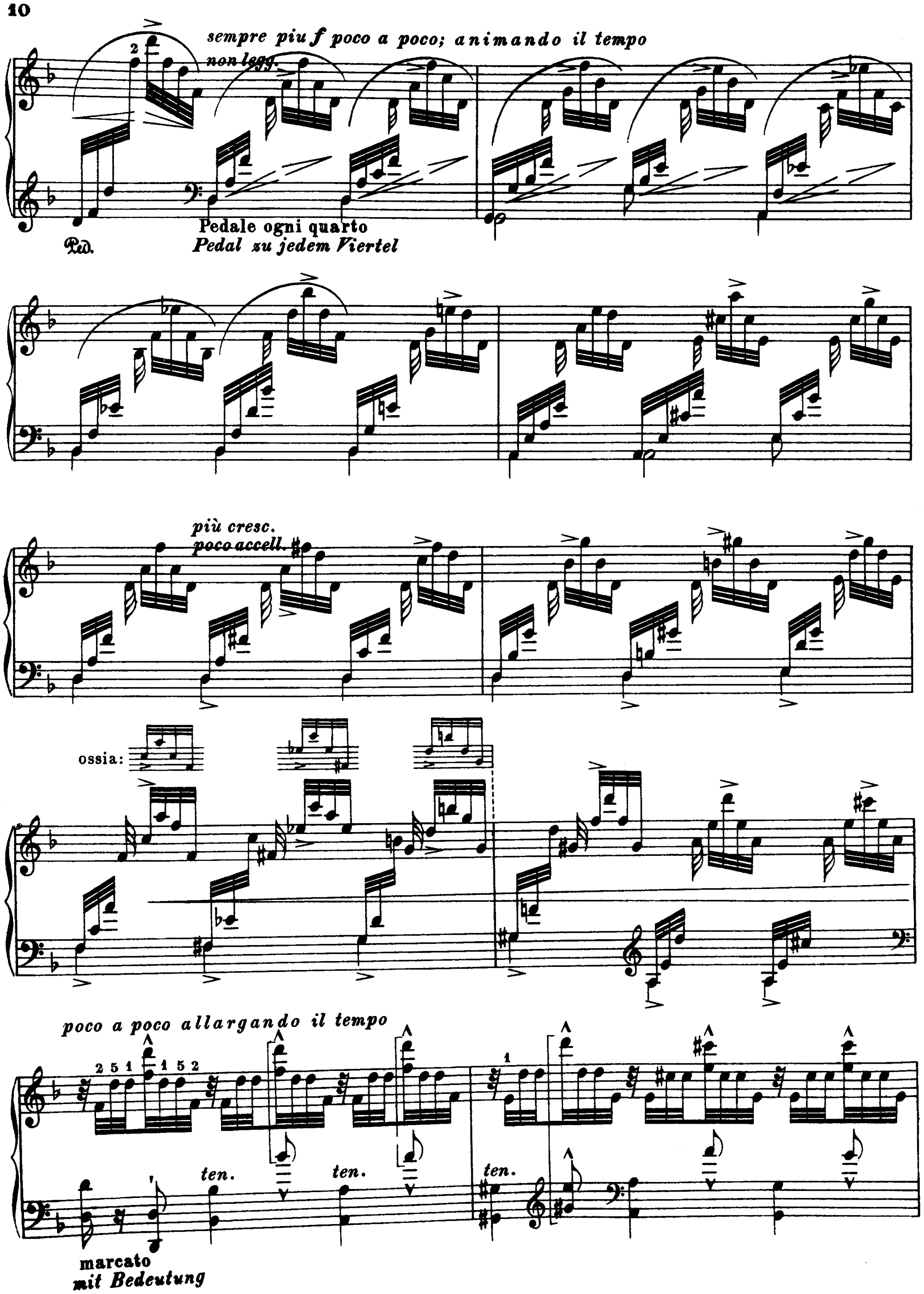


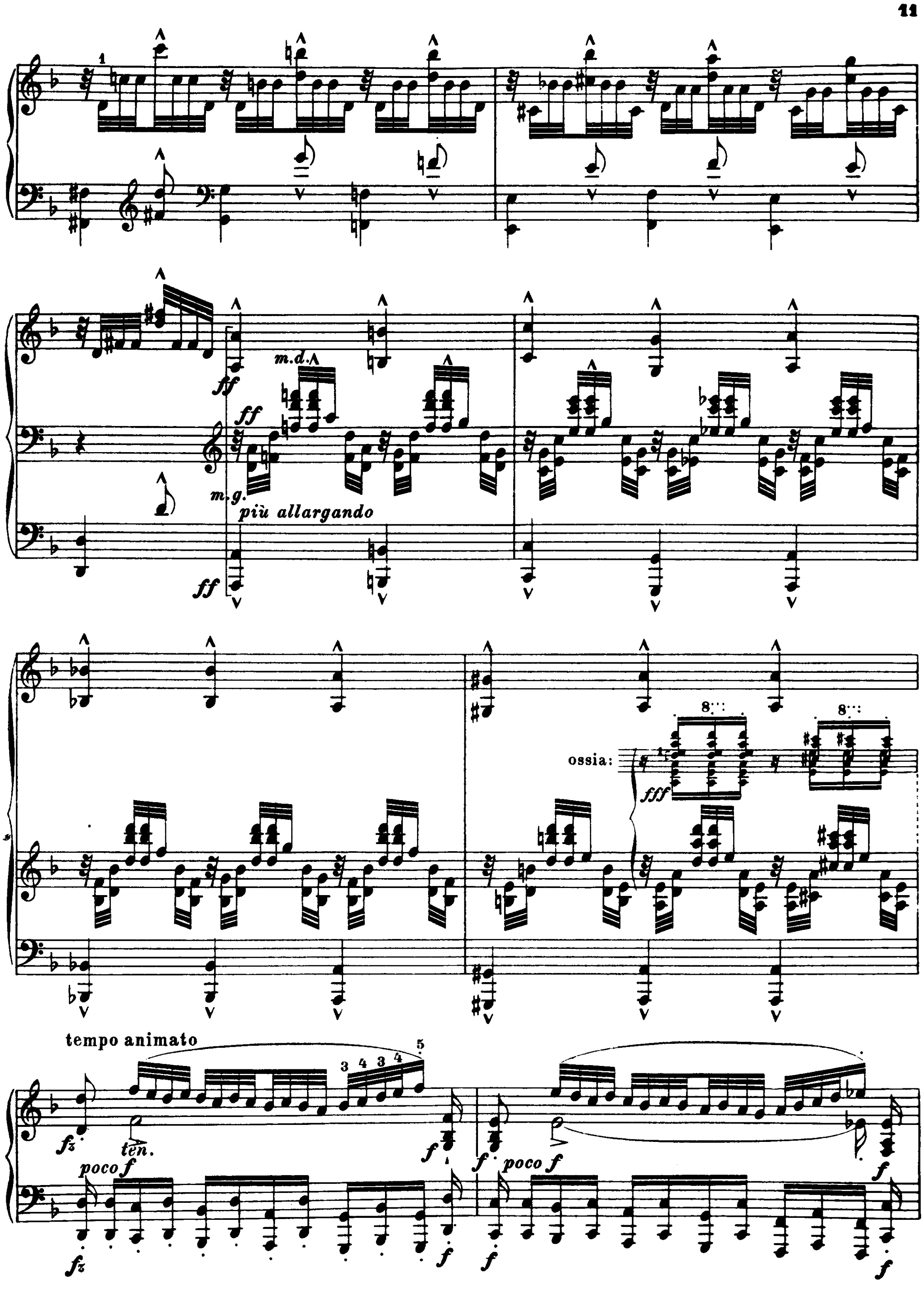
Musical Example 61. Study No. 5 for the Left Hand, mm. 89-90 by Johannes Brahms, Study No. 5 (for left hand alone) after Bach's *Chaconne*, BWV 1016 from Piano Works, vol. 2, edited by E.V. Sauer (Boca Raton, FL: Kalmus, 1985) (orig. pub. Vienna, 1878), 6.

The piano arrangement of Frederico Busoni begins very close to Bach's original but then he attempts to dazzle the listener with a technical display and Romantic expression indicative of virtuoso piano playing of the nineteenth century. While this and most other piano arrangements provide what may seem to be the most creative solutions, it will be shown that a sheer technical tour de force arpeggiation of the chord is not the extreme extent of possibilities afforded to the performer.


8
articolato assai
ff
non dim.
fz
tranquillo
sehr weich
p subito
II Ped.
sempre p
poco marcato e tenuto
sempre Ped.


distintamente
ossia:
m.d.
m.s.
simile
crescendo non troppo


sempre piu f poco a poco; animando il tempo
non legg.
Pedale ogni quarto
Pedal zu jedem Viertel
Ped.
più cresc.
poco accell.
ossia:
poco a poco allargando il tempo
ten.
ten.
ten.
marcato
mit Bedeutung


11
m.d.
ff
m.g.
più allargando
ossia:
8
fff
tempo animato
fz
ten.
poco f
f
poco f

Musical Example 62. *Chaconne* in D moll, mm. 87-122 by J. S. Bach, arr. Frederico Busoni, *Chaconne* für Violine allein (New York: Breitkopf & Härtel, 1897), 8-11.

While these examples are unique and idiomatic, chord tones, rhythmic variety, and extensions of the figurations, both upward and downward, are the only additions.[78] These examples incorporate nothing in the way of passing tones, accacciaturas, or any other ornamentation. As a matter of fact, no source surveyed for this document deviated from the notes Bach provided even though there is an abundant of literature that says performers may be creative and inventive and add notes outside the chord. This was indeed a source of discontent to some writers on the subject. Scholars such as Heinrich Schenker, Robert Donington, Walter Emery, Arnold Dolmetsch, and David Boyden all believed in a freer, performer-centered approach to arpeggio passages. Below is evidence to justify an arpeggio realization that goes beyond the notes and chords and into the realm of Baroque free improvisation, a tradition long lost to most modern musicians. "Not enough modern performers are yet capable of doing this."[79]

In his critical commentary to Bach's Chromatic Fantasy, Heinrich Schenker said

> And now, when this unparalleled artist [Bach] leaves the execution of an arpeggio to the performer, he is insolently offered a childish technique, one that shows not the slightest trace of artistic infusion! Time and again one encounters the same kind of performance: the chord tones or other notes indicated in the figure are played as an ascending and descending arpeggio whose peak is always placed on the strong part of the measure. In a particularly inspired mood one might venture to add a note in the lower octave *ad pompam ed ostentationem*![80]

To those who think the score is sacred, one of the forefathers of Baroque performance practice scholarship, Arnold Dolmetsch, presented some of the most radical ideas regarding arpeggio realizations to dismiss the idea that one cannot deviate from the notes on the page.

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[78] Note that typical musical elements, phrasing, articulation, dynamics, etc. are excluded from this argument. These are obligatory and not the focus of this study.

[79] Donington, *The Interpretation of Early Music*, 153.

[80] Schenker, J. S. Bach's Chromatic Fantasy and Fugue: Critical Edition and Commentary, translated and edited by Hedi Siegel (New York: Longman, 1984), 35.

> Unfortunately, original examples of the interpretation of complicated arpeggios are not common. We can understand...what freedom the performer was allowed in such cases, even to the extent of temporarily altering the bass of the harmony.[81]

Half a century after Schenker and Dolmetsch proposed these ideas, Walter Emery published a book dedicated to J. S. Bach and ornamentation in his music. He said

> It is unfortunately impossible to say anything helpful about those keyboard works (such as the Chromatic Fantasia) in which a series of block chords are marked *arpeggio*. They come under the heading of free improvisation rather than of ornamentation; and it appears that no models contemporary with J. S. Bach have been preserved. The player will do well to base his interpretation on that of some musicianly editor: to bear in mind Dolmetsch's method of exhibiting part-writing and Emanuel Bach's statement that the chords should be spread upwards and downwards several times: and not by any means to consider himself bound to the printed notes and the conventional arpeggio patterns. Similar passages occur in string music. They are less troublesome, because it is usually obvious that all the chords are to be spread according to a given pattern [bar 89 of the ciaccona]; and even when the pattern is not given...the player need to do no more than invent a straightforward arpeggio figuration that suits his instrument.[82]

In *The History of Violin Playing* author David Boyden reinforces the thoughts of Schenker, Dolmetsch, and Emery.

> To a modern player the score means just what it says, and the so-called *Ur-text* is sacrosanct. On the other hand, in older times many scores were simply sketches of what the composer intended, and a modern player, trying to play the notes exactly as they appear on the printed page or manuscript, may actually be violating rather than fulfilling the composer's intentions...The composer of violin music wrote out the polyphonic progressions in an idealized way to show the true counterpoint, but he left the actual 'realization' of the score to the violinist according to his desires and abilities. Moreover, this idealized version of the music helped the player to understand the musical progression otherwise concealed in the figuration. The liberties permitted performers were far greater in

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[81] Dolmetsch, 271.

[82] Walter Emery, *Bach's Ornaments* (London: Novello, 1953) 103-4.

> earlier times, and ideally the violinist was an artist of sufficient stature to rise to the level of his opportunities.[83]

More recently, Robert Donington has written on practices that are in direct conflict with those who believe one should not add too much to the notated music.

> Where the composer has not shown the figuration by writing out a bar or two in full, the performer has full liberty to introduce what figures he prefers, in any variety of rhythm suitable to the context, and with any variety of bowing. He is not obliged to confine himself to the notes written in the chords, provided he keeps to the harmony together with such extraneous notes as can be momentarily introduced as passing acciaccaturas (simultaneous acciaccaturas are confined to keyboard instruments).[84]

Before my realization of mm. 89-120, evidence from Bach himself will be used to show innovative options one has when approaching arpeggio passages. Erwin Bodky, a Bach keyboard specialist, and the theorist, Heinrich Shenker, both cite the A minor Prelude from BWV 894 as an example of Bach's own arpeggio realization.

> The gigantic *cadenza* which is found in the great A minor Prelude (spiritual father of the first movement of the Triple Concerto in A minor) reveals how many auxiliary notes could be built in at *chord arpeggios*.[85]

The next passage comes from Schenker's critical edition of the Chromatic Fantasy. He uses the A minor Prelude to entice performers to reach beyond the chords and furnish a unique rendition of the Fantasy's arpeggio passages.

> Let us imagine that, close to the end of J. S. Bach's Prelude and Fugue in *A* minor, the composer, instead of writing out his own arpeggiation, had merely supplied the performer with chords.[86]

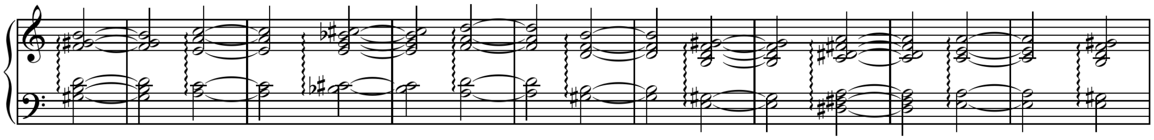
---

[83] David D. Boyden, *The History of Violin Playing from its Origins to 1761 and its Relationship to the Violin and Violin Music* (London: Oxford University Press, 1965), 272.

[84] Donington, *The Interpretation of Early Music*, 280.

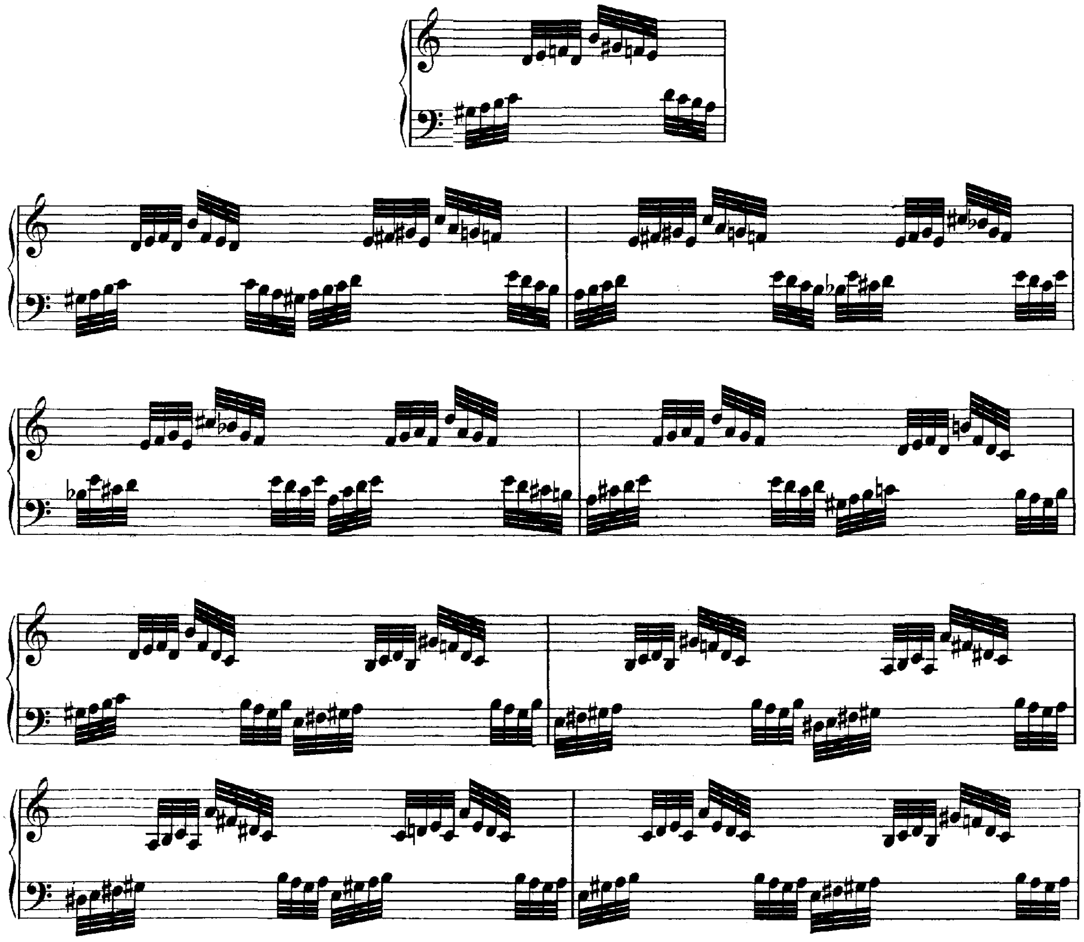
[85] Bodky, 330-1.

[86] Schenker, 32.



Musical Example 63. Prelude in A Minor, BWV 894, mm. 77-85 by J. S. Bach, reduction by Heinrich Schenker, J. S. Bach's Chromatic Fantasy and Fugue; Critical Edition and Commentary, translated and edited by Hedi Siegel, (New York: Longman, 1984), 32.

> What would the performer play then? Nothing but two ascending and descending arpeggios, as the "rule" dictates...But now let us enter a different sphere, the glorious world created by Bach.[87]



Musical Example 64. Prelude in A Minor, BWV 894, mm. 77-85 by J. S. Bach, Johann Sebastian Bach's Werke 36, edited by the Bach-Gesellschaft Society (Ann Arbor: J.W. Edwards, 1947), 96-7.

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[87] Ibid.

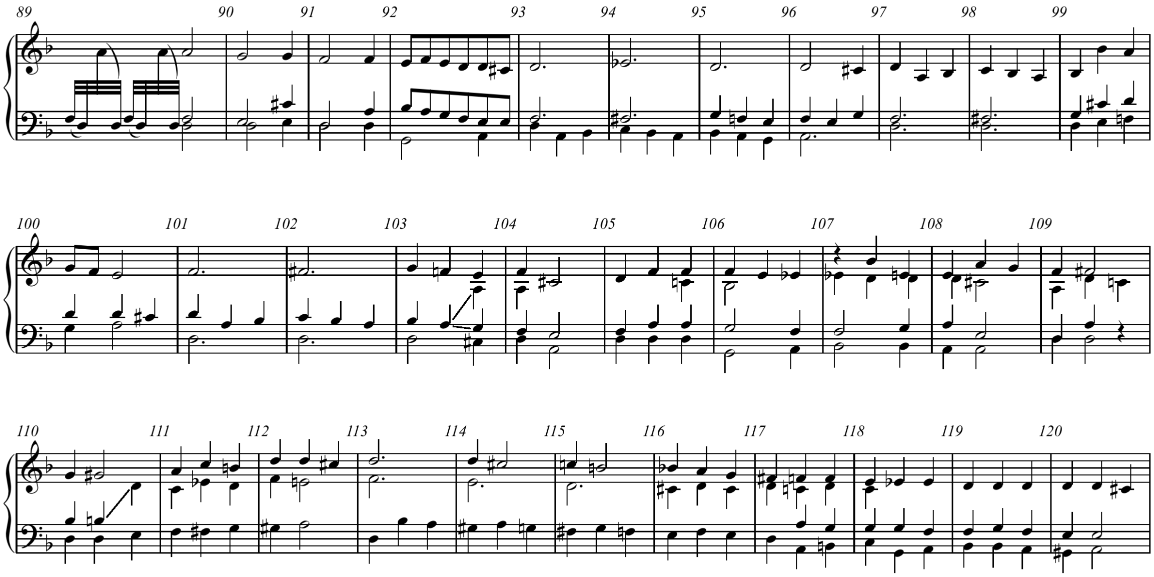
> Above all, note how Bach exploits the close position of his chords. Instead of limiting his arpeggiation to chord tones, he interpolates regular diatonic passing tones and acciaccaturas. Undoubtably, these little dissonant notes have an enlivening effect and thus enhance the beauty of the passage. In addition, he gives his arpeggio figure a very characteristic angular profile: just before changing from an upward to a downward direction, he suddenly bends back (see the last two thirty-second notes of the third quarter of the first figure).[88]

For my marimba realization of bars 89-120 of the *Ciaccona*, I adhere to the moto perpertuo tradition utilized by violinists and other instrumentalists, but instead of simply *playing the chords*, I add passing tones, scalar figures, and a few ornaments, while always in accordance to Bach's harmony. If my realization is compared to the original (example 65), one would see that the main line, regardless of voicing, is *on* the beat, division, or subdivision of the beat and never in between. Instead of repeating the bass on the beat and the division, I incorporate and manipulate a three-note scalar fragment that leads into the bass and thereby places the notated bass *on* the beat. Starting in bar 105, this three-note motif comes between the bass notes and drives the thirty-second-note sextuplets ever higher to the climax of this section, bar 113. After a lengthy crescendo and ritard into m. 113, I begin the long descent down to the final cadence with powerful octaves in the left hand, now on the subdivision of the beat, accompanied by the chromatically falling right hand filling out the remainder of the thirty-second-note sextuplets.

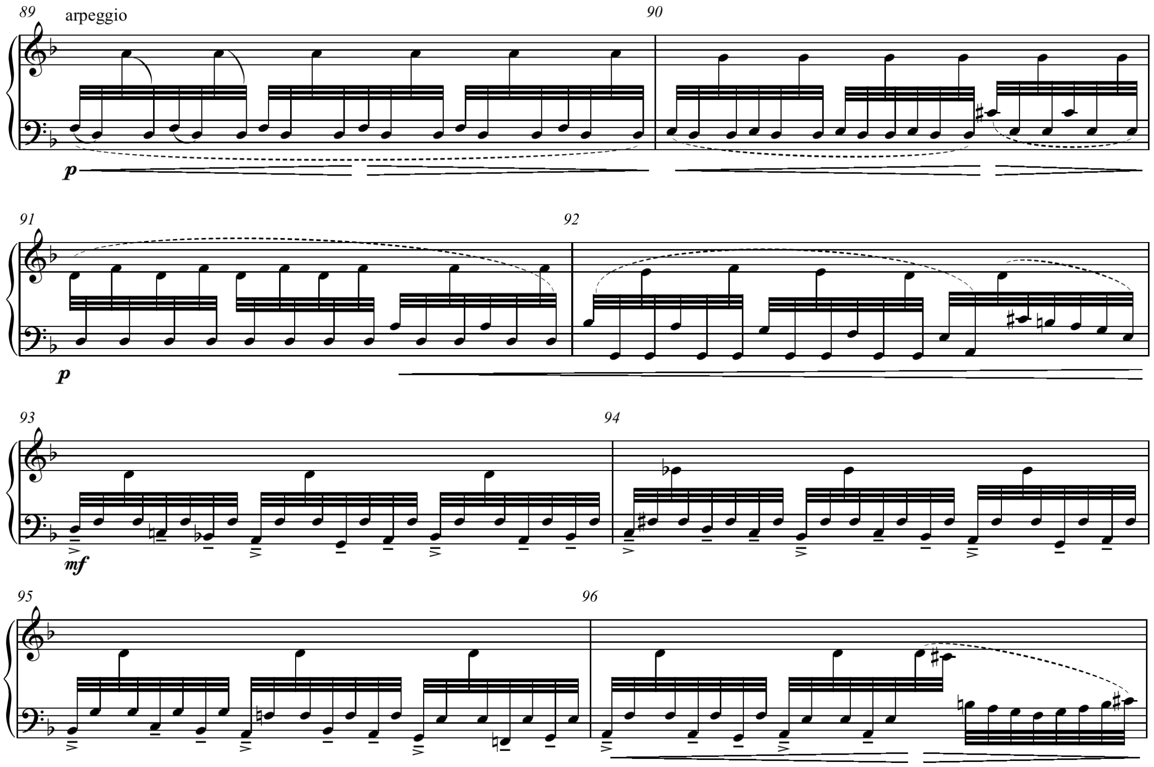
In my research, I have yet to find a recording or edition that takes this many liberties but I believe this is what writers like Dolmetsch and Schenker meant. Based on these scholars' ideas, I also believe that keyboardists and other instrumentalists of the Baroque, given this same piece of music, also would have adapted this section in a similar manner using arpeggiations common to their instrument. Example 65 is Bach's original, transposed down one octave, and example 66 is my realization.

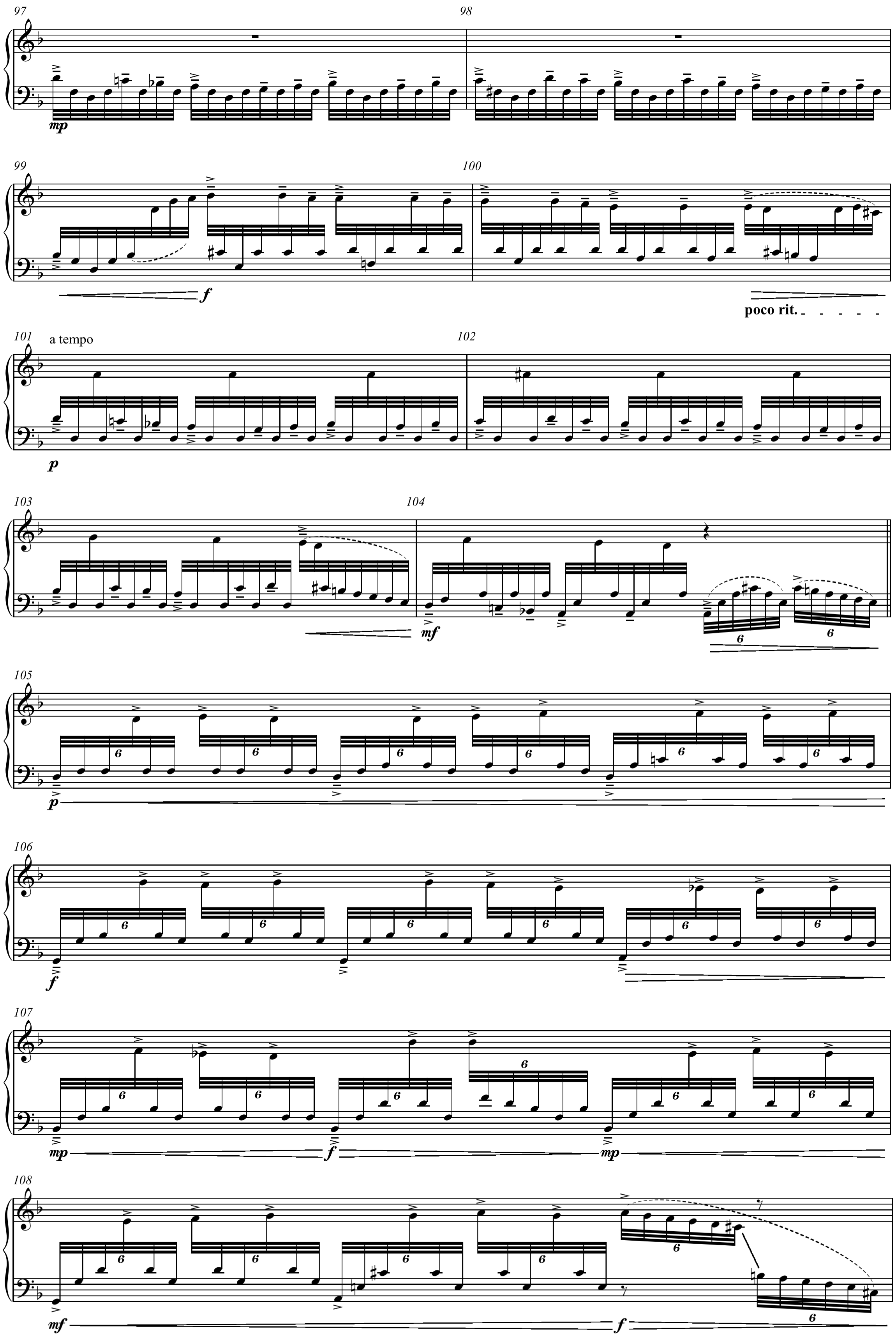
---

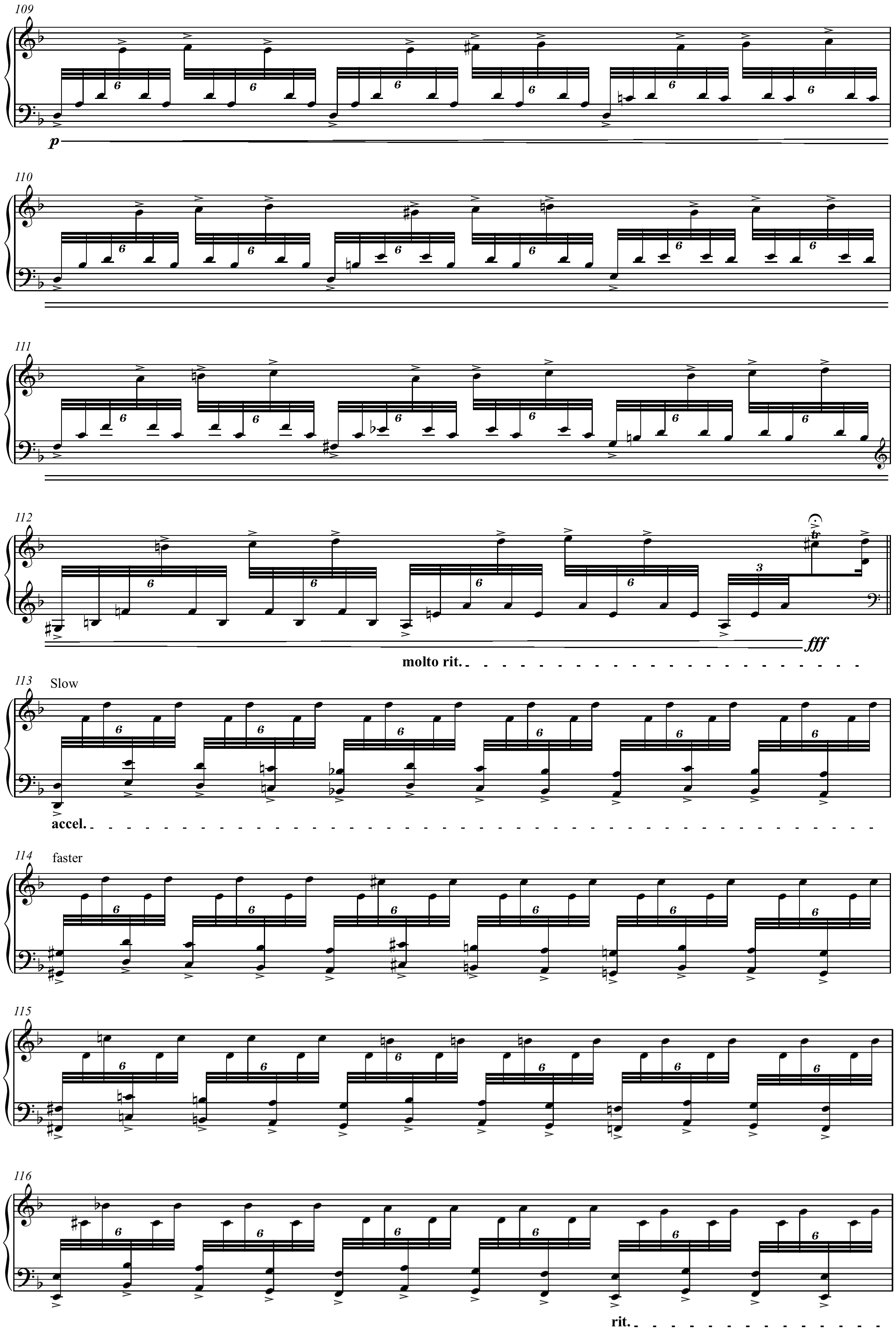
[88] Schenker, 32-33.

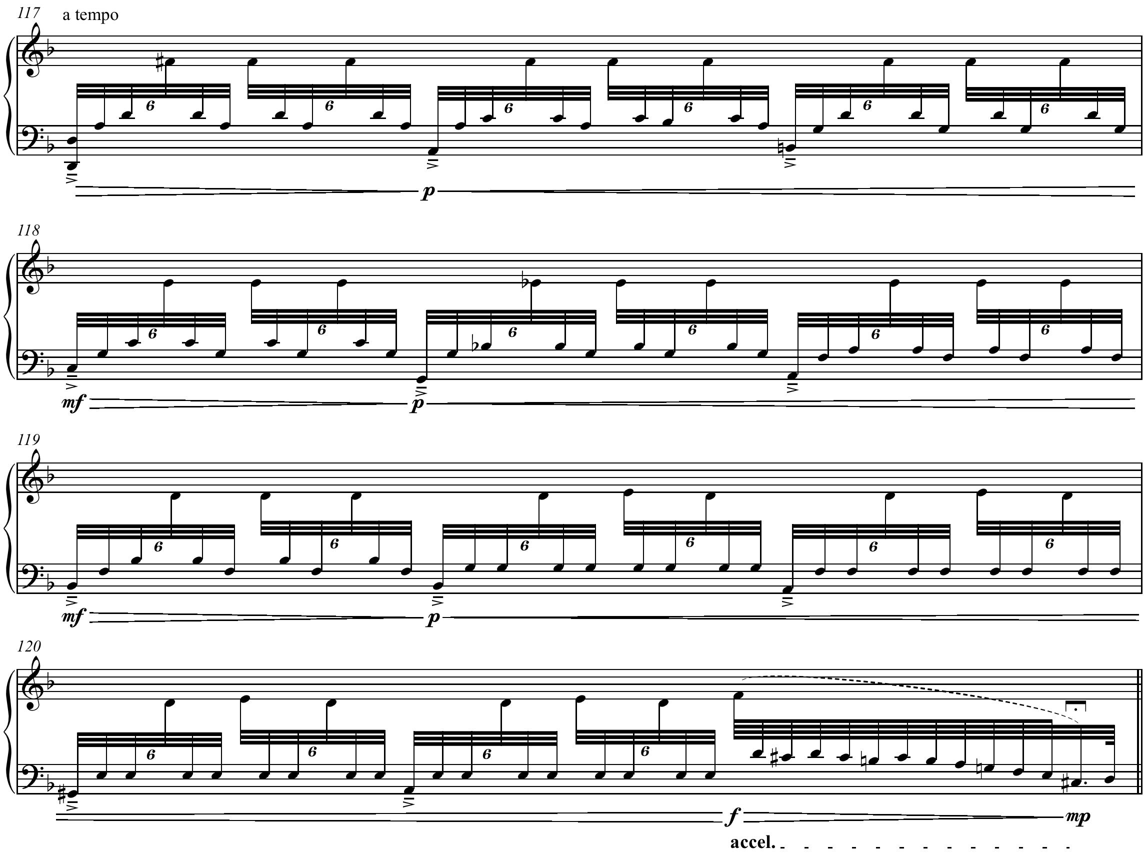

89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120

Musical Example 65. *Ciaccona* from Partita II, BWV 1004, mm. 89-120 by J. S. Bach, transposed down one octave by J. Mathena.


89
arpeggio
90
p
91
92
p
93
94
mf
95
96


97
98
mp
99
100
f
poco rit.
101
a tempo
102
p
103
104
mf
6
105
p
106
f
107
mp
f
mp
108
mf
f


109
p
110
111
112
molto rit.
fff
113
Slow
accel.
114
faster
115
116
rit.



Musical Example 66. *Ciaccona* from Partita II, BWV 1004, mm. 89-120 by J. S. Bach, arr. J. Mathena.

Even faced with evidence to the contrary, some musicians still believe that Bach's indication on count one of bar 89 is enough to argue for a simple, up and down, approach to this passage. In his treatise on the sonatas and partitas, Richard Efrati said

> If in a succession of chords the word "arpeggio" is written it means that the chords must be broken. This can be done in a number of ways...Bach has indicated in bars 89-120 of the Ciaccona the way in which he wanted this passage to be played: it is hard to understand why editors have gone over to triplets already at the start – they should begin on the third beat of bar 103, as the four-part chords occur there.[89]

---

[89] Efrati, 192-3.

The modern musicologist Frederick Neumann also shared Efrati's thoughts on arpeggios.

> Another problem arises when a model given at the outset of a lengthy arpeggio passage ceases to fit later chords...In such cases the performer has to use his imagination unless he wishes to follow the modern editor's suggestions. Whenever we have no guidance from the composer, it will generally be advisable to aim at simple, not fancy solutions.[90]

While these theories are acceptable, and for most players the end result, I believe a more straightforward realization should be reserved for shorter arpeggio passages and longer phrases, like bars 89-120, should contain variety and exciting additions. For shorter arpeggio phrases, one can cling to common arpeggiations. Regarding the arpeggio passage from the *Fuga* from Sonata I, the Baroque violinist Jaap Schöder said

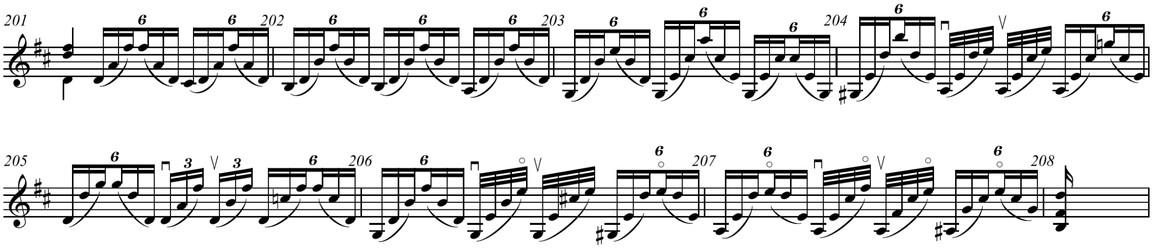
> He [Bach] obviously intended an arpeggiated execution but did not take time to specify it. Carl Flesch and other have suggested some fancy bow strokes. My conviction, based on the violin technique of Westhoff and other older contemporaries of Bach, is that arpeggios focus on the content of the chords, on their progression and not on the virtuoso quality of the right hand. A straightforward up-and-down movement on each chord is all that is needed.[91]

This concept can also be evidenced in his realization of mm. 201-8 of the *Ciaccona*. Many believe a realization, like the one in example 67, is the extent of the freedoms afforded to a performer.

---

[90] Frederick Neumann and Jane Stevens, *Performance Practices of the Seventeenth and Eighteenth Centuries* (New York: Schirmer, 1993), 494.

[91] Schröder, *Bach's Solo Violin Works*, 67. In reference to mm. 35-41 of the *Fuga* from BWV 1001 but still applicable to the *Ciaccona*.



Musical Example 67. *Ciaccona* from Partita II, BWV 1004, mm. 201-8 by J. S. Bach, realized by Jaap Schröder, *Bach's Solo Violin Works: A Performer's Guide* (London: Yale University Press, 2007), 142.

Still even Schröder's rendition is still more adventuresome than most violinists and most marimbists, who commonly play a quasi *um-pah* pattern for this section.[92] This is not necessarily a bad idea because for variety's sake and possibly mood or affect, arpeggio passages do not always need to be performed as ascending and descending figures. For evidence of this notion as an accepted performance practice, one can cite Johann Mattheson, who wrote of instances where the performer may play dyads alternating with dyads, triads alternating with triads, dyads alternating with single notes, triads alternating with single notes, or any number of combinations possible with three or four notes.

> Now such a three-part phrase...can be spun out in five different ways, and can be performed with the broken chords, as
>
> 1. Where one combines the two lowest voices into one, and takes the upper as it stands.
> 2. Where the two upper voices are combined into one; though the lower remains just as it is.
> 3. Where the middle voice is not altered; but the two others join together and make only one.
> 4. When two voices alternate in this, the third being included in them.

---

[92] For examples of a realization of bars 201-7, see Carl Flesch, ed., Sonaten und Partiten (New York: C. F. Peters, 1930); Eduard Herrmann, ed., Bach: Sonatas and Partitas for the Violin (New York: Schirmer, 1986); Ivan Galamian, ed., 6 Sonatas and Partitas, S. 1001 – S. 1006 for Solo Violin (New York: International Music Company, 1971); and Joseph Joachim and Andreas Moser, eds., Bach: Six Sonatas and Partitas for the Violin (New York: Kalmus, 1942).

> 5. When all three are perceived in a single voice, as when the main idea consists of the broken chord.
>
> This fifth and last breaking is actually called the **harp-type**, in Italian: *Arpeggio*, and is used a great deal.[93]
>
> With a four-voice example we find six ways to vary the broken chord in the voices. The breaks however in and for themselves are and remain innumerable, indeed, infinite. Here are the six types of four-part phrase!
>
> 1. One combines the two upper voices into one, so that the two lower voices remain unchanged.
> 2. Three are combined into two, so that the lowest voice alone remains simply as it was.
> 3. Combining all four voices into three broken ones.
> 4. The three highest into one, the lowest remains as it was.
> 5. All four voices into two.
> 6. All four into one.[94]

Some of the comprehension may be lost in this translation of Mattheson but he is simply saying arpeggios and broken chords need not only be one note after the other, up or down, but mixtures of double-stops and single notes can be employed as well.

Because many performers from the nineteenth century to the present play the second arpeggio section of the *Ciaccona* as a series of dyads, the next example is a realization I concocted based on most of the violin editions surveyed for this study. Following that is another realization, akin to Shröder's version, which is a rapid burst of flourishes that concludes the triumphant D major portion of the *Ciaccona*. Because of the inability to correctly interpret Bach's manuscript, there has been some debate as to whether to begin this arpeggio passage on count one or two. Because the abbreviation *Arp.* is written below bar 201 and is in between count one and two, some start the arpeggiations on one and some start on two. Schröder begins on count two, but because of Bach's indication for the first arpeggio passage, I prefer starting on count one.

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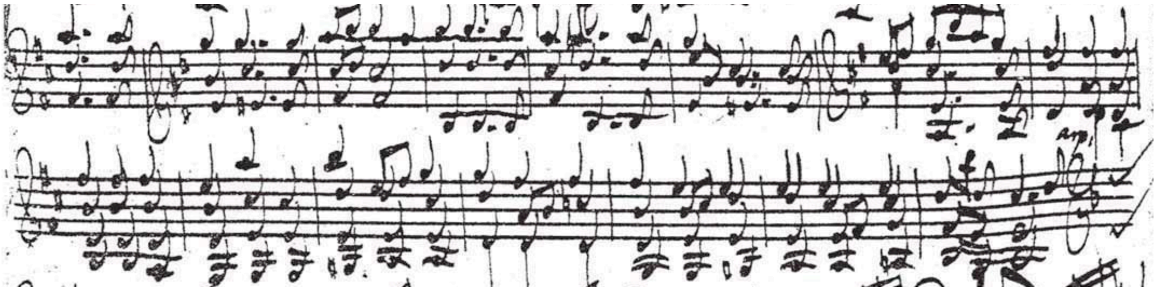
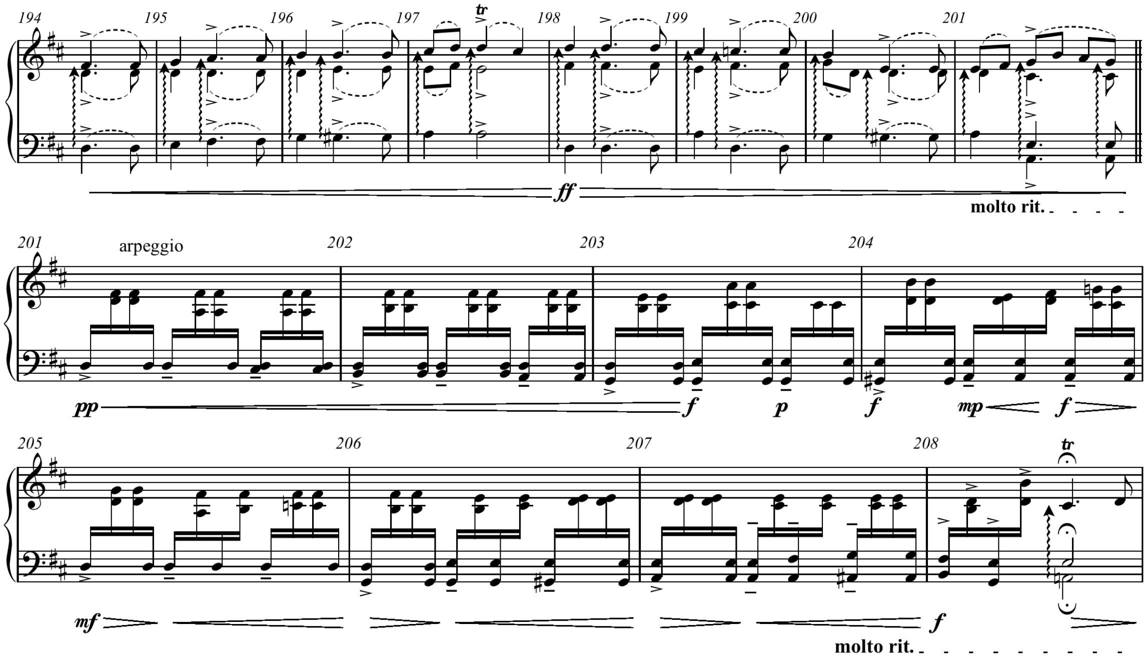
[93] Mattheson, 673-4.

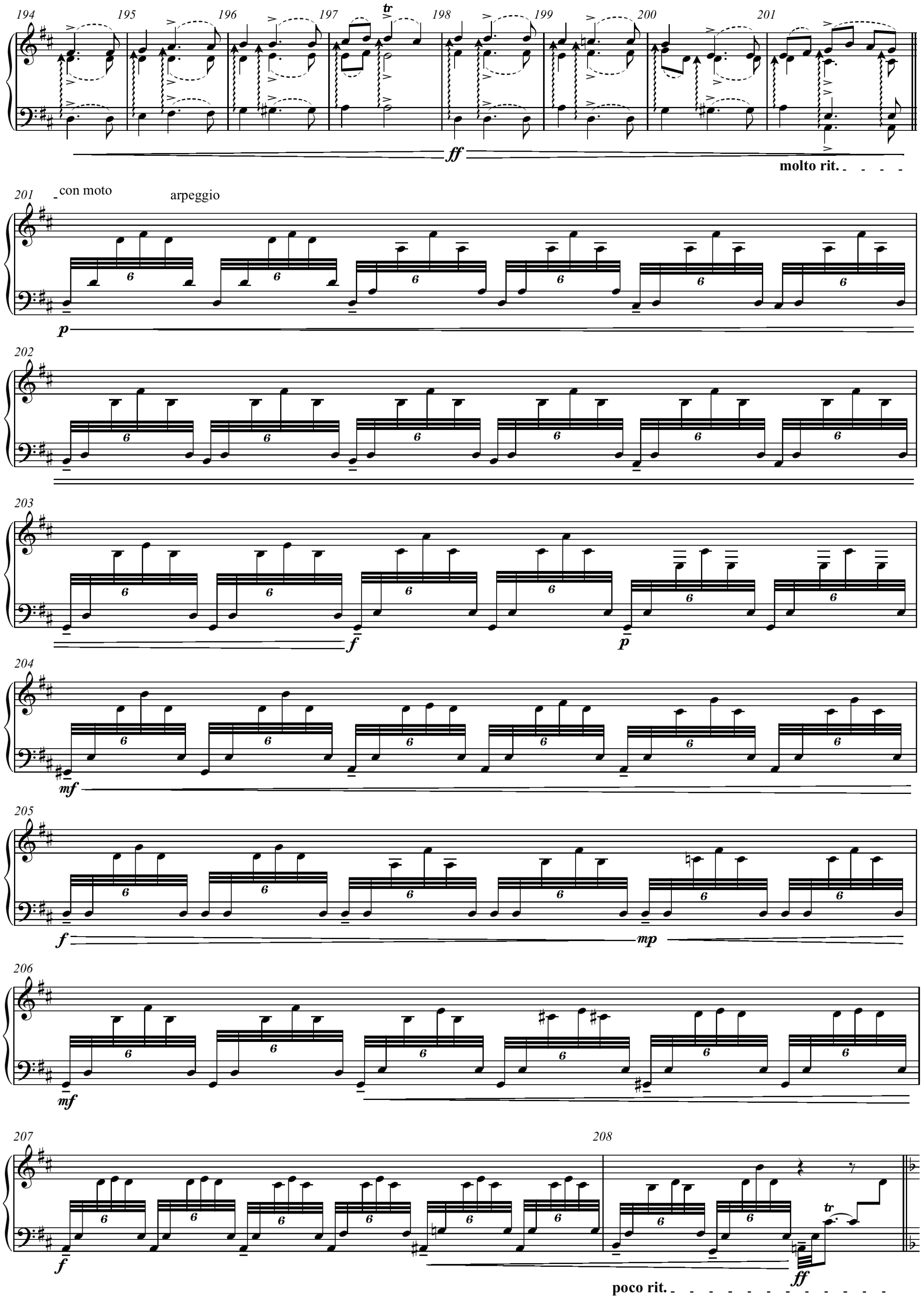
[94] Ibid., 675.



Musical Example 68. *Ciaccona* from Partita II, BWV 1004, mm. 194-208 J. S. Bach (autograph manuscript), 15.

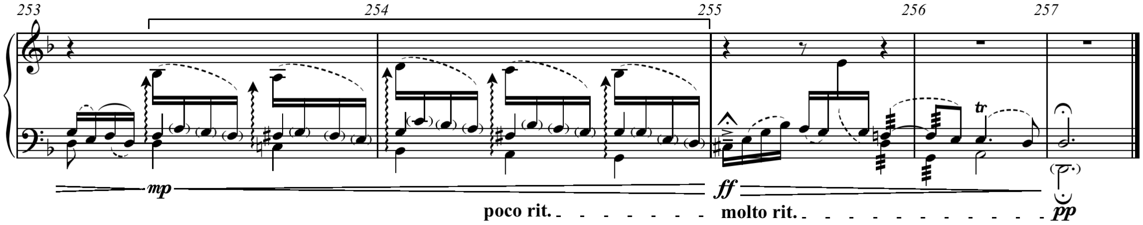

194
195
196
197
tr
198
199
200
201
ff
molto rit.
201
arpeggio
202
203
204
pp
f
p
f
mp
f
205
206
207
208
tr
mf
f
molto rit.

Musical Example 69. *Ciaccona* from Sonata I, BWV 1004, mm. 194-208 by J. S. Bach, arr. J. Mathena.


194
195
196
197
tr
198
199
200
201
ff
molto rit.
201
con moto
arpeggio
p
202
203
f
p
204
mf
205
f
mp
206
mf
207
f
208
tr
ff
poco rit.

Musical Example 70. *Ciaccona* from Sonata I, BWV 1004, mm. 194-208 by J. S. Bach, arr. J. Mathena.

There is no literature stating that one cannot add notes but there are some writers who think of the extended arpeggio passage as a chance for free improvisation (within the stylistic realm of course). In the thorough-bass treatises of the Baroque, writers talk of adding acciaccaturas, scalar passages, and other various ornaments where appropriate when one is playing the chordal instrument in a basso continuo group. In bars 253-4 of the "Ciaccona," I add scalar passages after the chord is struck. There is no precedence for improvisation in these bars, but I believe the performer can add to this and other sections so long as it is always in good taste and the notated tones are still clear to the listener. The added notes are in parentheses.



Musical Example 71. Ciaccona from Partita II, BWV 1004, mm. 253-7 by J. S. Bach, arr. J. Mathena.

Since the *Ciaccona* is very powerful and full of remarkable opportunities for musical expression and individual embellishment, I believe the arpeggio passages are where one is allowed to improvise and create something beyond the written notes. I hope these ideas presented will inspire marimbists, and other musicians as well, to strive for creativity and spontaneity regarding this mammoth work.

CHAPTER V

CONCLUSION

If one played only the notes and rhythms supplied by Bach and did nothing musical regarding phrasing and articulation, added no ornaments or embellishments, the music would still be magnificent. But if one adds phrasing, ornaments, dynamics, and a host of other enhancements, then the Baroque ideal for the sonatas and partitas would be realized and the music would become personalized. In his day, performers were expected to individualize a work during performance with additions that maybe even the composer had never envisioned. This is what I hope one takes away from this study.

In accordance with the idiosyncrasies of the instrument, marimbists have choice when breaking chords or realizing arpeggios. Every option should be considered before one way is settled upon. If one understands one's instrument and is technically proficient, then musical choices can be made idiomatically and historically, not arbitrarily or based on erroneous information. Once a performer communicates *through* his instrument then one can take performance practices of any era, transfer them, execute them stylistically appropriately, and communicate emotion through them. Then one may reach a level where the embellishments are not planned but rather played spontaneously.

Another aspect one should take away from this document is the importance of playing transcriptions idiomatically. One should strive to not make musical choices based on instruments idiosyncrasies, including the original instrument for which a work was written. The violin has its own set of idiosyncrasies and only some of them coincide with those of the marimba. Bach would probably not have tried to play the harpsichord like a string player, even when playing his own music. The joy of transcription is taking the notes and rhythms intended for a specific instrument and realizing it on a completely different instrument. Results that maybe even the composer could not have imagined can

Selected transcriptions with my performance suggestions can be found in Appendix B. I preface them by saying this is only *one* way of performing them. I do not play these wonderful works the same way every time. There are many factors that dictate performance and I would like to encourage performers to consider their own set of circumstances and not take my suggestions blindly. There is a notation guide in Appendix A. Regarding these transcriptions, one must understand that notation, however specific, is still incapable of conveying all the information a performer needs to produce a meaningful, expressive, and individual performance. Notated music is simply a guide and the performer must add what can never be captured on the page.

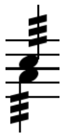
APPENDIX A

GUIDE TO NOTATION SYMBOLS

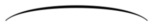
1. Mallet indications from left to right

1, 2, 3, 4

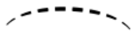
2. Percussion tremolo (alternating right and left hand or mallets, i.e. 1/2 or 3/4 or 1/2/3/4)



3. Bach's original bowing indication



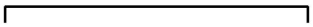
4. Editorial phrase mark



5. Added note or, if indicated, a note that is slightly emphasized

( )

6. Altered phrase



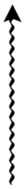
7. Accent

>

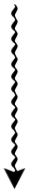
8. Half-accent

–

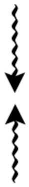
9. Broken chord ascending (sticking is 1234 or 1324)



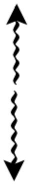
10. Broken chord descending (sticking is 4321 or 4231)



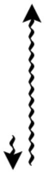
11. Broken chord - in to out (notated as either 1243, 4312, 1423, or 4132)



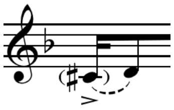
12. Broken chord - out to in (notated as either 2134, 3421, 2314, or 3241)



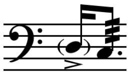
13. Broken chord beginning on inner note then ascending with initial inner note included (sticking is 31234 or 21234)



14. Notated retardation



15. Notated appoggiatura



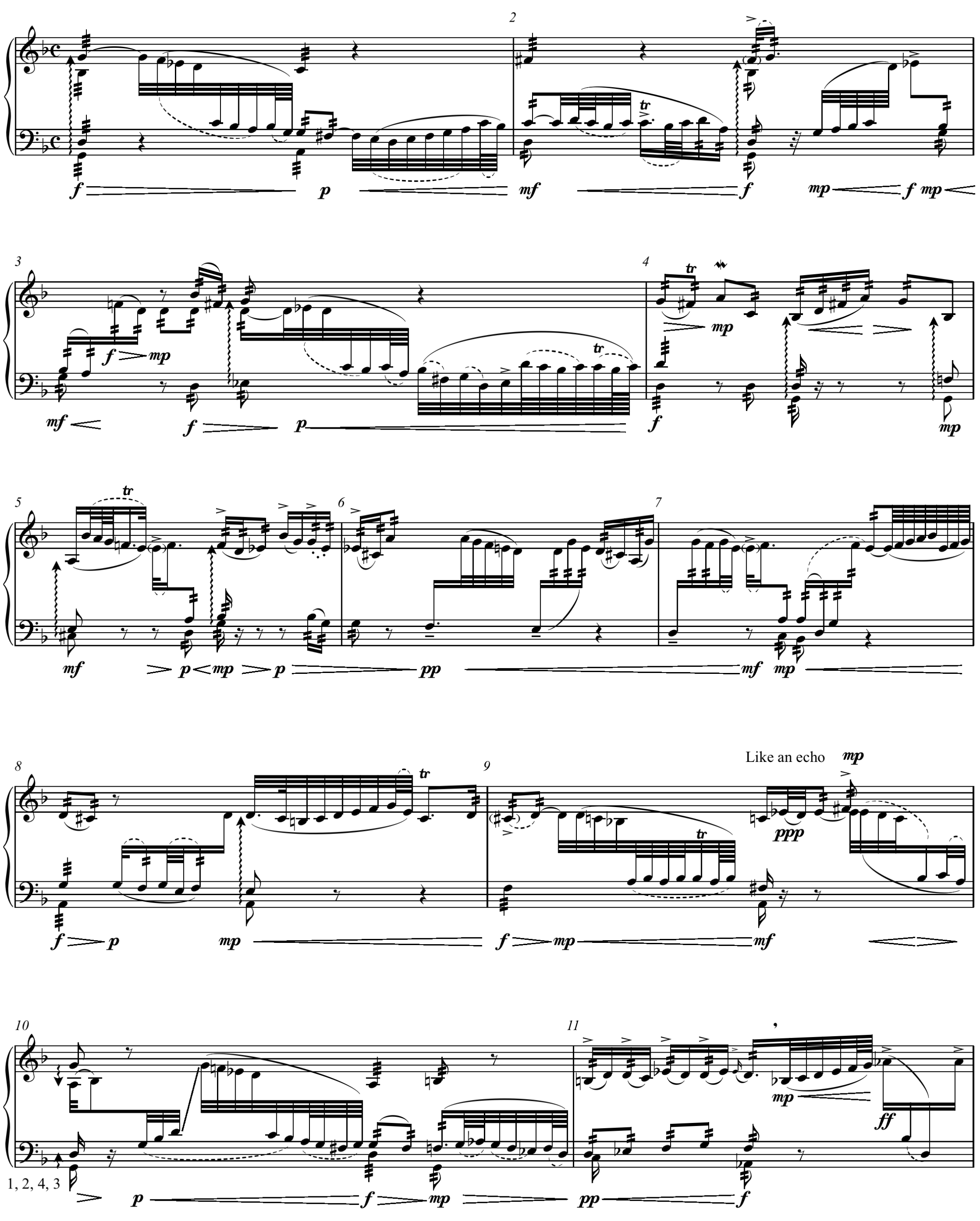
APPENDIX B

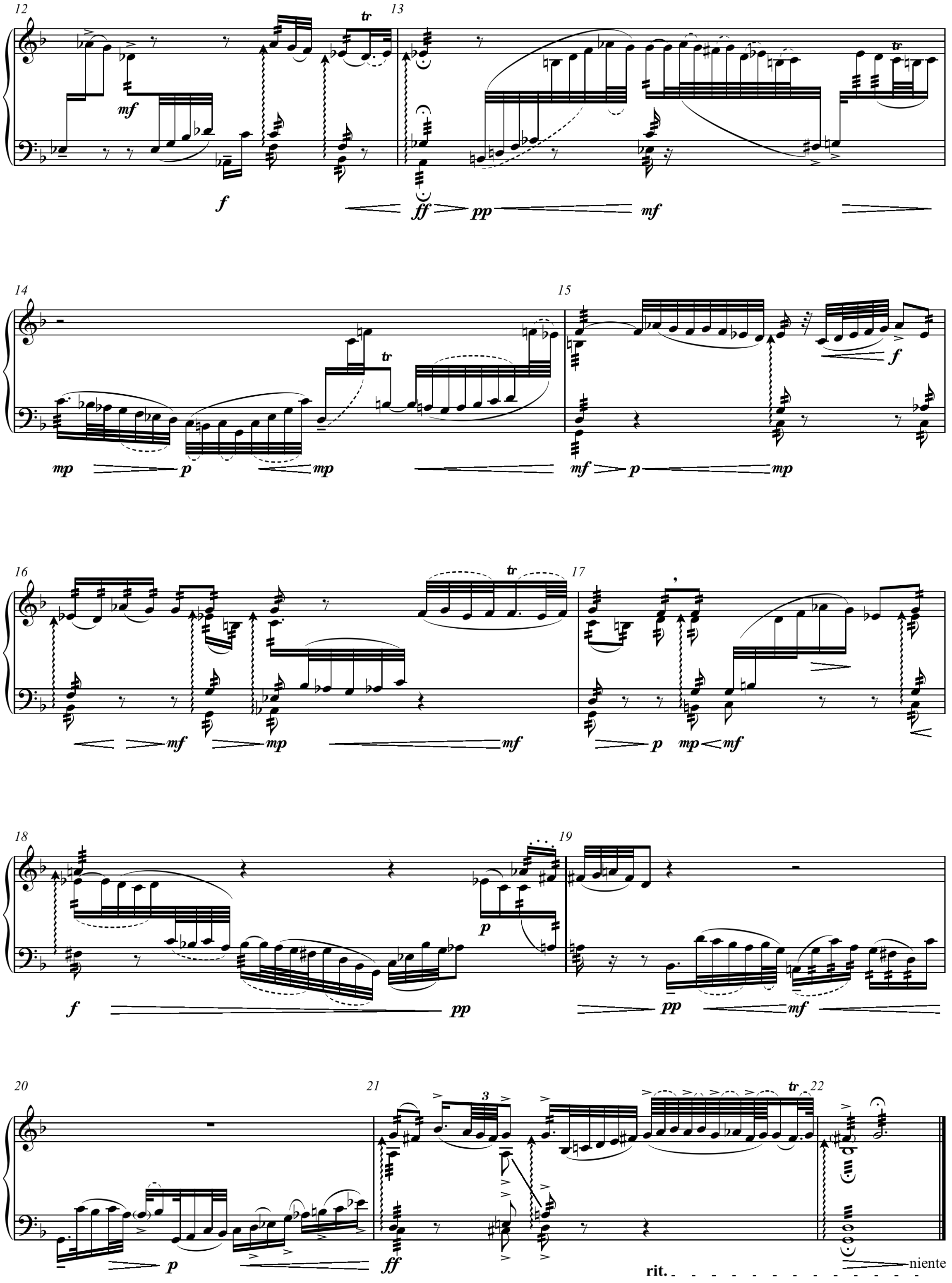
MARIMBA TRANSCRIPTIONS FROM J. S. BACH'S SONATAS AND PARTITAS FOR SOLO VIOLIN, BWV 1001-6

Adagio from Sonata I, BWV 1001

Adagio

J. S. Bach, arr. J. Mathena

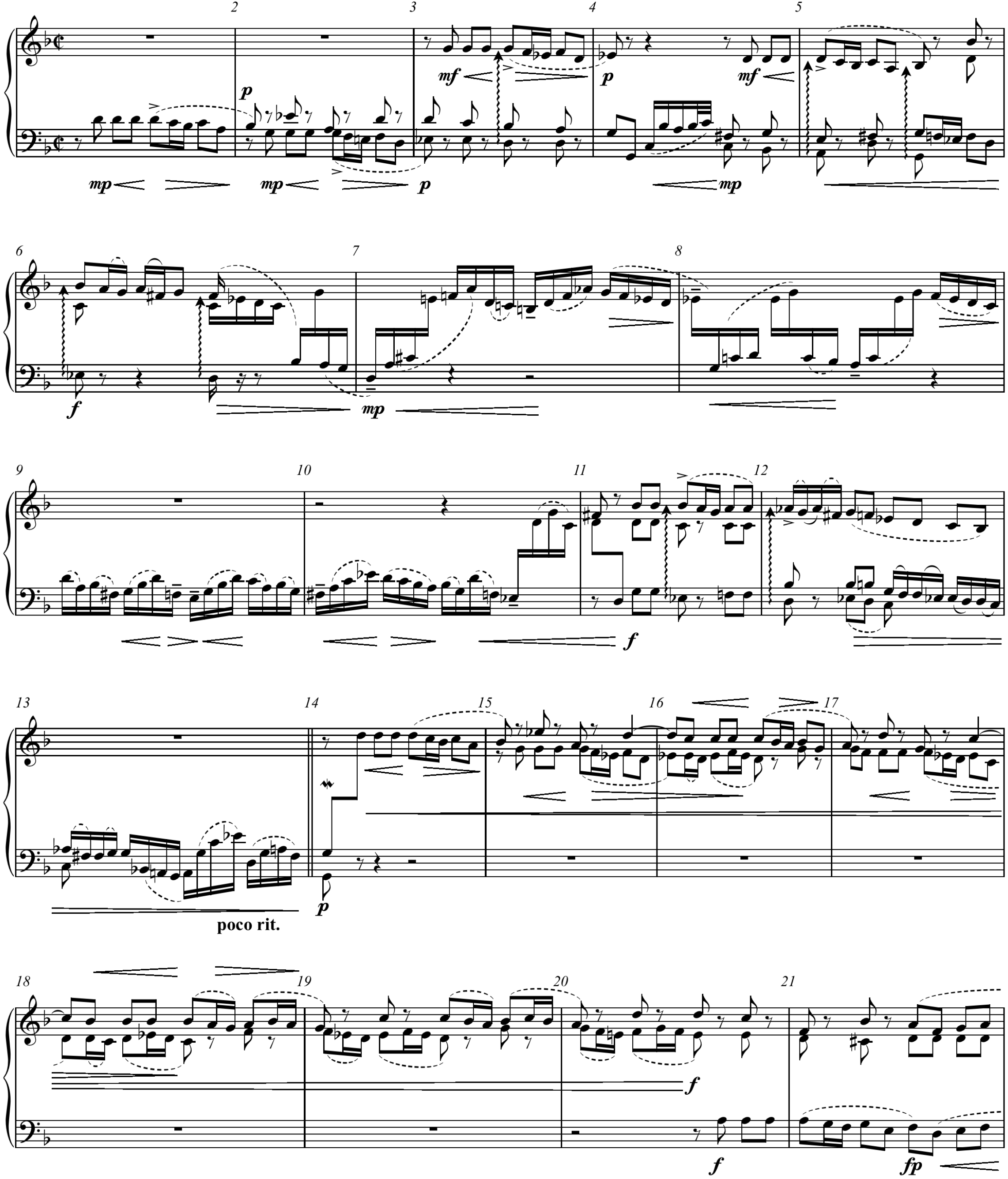

2
3
4
5
6
7
8
9
10
11
tr
Like an echo
1, 2, 4, 3
f
p
mf
mp
pp
ppp
ff

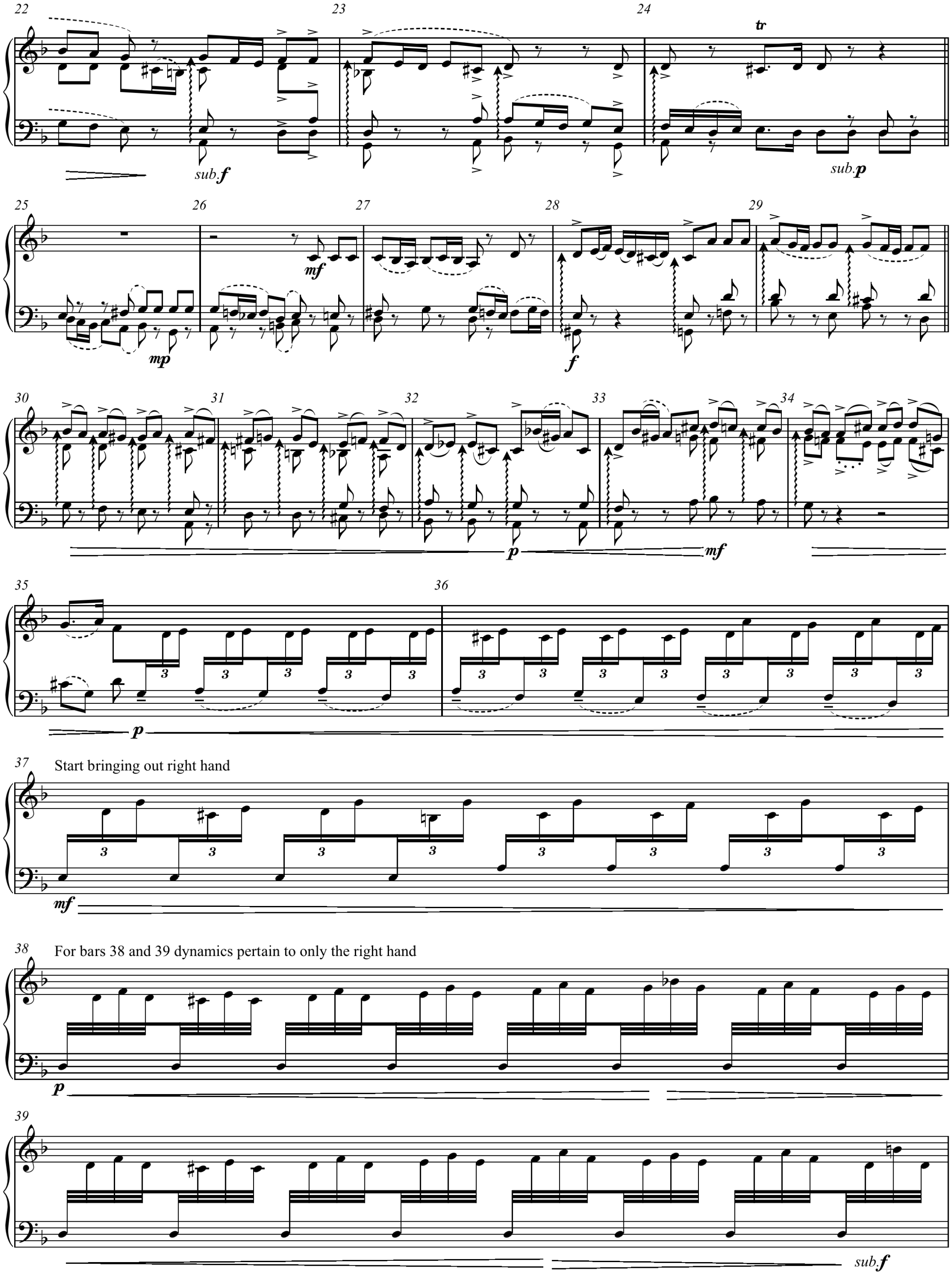

12
13
tr
f
mf
ff
pp
mf
14
15
tr
mp
p
mp
mf
p
mp
f
16
17
tr
mf
mp
mf
p
mp
mf
18
19
f
pp
p
pp
mf
20
21
22
3
tr
p
ff
rit.
niente

Fuga from Sonata I, BWV 1001

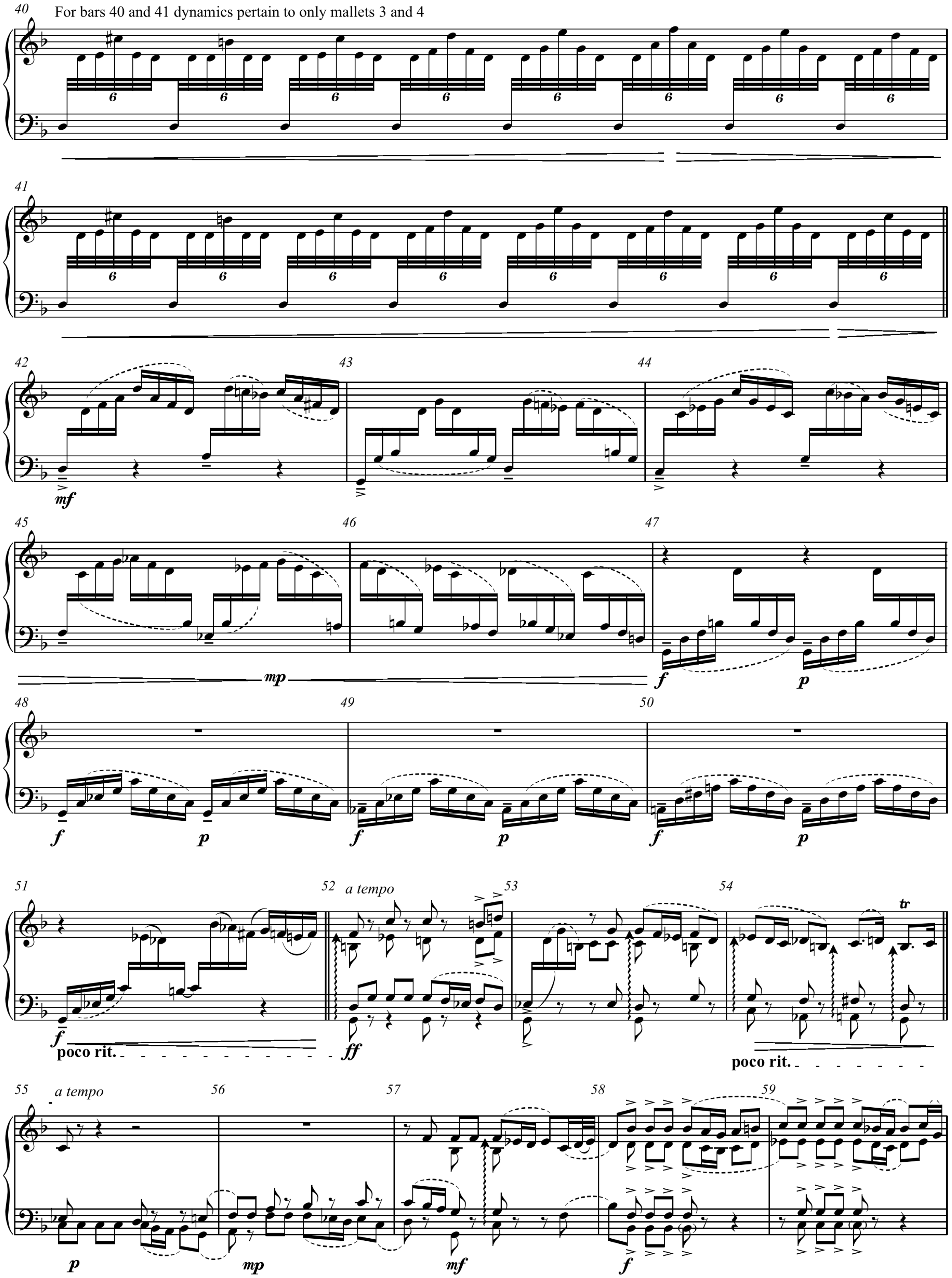
J. S. Bach, arr. J. Mathena

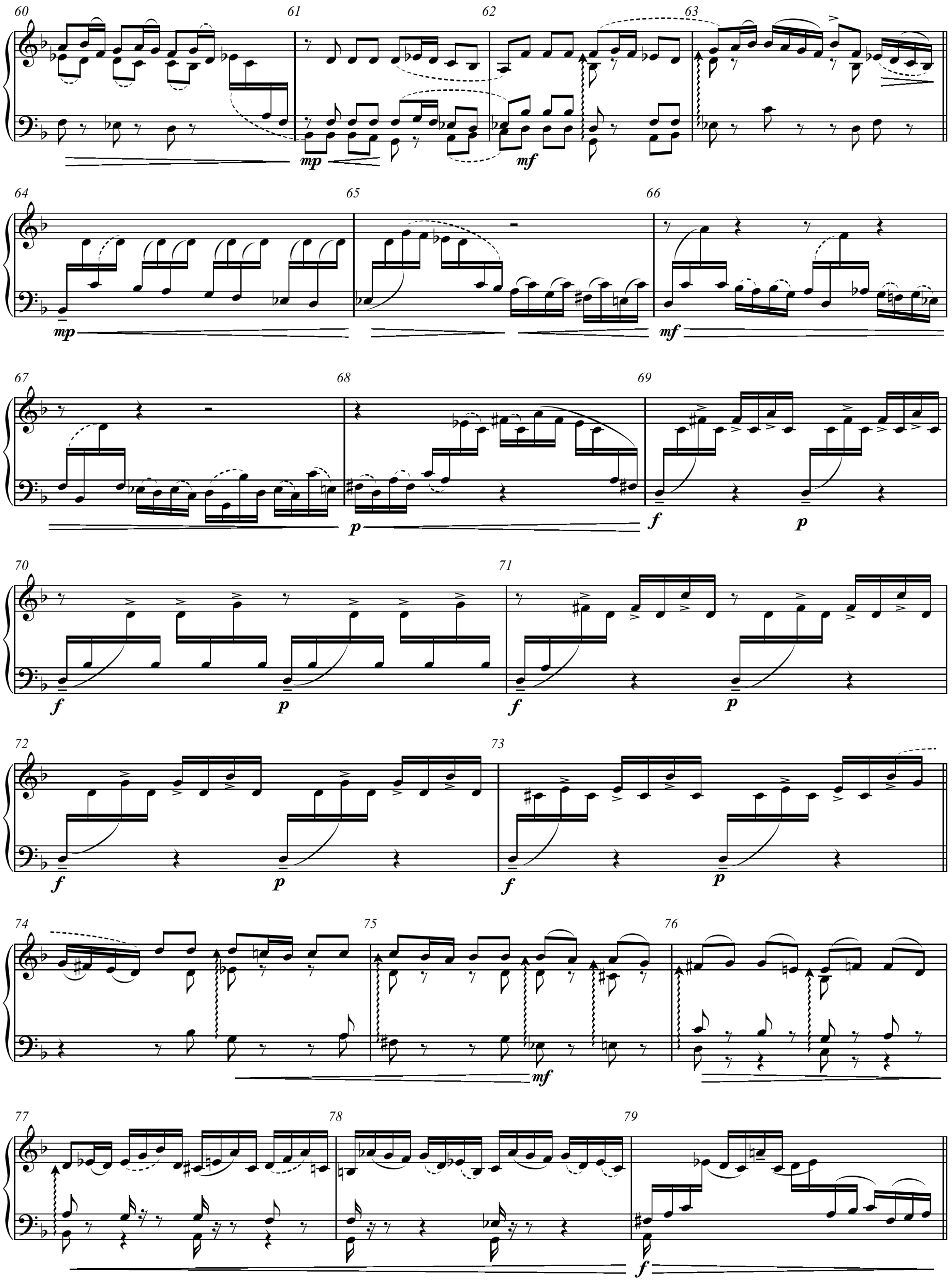
Allegro

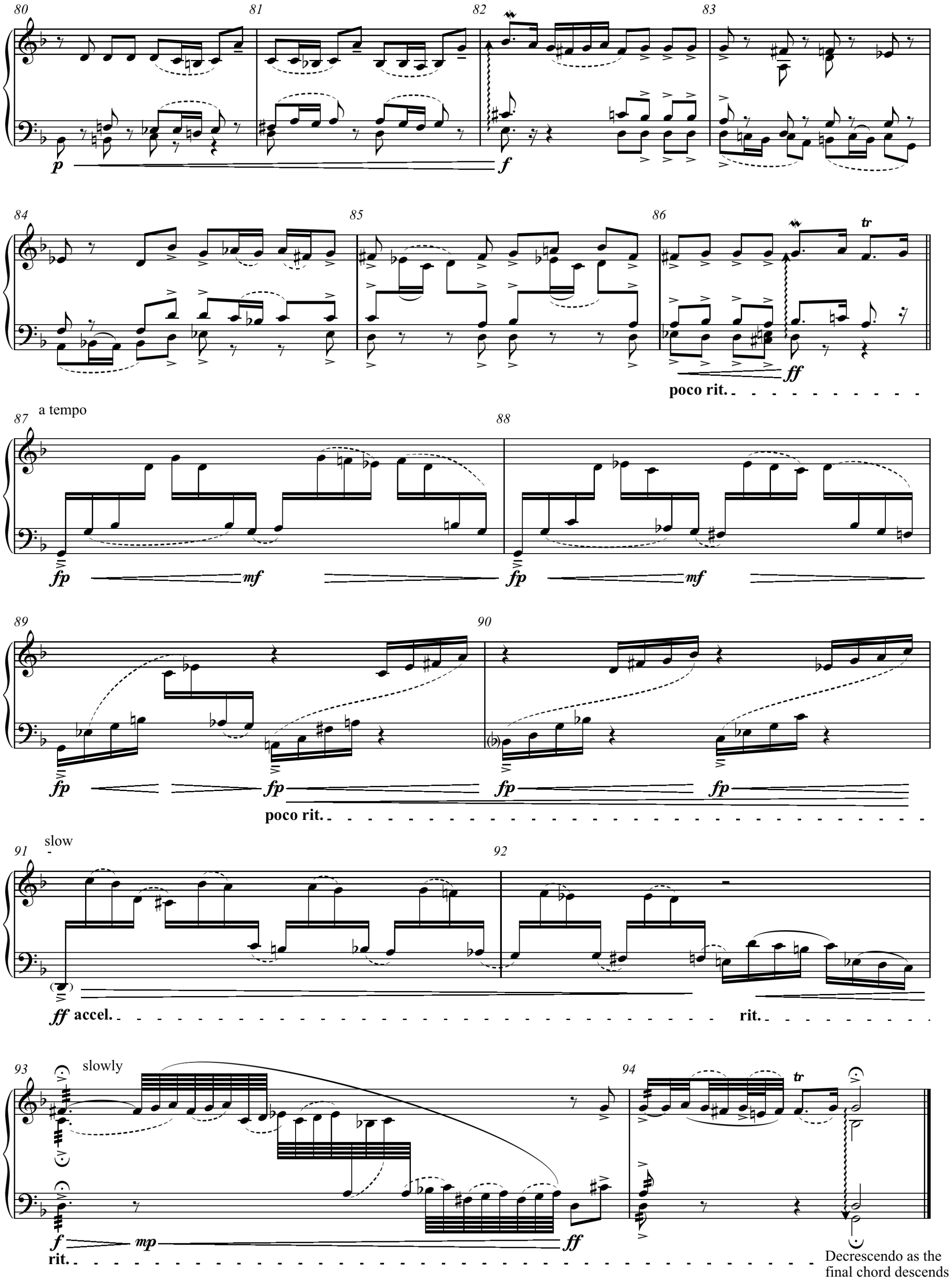

2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
mp
p
mf
f
fp
poco rit.


22
23
24
tr
sub.f
sub.p
25
26
27
28
29
mf
mp
f
30
31
32
33
34
p
mf
35
36
p
37
Start bringing out right hand
3
mf
38
For bars 38 and 39 dynamics pertain to only the right hand
p
39
sub.f

For bars 40 and 41 dynamics pertain to only mallets 3 and 4


40
41
42
mf
43
44
45
mp
46
47
f
p
48
f
p
49
f
p
50
f
p
51
f
poco rit.
52
a tempo
ff
53
54
tr
poco rit.
55
a tempo
p
56
mp
57
mf
58
f
59

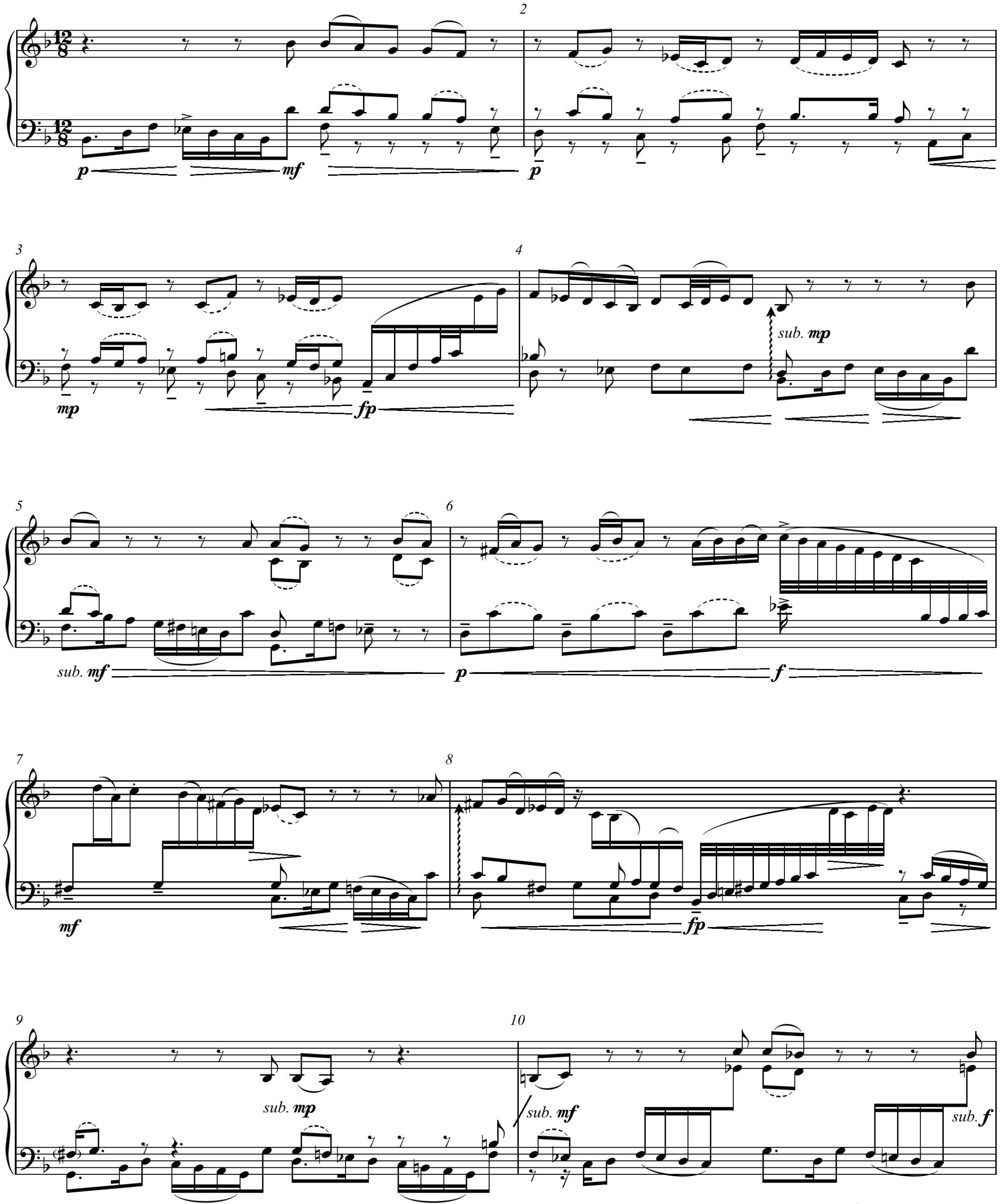

60
61
62
63
mp
mf
64
65
66
mp
mf
67
68
69
p
f
p
70
71
f
p
f
p
72
73
f
p
f
p
74
75
76
mf
77
78
79
f

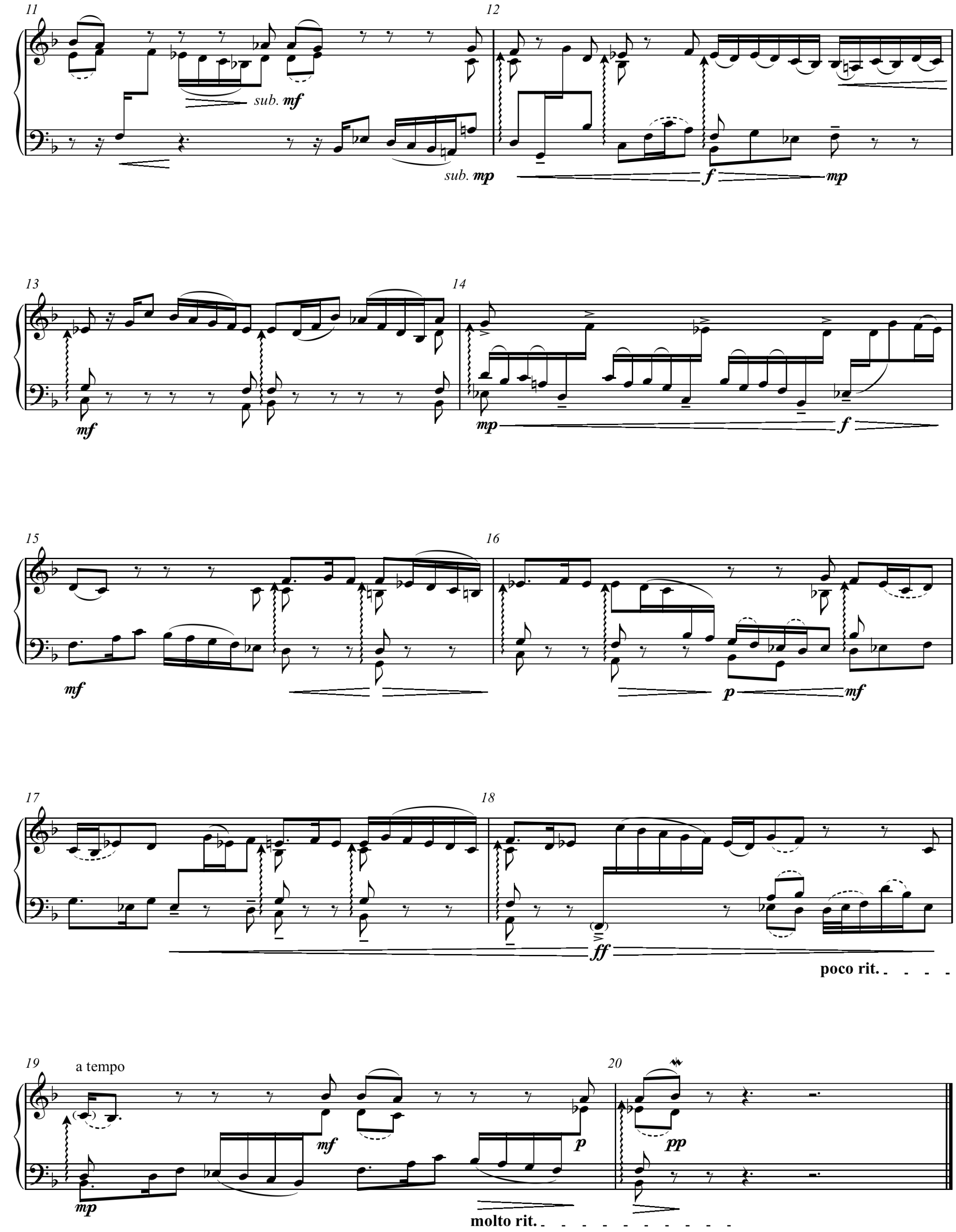

80
81
82
83
p
f
84
85
86
poco rit.
ff
87
a tempo
88
fp
mf
fp
mf
89
90
fp
fp
fp
fp
poco rit.
91
slow
92
ff
accel.
rit.
93
slowly
94
f
mp
ff
rit.
tr
Decrescendo as the final chord descends

Siciliana from Sonata I, BWV 1001

J. S. Bach, arr. J. Mathena

Siciliana

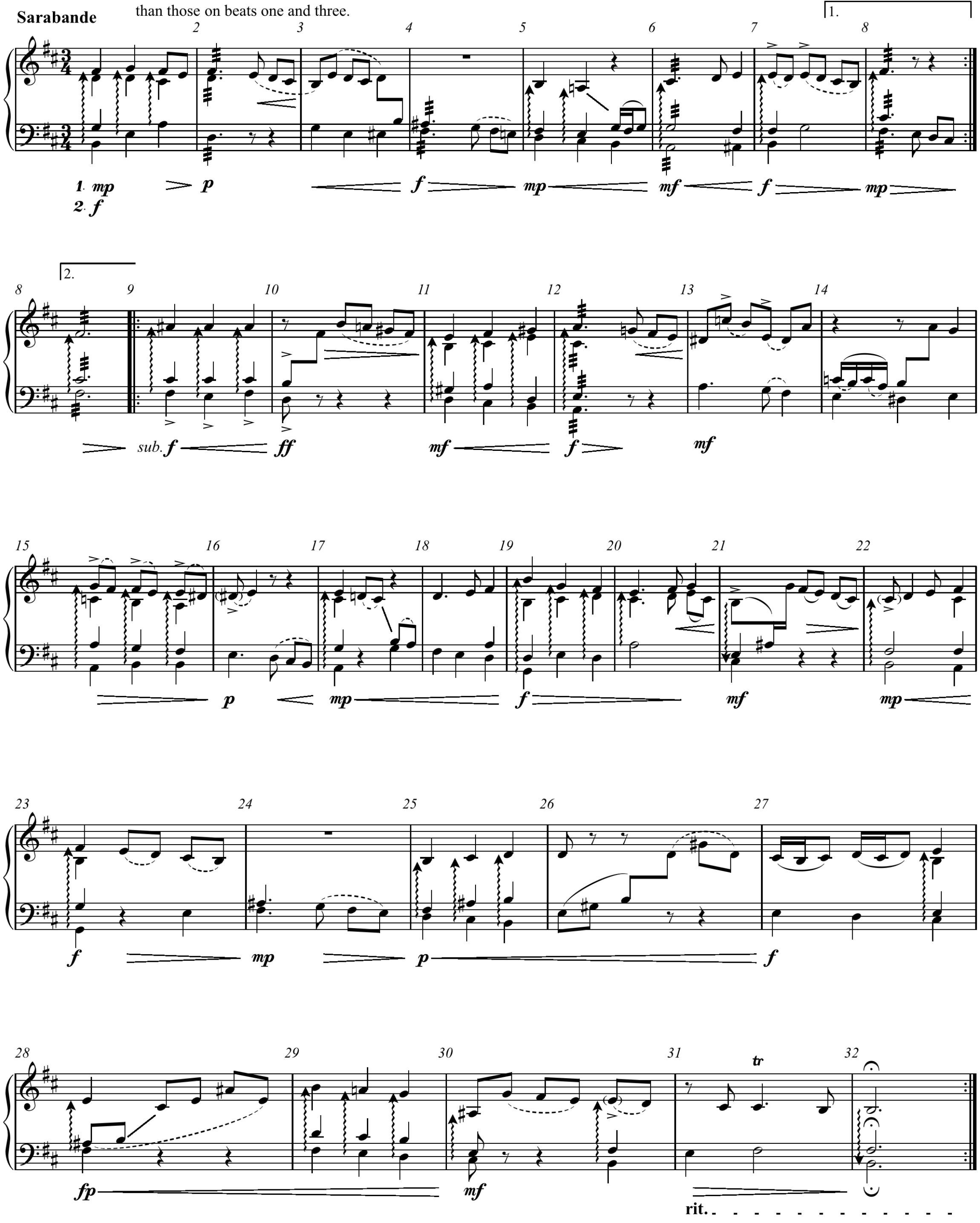

2
3
4
5
6
7
8
9
10
p
mf
p
mp
fp
sub. mp
sub. mf
p
f
mf
fp
sub. mp
p
sub. mf
sub. f


11
sub. mf
sub. mp
12
f
mp
13
mf
14
mp
f
15
mf
16
p
mf
17
18
ff
poco rit.
19
a tempo
mp
mf
p
molto rit.
20
pp

Sarabande from Partita I, BWV 1002

J. S. Bach, arr. J. Mathena

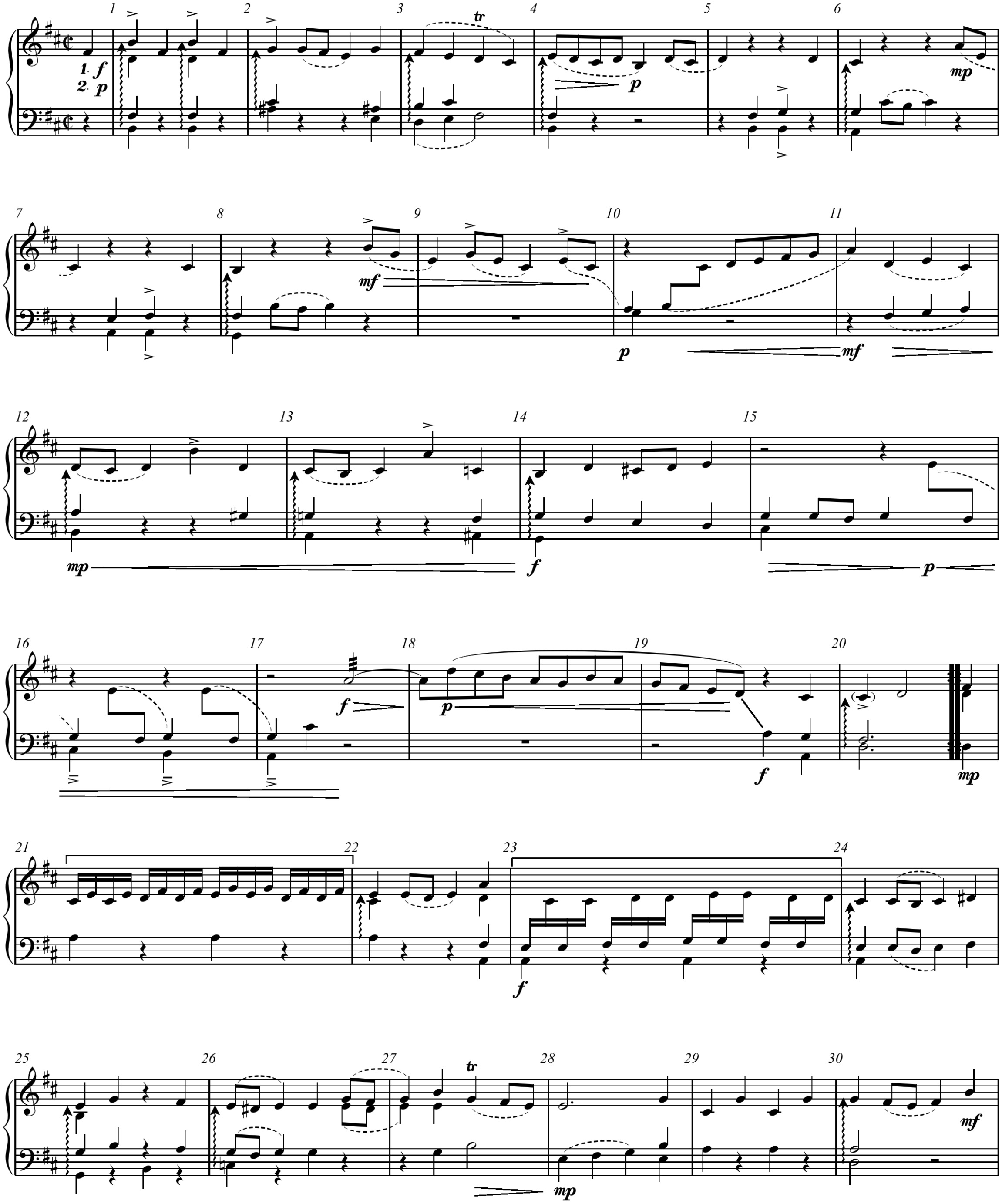
NOTE: The brokens chords on the second beat should be broken slower than those on beats one and three.

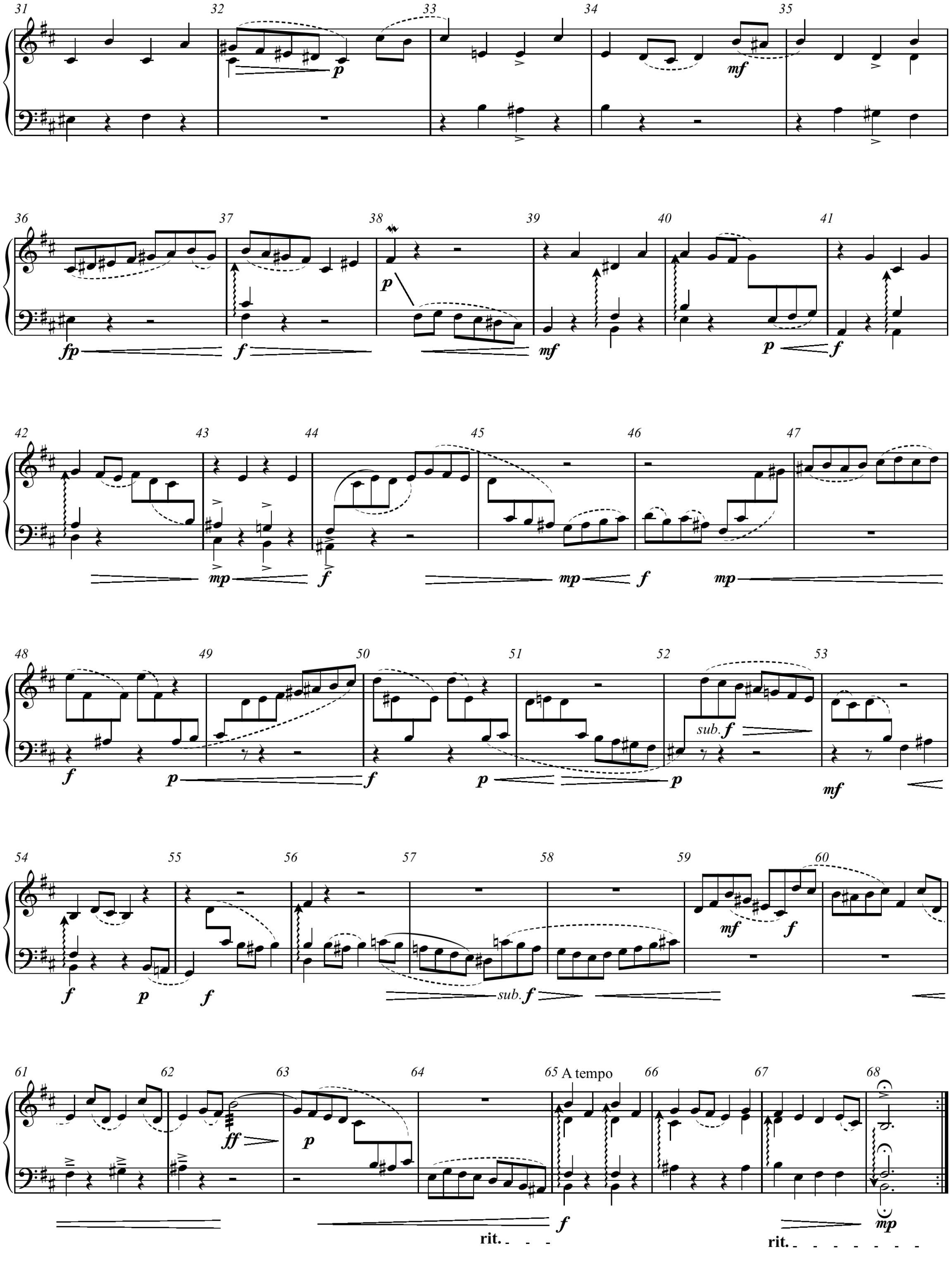

Sarabande
1.
2.
1. mp
2. f
p
f
mp
mf
f
mp
sub. f
ff
mf
f
mf
p
mp
f
mf
mp
f
mp
p
f
fp
mf
tr
rit.
2
3
4
5
6
7
8
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

Tempo di Borea from Partita I, BWV 1002

J. S. Bach, arr. J. Mathena

Tempo di Borea

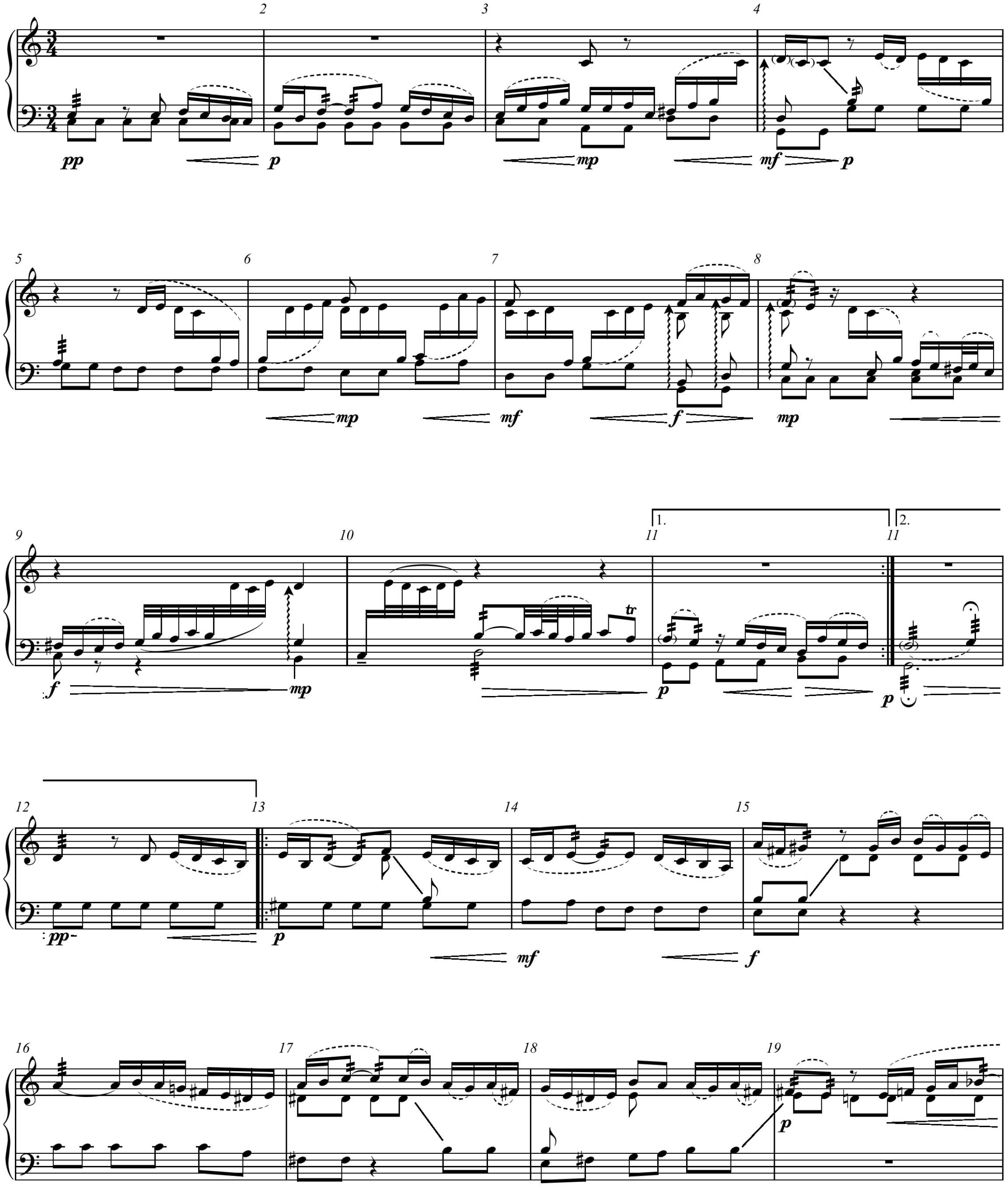

1. f
2. p
tr
p
mp
mf
p
mf
mp
f
p
f
p
f
mp
f
tr
mp
mf

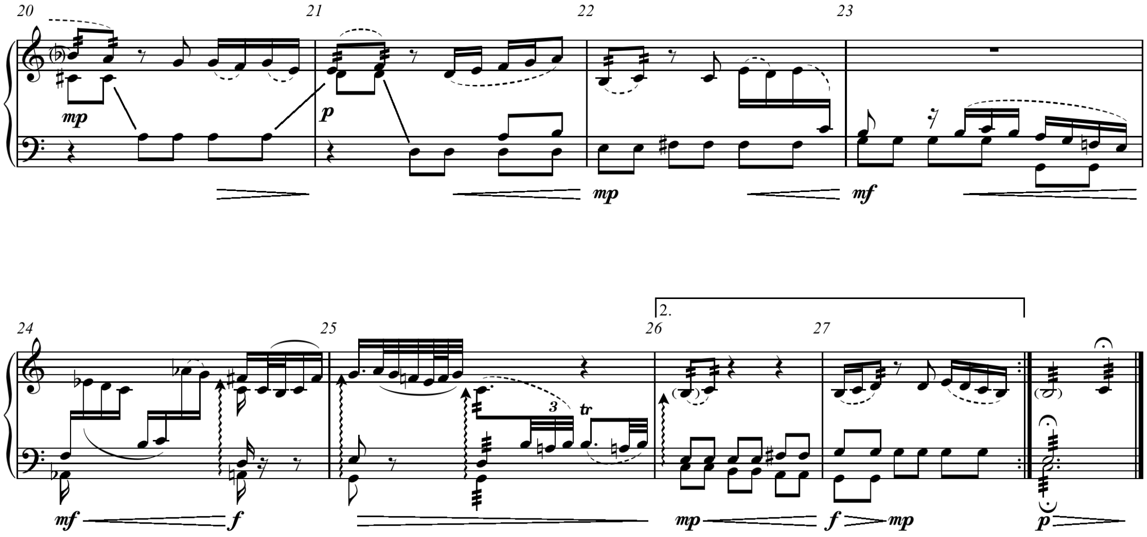

31
32
33
34
35
p
mf
36
37
38
39
40
41
fp
f
p
mf
p
f
42
43
44
45
46
47
mp
f
mp
f
mp
48
49
50
51
52
53
sub. f
f
p
f
p
p
mf
54
55
56
57
58
59
60
f
p
f
sub. f
mf
f
61
62
63
64
65 A tempo
66
67
68
ff
p
f
mp
rit.
rit.

Andante from Sonata II, BWV 1003

J. S. Bach, arr. J. Mathena

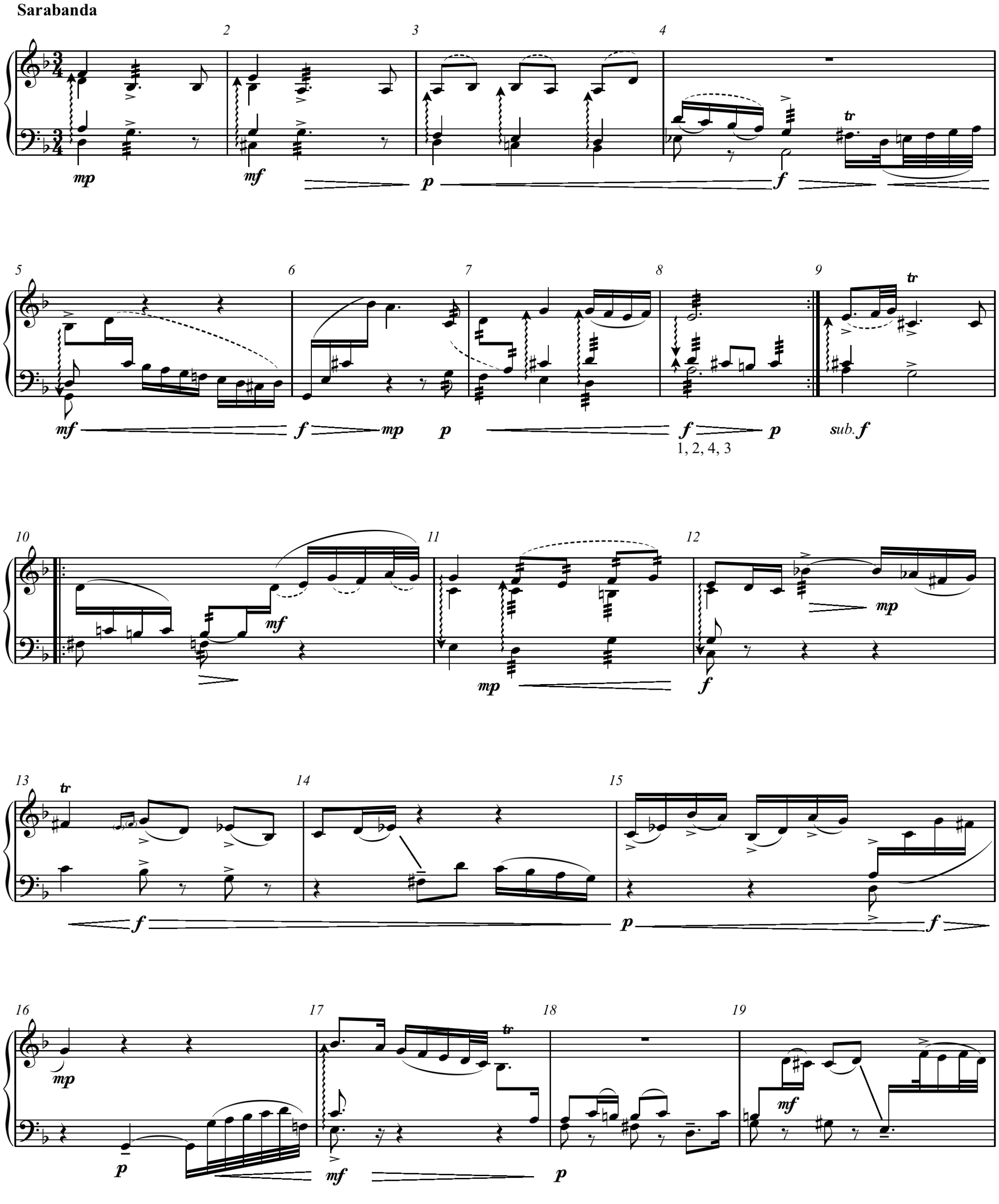
Andante NOTE: Always keep the eigth note accompaniment softer than the right hand


2
3
4
pp
p
mp
mf
p
5
6
7
8
mp
mf
f
mp
9
10
11
1.
2.
tr
f
mp
p
p
12
13
14
15
pp
p
mf
f
16
17
18
19
f
p

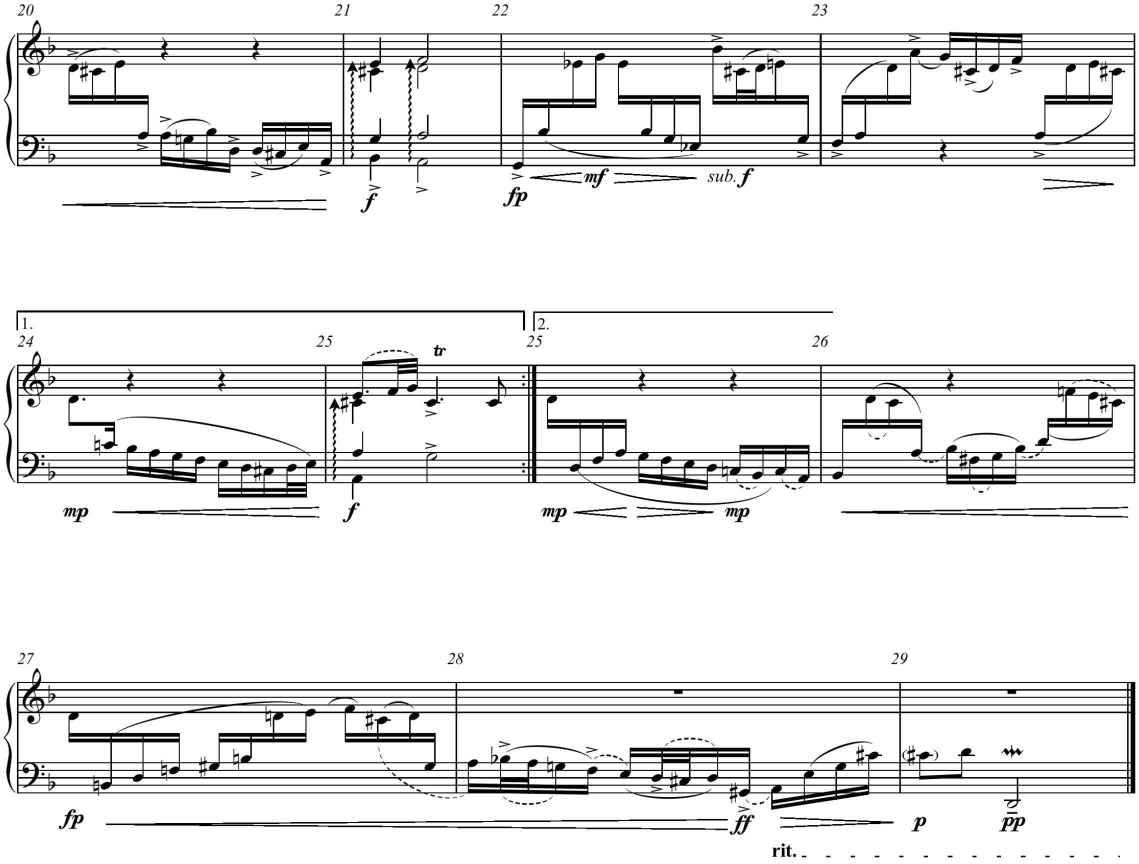

20
21
22
23
mp
p
mp
mf
24
25
2.
26
27
mf
f
3
tr
mp
f
mp
p

Sarabanda from Partita II, BWV 1004

J. S. Bach, arr. J. Mathena


Sarabanda
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
mp
mf
p
f
mf
f
mp
p
f
p
sub. f
1, 2, 4, 3
mf
mp
mp
f
f
p
f
mp
p
mf
p
mf
tr

Note for m. 21: These two chords decrescendo as they ascend.
Also break the second chord slower than the first.
The bass is ON the beat.

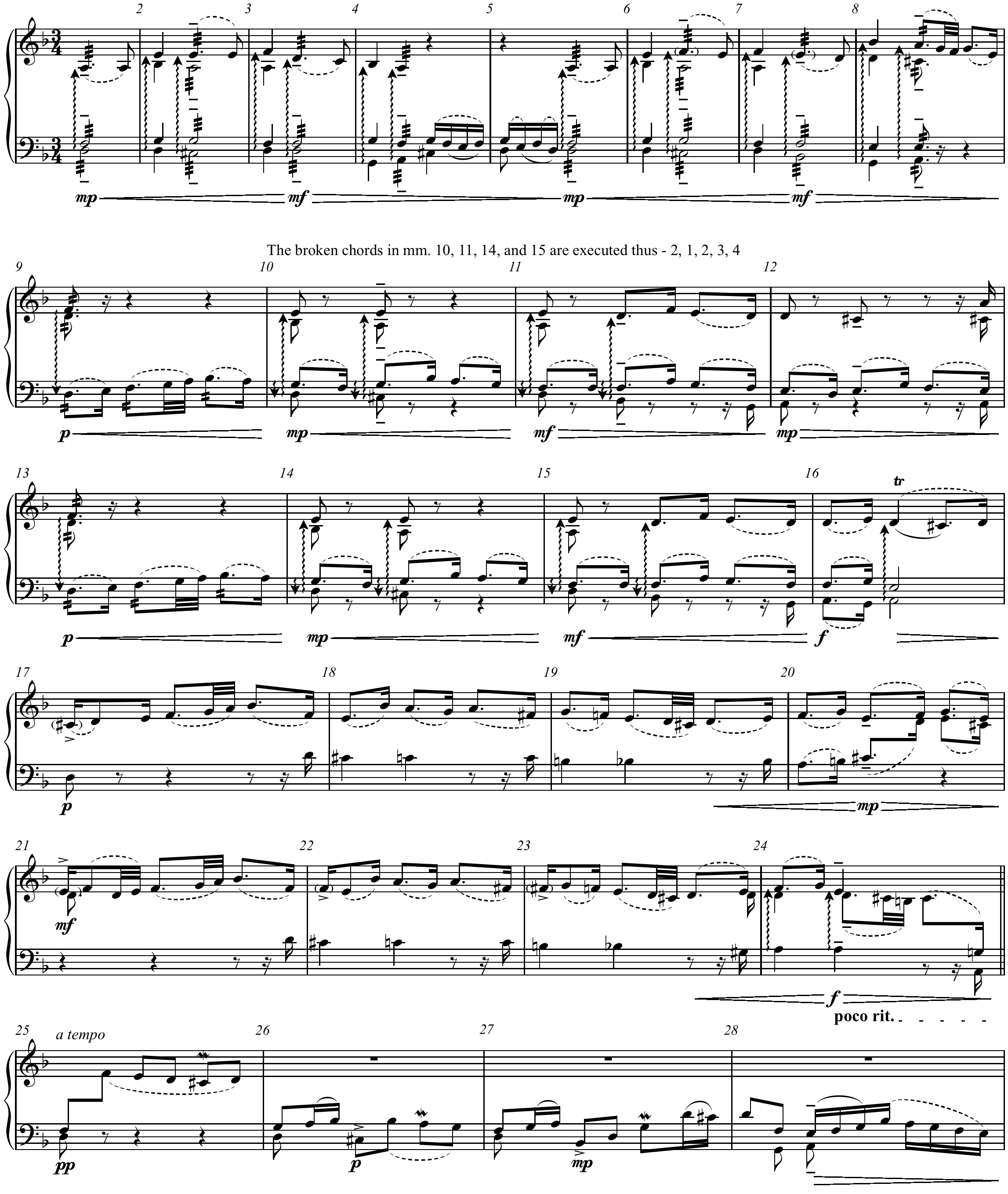

20
21
22
23
f
fp
mf
sub. f
1.
2.
24
25
tr
25
26
mp
f
mp
mp
27
28
29
fp
ff
p
pp
rit.

Ciaccona from Partita II, BWV 1004

For mm. 1-16, the chords on the second beat should be slightly louder and broken slower than the chords on count one or three.

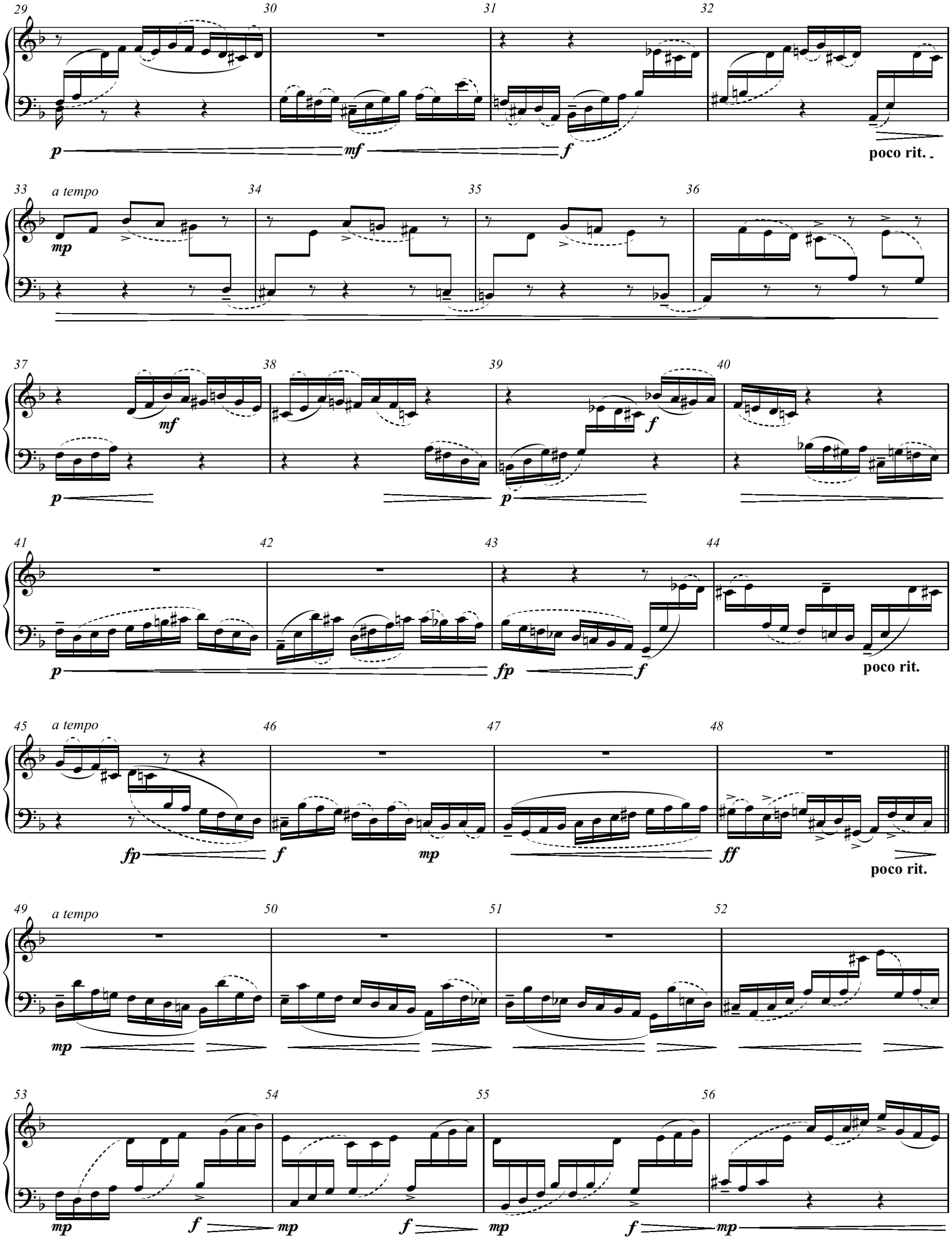
J. S. Bach, arr. J. Mathena

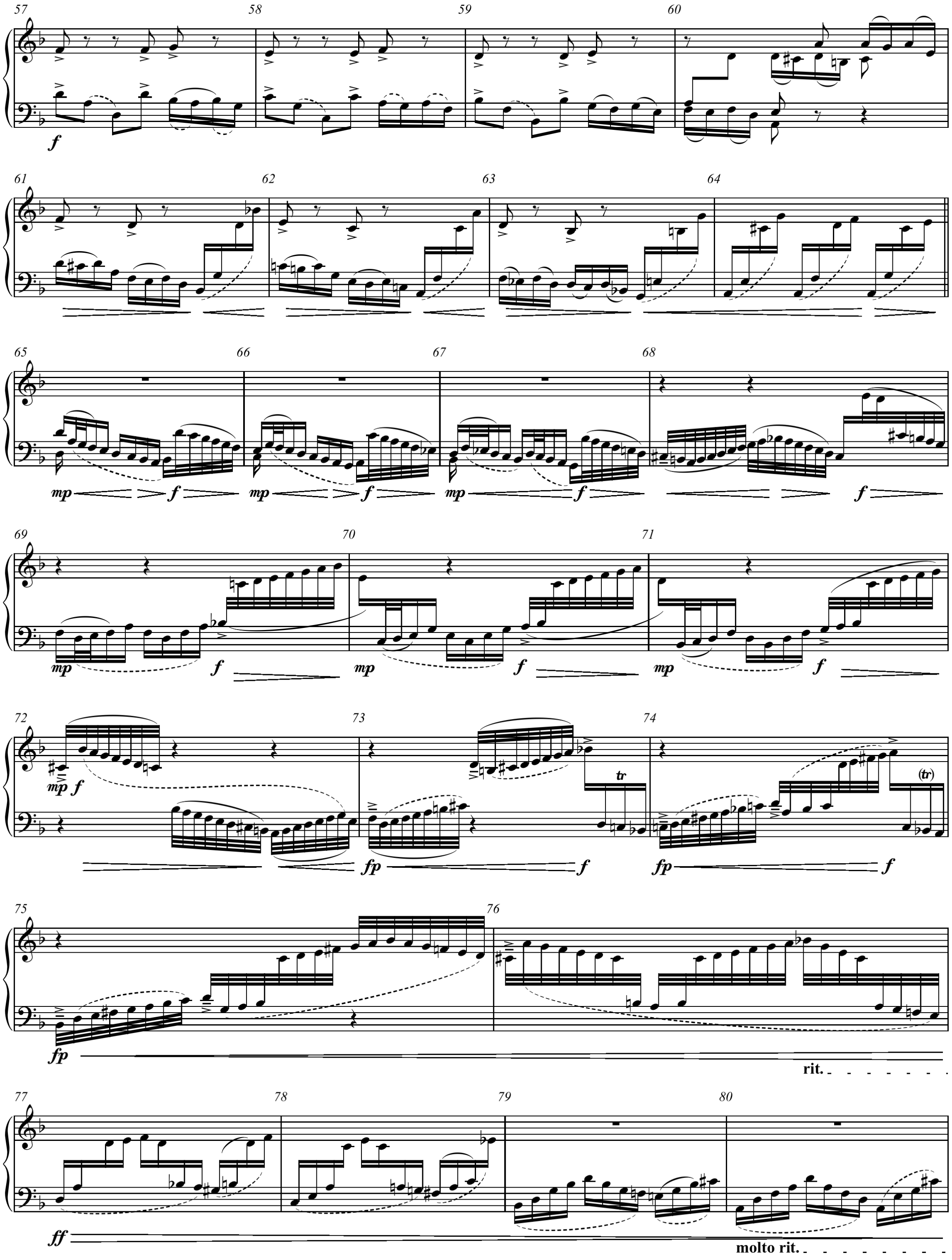
Ciaccona

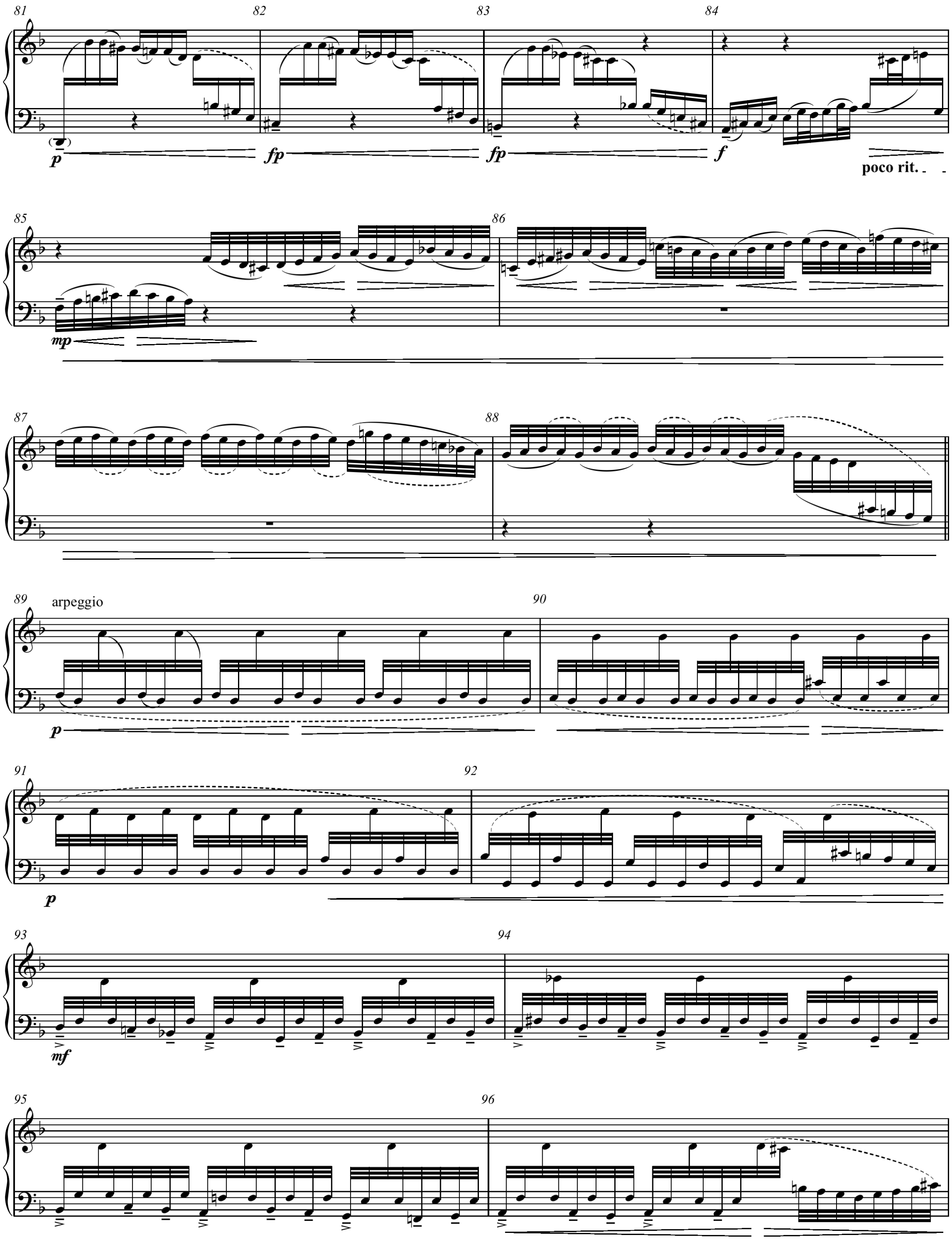


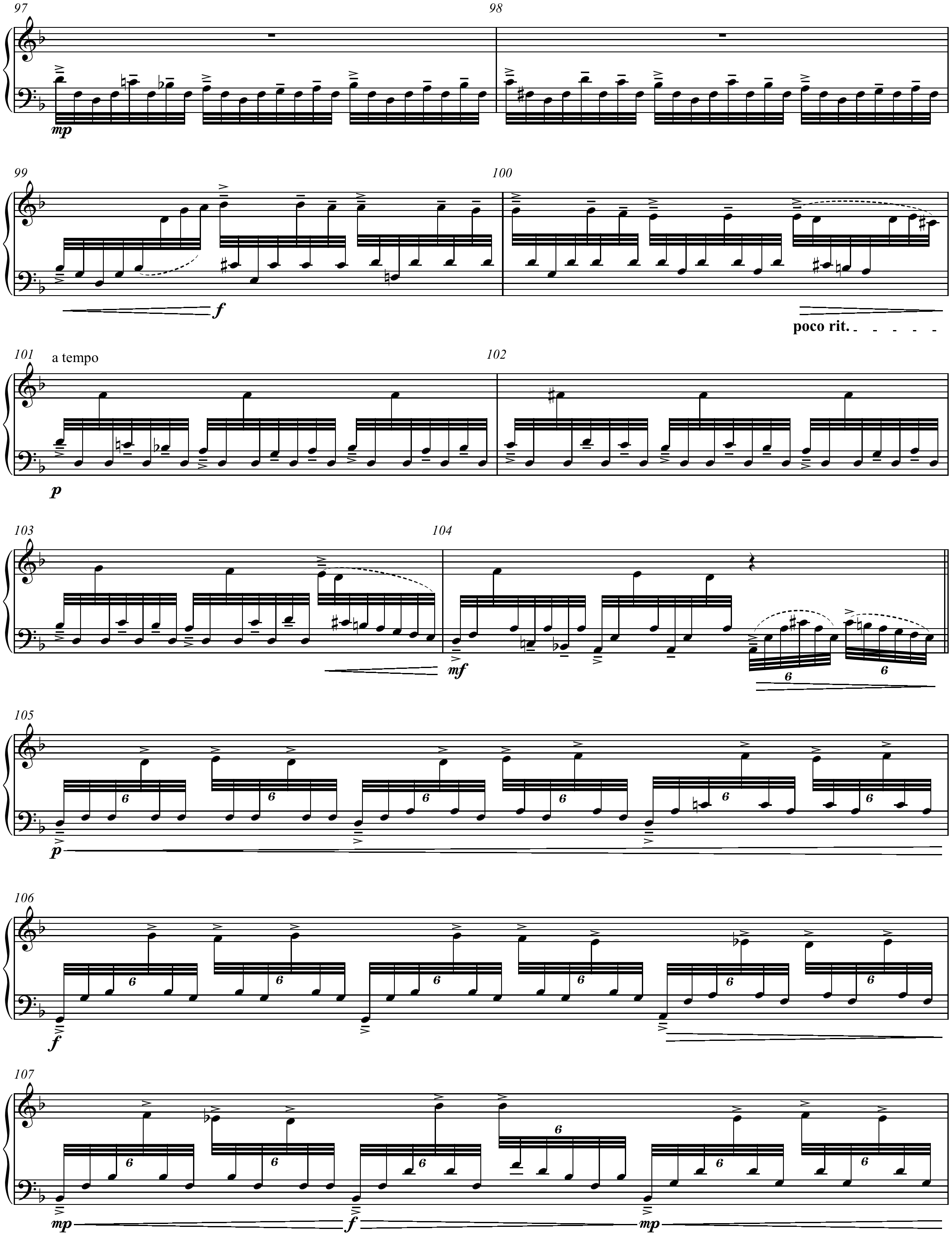
The broken chords in mm. 10, 11, 14, and 15 are executed thus - 2, 1, 2, 3, 4

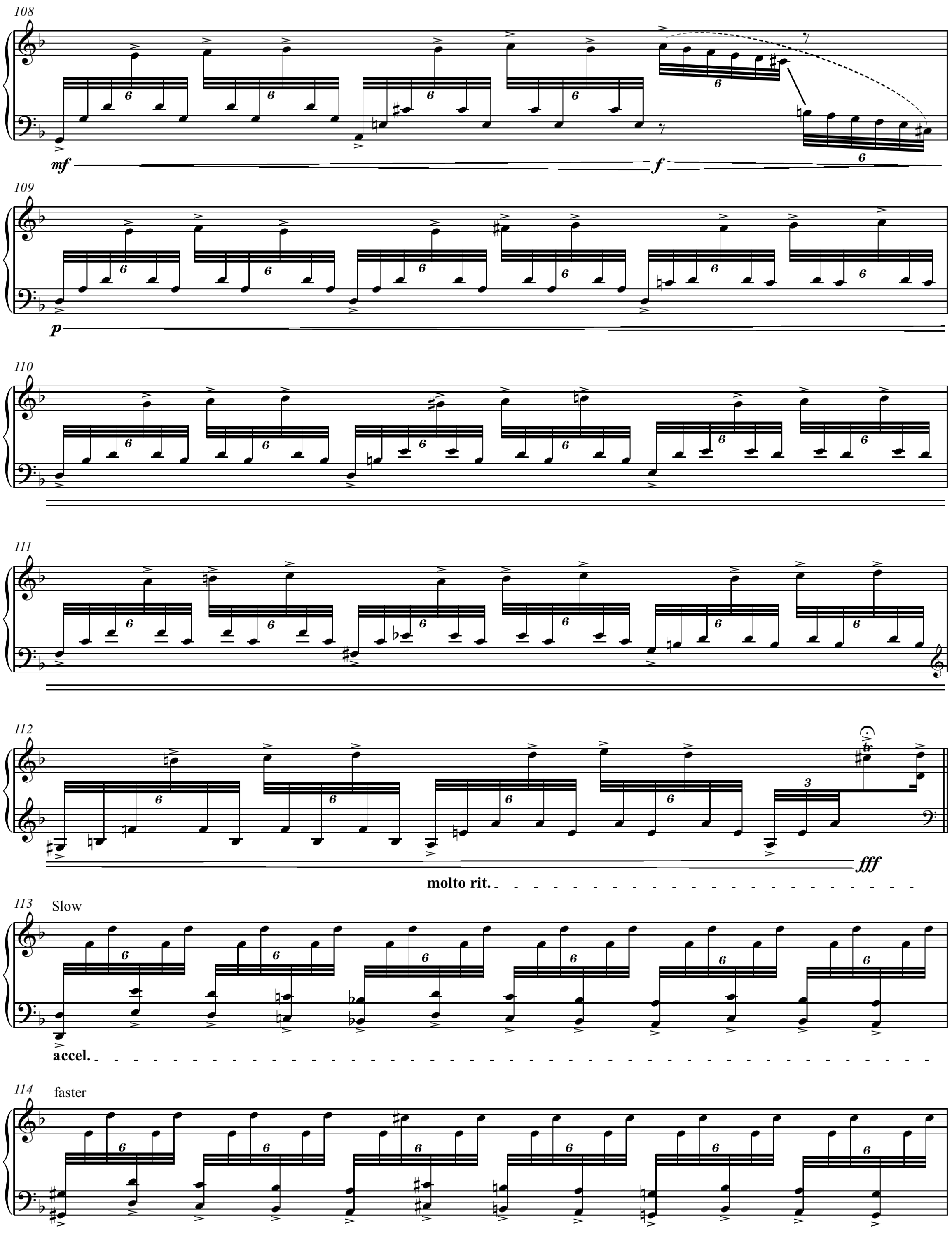
2
3
4
5
6
7
8
mp
mf
mp
mf
9
10
11
12
p
mp
mf
mp
13
14
15
16
tr
p
mp
mf
f
17
18
19
20
p
mp
21
22
23
24
mf
f
poco rit.
25
a tempo
26
27
28
pp
p
mp

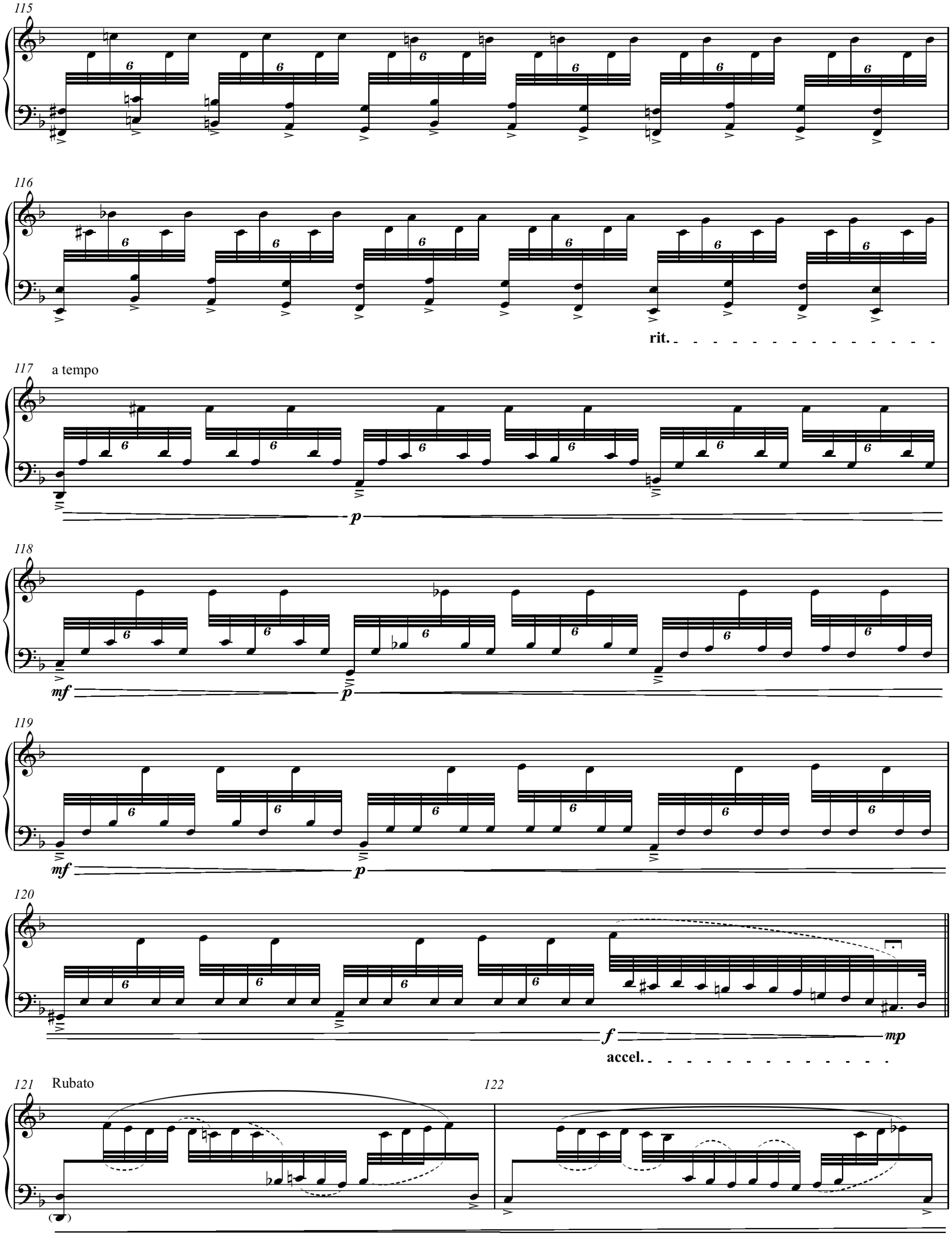

29
30
31
32
p
mf
f
poco rit.
33
a tempo
34
35
36
mp
37
38
39
40
mf
p
p
f
41
42
43
44
p
fp
f
poco rit.
45
a tempo
46
47
48
fp
f
mp
ff
poco rit.
49
a tempo
50
51
52
mp
53
54
55
56
mp
f
mp
f
mp
f
mp

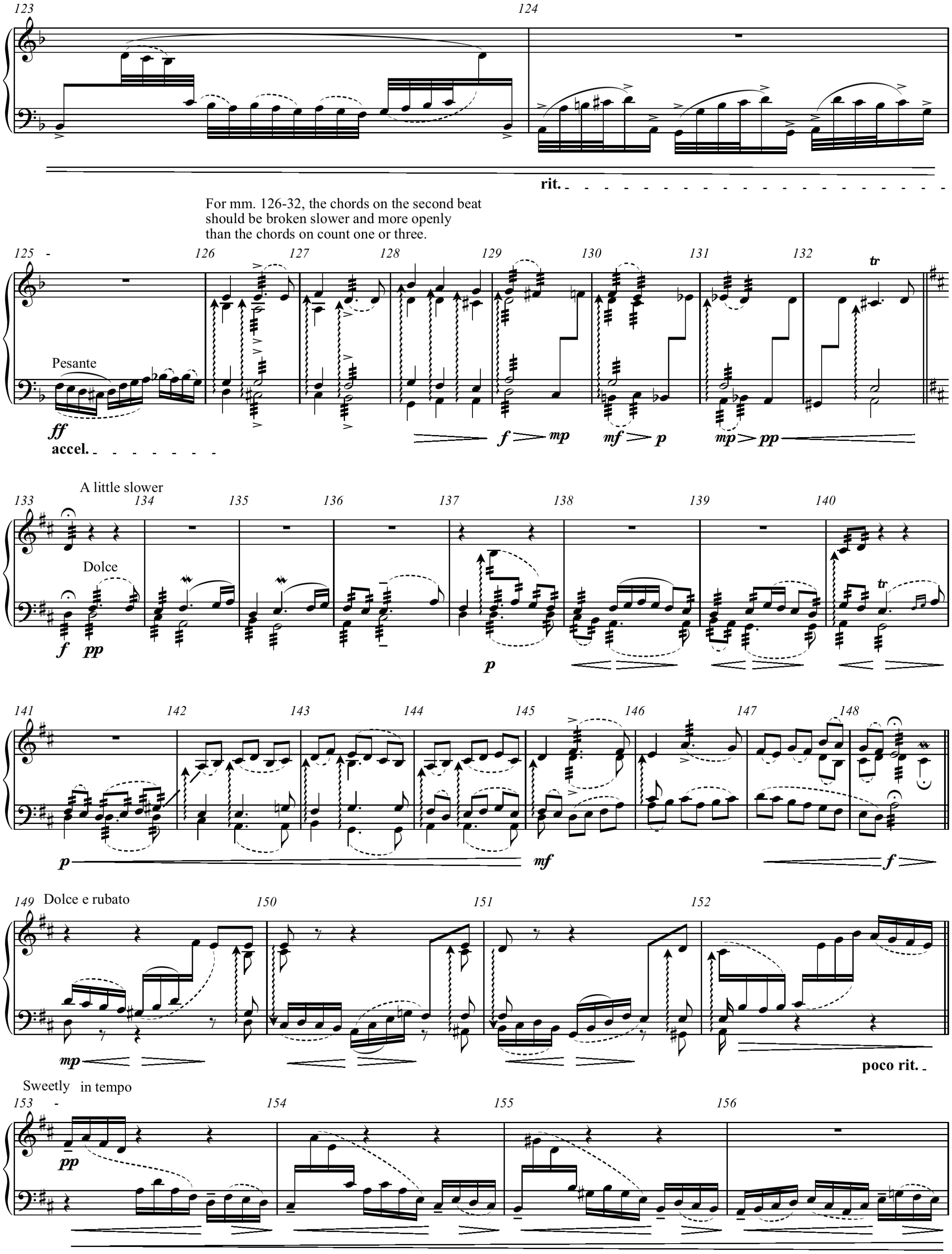

f
mp
f
mp f
tr
(tr)
fp
rit.
ff
molto rit.


p
fp
fp
f
poco rit.
mp
arpeggio
p
p
mf


97
mp
98
99
f
100
poco rit.
101
a tempo
p
102
103
104
mf
6
6
105
p
106
f
107
mp
f
mp

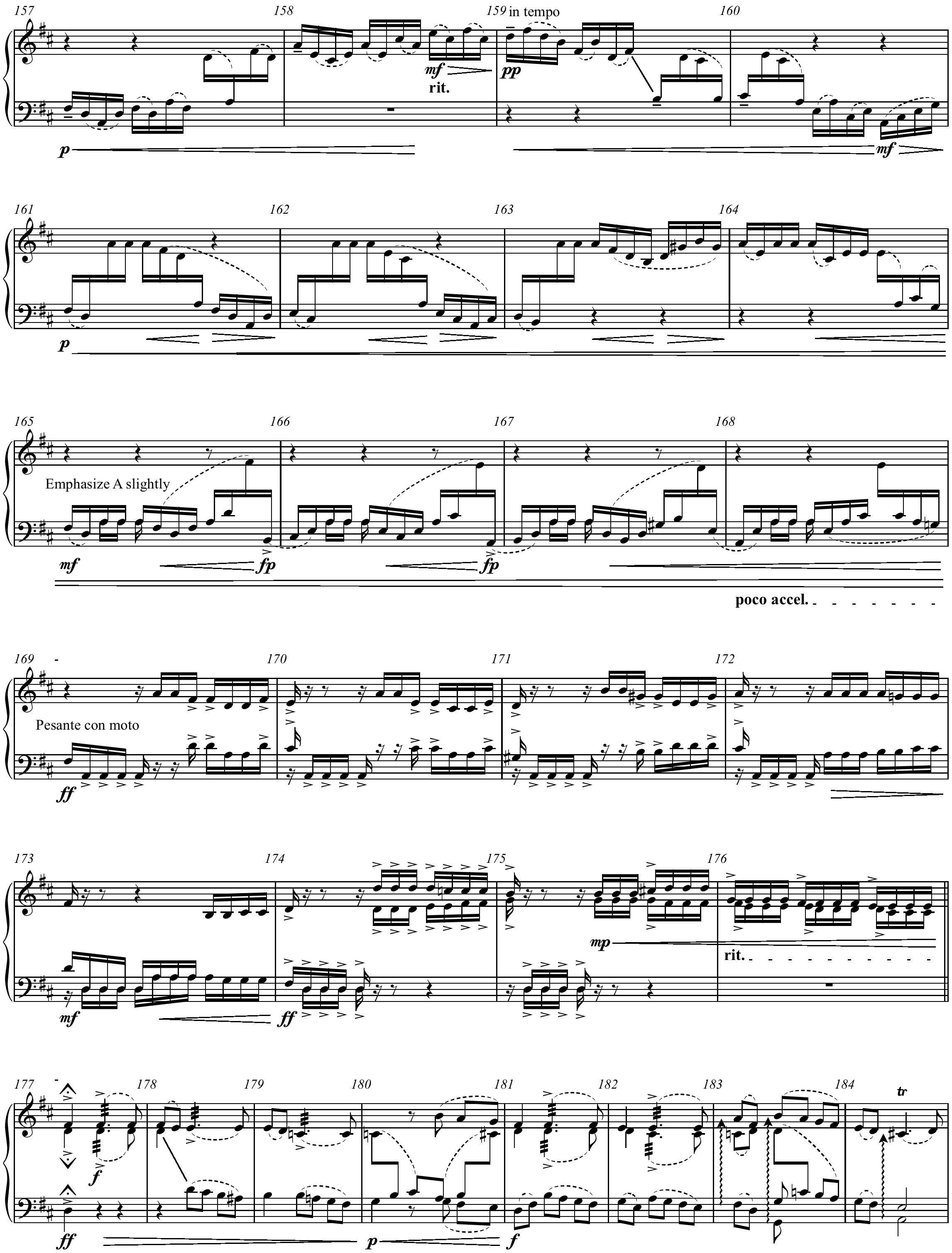

108
mf
f
6
109
p
110
111
112
3
fff
molto rit.
113
Slow
accel.
114
faster


115
6
116
6
rit.
117
a tempo
6
p
118
6
mf
p
119
6
mf
p
120
6
f
mp
accel.
121
Rubato
122

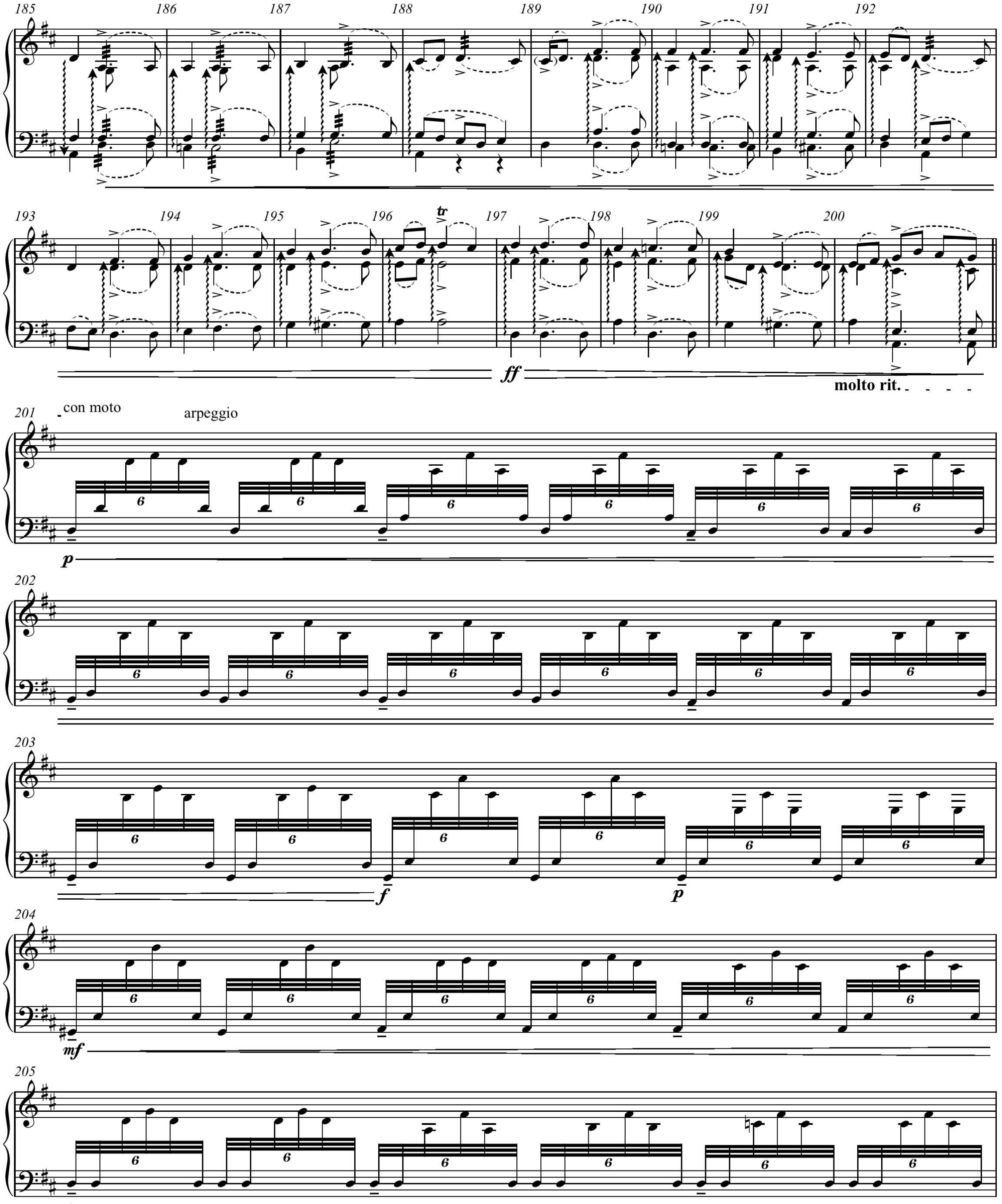


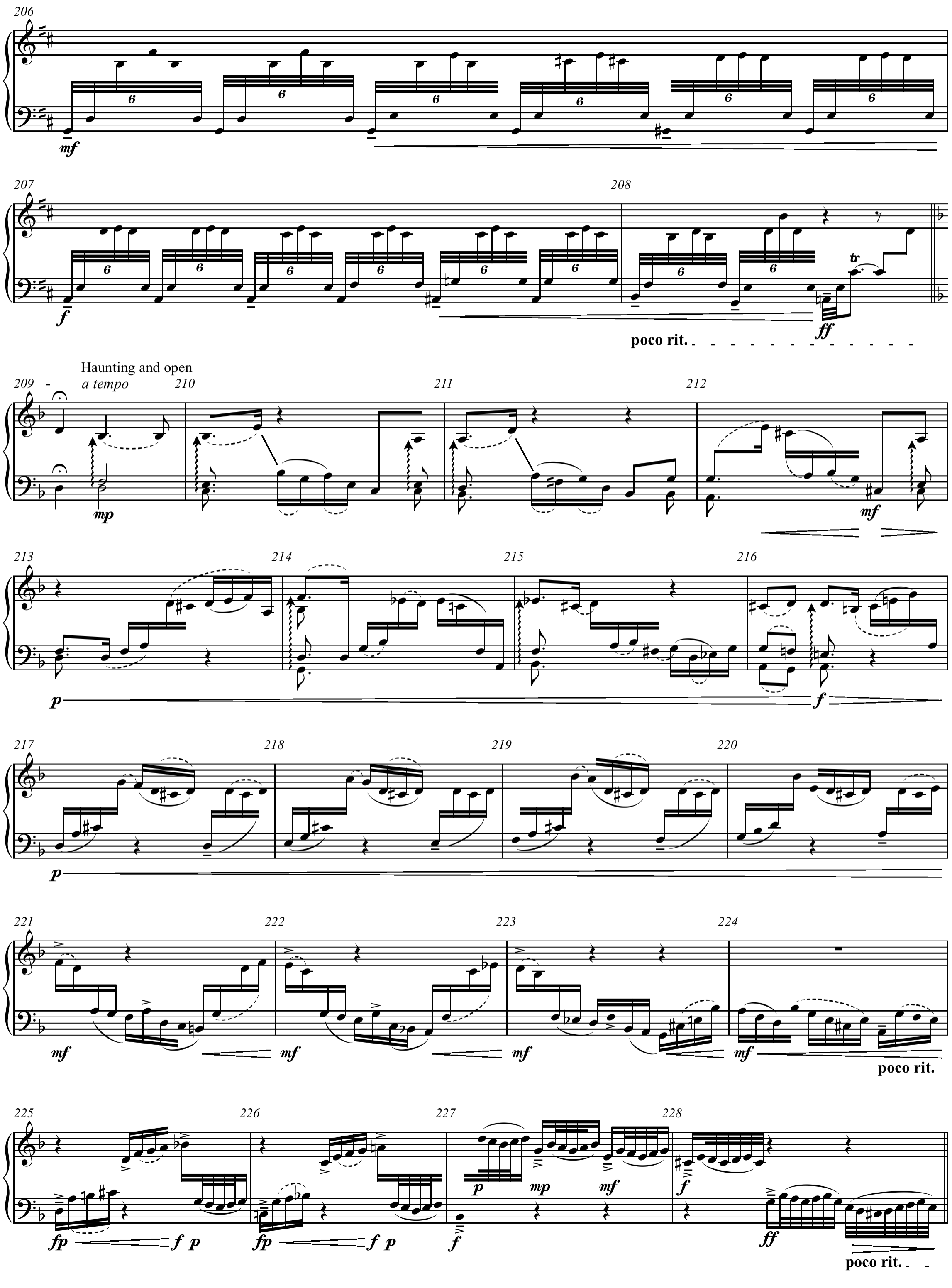
For mm. 126-32, the chords on the second beat should be broken slower and more openly than the chords on count one or three.

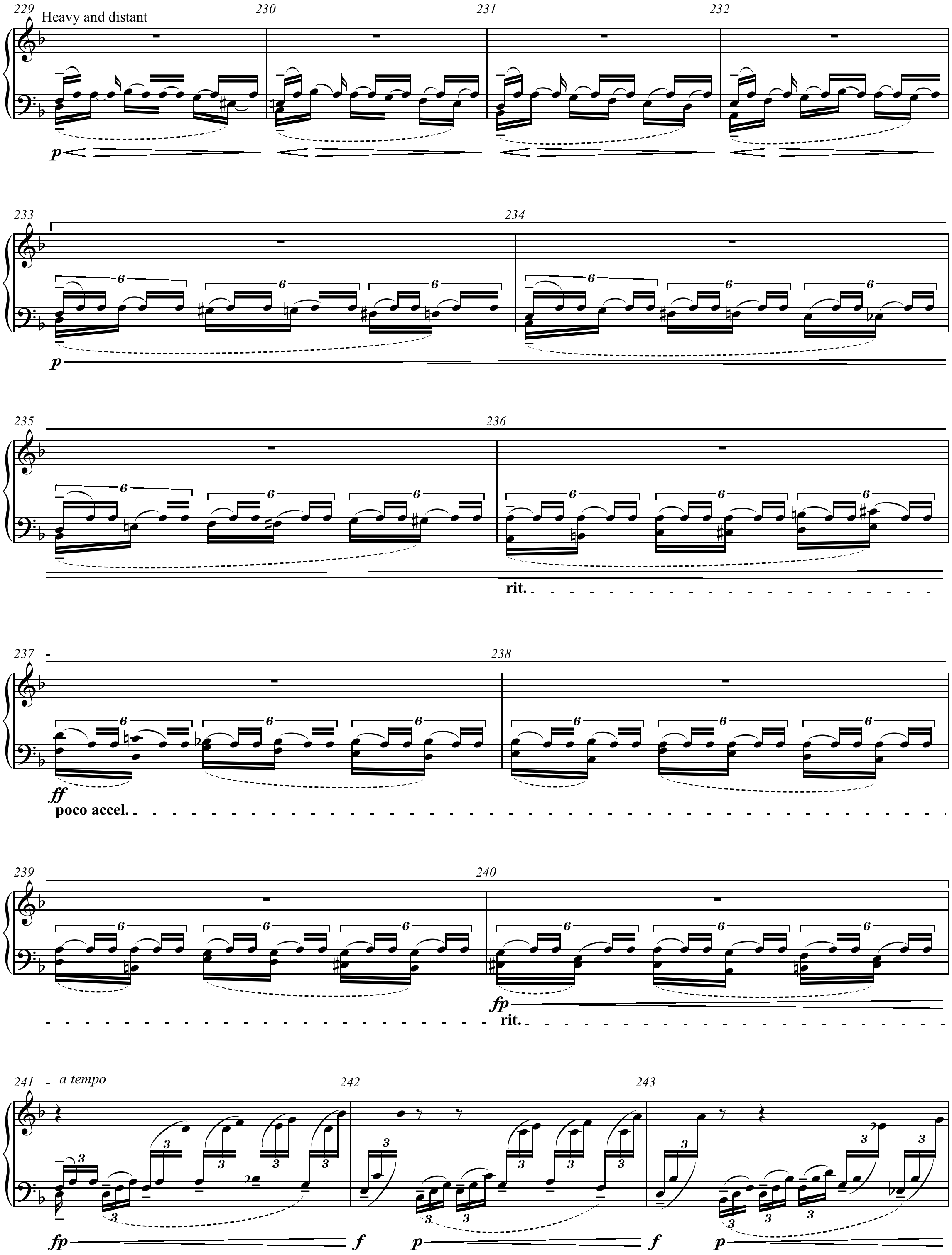
123
124
rit.
125
Pesante
ff
accel.
126
127
128
129
130
131
132
tr
f
mp
mf
p
mp
pp
133
A little slower
134
135
136
137
138
139
140
Dolce
f
pp
p
tr
141
142
143
144
145
146
147
148
p
mf
f
149
Dolce e rubato
150
151
152
mp
poco rit.
153
Sweetly
in tempo
154
155
156
pp

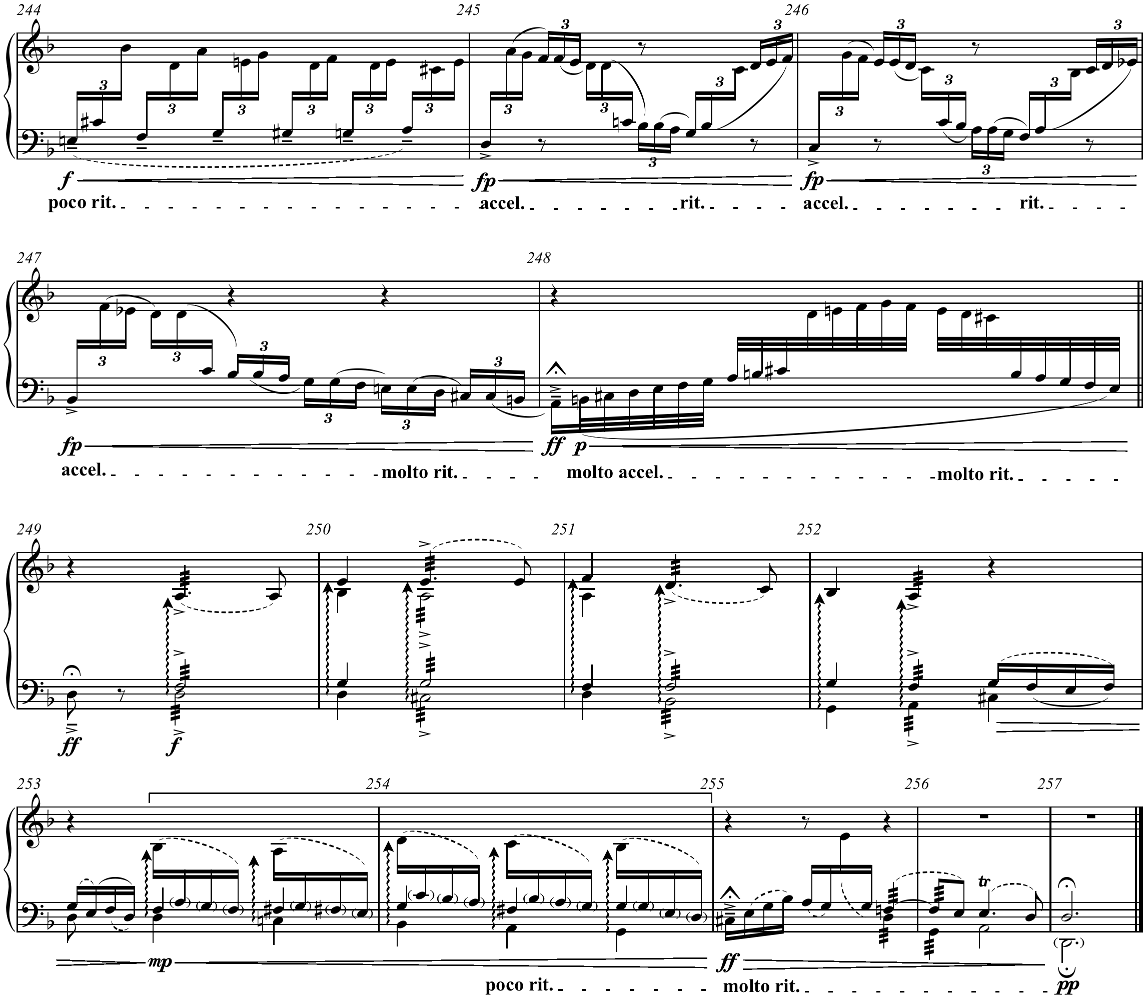

157
158
159 in tempo
160
p
mf
rit.
pp
mf
161
162
163
164
p
165
166
167
168
Emphasize A slightly
mf
fp
fp
poco accel.
169
170
171
172
Pesante con moto
ff
173
174
175
176
mf
ff
mp
rit.
177
178
179
180
181
182
183
184
tr
ff
p
f

For mm. 185-200, the chords on the second beat
should be broken slower and more openly
than the chords on count one.
For mm. 185-7, the eighth note in the alto voice on count two is an added accicciatura.


185
186
187
188
189
190
191
192
193
194
195
196
tr
197
198
199
200
ff
molto rit.
201
con moto
arpeggio
6
p
202
203
f
p
204
mf
205
f
mp

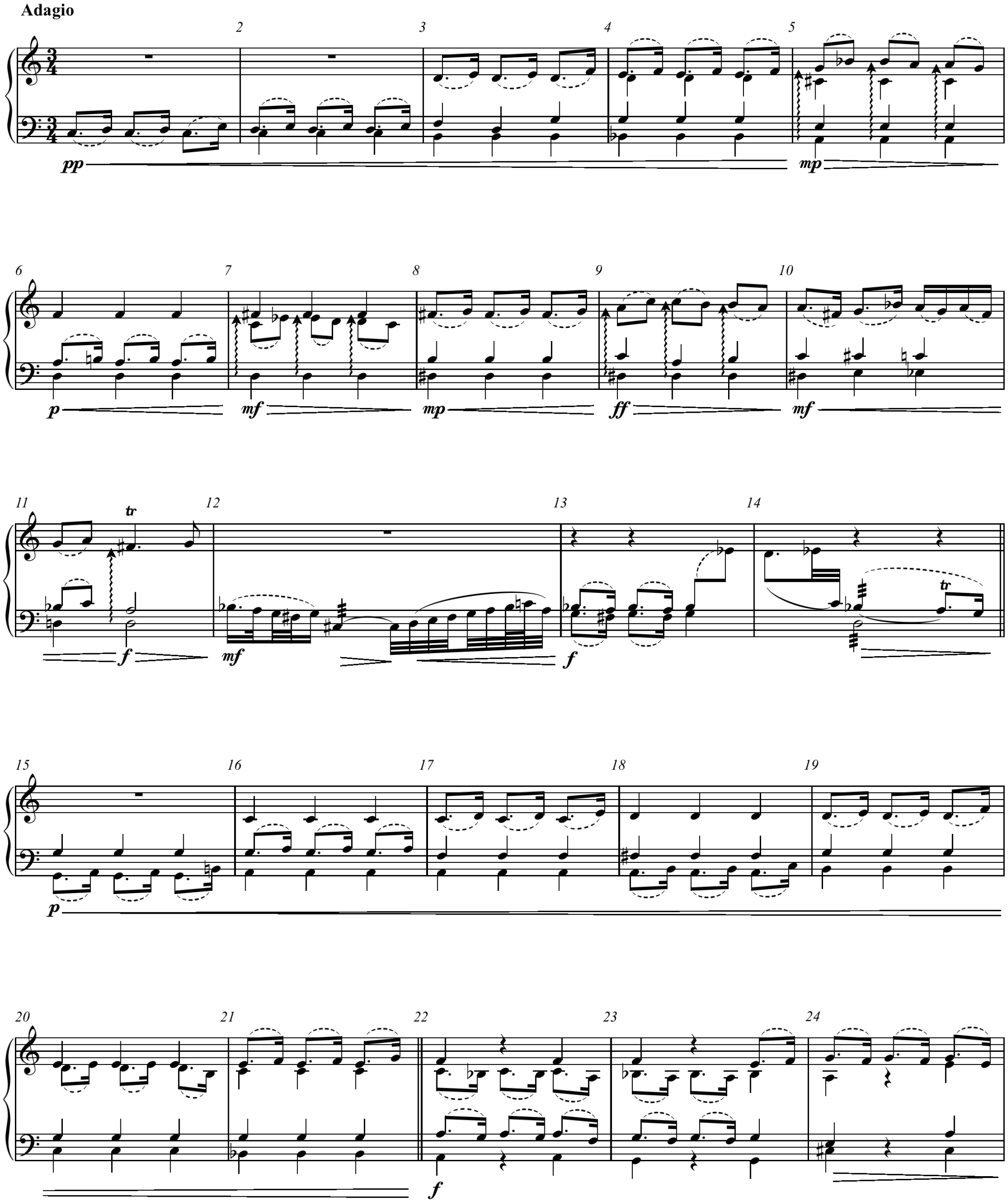

206
mf
207
f
208
poco rit.
ff
209
Haunting and open
a tempo
210
211
212
mp
mf
213
214
215
216
p
f
217
218
219
220
p
221
222
223
224
mf
poco rit.
225
226
227
228
fp
f
p
mp
ff
poco rit.

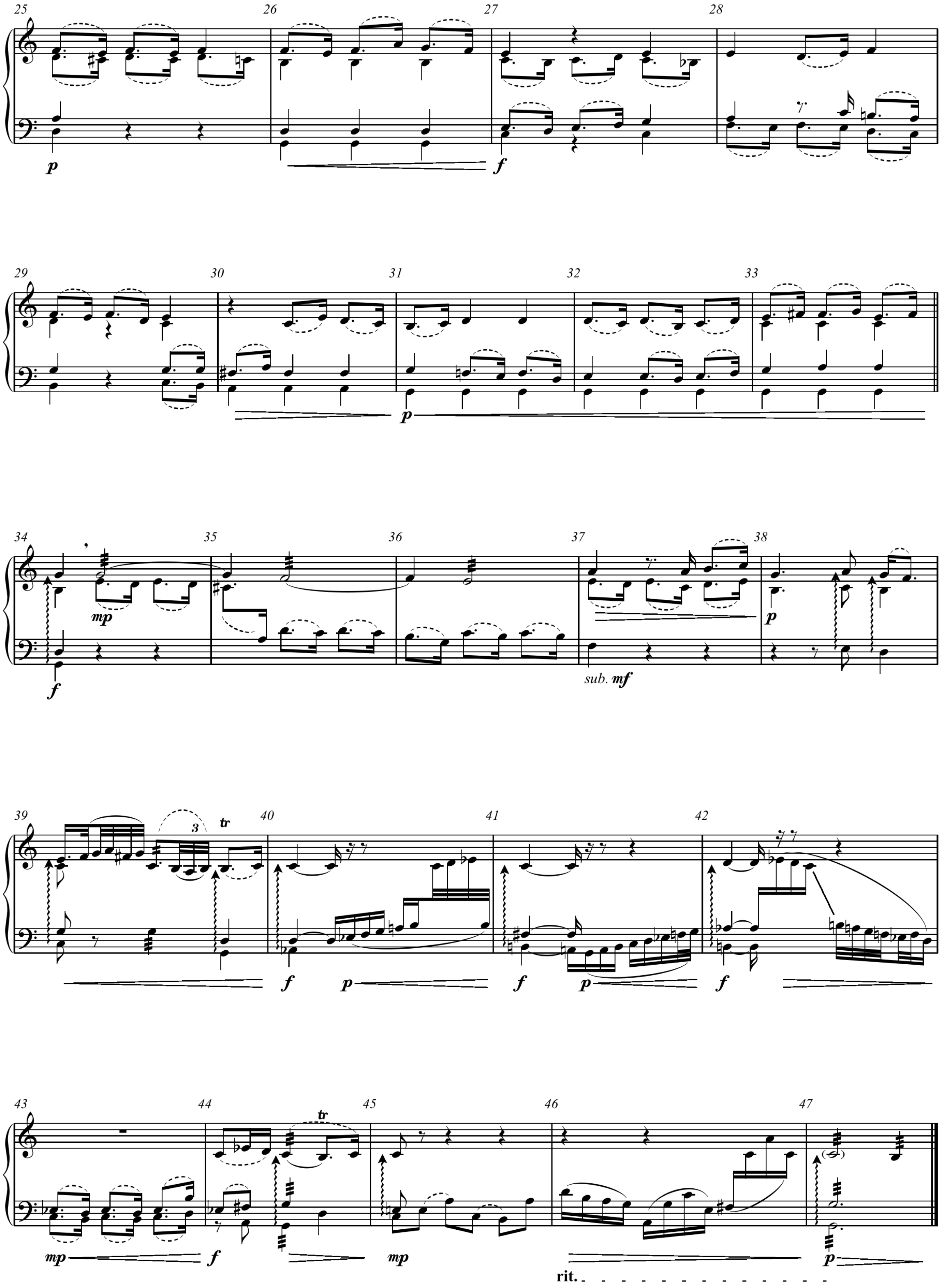

229
Heavy and distant
230
231
232
p
233
234
6
p
235
236
rit.
237
238
ff
poco accel.
239
240
fp
rit.
241
a tempo
242
243
3
fp
f
p
f
p


244
245
246
f
fp
fp
poco rit.
accel.
rit.
accel.
rit.
247
248
fp
ff
p
accel.
molto rit.
molto accel.
molto rit.
249
250
251
252
ff
f
253
254
255
256
257
mp
ff
tr
pp
poco rit.
molto rit.

Adagio from Sonata III, BWV 1005

J. S. Bach, arr. J. Mathena

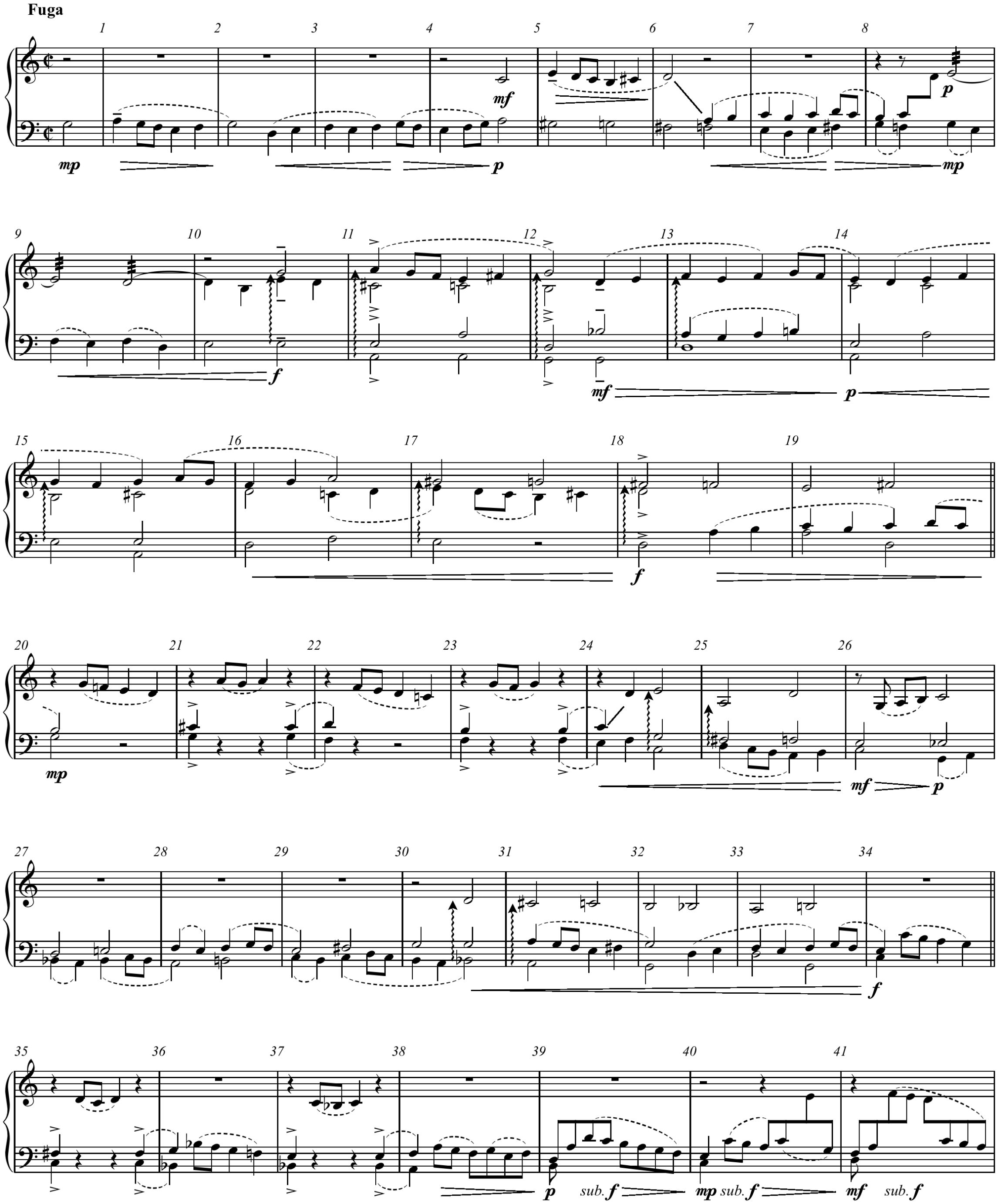

Adagio
2
3
4
5
pp
mp
6
7
8
9
10
p
mf
mp
ff
mf
11
12
13
14
tr
f
mf
f
tr
15
16
17
18
19
p
20
21
22
23
24
f

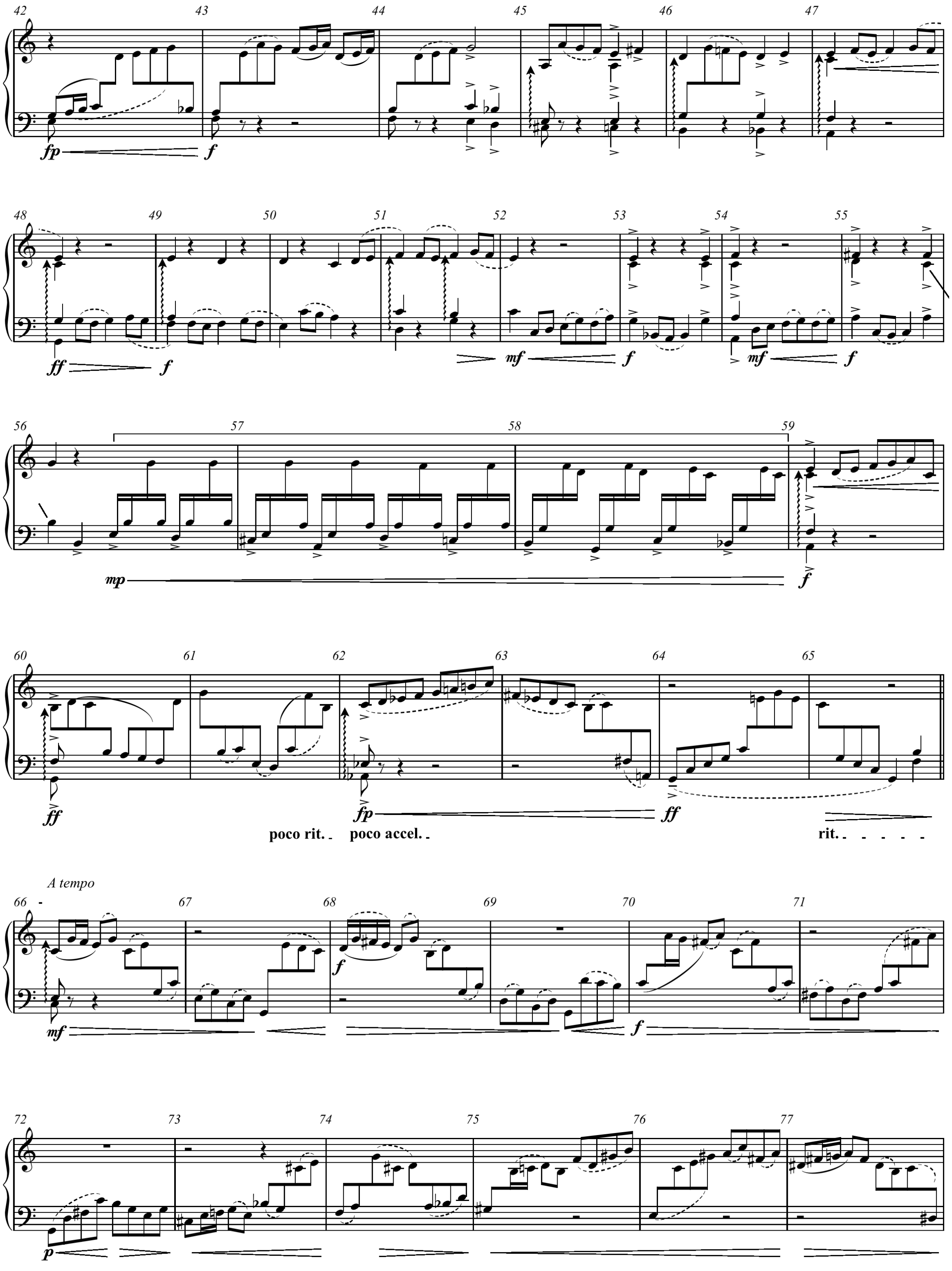

25
26
27
28
p
f
29
30
31
32
33
p
34
35
36
37
38
mp
f
sub. mf
p
39
40
41
42
3
tr
f
p
f
p
f
43
44
45
46
47
tr
mp
f
mp
p
rit.

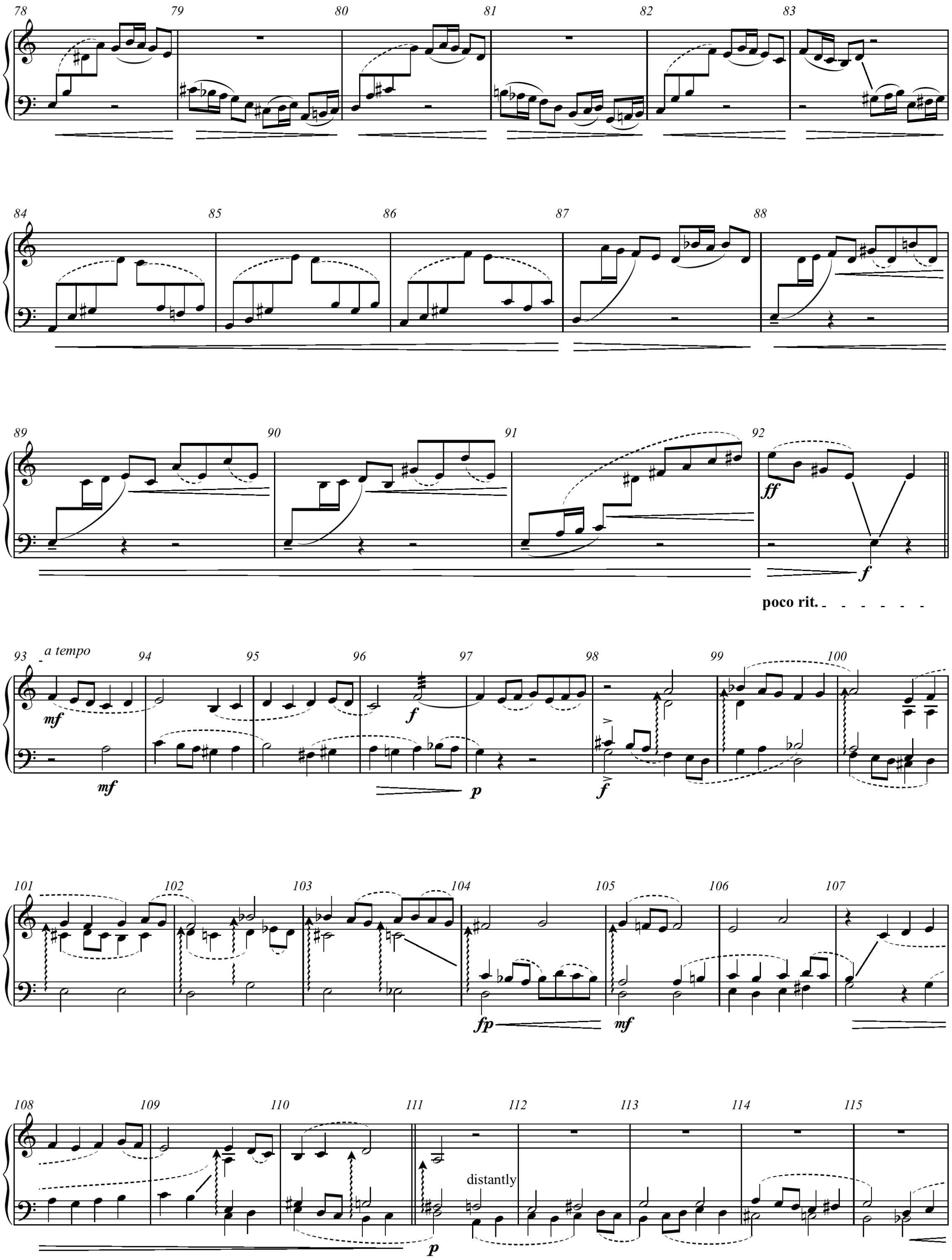
Fuga from Sonata III, BWV 1005

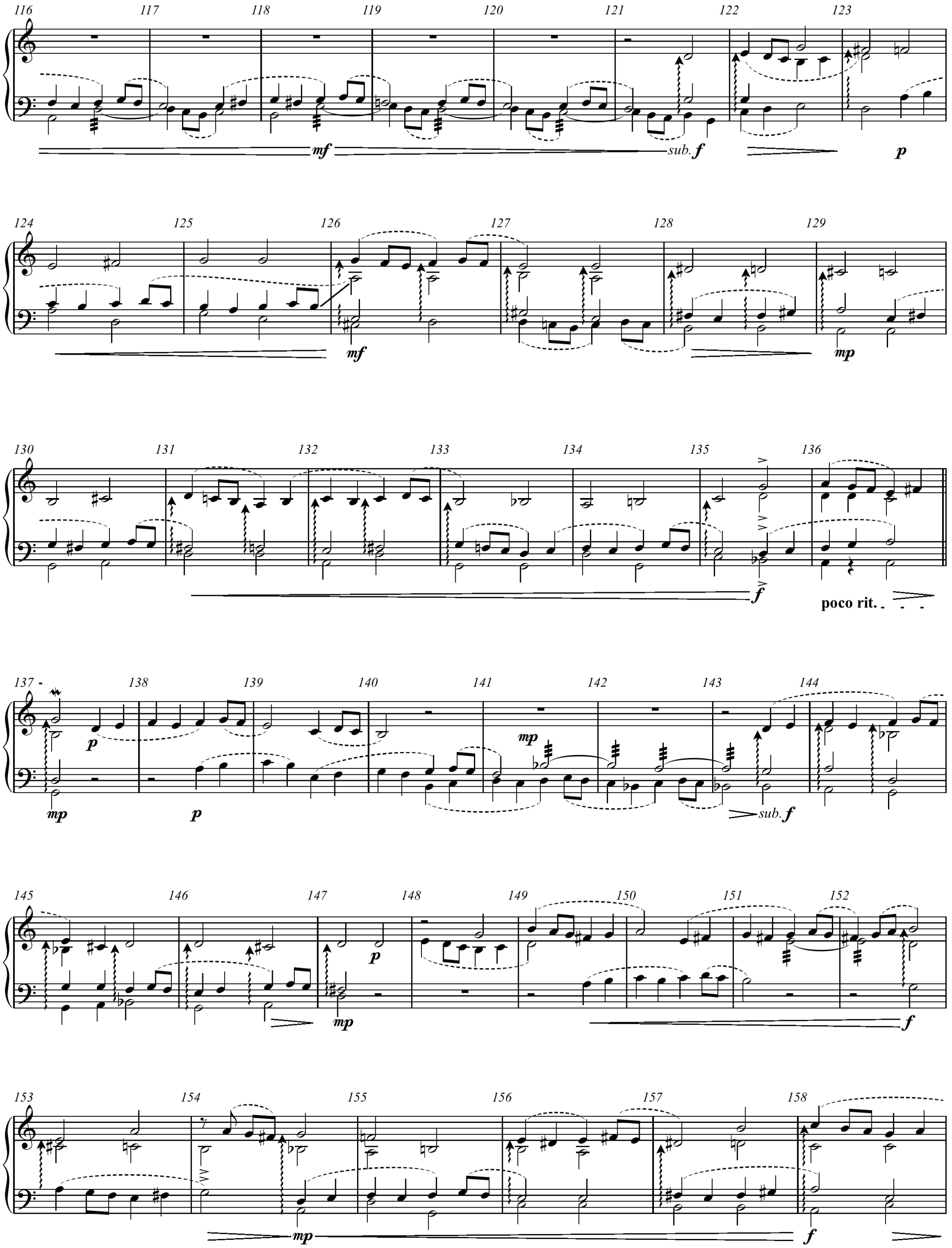
J. S. Bach, arr. J. Mathena

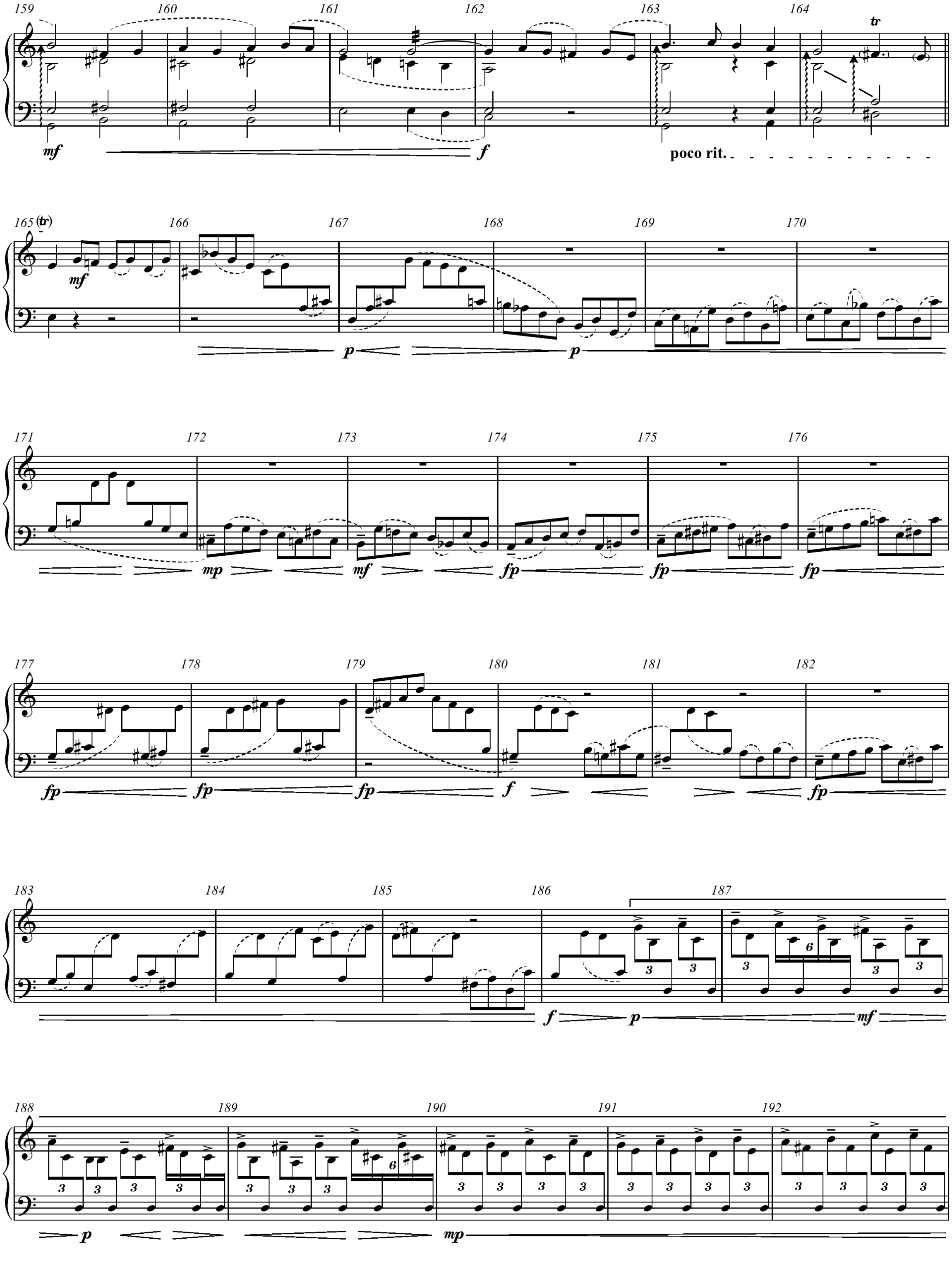
Fuga

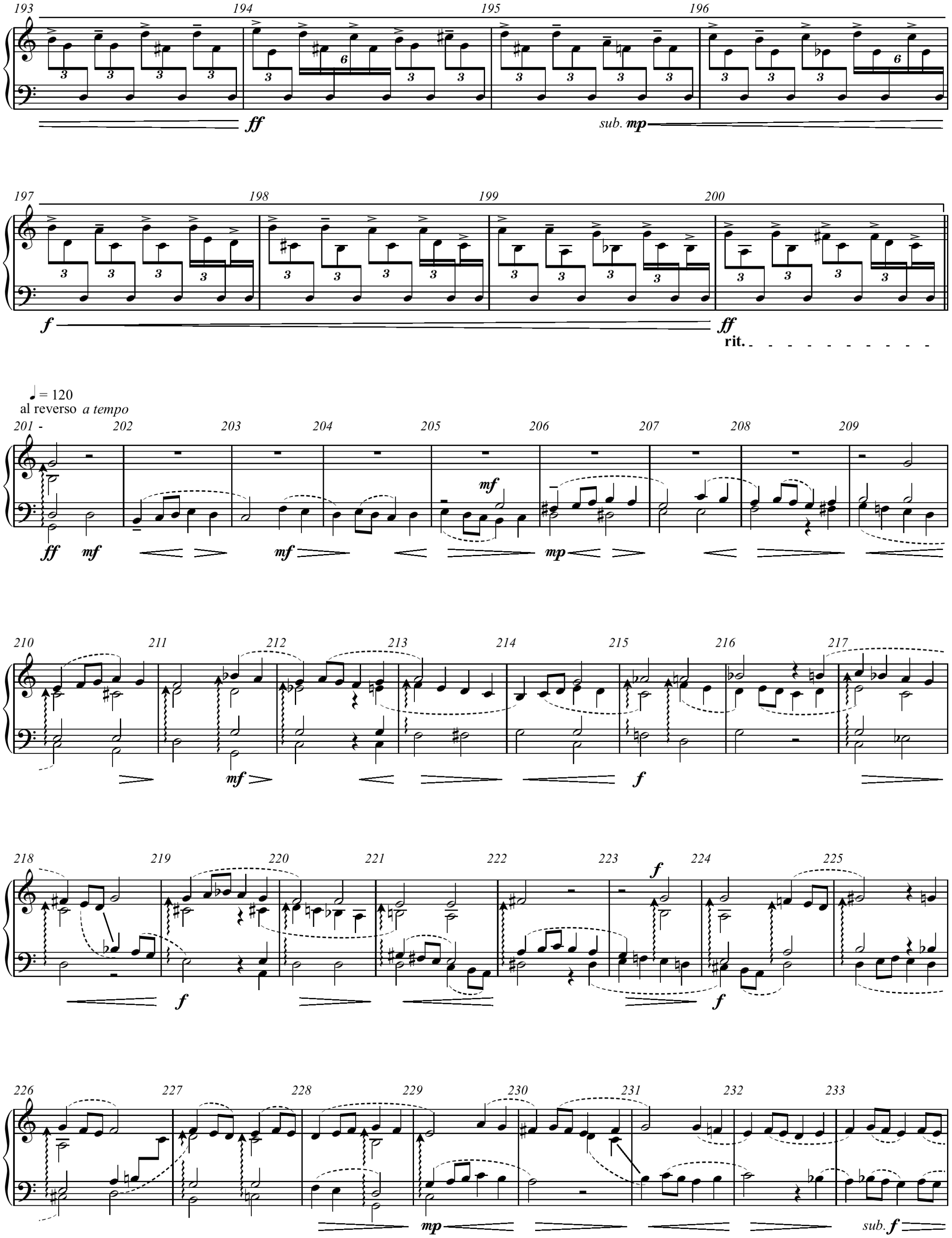

mp
mf
p
p
mp
f
mf
p
f
mp
mf
p
f
p
sub. f
mp
sub. f
mf
sub. f

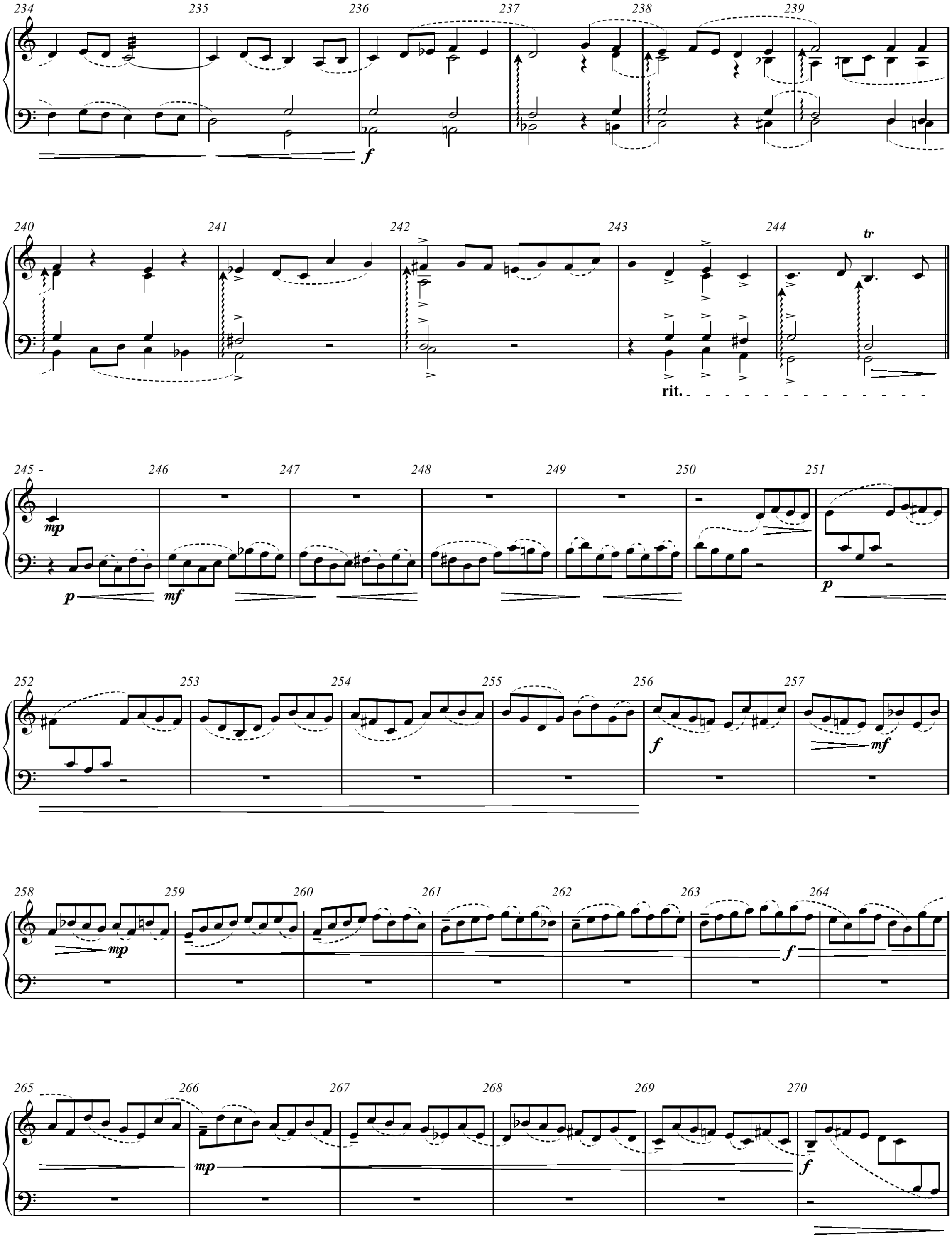

fp
f
ff
f
mf
f
mf
f
mp
f
ff
fp
ff
poco rit.
poco accel.
rit.
A tempo
mf
f
f
p

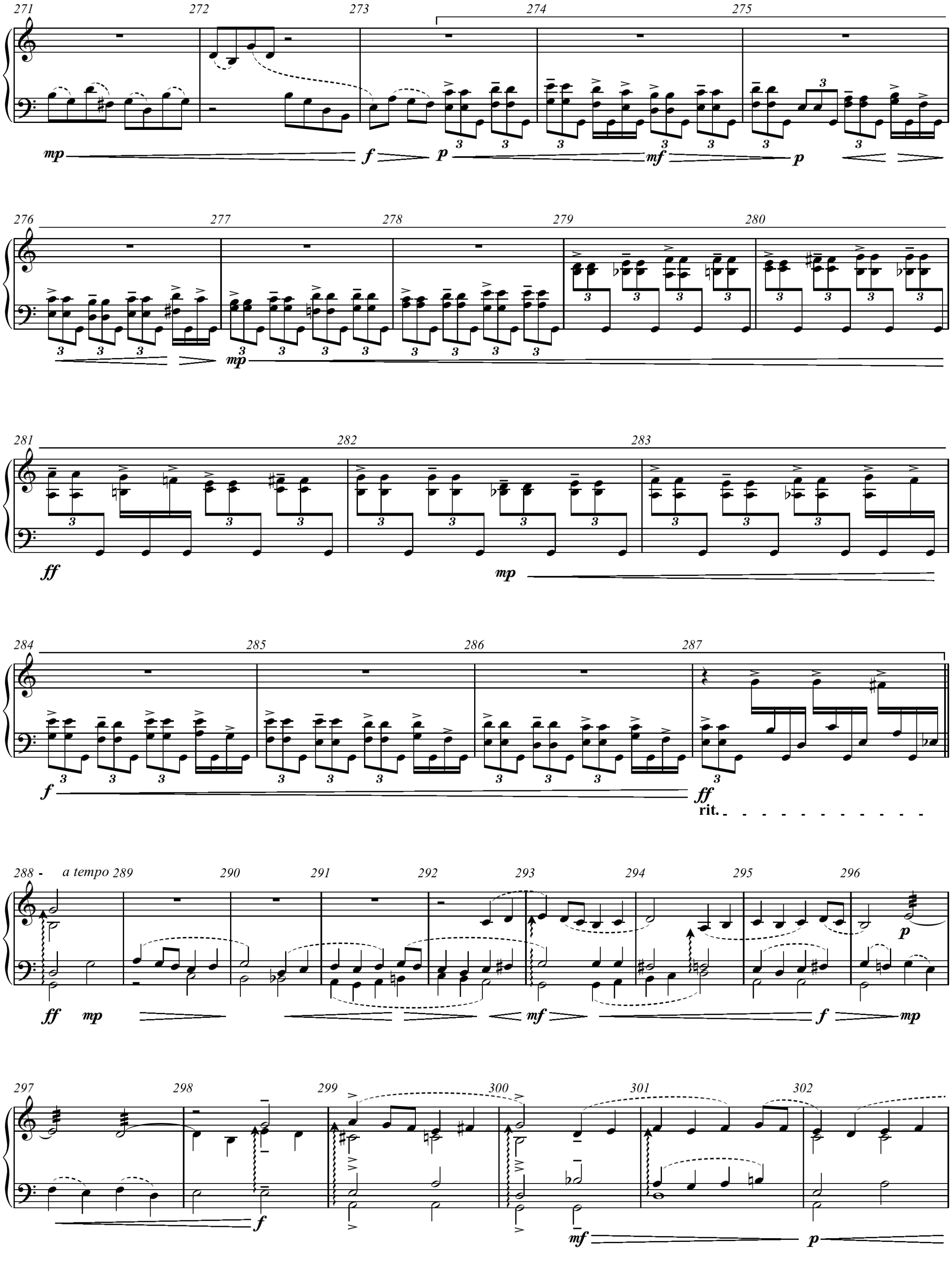

ff
f
poco rit.
a tempo
mf
mf
f
p
f
fp
mf
distantly
p

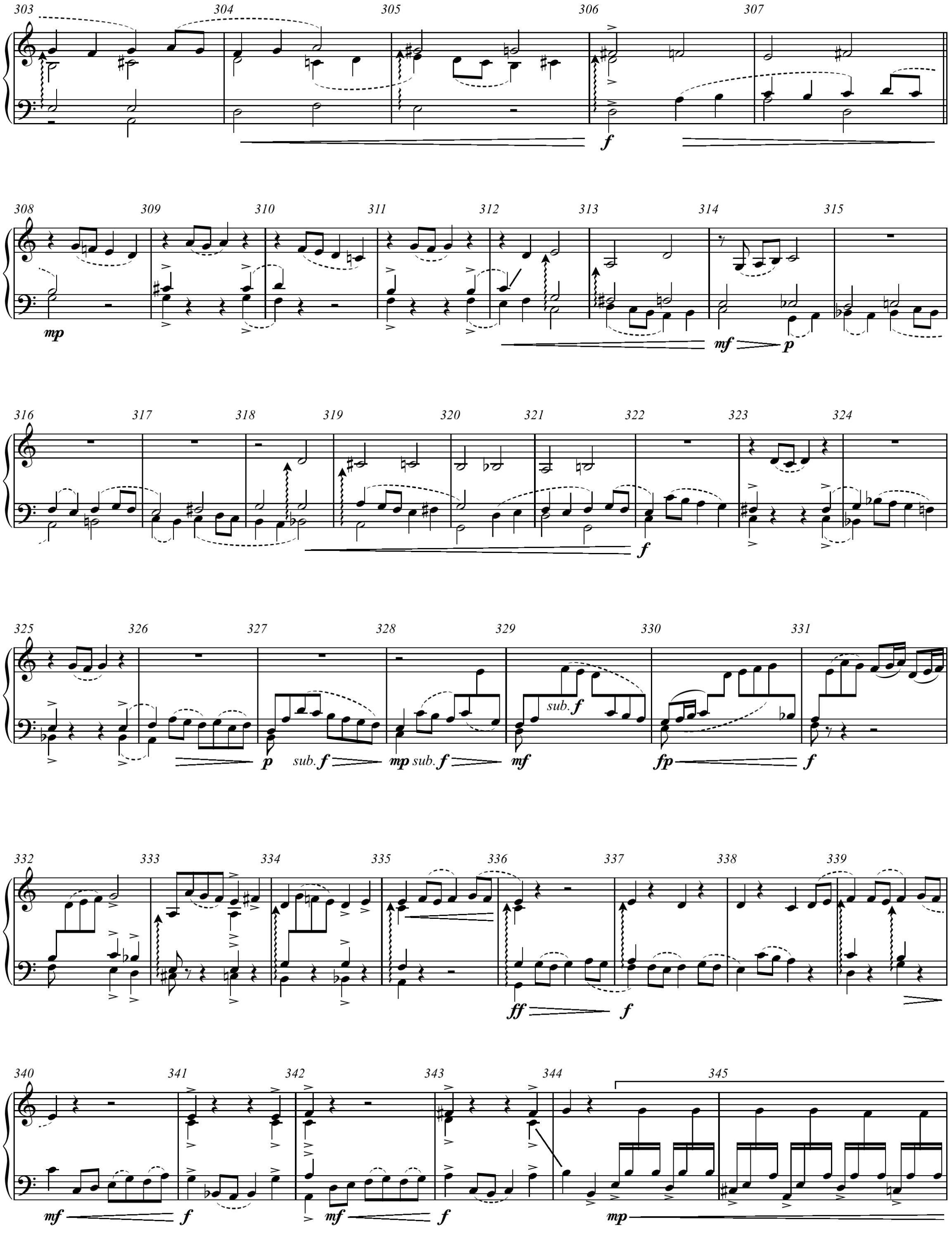

mf
sub. f
p
mf
mp
f
poco rit.
mp
p
mp
sub. f
p
mp
f
mp
f

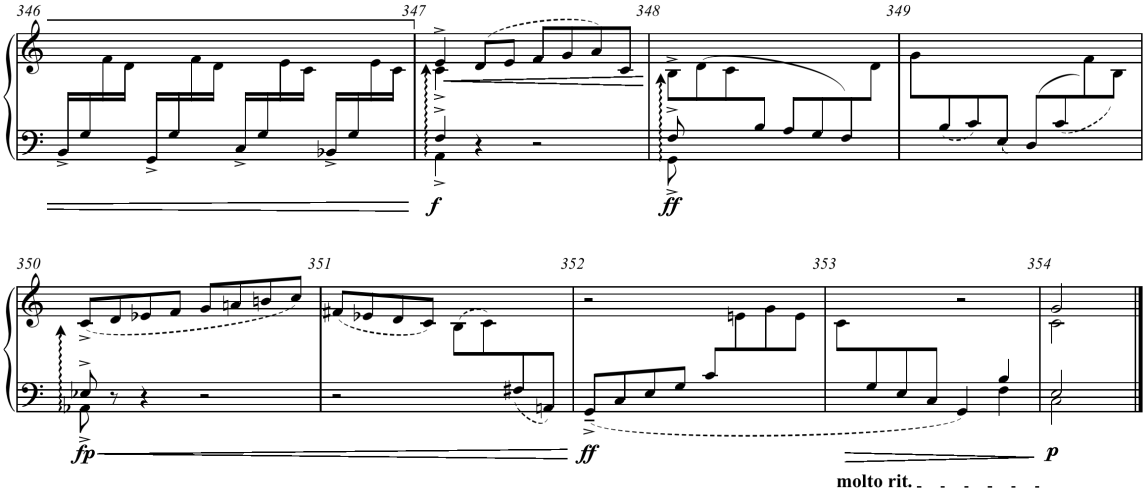

mf
f
poco rit.
tr
(tr)
mf
p
p
mp
mf
fp
fp
fp
fp
fp
fp
f
fp
f
p
mf
p
mp


ff
sub. mp
f
ff
rit.
♩ = 120
al reverso a tempo
ff
mf
mf
mf
mp
mf
f
f
f
f
mp
sub. f


f
tr
rit.
245 -
mp
p
mf
p
f
mf
mp
f
mp
f


mp
f
p
mf
p
mp
ff
mp
f
ff
rit.
a tempo
ff
mp
mf
f
mp
p
f
mf
p

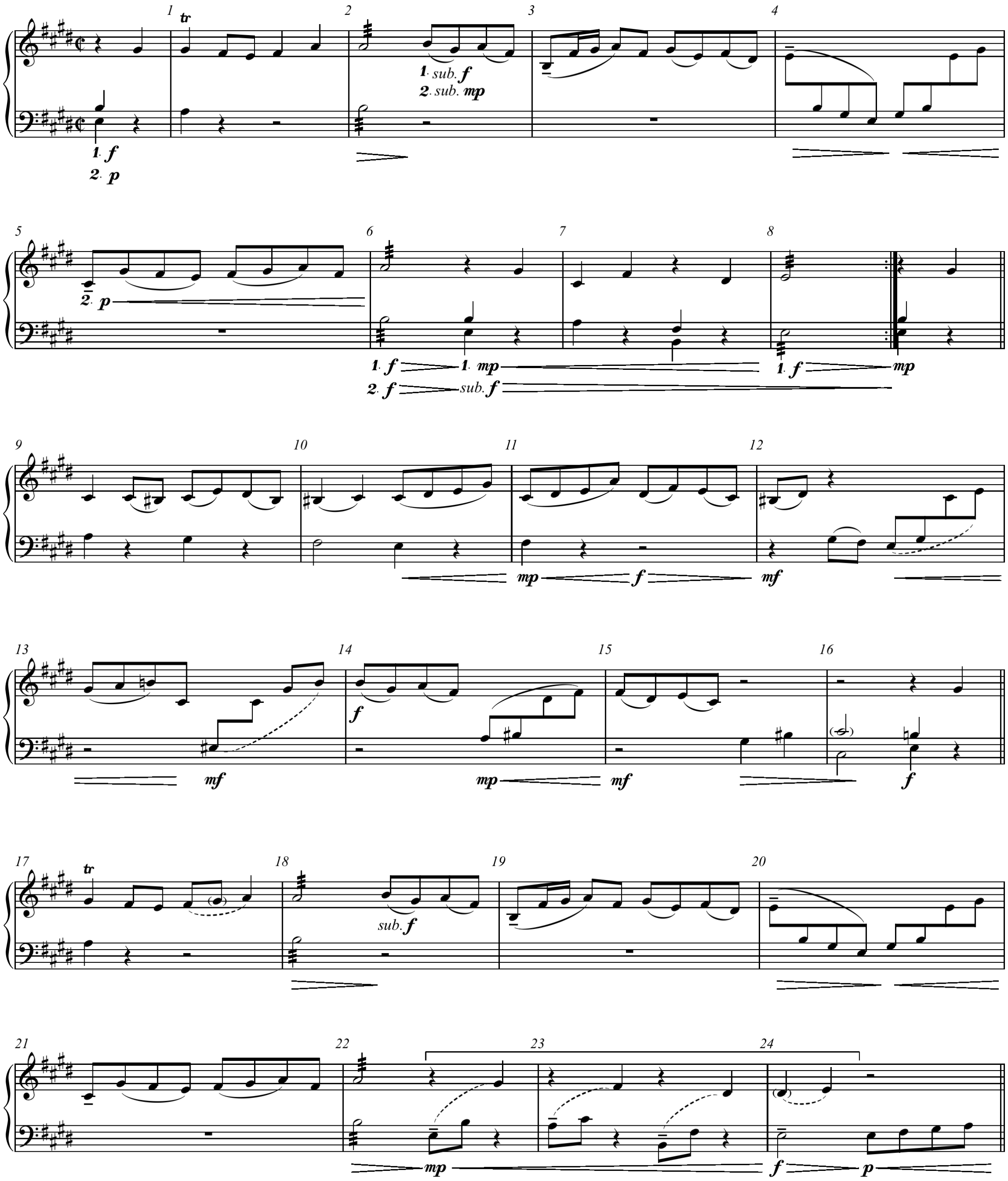

f
mp
mf
p
f
p
sub. f
mp
sub. f
mf
sub. f
fp
f
ff
f
mf
f
mf
f
mp

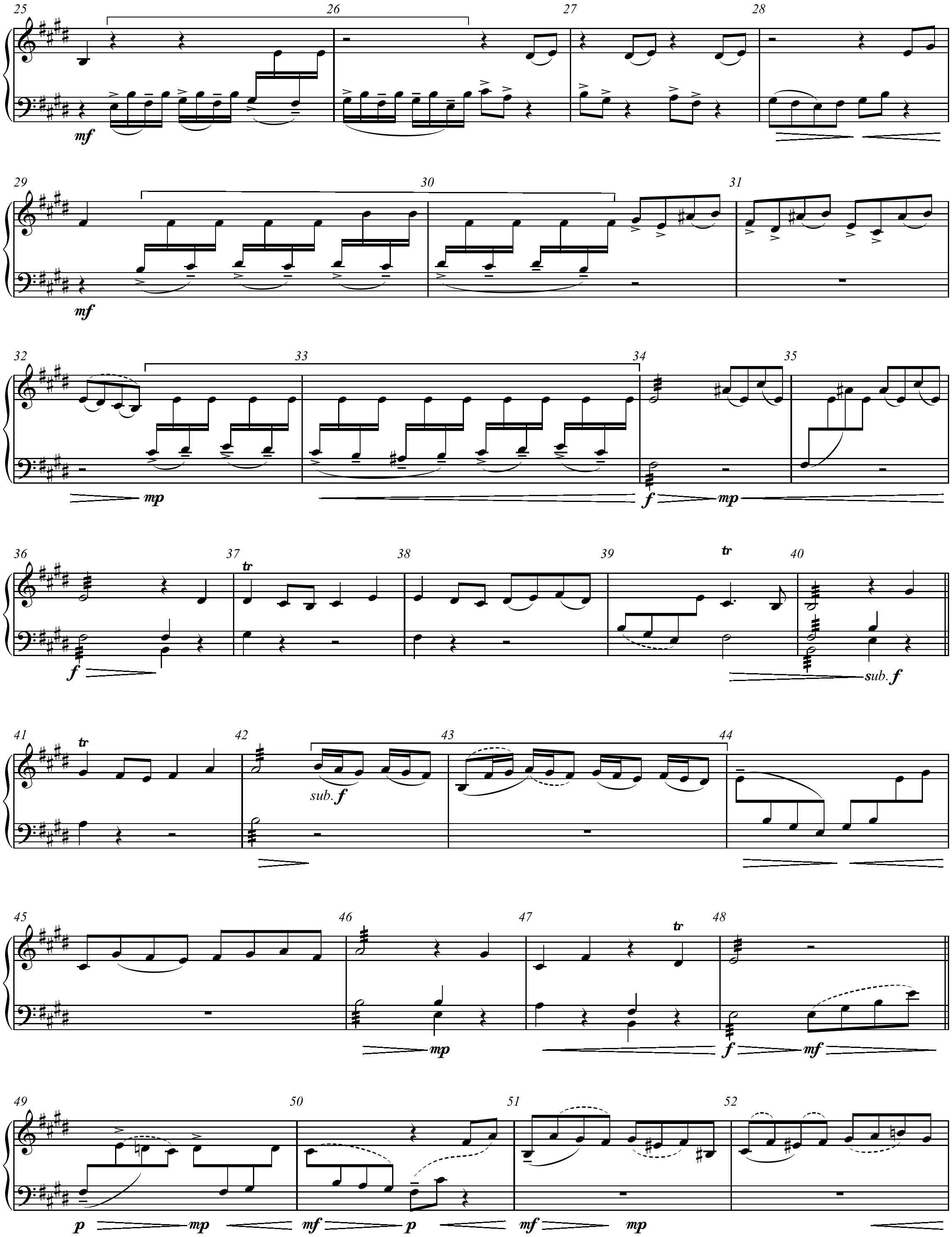

f
ff
fp
ff
p
molto rit.

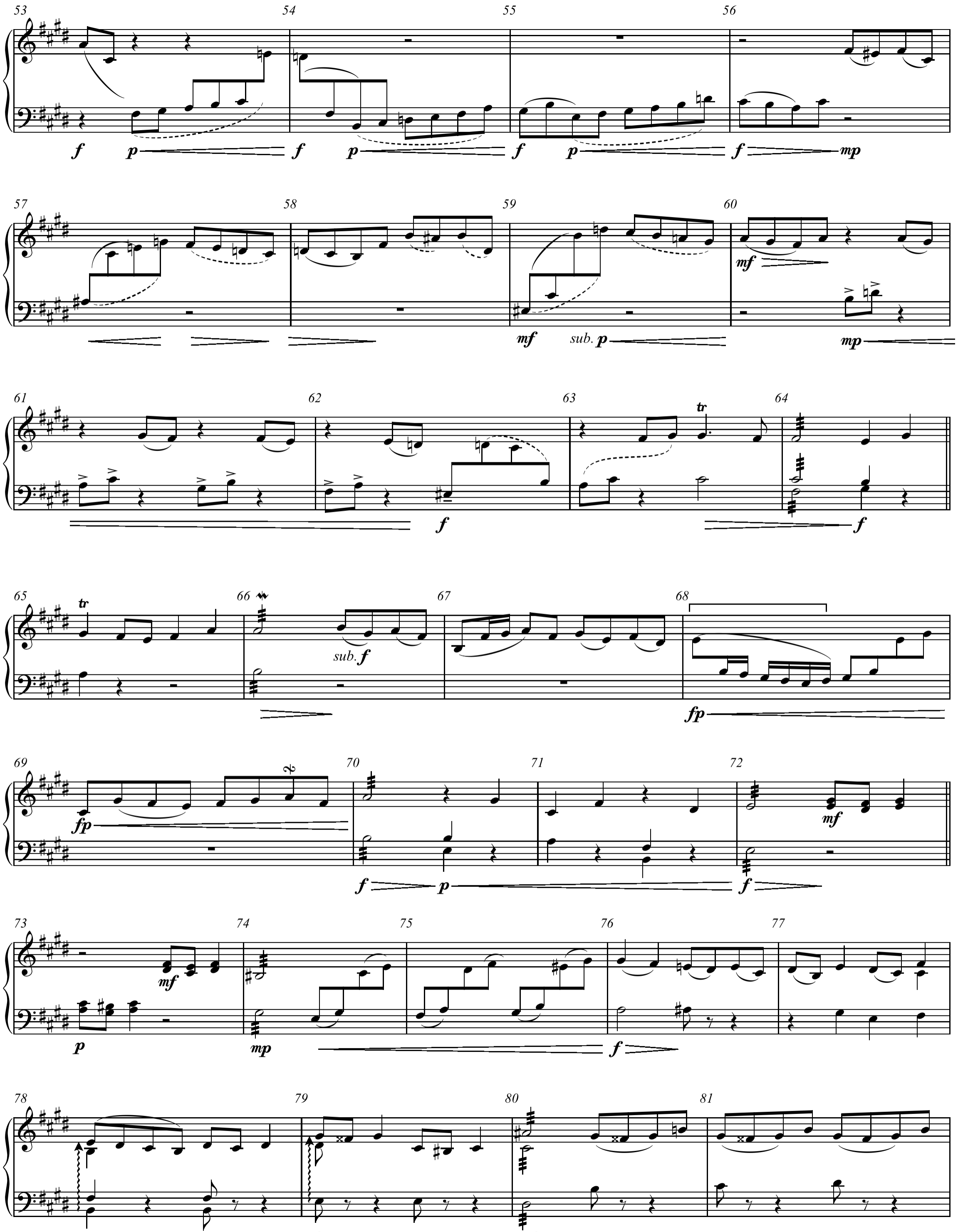
Gavotte en Rondeau from Partita III, BWV 1006

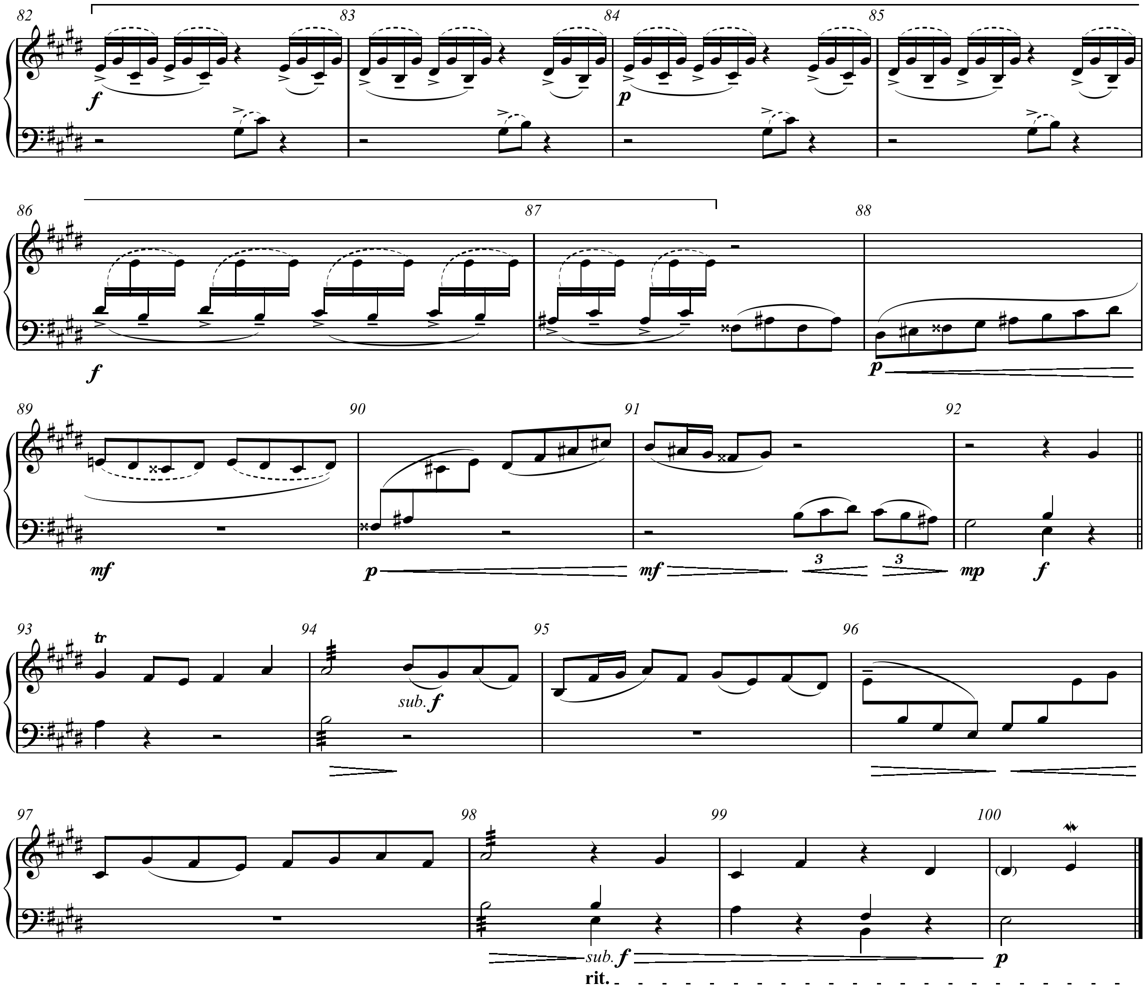
J. S. Bach, arr. J. Mathena

Gavotte en Rondeau


1
tr
2
1. sub. f
2. sub. mp
3
4
1. f
2. p
5
2. p
6
7
8
1. f
1. mp
2. f
sub. f
1. f
mp
9
10
11
12
mp
f
mf
13
14
15
16
f
mf
mp
mf
f
17
tr
18
sub. f
19
20
21
22
23
24
mp
f
p

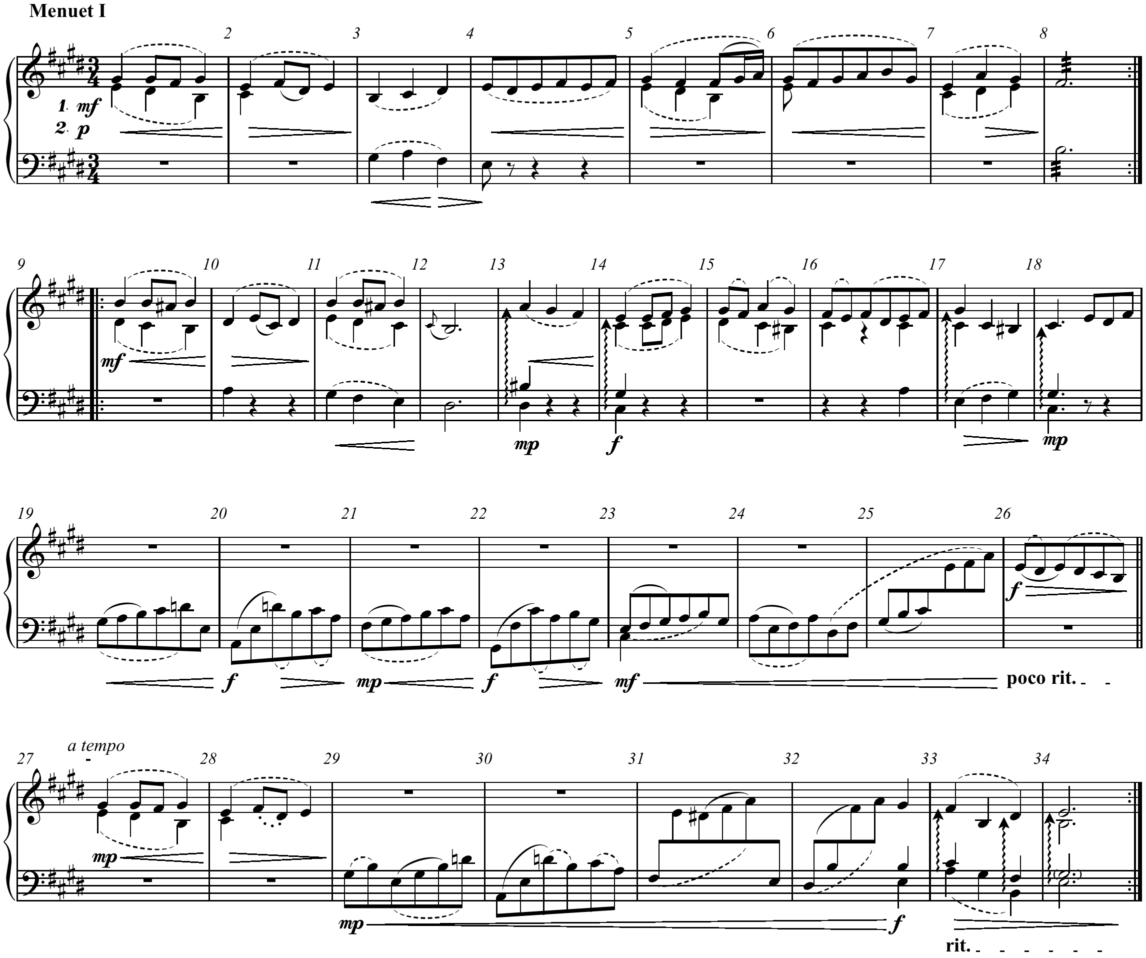

25
26
27
28
mf
29
30
31
mf
32
33
34
35
mp
f
mp
36
37
38
39
40
tr
tr
f
sub. f
41
42
43
44
tr
sub. f
45
46
47
48
tr
mp
f
mf
49
50
51
52
p
mp
mf
p
mf
mp


53
54
55
56
f
p
f
p
f
p
f
mp
57
58
59
60
mf
sub. p
mf
mp
61
62
63
64
tr
f
f
65
66
67
68
tr
sub. f
fp
69
70
71
72
fp
f
p
f
mf
73
74
75
76
77
mf
p
mp
f
78
79
80
81
f
p
mf
p


f
p
f
p
mf
p
mf
mp
f
tr
sub. f
sub. f
p
rit.

Menuet I from Partita III, BWV 1006

J. S. Bach, arr. J. Mathena


Menuet I
1. mf
2. p
mf
mp
f
mp
f
mp
f
mp
f
mf
poco rit.
a tempo
mp
mp
f
rit.

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