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The style transformation in Hanna Kulenty's string ensemble works, composed between 1984 and 2013

by

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A dissertation submitted in fulfilment of the requirements for the degree

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Declaration

I, Amoré du Plessis, declare that the dissertation, which I hereby submit for the degree Magister Musicae (Musicology) at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

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Abstract

Polish composer Hanna Kulenty (1961-) is considered a doyen among twenty-first century composers. Her compositions span over 30 years and comprise a wide range of works including solo instrumental works, operas, small and large chamber works, orchestral works and film scores. She experiments and incorporates various post-tonal era elements and devices into her compositions, often creating permanent tension and extreme emotional intensity.

This study provides a detailed biography of Kulenty, a brief discussion pertaining to the development of music during the tonal and post-tonal eras and investigates Kulenty's approach to key musical traits (including melody, rhythm and harmony) in the selected string ensemble works in order to determine her musical idiom. Furthermore, this study serves as an essential reference for Kulenty's string quartets and quintet composed between 1984 and 2013.

A style transformation pertaining to the selected string ensemble works is discussed. In her early compositions, Kulenty made use of 'polyphony of arches' comprising layers of arches within a large arch structure. Her more recent contributions make use of a single arch moving through different time dimensions, referred to as 'polyphony of time dimensions'. Ultimately, this study serves as a primary foundation for researchers who wish to investigate and discuss any stylistic aspects of the composer's oeuvre.

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Summary

Polish composer Hanna Kulenty (1961-) is considered a leading figure among twenty-first century composers. Her compositions span over 30 years and comprise an extensive oeuvre including solo instrumental works, operas, small and large chamber works, orchestral works and film scores. Over the years she has received numerous awards and commissions, and her compositions are often performed across Western Europe. She experiments and incorporates various post-tonal era elements and devices into her compositions, often creating permanent tension and extreme emotional intensity.

In this study, a detailed biography of Hanna Kulenty as well as a list of the composer's oeuvre is presented. Essential background information on the theoretical elements, including style, idiomatic expressions, characteristics, form, etc. of the post-tonal era is also provided. This study also investigates how Kulenty incorporated these and other musical traits into the selected string ensemble works. The selected string ensemble compositions, composed between 1984 and 2013, are the five String Quartets as well as String Quintet No. 1 (2011). These works are examined in order to trace the transformation of Kulenty's compositional style over the span of 29 years. Various style characteristics within each piece (not limited to the above mentioned parameters) are presented in order to determine Kulenty's musical idiom. Furthermore, this study serves as an essential reference for Kulenty's string ensemble works composed between 1984 and 2013.

A style transformation discussion pertaining to the selected string ensemble works is presented. Kulenty made use of a 'polyphony of arches' (layers of arches) in her early compositions. More recently, she makes use of a single arch moving on different temporal planes. This is referred to as a 'polyphony of time dimensions'. This study serves as an essential basis for researchers who wish to investigate and discuss any stylistic aspects of the composer's oeuvre.

Future investigation could consist of a style transformation study on Kulenty's other genres including opera, solo instrumental or symphonic works. In Kulenty's string ensemble works an in-depth form analysis could be conducted. Furthermore, Kulenty's recurring use of the same thematic material/s through different works could be investigated.

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Keywords

Hanna Kulenty

Polish

Minimalism

Polyphony of arches

Polyphony of time dimensions

Musique surrealistique

String Quartet

String Quintet

Style characteristics: Melody, Rhythm, Harmony, Texture, Form

Style transformation

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Chapter 1

Introduction

1.1. Background to the study

Hanna Kulenty (1961-) is regarded as one of the leading twenty-first century Polish composers (Harley 1995). As noted by researchers such as Dees (2004:122), Sobkowska (2004:30) and Thomas (2001:14), between 1981 and 1985 Kulenty studied composition with Włodzimierz Kotoński (1925-) in Warsaw and between 1986 and 1988 with Louis Andriessen (1939-) in The Hague, Netherlands. According to Sobkowska (2004:30) and Thomas (2001:14), she was awarded a scholarship by the Deutscher Akademischer Austauschdienst (German Academic Exchange Service, also known as the DAAD) to take part in their exchange program in Berlin from 1990 to 1991. Kulenty has received numerous commissions and her compositions are frequently performed in The Netherlands, Germany and Poland (Thomas 2001:14). Thomas (2001:14) notes that even during her student years Kulenty already realised the fundamental parameters of her compositional practice.

In 2013, during my final year of undergraduate music studies, my subjects included Composition and Theory. The coursework for both of these subjects mainly encompassed twentieth century and contemporary composers and their respective compositions. It was during this time that I developed a great interest in these specific fields of study, and the works of Kulenty immediately captured my attention. My decision to study an international (Polish) composer was based not only on the opportunity this study would provide to explore another culture within a music and compositional setting, but also on the fact that my study would introduce Kulenty's works to a South African audience.

Two of Kulenty's earlier works, *Ad unum* (1985) and *Sesto* (1985), incorporate rhythms that are percussive in nature and recurring motives whilst maintaining forward motion (Dees 2004:122 and Thomas 2001:14). Dees (2004:122) also notes that *Sesto* is very much atonal, containing many clusters, chordal glissandi, unusual notation, improvisatory elements, contrast of both texture and register as well as changes of mood which are governed by six serialised emotions. Dees (2004:122) and Thomas (2001:14) more clearly describe that Kulenty's clear writing style is mainly due to her understanding and use of a technique referred to as the 'polyphony of arches'. Strzelecki (2008:157) describes this technique as segments that are built on similar textural

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material which are presented simultaneously but at various tempi. In essence, this involves partitioning the composition into layers which exist in various time dimensions (Strzelecki 2008:158). This is also noticeable in another early composition, *Trigon* (1989), where she incorporated and alternated between pedal points at unison level and musical strata (also referred to as musical levels) that is uniquely placed (Thomas 2001:14). Furthermore, Thomas (2001:14) notes Kulenty makes use of material that either overlaps or moves in a sequence (both of which establish "small- and large-scale events") and in turn, these are dependent on chordal progressions, timbral effects and/or emotional intensity, or any combination of these elements.

In another early composition, *Air* (1991), Kulenty employs spectral harmony (Thomas 2001:15). Spectral harmony, as defined by Taube (2003) and Fineberg (2000b:86), is a compositional technique in which the source material for a composition is derived from the acoustic properties of sound. More specifically, Taube (2003) and Fineberg (2000b:86) provide a concise definition for 'spectral', referring to the elements (frequencies, initial phases, amplitudes) which govern a sound's distinct waveform. Whalley (2010:94) describes spectral music as merely a compositional technique within which an analytical evaluation of the sound spectra is undertaken. In Fineberg (2000a:2), Tristan Murail (1947-), a French composer mainly associated with the 'Spectral School', clearly defined spectral composing as an approach applied to both music and compositions, rather than specific techniques. Whalley (2010:94) simplifies this further, describing it as an approach towards sound. The prevalent ideology all the composers associated with spectral music/composition have, is that music comprises "sound evolving in time" (Fineberg 2000a:2). Pressnitzer and McAdams (2000:33) maintain that the world of music has drastically expanded with the development of spectral music. They hold that

> …the distinctions between note, frequency, timbre and harmony become fuzzy, or even irrelevant, and accumulated traditional experience finds itself impotent to organize (sic) the emerging sound world (Pressnitzer & McAdams 2000:33).

Thomas (2001:15), however, notes that Kulenty's musical material also incorporates phenomena such as "inhalation-exhalation". In her Violin Concerto No. 1 (1992), Kulenty employed other melodic aspects such as arpeggios, ostinatos, glissandos and quarter tones which culminated in a cornucopia of sounds (Dees 2004:122; Thomas 2001:15). In *A Cradle Song* (1993), a distinct Romantic intensity can be perceived, whilst later compositions, including *Going Up* (1995), embody a more contemporary approach incorporating jazz inflections and minimalism (Thomas 2001:15).

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In this dissertation, the focus is on Kulenty's string ensemble works; specifically her five String Quartets as well as String Quintet No. 1 (2011). Kulenty's other compositions fall outside the scope of this dissertation. The dates of composition for the selected string ensemble pieces range from 1984 to 2013. This dissertation is a discussion on the style characteristics pertaining to these works as well as how Kulenty's compositional style has developed or transformed over a period of 29 years. The compositions that are discussed include:

- String Quartet No. 1 – *The Song for String Quartet* (1984)
- String Quartet No. 2 (1991)
- String Quartet No. 3 – *Tell me about it* (2007)
- String Quartet No. 4 – *A Cradle Song* (2007)
- String Quartet No. 5 (2011)
- String Quintet No. 1 – *Five for Five* (2013)

1.2. Aim of the study

Anderson and Poole (1994:31) note that the primary objective of any research investigation should be to ensure that it is engaging and significant. There are few academic papers presenting and analysing the compositions of Hanna Kulenty, and this is the first study exploring her string ensemble works.

This research study aims firstly to provide a detailed biography of the Polish composer, Hanna Kulenty. Secondly, it aims to provide the reader with the necessary background information on the theoretical aspects, such as style, idiomatic expressions, characteristics, development, form, etc., of twentieth century and contemporary compositions by delving into the fundamentals of music theory and the historical background of each period. Finally, this study aims to investigate and explore how Kulenty incorporated harmony, melody, tonality, rhythm and other analytical traits into the selected string ensemble works. Due to the nature of these compositions, expatiated analyses (specifically harmonic analyses) are not provided as the music does not lend itself to such analyses. However, various style characteristics within each piece (not limited to the above mentioned parameters) are presented in order to display/determine Kulenty's musical idiom. Since the quartets and the quintet span nearly three decades (1984-2013), any significant development in approach, design and/or style should be evident. Furthermore, this study serves as an essential reference for Kulenty's string quartets and quintet.

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1.3. Research questions

The main research question of this study is:

How did Hanna Kulenty's compositional style transform in her string ensemble works composed between 1984 and 2013?

The following sub-questions are addressed:

- Which aspects are most relevant in a style discussion of Hanna Kulenty's works?
- What are the similarities and/or differences in the selected compositions composed between 1984 and 2013?
- Which style characteristics are most prominent in the selected works?

1.4. Methodology

This study is both qualitative and empirical in nature, as defined by Bak (2004:11), Mouton (2001:57), and Thomas (2003:33). Numerous musicologists, such as Hofstee (2006:124), Leedy and Ormrod (2001:155-156), Mouton (2001:165) and Maree (2013:101), have defined content analysis as the name itself indicates – analysing the content of materials (this includes texts and/or documents). This study critically explores the similarities and/or differences between Hanna Kulenty's string ensemble compositions (composed between 1984 and 2013) and makes use of Mouton's (2001:165) thirteenth research design, the content analysis approach, in order to understand the literature and the composer's musical output. Biographical information on the composer, as well as an overview of her accomplishments, are included in the study.

The study proceeds as follows: firstly, a biographical overview of Kulenty's life and compositional output is provided, making use of the following main sources: Adrian Thomas' *Polish Music since Szymanowski* (2005), Joseph Auner's *Music in the Twentieth and Twenty-first Centuries* (2013) and *A Guide to Piano Music by Women Composers, Volume II: Women born after 1900* (2004), by Pamela Y. Dees. Furthermore, Joanna Sobkowska's thesis *Works with chamber ensemble with piano written between 1950 and 2000 by Polish composers: An annotated bibliography* (2004) and numerous websites (including Hanna Kulenty's official website as well as the website of the Polish Music Centre) are used as reference.

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Secondly, the string ensemble compositions selected for this study, composed between 1984 and 2013, are scrutinised in order to trace the transformation of Kulenty's compositional style. The criteria considered include, and are not necessarily limited to, prominent style characteristics such as melody, harmony, texture, timbre, rhythm and form. These subdivisions serve as the foundation for this investigative study. These analytical traits are defined more clearly below:

- **Melody (horizontal dimension):** defined by Burkholder, Grout and Palisca (2010:A11) as a series of notes observed as a comprehensible line, Kennedy and Kennedy (2007:485) note that the pitch material varies before taking on a familiar design. Furthermore, Kennedy and Kennedy (2007:485) emphasise that the notes are perceived successively (the opposite of harmony, as denoted below). In Kostka (2006:74), melody of the twentieth century is described as a 'horizontal dimension'. Differentiating itself from traditional melodic content (tonal melodies), horizontal dimension includes more specific twentieth century melodic aspects such as voice leading, twelve-tone melody, motivic use of pitch-class cells, the use of less lyricism and placing less importance on the melody (Kostka 2006:92). The melodic material of Kulenty's string ensemble works is closely scrutinised with emphasis on key stylistic features such as contour, scale formations, intervals, motivic devices (this includes, but is not limited to, repetition, sequence and inversion), as well as phrase structure.

- **Harmony (vertical dimension):** according to Burkholder et al. (2010:A8) and Kennedy and Kennedy (2007: 331), harmony is merely an element of music regarding the simultaneous amalgam of notes that create intervals and ultimately result in simultaneities or chords. By the twentieth century, composers had more freedom to combine any pitches in order to form simultaneities or chords (Kostka 2006:66). 'Vertical dimension', as described by Kostka (2006:46), describes chords of the twentieth century that include both voice leading and the progression of harmonies. In this section of the study, harmonic material such as chordal formations, which are either of a structural significance or display recurring elements, are examined or presented.

- **Texture:** Burkholder et al. (2010:A19) defines texture as the amalgamation of aspects within a work, movement or passage. These aspects comprise the number of voices or events and how they are related to one another (monophony, polyphony, dense sonorities, etc.). Each of the selected string ensemble works are examined to determine the main and supporting ideas and to classify the texture according to the standards mentioned above

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(monophony, polyphony, contrapuntal, etc.). Idiomatic writing (contributing to the texture) is also discussed.

- **Rhythm:** Burkholder et al. (2010:A16) defines the two prongs of rhythm as the arrangement of music's progress in time, and secondly as a specific arrangement of different duration lengths. Kennedy and Kennedy (2007:622) add that rhythm comprises all that relates to the "time aspect of music" (first prong), which also includes the development of elements such as beats (or pulsations), accents, how notes are grouped into beats, how beats are grouped within measures or how measures are grouped to form phrases. The latter three resort under the second prong. In this section of the study, significant rhythmical elements of each of the selected string ensemble works (including, but not limited to, meter, the grouping of notes and other rhythmical devices) are discussed. Other significant rhythmical figures and motives (and their development) are also examined and highlighted.

- **Form:** Form is defined by Burkholder et al. (2010:A7) and Kennedy and Kennedy (2007:268) as the shape, structure or design of a composition or movement. With regard to twentieth century compositions, as noted in Kennedy and Kennedy (2007:269), the structure of a movement or work was altered to meet the composer's need, advocating limitless adaptability as the governing tenet. The larger structure of each of the selected string ensemble works is determined and briefly discussed in this study. Furthermore, the analytical data of each of the selected string ensemble works are presented and are followed by a brief overview of the form of the respective work.

Finally, a conclusion regarding the style transformation in Kulenty's string ensemble works is provided.

1.5. Literature review

The literature relevant to this study includes books, articles, publications, research studies and websites pertaining to Hanna Kulenty, her compositional output as well as the historical background of the late twentieth and early twenty-first century music.

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Sources

Books

The three books listed below are consulted for their respective accounts of specific historical events in the Polish music scene and the development of Polish music from the twentieth to the twenty-first centuries.

Adrian Thomas' *Polish Music since Szymanowski* (2005) is a definitive guide which not only provides a comprehensive and unbiased perspective on the musical development in Poland after the death of Karol Szymanowski (1882-1937) (Kafka 2006:706), but also directs the reader's attention towards the exploratory composers of post Second World War Poland who, challenging the established political order, were responsible for much of Poland's musical rejuvenation (Swartz 2006:363).

Polish Music since Szymanowski comprises four main sections, a postscript and four appendices. Each of the four sections scrutinises the prominent elements which resulted in the modern and postmodern ideals, specifically within Poland, and ultimately the impact of tradition on the creation of a "new music" (Swartz 2006:364). Swartz (2006:363) also notes that for this dynamic publication, Thomas consulted various sources such as articles, interviews and memoirs.

The third section, "The search for individual identity", explores the musical development of selected composers during the 1960s' serialistic trends. The fourth section, "Modernisms and national iconographies", and the Postscript, mainly focus on the 1970s, national identity and the younger generation's ironic, postmodern view on the past. These final two chapters, as Kafka (2006:708) notes, examine the aspects that ultimately led to the post-tonal era. It also contains an overview of sacred and secular music, as well as various Polish composers' apprehensions after the war with regard to, and not necessarily confined to, postmodernism and experimentation (Kafka 2006:708).

In the concluding chapter, Thomas, according to Swartz (2006:364), provides a hopeful view for the prospect of new music in Poland, maintaining that the recent developments (regarding regional theatres, public festivals, new music ensembles, etc.) have opened the door for the musicians of today. This book offers the reader more insight into the Polish music of the twentieth

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century and, as Swartz (2006:365) concludes, the publication is concise and well-organised.

Joseph Auner's *Music in the Twentieth and Twenty-first Centuries* (2013) briefly examines a few influential and significant musical developments during these periods and focuses mainly on composers who made an impact on (be it by adding to, transforming or renouncing the established practices of) Western Art music (Auner 2013:xvii). However, as Auner (2013:xvii) notes, the underlying subject, during these two centuries, is the progressive collapse of these Western music constraints which is ultimately due to the fact that the music populace, as well as technological developments, have diversified culturally and geographically.

A total of fifteen chapters provides an overview of composers, musicians and audiences; each of these responding differently to the idea that music could or should be much different than had been previously perceived (Auner 2013:xviii). According to Rutherford-Johnson (2014:108), Auner's publication incorporates relatively "recent thinking" on the music history of the twentieth century, however, it lacks an original interpretation. Nonetheless, this book is an excellent guide for the young reader exploring the music of the post-tonal era.

Finally, books on the biographical details of Hanna Kulenty and her compositions are also consulted. *The new Grove dictionary of music and musicians* (Thomas 2001) is a concise and compact source containing biographical information on Hanna Kulenty as well as a selected list of works, including the instrumentation and the date of publication.

A unique publication, and the only reference tool of its kind in its field of study, is *A guide to piano music by women composers, volume II: Women born after 1900* (2004), by Pamela Y. Dees. I would like to state clearly that I am not discussing or examining gender in this study and am purely making use of the information provided by Dees regarding Hanna Kulenty and her works. This compact publication contains information on more than 850 female composers, born after 1900, from across the globe (Reed 2005). Dees incorporates not only very brief biographical information, but also "lists of genres for each composer", shorthand "descriptions and lists of works" specifically for piano (which also includes harpsichord, piano, tape and 4-hand compositions), information about the publishers, the duration and level of difficulty of the piece(s) and often provides websites and e-mail addresses (Reed 2005). Many of the composers listed in this volume were still actively composing at the time of print and therefore some of the information provided could potentially have changed. This book, does, however, provide a valuable first step in the research process.

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Other – Thesis

In her thesis, *Works with chamber ensemble with piano written between 1950 and 2000 by Polish composers: An annotated bibliography* (2004), Joanna Sobkowska offers a list of compositions written between 1950 and 2000 for chamber ensembles consisting of piano and three to nine instruments, and briefly discusses each composition. Sobkowska (2004:vii) explains that this catalogue aims to acquaint musicians (researchers and/or performers) with the selected works and ultimately advocate not only their study but also their performance. This collection contains a brief biographical overview of each composer which is followed by the list of compositions (chronologically ordered), the latter focussing mainly on the musical style and the grade-difficulty for piano (Sobkowska 2004:vii).

Web

The primary website that is consulted mainly for its concise and regularly updated information, is the official website for Hanna Kulenty: www.hannakulenty.com. The website is replete with valuable biographical information concerning the composer, a comprehensive list of compositions, concerts, audio tracks of a few of her compositions as well as contact information.

A biographical overview of Hanna Kulenty, written by Maja Trochimczyk (also known as Anna Maria Harley), is available on the Polish Music Centre's website, http://www.usc.edu/dept/polish_music/composer/kulenty.html#intro, and was last updated in 2010. This page contains brief biographical information, a list of works, a list of awards and commissions as well as bibliographical detail, the latter being a useful guide when seeking for more information. This source is very helpful and a great foundation for this dissertation.
Notes on Polish Women Composers (1995), an essay written by Anna Maria Harley, which also features on the Polish Music Centre's website, examines the value, importance and cultural aspects of the life of a typical Polish female composer (http://www.usc.edu/dept/polish_music/essays/womentx.html). The gender-specific topic discussed in the essay is not deemed relevant as it falls outside the scope of this dissertation, therefore only the biographical information pertaining to Hanna Kulenty is used.

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1.6. Delimitations of the study

- A brief discussion pertaining to the selected compositions, with regard to the time period and the significant style characteristics of each respective piece, is provided.
- Form structure is addressed and briefly discussed. This is, however, not the primary focus of this dissertation.
- A full harmonic analysis of each of the selected compositions is not provided as the works do not lend themselves to such analyses. However, harmonic materials and devices evident in the works are addressed and briefly discussed.
- This dissertation is not comparative in nature. It aims to provide a brief discussion of the similarities and/or differences in Hanna Kulenty's style transition from her earlier to more recent compositions.
- There is no discussion of works by contemporary Polish composers in this study, other than those specifically indicated or deemed relevant to the selected works.
- The topic of gender is not discussed in this study.

1.7. Chapter outline

This study consists of seven chapters. The first chapter forms the introduction, providing background to the study and the methodology involved, as well as stipulating the research question and the aim of the study. Chapter two provides a detailed biography of Hanna Kulenty. Chapter three consists of a complete list of compositions arranged by order of date of publication and instrumentation, whilst chapter four contains a succinct discussion of music and the development thereof during the post-tonal era, highlighting the relevant style characteristics. The fifth chapter provides brief analyses of the selected compositions in order to determine the prominent style characteristics. Chapter six discusses the style transformation in Kulenty's string ensemble works composed between 1984 and 2013. The final chapter consists of a comprehensive conclusion which firstly answers the research question, providing an overview of the style transformation in Kulenty's string ensemble works. Secondly, a conclusion of the musical analyses is provided, focussing on Kulenty's musical idioms. Finally, further recommendations for future endeavours are provided, followed by a comprehensive list of references.

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Chapter 2

Biographical overview

2.1. Introduction

In 2007 and 2008, Hanna Kulenty's works *Preludium, Postludium and Psalm* for cello and accordion (2007) and String Quartet No. 3 – *Tell me about it* (2008), respectively, ranked under the top ten Dutch compositions at the Amsterdam Toonzetters competition (Kulenty 2016). From 1989, Kulenty has been working independently as a composer, composing primarily for various Dutch and German orchestras and ensembles on commission (Strzelecki 2008:156). A Polish composer, currently dividing her time between Poland and the Netherlands, Kulenty is regarded as a foremost personage in the Polish music community (Culture.pl 2002).

This chapter provides a brief overview of Kulenty's life, including her musical education, awards she has received and positions she has held at various institutions over the years. A concise background to her solo instrument works and her more recent musical contributions is included. Finally, an outline of the prominent style characteristics within her compositions is presented.

2.2. Biography

Hanna Kulenty was born on 18 March 1961 in Białystok, Poland (Trochimczyk 1995). She attended the G. Bacewicz Elementary Music School in Warsaw, studying piano (Trochimczyk 1995). From 1976 to 1980 she attended the K. Szymanowski High School of Music in Warsaw where she received her diploma in piano performance (Kulenty 2016). At age 19, she attended the Chopin Academy of Music, also in Warsaw, where, studying under Włodzimierz Kotoński (1925-2014), her main subject was composition (Kulenty 2016; Trochimczyk 1995). She remained here for six years and then moved to The Hague, residing there from 1986 until 1988 (Kulenty 2016; Trochimczyk 1995). During her time at The Hague, studying at the Royal Conservatory of Music, she completed her post-graduate studies in composition under the guidance of Louis Andriessen (1939-) (Trochimczyk 1995). Throughout these student years, Kulenty attended several composition courses, such as the International Courses for Young Composers (from 1983 to 1990) in Poland, arranged by the Polish Section of the International Society of Contemporary Music (ISCM: http://www.iscm.org/ - a global network advocating and introducing contemporary music) (Trochimczyk 1995). Kulenty also participated in the International Summer Courses of New

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Music (in 1984 and 1988 respectively) held in Darmstadt (Trochimczyk 1995). During this period, she attended lectures presented by composers Iannis Xenakis (1922-2001), Witold Lutosławski (1913-1994), Thomas Kessler (1937-) and François Bernard Mâche (1935-) (Kulenty 2016).

In 1985, the European Cultural Foundation (ECF) arranged for the European Young Composers' Competition to take place in Amsterdam to commemorate the unification of the continent (Trochimczyk 1995). At this prestigious ceremony, Kulenty was awarded second prize for her orchestral symphony, *Ad Unum* (1985); this played a significant role in her career (Trochimczyk 1995). The theme of the symphony, appropriate for the occasion, is described by Trochimczyk (1995) as chromatic, expressive and masterfully prepared. At the age of 24, Kulenty's symphony, *Ad Unum*, was performed at the Warsaw Autumn International Festival, the largest international event hosted in Poland that is dedicated to contemporary music (Schlosser 2013). According to Trochimczyk (1995), it evoked passionate acknowledgement from Jan Weber (1930-1992), a Polish music critic, who cautioned Kulenty's male contemporaries: "Gentlemen, hear and tremble!".

By 1989, Kulenty was composing on a freelance basis (Kulenty 2016). Over the years, she has received numerous commissions and awards. According to Thomas (2001:14) and Trochimczyk (1995), her compositions are frequently performed at festivals and concerts in England, the Netherlands, Germany, Denmark, and Poland. Kulenty (2016), Sobkowska (2004:30) and Thomas (2001:14) note that she received a scholarship from the German Academic Exchange Service to take part in their exchange program in Berlin from 1990 to 1991. She also received commissions and scholarships from both the Polish and the Netherlands governments (Trochimczyk 1995), such as the grants she achieved from the Fonds voor de Scheppende Toonkunst (FST, now known as the Fonds Podiumkunsten - Performing Arts Fund) in the Netherlands from 1993 to 2009 (Kulenty 2016). From 1999 to 2000, Kulenty was a resident composer for the Het Gelders Orkest, a symphony orchestra based in the Netherlands (Kulenty 2016).

Since 1992, Kulenty divides her time between Warsaw, Poland and Arnhem, the Netherlands (Kulenty 2016).

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2.3. Awards

Kulenty has received numerous awards over the years (Kulenty 2016; Strzelecki 2008:156):

- 1985: The European Young Composer's Competition (second prize, with *Ad Unum* for orchestra).
- 1987: The Stanislaw Wyspianski Award (second class) and the Young Composers' Competition of the Polish Composers' Union (second prize, with *Ride* for six percussionists).
- The Composers' Competition of the Warsaw branch of the Polish Composers' Union: first prize for *Quinto* for two pianos (1986); first prize for *Breathe* for string orchestra (1987); third prize for *Cannon* for violin and piano (1988); second prize for *aaa TRE* for viola, cello and double bass (1989).
- 2003: The United Nations Educational, Scientific and Cultural Organisation (UNESCO) Mozart Medal from the International Music Council at the fiftieth UNESCO International Rostrum of Composers (IRC) (first prize, with *Trumpet Concerto* (2002)).
- 2007 and 2008: The Toonzetters Competition in Amsterdam; *Preludium, Postludium and Psalm* for cello and accordion (2007) and String Quartet No. 3 – *Tell me about it* (2008) were respectively selected and ranked between the ten best Dutch compositions of the respective years.

2.4. Positions held

Kulenty spends a lot of her time teaching, sharing her knowledge and experiences with young and upcoming composers. She has lectured on composition at various symposiums all over Europe (Trochimczyk 1995). Kulenty (2016) notes that from 1992 to 1995, Kulenty taught at the F. Chopin Academy of Music, Warsaw; the following year (until 1996), she lectured at the First International Courses for Young Composers in Apeldoorn, the Netherlands, which was arranged by the Gaudeamus Foundation (advocates for contemporary music in the Netherlands); in both 1996 and 2000, she taught at the International Courses for Young Composers held in Radziejowice, Poland, which was arranged by the ISCM (Polish Section); in 2001, Kulenty lectured at the Seventh International Courses for Young Composers in Apeldoorn, the Netherlands, which was again arranged and sponsored by the Gaudeamus Foundation.

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Furthermore, she was appointed as guest lecturer at various music institutions and festivals over the last twenty years (Kulenty 2016):

- The Sender Freies in Berlin as well as the Conservatory of Music in Rotterdam (1989).
- The Academy of Music in Warsaw (1990).
- The Conservatory of Music in Arnhem (1990 and 1992 respectively).
- The York University in England (1993).
- The Odense and Kopenhagen in Denmark (1994).
- The Munich Biennale in Munich (1994 and 1996 respectively).
- The California State University in Long Beach, the University of California in Santa Barbara, as well as the University of Southern California in Los Angeles, all in the United States of America (1998).
- The Conservatory of Music in Münster (1998).
- The Conservatory of Music in Budapest (2001).
- The Bavarian State Oper in Munich, the Musis Sacrum in Arnhem, the Conservatory of Music in Łódz as well as the Conservatory of Music in Amsterdam (2002).
- The tenth Other Minds Festival in San Francisco (2004) – an annual festival and a global New Music network that promotes contemporary music through various channels such as lectures, performances and seminars to ultimately unite musicians and audience members of various practices, age groups and cultures (Amirkhanian 2015).
- The Soundstreams Canada (2005) – a host of "new Canadian music" based in Toronto that coact with local and international artists (Soundstreams).
- The Conservatory of Zwolle, the Netherlands (2005).
- The Schiermonnikoog Chamber Music Festival in the Netherlands (2006).
- In 2007, Kulenty was appointed guest lecturer and composer in Barcelona at the Catalunia College of Music, ESMUC (Escola Superior de Música de Catalunya).

The official website of Hanna Kulenty (2016) mentions that Kulenty fulfilled her role on various occasions as a member on the panel at several competitions: the World Music Days (1992) of the ISCM (Polish Section), the Munich Biennale (1995), the International Gaudeamus Music Week (2002) in Amsterdam, the Kazimierz Serocki Ninth International Composers' Competition (2003) in Warsaw, the International New Chamber Opera Competition "Orpheus-Luciano Berio" (2003-2004 season) in Italy, as well as the ninth and eleventh International Competition of Contemporary Chamber Music (in 2005 and 2007 respectively) that were held in Kraków.

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2.5. Compositions

In 1988, Kulenty composed the virtuosic (and technically challenging) solo marimba piece *One by One* (Trochimczyk 1995). It was published by the Polskie Wydawnictwo Muzyczne (Polish Music Publishing House, PWM) and premiered at the Pascal Zavaro Festival in Paris (Trochimczyk 1995) in January 1991. In 1993 Kulenty composed another solo work, *Still Life with a Cello*, which was commissioned by the Schleswig-Holstein Festival in Germany and debuted at the festival with Polish cellist Andrzej Bauer (1962-) (Trochimczyk 1995). Trochimczyk (1995) maintains that Kulenty wrote this piece as a "counterpart" to *Still Life with a Violin* composed for Polish violinist Krzysztof Bąkowski (1961-). Furthermore, Trochimczyk (1995) notes that both these compositions not only share a "rhapsodic playfulness with time" but also highly specific pitch material. The cello work, however, comprise more repetition and more regular rhythmic motives (Trochimczyk 1995). Kulenty has composed solo instrumental works for a wide range of instruments over the years, including trumpet, alto flute, harmonium, piano and percussion (Kulenty 2016).

Kulenty later "turn[ed] towards minimalism" (Trochimczyk 1995). According to Trochimczyk (1995), this can be ascribed to her studies with Andriessen, as most of his students compose works in a minimalist style. Kulenty herself defines this period in her compositions as 'European trance music' and frequently "structures her compositions as single, powerful arches" (Trochimczyk 1995). This style of writing is clearly noticeable in both *A Fourth Circle* for violin and piano (1994) and *A Sixth Circle* for trumpet and piano (1995) (Trochimczyk 1995). *A Fourth Circle* was originally written for and performed mainly on violin, however the melodic line could be performed either by the violin, viola or violoncello (Trochimczyk 1995). In 1994, the piece debuted at Musikhøst (Music Harvest), an annual festival held in Odense, Denmark to showcase New Music, where "Three Polish Women: Bacewicz, Moszumańka-Nazar and Kulenty" were celebrated (Trochimczyk 1995). However, Trochimczyk (1995) notes that both these works, *A Fourth Circle* and *A Sixth Circle*, share melodic characteristics such as the use of quarter tones and pedals (sustained notes that can often be observed in the trumpet part) as well as ostinato figures in the piano accompaniment.

The one act opera, *The Mother of Black-Winged Dreams* (1995), premiered in December 1996 with the Hamburg Opera at the *Internationales Festival für neues Musiktheater* (International Festival for New Music Theater, more commonly known as the Munich Biennale) and received much acclaim (Kulenty 2016; Trochimczyk 1995). In this opera, librettist Paul Goodman (1911-

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1972) investigates dissociative identity disorder (DID), previously referred to as multiple personality disorder (MPD), and draws attention to present day topics such as misfortune, the abuse of children and gender-specific relations (Trochimczyk 1995). According to Trochimczyk (1995), there is an uninterrupted arch of rising tension throughout the chamber work. Following the opera's success, Kulenty is viewed as one of the prominent Polish composers of the twentieth and twenty-first centuries (Kulenty 2016).

Over the years, Kulenty's contributions have amounted to two operas, twelve works for large orchestra as well as more than sixty instrumental combination pieces (Kulenty 2016). Kulenty's compositions span a wide range of genres, including solo instrument, small and large chamber groups, large orchestra, opera, television play and film music, and has debuted at festivals in various countries, such as the Huddersfield Festival, Schleswig-Holstein Musik Festival, Munich Biennale, Warsaw Autumn, Musica Polonica Nova and the Netherlands Music Days (Kulenty 2016). Many of her orchestral works have been performed by symphony orchestras located around the world, including those in Denmark, Germany, Holland and Poland, with various conductors including Peter Eötvös (1944- , Hungary), Peter Hirsch (1956- , Cologne, Germany), Ingo Metzmacher (1957- , Hanover, Germany), David Porcelijn (1947- , the Netherlands), Renato Rivolta (Italy), Antoni Wit (1944- , Poland), and Ronald Zollman (1950- , Belgium) (Kulenty 2016). Numerous soloists have performed her compositions, such as Krzysztof Bąkowski (Poland), Marco Blaauw (1965- , trumpeter from the Netherlands), Elźbieta Chojnacka (1939- , harpsichordist originally from Poland and now residing in France), Frank Peters (pianist from the Netherlands) and Isabelle van Keulen (1966- , violinist and viola player from the Netherlands) (Kulenty 2016). Many of her works have also been performed by two well-known ensembles, De Ereprijs (from whom she received numerous commissions; based in the Netherlands) and the Kronos Quartet (who commissioned her fourth and fifth string quartets; based in the United States of America) (Kulenty 2016). The sole publisher of Kulenty's works is Donemus, a publishing house in The Netherlands (Kulenty 2016).

2.6. Compositional style

Trochimczyk (1995) notes that Kulenty's style of composing has transformed over time. In her early compositions, Kulenty makes use of various concurrent arches that are layered (Trochimczyk 1995). Trochimczyk (1995) describes more clearly that each of the arches are established at a unique emotional point and each progresses at their own pace. On Kulenty's

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website (Kulenty 2016), under the short biography section, it is explained as follows: an arch-like structure is used to articulate the "intensity curve or energy" of a specific design.

In her more recent works, Kulenty describes her own compositional technique as a 'polyphony of time dimensions', maintaining that the emphasis is placed on the recurring movement of time and on concurrent time-events that take place in various temporal dimensions (Kulenty 2016). Strzelecki (2008:157) describes it in a much simpler fashion as smaller segments that are derived from the same sound material/s which are presented together, each with its own tempo. Ultimately, as noted by Strzelecki (2008:158), this suggests that time is experienced in a meditative state rather than inhibiting the experience to recognisable motives.

Kulenty favours writing for the symphony orchestra as it has a lush sound palette (Trochimczyk 1995). This is mainly due to the wider range of instruments required by her larger compositions, such as the two symphonies, the piano concerto and the violin concerto (Trochimczyk 1995). Her orchestral writing has regularly been related to that of Penderecki (1933-) and/or Xenakis (1922-2001) (Trochimczyk 1995). According to Trochimczyk (1995), her compositions are equally dramatic and expressive, with driving rhythms. More recently, however, she has composed mainly for the stage and for chamber groups (Kulenty 2016; Trochimczyk 1995). In the former, she expresses her fondness for expressiveness (Kulenty 2016). Trochimczyk (1995) notes that Kulenty acknowledges her instinct as well as the subconscious, maintaining that these are the foundation for the ominous sonorities and fascinating, yet alluring, intensely emotional state of her compositions.

According to Sobkowska (2004:31), Kulenty's compositional idiom comprise percussive rhythms, ostinatos, the layering or sequencing of musical phrases, frequent glissandos and the use of quarter tones. Dees (2004:122) adds that Kulenty also incorporates arpeggios and motives that repeat or recur whilst maintaining a feeling of forward motion in her writing. Furthermore, noted by Sobkowska (2004:31), influences of minimalism and jazz are evident in several of her works.

Strzelecki (2008:157) maintains that

> Hanna Kulenty's compositional portfolio is a testimony to the long artistic path she has taken in search of an individual poetic language, her own style and original compositional techniques.

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2.7. Conclusion

In October 2008, Polish director and screenwriter Łukasz Barczyk (1974-) (Culture.pl 2015) emphasised that:

> Hanna's music is a rare combination of madness and precision, chaos and order, passion and composure, pain and consolation, modernity and classic. And it doesn't remind me of any other kind of music. I adore it. (Kulenty 2016)

Hanna Kulenty has been composing for more than 30 years, received numerous commissions and awards, has featured as a guest lecturer at various institutions and conferences, held positions at various tertiary institutions and has created a hefty oeuvre. Her compositions span a wide range of works including solo instrumental works, operas, small and large chamber works, orchestral works, film scores and more. She experiments and incorporates various elements and devices (such as the tape) into her compositions. In her earlier compositions, she makes use of different layers of arches in order to express the intensity within a curve structure, thereby maintaining a permanent tension. However, in her more recent works, Kulenty makes use of emotional intensity as well as her self-declared polyphony of time dimensions (Kulenty 2016).

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Chapter 3

List of compositions

3.1. Introduction

Hanna Kulenty's oeuvre comprises various genres, ranging from music composed for ballet to solo instrumental pieces. In this chapter, the researcher made use of Kulenty (2016), Thomas (2001) and Warsaw Autumn (2016) in order to compile a complete list of compositions that Kulenty has composed throughout her career. The duration of each recording was obtained either from YouTube recordings (Hanna Kulenty) or from Kulenty (2016)

3.2. List of compositions

The following list of compositions is arranged by order of date of publication, name of composition, instrumentation, where required, the source of commission as well as the duration.

Acronyms and abbreviations used within this list:

- FST (Fonds voor de Scheppende Toonkunst, Netherlands) which amalgamated with the FPPM (Fonds voor Podiumprogrammering en Marketing) and the FAPK (Fonds voor Amateurkunst en Podiumkunsten) into the NFPK (Nederlands Fonds voor Podiumkunsten | Performing Arts Fund, Netherlands)
- PWM (Polskie Wydawnictwo Muzyczne | Polish Music Publishing House, Kraków)
- CNDO (Centre for New Dance Development)
- CoMa (Contemporary Music for All)
- NL (Netherlands)
- PL (Poland)
- ENG (England)
- UK (United Kingdom)

1983: *Three Minutes for the Double Bass* – double bass solo (3′)

1984: *Prośba o Słońce* | Request for the Sun – electroacoustic tape (composed in 1983) (7′)
String Quartet No. 1 – *The Song for String Quartet* (commissioned by the Ministry of Culture and Arts, PL; composed in 1983) (12′)

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1985: *Przypowieść o ziarnie* | Parable on grain – chamber opera / monodrama for contra-alto, flute, violin, double bass, percussion and tape (composed in 1984) (35′)
Ad unum – symphony orchestra (15′42″)
Sesto – piano solo (8′05″)
Still Life with a Violin – violin solo (commissioned by the National Museum, Warsaw) (3′37″)

1986: *Quatro* – chamber orchestra (18′)
Arci – percussion solo (commissioned by Stanisław Skoczyński) (13′05″)
Symphony No. 1 – symphony orchestra (15′38″)
Quinto – two pianos (9′49″)

1987: *Ride* – six percussionists (17′06″)
Symphony No. 2 – symphony orchestra, mixed choir (commissioned by Sender Freies Berlin) (16′57″)
Breathe – string orchestra (12′51″)

1988: *Arcus* – three percussionists (21′03″)
Cannon – violin and piano (11′02″)
Souvenir from a Sanatorium – computer music (9′)
One by One – marimba solo (8′12″)
aaa TRE – viola, cello and double bass (11′)

1989: *Perpetuus* – ensemble (commissioned by the ensemble De Ereprijs) (9′53″)
Trigon – chamber orchestra (commissioned by the Rotterdamse Kunststichting) (11′54″)

1990: Piano Concerto No. 1 – piano and ensemble (commissioned by the ensemble De Ereprijs / FST) (17′56″)

1991: String Quartet No. 2 (commissioned by the Ministry of Culture and Arts, PL / Huddersfield Festival, ENG) (12′38″)
Piano Concerto No. 2 – piano and orchestra (29′06″)
Air – ensemble (commissioned by the Orkest de Volharding/Amsterdamse Kunststichting, NL) (11′10″)
E for E – harpsichord solo (commissioned by the Ministry of Culture and Arts, PL) (6′26″)

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1992: *A few minutes for Ereprijs* – ensemble (2′)
Violin Concerto No. 1 – violin and ensemble (commissioned by the ensemble De Ereprijs / School of Dance CNDO) (25′57″)
Passacaglia – chamber orchestra (commissioned by Tage der Zeitgenössische Musik, Dresden) (10′55″)
Cadenza – violin solo with delay (8′02″)

1993: *Still Life with a Cello* – cello solo (commissioned by the Schleswig-Holstein Festival) (3′59″)
Violin Concerto No. 1 (orch. 1993) – violin with delay and symphony orchestra (commissioned by FST) (25′14″)
Sinequan – cello solo with optional delay (commissioned by FST) (7′05″)
Sinequan (rev. 1993) – cello solo with delay (commissioned by FST) (7′)
A Cradle Song – violin, cello and piano (commissioned by the Conservatory of Music, Arnhem, NL) (10′06″)

1994: *Lysanxia* – gamelan and tape (commissioned by the Gending Ensemble, Utrecht / FST) (18′14″)
Sinequan Forte A – amplified cello solo with delay and orchestra (commissioned by FST) (17′)
A Fourth Circle – violin (or viola/cello) and piano (commissioned by FST) (19′05″)
A Fifth Circle – alto flute with delay (commissioned by Carine Levine / FST) (8′02″)
Sinequan Forte B – amplified cello solo with delay and chamber orchestra (commissioned by Radio Kamer Orkest / FST) (16′58″)

1995: *A Sixth Circle* – trumpet and piano (commissioned by FST) (13′47″)
Going Up 1 – violin and double bass (commissioned by FST) (10′)
Going Up 2 – ensemble (commissioned by FST) (9′53″)
The Mother of Black-Winged Dreams – opera in one act (libretto by Paul Goodman; commissioned by the Munich Biennale) (90′)

1996: *Blattinus* – saxophone quartet (commissioned by the Sirinks Saxophone Quartet / FST) (14′12″)
A Third Circle – piano solo (commissioned by Kees Wieringa / FST) (7′33″)
Violin Concerto No. 2 – violin and orchestra (commissioned by FST) (14′50″)

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Sierra – violin and cello (commissioned by the Munich Biennale) (9′51″)

1997: *Elfen ballet music* – ensemble (commissioned by the Academy of Dance, Arnhem / FST) (22′)
Waiting for… – voice and piano (commissioned by FST) (5′36″)
Certus – chamber orchestra (commissioned by the Asko|Schönberg Ensemble / FST) (15′)

1998: *Part One* – orchestra (commissioned by Het Gelders Orkest / FST) (10′52″)
Stretto – flute, clarinet, cello and guitar (commissioned by Warsaw Autumn / FST) (8′)
Rapidus – saxophone quartet (commissioned by FST) (8′)

1999: *Harmonium* – harmonium solo (commissioned by Dirk Luijmes / FST) (7′43″)
MM-blues – two pianos and two percussions (commissioned by Polish Radio 2, Warsaw) (8′32″)

2000: *Decimo* – choir and six voices (commissioned by the Arnhem Choir Festival 2000, NL) (15′)
Symphony No. 3 – symphony orchestra (commissioned by Het Gelders Orkest / FST) (40′)
Drive Blues – piano solo (commissioned by Marcel Worms / FST) (5′14″)

2001: Flute Concerto No. 1 – flute (amplified, delay) and chamber orchestra (commissioned by the ensemble De Ereprijs / FST) (19′45″)
Asjaawaa – mezzo soprano, flute, harp, piano, percussion and electronics (commissioned by WireWorks / FST) (15′)
Crossing Lines – violin, clarinet and piano (commissioned by the Bavarian State Opera) (12′18″)

2002: Trumpet Concerto No. 1 – trumpet solo and symphony orchestra (commissioned by Polish Radio 2 / FST) (23′38″)

2003: *Hoffmanniana* – opera in two acts (libretto by Erik Aufderheyde; commissioned by Theater zum Westlichen Stadthirschen, Berlin / FST) (126′)
Piano Concerto No. 3 – piano and orchestra (commissioned by FST) (25′22″)
Rainbow 3 – piano and two wind instruments (commissioned by Kaida Trio / Stichting Vrouw en Muziek, NL) (12′27″)

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2004: *Mezzo Tango* – brass band (commissioned by FST) (10′)
Postcard from Europe – ensemble (commissioned by the Gemeente Apeldoorn, NL) (5′31″)
Run – flute and piano (commissioned by Eleonore Pameijer, Marcel Worms / FST) (8′37″)
Brass No. 1 – trumpet solo (commissioned by Marco Blaauw / FST) (9′55″)

2005: *Mezzo Tango 2* – ensemble (commissioned by the ensemble De Ereprijs / FST) (11′)
Brass No. 2 – horn and trumpet (commissioned by Marco Blaauw / FST) (9′)
Brass No. 3 – horn or trumpet solo (commissioned by Marco Blaauw / FST) (9′)

2006: *Island* – stage work for trumpet solo, voice, ensemble and tape (text by Robert Munsch; commissioned by the ensemble De Ereprijs / FST) (27′56″)
Tell me about it 1 – clarinet, cello, trombone and piano (commissioned by the Nostrom Trio) (8′41″)
Tell me about it 2 – bass clarinet, cello, trombone and double bass (commissioned the by Warsaw Autumn Festival) (2′)

2007: String Quartet No. 3 – *Tell me about it* (commissioned by Zephyr Quartet / FST; composed in 2006) (6′28″)
Preludium and Psalm – harmonium solo or another solo keyboard instrument (commissioned by Dirk Luijmes / FST) (3′30″)
Preludium, Postludium and Psalm – cello and accordion (commissioned by the Internationaal Kamermuziekfestival Schiermonnikoog) (12′52″)
Kisses & Crosses – piano and percussion (commissioned by Frank Peters, Arnold Marinussen / FST) (12′22″)
String Quartet No. 4 – *A Cradle Song* (commissioned by Mrs. Ralph I. Dorfman for the Kronos Quartet, NFPK) (15′30″)
Brass No. 4 – tuba solo or other brass instrument (commissioned by Marco Blaauw / FST) (10′)

2008: *Lost & Found – twenty five* – ballet music for ensemble and tape (commissioned by the ensemble De Ereprijs / NFPK) (92′)
Walc z Lost & Found – twenty five – piano and trumpet

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2009: *Walc in A* – piano
Sugar-Fela Tango – piano and four instruments (commissioned by CoMA, UK) (5′)
G for G – harpsichord solo (commissioned by Goska Isphording, NFPK) (10′)
GG Concerto – harpsichord and string orchestra (commissioned by "Leopoldinum", NFPK) (21′38″)

2010: *Twenty-five* – symphony orchestra (commissioned by the Warsaw Autumn Festival) (22′20″)
Music for Roy – mixed choir and chamber orchestra (commissioned by Dr. Watkins Film Studio, Warsaw) (11′32″)
Decimo Forte – choir and ensemble (commissioned by the Asko|Schönberg Ensemble, Nederlands Kamerkoor, NFPK) (17′19″)

2011: String Quartet No. 5 (commissioned by the Kronos Quartet, NFPK) (13′47″)
E-motions – accordion, string orchestra and percussion (commissioned by the Performing Arts Fund, NL) (25′27″)

2012: *Cembalo Uno* – harpsichord solo (commissioned by the Performing Arts Fund, NL) (12′)

2013: *Emotionsolo* – accordion solo (commissioned by the Performing Arts Fund, NL) (15′)
Viola-Viva – viola and chamber orchestra (commissioned by the Asko|Schönberg Ensemble, Performing Arts Fund, NL) (14′19″)
String Quintet No. 1 – *Five for Five* (13′38″)
Smokey Eyes – double trio (two pianos, saxophone, flute, and two drum kits; commissioned by the Third Ear Music and the Adam Mickiewicz Institute) (16′21″)

2014: *Van…* – piano with four hands / two pianos (commissioned by the Embassy of the Kingdom of the Netherlands in Warsaw, on the occasion of the State Visit of King Willem-Alexander and Queen Máxima of the Netherlands) (5′33″)
Trumpet Concerto No. 3 – trumpet solo and symphony orchestra (commissioned by the Polish Ministry of Culture and National Heritage) (24′11″)
String Quartet No. 6 (commissioned by De Doelen, Rotterdam / Wigmore Hall London) (22′52″)

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2015: Saxophone Concerto No. 1 – saxophone solo and symphony orchestra (26′04″)
Viola concerto No. 1 – viola solo and symphony orchestra (commissioned by De Doelen, Rotterdam) (24′58″)

3.3. Conclusion

Hanna Kulenty has been composing actively since 1983, a mere 33 years, and yet her compositional approach is constantly developing. With each composition, Kulenty establishes herself more firmly among other composers of the twentieth and twenty-first centuries.

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Chapter 4

Post-tonal music: Music in the twentieth and twenty-first centuries

4.1. Introduction

Music, described by Auner (2013:xv), is not merely the notes written in a score or the recording of sounds that one listens to, but is rather the direct result of people and institutions who, in their specific era and environment, create these sounds.

Hall (1996:1) describes the twentieth century as "the most violent in human history" although it started off quite calm. By the turn of the century (into the 1900s), the bourgeoisie still reigned and the musical style, as it had been for the last ninety years, was still very much Romantic (Hall 1996:1). The economy was at a high as industry and technology were continually developing, markets were thriving and the working classes were affluent (Hall 1996:1). Along with the new century came new developments and progress in various fields: in transport – the automobile and the aeroplane, in communication – the telephone and wireless telegraph, in household – the vacuum cleaner, and in entertainment – the cinema and gramophone record; all of which brought about a "sense of a bright new future" (Hall 1996:1).

In the field of psychology, the two pioneers Sigmund Freud (1856-1939) and Carl Jung (1875-1961) theorised that the stability and rationality of the mind/consciousness was still questionable (Hall 1996:2). The peculiar and illogical disposition of the subconscious played an equally significant role in human demeanour as in consciousness (Hall 1996:2). Ultimately, the understanding was that unexplored territories in the subconscious, important to our existence, are what brought about the novel tendencies in all arenas of the arts during the early years of the twentieth century (1900-1914) (Hall 1996:2). Cubism was the first of these new movements, developed in 1906, and is explained by Hall (1996:3) as an art form where volumes are projected on a plane.

As for the field of music, various eighteenth century musical developments had fragmented into smaller segments by the end of the 1800s, with a distinct and irrevocable divide between classical and contemporary (popular) music (Burkholder et al. 2010:768). By the twentieth century, in the realm of popular music, many new genres had and were still developed, such as ragtime, jazz, musicals, film music, rock, rap and many more (Burkholder et al. 2010:771). In the classical

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sphere, various composers either continued to write traditional tonal works or formulated and constructed unique procedures of arranging pitch material that ultimately created atonality, polytonality, neotonality and twelve-tone methods (Burkholder et al. 2010:771).

Nationalistic traits and characteristics were also popular with many composers, such as Gabriel Fauré (1845-1924), Antonín Dvořák (1841-1904) and Edvard Grieg (1843-1907), who wanted to maintain their position in the new century (Burkholder et al. 2010:769). Burkholder et al. (2010:769) note that musicians (especially performers), concert goers and critics often favoured compositions that presented and incorporated a unique character and that ultimately, this tendency continued firmly into the twentieth century.

There were other composers who desired to explore the non-traditional realm, such as Arnold Schoenberg (1874-1951) who had completely discarded the established practices of the tonal system by the first decade of the twentieth century (Hall 1996:3). For the individual, harmony with the self and the universe, whilst maintaining expressiveness and determination, took precedence (Hall 1996:3). Tonality (music created during the tonal period), defined more in detail in the succeeding sections, supplied a secure foundation for this ideology (Hall 1996:3). Those who desperately wanted to perceive human experience/s from a different point of view found it difficult to reconcile the two styles (Hall 1996:3). However, Hall (1996:3) notes, it was not the unique and innovative compositions of Schoenberg and Igor Stravinsky (1882-1971) that brought about the drastic changes in the new century, but rather the pandemonium of the First World War (1914-1918), the latter being responsible for the ultimate conclusion of Romanticism (Hall 1996:3).

This chapter firstly provides a basic timeline of musical development during the twentieth and twenty-first centuries and secondly provides a summary of tonal music (music from 1600-1900) before briefly discussing the development that music underwent during the post-tonal era (twentieth and twenty-first centuries) with reference to rhythm, melody, harmony, texture and form.

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4.2. Timeline

This timeline provides a synopsis of musical development during the twentieth and twenty-first centuries. For the purpose of this study, the focus of this timeline is mainly on the classical sphere in music during the post-tonal era.

- **The early twentieth century**

The first decade of the twentieth century was characterised by large stately symphonies: Gustav Mahler's (1860-1911) Symphony No. 8 (1906) with its immense vocal and instrumental presence, Jean Sibelius' (1865-1957) folk-like Symphony No. 3 (1907) that was supported by great orchestral power and Edward Elgar's (1857-1934) Symphony No. 1 (1908), which comprised a stately melodic line above a marching bass line (Spencer 2016).

In 1909, some of the first atonal pieces were composed by Arnold Schoenberg (*You lean against a silver-willow* from the song cycle *Das Buch der Hängenden Gärten*, Op. 15, and *3 Pieces* for pianoforte, Op. 11) (Kennedy & Kennedy 2007:667) and Béla Bartók (1881-1945) (*85 Pieces for Children*, folk tunes for solo piano) (Kennedy & Kennedy 2007:52).

The political environment of the early twentieth century became progressively more hostile and the majestic and visionary symphonies of the day often appeared ill-suited (Spencer 2016). Numerous musicians and composers, including Schoenberg, Alban Berg (1885-1935) and Anton Webern (1883-1945), rebelled against the ruling authority (conservatives) and intended to return music to its spartan origin (Spencer 2016). By 1910, these composers had developed a method, known as Serialism, by placing every note of the chromatic scale (12 notes within the octave) in a specific order and thereby producing music regulated by mathematical practices (Spencer 2016). Compositions such as Schoenberg's *Pierrot Lunaire* (1912) and *Variations for Orchestra* (1926-28) are prime examples of this new style (Spencer 2016).

In 1917, during the First World War (1914-1918), the most influential genre that developed was jazz, with the first recording of the Original Dixieland Jazz Band (Hall 1996:5), and by 1919 neoclassical trends became popular (Hall 1996:7). Neoclassicism, explained by Kennedy and Kennedy (2007:526), developed as a response to the large and often dramatic orchestration/s of the late Romantic era in which composers adopted and included Baroque and Classical genres and structures in many of their compositions.

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On 29 October 1929, the United States Stock Market crashed (also known as the Wall Street crash or Black Tuesday), unleashing the Great Depression that was experienced worldwide (Hall 1996:11). This not only led to the closing of numerous American banks but also to an international recall of all American offshore investments; all of which culminated in trade recession, the demise of numerous factories and unemployment that skyrocketed (Hall 1996:12).

Hall (1996:15) notes that during the 1930s, composer Igor Stravinsky was considered a doyen among musicians, playing a significant role in the musical development and works of the younger generation of composers such as Benjamin Britten (1913-1976), Elliott Carter (1908-2012), Olivier Messiaen (1908-1992) and Michael Tippett (1905-1998).

In Germany and Russia, totalitarian and communist ideals were adopted, and not even the arts escaped (Hall 1996:13). Auner (2013:172) maintains that the Second World War (1939-1945) was the most calamitous battle in the history of mankind, as more than 40 million people succumbed to its brutality: Germany's Adolf Hitler (1889-1945) and his ruling Nazi Party were held accountable not only for the methodical massacre of at least six million Jews, but also thousands of non-Jewish victims including the Roma gypsies, homosexuals and any political opponents (Auner 2013:172). Russia's Joseph Stalin (1878-1953) and his Communist Party ordered the murders of millions of Soviet Gulag slaves; ultimately, in this battle for power, many European, Asian and Middle Eastern villages and cities were extinguished (Auner 2013:172). The Second World War was characterised by unprecedented levels of economic privation, ethnic genocide and intermittent acts of vengeance (Auner 2013:172). After the war, the primary challenge was not accepting the atrocious eradication of human lives and environmental carnage, but rather the need to forget, incarcerate, condone or conceal the conduct of war criminals and their accomplices (Auner 2013:174).

Hall (1996:16) sums up the state of music after both World Wars:

> Established composers continued to pursue the style they had previously found for themselves, while those who were up and coming struck out on new paths.

Auner (2013:190) explains that the end of the war brought about two diverse pathways: many sought out rationality, control and/or structure by extending the twelve-tone method whilst others abandoned the idea of control and took advantage of the freedom provided by aleatory

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procedures[1] (with integral serialism and indeterminacy). According to Hall (1996:16), it became apparent that the younger generation, during the late 1940s specifically, embraced an impartial approach which was similar to that taken after the First World War. It became important for the composers to repress their individual identity (which became the new ideal), thus leading to the development of various methods to create music automatically (Hall 1996:16).

In Europe, this was realised through Schoenberg's previously developed twelve-tone method (Hall 1996:16). This method was devised to establish a prevalent identity between the melodic and harmonic characteristics in an atonal work (Hall 1996:17). Ultimately, it was successful only in establishing unity, but inevitably limited autonomy in the selection process (Hall 1996:17). For the mid twentieth century composer it became increasingly important that the selection process be removed (Hall 1996:17). Essentially, the twelve-tone method ensured that serial music appeared logically consistent in theory, while sounding completely random (Hall 1996:17).

- **The mid twentieth century**

The Cold War (1947-1991) brought about a struggle between capitalist and communist ideals (Auner 2013:181). Both liberal and conservative factions employed and exploited the arts in order to showcase the vigour of their cultures (Auner 2013:182). According to Auner (2013:181), many of the doctrines adopted during the Cold War influenced various traits of musical development, such as the

> …emphasis on technological progress, the massive investment in universities and research as well as the attraction of scientific models for creating and writing about music.

By the 1950s, progress made in the field of electronics greatly influenced the avant garde[2] movement in its establishment of artificial universes (Hall 1996:17). In many of the avant garde compositions, such as those by Pierre Boulez (1925-2016), Karlheinz Stockhausen (1928-2007) and many others, the composer remained the influential factor – determining the original material as well as the methods implemented to create a structure (Hall 1996:18). However, according to

[1] Aleatory procedures/operations (or indeterminacy) constitute the rolling of dice or the dropping of a pin (Kennedy & Kennedy 2007:13).
[2] Avant garde, according to Burkholder et al. (2010: A2) and Kennedy and Kennedy (2007:34), is a term applied to music and art. It signifies the extreme retreat from established practices that many composers (including Stockhausen) and artists alike made during the twentieth century (Kennedy & Kennedy 2007:34). Furthermore, it is a term that expresses the "iconoclastic, irreverent, antagonistic and nihilistic" ideals that so many composers and artists desired to achieve during the twentieth century (Burkholder et al. 2010: A2).

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Hall (1996:18), this was still too conservative. Composer John Cage (1912-1992) took it to the extreme, making use of and depending solely on aleatory processes (Hall 1996:19). Cage adopted the Asian philosophy:

> Our business in living is to become fluent with the life we are living, and art can help this (Auner 2013:208).

During the 1950s and 1960s, Cage's ideas and ideals were predominantly influential and ultimately paved the way for the Minimalist movement that dominated in the United States (Hall 1996:19). It was a movement where many sought to combine art with everyday life (Auner 2013:208). The foundation of Minimalism comprised the use of repetition whilst the objective of the Minimalist movement was to create a method that would "enable the work to write itself", whilst ensuring that the end result (the method and music created) remained simple (Hall 1996:19).

During the early years of the 1950s, guitarist Les Paul (1915-2009) created the first multitrack tape machine which enabled musicians to record separate layers of music (Auner 2013:218). The magnetic tape (developed in 1928), however, continued to be the leading analogue and digital information storage medium throughout the 1970s (Auner 2013:218).

Audio and video technology also improved dramatically and soon became household items (Auner 2013:218). By the 1940s, the long-playing record (LP) gained popularity and by the early 1960s stereo LPs were the most common (Auner 2013:218). During the 1950s, television made its way into the home and by the end of the 1960s, colour television had triumphed over radio as the preferred medium for musical performance (Auner 2013:218).

With the advancement of electronic music came different labels for this new form of art: in Germany, *Elektronische Musik* defined the production and modification of sound by means of electronic devices; in France, *Musique Concrète* (concrete, tangible or material music) described the manipulation of pre-recorded sounds and in the United States, *Tape Music* referred to sounds that were recorded and produced electronically (Auner 2013:214).

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In 1958, German composer Karlheinz Stockhausen explained, in Auner (2013:213), that

> …we [composers] realized (sic) that the historical development of instruments was closely linked with a music which was no longer ours.

He maintained, in Auner (2013:213), that it was crucial for composers to

> …break with music from the first half of the twentieth century not only in terms of harmonic and melodic structure, but even in regard to the sounds themselves.

By the 1960s, a new collection of norms had developed (Auner 2013:170). Advances in the fields of science and technology inspired composers to produce music autonomously, incorporating features of aleatory and indeterminacy (Auner 2013:170). During the 1960s and 1970s, many composers wished to express a more politically inclined role through their music (Auner 2013:261). The main goal was to break free from established practices and subjectivity and this was attained by exploring and exceeding the boundaries of control and freedom (Auner 2013:171).

During the middle to later decades of the twentieth century, composers within the classical sphere confronted a different reality (Burkholder et al. 2010:975). Burkholder et al. (2010:975) explain that numerous composers had the opportunity to earn a decent income lecturing at tertiary institutions, however, securing and maintaining performances of and for their compositions became all the more challenging. More often than not, gaining a commission would require less effort than guaranteeing more than one performance of the same composition (Burkholder et al. 2010:975). Burkholder et al. (2010:975) maintain that only selected works are enrolled as repertoire and not many listeners listened to a work more than once.

Nevertheless, Burkholder et al. (2010:975) note that during a period when music was thriving (increasing in the amount of compositions produced and becoming more accessible), the classical concert goers were becoming fewer. Several composers saw this as the necessary "price of artistic freedom" and carried on composing as they had previously. One such composer was Milton Babbitt (1916-2011), whose extensions of serialism (including the development of 'superarrays'[3]

[3] Superarrays, also known as "multidimensional constructs" (Morris 2007:78), refer to the use of more than one array in a structure or work. Riker describes an array as an accompanying, pre-compositional combined structure. Composer Milton Babbitt employed all musical aspects (including dynamics, rhythm, timbre, register and duration) serially, whereas Schoenberg had exclusively employed the pitch set (Hartsock 2002:17). Babbitt made use of

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of interrelated rows during the 1980s) received much acclaim (Burkholder et al. 2010:975). Various other composers wanted to appeal to a greater variety of audience members by composing works that were understandable or accessible on first hearing, such as Steve Reich (1936-), Philip Glass (1937-) and John Adams (1947-), who opted for minimalism (Burkholder et al. 2010:976). According to Burkholder et al. (2010:976) other composers made use of various methods which were often paired together:

> …modifying their modernist idiom to make it more accessible; radically simplifying their material and procedures; invoking extramusical meanings and imagery; quoting from and alluding to past styles; resurrecting nineteenth century tonal Romanticism; and incorporating elements of popular music.

- **The late twentieth and early twenty-first centuries**

Moving "beyond Minimalism" (from the 1980s up to 2010), music composed during this period further displays and demonstrates the vast expansion of compositional styles, approaches and features (Kostka 2006:307). Following the Minimalist movement, experimental music together with its various forms (situation and circumstance music, soundscapes, biomusic and antimusic) became popular (Cope 1997:222). Later, even the decategorisation process (eclecticism[4], quoting, sectionalisation, overlay and integration) gained popularity (Cope 1997:230).

The ever-growing advancement of technology led to the establishment of recording studios and recording equipment with the ability to reproduce sound on a tape (Auner 2013:218), synthesisers[5] (Auner 2013:224) and computer-generated music (Auner 2013:228). By the 1950s, the recordings already displayed detailed awareness of the individual sound of each instrument and many included the use of artificial reverberation and other fascinating sound effects (Auner 2013:221). Various production aspects became important features, such as modifying the tone colours of voices and/or instruments, employing effects such as (but not limited to) reverberation, and the specific effects created by sending different channels of music to different speakers (Auner 2013:221).

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mathematical terminology within his compositions, including array, combinatoriality, aggregate, set and source set (Hartsock 2002:17).

[4] Eclecticism is a musical term that refers to a composer's specific or deliberate use of genres dissimilar to their own style (Kennedy & Kennedy 2007:225).

[5] A synthesiser, defined by Auner (2013:225), is a set of electronic modules that enables one to produce a sound from the onset. By the early 1960s, Robert Moog (1934-2005), Herbert Deutsch (1932-), Donald Buchla (1937-) and Morton Subotnick (1933-), developed and produced some of the first commercial synthesisers for use in electronic music studios (Auner 2013:226).

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The new challenge faced by composers who made use of electronically generated music in their compositions was the representation and analysis of compositions in which traditional notation was absent (Auner 2013:223). Furthermore, Auner (2013:223) maintains that traditional notation could not accurately represent the fundamental aspects of timbre, texture and spatial location that were required by both *musique concrète* and synthesised music. According to Auner (2013:224), the

> …attempt to divorce sounds from their traditional contexts or meanings recalls the strand of post-war Modernist thought that sought separation from artistic conventions, everyday life, mass culture, and commercial or political function.

Furthermore, the relentless strain between the origin of sound and the treatment thereof became a unique characteristic of *musique concrète* (Auner 2013:224).

By the end of the 1950s, engineer-musician Max Matthews (1926-2011) developed a programming language that could produce sounds digitally and then transfer the digital information into an analogue signal which could then be amplified and conveyed to a loudspeaker (Auner 2013:229). By 1961, Matthews' ingenuity resulted in a computer-synthesised voice singing the well-known *Daisy Bell*[6] (Auner 2013:229). By the 1970s, composers at tertiary institutions had developed computer-based systems (such as the Frequency Modulation synthesis by John Chowning (1934-) at Stanford University) and thereafter, large corporations (such as Yamaha) quickly became interested in computer-generated music (Auner 2013:229).

In 1982 the 'E-mu' Emulator was the first commercial sampling keyboard that produced sounds by means of recording and then converting them (Auner 2013:230). This ultimately made it difficult to distinguish *musique concrète* and synthesised music from one another (Auner2013:230). In 1983, the MIDI (Music Instrument Digital Interface) standard was established which permitted the interaction of various manufacturers' appliances (such as computers, synthesisers and keyboards) (Auner 2013:230).

Burkholder et al. (2010:966) note that film music has greatly influenced the motion picture era (from the beginning in the 1890s), with silent films which were always accompanied either by a piano or orchestra. In the last 40 years, however, the significance and value of film music have

[6] The famous song, *Daisy Bell* (*Bicycle built for two*), was written by Harry Dacre (1857-1922) in 1892 (Wethington 2016).

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increased tremendously (Burkholder et al. 2010:966). Auner (2013:302) maintains that film music has obscured the divide between classical and popular music. Film soundtracks, especially symphonic movie soundtracks, including Star Wars (1977), E.T. (1982), Lord of the Rings (2001-2003) and Harry Potter (2001-2011), all achieved instant success and sold millions of recordings (Burkholder et al. 2010:966). This ultimately increased the prominence of film composers (Burkholder et al. 2010:966). Composers made use of various styles and genres within their compositions, often referred to as 'polystylism' – defined by Burkholder et al. (2010:980) as an amalgamation of diverse (past and present) styles and genres.

Burkholder et al. (2010:950) maintain that no matter what instruments composers selected for their compositions (new, traditional, modified, non-Western, electronic or tape instruments), making use of new sounds meant that composers had to find novel ways of integrating new materials into their compositions. The wide variety of options that became available to early twentieth century composers, such as the pitch materials of Schoenberg's twelve-tone compositions to Edgar Varèse's (1883-1965) employment of sound-masses, made an impact on and encouraged the younger composers to investigate these and other prospects (Burkholder et al. 2010:952). However, Burkholder et al. (2010:952) note that many of these compositions

> …require listeners to forego traditional expectations for melody, harmony and form and to engage each work instead as an experience of sound itself.

According to Burkholder et al. (2010:952), these works necessitated new thinking regarding the composition/s as a whole from both the audience and the composer/s. Burkholder et al. (2010:952) explain that the controversy and new observations they evoked are often some of the key components that others have admired.

Burkholder et al. (2010:984) note that by the 1990s many composers wanted to compose music that was accessible to unfamiliar listeners. This was achieved by using familiar styles and materials derived from the complete spectrum of music history and popular genres (including world music) (Burkholder et al. 2010:985). To create a uniquely new experience for the audience, composers devised creative ways of combining the already recognisable material (Burkholder et al. 2010:985). Nevertheless, many composers strove to maintain individualism, which was highly regarded at the time, whilst searching to restore the music's allure that some composers had abandoned (Burkholder et al. 2010:985).

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In the forty years following 1970, the established practices of Western music continued diverging (Burkholder et al. 2010:957). According to Burkholder et al. (2010:957), many new establishments and institutions were founded to conserve both the history of jazz and popular music and other new styles of music (such as punk and rap) that developed and brought about new functions. The world of technology expanded, with computers and digital synthesisers allowing electronic music to form part of classical and popular compositions (Burkholder et al. 2010:957). Furthermore, Burkholder et al. (2010:957) explain that

> …new forms of mixed media challenged old distinctions between art and popular music and between music theatre, dance and other arts.

Moreover, the blending of styles/genres/arts led to many new discoveries and different musical collaborations (Auner 2013:300). In 1998, John Adams stated that

> We are in a kind of post-style era… Composers my age and younger, we are not writing in one, highly defined, overarching expression, like Reich or Luciano Berio (1925-2003) would write (Auner (2013:300).

It is all the more important to note that even though many are insisting that things remain as they are, their conforming attitude and absolute power carry little weight (Auner 2013:300). On the other side of this scale, Auner (2013:300) believes that present-day composers should create and uphold an objective and meaning for their output without the assistance of established practices that permitted former generations to captivate and be discovered.

According to Auner (2013:301) the current period is delineated even further by the musical populace across established practices such as contemporary, folk and classical styles. In the twenty-first century, many composers are adept in various genres and the once distinct rank that delimited these classifications is gradually deteriorating (Auner 2013:301).

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4.3. Music from the tonal to post-tonal era

In order to better understand the development of music during the post-tonal era (the twentieth and twenty-first centuries), a synopsis of the tonal era (pre-twentieth century) is presented before exploring the changes that occurred during the twentieth and twenty-first centuries.

Cope (1997:12) notes that the tonal period, between 1600 and 1900, propagated a remarkably lush and intricate musical vocabulary, in which the foundation – tonality – remains a driving force in many of the popular genres of today. Hall (1996:3) describes tonality as "the system" where all is associated with the main chord (the tonic) of the specific key. One of the most important features of tonal compositions, as noted by Susanni and Antokoletz (2012:11), is the statement of the primary key at the beginning of a piece which may reappear at any time throughout the composition and ultimately, following certain modulations, returns at its end. Furthermore, in several large works with multiple movements, the primary key is usually employed in the first and last movements (Susanni & Antokoletz 2012:11). In tonal music, according to Deri (1968:23), the three basic principles of music, melody, rhythm and harmony, are almost always logically balanced, and, where possible, the melodic material is always infused with the remaining fundamentals.

By the turn of the century (1900), many composers felt that change was imminent and necessary (Auner 2013:2) as the beginning of Modernism brought about not only new trends but also the absolute renunciation of Romantic and Expressionist era ideals, as well as the rejection of progressive styles and genres that had thrived before the First World War (Auner 2013:4). Hungarian composer Bartók explained that "the excesses of the Romanticists [became] unbearable for many… and there [was] no other solution but a complete break with the nineteenth century", whilst French composer Varèse maintained that "we cannot, even if we would, live much longer by tradition… the world is changing, and we [should] change with it" (Auner 2013:2).

Auner (2013:2), Benjamin et al. (2008:181) and Burkholder et al. (2010:771) emphasise that there was no collective method or application of techniques in music during the twentieth century. Composers reassessed their fundamental hypotheses regarding music, creating striking new compositions (Burkholder et al. 2010:771). The music composed during this era (1900s) was exceptionally distinct in its various genres and approaches as composers made use of an assortment of elements and applications (Benjamin, Horvit & Nelson 2008:181).

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Auner (2013:2) further explains that composers and their compositions were categorised according to the various "-isms" of the time:

- Impressionism is defined as music that induces various states of mind and often represents scenes or depicts images by means of vivid harmonies and tone colours (Burkholder et al. 2010:A9). Palmer (2007:39) maintains that the Impressionists aimed to recreate the extraordinary (including but not limited to colour, light and landscapes).

- Exoticism, according to Burkholder et al. (2010:A7), is a nineteenth century style in which compositions inspired moods and scenes of faraway countries and their cultures.

- Primitivism is a musical style that embodies the primitive or elemental by means of applying the following aspects: pulsation (rather than meter), stagnant repetition, dissonances that are spontaneous and/or do not resolve, dull tone colours and various other approaches (Burkholder et al. 2010:A15).

- Symbolism, according to Palmer (2007:48), is a late nineteenth, early twentieth century phase where focus is placed on the expression of the emotional state of mind. Palmer (2007:39) further notes that contrary to the Impressionists, the Symbolists viewed nature more emotionally. A prominent trait of the music is "melodic purity" (Palmer 2007:45). Shaw (2005) maintains that Symbolists renounced the idea that art embodies the environment as it is perceived, but rather that it brings to mind structures, pictures or sounds which represent otherworldly notions and ultimately proposes an encounter of "truth, beauty or the idea beyond the material realm".

- Expressionism is an early twentieth century style that articulates profound individual emotion with extreme chromaticism and musical complexity (Burkholder et al. 2010:A7).

- Neoclassicism (1910-1950) is a movement where composers sought to rejuvenate, mimic and/or provoke the musical styles, genres and structures composed during the Classical era (1750-1830) (Burkholder et al. 2010:A12).

- Serialism is a style in music where the composer makes use of the twelve-tone method developed by Schoenberg (Burkholder et al. 2010:A17). Serial compositions comprise

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various musical fundamentals, where this same technique is extended to other non-pitch fundamentals (Burkholder et al. 2010:A17).

- Neo-romanticism, which developed later in the twentieth century, is a movement where compositions adopted the established tonal ideal of nineteenth century Romanticism and integrated its large and expressive sonorities and gestures (Burkholder et al. 2010:A12).

- Modernism, mainly referring to music written during the first half of the twentieth century, is a trend according to which numerous composers strove towards completely abandoning the musical vocabulary of the previous generations (Burkholder et al. 2010:A11). However, they upheld a close connection to established practices (Burkholder et al. 2010:A11).

- Futurism is a twentieth century tendency where composers produced music that was founded on noise (Burkholder et al. 2010:A8).

- Post-modernism developed in the second half of the twentieth century and represents a trend in the arts where all previous styles and genres were available for the artist to use (Burkholder et al. 2010:A15).

- Minimalism, according to Burkholder et al. (2010:A11), is regarded as one of the prominent genres of the latter half of the twentieth century. It is characterised by its minimal and simplified use of elements and approaches in order to make the basic musical idea instantly evident (Burkholder et al. 2010:A11). Furthermore, it comprises a fixed pulsation and numerous reiterations of uncomplicated rhythmic, melodic and/or harmonic motives (Burkholder et al. 2010:A11).

- Post-minimalism incorporates several approaches to minimalism in conjunction with established practices, diverse elements and more expression (Burkholder et al. 2010:A15).

Music created under the Austro-German rule (during the previous centuries) was confronted and questioned (Auner 2013:14). Composers welcomed into their musical vocabulary the “exciting and disruptive sounds” of different cultures, diverse communities, current styles of the day as well

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as noises of everyday city life (Auner 2013:14). Composers were also influenced by the scientific world and its revolutionary changes and innovations; many scientists and artists alike

> …grappled with new understandings of the immense spans of time and space through which we navigate in our daily lives, as well as the vast and mysterious expanses within our psyches (Auner 2013:14).

This ultimately led to the creation of other styles including experimental, spatial and electronic music as well as indeterminacy, aleatory and collage (Burkholder et al. 2010:771). Auner (2013:14) explains that

> …the cultural, social, and technological transformations of modernity, and the way these transformations unravelled established ways of living and thinking, brought not only anxiety and uncertainty but also the sense of rebirth, renewal, and new possibilities.

A summary of the development and various applications of key musical traits (rhythm, horizontal dimension, vertical dimension, texture and form) during the post-tonal era is provided below.

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4.3.1. Melody

Melody in the tonal era

Material perceived to be melodic comprises linear events (DeLone, Kliewer, Reisberg, Wennerstrom, Winold & Wittlich 1975:270). These 'events' are regarded as motives in which pitch and duration materials can be adjusted, and ultimately, this established practice remains a valuable force in the production of music in the post-tonal era. (DeLone et al. 1975:271).

Kostka (2006:76) notes that melodic material of the pre-twentieth century display a large amount of motivic unity by means of devices such as **repetition** (a motive or material that repeats consecutively), **return** (a motive or material that has been stated which returns at a different location in the piece – not consecutively), **sequence** (a motive or material that is restated at a higher or lower pitch – often in the same voice) and **inversion** (a motive or material that is stated in the inverted interval/s – if the stated melodic material goes up by an interval, the inverted material will go down by the same interval). Melodic material mainly proceeds in small intervals (such as seconds and thirds), however, when consecutive notes create larger intervals, they are often superseded by movement in the opposite direction (Kostka 2006:76). Here, the melodic line determines the fundamental harmonic outline (vertical dimension) (Kostka 2006:76). Moreover, every individual phrase consists of a climax that is usually found close to centre of the phrase (Kostka 2006:76).

1. The melodic line

According to Deri (1968:23), the composer of tonal music was mainly concerned with the design and sensible expansion of the melodic material. It was therefore best suited to create melodies and/or motives that were concise and unable to develop at a later stage (Deri 1968:23). These melodic lines generally did not comprise large ranges as composers employed intervals that either moved in stepwise motion according to the scale or were notes derived from the common chord (Deri 1968:23). By the nineteenth century, this practice had already started to transform (Deri 1968:23); numerous composers began to incorporate wide to extreme ranges, larger and unexpected leaps and more chromatic movement (Deri 1968:24).

2. The organisation of the melodic line

Deri (1968:25) notes that melodies of the tonal era regularly formed symmetrical phrases (such as a four + four bar phrase structure), implying that the first four measures comprise the first

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statement which is followed by the answer in the second four measures. However, by the nineteenth century, many composers gradually abandoned the established practices and started moving toward organising less restricted melodic material (Deri 1968:26).

3. Composing by means of vocal thinking

Deri (1968:26) explains that each period's vocal writing reveals the melodic thinking of the time. During the classical era the melodic writing of composers, including Joseph Haydn (1732-1809) and Ludwig van Beethoven (1770-1827), were coined instrumentally rather than vocally (Deri 1968:26). Nevertheless, melodic interest intensified in the nineteenth century as composers gradually altered their approach to vocal composition, for example the melodies of Franz Schubert (1797-1828) and Robert Schumann (1810-1856) (Deri 1968:26). These melodies, written for either instrument or voice, became much more lyrical (Deri 1968:26). It was, however, the vocal writing of Richard Wagner (1813-1883), with the notion of the 'unending melody'[7], that became the pinnacle of this period (Deri 1968:26).

DeLone et al. (1975:270) explain that many musicians received training in the established practices of the tonal era and therefore may perceive, and perhaps exclude, post-tonal melodic materials that differ from the tonal norms of composers such as Franz Schubert, Robert Schumann, Johannes Brahms (1833-1897), Richard Wagner and Hugo Wolf (1860-1903).

Melody (also referred to as horizontal dimension) in the post-tonal era

By the end of the nineteenth century, the use of the tonal system was decreasing to make way for the rise of chromaticism (Kostka 2006:14). With the turn of the century (into the 1900s), composers made use of new character traits within the melodic material. During the early twentieth century, many composers, including Claude Debussy (1862-1918), made use of musical imagery to create tone poems which are directly linked to Expressionism (Auner 2013:27). According to Auner (2013:28), the melodic material was often short and static and usually returned to its starting point. Composers refrained from employing melodic material that was goal-oriented due to their growing fascination with 'pitch collections'[8] (Auner 2013:28).

[7] Composer Richard Wagner wrote lush, profoundly expressive and visual music during the nineteenth century (Kennedy & Kennedy 2007:799). His operas demanded a different approach to the art of singing and this required a different class of voice that could intelligently communicate the nuances of his craftsmanship (Kennedy & Kennedy 2007:799).

[8] Pitch collections (also referred to as a pitch class set) is a set of pitch classes (or tones of the chromatic scale) that is able to maintain its homogeneity when either transposed, inverted or reordered and can be employed as both melodic and/or harmonic material (Burkholder et al. 2010:A11).

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Kostka (2006:76) notes that the melodic range expanded drastically and the material started to extend to more than two octaves (often already in the opening bar). The melodic line regularly contained large intervals between consecutive notes (Kostka 2006:76), including fourths, sevenths, ninths or larger (Deri 1968:27). According to Deri (1968:27), some composers favoured much smaller intervals (such as the minor and major seconds) which created 'irregular chromaticism'. Some composers, including Alois Hába (1893-1973), Ernest Bloch (1880-1959) and Béla Bartók, explored the idea of narrow intervals further and divided the semi tone into quarter tones (Deri 1968:27). Composers also made use of augmented intervals, particularly the augmented fourth (also known as the tritone) (Deri 1968:27). Contrary to established practices, functional progression no longer defined melodic materials (Auner 2013:46). Pitch collections, variations and melodic motives, however, became the primary traits of melody (Auner 2013:46).

Motivic devices such as repetition, return, sequence and inversion (commonly used in tonal melodies) were still employed in twentieth century compositions, however, other motivic devices became more important (Kostka 2006:81-2): **cells** (which consist of three or four notes each) became the unifying factor in twentieth century music; the **pitch class cell** (a collection of intervals that can be rearranged and inverted); **twelve-tone melody** (a melody in which each pitch class is used only once – once all twelve pitch classes have been presented, another series of twelve pitch classes, related to the first one, can begin); a **single high point** in each phrase or in the melody as a whole which is less apparent at the surface level; the **progression** of the melody is less predictable; and **phrases** are less often equal in length.

'Chromatic tonal music' was the order of the day and the characteristics include chromatic mediant relationships[9], direct modulation[10], tritone relationships[11], real sequence[12], brief

[9] A chromatic mediant relationship is created when the roots (ground note) of two chords (of similar character, major or minor) are separated from each other by in interval of either a major or minor third (Kostka 2006:3).
[10] Modulation occurs when there is a change of key within a composition (it can be from one movement to the next or from one section to the next) (Kennedy & Kennedy 2007:500). According to Kennedy and Kennedy (2007:500), the most common modulations take place to related keys, such as the relative major or minor. Direct modulation takes place directly and the two keys merely share a common tone (Kostka 2006:3).
[11] Tritone relationship is "a root movement" that comprises the following progressions: in a major key it will be the perfect fourth moving to the diminished seventh (IV-vii°); in a minor key it will be the major sixth moving to the diminished second (VI-ii°); as well as the Neapolitan sixth moving to the perfect fifth (N6-V) (Kostka 2006:6).
[12] A sequence is the repetition of a motive or phrase on a different pitch degree (Kennedy & Kennedy 2007:685). There are four types of sequences: *melodic* (where melodic material is repeated), *harmonic* (where harmonic material, such as simultaneities, is repeated), *tonal* (where the intervals of the melodic material are changed) and *real* (where there is no alteration of the intervals) (Kennedy & Kennedy 2007:685).

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tonicizations[13], suspended tonality[14], enharmonicism[15], parallel voice leading[16], and diminished seventh chords[17] (Kostka 2006:14). Pre-twentieth century voice leading principles maintained that chords comprising fifths and octaves which move in parallel motion should rarely, if ever, be employed and that the seventh of a chord should always resolve to the note below (Kostka 2006:83). By and during the twentieth century, many composers remained resolutely loyal to these established practices whilst others expanded on them and incorporated disjunct voice leading[18] (Kostka 2006:83). By analysis, parallelism (also known as 'planing'[19]) was created in the harmonic material, which in turn led to new textural developments (Kostka 2006:86).

Composers incorporated tone-colour melody ('*Klangfarbenmelodie*'), which is described by Auner (2013:48) as a series of different tone colours created on one chord or pitch. Kennedy and Kennedy (2007:405) define it as a "melody of tone colours" which ultimately describes the differences in tone colours, establishes a structural aspect in some contemporary works and carries as much weight and significance as any other musical trait such as pitch or duration.

DeLone et al. (1975:271) maintain that in order to establish a melody, the following three musical traits should always be present: duration, pitch and quality. In previous centuries, the fundamental aspects of melody comprised the relationship between duration (patterns of rhythm) and pitch (moving from one pitch level to the next), whereby the timbre (patterns of changing tone colours, texture or dynamics) was regarded as subordinate (DeLone et al. 1975:271).

Many compositions written during the tonal era comprise patterns of durations which are structural-level recurring events (DeLone et al. 1975:271). As noted earlier, music evolves in time, and without various diverse durational patterns melodies and songs would be non-existent

[13] Aldwell, Schachter and Cadwallader (2011:247) and Mayfield (2013:305) note that brief tonicization occurs when any given pitch, which is not the tonic, is briefly employed as the temporary tonic within a piece.
[14] Suspended tonality denotes a phrase with a questionable or unfamiliar tonality and is applied mainly to tonal compositions (Kostka 2006:13).
[15] Enharmonicism refers to notes or intervals that are only distinguished from each other by classification, such as the note D# or E♭, or the interval of C-G# (an augmented fifth) and C-A♭ (a minor sixth) (Kennedy & Kennedy 2007:237).
[16] Parallel voice leading, also referred to as planing (see 19. *Planing*).
[17] A diminished seventh chord is created by stacking three minor third intervals on top of each other. The root of the chord is the seventh scale degree and the diminished seventh chord often resolves to the tonic chord. An example of this type of chord, in the scale of G major, would be F#-A-C-E♭. (Piston 1987:328-330.)
[18] Disjunct voice leading (see 19. *Planing*): Voice leading that does not follow the voice leading principles.
[19] Planing (also referred to as parallel harmony) is a harmonic technique which comprises the "parallelism of lines or chords" (Benjamin et al. 2008:181). According to Benjamin et al. (2008:181) there are two types: *chromatic* (exact, real) planing – consecutive repetition of the exact chord structure is observed at a different pitch level which does not provide a sense of key or scale; and *diatonic* (tonal) planing – consecutive repetition of the chord structure, while keeping in the scale, is observed (providing a sense of key or scale). The same intervals might not be retained from one chord to the next.

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(DeLone et al. 1975:271). DeLone et al. (1975:271) explain that the repeat of both durations and durational patterns remain melodically important and influential during the post-tonal era. During this era, the performer has ample opportunity for rhythmic expression, which is directly linked to his/her interpretation (DeLone et al. 1975:275).

DeLone et al. (1975:277) explain that the pitch dimension is as significant as the duration dimension. In tonal music, the pitch dimension refers to the elements of sound that comprise fixed pitches (A=442Hz) (DeLone et al. 1975:277). However, post-tonal era composers employ a vast number of different pitch resources and therefore pitch dimension represents all elements of sound that can be categorised as containing highness or lowness (this also includes frequencies that are either fixed or not) (DeLone et al. 1975:277). It remains an immensely challenging task to catalogue the countless ways in which pitch can be organised (DeLone et al. 1975:277). The twelve-tone scale was used extensively as pitch material during this era (DeLone et al. 1975:279). DeLone et al. (1975:279) note that these pitch materials are often used for embellishment or decorative purposes, such as diatonic notes that are chromatically embellished.

DeLone et al. (1975:283) maintain that composers have become much more dependent on the qualitative dimension (which includes colour, timbre, texture and loudness) during the post-tonal era. According to DeLone et al. (1975:283), the elements of quality (specifically during the tonal era) were present but remained inferior. It was only during the post-tonal era that it adopted a primary role akin to pitch and rhythm (DeLone et al. 1975:283). It is important to note that the quality in sound became important as a musical fundamental due to composers gradually becoming more receptive of new musical styles and practices (DeLone et al. 1975:283).

Some melodies can be identified as '*Klangfarbenmelodie*' (tone-colour melody) where colour adopts the role of a melodic component of structure (DeLone et al. 1975:284). In other instances, melodic material can comprise sound patterns that are altered (not necessarily fixed pitches) – for example, *Sprechstimme* (speech-like voice) is created when speech-like sounds are used as a pitch resource (DeLone et al. 1975:285).

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The organisation and structure of melody

The following is a list of essential characteristics pertaining to melody. Particular attention is paid to the aesthetic and architectural elements pertaining to melody (more specifically line) (DeLone et al. 1975:290):

A musical line (rhythmic and/or melodic) is usually created from a **basic shape** which plays a vital melodic role (DeLone et al. 1975:301). Post-tonal music is comprised of (but not limited to) aspects of melody, arrangement and architecture (DeLone et al. 1975:303). Following is a brief summary of how these aspects are combined in melodic processes (DeLone et al. 1975:303).

- Expansive linear processes: DeLone et al. (1975:303) maintain that not all composers of the post-tonal era lost interest in the nineteenth century 'long line' melodic idea. Many post-tonal melodies comprising long line are still employed (DeLone 1975:303). Some characteristics of the expansive linear process include: it is essential to have an expansive melodic line (DeLone et al. 1975:303); established practices of structural organisation are frequently present (DeLone et al. 1975:304); some post-tonal composers still favour and employ the traditionally long melodic lines (DeLone et al. 1975:305); and lastly, some composers delicately incorporate 'motive and figure' into the melodic lines (DeLone et al. 1975:307).
- Non-expansive linear processes: DeLone et al. (1975:310) note that the expansive linear process is not always a melodic ideal, in which case non-expansive linear processes are created. Thus, instead of creating long goal-directed lines, the melodic materials are presented as layers (strata) that assume a spatial and objectified trait (DeLone et al. 1975:310). Furthermore, the melodic layers are presented only when the line is mainly comprised of "segmental groupings" – thus, the long line becomes less important and makes way for spatial characteristics (DeLone et al. 1975:310).

DeLone et al. (1975:292) highlight the significance of **continuity and coherence** as aesthetic and architectural practices in the creation of melody and maintain that these reciprocal practices generally accompany each other. Continuity and coherence often transpire as a consequence of patterns of rhythm and pitch (DeLone et al. 1975:292). It is important to note that repetition plays an important role in continuity and coherence (DeLone et al. 1975:293).

DeLone et al. (1975:290) note that musical tension can be created by combining different elements: two of the most significant combinations include repetition and the incline to a higher

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tone, where repetition refers to the **tension** that is produced by the need for change. Tension, on a melodic level, can be created by combining short note durations with different aspects of motion (DeLone et al. 1975:291). A large selection of the change in tension is created by the change in the time duration of a specific pitch (DeLone et al. 1975:291). Once tension has been established, some form of musical or harmonic **release** is imminent and this can be created by rapidly descending in pitch (DeLone et al. 1975:290). There are various other methods in which patterns of tension and release can also be produced (DeLone et al. 1975:291).

In order to distinguish, emphasise and/or detach musical events in time composers employ events that differ from each other, cadential features and/or devices that disrupt or interfere (DeLone et al. 1975:296). **Cadences**, according to DeLone et al. (1975:296), are generally referred to as a "product of the tonal context". However, DeLone et al. (1975:296) maintain that the focus should rather be placed on elements of melodic cadence. In many of the tonal compositions, ordered relationships among pitches are observed due to their "structural functions" (DeLone et al. 1975:296). The cadence becomes a structural function that belongs to both pitch and rhythm (DeLone et al. 1975:296). A cadence can be used to systematically end an activity, or bring it to a sudden stop (DeLone et al. 1975:297). The activity often takes the form of phrase material (motives or themes) (DeLone et al. 1975:298). DeLone et al. (1975:297) explain that the former (abrupt cadence) creates a less distinct feeling of closure than the latter, where the gradual progression is exposed by the motion patterns. Any tempo or duration alteration can be linked to cadences, particularly where the direction and hierarchy of the pitch are secondary elements of organisation (DeLone et al. 1975:297). Any alteration in the tempo and/or duration can also create subtle articulation (DeLone et al. 1975:297). Thus, the cadential power is directly linked to the amount of change in tempo that occurs (DeLone et al. 1975:298). There are various manners in which cadential effects can be created and in the post-tonal era alone a profusion of cadential types can be observed (DeLone et al. 1975:298).

In the post-tonal era alone, melody has undergone great development and similar organisational functions are still being achieved (DeLone et al. 1975:320). Melodic material is, in the twenty-first century, much more diverse than it had once been and composers have access to a vast array of resources, making it much more unpredictable (DeLone et al. 1975:321).

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4.3.2. Rhythm

Rhythm in the tonal era

Rhythm, as defined by Deri (1968:34), is "the alteration of stressed and unstressed beats". On a much larger scale, rhythm can be regarded as the expression of "time in music" and more specifically, the relationship of sonorities in time (Deri 1968:34). It is therefore clear, according to Deri (1968:34), that a series of sonorities will continuously denote some kind of rhythmic element as the notes will have either the same or different durations. Furthermore, Deri (1968:35) maintains that within the rhythmic element there are three secondary ideas: the beat (describing the repeating pulsations), the meter (which indicates the groupings of the beats) and the measure (of which each meter-unit creates a bar). Duration, also referred to as 'absolute speed', is the only remaining feature which is generally identified by means of a tempo indication (Largo, Allegro, etc.), often specifically by a metronome mark (such as ♩ = 104) (Deri 1968:36).

Rhythm in the post-tonal era

DeLone et al. (1975:208-9) explain that rhythm is a "shaping" feature in music and that it should be experienced as sounds progressing through time. Furthermore, they maintain that duration plays the most significant role within rhythm; however, the arrangement of temporal units remains the foundation in the analysis of rhythm (DeLone et al. 1975:209). All other key music fundamentals (pitch, harmony, texture, dynamics and timbre) are equally important shaping features (DeLone et al. 1975:209).

The tonal era consisted of "functional rhythmic patterns" that created "metric regularity" (such as the use of balanced four-bar phrases) (Benjamin et al. 2008:187). During the late 1800s and the beginning of the 1900s composers used rhythmical material that was either static or driving, both created by the use of irregular and/or shifting meters within and/or throughout a composition (Baur 1985). By the twentieth century, as noted by Benjamin et al. (2008:187), many resources that fell outside the framework of pre-twentieth century practice were employed. Ultimately, Benjamin et al. (2008:187) maintain that much of the music of the twentieth century became asymmetric, containing intricate rhythmical motives. Other styles where meters are omitted are termed 'ametrical' (Benjamin et al. 2008:187). The variety in rhythmical patterns was, however, much greater during the post-tonal era (Kostka 2006:76) and composers frequently made use of various, and often more complex, time signatures within a piece (Kostka 2006:77).

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The various rhythmic devices that became popular in the post-tonal era include:

- **Syncopation**, as explained by Deri (1968:37), is a rhythmic device in which the recurring beats are negated by another musical line – the syncopated note comes in where the pulsation has not changed, but where the main pulsations are avoided. Furthermore, syncopation is often viewed as an irregular rhythmic feature and can therefore be used as a tension-creating device (Deri 1968:37). Syncopation is also frequently employed in folk music (Deri 1968:36).

- **Displaced accent**, described by Deri (1968:36), is the sounding of an accent (or accents) on the weak beat. This rhythmic device is also employed to create tension and briefly disturbs the rhythmic movement (Deri 1968:36). Composers of the tonal era made little use of displaced accents; however, it achieved great popularity in the twentieth century (Deri 1968:38).

- **Cross-rhythm**, as defined by Deri (1968:39), is the layering of two or more rhythmical values (two against three or three against four) that ultimately creates conflicting patterns. Once again, this device was used sparingly in the tonal era, but lavishly during the post-tonal era (Deri 1968:39). An example of this would be: When the rhythmic material is measured in crotchets, the top line contains two quavers per beat and the bottom line comprises quaver triplets.

- **Polymeter**, also referred to as multimeter, is the layering of two or more diverse meters, such as a passage in $\frac{3}{4}$ played against a passage or line in a $\frac{7}{8}$ time signature (Deri 1968:39).

- By and during the twentieth century, composers regularly made use of **changing time signatures** within a movement or passage (Deri 1968:40). There are two types of changing time signatures: firstly, changing time signatures (employed as rhythmic effects) that create rhythmic irregularity and secondly, those that contribute to the articulation of melodic material (Deri 1968:40). An example of the former would be: the change of time signatures that occur in every bar ($\frac{3}{16}$, $\frac{5}{16}$, $\frac{3}{16}$, $\frac{4}{16}$, $\frac{5}{16}$, etc.), and of the latter: focussing on the affect ($\frac{2}{4}$, $\frac{5}{8}$, $\frac{2}{4}$, $\frac{5}{8}$, etc.) (Deri 1968:40).

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- Another device regularly employed is the complex or unusual time signature, more clearly defined as a time signature with infrequent top figures (i.e. excluding 2, 3, 4, 6, 8, etc., as employed in traditional practices) (DeLone et al. 1975:217). The unusual times include quintuple meter ($\frac{5}{4}$ or $\frac{5}{8}$), septuple meter ($\frac{7}{4}$ or $\frac{7}{8}$) and various other meters that are frequently employed in post-tonal music (DeLone et al. 1975:217).

- Numerous composers of the post-tonal era actively pursued freedom in tempo, which resulted in compositions where the irregular pulse rate and groupings masked the metric structure (DeLone et al. 1975:229). Other composers, such as Stravinsky, applied the opposite approach by employing metronome markings which specified that the pulse was to remain constant without variation (DeLone et al. 1975:229). This in turn led to a more "mechanical approach" (DeLone et al. 1975:229). In the middle of these two poles lies an important exploratory area for post-tonal composers – one of systematic change in pulse rate or tempo (DeLone et al. 1975:229). In many post-tonal compositions, structural points are designated by tempo changes (DeLone et al. 1975:229). Post-tonal composers often employ unusual metric structures that comprise the alteration in pulse groupings and/or the alteration in pulse rate; this combination is referred to as '**metric modulation**' (DeLone et al. 1975:230). To achieve metric modulation, a pivot note value is to be established – a note value from the current tempo and meter becomes equal to the new note value in the following tempo and meter (DeLone et al. 1975:230).

- The concept of **obscured pulses** is not newly established as it was employed in recitatives (found in vocal compositions) and solo instrumental works during the tonal era (DeLone et al. 1975:231). However, this approach became popular with post-tonal composers as it can be widely applied to numerous styles (DeLone et al. 1975:231). An obscured pulse can be created by means of the following: employing unusual metric structures with alteration of pulse rate, the alteration of pulse groupings, or when pulse groups on different levels are not synchronised (DeLone et al. 1975:232). An obscured pulse can also be created by using two contradictory contemporary (post-tonal) compositional approaches, especially in automated music (including both electronic and computer-generated music) and aleatory music (DeLone et al. 1975:233).

Kostka (2006) notes the following traits within the rhythmical element: time signatures that were not part of the established practices gained popularity (Kostka 2006:118); the way rhythms were

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written versus how they were aurally received played an important role (Kostka 2006:116); composers made use of added values and non-retrogradable rhythms (Kostka 2006:128), tempo modulations (metric modulations) (Kostka 2006:130), as well as serialised rhythm and isorhythm[20] (Kostka 2006:133).

According to DeLone et al. (1975:209) rhythm can be divided into two parts – the "background" which is the metric structure, and the "foreground" which comprises patterns of durations that are projected against it. The background (metric structure) includes meter (the organisation of beats or pulses into groups) and tempo (the speed of the beats or pulses) (DeLone et al. 1975:209). Most importantly, the rhythmic analysis includes the deliberation of the metric structure (background), the patterns of duration (foreground) as well as their interaction with each other (DeLone et al. 1975:211).

Metric structure (background)

Metric structure refers to the sounding of pulsations on various levels (DeLone et al. 1975:213). Generally, the pulses occurring on one specific level are audibly received as the primary (or main) timekeeping unit (DeLone et al. 1975:213). Pulses are generally differentiated from one another by means of "strength or accentuation" (DeLone et al. 1975:213). The various accents – agogic (length), pitch, and dynamic (loudness) – can take place at any area where vital change in the musical fundamentals (harmony, texture, tone colour or melodic direction) is imminent (DeLone et al. 1975:213). By means of accentuation, the pulsations can be grouped (DeLone et al. 1975:213). In essence, the meter (time) signature determines, to an extent, where the accents are and how beats are grouped (DeLone et al. 1975:214).

Durational patterns (foreground)

Duration, as defined by DeLone et al. (1975:236), is the length of time it takes one pulse to reach the next. There are two approaches when durations are grouped into patterns, either by means of rhythmic units or rhythmic gestures (DeLone et al. 1975:237). The former has a duration equal to one beat in the metric structure (DeLone et al. 1975:237). However, the second approach, rhythmic gestures, is more free as it is not constrained by the underlying metric structures (DeLone et al. 1975:239). The starting and endpoint, as well as the length, can be interpreted in

[20] Isorhythm, as defined by Kennedy and Kennedy (2007:376), is a scenario where similar rhythmic motives are used repetitively with different melodic material.

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various ways that are affected by parameters that promote or hinder unity (DeLone et al. 1975:239).

DeLone et al. (1975:239) note that rhythmic gestures can be defined by their "beginnings and endings". Furthermore, DeLone et al. (1975:239) explain, there are three possible beginnings: *thetic* – starts on a strong pulse, often the first pulse of a measure; *anacrustic* – starts on a weak pulse which refers to the upbeat of a measure; and the *initial rest* – starts after a rest or a tied-over note and is frequently observed on the first beat or first division of the beat in a measure. There are also three possible endings: *strong* – ending on a strong pulse, generally the first beat of a measure; *weak* – ending on a weak pulse, often the second beat or second division of a measure; and the *upbeat* – ending on a strong or weak pulse in the upbeat of a measure (DeLone et al. 1975:239).

Some post-tonal composers employ patterns of durations that are based on specific "pre-compositional approaches" which are ruled by both mathematical and aural applications (DeLone et al. 1975:259). Although foreshadowed by techniques such as isorhythm used in the 1300s, these pre-compositional approaches, and their complexity and extent of application, have become an integral part of post-tonal music (DeLone et al. 1975:259). Examples of this include Anton Webern's (1883-1945) compositional techniques that were mathematically driven (DeLone et al. 1975:260) and Olivier Messiaen's original approach to rhythm – employing added values, augmented/diminished rhythms, non-retrogradable rhythms and rhythmic pedals (DeLone et al. 1975:261).

DeLone et al. (1975:268) note that the significance of rhythm in music of the post-tonal era is demonstrated by both the composers' efforts to create new rhythmic elements and the importance that has been placed on rhythm in compositions of the twentieth century. One of the most discernible examples is found in the variety of compositions produced for solo percussion (this includes all percussion instruments) where pitch and harmony are discarded as important elements, thus allotting prominence to rhythm (primarily) and both texture and timbre (secondary) (DeLone et al. 1975:268).

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4.3.3. Harmony

Harmony in the tonal era

Harmony, according to Kennedy and Kennedy (2007:331), is the sounding of notes simultaneously – essentially the contrasting of vertical materials with horizontal materials. Kennedy and Kennedy (2007:331) explain that composers allocate a melody or certain melodic material as the principal melody (which the composer expects the audience to recognise as such) and the remaining melodic or harmonic material (the accompanying materials) are regarded as secondary. During the various musical eras composers placed more emphasis on either one or the other of the two aspects: the merging of melodic lines or the simultaneities created (Kennedy & Kennedy 2007:331).

According to Deri (1968:53), the role of harmony in the tonal era was mainly to provide "background, context or add meaning to the melody". **Tonality** refers both to the melodic material in which the attention is drawn to a tone (or tonic) and the harmonic material in which attention is drawn to a chord (the tonic chord) (Deri 1968:56). Deri (1968:56) explains that tonality is founded on the tonal system (the relationship of major and minor keys) and in the tonal era, it played an important role as both the melodic-harmonic framework's foundation and as one of the foremost principles of organisation. Deri (1968:53) notes that harmony comprises chord progressions where chord describes the simultaneous sounding of three or more notes.

According to Cope (1997:12), there are three essential approaches to tonality:

1. The pitch material, determined by the key and the melodic material, is usually presented as a series of scales based on ordered intervals (Cope 1997:12). Pitch material written within the key is referred to as being 'diatonic' and the pitch material that does not form part of the key as 'chromatic' (Cope 1997:12).
2. Tonal music consists mainly of ordered relationships (Cope 1997:12). The two most important scale degrees and/or chords are the tonic (first) and the dominant (fifth) (Cope 1997:12). The tonic acts as the most fundamental note within the key (Cope 1997:12). The dominant acts as the tonic's subsidiary and necessitates resolution to the tonic (scale degree or chord) in order to be complete (Cope 1997:12).
3. Tonal relationships are created by consonance and dissonance or relaxation and tension (Cope 1997:12). Harmonic consonance is created on the foundation of the overtone series' lower pitches which is based on three prime intervals: thirds, fifths and octaves (Cope

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1997:12). These intervals, in turn, construct triads (chords that comprise three notes, each at an interval of a third) (Cope 1997:12). Pitch material that does not fall within these chords (or their inversions) is referred to as being non-harmonic and should resolve to the nearest member of the chord (Cope 1997:12). For example: in C major, the tonic triad created is C – E – G with a non-harmonic tone A (the sixth note) which will resolve down to the dominant, G (Cope 1997:12).

Deri (1968:54) explains that chord progressions can also create tension and the need for resolution. It is, however, the manner in which the harmonic tension is resolved that ultimately characterises the composer's individual style (Deri 1968:54). Dissonant chords are created when resolution is imminent, whilst stable sonorities denote consonant chords (Deri 1968:54).

Susanni and Antokoletz (2012:128) maintain that harmonic materials (such as chords) form part of the vertical dimension of established tonal practices. Every triad or chord in the major or minor scale (built on every scale degree) serves a specific function (Susanni & Antokoletz 2012:128). Each chord tone that creates these vertical dimensions adheres to the established tonal practices during chord progression (such as the seventh resolves to the tonic) (Susanni & Antokoletz 2012:128).

Voice leading, as noted by Cope (1997:13), is another key musical trait of the traditional tonal practice. Cope (1997:13) provides a summary of the basic guidelines of voice leading in four-part writing: Resist the use of (1) consecutive or parallel fifths and/or octaves between the same sets of voices and (2) hidden fifths and/or octaves (hidden consecutives) between the outermost voices (such as soprano and bass). (3) Pitch classes or tones that are shared with the succeeding chord/s (also referred to as common tones) should, wherever possible, not move between voices (Cope 1997:13). (4) A minimum of two voices within the chord should always be moving to the succeeding chord in opposite directions (Cope 1997:13). (5) Spacing between chord members should proceed as follows: refrain from using intervals larger than a sixth between consecutive notes in the uppermost voices, larger leaps should be sparse and occur primarily in the bass line (Cope 1997:13).

Furthermore, Cope (1997:13) maintains that four-part writing should also consist of the following:

- Where possible, the root of the chord should be doubled.
- In diminished chords, the third of the chord should be doubled.

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- In other cases where doubling the root of the chord is impossible, one of the other primary tones in the key (tonic, subdominant, dominant) should be doubled.
- Finally, if none of the above is present, the fifth of the chord should be doubled.

Each of the non-harmonic tones (passing tones, neighbouring tones, suspensions, appoggiaturas, etc.) has their own contextual restrictions (Cope 1997:13). Other harmonic functions, such as, and particularly, chord progression, adhere to several principles of progression in tonal music (Cope 1997:13). Cope (1997:14) explains that these principles either denote tonal practices or signify a composer's unique style.

Where diatonic music contained chromaticism, Cope (1997:15) notes, one of the following three forms was generally adopted:

1. With modulation: The use of one key in a work becomes repetitive, therefore, in tonal music, composers incorporated modulations and/or the change of key signatures (Cope 1997:15). However, in order for the modulation to take place as unobtrusively as possible, a pivot chord (a chord shared by both keys) was to be employed (Cope 1997:15).
2. Without modulation: Composers made use of secondary or "borrowed" dominants from secondary keys (Cope 1997:15).
3. With chromatic chords: Standard voice leading principles were applied to other chords that also embellish diatonic triads, such as secondary dominants, augmented sixth chords, Neapolitan sixth chords, diminished seventh chords, etc. (Cope 1997:16).

There are often notes that do not form part of the triad, yet their inclusion does not create dissonance (Cope 1997:17). Evaluated as a unit, these extended triads produce greater complexity and thicker texture (Cope 1997:17). As noted above, contrary motion plays a key role in traditional voice leading. However, when chords consisting of numerous members (or notes) are employed it often leads to contrapuntal pandemonium (Cope 1997:18). According to Cope (1997:18) this is the result of voices that collide and are indistinct. Therefore, **parallel motion** is applied to these chords (Cope 1997:18). Simplified as 'planing', these chords are suspended (halted) while two or more voices move in parallel motion (Cope 1997:18).

By the end of the nineteenth century, the tonal music vocabulary had undergone a significant evolution and composers were well versed in its use (Cope 1997:17). The chromatic tones and chords, previously playing a secondary role to embellish the diatonic notes and chords, became significant (Cope 1997:17). The importance of the harmonic tones declined, making way for non-

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harmonic tones (Cope 1997:17). Furthermore, the tonal order that dominated for so long became less significant (Cope 1997:17). Many composers adhered to the tonal traditions whilst others felt inclined to expand their horizons (Cope 1997:17).

Susanni and Antokoletz (2012:11) maintain that the role that the key (tonality) played in extremely chromatic pieces composed during the late nineteenth century became intricate – chromaticism increased exponentially and ultimately precipitated the alleviation of the functional tonal relationships. Susanni and Antokoletz (2012:129) further explain that composers had the opportunity to resolve each chord in various ways other than that which had previously been prescribed. This in turn gave composers the freedom to not only move harmonically beyond their established constraints, but also permitted them to move rapidly between different tonalities (Susanni & Antokoletz 2012:11). Ultimately the chord's distinct role as a vertical harmonic entity was receding (Susanni & Antokoletz 2012:129) and the use of a primary key became an option rather than a requirement (Susanni & Antokoletz 2012:11).

Harmony (vertical dimension) in the post-tonal era

In the harmonic material of the pre-twentieth century, composers placed emphasis on sonorities that were extremely dissonant and the construction of chords was founded on less than three intervals (Baur 1985). Traditional tonal music (pre-twentieth century), as noted by Susanni and Antokoletz (2012:8), was restricted to a specific group of tertian structures from major and minor scales, which included triads and seventh chords. Tonal harmonic functions and voice leading practices define the successive progression of these tertian structures (Susanni & Antokoletz 2012:8). Choosing the individual chords that would satisfy the predetermined succession represented the only freedom the composer of tonal music had (Susanni & Antokoletz 2012:8). Furthermore, this succession of harmonic structures was usually constrained to the tonic progress to its ultimate resolution (Susanni & Antokoletz 2012:8). However, twentieth century compositions often comprise various harmonic structures which in themselves are created by various scale formations, such as diatonic and non-diatonic scales and hybrid modes (Susanni & Antokoletz 2012:8). The new harmonic structures derived from these various scale formations blunts, or sometimes nullifies, the tonal function (Susanni & Antokoletz 2012:8). Therefore, in many post-tonal compositions it is important to note that compositional choice, not function, dictates the movement of harmonic structures (Susanni & Antokoletz 2012:8).

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In various twentieth century compositions, melodic and harmonic aspects remained important driving forces (Susanni & Antokoletz 2012:129). However, the pitch cell gained popularity and so gradually changed the beliefs surrounding horizontal and vertical dimensions (melody and harmony) (Susanni & Antokoletz 2012:129). Susanni and Antokoletz (2012:129) define the pitch cell as a set of three or four pitches that comprise a distinct collection of intervals. Furthermore, pitch cells can be compared to triads in the sense that they are also structures of fixed intervals (Susanni & Antokoletz 2012:129). There is no differentiation in how pitch cells function on melodic or harmonic levels, however triads and chords function only on the harmonic levels (Susanni & Antokoletz 2012:129). This enables the pitch cell to transform by means of the following techniques: inversion, transposition, retrograde and retrograde inversion (the latter two being melodically inclined and the former, harmonically) (Susanni & Antokoletz 2012:129). Susanni and Antokoletz (2012:130) maintain that the pitch cell's meaning is dependent on the composition itself, characterised only by the immediate musical context.

During the twentieth century, however, the norm was to discard harmonic functions (de Leeuw 2005:78). **Simultaneity** was to be examined as its own sonority, in contrast to the previous centuries where it was treated as a function (de Leeuw 2005:78). The result, as noted by de Leeuw (2005:78), was an

> …enormous increase in diversity and complexity: structures based on thirds were abandoned; chromatic elements were incorporated as autonomous colours; chords of five, six or more notes became common; modal elements and parallel movement were introduced; etc.

As Kostka (2006:46) states, composers of the post-tonal era had no lack of harmonic material.

Other characteristics of the vertical dimension include:

- Composers preferred treating chords as single sonorities (Auner 2013:27). Auner (2013:27) maintains that without functional progressions binding chords, the alteration of harmonic material is discouraged.
- Many composers created harmonically static passages by employing pedal points and ostinatos (Auner 2013:28).
- There was an inclination to shift between diatonic, whole-tone and octatonic features (Auner 2013:28).
- To create a sense of structure and direction, composers often restrained the use of traditional modulation (specifically to new keys) (Auner 2013:28).

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Developments during the post-tonal era include:

Scale Formations

Auner (2013:28) and Kostka (2006) maintain that various modes and new **scale formations** (such as the pentatonic, octatonic, chromatic and other scales) were employed by composers mainly due to the absence of the leading tone (one of the most essential tones in traditional tonal harmony).

The **pentatonic scale**, a five-note scale, does not comprise any the following: semi tones, a leading tone, more than two whole tones successively, or tritones (Turek 2007:663). This scale comprises five possible modes, as any of the five pitches in the pentatonic scale can assume the role as tonic (Kostka 2006:23; Persichetti 1961:50).

The **whole-tone scale** is a six-note scale that comprises only whole tones, or rather major second intervals (and one notated as a diminished third) (Kostka 2006:24). Auner (2013:28) explains that the primary focus, by means of accentuation and/or frequency of recurrence/reiteration, is not constrained to any one of the specific pitches.

The **octatonic scale**, an eight-note scale, contains semitones and whole tones that alternate (Turek 2007:670). For many composers, this provided an abundant source of material (both melodic and harmonic) as it comprises all the intervals (ranging from a minor second to a major seventh) and is constructed symmetrically (Kostka 2006:32).

A **mode** (also referred to as a diatonic mode) is typically a seven-note scale (Persichetti 1961:31). There are seven different modes, each with its own melodic/harmonic pattern: Ionian, Dorian, Phrygian, Lydian, Mixolydian, Aeolian and Locrian (Persichetti 1961:31). Each mode has its own distinct character and is used by composers to produce or portray specific emotional effects (Persichetti 1961:31).

The **chromatic scale** comprises all 12 semitones within the octave (Persichetti 1961:60). It is often used either to embellish (in a diatonic scale), or to create material independent of a scale, in which case all twelve tones are equally important (Persichetti 1961:60).

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Synthetic scale formations are built by arranging and re-arranging a collection of intervals (specifically major, minor and augmented seconds); they include scales such as the overtone, oriental, and symmetrical scales (Persichetti 1961:43).

A **microtonal scale** consists of intervals that are smaller than a minor second and have been employed mainly by post-tonal composers in novel and varied ways (Kostka 2006:34). The microtones that are most often used are quarter tones, dividing the semitone in two (Kostka 2006:34).

Tertian and non-tertian sonorities

By the end of the nineteenth century, many composers started employing chords that comprised different intervals or combinations thereof (DeLone et al. 1975:342). DeLone et al. (1975:343) note that two techniques were applied to new sonorities: the first comprises the layering of similar interval types (perfect fourths, fifths, seconds and sevenths), and secondly the use of mixed-interval chords (containing various interval types) which became popular in the twentieth century. However, composers soon realised that the zealous use of these new sonorities resulted in chords becoming less flexible and more restricted (DeLone et al. 1975:343). Some composers (including Debussy and Ravel) employed a specific chord (or chords) to create a specific colour or sound which contributed to their musical uniqueness (DeLone et al. 1975:328).

In post-tonal music, composers seldom employed chords derived from the major and/or minor scales as the foundation of harmonic structures in a work (DeLone et al. 1975:323). Tertian triads (the stacking of two thirds) and seventh chords (a chord comprising a tertian triad with an added note of a seventh above the root of the chord), both employed in traditional tonal harmony, remain important in the twentieth century (Kostka 2006:47). However, twentieth century composers started to employ larger and ever more creative chord structures such as the addition of tertian sonorities larger than a seventh chord (ninth, eleventh or thirteenth chords) (Kostka 2006:47).

The traditional fundamental chords (triads) were altered by adding seconds or sixths, and less frequently, fourths (Kostka 2006:49). It has become common practice to use chords constructed by adding thirds to triads (DeLone et al. 1975:328). These chords (also referred to as ‘higher order tertian structures’) no longer share the functional harmonic meanings of old and are often used to provide a more colourful sound, where the dissonances create perceived stability rather than tension (DeLone et al. 1975:328). DeLone et al. (1975:331) maintain that within these structures,

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tones that are not derived from the chord (non-chordal tones) became chordal members and ultimately create "new vertical sonorities". Any triad with an added sixth note could be analysed as a seventh chord (C Major: C-E-G-A; where A is the added sixth; this chord could also be analysed as a seventh chord: A-C-E-G) and similarly, a triad with an added second or fourth could be interpreted as an incomplete ninth or eleventh chord (Kostka 2006:49).

A special kind of **added-note chord** features one or more chord members that are "split" by adding a note a minor second interval away (Kostka 2006:52). The most common examples are triads and seventh chords with split thirds, however, other split chord members (roots, fifths and sevenths) also occur (Kostka 2006:52). A dominant seventh chord with a split third is traditionally known as the "blues chord" (for example in C Major: the dominant seventh chord is G-B-D-F and the split third would be B♭) (Kostka 2006:52).

Whole-tone chords are chords built on notes derived from a whole-tone scale (Kostka 2006:63). During the twentieth century, the whole-tone scale was employed more frequently in compositions (Kostka 2006:24). The whole-tone scale (a six note scale) is a series of six whole tones (C-D-E-F#-G#-A#) (Turek 2007:667). It has two transposition possibilities (Persichetti 1961:54) and is therefore restricted in melodic and harmonic material (as opposed to the pentatonic scale) (Persichetti 1961:54; Kostka 2006:25). It is regularly linked to Impressionism and the music of Claude Debussy (Kostka 2006:25).

Secundal chords are constructed from major and minor seconds (including their inversions) or a combination of the two and are more frequently referred to as 'clusters' or 'tone clusters' (Kostka 2006:59). These chords are derived from the harmonic materials of the whole-tone scale (major seconds) and added-note chords (DeLone et al. 1975:353). These chords are seldom presented as tone clusters, but are rather separated by other larger intervals (DeLone et al. 1975:353). Seconds (when inverted) can also appear as sevenths and/or ninths, also referred to as compound seconds or dyads (DeLone et al. 1975:353). Bartók frequently employed seconds (horizontally and/or vertically) in his works (DeLone et al. 1975:353).

The **tone cluster**, large or small, created new tone colours and "modes of expression" which were exploited (DeLone et al. 1975:355). Furthermore, a tone cluster (or the continuous use of tone clusters) creates a 'sound mass' (DeLone et al. 1975:355). Sound mass refers to the entire vertical and horizontal sound (simultaneous sounding of pitches), masking each pitch and chord's identity to the point where harmony is non-existent (DeLone et al. 1975:358). The sound mass in its

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entirety assumes the primary role whilst the individual notes within the sound mass take on a secondary function (DeLone et al. 1975:355).

An **open fifth chord** is a triad in which the third is omitted and is typically used to evoke the Orient or the distant past (Kostka 2006:54).

Quartal chords are built from fourths (C-F-B♭-E♭-etc.) and were among the first of the new sonorities to become popular (DeLone et al. 1975:343). DeLone et al. (1975:346) maintain that quartal chords are seldom employed as the foundation of a composition, but rather as the basis of a section or passage in which the latter comprises various sonorities. Quartal chords are mainly employed to ensure that the surrounding harmony is not perceived as stale (DeLone et al. 1975:346). The pentatonic scale forms part of quartal harmony (Turek 2007:664).

Quartal chords would occasionally include **tritones** (interval of an augmented fourth) or other intervals (DeLone et al. 1975:347). DeLone et al. (1975:347) note that symmetric structuring of successive sonorities tends to create a sense of stagnation. It was not long before the restrictive nature of using quartal chords as recurring primary elements became apparent to composers, thereafter choosing to rather use them as a chord type (DeLone et al. 1975:347). Composers often used perfect fourths in combination with tritones and other intervals (DeLone et al. 1975:347). Composers Arnold Schoenberg, Alban Berg and Anton Webern favoured the tri-chord, comprising intervals of a perfect fourth and tritone, using it to highlight significant harmonic material (DeLone et al. 1975:348).

Quintal chords, built from fifths (C-G-D-A-etc.), are renowned for having a more open and stable sound and became very popular with many twentieth century composers (DeLone et al. 1975:350). Kostka (2006:55-56) notes that the quintal chord occupies more vertical space per chord member than the quartal chord and, being members of the same interval class, share similar character traits (DeLone et al. 1975:350). Another characteristic, and the reason why so many composers utilised this chord, is its exceptional sound and tone quality (DeLone et al. 1975:350). Quartal and quintal chords are most often made up of perfect intervals, however, augmented and diminished fourths and fifths may be included (Kostka 2006:58).

Another significant process of chord construction that developed during the post-tonal era was the construction of more complex sonorities, which comprised more than one specific interval type – defined as **mixed-interval chords** (DeLone et al. 1975:362; Kostka 2006:62). Kostka (2006:62)

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maintains that these chords are created by combining two or more different interval types. Other characteristics of mixed-interval chords include: they are often associated with atonal music (with specific reference to serial compositions including the twelve-tone method); they comprise sonorities that are dissonant – these extremely dissonant simultaneities create complex polyphonic textures (DeLone et al. 1975:368); they do not follow established functional practices (DeLone et al. 1975:362), ultimately resulting in continuous chromaticism (DeLone et al. 1975:369). Many composers rejected tonality, which contributed to the popularity gained by non-tertian mixed-interval chords (DeLone et al. 1975:368).

Another method of creating new sonorities was combining two or more different chords to form a **polychord** (DeLone et al. 1975:336; Kostka 2006:64). Large chords such as complete ninths, eleventh and thirteenth chords comprise more than one triad/chord (DeLone et al. 1975:336). These chords are most discernible when the entities (individual chords) are separated by means of register or timbre (DeLone et al. 1975:336; Kostka 2006:64). An example of this would be the juxtaposition of a C Major chord (C-E-G) against a D minor chord (D-F-A). Most importantly, the individual chords have their own unique identity and when sounding simultaneously, it creates a polychord (DeLone et al. 1975:336).

When the polychordal technique is applied, successively and continuously, **polytonality** is created (DeLone et al. 1975:339). Polytonality, as defined by DeLone et al. (1975:339), is the simultaneous sounding of two or more keys/tonalities on different levels/strata. According to Cope (1997:19), polytonality promotes and extends the development of tonality and in turn creates adaptable resources that can ultimately sustain various musical styles. In order to create polytonality, independent registers are essential (DeLone et al. 1975:339). Cope (1997:19) maintains that when applying polytonality in any composition, it is of utmost importance to pay attention to the selection of key relationships as it can be either consonant (keys that share more than four notes, such as C major and G major) or dissonant (when keys share fewer notes, such as C major and F major).

Tetrachords, or chords consisting of four pitches (within the span of a perfect fourth), tend to be vague as there is no unique relationship between any of the four pitches, other than the fact that the chord must span the interval of a perfect fourth (Susanni & Antokoletz 2012:145). An example of a tetrachord is C-D-E-F. In the case of a tetrachord not comprising all four pitches (incomplete tetrachords), the level of ambiguity is increased substantially, as it comprises a

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smaller number of notes and can be found in various scale/modal collections as opposed to the complete tetrachord (Susanni & Antokoletz 2012:145).

Non-serial Atonality

Kennedy and Kennedy (2007:31) define atonality as music without a "tonal centre" in which all 12 notes of the octave (the chromatic scale) are employed uniformly. Furthermore, traditional harmonic consonances and dissonances are no longer applicable (Kennedy & Kennedy 2007:31). Other key characteristics of atonal music, as noted by Persichetti (1961:261-267), Ottman (1992) and Kostka (2006), include: it consists of pitch-class sets where the cell forms the melodic and/or harmonic foundation of the composition; it comprises normal order (the basic ordering of the pitches within the smallest interval) (Kostka 2006:179); the pitch-class set can be transposed or inverted (Kostka 2006:182); the pitch-class set can be presented as a prime form (Kostka 2006:185); it comprises interval-classes (the intervals between the pitches) (Kostka 2006:186); it creates unresolved dissonances (Kostka 2006:192) and it promotes contrapuntal texture (Kostka 2006:192).

One of the most significant changes in the post-tonal era with regard to chord structure was the "chord **density of pitch classes**" (DeLone et al. 1975:359). This can be defined more clearly as the amount of pitch classes/notes that can be found in any specific chord (DeLone et al. 1975:359). Many of the post-tonal composers were less restricted than the tonal composers once had been, preferring to use chords consisting of four pitches at most (DeLone et al. 1975:359). Several post-tonal compositions comprise textures that are dense and harmonically complex – some works contain chords comprising more than five pitch classes (DeLone et al. 1975:359). Other works contain harmonic structures that employ the twelve pitches found in the chromatic scale (DeLone et al. 1975:359). As the technology developed, so did pitch density: The electronic synthesisers could produce simultaneities that comprised smaller intervals, which in turn significantly expanded the range and colour of pitch classes (DeLone et al. 1975:359).

Classical Serialism

According to Kennedy and Kennedy (2007:686), all traditional rudiments and practices of melody, harmony, rhythm and tonality were discarded and the tonal development of composition depended on an organised set of notes. Serialism derived from atonality and ultimately led to the development of the twelve-tone method (Kennedy & Kennedy 2007:686).

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Serialism denotes the twelve-tone method in which all twelve pitches in the octave are arranged as an "organising principle" (Ottman 1992:422). There are four fundamental forms of the organised row: the Prime (original series), the Retrograde (series in reverse order), the Inversion (series in melodic inversion) and Retrograde Inversion (the inversion in reverse order) (Kostka 2006:199). The organised row serves as the theme and it is of utmost importance that no pitch class, within the organised row, sounds out of order (Kennedy & Kennedy 2007:686). Furthermore, no pitch class should be repeated, except for reiteration (Ottman1992:425). Other characteristics of Serialism include: the composition was organised by motives (serially) rather than functional progressions (Auner 2013:46); it is often linked to atonal works and non-tertian sonorities are applied (DeLone et al. 1975:340).

Post-tonal music is created using a vast array of approaches where the vertical dimensions (harmonic resources) of previous generations are at the composer's disposal (DeLone et al. 1975:322). DeLone et al. (1975:322) maintain that there are two categories: firstly, the harmonic material and secondly, the application of harmony. The former is divided into two sub-categories: chords and sonorities that comprise tertian and non-tertian elements (DeLone et al. 1975:322). The second point of view, harmonic applications, can be divided into either being systematic (the superposing of the same interval – fourths, fifths, etc.) or non-systematic (juxtaposing two or more intervals or chords) (DeLone et al. 1975:322). It is clear that the harmonic vocabulary has undergone significant change in many forms of post-tonal music (DeLone et al. 1975:323). This can be observed in works that comprise complete tertian materials, as the notion that "any chord (or pitch) may follow any other" has become the norm as established practices are no longer applicable (DeLone et al. 1975:323). In the end, chords and simultaneities were divorced from their previously established structural functions and ultimately became unclassifiable (DeLone et al. 1975:323).

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4.3.4. Texture

Texture in the tonal era

Texture is defined by Burkholder et al. (2010:A19) as the amalgamation of traits within a work or passage. These traits include independent parts (monophony, homophony or polyphony), groups (polychoral) or musical events (relatively dense or transparent sonorities), and their respective quantities and relationships (Burkholder et al. 2010:A19).

Deri (1968:73) explains that texture refers to two distinct elements of musical line: firstly, the thickness or density of the line/s (more specifically the amount of lines and their relationship to each other); and secondly, the line quality (more specifically the instrumental colour and sound – timbre). There are three types of densities: monophony (a melody that has no accompaniment) (Deri 1968:73); homophony (a melody that contains a supplementary accompaniment) and polyphony (two or more independent melodic lines that sound simultaneously) (Deri 1968:74). Deri (1968:74) explains that the texture type of a composition is an extremely significant and often "revealing stylistic feature". However, it should be noted that the texture of a composed work is not always distinctly classified as one or the other type (Deri 1968:74).

From the tenth through to the seventeenth century composers amalgamated melodic lines (more than one melody), and this laid the foundation for the construction of much "larger musical units" (Deri 1968:77). Secular music became ever more popular and brought about homophonic thinking (Deri 1968:77). By the seventeenth century, opera took over the stage and along with it came significant changes to texture (Deri 1968:77). Opera required individual expression and coherent enunciation, catalysing the growth of homophonic texture (Deri 1968:77). The culmination of the polyphonic Baroque era gradually made way for the homophony of the eighteenth century (Deri 1968:77).

The gradual departure from the polyphonic texture of the Baroque era was driven by Italian composers who emphasised individual melodic lines and favoured the lighter homophonic texture (Deri 1968:78). Numerous German composers, however, remained inflexible (Deri 1968:78). By 1750, composers (particularly in Austria) completely abandoned their polyphonic thinking as compositions of Franz Joseph Haydn and Wolfgang Amadeus Mozart (1756-1791) emerged and gained popularity (Deri 1968:78). Their early works, specifically the quartets, often retain a definitive break between homophony and polyphony with three movements (each homophonic in

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texture) and the fourth, a polyphonic movement (a fugue) (Deri 1968:78). The belief at the time was that these two textures were unable to be integrated in the same movement (Deri 1968:78). Nevertheless, in their later compositions both composers aimed to integrate the two textures to the extent where lush counterpoint contributed to the harmonic foundation (Deri 1968:78). Ludwig van Beethoven's compositions not only displayed similar approaches in integrating the two textures but surpassed the thinking of his predecessors (Deri 1968:78). After his death, numerous composers became engrossed in all elements of melody and harmony as harmonic material gradually started to incorporated more chromaticism (Deri 1968:78).

During the latter half of the Romantic era, composers employed harmonies for their qualities in sound as many were not proficient in the practice of counterpoint[21] (Deri 1968:78). Deri (1968:78) maintains that one of the contributing factors for the Romantic composers' disdain for counterpoint might be embodied in the Romantic ideal: the Romantic composer strove towards subjective personal expression; for this, homophony, as opposed to polyphony, was better suited.

The quality (sound) of texture

According to Deri (1968:80), melodic material (or musical lines) can be defined by both density and colour qualities, where the latter is dependent on the sound character, better known as 'tone colour' or 'timbre'. Deri (1968:80) maintains that one can adequately describe the specific texture (even a monophonic texture) only once the medium (instrument or voice) producing the tone/timbre has been identified. There are absolute differences in the tone colour/s produced in the various textures, such as monophonic texture (a human voice compared to a flute) and homophonic texture (a violin melody accompanied by either a piano or three other string instruments) (Deri 1968:80). Other determining factors of tone colour include: the difference in sound value within the same medium (male voice versus female voice), dynamics (loud and soft), articulation (*pizzicato* and *arco*; *legato* and *staccato*; vibrato and non-vibrato; muted and non-muted) and even the quantity of players in the group (small string orchestra versus modern orchestra) (Deri 1968:81).

[21] Counterpoint, described by Deri (1968:74), is the "art of combining melodies" – the adding of one melody to another. Burkholder et al. (2010:A5) maintain that there are rules pertaining to the combination process.

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The quality of texture during the tonal era (eighteenth and nineteenth centuries)

Deri (1968:81) notes that the transformations in the basic musical fundamentals (melody, rhythm and harmony) are largely responsible for the history of sound values (or quality) as we know it and by exploring the history of sound, additional results are attained: Firstly, the various time periods display predilections toward specific "sound media" – for example, the rise of the art song during the nineteenth century. Secondly, a composer often gravitates to only one specific medium – for example, Frédéric Chopin (1810-1849) exclusively employed the piano (medium) in his compositions. However, other composers (such as Hector Berlioz (1803-1869) and Richard Wagner) did not confine themselves to a small amount of instruments, instead they explored the sound qualities of much larger sound resources/mediums (such as an orchestra) (Deri 1968:82).

The Classical era, however, displayed a steady approach to sound; it was an era that was not only "governed by reason and restraint" and maintained a balance between melody, rhythm and harmony, but also demonstrated the skilful application of sonorities (Deri 1968:82). Orchestral balance was primarily achieved by individual instrumental groups and composers preferred not to overemphasise one instrument (Deri 1968:82). The size of the orchestra remained small (at most 60 players) and the primary tonal colour/timbre of the orchestra during this era was subject to the sonorities of the string instruments whilst the woodwinds (rarely employed "brilliantly") played a less significant role (Deri 1968:82). Percussion instruments were seldom incorporated, relegated to rhythmical accents or assisting in building climactic areas in dynamics. Ultimately, composers wanted to create works that were accessible, understandable and clear (Deri 1968:82).

By the end of the eighteenth century the orchestra had not yet expanded as drastically as by the end of the following century, although Beethoven surpassed his predecessors by creating enormous and often rough sonorities (Deri 1968:82). Many of Beethoven's compositions are characterised by their rhythmic effects (employing various accentuations and displaced accents) and expansive dynamic range (creating fierce emotional contradictions) (Deri 1968:82). After Beethoven, many composers had a unified appreciation and consciousness of sound (Deri 1968:82).

The rich Romantic sonorities were created by a young group who was filled with individual desire and expression and their ideals included the following: an inclination primarily towards "expressiveness and subjectivity" (breaking away from established practices and limitations); abandoning the orchestral balance that dominated the Classical era; placing emphasis on

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individual instruments and signifying their "melodiousness"; turning to the imagination and "supernatural" for musical material (often creating "poetic, mysterious or grotesque effects") (Deri 1968:83). Woodwind and brass instruments underwent substantial mechanical improvements and the orchestra welcomed an array of new instruments (Deri 1968:83). The young generation of instrumentalists were adapting to the ever more demanding parts (Deri 1968:83). Composers became interested in exploring tone colour/s, requiring different instruments and new effects (Deri 1968:83). During the first half of the nineteenth century woodwind instruments gained importance, whilst the second half of the nineteenth century saw the spotlight fall on the brass section, particularly in the compositions of Wagner (Deri 1968:83).

The nineteenth century concluded with large orchestras, hallmarked by frenzied climaxes and unprecedented levels of dynamics (Deri 1968:83). Tone poems gained more popularity and by the turn of the period, "the opulent and often bombastic tendencies" of late Romanticism succumbed to the delicate sonorities and textures of Claude Debussy (Deri 1968:83). Despite making use of a large orchestra in his opera *Pelléas et Mélisande* (1902), Debussy applies textures that are delicately portrayed with the assistance of merely a handful of instruments.

Texture in the post-tonal era

The twentieth century distanced itself from the highly saturated Romanticism of the nineteenth century (Deri 1968:78). One of the most noticeable changes within this "new trend" was the return of polyphony (Deri 1968:78). Composers such as Stravinsky, Bartók, Schoenberg, Berg and Hindemith (1895-1963) often displayed a linear approach to composing (Deri 1968:79).

Furthermore, various other twentieth century stylistic terms, including Neoclassical and Neobaroque, indicated the renewed awareness of counterpoint (Deri 1968:79). Deri (1968:79) maintains that this was the result of the "harmonic evolution" that transpired with the turn of the century. During the previous centuries vertical dimensions often suggested functional harmonic progressions, however, in the twentieth century it was perceived as more open and free as independent melodies constructed from seemingly unique parts could occur at the same time (Deri 1968:79). The combining of melodies, also referred to as 'dissonant counterpoint', frequently created intervals that were either augmented and/or diminished (such as seconds or sevenths) (Deri 1968:79). Contrapuntal writing of the twentieth century is exemplified by composers such as Schoenberg (in *Pierrot Lunaire* (1912), No. 8 - *Die Nacht*), Hindemith (in the final movement of the Fourth Quartet (1921)), Stravinsky (the second fugal movement of *Symphony of Psalms*

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(1930)) and Bartók (the first movement of *Music for Strings, Percussion and Celesta* (1936)) (Deri 1968:79).

The quality (sound) of texture during the post-tonal era

According to Deri (1968:84), sound was strongly influenced by the twentieth century's aesthetic philosophy. The new ideal (striving to create music not only for the sake of listening pleasure) ultimately transformed the approach to sound (Deri 1968:84). Additionally, the new melodic writing, increased focus on rhythm, as well as the reconstruction of harmonic materials led to a new style of composing (Deri 1968:84). Furthermore, the renewal of rhythmic elements, and in turn the development of percussion instruments, played an essential role in establishing the twentieth century's new sonorities (Deri 1968:84). The compositions of Stravinsky and Bartók, as well as the popular jazz influences of the time, invited not only exotic rhythms (rhythms of other cultures), but also the broad sound palette of the percussion instruments (Deri 1968:84).

Percussion, woodwind and brass instruments gained new attention whilst the role of the string instruments as the dominant source of sound in the orchestra waned (Deri 1968:84). This can be observed in the compositions of Stravinsky (*Petrouchka* (1911), *Le Sacre du Printemps* (1913) and *L'Histoire du Soldat* (1918)), who employed the strings mainly for their "percussive potentials" (Deri 1968:84). Bartók also displayed great interest in string instruments, making use of effects such as *sul ponticello*, *col legno* and various pizzicatos, all of which represent "the sound of primitive folk instruments" (Deri 1968:84). Other techniques such as harmonics, glissandos and non-vibrato contributed to the novel sonorous world (Deri 1968:84).

Woodwind and brass instruments rose to become the "virtuosi of the orchestra" and were included in numerous chamber ensemble settings (Deri 1968:84). Some of the most popular examples include the *Concerto for Orchestra* (1943) by Bartók, the *Octet* (1923, for wind instruments) by Stravinsky and Stockhausen's *Zeitmasse* (1955-56, for five woodwind instruments) (Deri 1968:84). Another instrument that gained new relevance was the piano; in the twentieth century composers used the piano more percussively than before (such as in the *Allegro Barbaro* (1911) by Bartók) (Deri 1968:85).

The percussion section increased both in popularity and size, adding numerous instruments and sound devices such as non-pitched percussion instruments (including woodblocks, the slapstick, wind machine and thunder stick) (Deri 1968:85). Other preferred instruments were the vibraphone

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(employed by composers including Berg and Boulez) and the xylorimba (a larger xylophone) (Deri 1968:85). Composers now had an unlimited array of instruments to employ, writing for any combination of percussion instruments (Varese's *Ionisation* (1929-31) was composed for thirteen percussionists playing on more than twenty instruments) and even as a member of the chamber ensemble (such as the *Sonata for Two Pianos and Percussion* (1937) by Bartók) (Deri 1968:85). However, by the end of the 1920s, many composers preferred writing for a smaller orchestra as opposed to the large orchestras of Stravinsky and Schoenberg's earlier compositions (Deri 1968:85).

After the First World War the Neoclassical style evolved, placing more focus on single instruments than on larger ensemble groups (Deri 1968:85). Composers employing this style preferred dry sonorities with svelte contrapuntal lines, and the use of instrumental effects became more pronounced in an attempt to accentuate rhythm and clarify counterpoint (Deri 1968:85).

The Viennese atonal school (comprising composers Schoenberg, Berg and Webern) frequently made use of unique instruments including the mandolin, guitar and tenor saxophone, and employed tone colour (timbre) to create "eerie, tenuous psychological effects" (Deri 1968:85). Special instrumental techniques, such as flutter tonguing[22] for wind instruments, also became popular (Deri 1968:86). To create special effects, avant garde composers made use of the 'prepared piano' – altering the sound created by the piano by inserting objects between some of the strings (Deri 1968:86).

By the twentieth century, and for a large part of it, new approaches to tone colour had developed by means of the following: shrewdly treating established sound sources (such as the use of the piano, voice or any combination of timbres common to traditional music), and the creation of novel sound sources (most importantly the array of sounds produced from electronic sound sources) (DeLone et al. 1975:70). DeLone et al. (1975:80) maintain that the jazz influences, specifically those of technique and tone colour effects, played an important role in many twentieth century composer's selection and employment of instrumentation. Another influence was the electro-mechanical modification of sounds (particularly of traditional instruments such as the flute, cello, voice, etc.) (DeLone et al. 1975:84). Many composers were interested in broadening their already available sound sources (DeLone et al. 1975:85).

[22] Flutter tonguing is a sound effect that is produced on a wind instrument by means of rapidly "rolling the tongue" (such as saying "trrr") (Deri 1968:86).

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The use of traditional instruments and the creation of new sound sources include (DeLone et al. 1975:85-86):

1. Pitched: *Sprechstimme*, prepared piano sounds, unusual woodwind harmonics, humming and blowing, woodwind glissandos, string microtones, vocal glissandos, exaggerated tremolo and many more.
2. Non-pitched: Speech chorus, activating keys or valves without blowing (specifically for a wind instrument), tapping or rubbing the soundboard of a stringed instrument and many more.

According to DeLone et al. (1975:88) texture, in many of the twentieth century compositions, was vital to structural design and creating unity. Furthermore, elements including dynamics and tempo created diversity and significantly contributed toward textural continuity (DeLone et al. 1975:90). The use of the computer in the production of sound also played an important role (DeLone et al. 1975:86). Numerous composers, including Olivier Messiaen, Iannis Xenakis (1922-2001), Luciano Berio (1925-2003), Luigi Nono (1924-1990), John Cage (1912-1992) and Ernst Křenek (1900-1991) made a concerted investment in electronic music (DeLone et al. 1975:87). According to DeLone et al. (1975:87), musical sound and texture would not have evolved as extensively as it did were it not for the development of electronic music in the twentieth century.

- Stratification

Stratification, often referred to as ‘block juxtaposition’, is the juxtaposition of different textures, more specifically different sounds (Kostka 2006:239). The ‘strata’ in the word refer to layers placed next to each other (Kostka 2006:239). Stratification is based primarily on the contrast of tone colours, registration, intensity levels and density of texture (DeLone et al. 1975:96). This often leads to an extreme contrast in the sound, brought about by the simultaneous change in nearly all elements (DeLone et al. 1975:96). Furthermore, stratification is a significant device used when creating musical structure in compositions where traditional techniques (such as key change, thematic discourse and sectionalisation) are seldom applied (DeLone et al. 1975:96).

- Textural bases (monophony, homophony and polyphony)

Monophonic texture in a composition is created either by a single instrument or by a solo passage in a multi-instrumental work (DeLone et al. 1975:99). The resulting effect is that of timbral, dynamic and rhythmic differentiation rather than distinct pitches (DeLone et al. 1975:100). Single-part compositions are often ambiguously written, creating the illusion of more than one voice by means of various techniques (including rapid changes of register or dynamics)

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(DeLone et al. 1975:99). Some post-tonal composers preferred writing in a monophonic texture: 1) In the post-tonal era, many composers discarded harmonic and tonal principles which ultimately led to the emancipation of the line as the constraints of the accompaniment were no longer applicable; 2) exotic and early music gained popularity, which ultimately promoted line and contrapuntal processes (DeLone et al. 1975:100); 3) the development of established and novel sound sources, as well as the ever-growing skills of the individual performers resulted in a broad spectrum of tone colours and instrumental effects (DeLone et al. 1975:101). It is in a solo (exposed) setting where these are best appreciated (DeLone et al. 1975:101).

Traditionally, **homophony** is created by the primary voice in combination with its accompaniment, comprising the repetition of chords (DeLone et al. 1975:113). The repeated chords mainly function as "rhythmic and colouristic" material (DeLone et al. 1975:114). There are two categories of **homophonic texture**: the first comprises the primary voice that is supported by accompaniment, whilst the second category, defined as 'chordal homophony', comprises multiple voices using the same thematic material, where the highest part assumes the primary role (DeLone et al. 1975:110-111).

Both rhythm and pitch are conducive to the organisation of texture; it is, however, rhythm that regularly offers an unbiased foundation for the analysis of texture (DeLone et al. 1975:113). DeLone et al. (1975:113) explain more clearly that rhythm is essentially, on a larger scale, duration (DeLone et al. 1975:113). It does not include dynamics (loud or soft), pitch (high or low) or key-related (tonic or dominant) material (DeLone et al. 1975:113).

Notable characteristics of post-tonal homophonic texture include the chord outline and figuration (involving established patterns), and accompaniments that comprise more complex harmonic materials (DeLone et al. 1975:118). Numerous post-tonal compositions are founded on harmonic accompaniments that are not key-oriented (DeLone et al. 1975:111).

Ostinato is one of the most popular and commonly employed accompanimental approaches of the post-tonal era (DeLone et al. 1975:123). DeLone et al. (1975:125) explain that ostinato entails the recurring use of accompanimental melodies, where the thematic material is not primary (DeLone et al. 1975:125). There are two main reasons why composers applied ostinato techniques: firstly, the abandonment of functional harmonic progressions used to shape phrases and define tonality resulted in a lack of unity; and secondly, numerous composers employed ostinato devices of the

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passacaglia[23] type as it interacted well with their stylistic and aesthetic values (DeLone et al. 1975:123). Recurrence is the most essential characteristic of any ostinato (DeLone et al. 1975:123). Other characteristics include: ostinatos are often built melodically; they can be used in contrapuntal/polyphonic textures; some composers employed harmonic ostinatos (the repetition of rhythmic-harmonic accompanimental material) (DeLone et al. 1975:123). Ostinatos are mainly treated as alterations in rhythmic material by means of displacement, truncation or extension (DeLone et al. 1975:123).

Pedals became more popular in the post-tonal era as various versions of pedal points emerged (DeLone et al. 1975:141). The pedal point consists of a sustained note (usually bass) with different activity in the remaining voices (DeLone et al. 1975:141). The pedal effects are found in homophonic and contrapuntal textures and can often appear either in a single voice, multiple voices, chords or even massed blocks of sounds (DeLone et al. 1975:141). Post-tonal composers have created a variety of pedal techniques (DeLone et al. 1975:141). Pedals (specifically repeated static pitches, dyads or chords) tend to imply tonal references in works where the tonality was not considered important (DeLone et al. 1975:147). Nevertheless, pedal pitches were often employed as they provided the resources for dissonance and tension, creating the anticipation for release (DeLone et al. 1975:147).

Contrapuntal (polyphonic) textures and procedures: DeLone et al. (1975:152) define counterpoint as the "technique of combining melodies". They explain that counterpoint as well as the "general projection of melody against melody, rhythm against rhythm and textural layer against layer" represented the tonal and post-tonal era composers' contrasting approaches (DeLone et al. 1975:153). The revival of contrapuntal procedures in the 1900s falls into two main categories: firstly, compositions in which the texture was determined by the outermost voices, and secondly, compositions where texture was not determined by the outermost voices, yet remained linear and contrapuntal in nature (DeLone et al. 1975:155).

"Textural complexity and compositional precision" have been prevalent in much of the music of the post-tonal era (DeLone et al. 1975:200). The music not only challenges both the performer and listener, but also expresses the post-tonal composer's need to create new sounds and an individual style (DeLone et al. 1975:200). Textural considerations provide a common approach to compare

[23] Burkholder et al. (2010:A14) note that the passacaglia developed during the Baroque era. Kennedy and Kennedy (2007:566 and138) maintain that a passacaglia is a dance in triple-time with a repeating bass line motive.

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diverse styles and genres without the traditional restrictions associated with pitch elements and structure (DeLone et al. 1975:96).

In conclusion, the texture of music composed during the post-tonal era is unmistakeably more contrapuntal than that of the previous eras (Deri 1968:86). The quality (sound) of the texture rarely portrays sensuous beauty (Deri 1968:86). Ultimately, this has led to the following: the less frequent employment of string instruments; percussion instruments became popular; the traditional instruments (including the piano and strings) were employed more percussively; wind instruments (woodwind and brass) have received more prominence in contemporary compositions; and finally, the novel treatment of new instruments, new sound devices and producing sound electronically has led to a vast sonorous world (Deri 1968:86).

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4.3.5. Form

Form, as defined by Burkholder et al. (2010:A7), is the "shape or structure" of a composition or movement thereof. DeLone et al. (1975:1) maintain that the form or structural design of a composition is an integral aspect of any work of art, and further explain that form relates to the arrangement of element or materials into an entity. Traditional designs of large scale forms include ternary, sonata-allegro, theme and variation, and sections (which form part of a smaller scale structure) in which phrases and periods occur (DeLone et al. 1975:1). Kostka (2006) notes that during the post-tonal era composers still employed these forms, however, they started to explore the different variations of a set form structure.

In many twentieth century compositions, an apparent traditional design is seldom employed: there is often no distinct division and a lack of developmental procedures is evident (DeLone et al. 1975:2). This led many to question the structural design of contemporary music; some maintained that there was no structure while others maintained that the structure was archaic (DeLone et al. 1975:2). However, DeLone et al. (1975:2) explain that an artwork cannot exist without having "some shape to it", even if recognisable patterns are obscured.

In the twentieth century some of the new qualities of form include the variety of materials employed, the size of the work and the various techniques active in the structural process (DeLone et al. 1975:2). According to DeLone et al. (1975:2), music of the tonal era relies on the structural outline of a composition (more specifically the different parts/voices) and how they are combined to form an entity. This can also be defined as 'sectionalisation' where sections (each with its own goal) are combined, by means of restatement, variation and contrast, into a larger structure (DeLone et al. 1975:2).

DeLone et al. (1975) discuss the various form structures used in the twentieth century:

1. **Sectional forms**

Sectional forms constitute the traditional forms used in the tonal era: **ternary** (A-B-A) which is a combination of "contrast and restatement" to create a uniform entity, and **rondo forms** (A-B-A-C-A or A-B-A-C-A-B-A) which are merely extensions of the ternary form's cyclical pattern (DeLone et al. 1975:5). These structures remain present in the post-tonal era, however, they contain alterations as composers started experimenting with aspects within fundamentals other than pitch (such as timbre and dynamics) (DeLone et al. 1975:5).

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2. Developmental forms

In many of the twentieth century compositions, the treatment of material is applied in the same manner as in previous centuries (DeLone et al. 1975:17). An example of this is found in Chant music, where the same group of notes are permutated (DeLone et al. 1975:17). DeLone et al. (1975:18) maintain that various post-tonal compositions comprise permutations of interrelated motives by means of rhythmic, dynamic and instrumental transformations. Furthermore, DeLone et al. (1975:18) note that there are two devices that can create form: developmental sections[24] and variational sections[25]. The form structure most associated with 'development' is Sonata form (DeLone et al. 1975:18).

Another type of form that became popular in the post-tonal era was the "arch form" and one of the first composers to employ this form type was Bartók (DeLone et al. 1975:18). DeLone et al. (1975:32) explain that due to the arch form's inherent cohesion and sense of unity, contrast is attained from dynamic, timbral and temporal variations, and composers employing this form structure have a very keen awareness of symmetry.

3. Variational forms

In a variational form, the construction of the composition is based on 'variation-development' – the motivic material is presented in different manners (DeLone et al. 1975:33). This technique is applied to all approaches of composition in the post-tonal era (DeLone et al. 1975:33). Thematic material is often retained in its exact form throughout a set of variations (DeLone et al. 1975:33). Many composers of the twentieth century, however, applied the "idea of constant variation" (DeLone et al. 1975:47).

4. Stratified and interpolated forms

Segments consisting of either small fragments, layers or blocks of material, are essentially defined as single sonorities each comprising combined familiar elements (highness, density, loudness, lowness, etc.) (DeLone et al. 1975:47). These segments can be next to each other, overlapping or included in other material (DeLone et al. 1975:47).

[24] A developmental section refers to those sections where fragments are permutated (DeLone et al. 1975:18).
[25] A variational section describes the parts that are reliant on a unique interpretation of material, or the retention of an entire phrase structure or shape (DeLone et al. 1975:18).

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5. Open forms

According to DeLone et al. (1975:59), several works composed after 1950 display new approaches to structural design as new techniques of form were developed by composers. These techniques stand in complete contrast to the traditional procedures – opting for "ongoing processes" rather than "closed designs" (DeLone et al. 1975:59). Ultimately, the structure of the composition was determined by the music populace (DeLone et al. 1975:59). Furthermore, various aleatory operations were integrated into the compositional process, which created a composition that was either very explicit (specifically-notated material), or gave the performer more freedom to improvise (DeLone et al. 1975:59). In many instances, the performer was able to select either his/her own pitch material (DeLone et al. 1975:59) or explore with sound and tone colours (DeLone et al. 1975:60). DeLone et al. (1975:60) note that composers had carte blanche to include or exclude whichever parameters they chose and that this ultimately led to a greater involvement by the performer.

DeLone et al. (1975:2) explain that composers in the twentieth century still incorporated and made use of the traditional structural designs of the previous centuries (ternary, rondo, sonata-allegro), however, they held different approaches to the process of structure. Ultimately, the result was an integration of established structures, a new language and various novel shaping processes (DeLone et al. 1975:4).

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4.4. Conclusion

In conclusion, all aspects of music creation have changed dramatically during the post-tonal era (DeLone et al. 1975:320). Since the end of the Second World War in 1945, an unparalleled level of progress and exploration took place in every field, including science, technology, art, psychology and medicine (DeLone et al. 1975:85). In music new sonorities, approaches, applications and structures were the order of the day (DeLone et al. 1975:85). The main influences that promoted the development of music during the post-tonal era include folk music, cultural music (such as African / Indian / Chinese indigenous rhythms, melodies, harmonies and instruments), popular music styles (such as Jazz, Pop and Rock), science and its illuminating discoveries, as well as technology and technological advances such as the computer, smartphone and music software.

Today, composers employ a multitude of techniques and approaches to engage the audience's various senses, and yet the fusion of science, technology and the kaleidoscope of musical material available continues to transform new compositions (Auner 2013:303). Auner (2013:304) maintains that multimedia technologies (computers, smartphones, etc.) have become an integral part of society, and access to sound, images, words and movement has never been easier (Auner 2013:304).

The key musical traits of the post-tonal era underwent many transformations. One of the most important changes to musical structure in the post-tonal era was **melodic** material (DeLone et al. 1975:320). With an increase in resources available, melodic material now comprises much more variety and consequently its predictability has decreased (DeLone et al. 1975:321). **Rhythm** has also taken on a prominent role during the post-tonal era – composers have gone to great lengths to "seek out new possibilities" (DeLone et al. 1975:268).

During the post-tonal era composers have substantial **harmonic** materials available from the past and present, and they can apply multiple practices and techniques (DeLone et al. 1975:322). There are no more rules, and ultimately, the traditional treatment of chords, progressions and other harmonic material has declined (DeLone et al. 1975:323). Deri (1968:86) maintains that the **texture** of post-tonal compositions is unequivocally more contrapuntal than works composed previously, and composers have moved away from creating "sensuous beauty" within the "quality of the texture". Ultimately, the development and commission of novel instruments, sound devices and electronically created sound led to the advancement of an assortment of new sonorities (Deri

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1968:86). **Form structures** from the previous centuries remained in the repertoire (as foundation of a composition), however, composers aimed to elaborate on these structures (DeLone et al. 1975:4). This led to the amalgamation of old and new forms into one composition (DeLone et al. 1975:4).

Nevertheless, the twentieth century gradually blended into the twenty-first with a bewildering array of techniques and elements, creating a period lacking a definitive style (Kostka 2006:316). Kostka (2006:316) notes that those unfamiliar with twentieth century music tend to be stirred by its peculiarities rather than by its similarities. It is certain that we are oblivious to what the future for music might hold – the grandchildren of today's university students will themselves be parents or grandparents and the new music of today will be archaic and, perhaps, venerated (Kostka 2006:316).

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Chapter 5

Analysis of the string ensemble works

5.1. Introduction

The string ensemble compositions selected for this study, composed between 1984 and 2013, are examined in order to trace the transformation of Hanna Kulenty's compositional style. The criteria considered include, and are not necessarily limited to, prominent style characteristics such as melody, harmony, texture, rhythm and form. These subdivisions serve as the foundation of this investigative study.

5.2. Definitions

5.2.1. String Quartet

The words "string quartet" can be defined within two categories: Firstly, it represents a group of musicians comprising four players (2 violins, 1 viola and 1 violoncello), and secondly it is the title of a composition, traditionally a multi-movement work, that is written exclusively for the above ensemble setting, or rather group of musicians (Kennedy & Kennedy 2007:730). Burkholder et al. (2010:A18) explains that a string quartet (the group of musicians) is often referred to as the 'standard chamber ensemble'. Hereafter, the composition/s will be referred to as String Quartet/s (propercase) and the ensemble setting/s as string quartet/s (lowercase).

In orchestral composition, the symphony maintains the highest rank (Kennedy & Kennedy 2007:730). In much the same way, the String Quartet (the composition) takes its place as "highest medium" in chamber composing (Kennedy & Kennedy 2007:730). This multi-movement work was developed in the 1700s and composers Alessandro Scarlatti (1660-1725) and Giuseppe Tartini (1692-1770) were its chief patrons. However, it reached its pinnacle only during the mid and late eighteenth century with composers such as Joseph Haydn, Wolfgang Mozart, Ludwig van Beethoven and Franz Schubert contributing toward the genre (Kennedy & Kennedy 2007:731). According to Kennedy and Kennedy (2007:731), excellent quartet groups were established during the 1800s and 1900s, including the Joachim Quartet (1869, Berlin), Brodsky Quartet (1972, Middlesbrough), Bohemian Quartet (1891, Prague), Amadeus Quartet (1947, Vienna), Kronos Quartet (1973, San Francisco) and the Belcea Quartet (1994, London).

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With the advent of the twentieth century, three prominent composers contributed to the String Quartet repertoire: Arnold Schoenberg (1874-1951), who composed numerous string ensemble works and published four String Quartets (Gloag 2003:291); Bela Bartók (1881-1945) composed six String Quartets (Gloag 2003:302) and Dmitri Shostakovich (1906-1975) added fifteen String Quartets to his oeuvre (Gloag 2003:300).

After the Second World War there was a distinct divide between composers. Some opted to explore new territories, ideals and genres whilst others continued to explore, expand on and recognise the potential of traditional genres, such as the String Quartet (Gloag 2003:292). Notable composers who leaned towards the latter include Witold Lutosławski (1913-1994) (Gloag 2003:305), Pierre Boulez (1925-2016) (Gloag 2003:306) and Hans Werner Henze (1926-2012) (Gloag 2003:292).

Boulez, a French conductor and composer, composed a string quartet titled *Livre pour Quatour* (1948-49), early in his career (Stowell 2003:155). However, in the early 1960s he stated that the String Quartet was part of a bygone era (Stowell 2003:173). Nevertheless, since the 1960s, several composers have re-established their interest in the genre as leading quartets of the time (such as the Kronos Quartet) aimed at "encouraging and commissioning" new works from composers, which in turn instilled a new passion for the medium (Stowell 2003:173). By the 1980s, Boulez revoked his dubious remark (Stowell 2003:173).

Other notable contributions to the genre were made by composers such as György Ligeti (1923-2006) who, in 1953-54, composed String Quartet No. 1, titled *Métamorphoses nocturnes*, and in 1968 composed his second String Quartet (Gloag 2003:304); Luigi Nono (1924-1990) composed *Fragmente-Stille, An Diotima* in 1979-80 (Gloag 2003:293); and Elliott Carter (1908-2012), who composed five string quartets over the span of forty-four years (his first being composed during 1950 and 1951) (Gloag 2003:308).

5.2.2. String Quintet

Similar to the String Quartet, the string quintet can be defined within two categories (Kennedy & Kennedy 2007:731). Firstly, it is a group of musicians comprising five players in one of the following settings (Kennedy & Kennedy 2007:731):

- 2 violins, 2 violas and 1 violoncello (also referred to as the viola quintet),
- 2 violins, 1 viola and 2 violoncellos (also referred to as the cello quintet), or

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- 2 violins, 1 viola, 1 violoncello and 1 double bass.

Secondly, it is a composition, traditionally a multi-movement work, that is written exclusively for one of the above mentioned ensemble settings (Kennedy & Kennedy 2007:731). Hereafter, the composition/s will be referred to as String Quintet/s (propercase) and the ensemble setting/s as string quintet/s (lowercase). Prolific composers writing String Quintets include Mozart, Schubert, Bartók and Hindemith (Kennedy & Kennedy 2007:731).

Ultimately the String Quartet remains the "Parnassus" for the twentieth and twenty-first century composer (McCalla 2005:168). According to McCalla (2005:168), the String Quartet and Quintet genres are both "challenging and rewarding" as they comprise "four [or five] instruments of the same family" which offer ranges that overlaps and a vast array of available sonorities. Furthermore, these genres "demand thoroughly professional compositional skills" (McCalla 2005:168). McCalla (2005:190) notes that there are various techniques that are often employed within a String Quartet or Quintet, which include continuous development of motives; reappearing rhythmical motives; continuous alteration between homophonic and polyphonic textures; the application of the 'developing variation' technique (a technique in which only selected elements of a melodic line or motive are repeated while others are distinctly varied); delaying the conclusion or finale, and the heterogeneity of sections or movements.

5.3. Kulenty's string ensemble works

Over the span of nearly thirty years, Hanna Kulenty has added six string ensemble compositions to her already extensive and varied oeuvre. Her first String Quartet was completed in 1984 and 29 years later, in 2013, she published the first String Quintet, titled *Five for Five*.

The selected string ensemble compositions for this study encompass:

- String Quartet No. 1 – *The Song for String Quartet* (1984)
- String Quartet No. 2 (1991)
- String Quartet No. 3 – *Tell me about it* (2007)
- String Quartet No. 4 – *A Cradle Song* (2007)
- String Quartet No. 5 (2011)
- String Quintet No. 1 – *Five for Five* (2013)

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5.4. Notation

Below follows a table describing each term, symbol or abbreviation that Hanna Kulenty employs throughout the selected string ensemble works (refer to Appendix A for the original list). Ottman (1992:447) explains that this manner of notation is often referred to as 'graphic staff notation'. Composers of the post-tonal era regularly integrate graphic staff notation with traditional staff notation (Ottman 1992:447), as is noted in the music scores of Kulenty's string ensemble works.

Table 1

Term	**Description**	**Symbol / Abbreviation**
Arco	*Arco*, according to Kennedy and Kennedy (2007:25), is an Italian word which means "to bow". The word is often used following a passage marked *pizzicato* (to be plucked), on its own or in the phrase *coll'arco*, which implies "with the bow".	AR
Pizzicato	Kennedy and Kennedy (2007:584) explains that this is an Italian word which directs the string player to pluck, rather than to bow, the strings in order to produce a note.	PZ
pizzicato with the left hand	This is a similar technique to that noted above. However, the string player makes use of the left rather than the right hand to pluck the string.	+
pizzicato alla Bartók	This is a *pizzicato* technique that should be executed in the style of Bartók, which is often referred to as the 'Bartók snap' (Vanderbeek 2011:17). It requires the string player to pluck the string upward with both the thumb and index finger, away from the fingerboard (Vanderbeek 2011:17). This creates the snapping *pizzicato* (Vanderbeek 2011:17).	Ø
ordinario	This is the Italian word for "ordinary or normal" and implies that the note/s or passage is to be played according to the excepted norm (Kennedy & Kennedy 2007:551).	ORD
sul tasto	This is Italian for "on the touch". *Sul tasto* instructs the string player to "take the bow over the fingerboard" (Kennedy & Kennedy 2007:734). According to Kennedy and	ST

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	Kennedy (2007:734), this gives the string instrument a lush and delicate sound.	
sul ponticello	The Italian term for "on the bridge", *sul ponticello*, instructs the string player (specifically of the violin family) to take the bow as close to the bridge as possible in order to create a metallic sound (Kennedy & Kennedy 2007:734).	SP
col legno	*Col legno* is Italian for "with the wood", which instructs the string player to strike the string/s with the wooden side of the bow rather than playing with the hair of the bow (Kennedy & Kennedy 2007:153).	CL
legno battuto	*Battuta* is the Italian word for "to the beat" and is executed by tapping with the wood (*legno*) of the bow to the beat (Kennedy & Kennedy 2007:55).	LB
molto vibrato	*Molto* is Italian for "much or very" (Kennedy & Kennedy 2007:501). *Vibrato* is Italian for "vibrated" and denotes the fluctuation of a note's pitch (Kennedy & Kennedy 2007:788). *Molto vibrato* is created on a string instrument by a controlled, slight movement of the finger on the string (Kennedy & Kennedy 2007:788).	MV
richettato	*Richettato*, also referred to as *spiccato*, is Italian for "separated" (Kennedy & Kennedy 2007:712). This is a type of *staccato* bowing technique where the bow is permitted to bounce on the string and is created by using the central portion of the bow in rapid movements (Kennedy & Kennedy 2007:712).	RIC
Very rapid, non-rhythmic *tremolo*	*Tremolo* is Italian for "shaking or trembling" (Kennedy & Kennedy 2007:769). When playing a string instrument, it refers either to 1) the fast restatement of the same note or chord by back-and-forth bow strokes or 2) the fast alternation between two notes (Kennedy & Kennedy 2007:769). Note that *vibrato* is merely the fluctuation of the note (Kennedy & Kennedy 2007:769).	
The highest possible note (which is not a harmonic)		▲
Very slow *vibrato*		

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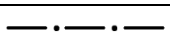
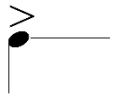
Sharpen a quarter tone	A quarter tone, according to Kennedy and Kennedy (2007:603), spans half the pitch of a minor second (a semi tone). Consequently an octave comprises 24 quarter tones (Kennedy & Kennedy 2007:603). In order to sharpen a note by a quarter tone, the pitch of the note is raised by a quarter tone.	
Flatten a quarter tone	In order to flatten a note by a quarter tone, the pitch of the note is lowered by a quarter tone.	
Repetition of a group of notes		
Speeding up the group		
Slowing down the group		
Irregular groups		
The duration of the note is indicated by the length of the horizontal line which follows it.		
Note: the accidentals apply only to the notes they precede.		

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5.5. Analysis

Below follows a brief analysis of each of the selected string ensemble works. This analysis does not discuss and analyse each Quartet or Quintet in depth, but rather aims to highlight the key musical characteristics (melody, rhythm, harmony, texture and form) of the post-tonal era in order to trace the style transformation. Texture and form, respectively, will be discussed separately to the other characteristics, in order to provide an overview of the textural materials and aspects of form and structure that are evident in the string ensemble works.

Colour chart

The colours listed below will be used in the Figure Analyses to indicate and highlight specific analytical details within each example (each colour representing a specific analytical trait):

Red – Melodic material (horizontal dimension)
Light blue – Quarter tones
Pink – Mirroring; highest notes
Green – Static material
Orange – Rhythm, tempo indications, time signatures, durations
Yellow – Other harmonic materials (vertical dimension: intervals, chords, etc.)
Blue – String technique and effects (glissandos, vibrato, pizzicato, tremolo, bowing, accents, etc.)
Purple – Dynamics

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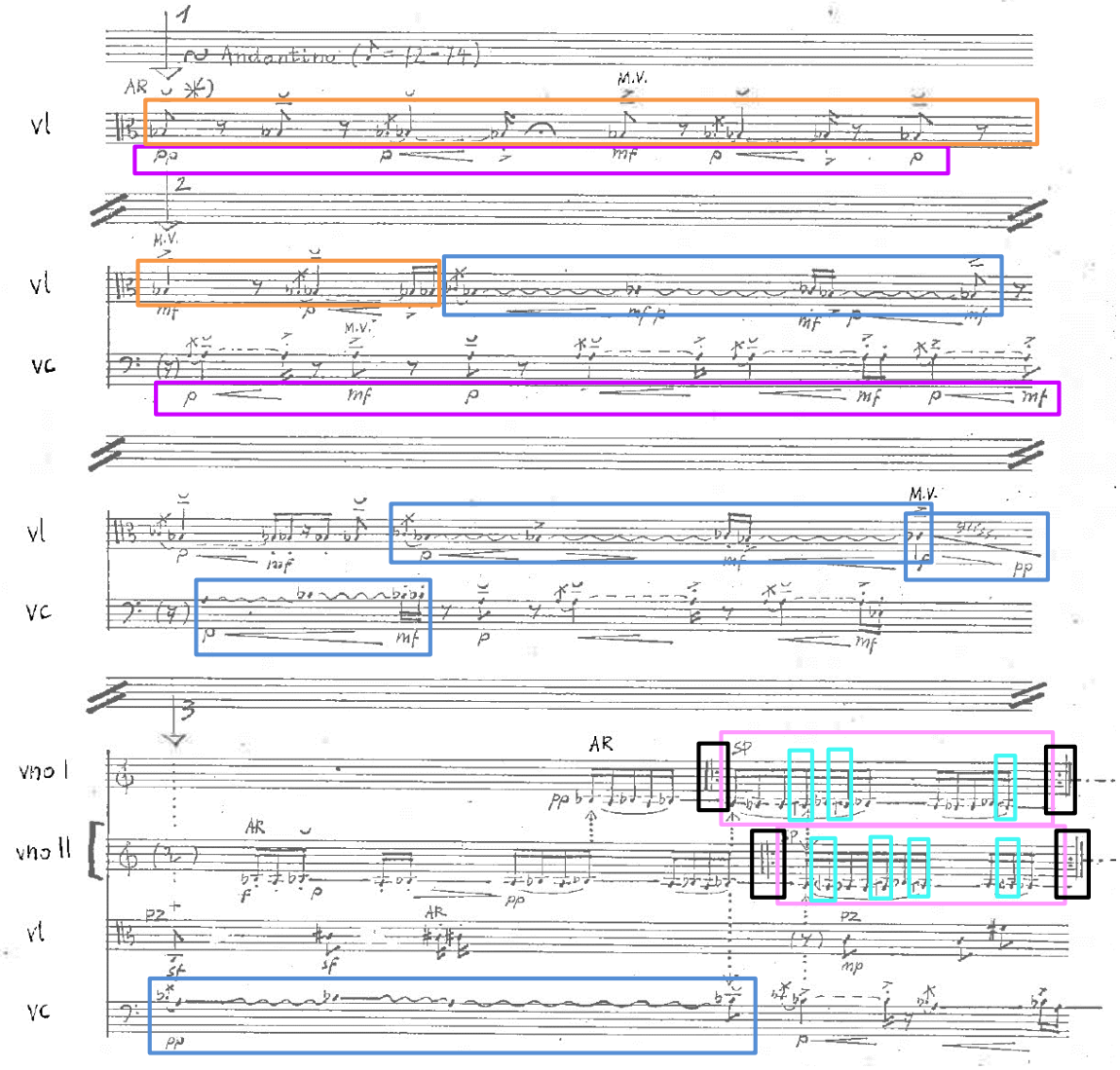
5.5.1. String Quartet No. 1 – *The Song for String Quartet* (1984)

Commissioned by the Ministry of Culture and Arts, PL; duration 12 minutes. Written for 2 violins, 1 viola and 1 violoncello.

5.5.1.1. Melody (horizontal dimension), rhythm and harmony (vertical dimensions)

Materials which are presented melodically, such as motives or patterns, usually occur linearly (DeLone et al. 1975:270). However, traditional linear movement does not necessarily have to assume a primary role or function (in the foreground) (Ottman 1992:387). In many of Kulenty's works rhythmical material take on a primary role, above melodic material. Rhythm is the succession of durational patterns produced melodically or non-melodically (Whittall 2016b). There are many indications of rhythmical intention (how rhythmical material should be played – specifically with reference to time), which are marked clearly by Kulenty.

Figure 1: String Quartet No. 1, rehearsal mark 1-3



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In the first String Quartet the viola opens the work with a **rhythmical motive**. In this opening motive, marked in orange in Figure 1, there is no melodic movement (only the reiteration of a B♭). This suggests that a non-expansive linear process is taking place as the melodic events are perceived as linear strata and take up a "spatial and objectified characteristic" (DeLone et al. 1975:310).

In Figure 1, the following can be noted:

- There is no indication of key signature, which suggests that atonality is present.
- The reiteration of the B♭ in the viola creates some sense of key.
- The violoncello enters on a semi-tone lower (A) in the second system.
- The opening material, in all four voices, revolves around the notes B♭ and A.
- The interval (A-B♭) created between the viola and violoncello is a minor second. This chromatic movement leads to perceived dissonance. Furthermore, this dissonance is exacerbated by the slow vibrato (marked in blue in Figure 1) which is played firstly by the viola, in the second system, and then by the violoncello in the third system.
- A glissando, marked in blue in Figure 1, which is employed at the end of the third system, is executed by the viola and contributes to the dissonance.

Figure 2: String Quartet No. 1, rehearsal mark 4 (page 3)

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Kulenty employs **arrows and dotted lines** to direct the linear movement of the musical line for the performers. With **bar lines absent**, these indicate where materials (motives or patterns) should be played together. **Repeat bar lines** (**|**|: and :|**|**) are frequently used and indicate the repetition of a specific motive (found between the repeat bar lines). These are marked in black in the first and second violin parts of Figure 1 and Figure 2.

Reflection, or **mirroring**, can be observed between the two violins at rehearsal mark 3 in Figure 1 (marked in pink). The second violin plays a similar melodic motive to the first violin at a three semi-quaver interval (duration). This creates a sense of delay, akin to an electronic delay effect. In Figure 2 mirroring (marked in pink) is noted in the first system between the second violin, viola and violoncello and again in the second system between the first violin, viola and second violin. Upon closer examination the **accents** (represented by a > above the note head) that are employed within the original motive move to different pulses in the mirroring instrument/s (marked with orange arrows below). This leads to accents being perceived on weaker beats (displaced accents).

<u>The mirroring motive in Figure 2 between the second violin, viola and violoncello</u>

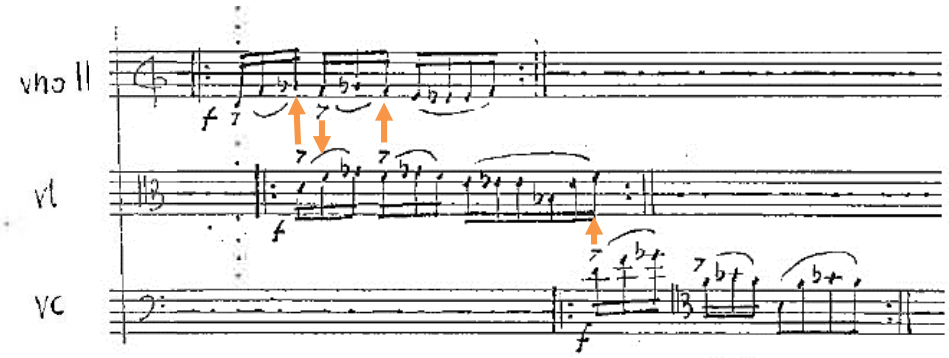

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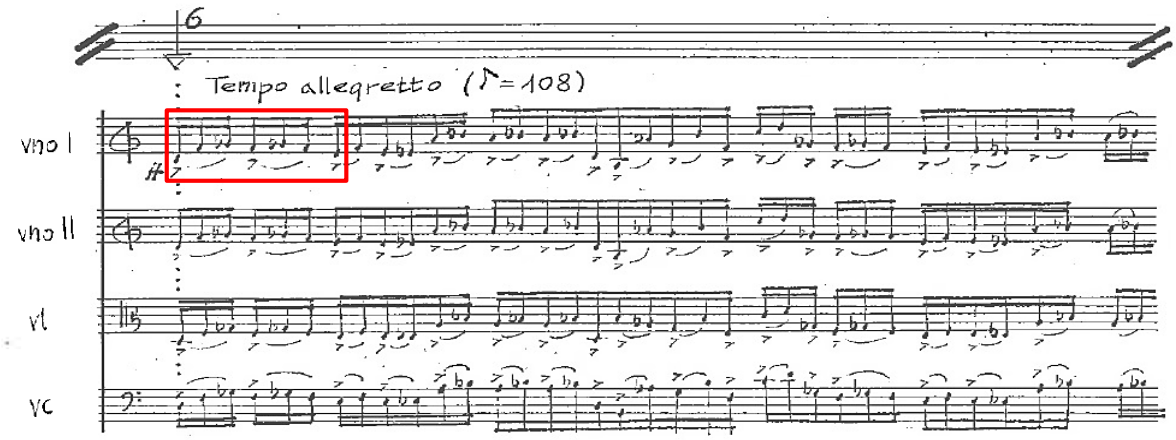
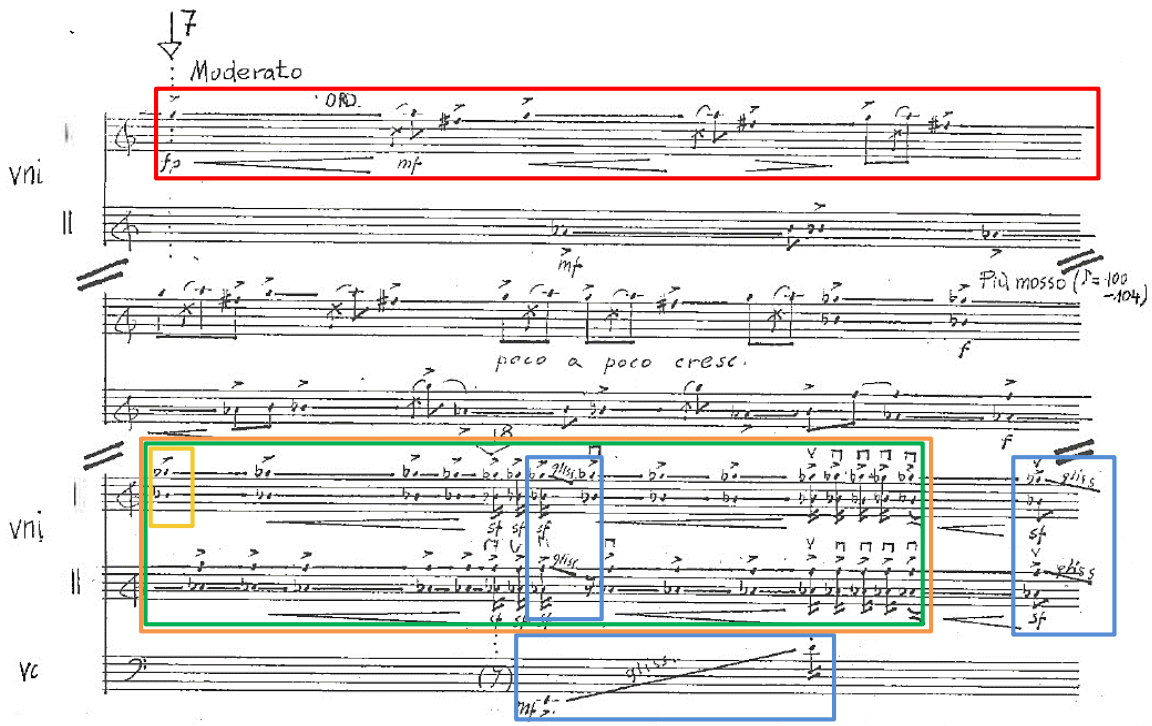
Figure 3: String Quartet No. 1, rehearsal mark 6



Melodic saturation, found in the **unison** playing of all four instruments, can be observed at rehearsal mark 6 in Figure 3 (at the Tempo allegretto) with frequent **accents** (often displaced accents). The melodic motive, D-F-G♭-F-G♭-F-E, in Figure 3, has been derived from the motive first stated in the second violin at rehearsal mark 4 in Figure 2. Both melodic motives are marked in red.

Figure 4: String Quartet No. 1, rehearsal mark 7



New material is encountered at the **Moderato** at rehearsal mark 7. The melodic line in the first violin revolves around the notes A-F#-G (marked in red in Figure 4). Large leaps are encountered

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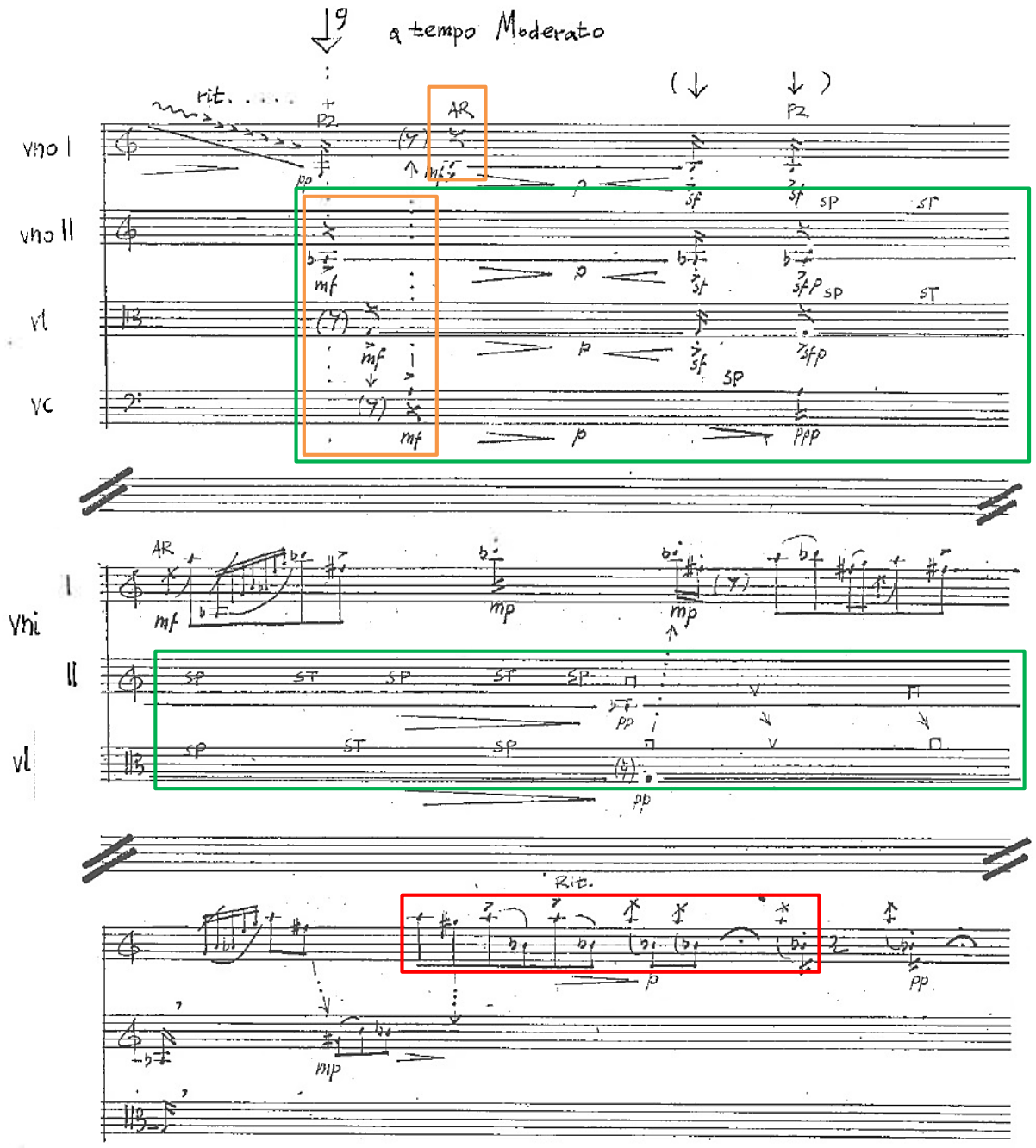
within a single voice, for example, the acciaccatura in the first violin from G to the A[1]. Note the fervent use of **glissandos** (marked in blue in Figure 4), **dynamic** and **bowing indications** (represented either by a ∨ for up bow and ⊓ for down bow) as well as **accents**.

The notes employed at the beginning of the String Quartet, B♭ and A return in the first violin at rehearsal mark 9 in Figure 5. The second violin, viola and violoncello provide static accompanimental material, marked in green in Figure 5, in the form of pedal (sustained) notes: A♭, G and A respectively. In the third system a chromatic line (A-G#-A-B♭), marked in red, can be observed. Furthermore, non-rhythmic tremolos are marked in orange.

Figure 5: String Quartet No. 1, rehearsal mark 9



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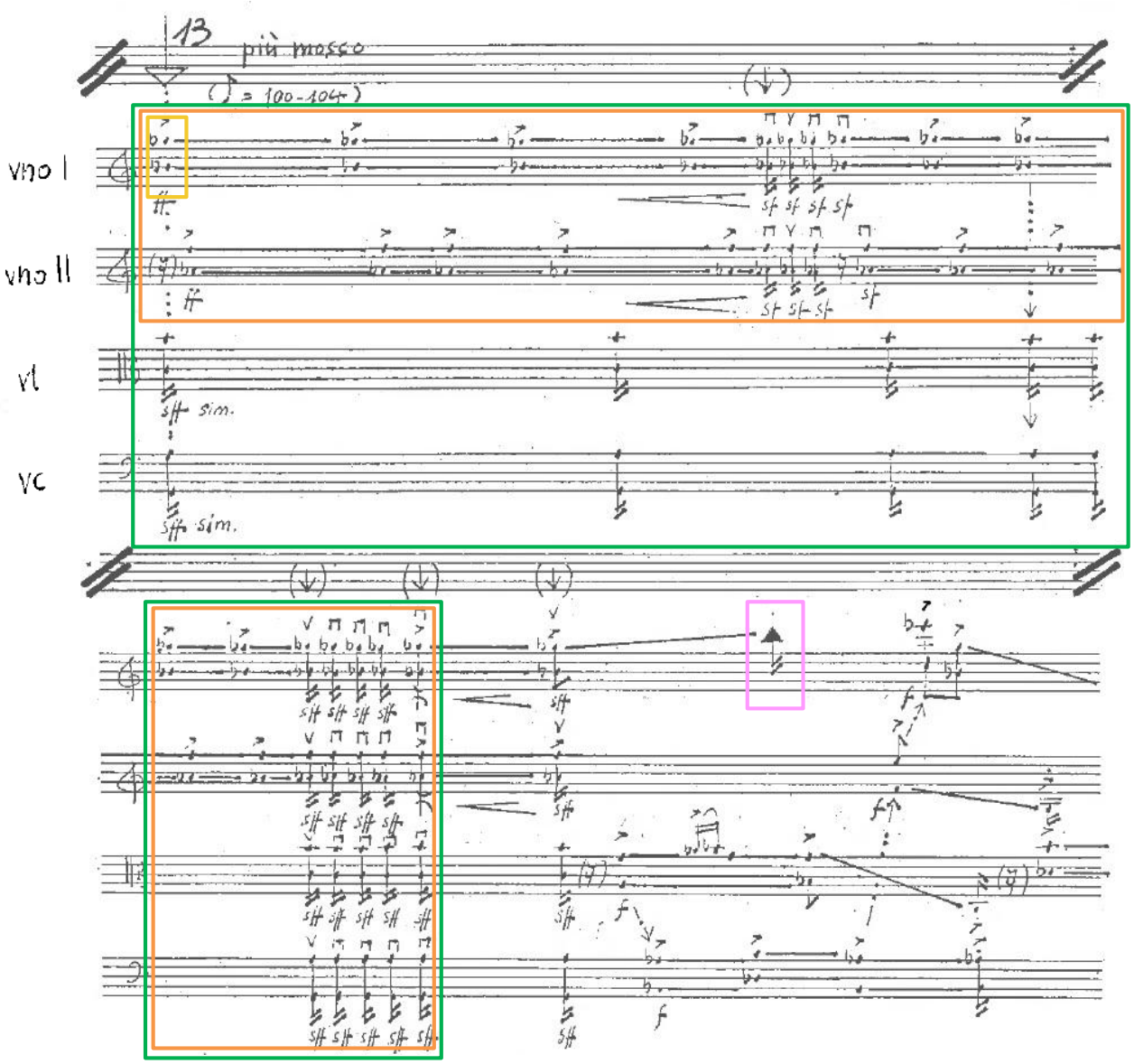
Static movement can be observed in all four instruments at rehearsal mark 13 in Figure 6, marked in green. There is a high point in the first violin which is marked in pink in Figure 6. Further bowing indications, dynamics, glissandos and accents can also be observed.

Figure 6: String Quartet No. 1, rehearsal mark 13



The **rhythmical material** observed in Figure 4 returns in Figure 6. In Figure 4, the rhythmical motive is presented in the violins, whereas in Figure 6 it is first presented in the violins and then in all four voices. The rhythmic material in both Figures are marked in orange.

The intervals are very concentrated as Kulenty employs **glissandos** (Figure 1 and Figure 4 marked in blue) and small intervals such as a major or minor second between the voices (vertically). Smaller intervals such as **quarter tones** (in Figure 1, marked in light blue) are also employed

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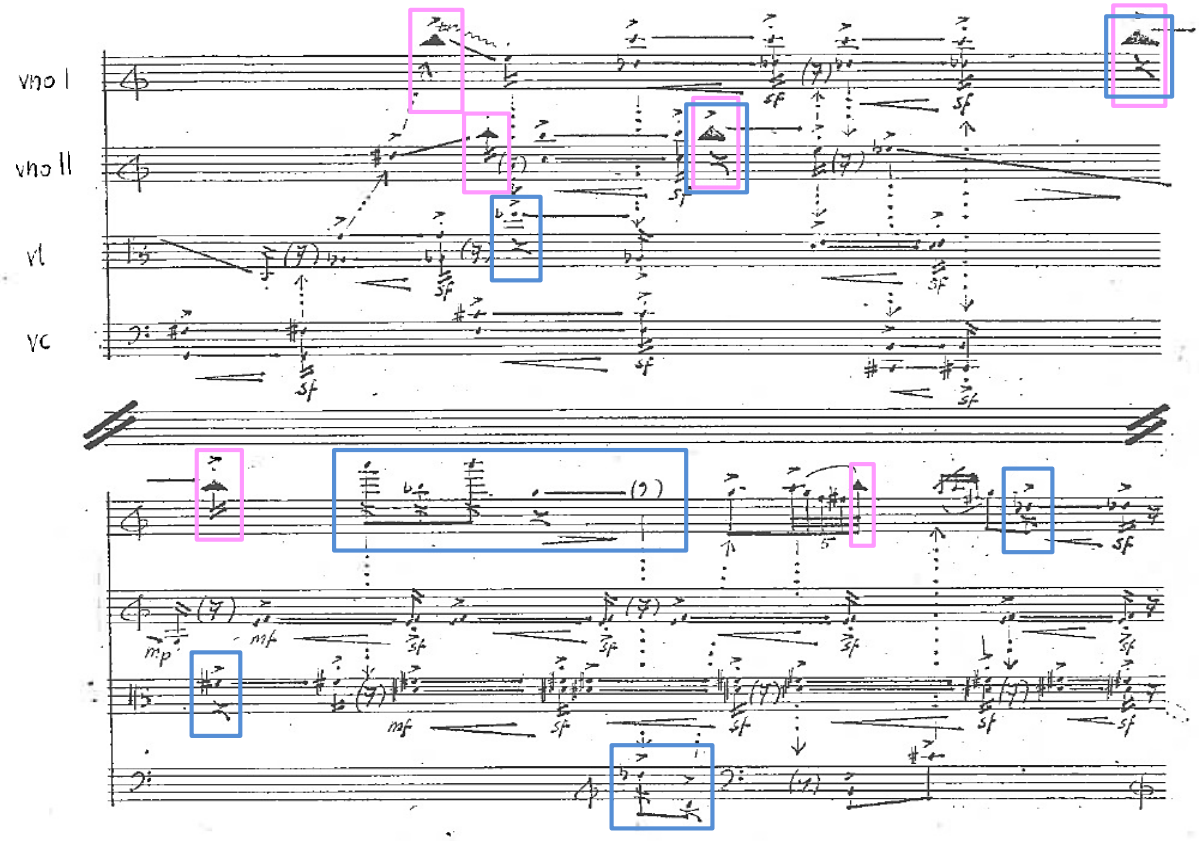
within a voice (horizontally). As noted in Table 1, a **quarter tone** describes the interval half the size of a minor second (semitone) (Kennedy & Kennedy 2007:603). Kulenty regularly uses quarter tones within her string ensemble compositions in order to create different timbres, specifically with regard to spectrum and colour (E-mail correspondence, 01 November 2016).

In Figure 4 and Figure 6 respectively, marked in yellow, is an interval of a **minor sixth** (B♭-G♭) which can be observed in the first violin playing double stops. This interval is sustained and creates an accompanimental pedal.

There are often **short, broken rhythmical patterns**, as seen below in Figure 7. The arrows indicate how material should follow each other and where material should to be played together. Note the fervent use of dynamics, accents and non-rhythmic tremolos (marked in blue). Increase in tension is created by the dynamic indications, accents and high notes (indicated by a black arrow as note head) and marked in pink.

Musical **tension** is often created by reiteration and the gradual motion to a higher pitch. In contrast, musical **release** is created by the rapid descent in pitch. Note the rapid descent, by means of a downward glissandos, from the first high note in the first violin in Figure 7.

Figure 7: String Quartet No. 1, first and second system on page 6



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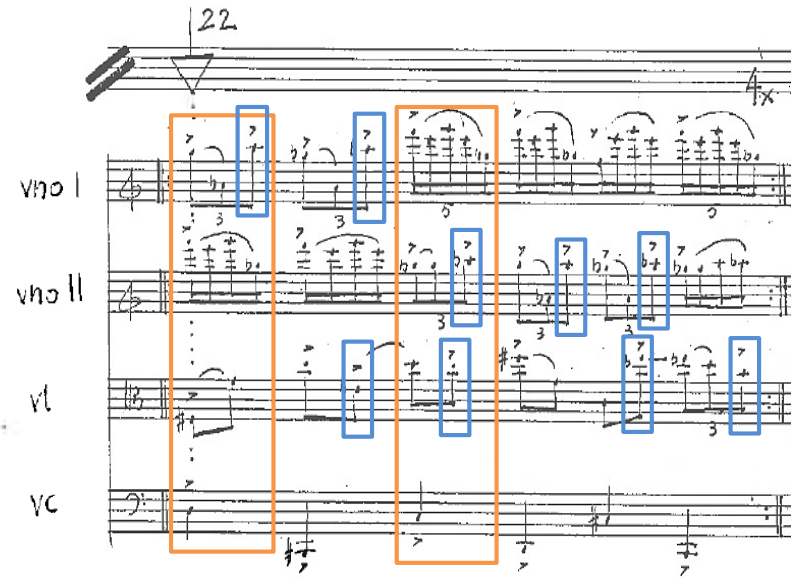
In Figure 8, the **polyrhythms** (created by the triplets, quintuplet and quavers) are marked in orange. The displaced **accents** are marked in blue. This section is to be repeated four times, which in turn creates a phrase.

Figure 8: String Quartet No. 1, rehearsal mark 22



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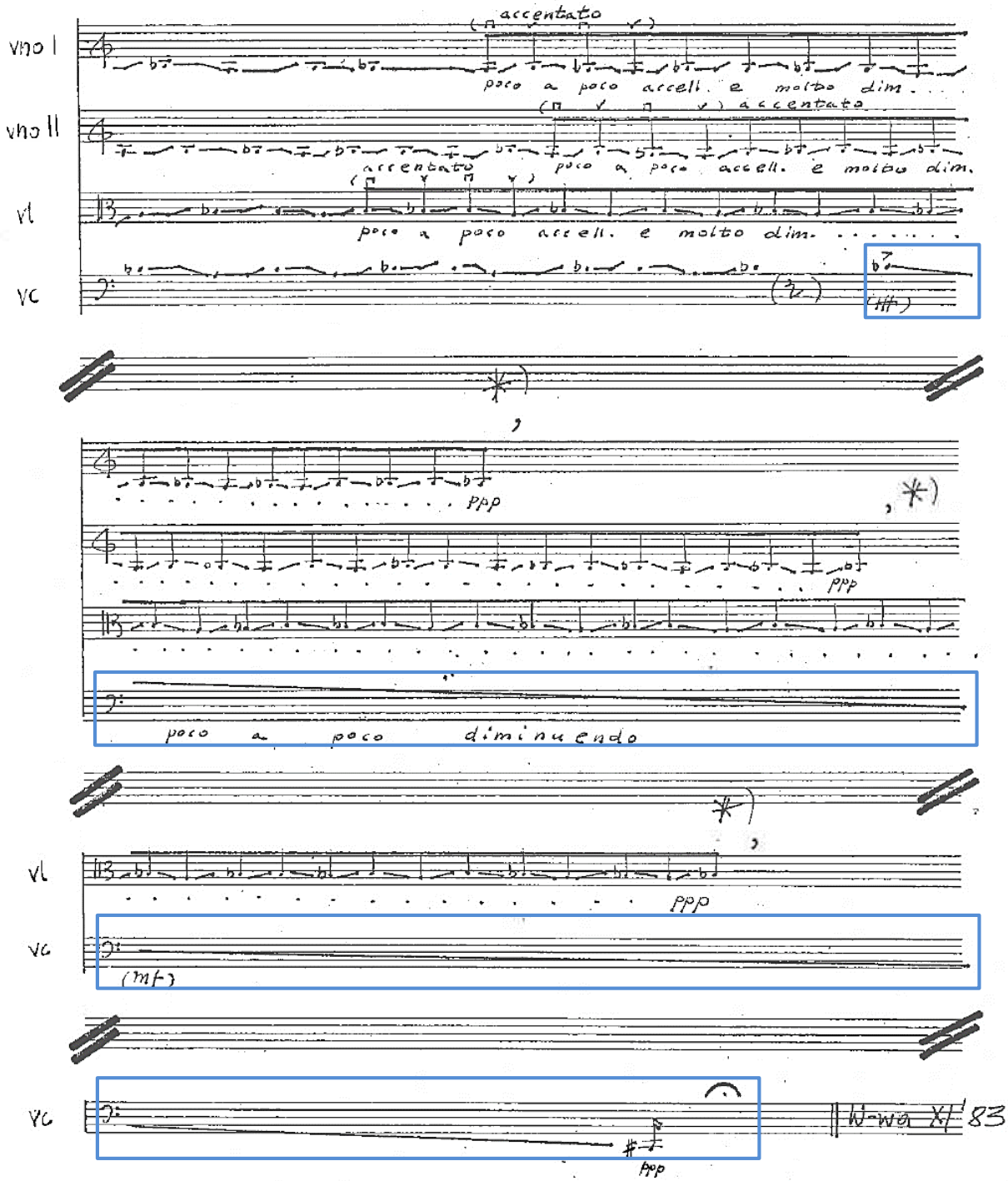
The first String Quartet concludes with a return to the opening notes: A-B♭-B (the B enharmonically written in the opening as C♭). The violoncello glissandos down nearly two octaves from a B♭ to the final note, C# (marked in blue in Figure 9).

Figure 9: String Quartet No. 1, the last three systems



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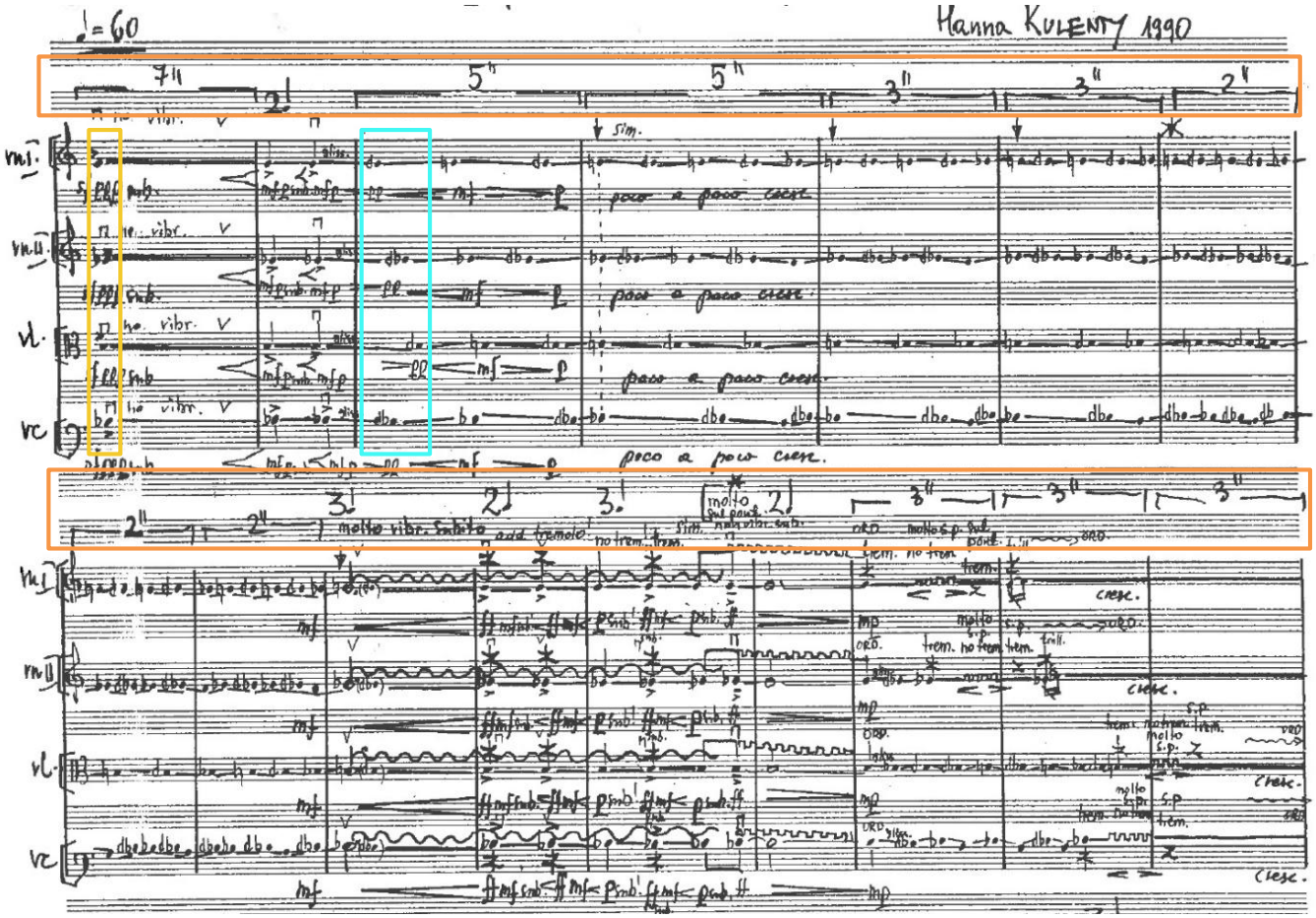
5.5.2. String Quartet No. 2 (1991)

The second String Quartet was composed eight years after the first. Kulenty confirms that her style had changed and developed over this period and that the second String Quartet comprises music that she "want[ed] to write" (E-mail correspondence, 01 November 2016).

Commissioned by the Ministry of Culture and Arts, Poland, for the Huddersfield Festival, England; duration 12 minutes. Written for 2 violins, 1 viola and 1 violoncello.

5.5.2.1. Melody (horizontal dimension), rhythm and harmony (vertical dimensions)

Figure 10: String Quartet No. 2, bar 1-16



In the opening bars of the second String Quartet the melodic content of all four instrumental lines are very **compacted and static**, as observed in Figure 10. Small movements occur not only within each line, with quarter tone movement in the third bar, but also between the instruments (vertically in the first bar, the first chord created is a cluster on the notes B♭-B-E♭-E and is marked

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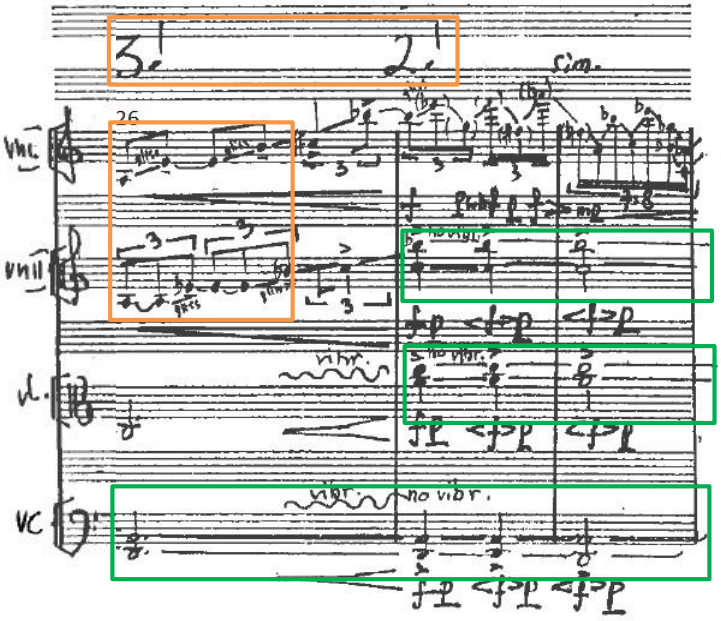
in yellow). The interval of a minor second (**chromatic** movement) can be found between the B♭-B and E♭-E. The interval of a perfect fourth is found between the B♭-E♭ and B-E.

The melodic material, as seen in Figure 10, remains **chromatic** for 22 bars. Kulenty's frequent use of **quarter tones** (marked in light blue in bar 3 of Figure 10), **glissandos** and **slow vibratos** contributes to the **extreme chromaticism**. As indicated in Table 1, the horizontal line following each note, in Figure 10, determines the length of the note.

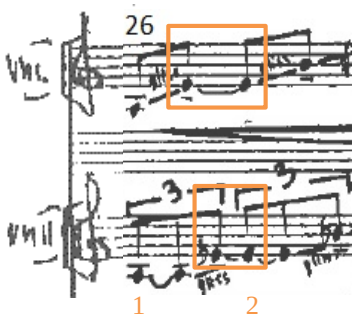
Time and duration both play extremely important roles in Kulenty's works. Different duration indications above the staff are marked in orange in Figure 10, Figure 11 and Figure 12. The durations range between seconds per bar and crotchet beats per bar.

Figure 11: String Quartet No. 2, bar 26-28



In bar 26, in Figure 11, the **polyrhythm** in the two upper voices (two quavers against a quaver triplet) is marked in orange. This polyrhythm is also **syncopated** in both voices. The strong beats are indicated by the orange numbers, 1 and 2, below.

The syncopation, in bar 26, in the first and second violin



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In bar 26-33 in Figure 11, there are **sustained chords** which are marked in green in the bottom three voices (the second violin, viola and violoncello). All three instruments play **double stops** (a term that refers to the simultaneous playing of two notes on a stringed instrument (Kennedy & Kennedy 2007:214)): the violoncello (D-A, a perfect fifth), the viola (A-C, a minor third) and the second violin (C-B♭, a minor seventh). This creates an accompaniment figure often referred to as a **pedal** (sustained note/s). This pedal motive, now at an interval of a minor seventh, returns again in bar 35-47 in Figure 12, marked in green, in the bottom two voices (the viola and violoncello): the violoncello (B-A) and the viola (C-B♭).

Numerous **dynamic** indications can be observed in Figure 10, Figure 11 and Figure 12, ranging from *piano* to *forte* with *crescendos* and *decrescendos* surrounding them.

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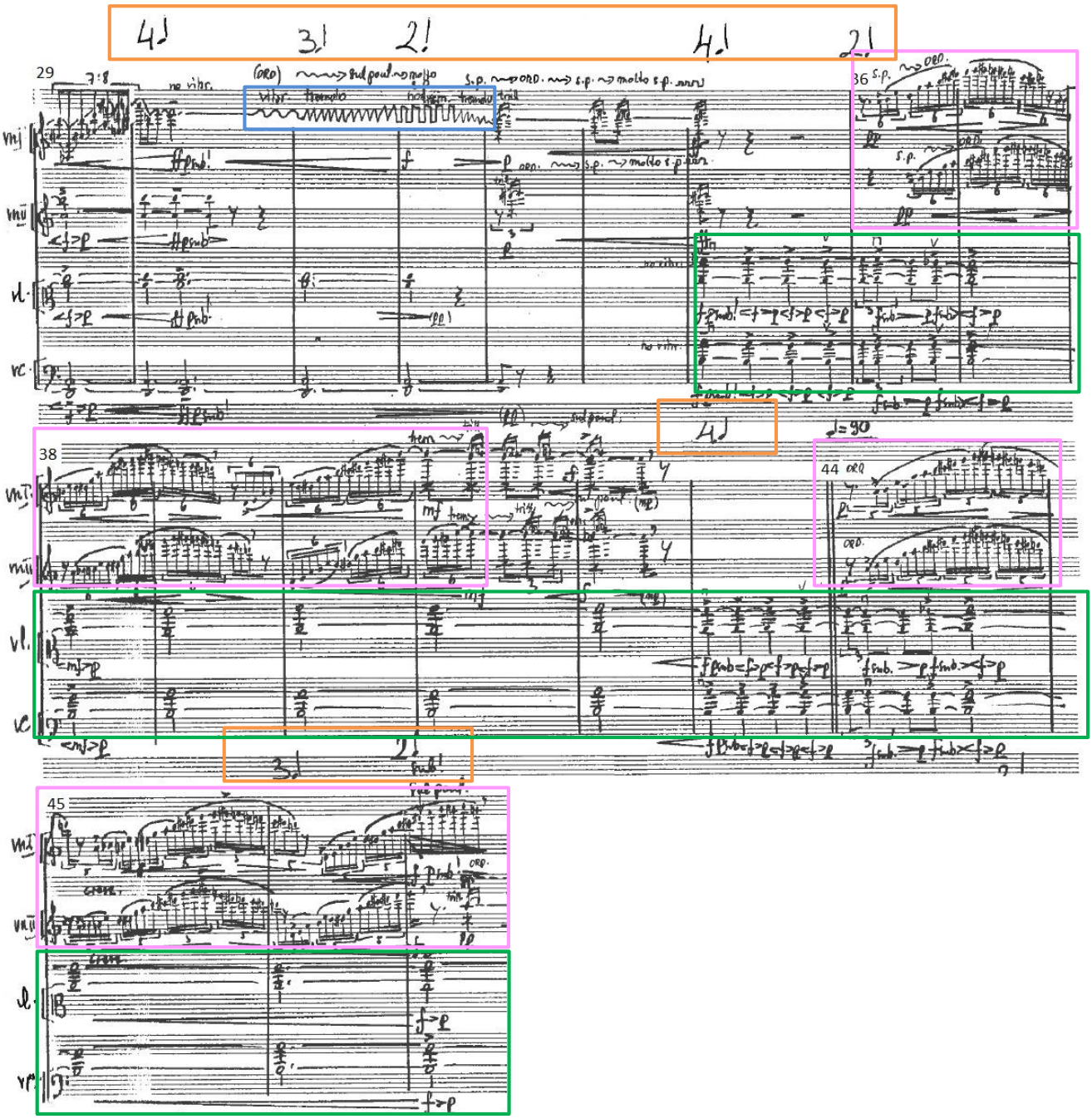
In bar 30-32 in Figure 12, the **vibrato** (marked in blue) grows into a **tremolo** and then becomes a **non-rhythmical tremolo**. **Reflection** is present in bars 36-41 and 44-46 in Figure 12, marked in pink: the first violin starts with an arch-like motive in bar 36 and the second violin (the "mirroring instrument") falls in shortly thereafter (a dotted quaver beat) with the same arch-like motive.

Figure 12: String Quartet No. 2, bar 29-47



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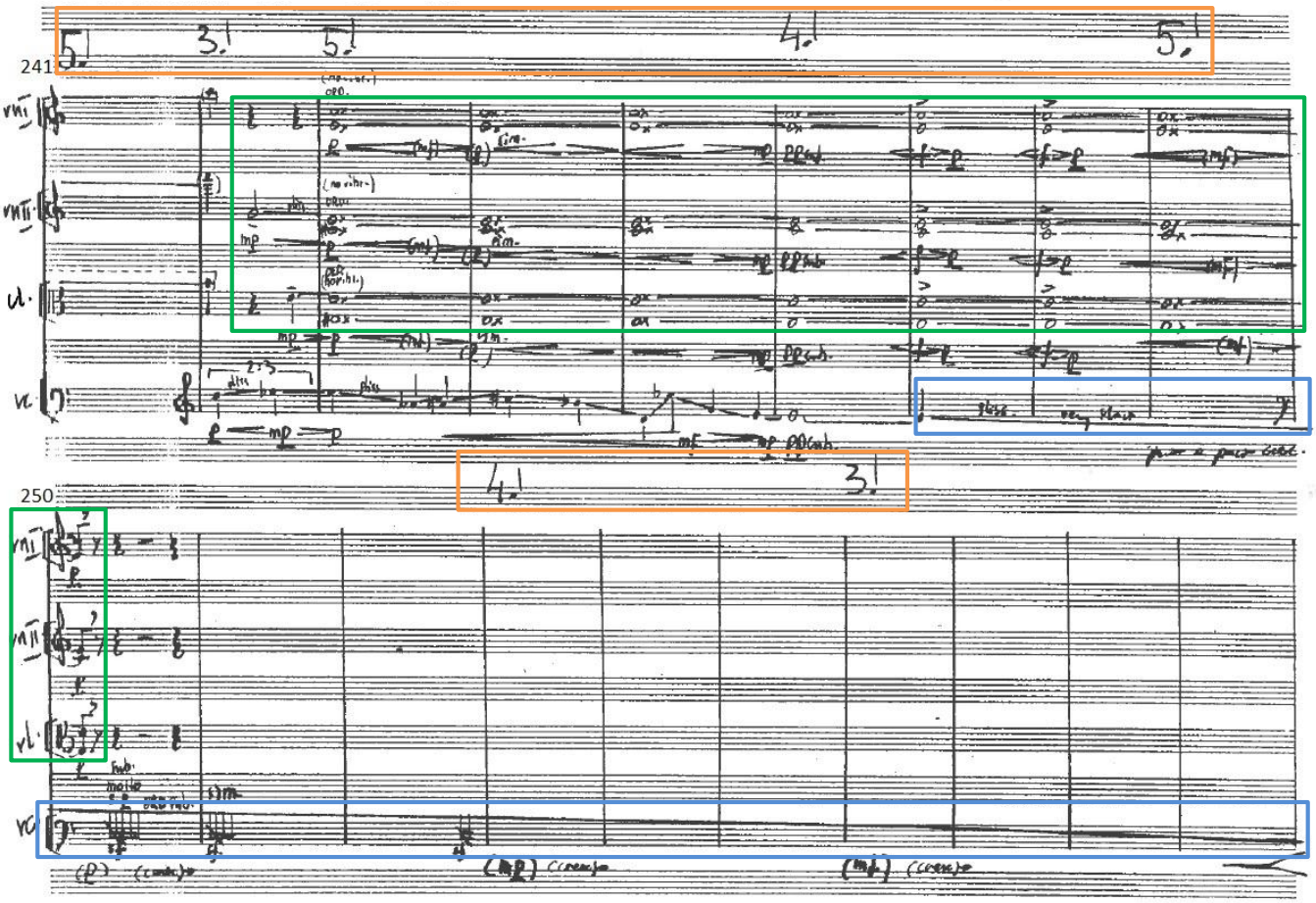
In Figure 13 (bar 242-250), sustained notes (pedals) are observed in the upper instruments which accompany the single violoncello line (marked in green):

- the first violin – E-C, a minor sixth,
- the second violin – C#-E, a minor third, and
- the viola – E#-E, a major seventh if you use the enharmonic writing of F-E.

Furthermore, marked in blue in Figure 13, a thin line is created by the solo violoncello which plays a slow downward glissando over 14 bars.

Figure 13: String Quartet No. 2, bars 241-259



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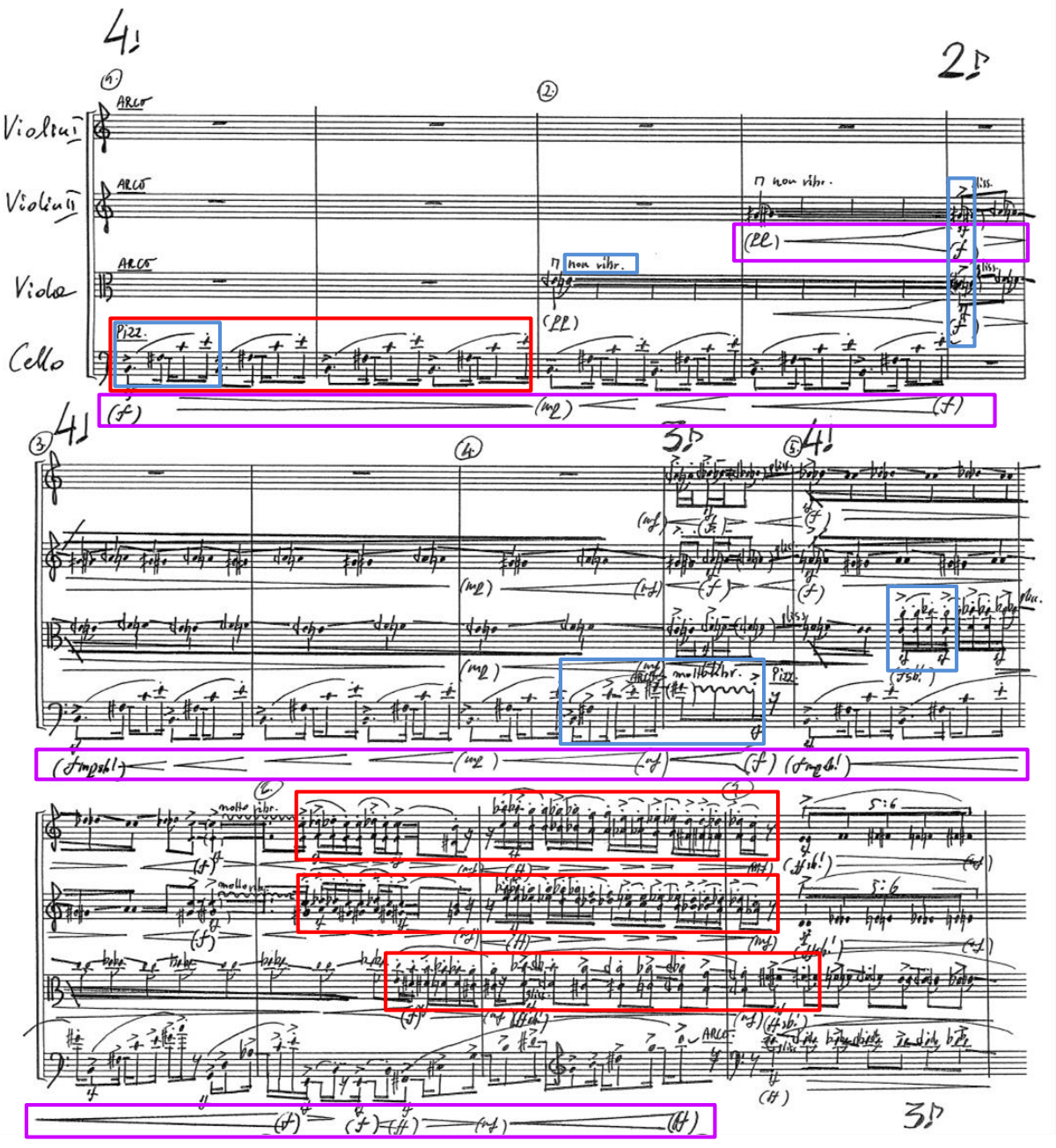
5.5.3. String Quartet No. 3 – *Tell me about it* (2007)

The third String Quartet was composed fifteen years after the second. Kulenty maintains that her "style is always changing" and that in this composition she incorporated the jazz sounds of Natalie Cole as well as 'rhythmical festination' (a shortening and quickening of a rhythmical pattern) (E-mail correspondence, 01 November 2016).

Commissioned by the Fonds voor de Scheppende Toonkunst; duration 7 minutes. Written for 2 violins, 1 viola and 1 violoncello.

5.5.3.1. Melody (horizontal dimension), rhythm and harmony (vertical dimensions)

Figure 14: String Quartet No. 3, rehearsal mark 1-7



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The violoncello opens the third String Quartet with a **repetitive melodic and rhythmical motive**, marked in red at rehearsal mark 1 in Figure 14. This dynamic and syncopated rhythmical figure, which is repeated in smaller segments throughout the work, plays an important and binding role. The syncopated rhythm suggests the jazz influence.

The rhythmical motive found in the violoncello at rehearsal mark 1, in Figure 14, comprise the notes B-F#-C-E. The intervals created are:

- a perfect fifth between the first two notes B-F#,
- a diminished fifth between the following two notes F#-C, and
- a major third between the last two notes C-E.

Kulenty employs many **dynamic** indications (marked in purple in Figure 14). The dynamics range between *pianissimo* (*pp* – softer than *piano*) and *fortissimo* (*ff* – louder than *forte*). The fervent use of dynamic indications contribute to the forward rhythmical drive of the piece.

Dense **chromatic** movement can be observed in the three upper voices at rehearsal mark 6 in Figure 14, marked in red. The intervals created by the double stops, are:

- a minor sixth in the first violin,
- a diminished fourth in the second violin, and
- a minor sixth in the viola.

Various **articulations** (techniques and effects) can be found throughout the third String Quartet and are marked in blue in Figure 14: glissandos, vibrato (slow and fast vibrato), accents (including displaced accents), immediate changes between *arco* (to bow) and *pizzicato* (to pluck) in a voice, and the use of double stops.

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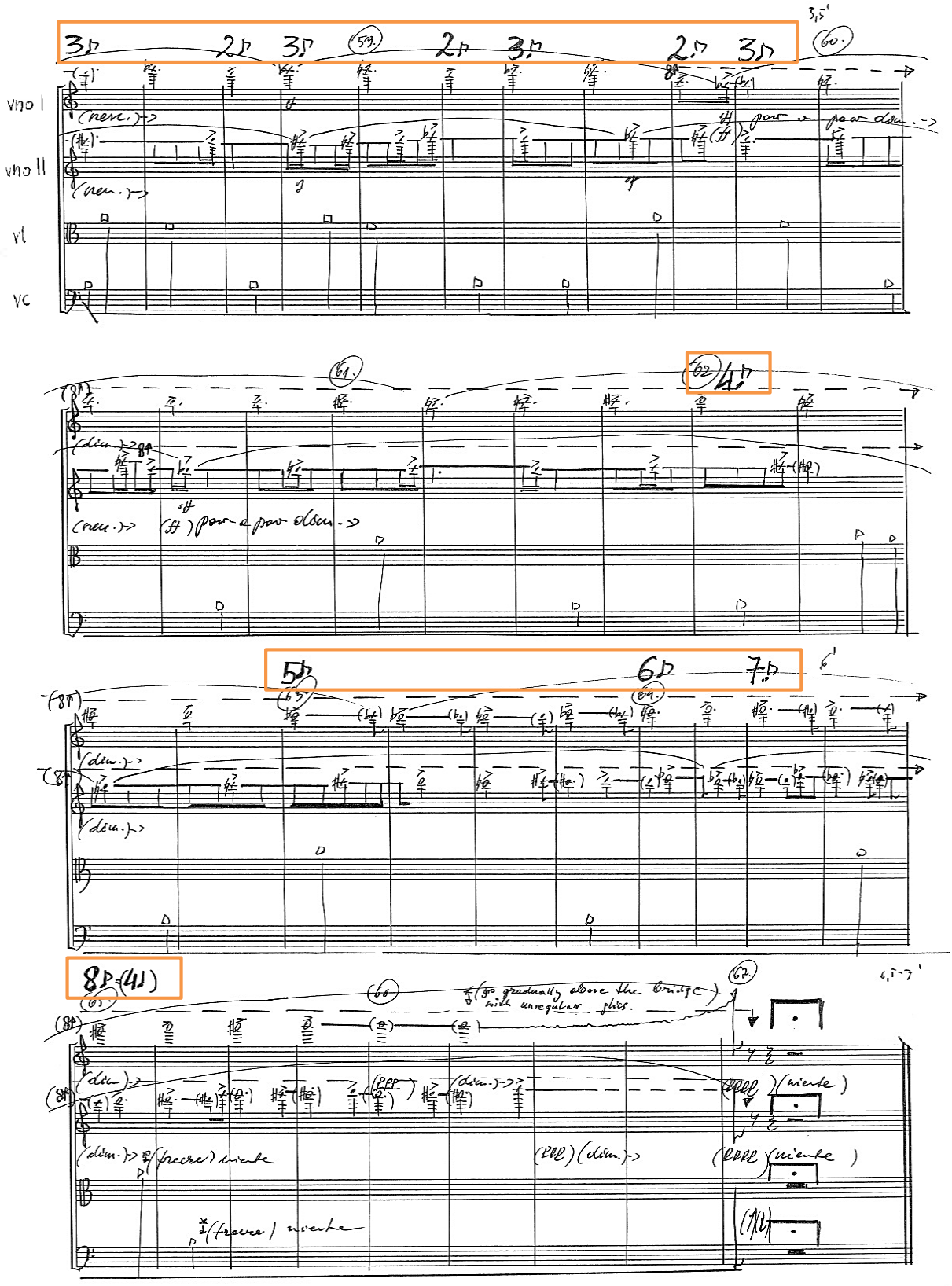
There is much interplay between **time** and **duration**, as observed throughout the piece. The tempo indications often move between 4 crotchets per bar, 2 quavers per bar, 3 quavers per bar and back again to 4 crotchets per bar (as seen at rehearsal mark 1-9). Duration indications (or rather the length of every indicated bar) are clearly implied and become slower as the piece nears its end. These durations are marked in orange in Figure 15.

Figure 15: String Quartet No. 3, last page



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5.5.4. String Quartet No. 4 – *A Cradle Song* (2007)

The fourth String Quartet, *A Cradle Song*, is based on the melody with the same title that Kulenty composed for a piano trio (violin, cello and piano) in 1993. The idea of a lullaby, with its slow tempo, bass pedals and canon-idea, was employed mainly as one of the thematic materials (E-mail correspondence, 01 November 2016). Steve Smith of the New York Times writes on 7 December 2008:

> But the most powerful work was Hanna Kulenty's gripping String Quartet No. 4 (A Cradle Song) in which a poignant melody serves as the heart of a funereal threnody in memory of Ms. Kulenty's daughter, who died in childhood (Kulenty 2016).

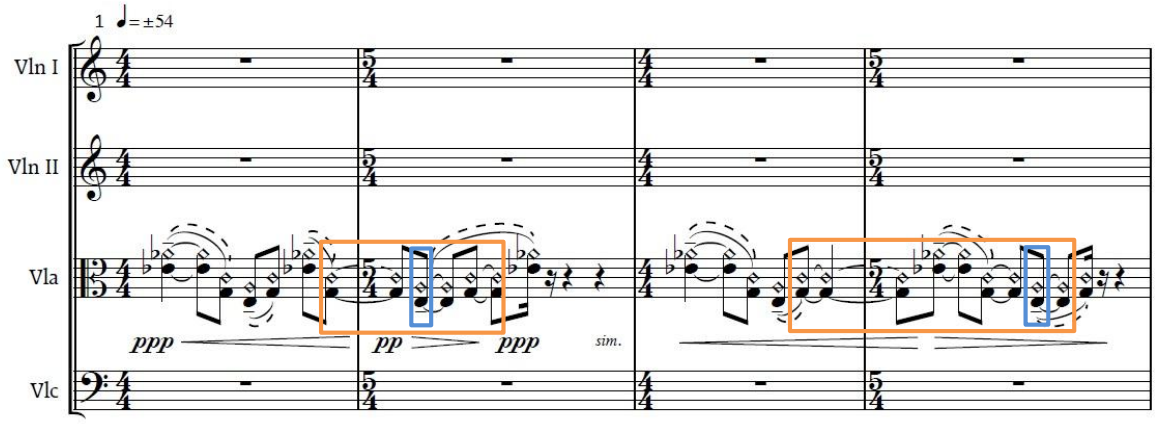
Harry Rolnick, in Kulenty (2016), describes the fourth String Quartet on concerto.net on 5 December 2008 as:

> Listening, though, to String Quartet No. 4, was a stunning experience. The song itself was a few simple measures, but as it gradually increased in complexity, we had to feel drawn into the strings themselves, the emotions, the stellar joy within the universe of its notes.

Commissioned for the Kronos Quartet by Mrs. Ralph I. Dorfman; duration 16 minutes. Written for 2 violins, 1 viola and 1 violoncello.

5.5.4.1. Melody (horizontal dimension), rhythm and harmony (vertical dimensions)

Figure 16: String Quartet No. 4, bar 1-4



In the fourth String Quartet, there is a brief inclination towards melodic material in the **foreground**. This can be seen, in Figure 16, in the slow melancholic opening melody played by

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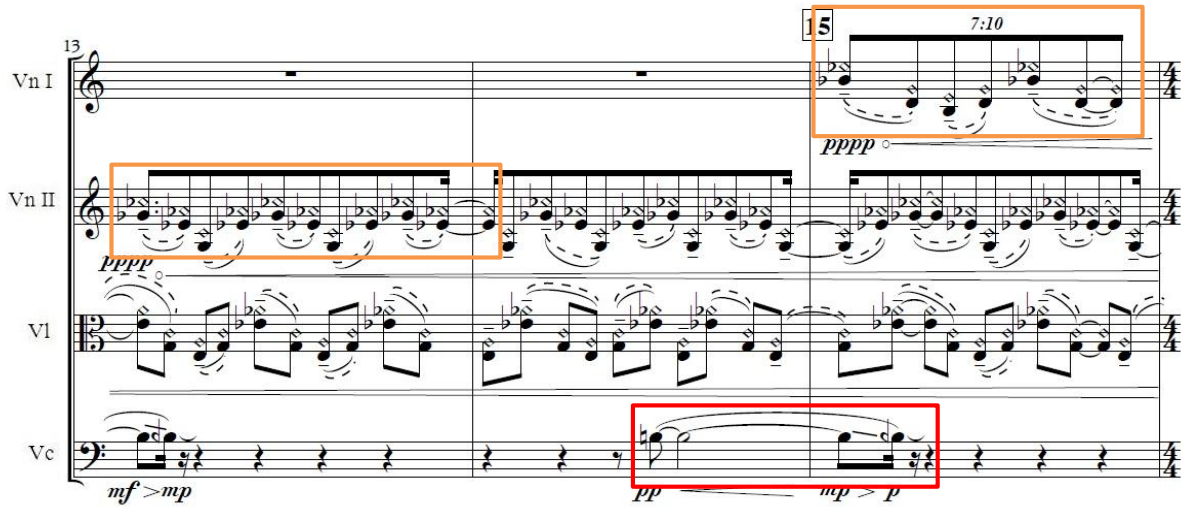
the viola on the notes E♭-G-E♮-G (with added harmonics, which are indicated by the diamond shaped note heads). This **melodic motive** returns again in the first violin in bar 161. Rhythmical variety can be observed in the first ten bars of the fourth String Quartet where the time signature moves between $\frac{4}{4}$, $\frac{5}{4}$, $\frac{3}{4}$ and $\frac{2}{4}$. This can be seen in Figure 16. Other, more complex time signatures are observed between bars 74 to 79 with signatures such as $\frac{5}{8}$ and $\frac{7}{8}$. Another rhythmical feature that is very prominent is the groupings of the quaver-passages from bar 15-25. Other rhythmic devices used, observed in Figure 16, include **syncopation** (marked in orange) and **displaced accents** (marked in blue). Both can be used to create tension.

The violoncello provides a **pedal** on B from bar 6, with much **vibrato** and a **glissando** at the end of its phrase. A similar downward glissando, from B to a quarter tone lower, is marked in red in Figure 17. The second violin enters in bar 13 (in Figure 17), with a similar pattern to that of the opening viola. However, the duration has changed and is now **syncopated** (marked in orange) on the notes G♭-E♭-G♮-E♭. The first violin enters in bar 15 on the notes B♭-D-B♮-D, with a different rhythmical pattern (7:10 quavers, marked in orange). The time signature is $\frac{5}{4}$ and is often used in jazz compositions.

Figure 17: String Quartet No. 4, bar 13-15



The pedal motive played by the violoncello in the opening is now, in Figure 18 (marked in orange), extended to the remaining three instruments: from bar 29 all instruments (one after the other) continue with this motive in a rhythmical pattern. The **rhythmical** pattern of the upper two voices (two violins) are the same. This also creates a **delayed effect**, akin to an electronic delay.

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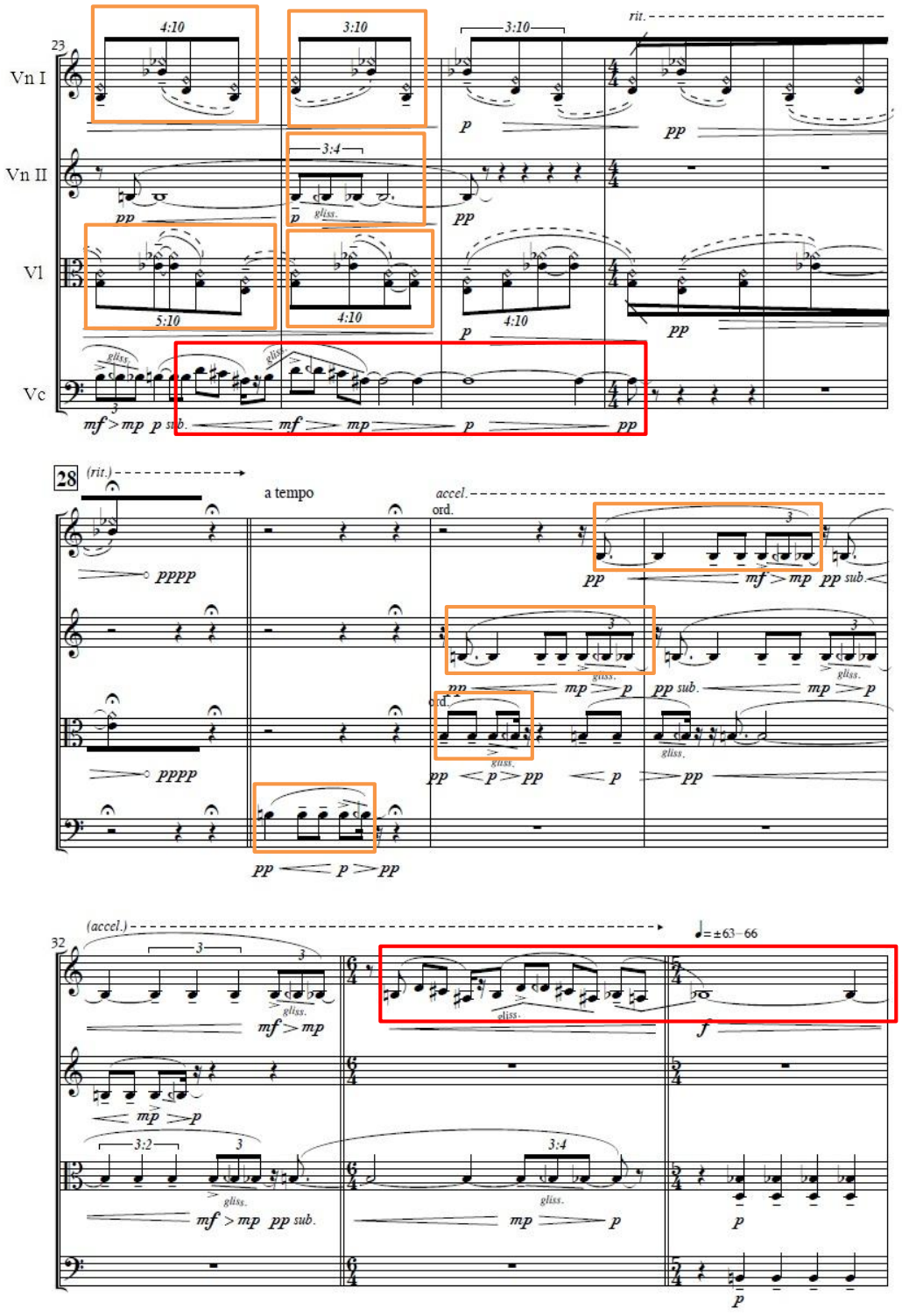
Note also in Figure 18, marked in orange, the **time aspect** which is brought forward by the upper voices (violins and viola). Further noted in Figure 18, in the time signature of $\frac{4}{4}$:

- In bar 23, the first violin plays 4 quavers in a ratio of 4:10 and in bar 24-25, 3:10.
- In bar 24, the second violin plays 3 quavers in a ratio of 3:4 (this should be executed in one beat).
- In bar 23, the viola plays 5 quavers in the ratio of 5:10 and in bar 24-25, 4:10.

Figure 18: String Quartet No. 4, bar 23-34



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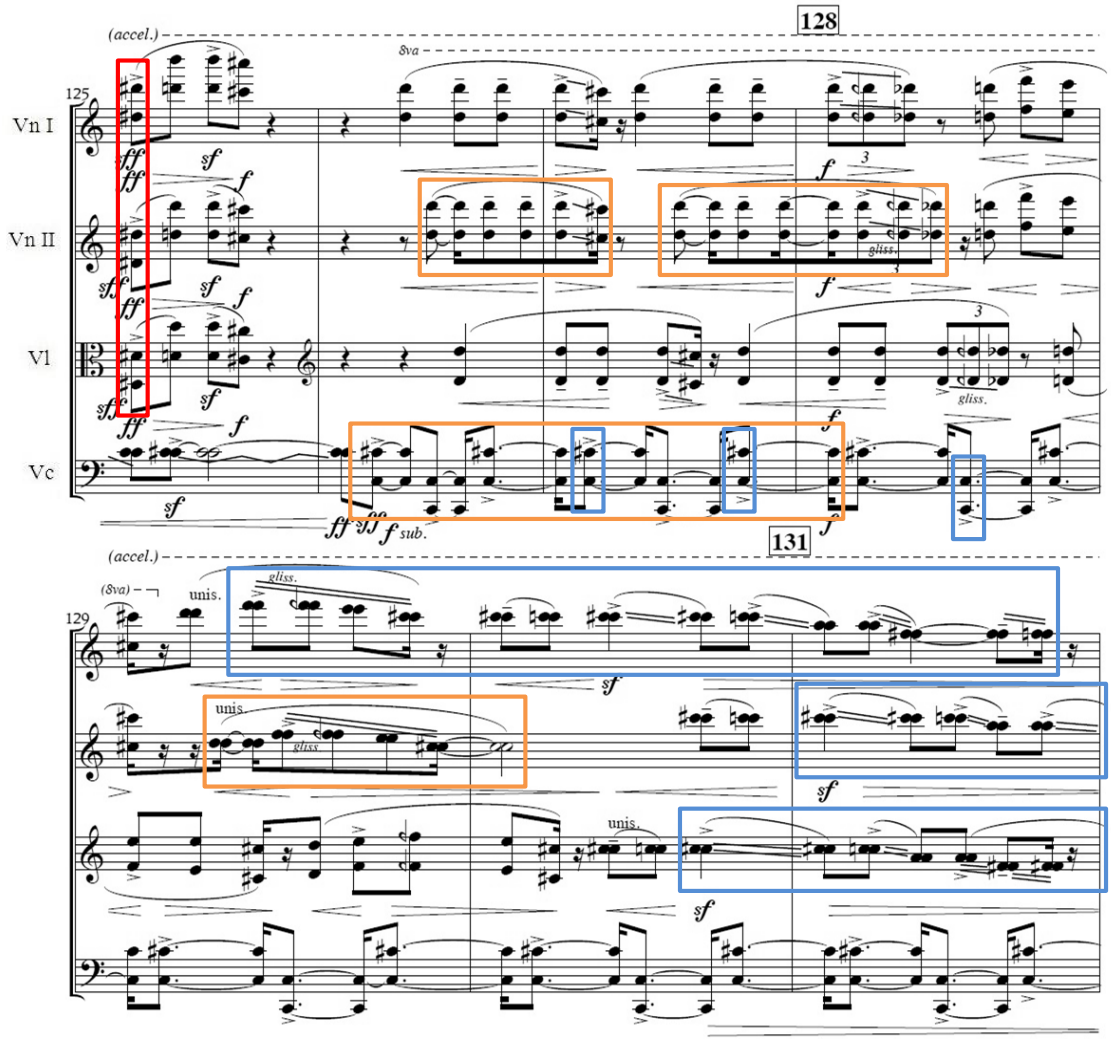
A small motive is employed as an **idea** which later returns and is extended. In bar 23 in Figure 18 the violoncello introduces a new motive (marked in red) which reappears, and is extended, in bar 33 by the first violin. Another such small melodic motive occurs for the first time in bar 47 in the first violin and violoncello parts. This motive returns in the violoncello in bar 65-66, bar 96-98 (with the viola taking over the same motive in bar 98-99), bar 116-117 (with the violins and viola taking over the motive and expanding on it in bar 119-121) and in the two violins in bar 133-135. The final appearance of this motive is in bars 482-498 in the violoncello.

In Figure 19, **syncopation** (marked in orange) and **displaced accents** (marked in blue) are found. Furthermore, the **glissandos** (from bar 129-131 which are marked in blue) follow a downward quarter tone movement. The **double stops** (in octaves) are marked in red. This octave movement in all four voices contributes to **harmonic planing** (parallelism).

Figure 19: String Quartet No. 4, bar 125-131



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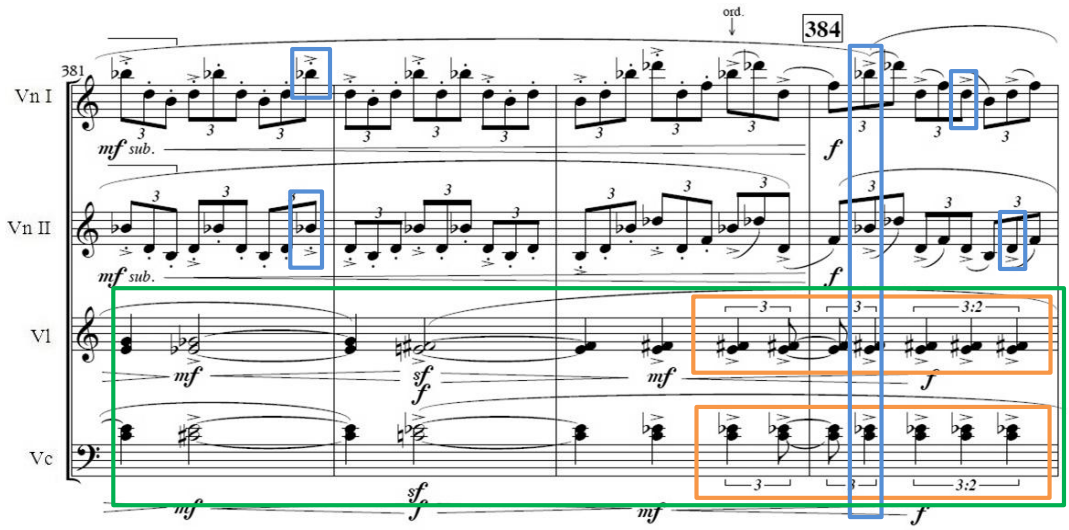
In Figure 20, the following rhythmical devices are present: **Syncopation** in the lower two instruments (in bar 383-384 marked in orange) and **displaced accents** (marked in blue). The accompanimental material (marked in green) in the lower two voices, the viola and violoncello, is sustained and create a **pedal**.

Figure 20: String Quartet No. 4, bar 381-384



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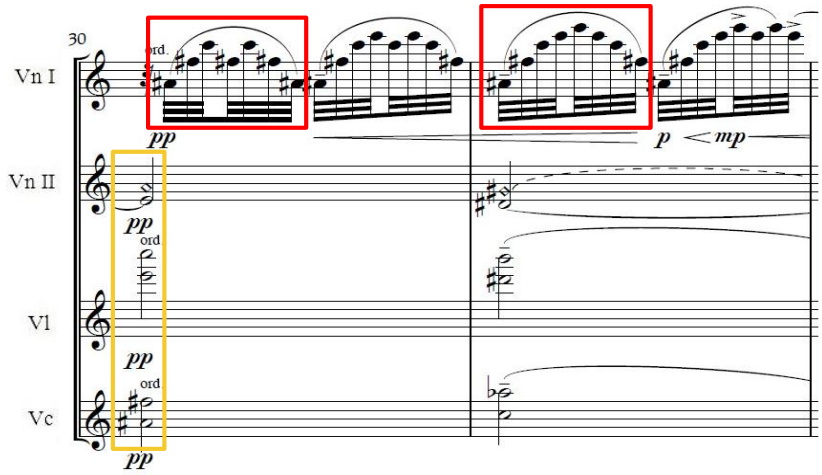
5.5.5. String Quartet No. 5 (2011)

The inspiration for the fifth String Quartet was nature and time (E-mail correspondence, 01 November 2016). Time is an ever-present aspect that plays an important role in many of Kulenty's compositions.

Commissioned by the Kronos Quartet; duration 12 minutes. Written for 2 violins, 1 viola and 1 violoncello.

5.5.5.1. Melody (horizontal dimension), rhythm and harmony (vertical dimensions)

Figure 21: String Quartet No. 5, bar 30-31



Kulenty is notorious for employing **arches** in her compositions. Short melodic material represents these arch-like motives and is frequently observed in her string ensemble works. In Figure 21, a short, repetitive melodic pattern (arch-like), marked in red, can be observed in the first violin (built around the following group of notes: A#-F#-C-E-G). These repetitive arches are placed upon a **static accompaniment** (the three remaining instrumental lines). The accompaniment in bar 30 comprises the vertical stacking, or rather the building of a chord, of the first violin's melodic motive. The chord that is created, marked in yellow and read from the bottom upward, is: A#-F#-E-C-E-A. The notes of the chord, when re-ordered, form part of the **whole-tone scale**: C-E-F#-A#.

The arch-like motive, in Figure 21, is presented first in the first violin and continues for three bars. The second violin then takes over this motive (a semi tone lower) for the following three bars when the first violin enters again with the motive another semi tone lower and continuing for

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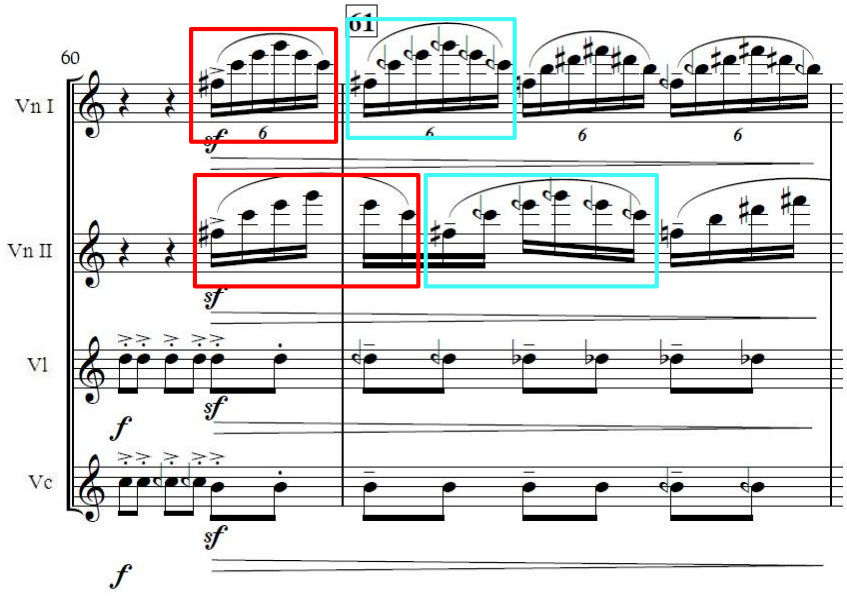
another three bars. The remainder of the voices provide thin accompaniment for the following ten bars.

In Figure 22 the first violin plays a six-note (sextuplet) arch-like motive, marked in red, which moves down by a **quarter tone** with each repeat of the pattern, marked in light blue. The second violin also plays a six-note pattern arch-like motive (in semi-quavers), marked in red, that moves down by a quarter tone with each repeat of the pattern. These two arch-like motives form a **polyrhythm** of 6 against 4. The viola and violoncello provide a static accompaniment line which also descends by a quarter tone.

Figure 22: String Quartet No. 5, bar 60-61



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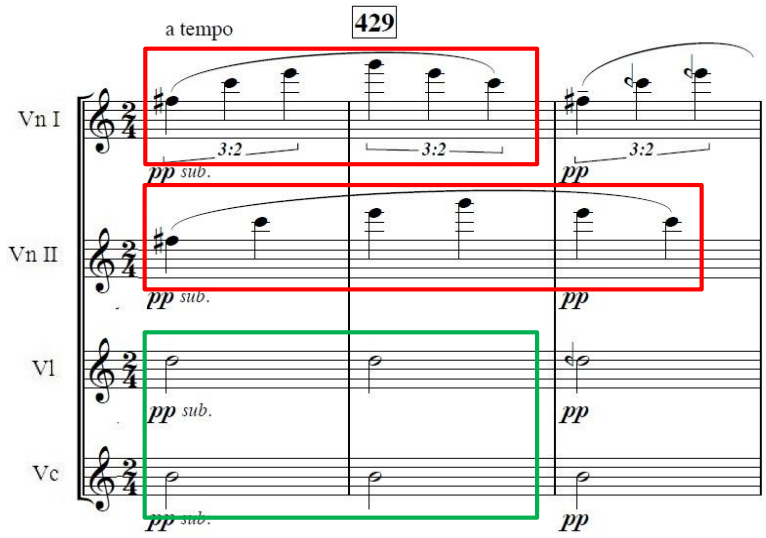
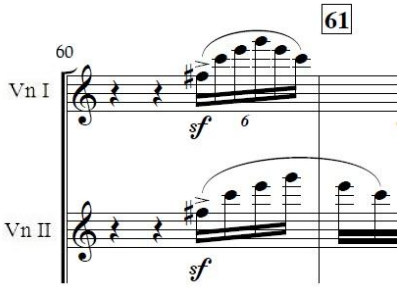
The arch-like motives (F#-C-E-G-E-C), marked in red in Figure 23, are also presented in a **polyrhythm** between the two violins. The first violin plays this melodic motive in a crotchet triplet (over two bars), whilst the second violin plays the motive over three bars and in crotchets. Once again the viola and violoncello provide static accompaniment (marked in green). This arch-like motive is now slower in duration than those in Figure 22.

Figure 23: String Quartet No. 5, bar 428-430

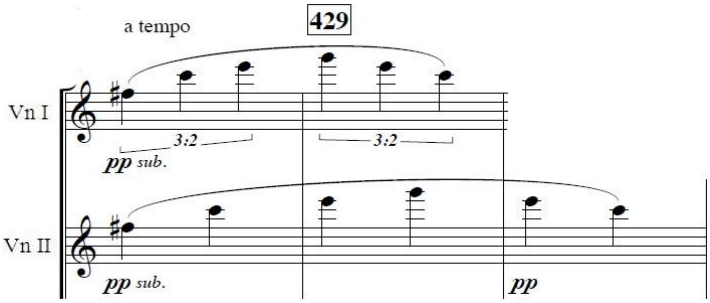


Furthermore, the arch-like motives noted in Figure 22 and Figure 23 (on the notes F#-C-E-G-E-C) are rhythmically augmented. In bar 60 the first violin plays a semi-quaver sextuplet and in bars 428-429 a crotchet triplet. The second violin plays a 6 note semi-quaver pattern in bars 60-61 and in bars 428-430 the motive is presented in crotchets.

The first and second violin pattern in bar 60-61 from Figure 22:



The first and second violin pattern in bar 428-430 from Figure 23:



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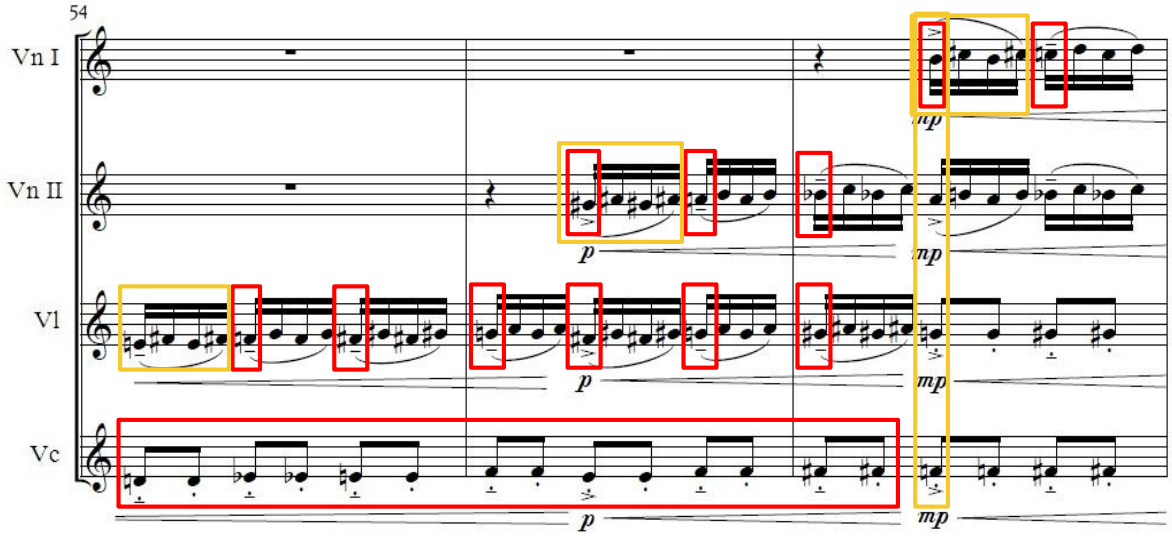
In Figure 24, the use of the **whole-tone** (marked in yellow) and **chromatic** (marked in red) **scales** in combination, linearly or vertically, can be observed. The notes for the whole-tone scale are: E-F#-G#-A#-C-D-E or C#-D#-F-G-A-B-C# (and can start on any of the given notes within each of the two scales). The chromatic scale comprises only half steps within the octave: C-C#-D-D#-E-F-F#-G-G#-A-A#-B-C (and can start on any of the given notes).

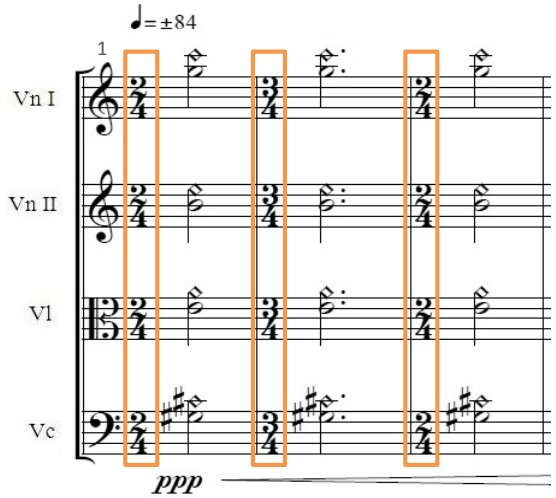
Figure 24: String Quartet No. 5, bar 54-56



Throughout the fifth String Quartet, various time signatures (often in succession) can be observed. In Figure 25 below, changing meters are noted in bar 1-3 and 406-409; these are marked in orange.

Figure 25: Changing meters in String Quartet No. 5

String Quartet No. 5, bar 1-3



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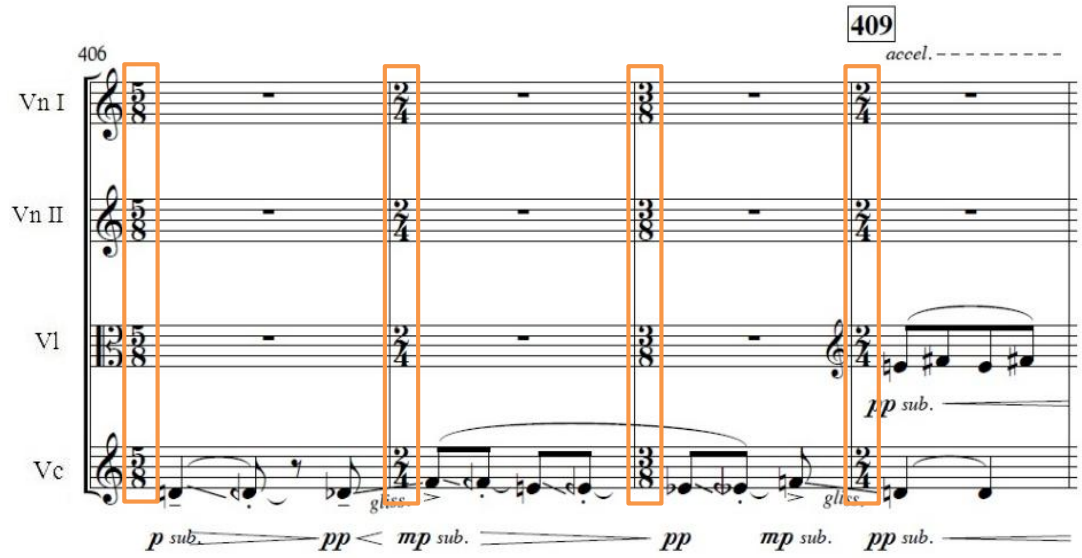
String Quartet No. 5, bar 406-409



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5.5.6. String Quintet No. 1 – *Five for Five* (2013)

Five for Five, the first String Quintet, represent five people and incorporates materials and ideas derived from the fifth String Quartet (E-mail correspondence, 01 November 2016).

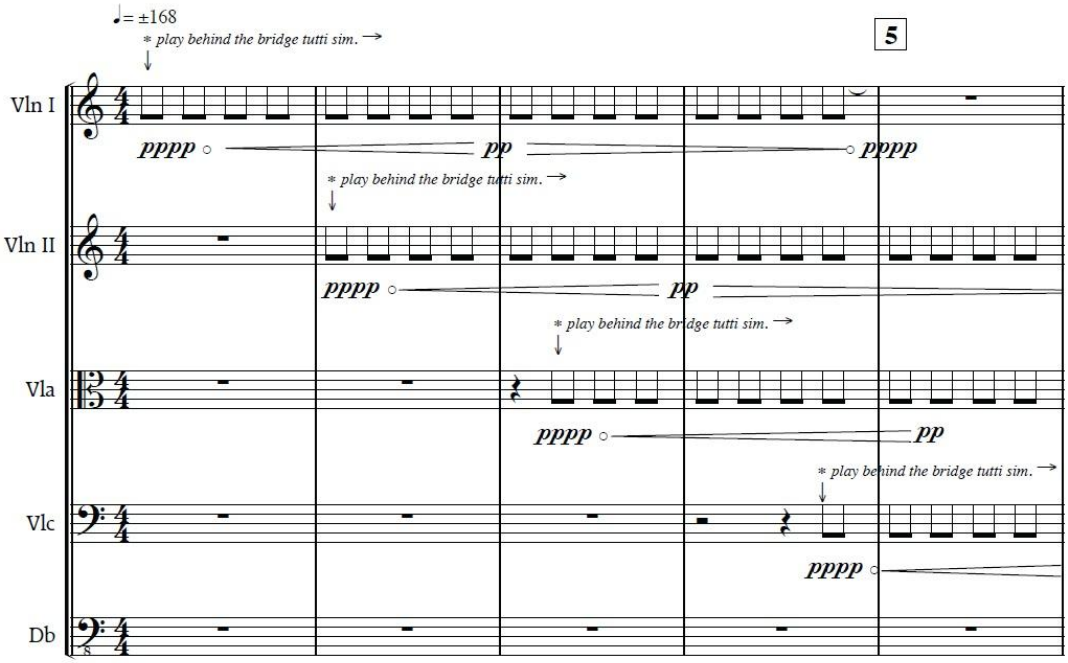
Duration 15 minutes and 30 seconds. Written for 2 violins, 1 viola, 1 violoncello and 1 double bass.

5.5.6.1. Melody (horizontal dimension), rhythm and harmony (vertical dimensions)

In Figure 26, Kulenty indicates, by use of an asterisk, that the performer/s should "play behind the bridge" of the string instrument. This creates a high-pitched, eerie and percussive sound. The first violin opens the work and is followed (bar after bar) by the remaining instruments. The phrases are as follows (note the significance of time and duration):

- a four bar phrase (first violin),
- a five bar phrase (second violin),
- a six bar phrase (the viola),
- a seven bar phrase (the violoncello), and
- an eight bar phrase (the double bass).

Figure 26: String Quintet No. 1, bar 1-5



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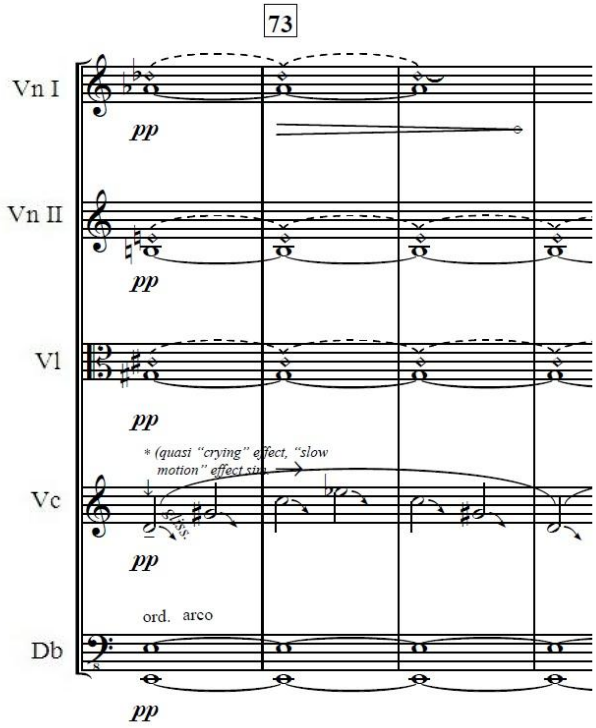
The first melodic line appears in bar 72, Figure 27. The minim arch-like motive in the violoncello is marked in red in Figure 27. The notes of the motive are D-G#-C-E♭-C-G#-D. The intervals between each of the notes are:

- an augmented fourth between the first two notes (D-G#),
- a diminished fourth between G#-C,
- a minor third between C-E♭,
- a major sixth between E♭-C and
- an augmented fifth between C-G#.

This arch-like motive returns in bar 93-95 as a crotches motive starting on B in the viola line. The melodic motive in the violoncello is filled with downward **glissandos**. Kulenty also incorporates **harmonics** (represented by the diamond note heads), as seen in the accompanimental parts in Figure 27.

Figure 27: String Quintet No. 1, bar 72-75



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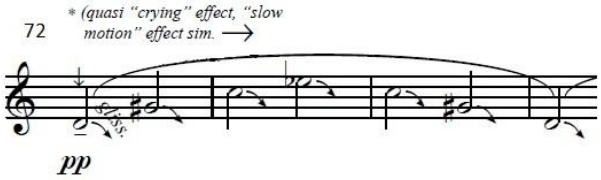
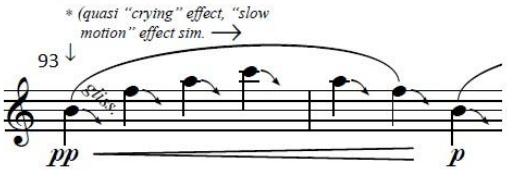
The arch-like motive (on the notes D-G#-C-E♭-C-G#-D) presented in bars 72-75 in Figure 27, undergoes rhythmic diminution in bars 93-94, as noted below. In bars 72-75 the violoncello plays a six note minim motive and in bars 93-94 the viola plays a similar six note motive (starting on B) in crotchets. This motive is presented again, although shorter (four notes), in bars 608-609 by the violoncello starting on a B♭ in dotted crotchets.

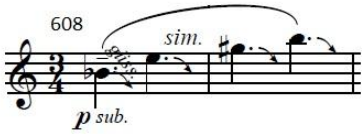
The arch-like motive of the violoncello in bars 72-75 from Figure 27



The arch-like motive of the viola in bars 93-94



The arch-like motive of the violoncello in bars 608-609



In Figure 28 Kulenty employs the following intervals (marked in yellow):

- a minor sixth – the first violin plays the notes B-G in bar 89,
- an augmented fourth (often referred to as a tritone) – the second violin plays the notes D-G# in bar 89, and
- a diminished fifth – the second violin plays the notes D#-A in bar 91.

Figure 28: String Quintet No. 1, bar 89-92

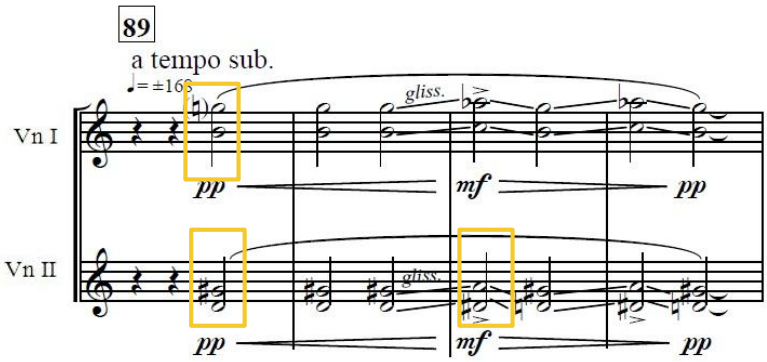


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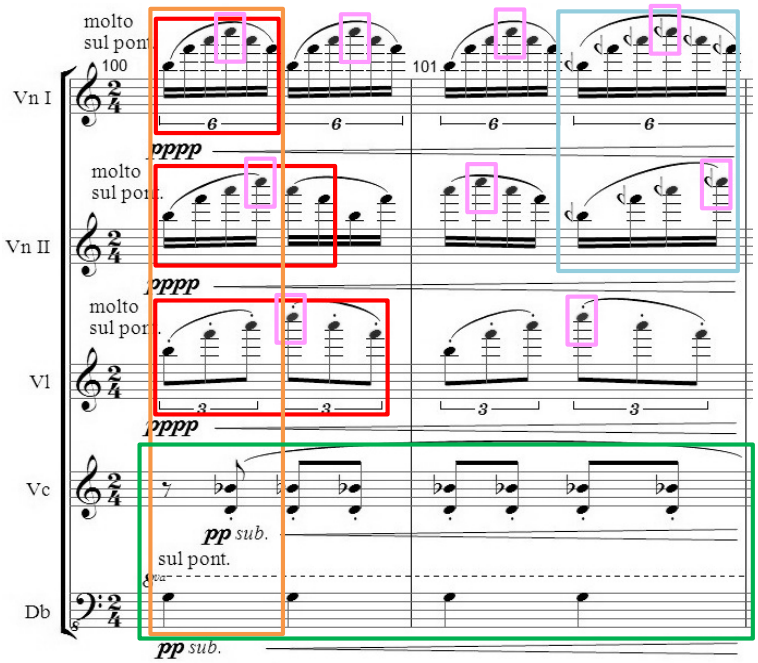
Figure 29 displays three arch-like motives: 1) the first violin plays an arch-like motive of semi-quaver sextuplets, 2) the second violin plays an arch-like motive of semi-quavers and 3) the viola plays quaver triplets. The arch-like motives, marked in red, comprise the notes B-F-A-C-A-F. A single high point in each motive is observed in Figure 29 which is the high C (marked in pink).

Figure 29: String Quintet No. 1, bar 100-101



A **static bass line** in the violoncello and double bass (on a minor chord: G-B♭-D) is marked in green in Figure 29. The **polyrhythm**, marked in orange, in Figure 29 comprises:

- a sextuplet (in the first violin),
- four semi-quavers (in the second violin),
- a triplet (in the viola),
- two quavers (in the violoncello), and
- a crotchet (in the double bass).

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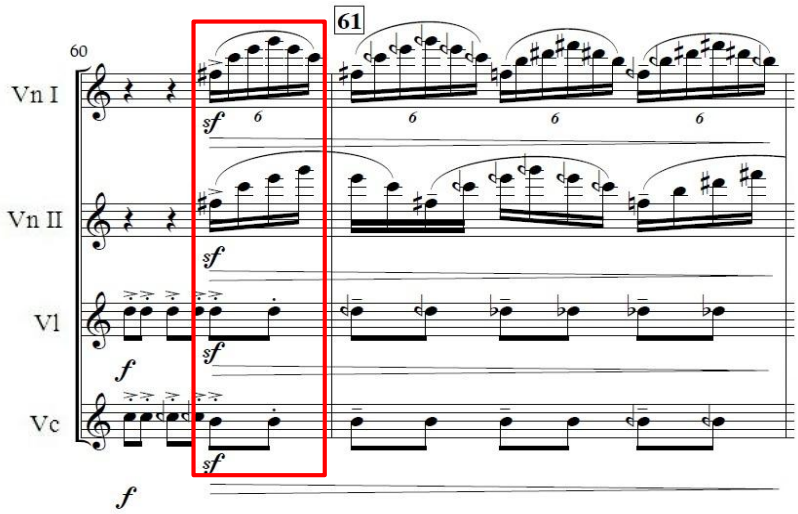
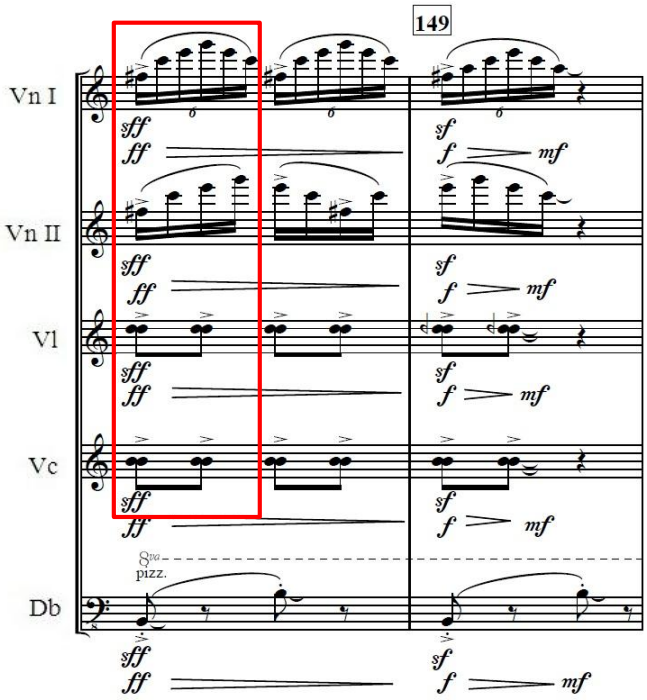
The melodic material that Kulenty incorporated in both String Quartet No. 5 and String Quintet No. 1 are identical and is shown below, marked in red, in Figure 30.

Figure 30: String Quartet No. 5, bar 60-61 and String Quintet No. 1, bar 148-149

String Quartet No. 5, bar 60-61



String Quintet No. 1, bar 148-149



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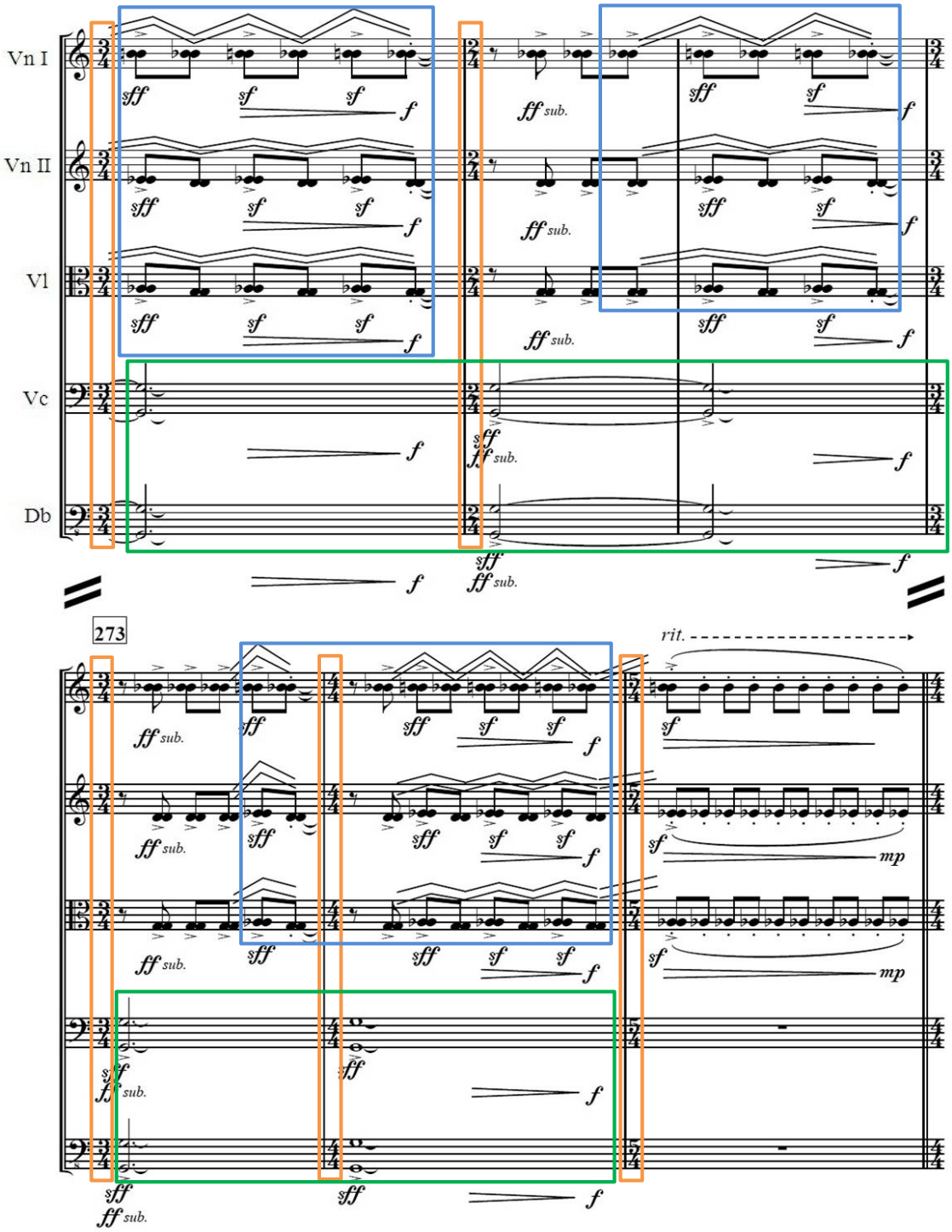
In Figure 31 below, marked in orange, Kulenty employs **changing time signatures**: $\frac{3}{4}$, $\frac{2}{4}$, $\frac{3}{4}$, $\frac{4}{4}$ and $\frac{5}{4}$. The **static bass line** in the violoncello and double bass is marked in green. Marked in blue is the fervent use of **glissandos**. Note the **forward rhythmical drive** created by the **repetition** of notes and patterns, **dynamic** indications and **articulation** (accents and staccatos).

Figure 31: String Quintet No. 1, bar 265-275



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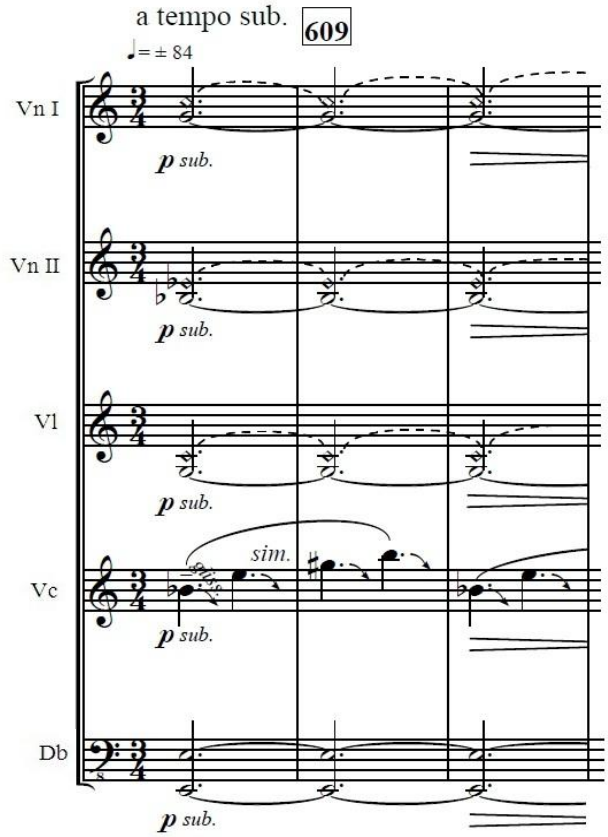
Furthermore, rhythmical ambiguity is noted in bars 608-610 (Figure 32) with a time signature of $\frac{3}{4}$ (three main crotchet pulses per bar) and the motive played by the violoncello is presented in dotted crotchets which is perceived as being in $\frac{6}{8}$ time (2 dotted crotchet pulses per bar).

Figure 32: String Quintet No. 1, bar 608-610



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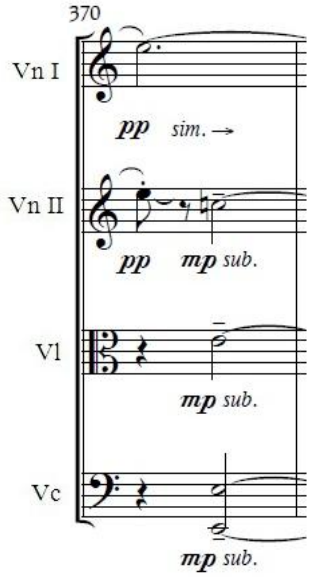
5.5.7. Texture of the string ensemble works

Newbould (2016) maintains that texture is the "vertical construction of music", specifically the affiliation between the parts that sound simultaneously. Furthermore, Newbould (2016) explains that texture is influenced by (but not limited to) the following musical aspects: chords and their respective spacing (also referred to as density), the timbre of each instrument, "intensity", articulation and "the aerating effect of rests". The texture of each of the selected string ensemble works varies indefinitely from thick to thin or vice versa. Furthermore, Kulenty maintains that she aims to create a sense of time and dimension through the effects she incorporates in her music (E-mail correspondence, 01 November 2016).

Thin texture is often observed when:

- There is a single melodic line played either by one or two voices (such as the opening material of the fourth String Quartet).
- There is static material in one, two or more voices which is played at a very soft dynamic range (observed in the first String Quartet at rehearsal mark 24 with the bottom three voices being static, as well as in String Quartet No. 3 from rehearsal mark 57 to the end).
- There is static material in all four/five voices which is played at a very soft dynamic range (such as the pedals found in the fifth String Quartet at bar 370-392, noted in Figure 33 below).

Figure 33: String Quartet No. 5, bar 370



In Figure 33 the notes of the chord, C-E, are sustained for 10 bars. The chord is presented as a dyad (two-note chord) with an interval of a minor sixth between the E and the C. This open chord

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(without its fifth) creates a sense of release after the extremely chromatic passages. In bar 380, the second violin replaces the C with an augmented fifth, a G#, which finally completes the chord. This augmented chord is sustained for another 12 bars.

When the texture is thick, the following characteristics are present:

- All four/five voices are active rhythmically and/or melodically (this includes unison playing). In the opening of the second String Quartet, all four voices are active with dense melodic material.
- The use of polyrhythms, such as the polyrhythms found in the first String Quintet at bar 100-113 and in String Quartet No. 4 in bar 281.
- The interval selection is small 1) linearly with intervals often moving chromatically (in minor seconds). Kulenty also employs smaller intervals such as quarter tones throughout her string ensemble works, which leads to extreme chromaticism. Small movements also occur between the instruments – 2) vertically. This can be noted throughout the string ensemble compositions, such as in the first String Quartet at rehearsal mark 20 and in the third String Quartet at rehearsal mark 2 to 6, between the upper three voices.
- The lavish use of dynamic indications contributes to the textural colour of each work.

Other textural elements observed within the string ensemble works, which contribute to the tone colour (palette), include:

- The size (quartet or quintet) and instrumentation of the group. The selected string ensemble works are composed specifically for the violin family (violins, viola, violoncello and double bass). In every Quartet or Quintet each instrument is pushed to both extremes of its range, from the lowest to the highest notes.
- Articulation, or techniques and effects, such as *pizzicato*, *arco*, *legato*, *staccato*, various vibratos, *col legno*, accents, etc. Standage (2003:139) maintains that tone colour, specifically that of string instruments, is greatly influenced by vibrato as it is "the most decisive and closely related to the player's personality".
- Saturation is often found when all four voices play in unison.
- The dynamics vary between both extremes, from very soft to very loud, with frequent *sforzatos* and accents.
- Small arch motives are often played in different tempi upon each other.
- Harmonics (which form part of the overtone series and are indicated by a diamond shaped note head).

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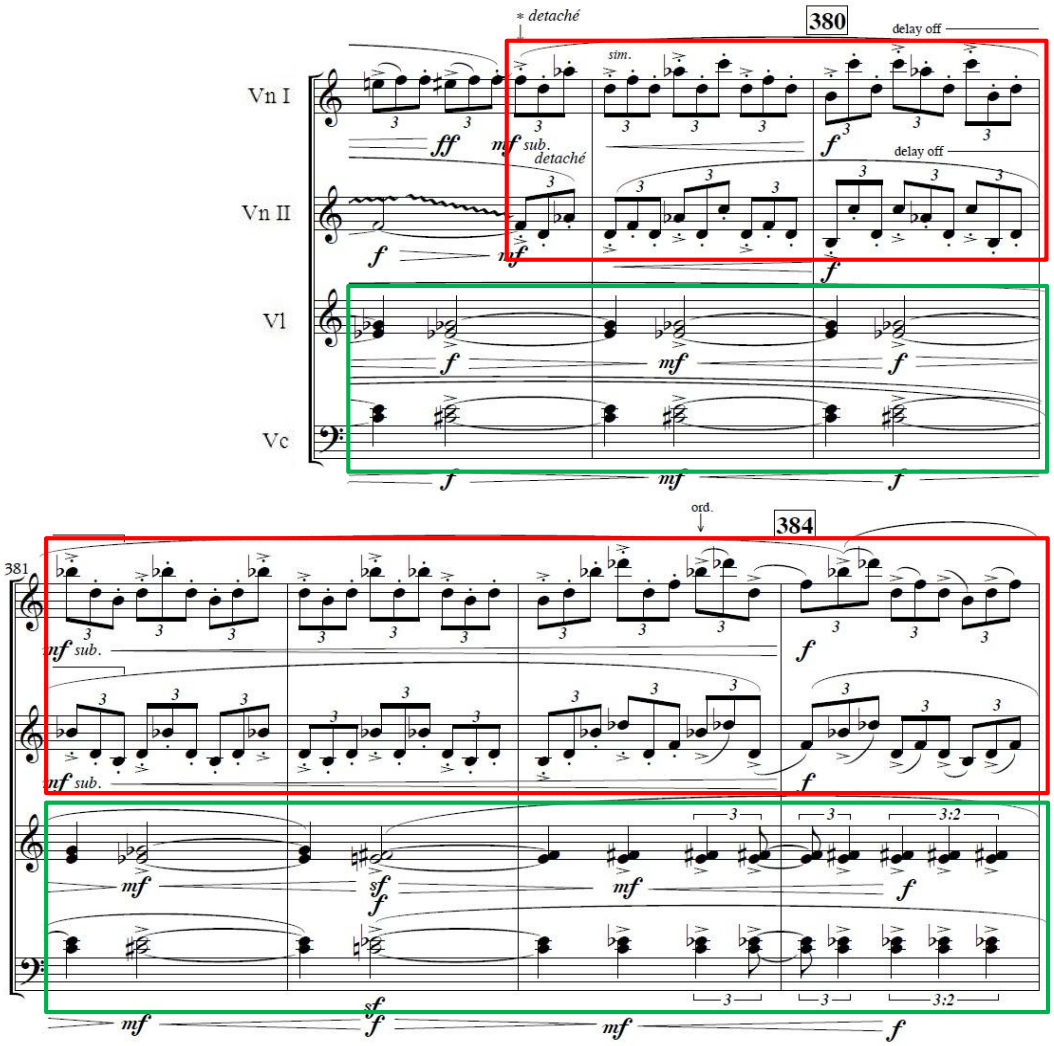
- Pedals provide static accompaniment.
- The intervals that are used throughout the works and which are created by means of glissandos, extreme chromaticism from the small intervals (clusters), augmented and diminished intervals and other intervals such as sixes, sevenths, etc.

Kulenty's string ensemble works are often polyphonic in texture. She regularly combines instruments in pairs. In Figure 34 the two violins play in unison (an octave apart), marked in red, whilst the lower voices provide an accompanimental motive which is marked in green. However, Trochimczyk (2003) maintains that her works are not at all "expressively monolithic" as their individual "emotional trajectories lead from dramatic intensity to elusive moments of tranquillity".

Figure 34: String Quartet No. 4, bar 378-384



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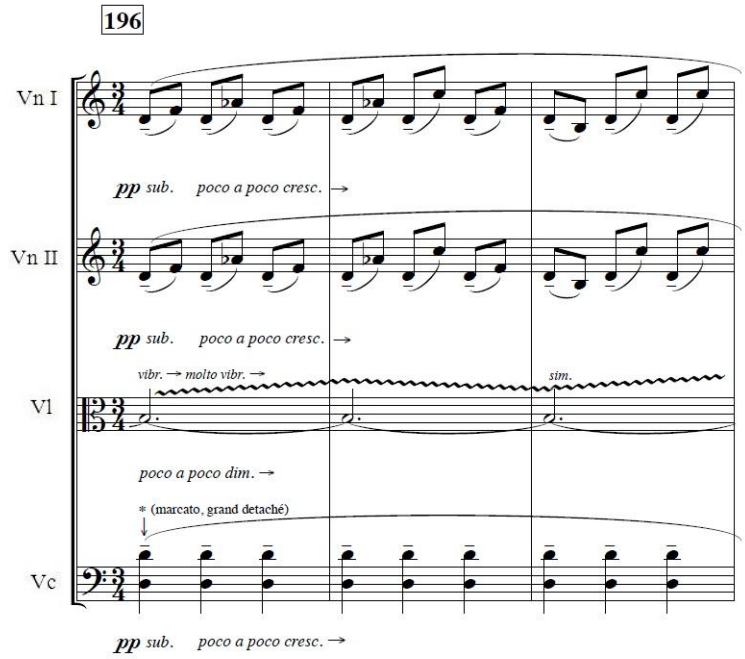
In Figure 35, bar 196-198, the perceived texture suggests homophony. The upper voices (the two violins) play a melodic motive against a static accompaniment figure in the lower two voices. Furthermore, the harmonic material comprises a **diminished seventh chord** on B (B-D-F-A♭) in first inversion, with an added ninth (C) to the chord in bar 197. In bar 204, the melodic motive shifts from the second violin to the viola playing in unison with the first violin. Here, the second violin and violoncello provide accompaniment. In bar 210 the outer voices provide accompaniment while the inner voices play in unison. The diminished seventh chord on B now comprises an added split third (D♭).

Figure 35: String Quartet No. 4, bar 196-198



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5.5.8. Form of the string ensemble works

According to Whittall (2016a), form is a "constructive or organising" aspect in music. Furthermore, Arnold, Latham and Dunsby (2016) maintain that form is the amalgamation of numerous aspects within a composition (including tones, tone colour, rhythm and dynamics), which together create a whole (or "order"). Arnold et al. (2016) note that there are various forms which have developed over the centuries including (but not limited to) strophic forms, variation forms, traditional binary and tertiary forms with their associated designs, Sonata form, etc.

The selected string ensemble compositions do not comprise the traditional layout of a multi-movement work. Kulenty employs one movement for each composition, within which a series of events (arches or time dimensions) occur. This one movement structure can also be referred to as an **open form** in which an ongoing process takes place (DeLone et al. 1975:4).

Furthermore, unity within a form is realised when the organising devices, such as repetition, contrast, variation and development are present (Deri 1968:90). Kulenty creates formal unity by employing such devices as repetition, recurring melodic materials, similar harmonic content and recurring sound qualities. These devices enable audience members to acquaint themselves with the musical material. Other contributing aspects of music, such as texture (sound quality) and timbre, also play an important role in the architectural layout of a composition.

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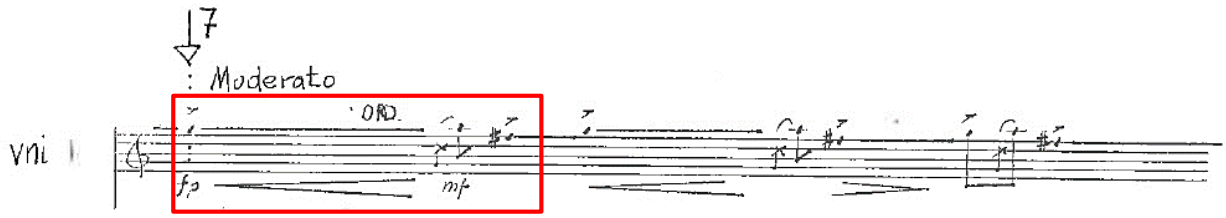
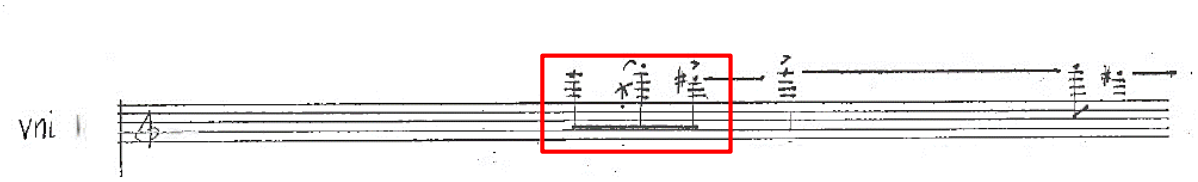
One of the main unifying factors in Kulenty's early compositions is the use of arches. In the first String Quartet, one large arch structure is suggested. The Quartet opens with material on the notes B♭ and A, and at the end returns to these notes. The motive at rehearsal mark 7 (A-F#-G in the first violin), marked in red in Figure 36, returns an octave higher in the first violins in the second system of rehearsal mark 24, before the final recurrence of the opening material (B♭ and A). This suggests that an arch form has been achieved.

Figure 36: String Quartet No. 1, the first violin motive at rehearsal mark 7 and the second system of rehearsal mark 24

First violin motive at rehearsal mark 7



First violin motive in the second system of rehearsal mark 24



Furthermore, there is recurring thematic material in the first String Quartet, marked with red brackets (refer to Appendix B):

- At rehearsal mark 7, the end of the second system (più mosso) continuing for 5 systems.
- At rehearsal mark 13 (più mosso) continuing for 6 systems.
- At rehearsal mark 21 continuing for 5 systems (this final recurrence takes place without the rhythmical material presented in green in Figures 4 and 6).

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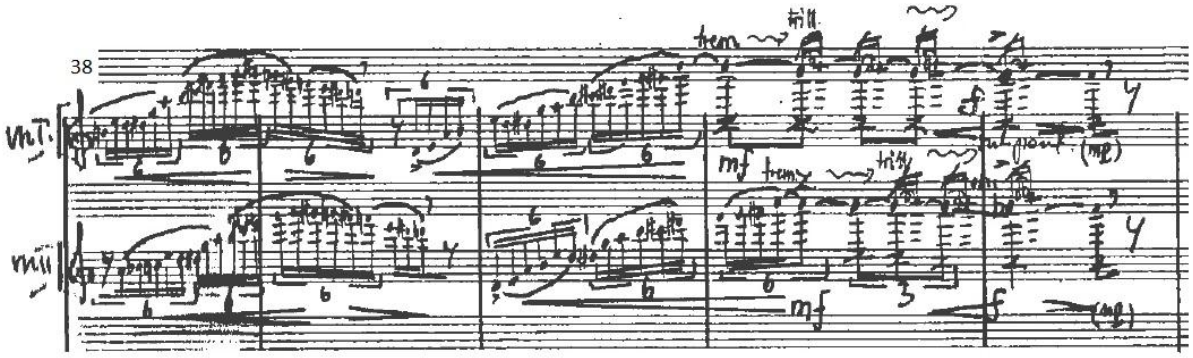
In the second String Quartet an arch-like structure is suggested. The large arch motive starts ascending in the two violins in bar 26, Figure 11. Smaller arch-like motives, such as the reflection/mirroring found in the two violins in bar 36 (marked in pink in Figure 12), frequently move upward to a climax (or rather high point). Below is an example of the two violins playing the smaller arch-like motives from bar 38 to 42. Note the high notes in bars 41 and 42.

Small arch-like motive moving upward in the two violins from bar 38-42 in Figure 12



The large arch structure reaches its peak before the smaller arch-like motives start their patterns of descent. These smaller arch-like motives are marked in red in Figure 37. The arch structure reaches its end in bar 419, its final descending motives marked in red in Figure 38.

Figure 37: String Quartet No. 2, the descending arch-like motives, bar 292-309

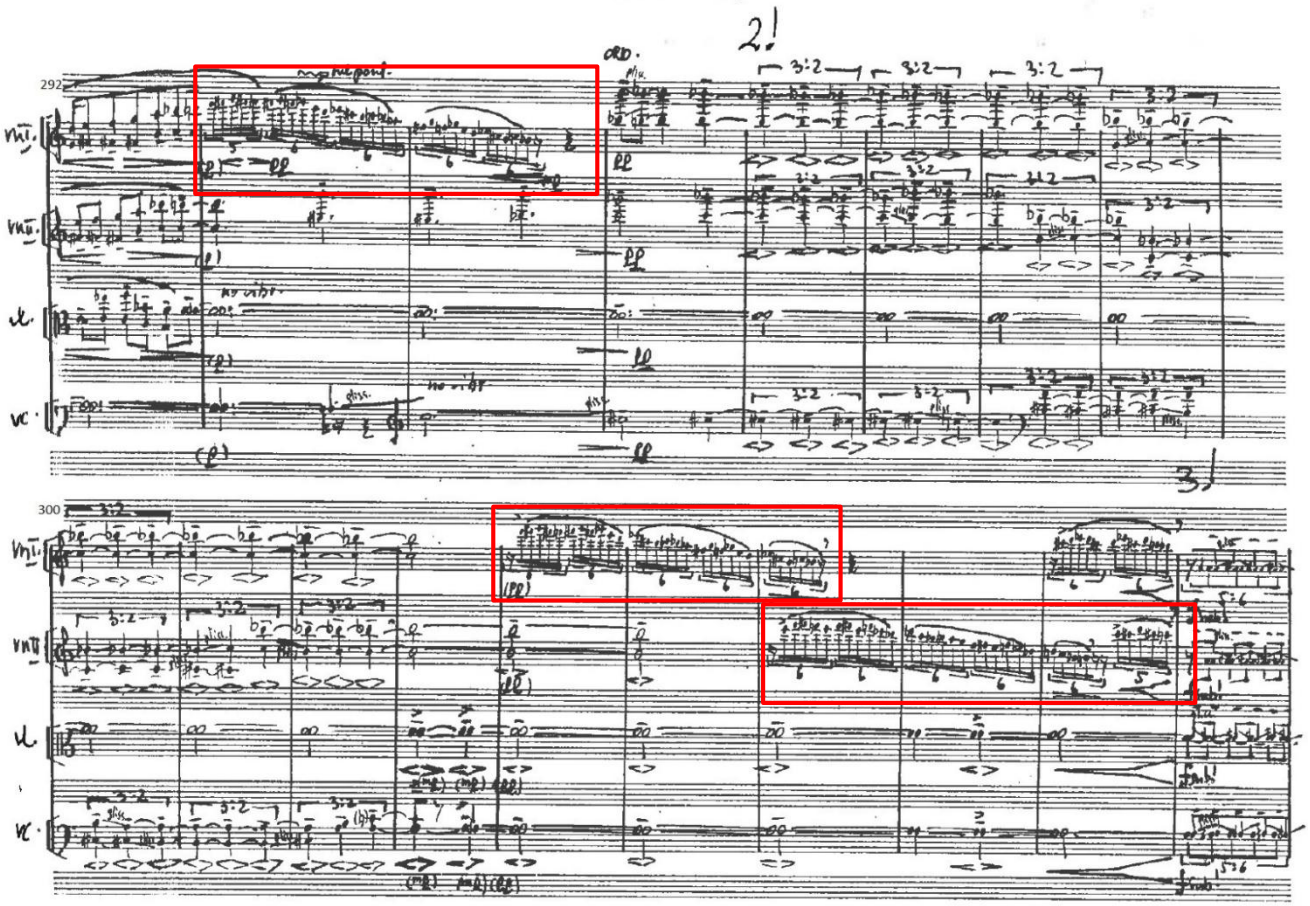


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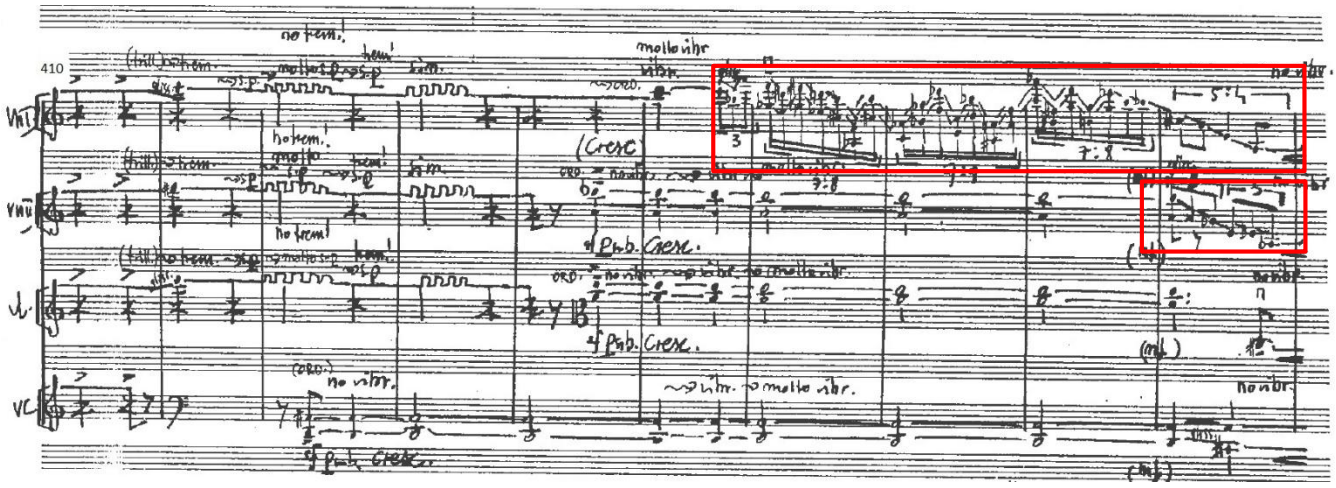
Figure 38: String Quartet No. 2, the end of the arch structure, bar 410-419



Another important aspect that should be noted is the abundant use of **dynamics**. The dynamic indications, on their own, often represent/suggest an arch-like design with a pattern of *crescendo* to *decrescendo*. It also creates a sense of forward motion and increases the tension.

During the 1990s, Kulenty started employing layers of time dimensions and European trances. Through various post-tonal era devices and techniques (such as the play on time), she aims to create a meditative state in which single arches evolve in time, their gripping intensity rising slowly, often by means of extreme chromaticism and driving rhythms (Trochimczyk 2003). During this time, Kulenty was fascinated by the aspects of time and existentialism (Trochimczyk 2003). Tempi indications also form an integral part of her compositions produced during this era (Kulenty 2005). The rise in tempi suggests continuous movement (Kulenty 2005).

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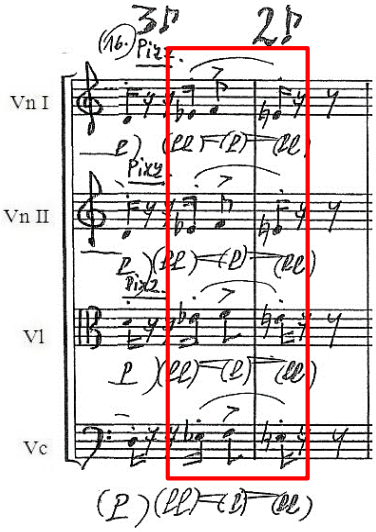
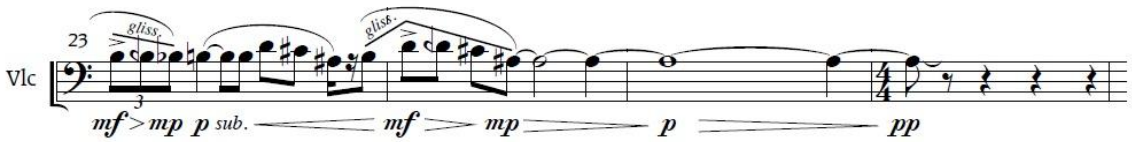
The recurrence of a short motive, presented in Figure 39 (marked in red at rehearsal mark 16), throughout the third String Quartet indicates some form of circular motion. This motive is presented on various pitches (transposed) with every recurrence, however the rhythmical pattern remains the same throughout. Recurrences take place at rehearsal mark 30, three bars before rehearsal mark 38, three bars before rehearsal mark 43, at rehearsal mark 44 and three bars before rehearsal mark 50.

Figure 39: String Quartet No. 3, rehearsal mark 16



In the fourth String Quartet, the material presented in the violoncello in bar 23 to 26, in Figure 40 (as well as Figure 18, page 105-107) often recurs throughout the work in different voices. This creates a sense of unity in the piece.

Figure 40: String Quartet No. 4, bar 23-26, the motivic material of the violoncello



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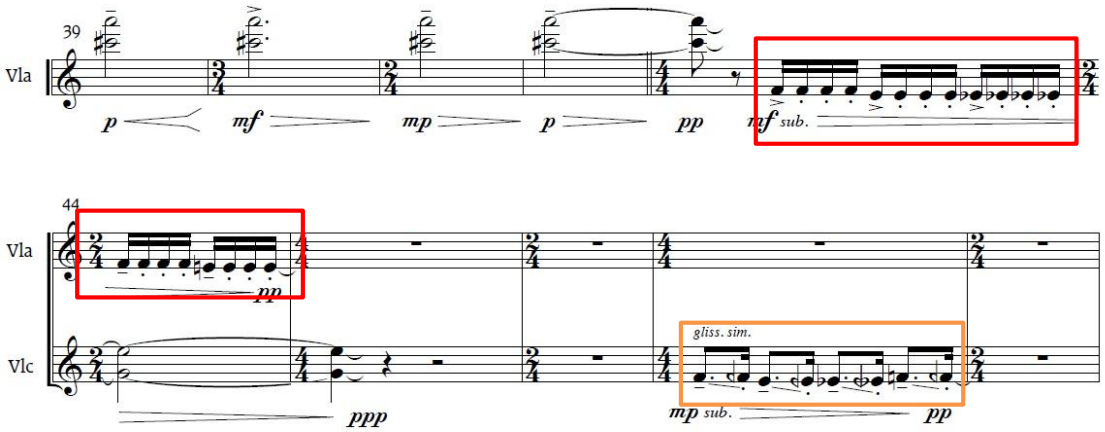
In String Quartet No. 5, recurring materials can be found in the semi-quaver passages moving chromatically between two or more voices. An example of this can be observed in bars 54-59, 73-78, 97-108, and 167-179. These patterns provide a sense of forward motion due to their chromatic incline. Other motives, such as those displayed in Figure 41, also return in the piece at various points. The semi-quaver motive (F-E-E♭-F-E♮) in the viola, marked in red in bar 43-44 in Figure 41, returns in bar 52-53, in the second violin in bar 69-71, and in the first violin in bar 148-152. The dotted rhythmic motive in the violoncello, marked in orange in bar 47 in Figure 41, returns in the violoncello in bar 400 and bar 406 (expanding on this motive until 409) in quavers.

Figure 41: String Quartet No. 5, bar 39-48, viola and violoncello motives



The devices and techniques that Kulenty employed which either relate closely to or are dependent on time include extreme chromaticism (often the gradual rising or falling in pitch by means of a succession of quarter tones suggesting forward motion), the use of various time signatures within a piece, various duration indications (often changing per bar), the augmentation and diminution of rhythmical patterns, employing festination (the slowing down or speeding up of rhythmical patterns) and the use of polyrhythms. All of these devices also contribute to creating unity throughout a composition.

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5.6. Conclusion

Hanna Kulenty employs numerous post-tonal era techniques and effects in the selected string ensemble works. This contributes toward the intensity and expressivity that she aims to achieve. Each of the selected string ensemble works comprises one movement which undergoes a great deal of development. These single movement compositions comprise no key signature, however a perceived key is achieved through reiteration, recurrence and cadences.

Melodic materials often comprise arch-like motives. These motives, often created from arpeggiated patterns, form an arch-like curve where the material starts at a specific pitch, proceeds to a climax, and then returns to the starting point. Kulenty makes extensive use of glissandos and quarter tones which creates much dissonance. Scale formations such as chromatic and whole-tone scales are also employed.

Rhythmical motives and patterns, as well as the articulation (accents and effects) thereof play an important role in the selected works (E-mail correspondence, 01 November 2016). Short rhythmic motives or patterns (also ostinatos) are often repeated successively, increasing the tension and creating forward drive. These rhythmic motives often comprise displaced accents, festinations (the slowing down or speeding up of rhythmical patterns – usually where pitch material is static) and percussive qualities (when unique pluck and bow techniques are used to create special effects). Kulenty also employs syncopated rhythms (which are often influenced by jazz – such as those in the third String Quartet) and polyrhythms (often found between voices playing the arch-like motives) which create a sense of irregularity.

The first String Quartet lacks a time (meter) signature, however the performer is guided by metronome markings (such as Andantino ♪= 72-74). In String Quartet No. 2 the time signature is also absent, nevertheless metronome markings are evident with the duration specified above a bar applicable to the specific bar and all succeeding bars. This creates the illusion of a constantly changing pseudo time signature. In the third String Quartet, a similar approach is applied, however the amount of pulses and the pulse duration are indicated, i.e. the first four bars each comprise four pulses per bar, measured in crotchet notes. Furthermore, the remaining String Quartets and Quintet comprise successive time signature changes.

Harmonic materials often comprise quarter tones, glissandos, diminished and augmented intervals and chords – all of which create extreme dissonance. Pedal notes are employed and are

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not confined to the bass: inner pedals and pedals in the top voices are also evident. Another harmonic device, parallelism (or planing), is also employed.

Textural devices employed in the selected string ensemble works, specifically related to tone colour, comprise: harmonics, various bowing and non-bowing techniques (such as vibrato and pizzicato), and glissandos. Kulenty makes use of the entire range of each string instrument (violin, viola, violoncello and double bass), employing each instrument idiomatically. A broad range of dynamic indications are extensively employed, playing a vital role in creating the desired effects such as the aural perceiving of arches (crescendo-climax-diminuendo), forward movement (slow or dramatic crescendo and diminuendo), density and tension (loudness at various points where all four or five voices are active) and some sense of release or consonance (soft passages, often only one or two voices active).

A sense of unity in **structure** is created by repetitive or recurring materials. In her early works, Kulenty employed a polyphony of arches (layers of arches) that span the entire composition. Later, she made use of one arch that is presented in various temporal planes – polyphony of time dimensions (layers of different time levels).

In conclusion, Kulenty's string ensemble works form an essential part of her extensive and expanding oeuvre. The various style characteristics highlighted in this chapter provide insight into her unique compositional style.

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Chapter 6
Style transformation

6.1. Introduction

This chapter provides an overview on the style transformation that took place in the selected string ensemble works composed by Hanna Kulenty over the span of 29 years. All the string ensemble works considered, except String Quartet No. 1, are available online on YouTube.

6.2. Style transformation

According to Beard and Gloag (2005:128) **style** is described as a vehicle of countenance and the manner in which musical materials are expressed. In a purely musical sense, style necessitates the following musical characteristics: melody (horizontal dimensions), rhythm, harmony (vertical dimensions) and texture (Beard & Gloag 2005:128). Furthermore, these characteristics should be able to function either separately, combined or as groups (for example counterpoint) (Beard & Gloag 2005:128).

Beard and Gloag (2005:129) maintain that style is often either used to describe the oeuvre of composers, to characterise a conglomerate of styles or to signify the essential elements which remain constant throughout all the works of a specific composer's oeuvre. This indicates that there is some form of individuality rooted in style and that style can evolve as individual tastes change over time (Beard & Gloag 2005:129).

The synonyms for **transformation** include progression, development, shift, metamorphosis and renewal. It is evident that Kulenty's style has shown certain forms of progression and development since her first String Quartet, which was composed in 1984. Her string ensemble works, those specifically selected for this study, fall into three main style periods which are discussed below.

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6.2.1. Style periods

6.2.1.1. Beginning (1980s): Polyphony of arches

In her early compositions, Kulenty employed 'polyphony of arches', described more clearly as layers of simultaneous arches (Trochimczyk 1995). Each arch, described by Trochimczyk (1995), comprises its own starting and end point within its emotional curve and progresses at its own tempo (this can be slow or fast). Kulenty (2016) explains that these arches are incorporated purely for their ability to "express the intensity curve or energy" of a specific structure.

In her own words, Kulenty describes the arch as

> …a structure of a defined emotional course, of a defined climate, containing a climax (Kulenty 1990).

Furthermore, the arch rarely has to continue the traditional progression of a curve and can start at any point in time or place (including the climax) (Kulenty 1990). Kulenty maintains that she prefers composing as if the work began from the climax (Kulenty 1990). An order (or structure) is eventually achieved, in which each arch comprises its own duration and individual progression (this does not necessarily occur simultaneously) (Kulenty 1990). Nevertheless, Kulenty explains that

> ...a polyphony of arches is an overlapping of several arches, combined in such a way that the work as a whole will have the form of an arch. I also try to arrange the climaxes of particular arches one after another, so that something like a permanent climax is formed. I was consciously exploring these techniques in *Sesto* (1985) right after the performance of *Ad unum* (in September, 1985). It was extremely important that I could hear my music… and later those arches of mine got into my blood and I stopped thinking about them. I simply sit down and write… [as] I am sure of what I do and of what I hear. Once a work exists, I don't change it. (Kulenty 1990.)

Kulenty's devotion to ever-developing patterns of sound, extended phrases and lush (often detailed) textures form part of this novel compositional style (Trochimczyk 2003). Furthermore, she juxtaposes numerous layers of textures, each increasing in intensity (such as increasing registers, tempo indications, and dynamics), in intricate patterns of movement (be it back-and-forth or decline and regrowth) (Trochimczyk 2003).

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Sound is an essential part of her compositions and assumes many roles:

> Sound as volume; sound as breath, as motion, as change itself: sound as life… (Trochimczyk 2003).

Trochimczyk (2003) notes that many of the compositions written during the 1980s embodied the highly "saturated and dramatic style" of the polyphony of arches. According to Trochimczyk (2003), Kulenty also favoured the use of 'reflections', or rather doubles, of solo instruments by either making use of a second instrument mirroring the first, or by combining the various instruments with electronic delay. Trochimczyk (2003) explains that these reflections evoke "an air of nostalgia" in the composition that resonates some form of "remembrance" or "reflection upon" during its development.

Kulenty employed these layers of arches in her compositions until the mid-1990s (Trochimczyk 2003). The two string ensemble works that fall into this style period are the first two String Quartets, the first composed in 1983 (published 1984) and the second in 1990 (published 1991) (E-mail correspondence, 01 December 2016). In these two works, some of the main characteristics of this style period are evident: Kulenty employs mirrors (doubling instruments that mirror each other at different time intervals), the works take on the structure of an arch with ongoing developmental processes continuing within (polyphony of arches), and motives that promote the idea of ebb-and-flow (often arch-like motives).

6.2.1.2. Middle (1990s-early 2000s): Polyphony of time dimensions and European trance music

Strzelecki (2008:158) notes that

> …time and its secrets are one of the fundamental issues which both absorb the attention of physicists and continually inspire artists.

Time is a subject of relativity. It has been the subject of many discussions and debates and has been studied in the fields of physics, metaphysics, mathematics, and philosophy (Bars & Terning 2010:29). Time in itself is often referred to as a "series of events" (Bars & Terning 2010:29). Time, just like the space we find ourselves in (our environment), is measured by universal tools

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(Bar & Terning 2010:29). Furthermore, movement or motion can only be defined if both time and space are present (Bar & Terning 2010:29).

During the 1990s Kulenty established a novel rendition of the 'post-minimalist style' which was represented by the use of fewer musical layers (specifically in number and density) (Trochimczyk 2003). Trochimczyk (2003) notes that the prevalent recurrences of "evolving melodic phrases" and the emphasis on driving rhythmical motives, employed during this period, prompted the inclination toward post-minimalism. This novel approach, titled the 'polyphony of time dimensions', stems from her then recent encounter with the various time dimensions (Kulenty 2005). Kulenty explains that this

> …new technique… [was] related to [her] old technique and time in any dimension – [be it] time in a line, square or cube – goes in a circle (Kulenty 2005).

Furthermore, she states that the references to arches (in which the arch is the primary line) were no longer applicable as the movement did not occur linearly as it had before (Kulenty 2005).

According to Kulenty (2016) and Trochimczyk (2003) the polyphony of time dimensions (or rather layers of simultaneous time dimensions) focuses on both the cyclical motion of time as well as time-events that occur simultaneously on various temporal planes. Strzelecki (2008:157) explains that the polyphony of time dimensions encompass

> …fragments [that are] built on the same sound material [and which] are played simultaneously at different tempi. In this manner, the work is split up into layers existing, as it were, in different time dimensions.

Furthermore, Kulenty (2016) maintains that when these layers of time dimensions are employed, specific aspects derived from previous compositional techniques are "transformed into a new style".

During this period, Kulenty often organised her compositions to follow the design of a single arch that would gradually evolve in time and steadily heighten in emotional intensity (or rather tension) (Trochimczyk 2003). Trochimczyk (2003) states that these extensive sonorities reach their climaxes gradually. The smaller arch-like motives within this large arch design comprise discernable melodic and rhythmic aspects which stem from similar materials; however, they are

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often presented in different tempos (Kulenty 2005). Kulenty maintains that her use of increasing tempos contributes to the idea of 'perpetual motion' and therefore also of a cycle (Kulenty 2005). Prior to the polyphony of time dimensions, however, Kulenty made use of another practice referred to as 'European trance music' (E-mail correspondence, 1 December 2016). Kulenty explains that

> …this is my second compositional technique which I developed in the last few years, trying to let time be experienced in [a] different, meditative way (Kulenty 2005).

Trochimczyk (2003) notes that European trance music

> …parallels in [the] extended time scales and meditative qualities of Indian rãgas[26], rather than Western minimalism[27].

Kulenty also combined these two styles, European trance music and polyphony of time dimensions, in some of her compositions (Trochimczyk 2003; Kulenty 2005). According to Kulenty (2005), the fusion of these two techniques creates not only a firm structure, but it also acts as a vehicle – transporting the audience to the "inside [of] the music, regardless of the direction from which they approach it".

There are two string ensemble works that fall into this style period: String Quartet No. 3 – Tell me about it (2007) which belongs primarily to European trance music, and String Quartet No. 4 – A Cradle Song (2007) which belongs to the polyphony of time dimensions (E-mail correspondence, 01 December 2016).

6.2.1.3. Current (Post-2010): *Musique Surrealistique*

Kulenty is fascinated by time and nature (specifically the movement of time in itself and in nature). This is evident in her works comprising the polyphony of time dimensions. Kulenty maintains that she has recently entered a new phase in her compositional technique and writing, titled '*musique surrealistique*' (E-mail correspondence, 01 November 2016). However, she

[26] Indian rãgas, according to Kennedy and Kennedy (2007:608), is an "Indian melodic type" that was originally noticed during the fifth century, AD, and numerous rãga systems have been developed since. Kennedy and Kennedy (2007:608) explain that a rãga consists of a fixed collection of notes which form a scale (ascending and descending), with certain notes only played in the ascending and others in the descending. Furthermore, rãgas are also linked to moods/emotions, annual or daily events or specific ceremonial events (Kennedy & Kennedy 2007:608).
[27] Western Minimalism: Refer to Chapter 4 (page 39).

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explains that it remains closely connected to the polyphony of time dimensions (E-mail correspondence, 01 December 2016).

Surrealism

Surrealism (1924-1966), initiated by French revolutionary, poet, writer, and anti-fascist, André Breton (1896-1966), is an art and literature movement that spans numerous diverse practices, techniques, styles and cultures (Mann 2016). According to Mann (2016) the Enlightenment[28] period withheld the exceptional traits of the subconscious (also irrational) mind. The aim of the Surrealist movement was to break away from the rationalistic view and explore beyond its confines (Mann 2016). Breton, an avid proponent of Sigmund Freud's psychoanalytical theories, suggested that artistic creativity be derived from the subconscious which produces illusions and dreams (Mann 2016). Today, many artists are still influenced by the subconscious (dreams, psychoanalysis and imagination) (Mann 2016). Sheringham (2006:70) maintains that Surrealism will always remain connected to realism – the irrational with the rational. Furthermore, the "possible is contained in the actual" (Sheringham 2006:67). Experience, according to Sheringham (2006:68), is one of the most important planes (or dimensions) for the Surrealist.

Kulenty's current philosophy – Musical surrealism

In a speech given in 2015, Kulenty explained her most recent approach:

> Art, for me, is the imitation of nature, or the interpretation of nature. I am a musical surrealist, not a sur-conventionalist, because I do not research or bury myself in conventions – neither in principle nor for the sake of compositional techniques. I am far more interested in the direct imitation and transformation of nature, not in the imitation of someone else's imitation that is I am not interested in conventions. (E-mail correspondence, 06 December 2016.)

Musique surrealistique is a state of mind, rather than a compositional technique, that Kulenty hopes to evoke in the audience and achieve through her compositions. Her more recent works maintain a higher degree of chromaticism, further separating her compositions from established practices. The subject of time remains a great influence and this is evident in her recent contributions to this period, String Quartet No. 5 (2011) and String Quintet No. 1 (2013). Both of

[28] Enlightenment refers to the seventeenth and eighteenth century's "intellectual movement that championed reason and individualism" (Mann 2016).

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these compositions comprise the combination of the polyphony of time dimensions and *musique surrealistique* (E-mail correspondence, 01 December 2016).

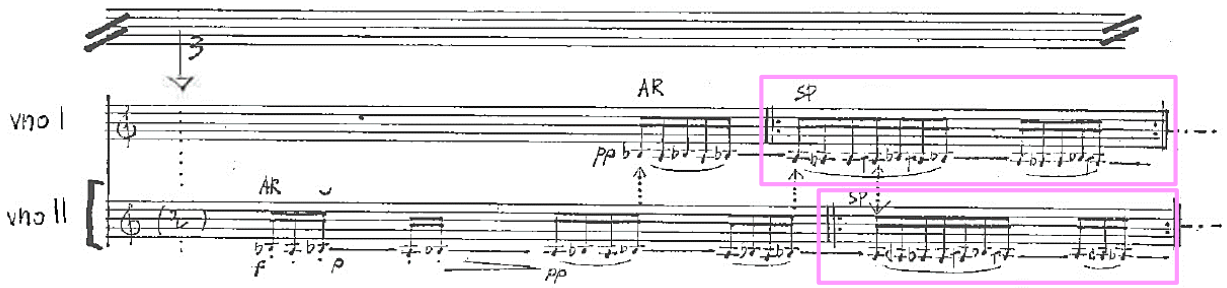
6.2.2. Transformation in the musical fundamentals

The musical fundamentals (melody, rhythm, harmony, etc.) discussed in Chapters 4 and 5 are revisited to establish the transformation that took place in Kulenty's string ensemble works. Provided below is a brief overview of the aspects pertaining to each fundamental.

Melody

In the first String Quartet, Kulenty employed small motives that mirrored each other in two or more instruments. In Figure 42, the mirror motives in the two violins are marked in pink. The second instrument (the mirror instrument) often resembles the first motive, but the pitch material is usually slightly varied. However, when the primary motive starts on a D, the mirror motives tend to follow the melodic pattern exactly (for example at rehearsal mark 5). The mirror instrument usually starts at a set time-interval after the first motive's statement which ultimately creates a 'delayed' effect, akin to an electronic delay.

Figure 42: String Quartet No. 1, rehearsal mark 3, the mirror motive in the two violins



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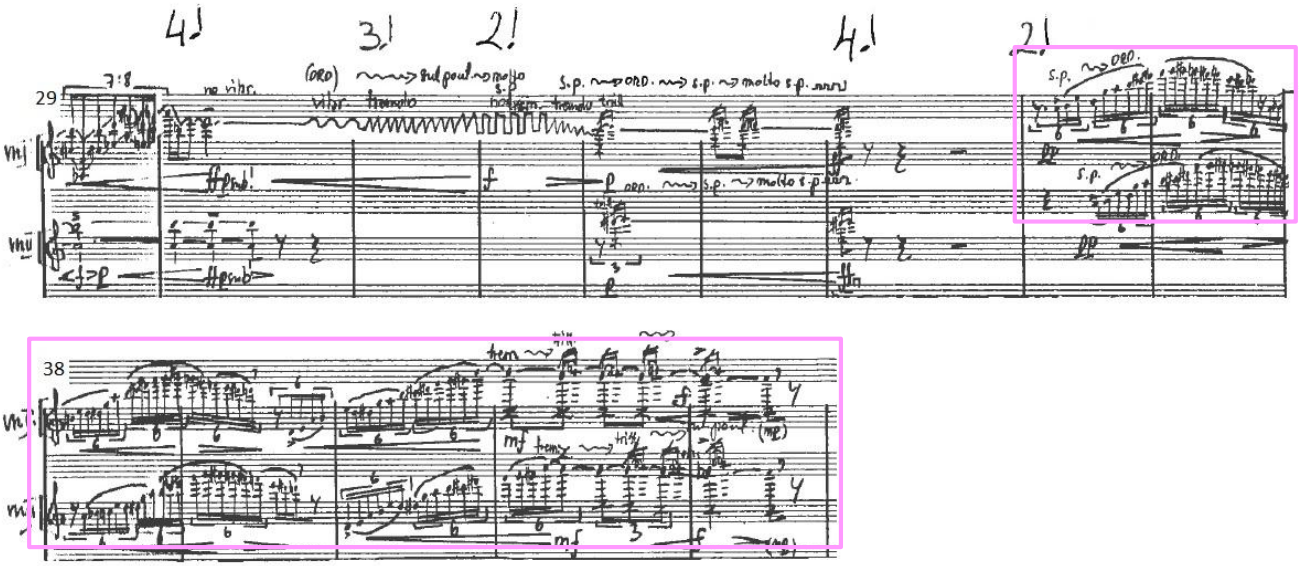
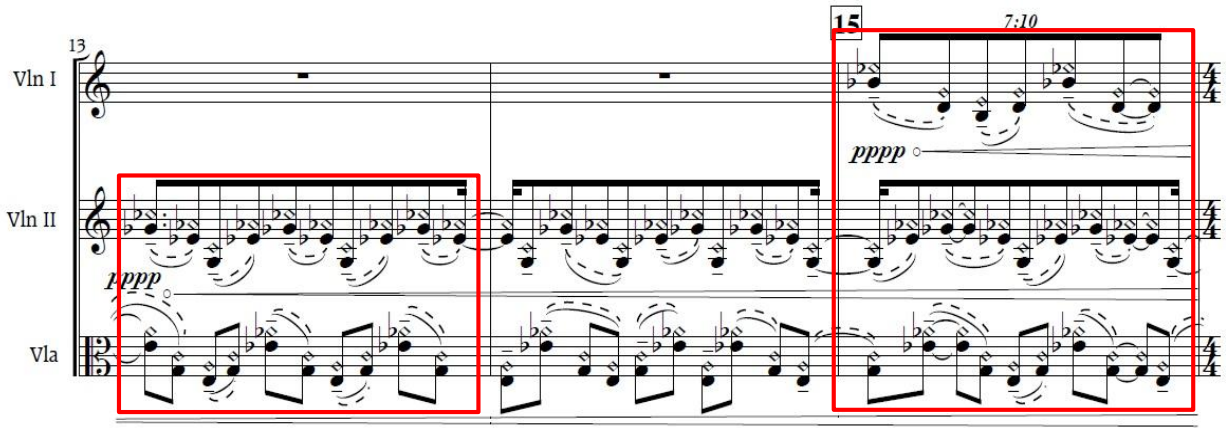
As noted in Chapter 5, the selected string ensemble works often comprise small arch-like motives that display a similar beginning and end point, and a climax. The second String Quartet is the first encounter of small arch-like motives. These arch-like motives are also mirror patterns of each other. In Figure 43, the arch-like motives in the two violins are marked in pink. The second violin is the mirroring voice, following the first by quaver beat.

Figure 43: String Quartet No. 2, bar 36-42, the arch-like motive in the violins mirroring each other



In the fourth String Quartet, an arch-like motive is suggested by each instrument. Each motive is presented in a different durational pattern. An example of this is found in Figure 44 where the arch-like motives in the three upper voices (two violins and viola) are marked in red. Note that the time signature for this excerpt is $\frac{5}{4}$ and the second violin is playing a syncopated pattern.

Figure 44: String Quartet No. 4, bar 13-15, arch-like motives in the three upper voices



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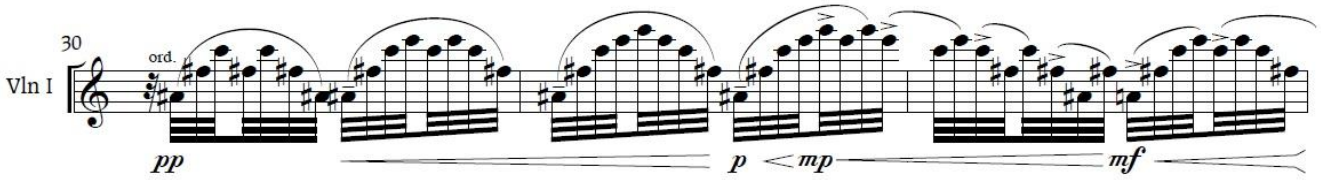
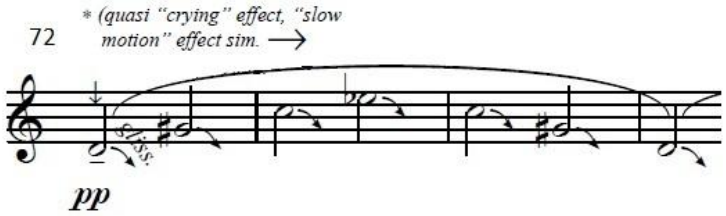
In String Quartet No. 5 the arch-like motive, as noted in Figure 45, is presented in the first violin. This short rhythmical motive later undergoes augmentation (at bar 294 and 428) in the two violins. Here, the motives occur simultaneously, however, their durational patterns differ. This is a key example of the polyphony of time dimensions.

Figure 45: String Quartet No. 5, bar 30-32, the arch-like motive in the first violin



Materials derived from String Quartet No. 5 are presented in String Quintet No. 1 and recur more frequently in the latter. In Chapter 5, the similar melodic material is noted in Figure 30. The arch-like motive in the violoncello in Figure 46 undergoes rhythmical diminution in bars 93-95 (transposed) and 600-601 (presented on the same pitch material).

Figure 46: String Quintet No. 1, bar 72-75, the arch-like motive in the violoncello



Kulenty employs glissandos and quarter tones extensively in the string ensemble works, which creates dissonant melodic and harmonic materials. She also makes use of scale formations such as the chromatic and whole-tone scales. Melodic lines are often unified by repetition and recurrence. The progression of the melody is not always predictable as extreme chromaticism is extensively employed and this in turn leads to phrases that are not equal in length. It is evident that the motivic material has gone through some degree of change. The mirroring and scalar arch-like motive, in String Quartet No. 2, has given way to a more arpeggiated arch-like motive, such as those found in String Quartet No. 4, 5 and String Quintet No. 1.

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Rhythm

Rhythmical motives and patterns play an important role in the selected string ensemble works. Kulenty affirms that her use of various tempi indications and rhythmical patterns contribute to the aspect of 'time dimension' (E-mail correspondence, 01 November 2016).

Rhythmical aspects are often presented as asymmetric, and therefore great unpredictability and freedom is experienced. Phrasing, timing, articulation, and tempo (including, but not limited to, meter, the grouping of notes and other rhythmical devices) remain central to each piece. Metric irregularities (and shifting meters) are created within the rhythmical units/groups by means of accents (also displaced accents), festinations, syncopated rhythms, and polyrhythms.

The use of time signatures are absent in the first three String Quartets. In all three, Kulenty only employs metronome markings and duration indications as a guide to the performer. These, however, change frequently. In the remaining three works, time signatures are present and also change frequently. Both the frequent change in duration indications and time signatures promote the play on time. Although there has been little change to Kulenty's rhythmical processes, the effect of time and duration is much more pronounced in her recent works.

Harmony

Kulenty's use of quarter tones, glissandos, diminished and augmented intervals and chords continues to create extreme dissonances and chromatic harmony. Harmonic devices such as pedal tones, ostinatos, parallelism and clusters are frequently observed. All the String Quartets lack specific tonal centres and her continued use of chromaticism supports this atonal approach. However, with the reiteration of specific notes and with the recurrence of specific motives a (perceived) sense of key is established.

Texture

The rich harmonic palette contributes to the rich quality of sound. Textures vary indefinitely from thin to thick and the sound and sound qualities remain an integral part of Kulenty's compositions. Extreme chromaticism and the abundant use of dynamics contribute to the texture of each composition.

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In the first three String Quartets, a single melodic line is absent. However, Kulenty occasionally employs a single instrument playing a downward glissando (non-rhythmic / melodic) to create thin texture. Both String Quartet No. 4 and String Quintet No.1 contain a melodic line (foreground material) that creates thin texture.

Dynamics, harmonics, various bowing techniques, articulation and glissandos are all textural devices used in the selected string ensemble works. These devices contribute to Kulenty's unique timbre (textural vocabulary). Kulenty continues to exploit the extreme ranges of each string instrument.

Form

A significant feature in her compositional method is the notable structural consistency (Trochimczyk 2003). Trochimczyk (2003) notes that Kulenty's compositional method comprises her first "envisioning" (perceiving in sounds and time) the entire composition at a certain "point (even the climax) that contains all of its dimensions". Thereafter she pens down this "momentary musical" glimpse and employs "stretched out layers of musical material" that, in a "condensed form", was first observed in the first "vision" (Trochimczyk 2003). According to Trochimczyk (2003), Kulenty employs a

> …powerful, dissonant and well-crafted study of convergence towards musical unity; with a large-scale architectural plan realised through massive, mobile sonorities.

Repetitive and recurring motives are unifying devices and are frequently employed by Kulenty throughout the string ensemble works. Another consistent approach is the use of an open one-movement structure with developmental processes within. Common developmental processes employed include further development of thematic material, the use of recurring materials, immediate repetition (such as that found in the first String Quartet), repeated rhythmical patterns where the rhythmical motive remains the same but the pitch material varies, the use of arch-like motives (in String Quintet No. 1 the arch-like motives are repeated and every repetition is transposed), and motives that are expanded when restated. Phrases are often formed when materials are repeated. The use of exact repetition has given way to transposed, augmented or diminuted patterns. Kulenty's approach to an open form structure has however remained consistent.

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6.3. Conclusion

Sobkowska (2004:31) and Trochimczyk (1995) note that Kulenty's compositional idiom is derived from key musical fundamentals including selective pitch materials, rigorously layered rhythmical motives and musical phrases, ostinatos, extensive use of both glissandos and quarter tones, much repetition, and the play on time. In the last thirty years the melodic and harmonic materials have remained dense and chromatic. Rhythmical elements, however, have become more dependent on time and the relationship to time is much more evident in her recent works. Texture remains a vital part of her compositions in order to create the desired effects specifically related to time, such as perpetual motion. One-movement structures, with ongoing development taking place within the movement, are the norm.

Kulenty's early works are inspired by a polyphony of arches (layers of arches) that together form part of one larger arch structure. During the 1990s and early 2000s she employed a single arch as the primary structural design of her works, incorporating both European trances and a polyphony of time dimensions (layers of time dimensions). Her more recent ensemble works are founded on the polyphony of time dimensions, however, she also incorporates the philosophy of *musique surrealistique*.

Kulenty writes idiomatically for each instrument. Although she is a trained pianist, she is equally proficient in composing for individual string instruments and string ensemble groups, exploiting each instrument's extreme range (both high and low) (Trochimczyk 2003). This continues to make her works not only technically demanding, but also an extreme challenge for musicians/performers as they aim to "achieve the emotional impact" the composer necessitates (Trochimczyk 2003).

Kulenty's fascination with time (and time dimensions) and "stark existential subjects" are also evident in her compositions, particularly her more recent works, and the musical layers often alternate between being primary and subordinate (Trochimczyk 2003). Ultimately, Kulenty's musical landscape expands with each composition (Trochimczyk 2003). Kulenty's most identifiable compositional trait is arguably the ability to create music that is intensely emotional, yet remains enchanting (Trochimczyk 2003).

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Chapter 7

General conclusion and recommendations

In the twenty-first century, composers and musicians have the privilege to decide whether or not to incorporate a kaleidoscope of bygone styles and genres in various manners, be it amalgamated, renewed or juxtaposed (Berry 2002:238). There is a vast amount of musical motives available at the composer's fingertips which can be creatively incorporated into novel and expressive compositions which will not only entice, but also have a significant impact on listeners (Berry 2002:238). The statement by Rochberg, in Berry (2002:238), remains applicable to the current era:

> …the twentieth century has pointed – however reluctant we may be to accept it in all areas of life, social as well as political, cultural, as well as intellectual – toward a difficult-to-define pluralism, a world of new mixtures and combinations of everything we have inherited from the past and we individually or collectively value in the inventions of our own present, replete with juxtapositions of opposites (or seeming opposites) and contraries (Rochberg [1974] 1984:240).

Polish composer Hanna Kulenty has added seven string ensemble works to her extensive oeuvre: the five String Quartets and one String Quintet discussed in this study, as well as String Quartet No. 6, composed in 2014. In this study the selected string ensemble works, composed between 1984 and 2013, were examined to trace any transformation in her compositional style over the span of 29 years. The criteria considered for the style transformation discussion included the music fundamentals (melody, rhythm, harmony, texture and form) and how they were employed by the composer. Any significant changes or similarities that would motivate or contradict a style transformation were presented and briefly discussed.

It is evident that there has been a process of transformation in Kulenty's compositional style. As Trochimczyk (1995) notes, her style has unmistakably transformed over the past three decades. In the early years of her compositional practice, Kulenty employed polyphony of arches (or rather layers of arches played simultaneously). By the 1990s, European trance music and polyphony of time dimensions (often also in combination) were employed. During this period, Kulenty aimed to achieve a meditative state by means of one arch (instead of layers of arches as previously employed) moving through different time dimensions. Her fascination with time, time events, duration, the juxtaposition of durations, arch-like motives, climaxes and the copious use of

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dynamics is evident in her string ensemble works of this period. Her recently adopted philosophy *musique surrealistique*, closely linked to the polyphony of time dimensions, displays great interest in the phenomena of nature and time, as well as nature in time. More specifically, Kulenty hopes to achieve a moment of nature's movement in time through her more recent works. This philosophy to composition is an idea rather than a technique.

She employs a wide range of post-tonal era techniques and effects in her string ensemble works, including various string techniques (bowing and plucking techniques, glissandos, harmonics, double stops, etc.), articulations (accents), ostinatos, and contrasting dynamic indications. Her melodic materials have become more arch-like, evolving from mirror motives to motives combining mirroring and arch-like movement, to only arch-like motives simultaneously taking place in different durational patterns (such as the arch-like motives found in the three recent works). Harmonic materials comprising ostinatos, pedals and chromatically rich passages, remain the norm. Time and duration have become ever-present and important elements in the three recent works. The texture of each composition varies from thin through thick as they are influenced by factors such as dynamics, glissandos, tone colours, extreme ranges of instruments and density created by the amount of instruments active in a passage. Finally, each of the selected works comprises a large open one-movement structure.

Kulenty strives to involve the audience on a deeper and more personal level by engaging them mentally and emotionally (Trochimczyk 2003). The selected string ensemble works encompass her musical identity, harmonic vocabulary and rhythmic propulsion (Trochimczyk 2003). Nevertheless, Kulenty's sound-scape is distinctly unique to her (Trochimczyk 2003).

Limitations of the study

Hanna Kulenty is a twenty-first century composer and therefore few academically commended resources, focussing on her style characteristics and the development thereof, are available. This is the first investigative study of its kind pertaining to Hanna Kulenty's string ensemble compositions. The language barrier is a challenge as the researcher does not speak Polish. Communication was often problematic as e-mail responses would only arrive weeks later. Music scores had to be sent via postal service from Poland. This halted progress somewhat. There were no guiding sources that the researcher could make use of in this regard. At the time of submission, feedback with regard to European trance music and Musique surrealistique had unfortunately not been received.

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Recommendations for further study

This is the first study of its kind pertaining to the string ensemble works of Hanna Kulenty. It serves as a reference and foundation for further studies of her compositions not limited to the string ensemble works. Future investigation could encompass a style transformation study on Kulenty's other genres including opera, solo instrumental or symphonic works. In Kulenty's string ensemble works, an in-depth form analysis could be conducted in order to demonstrate the arch and arch-like structures more clearly. In 2014 Kulenty added String Quartet No. 6 to her oeuvre; as it fell outside the timeline (1984 to 2013) the researcher did not include this composition in the study. Furthermore, Kulenty's recurring use of the same thematic material/s through different works could be investigated. Kulenty maintains that she incorporates materials derived from previous compositions – the extent to which these materials are used (developed, transformed, etc.) and which emotions they evoke in the different pieces could be investigated.

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Bibliography

Books

Aldwell, E., Schachter, C. & Cadwallader, A. 2011. *Harmony and voice leading*. (4th ed.). Boston, MA: Schirmer, Cengage learning.

Anderson, J. & Poole, M. 1994. *Thesis and assignment writing*. Brisbane: John Wiley.

Auner, J. 2013. *Music in the twentieth and twenty-first centuries*. Series editor: W. Frisch. New York: W.W. Norton.

Bak, N. 2004. *Completing your thesis: A practical guide*. Pretoria: Van Schaik.

Bars, I. & Terning, J. 2010. What is space-time? In F. Nekoogar (Ed.). *Extra dimensions in space and time*. New York: Springer. 29-42.

Baur, J. 1985. *Music theory through literature*. Englewood Cliffs, NJ: Prentice Hall. 2:255-256.

Beard, D. & Gloag, K. 2005. *Musicology: The key concepts*. London: Routledge.

Benjamin, T., Horvit, M. & Nelson, R. 2008. *Techniques and materials of music from the common practice period through the twentieth century*. (7th ed.). Belmont, CA: Thomson Schirmer. 181-225.

Berry, M. 2002. Music, Postmodernism, and George Rochberg's Third String Quartet. In J. Lochhead & J. Auner (Eds.). *Postmodern music / Postmodern thought*. New York: Routledge. 235-248.

Burkholder, J.P., Grout, D.J. & Palisca, C.V. 2010. *A history of Western music*. (8th ed.). New York: W.W Norton.

Cope, D. 1997. *Techniques of the contemporary composer*. New York: Schirmer Books.

© University of Pretoria

Dees, P. Y. 2004. *A guide to piano music by women composers, volume II: Women born after 1900*. Westport, CT: Praeger.

de Leeuw, T. 2005. *Music of the twentieth century: A study of its elements and structure*. Amsterdam: Amsterdam University Press.

DeLone, R., Kliewer, V., Reisberg, H., Wennerstrom, M., Winold, A. & Wittlich, G.E. 1975. *Aspects of twentieth century music*. Englewood Cliffs, NJ: Prentice Hall.

Deri, O. 1968. *Exploring twentieth-century music*. New York: Holt, Rinehart and Winston.

Gloag, K. 2003. The string quartet in the twentieth century. In R. Stowell (Ed.). *The Cambridge Companion to the String Quartet*. Cambridge, UK: Cambridge University Press. 288-309.

Hall, M. 1996. *Leaving home: A conducted tour of twentieth-century music with Simon Rattle*. London: Faber and Faber.

Hartsock, R. 2002. Milton Babbitt (1916-). In L. Sitsky (Ed.). *Music of the twentieth century avant garde*: *A biocritical sourcebook*. Westport, CT: Greenwood Press. 17-22.

Hofstee, E. 2006. *Constructing a good dissertation: A practical guide to finishing a Master's, MBA or PhD on schedule*. Sandton: EPE.

Kennedy, M. & Kennedy, J.B. 2007. *The concise Oxford dictionary of music.* (5th ed.). New York: Oxford University Press.

Kostka, S. 2006. *Materials and techniques of twentieth century music*. (3rd ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Leedy, P.D. & Ormrod, J.E. 2001. *Practical research: Planning and design*. (7th ed.). Upper Saddle River, NJ: Merrill Prentice Hall.

Maree, K. (Ed.). 2013. *First Steps in Research*. (12th ed.). Pretoria: Van Schaik.

Mayfield, C.E. 2013. *Theory Essentials*. (2nd ed.). Boston, MA: Schirmer, Cengage learning.

© University of Pretoria

McCalla, J. 2005. *Twentieth-Century Chamber Music*. (2nd ed.). New York: Routledge.

Mouton, J. 2001. *How to succeed in your Master's & Doctoral studies.* Pretoria: Van Schaik.

Ottman, R.W. 1992. *Advanced harmony: Theory and practice*. (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Persichetti, V. 1961. *Twentieth-century harmony: Creative aspects and practice*. New York: W.W. Norton.

Piston, W. 1987. *Harmony*. Revised and expanded by M. Devoto. New York: W.W. Norton.

Sheringham, M. 2006. *Everyday life: Theories and practices from Surrealism to the present*. New York: Oxford University Press.

Standage, S. 2003. Historical awareness in quartet performance. In R. Stowell (Ed.). *The Cambridge companion to the String Quartet*. Cambridge, UK: Cambridge University Press. 127-148.

Stowell, R. 2003. Extending the technical and expressive frontiers. In R. Stowell (Ed.). *The Cambridge Companion to the String Quartet*. Cambridge, UK: Cambridge University Press. 149-174.

Susanni, P. & Antokoletz, E. 2012. *Music and twentieth-century tonality: Harmonic progression based on modality and the interval cycles*. New York: Routledge.

Thomas, A. 2001. Hanna Kulenty. In S. Sadie (Ed.). *The new Grove dictionary of music and musicians* (2nd ed.). London: Macmillan. 14:14-15.

Thomas, R.M. 2003. *Blending qualitative and quantitative research methods in theses and dissertations*. Thousand Oaks, CA: Corwin.

Thomas, A. 2005. *Polish music since Szymanowski*. Cambridge: Cambridge University Press.

Turek, R. 2007. *Theory for today's musician*. New York: McGraw-Hill.

© University of Pretoria

Journal Articles

Fineberg, J. 2000a. Spectral music. *Contemporary Music Review*, 19(2):1-5.

Fineberg, J. 2000b. Guide to the basic concepts and techniques of spectral music. *Contemporary Music Review*, 19(2):81-113.

Kafka, L.G. 2006. *Polish music since Szymanowski* by Adrian Thomas (review). *Notes*, 62(3):706-708. Retrieved from http://www.jstor.org/stable/4487627.

Morris, R. 2007. Mathematics and the twelve-tone system: Past, present and future. *Perspectives of new music*, 45(2):76-107.

Palmer, P. 2007. Lost Paradises: Music and the Aesthetics of Symbolism. *The Musical Times*, 148(1899):37-50. Retrieved from http://www.jstor.org/stable/25434456?seq=3#page_scan_tab_contents.

Pressnitzer, D. & McAdams, S. 2000. Acoustics, psychoacoustics and spectral music. *Contemporary Music Review*, 19(2):33-59.

Reed, J. 2005. *Piano music by women composers, volume II: Women born after 1900* by Pamela Y. Dees (review). *American Music Teacher* (August). Retrieved form http://www.thefreelibrary.com/Piano+Music+by+Women+Composers%3A+Women+Born+After+1900,+vol.+2.-a0134910613.

Rutherford-Johnson, T. 2014. *Music in the twentieth and twenty-first centuries* by Joseph Auner (review). *Tempo*, 68(268):108-109.

Swartz, A. 2006. *Polish music since Szymanowski* by Adrian Thomas (review). *Slavic Review*, 65(2):363-365. Retrieved from http://www.jstor.org/stable/4148609.

Vanderbeek, L. 2011. A Study in violin pedagogy: Teaching techniques from selected works by Rachmaninoff, Prokofiev, Bartók and Delerue. *ReSonare: Graduate Music Journal*. Edmonton, AB: University of Alberta. 1(1). Retrieved from http://www.fwalive.ualberta.ca/ojs-2.3.4/index.php/ReSonare/article/view/4.

© University of Pretoria

Whalley, I. 2010. Spectral world musics: Proceedings of the Istanbul spectral music conference. In R. Reigle & P. Whitehead (Eds.). *Computer Music Journal*, 34(2):93-96.

Other

Thesis

Sobkowska, J. 2004. *Works with chamber ensemble with piano written between 1950 and 2000 by Polish composers: An annotated bibliography.* (Doctoral thesis). Tallahassee, FL: Florida State University.

Web

Amirkhanian, C. 2015. *About Other Minds: Mission and History*. Retrieved from http://otherminds.org/shtml/History.shtml [Accessed 16 January 2016].

Arnold, D., Latham, A. & Dunsby, J. 2016. "Form". In A. Latham (Ed.). *The Oxford Companion to Music*. Oxford Music Online: Oxford University Press. Retrieved from http://www.oxfordmusiconline.com.uplib.idm.oclc.org/subscriber/article/opr/t114/e2624 [Accessed 22 November 2016].

Culture.pl. 2002, October 20. Chłopecki, Andrzej. Contemporary Polish Composers of Classical Music: The youngest generation [Web log post]. Retrieved from http://culture.pl/en/article/contemporary-polish-composers-of-classical-music [Accessed 22 January 2016].

Culture.pl. 2015, February 10. Łukasz Barczyk [Web log post]. Retrieved from http://culture.pl/en/artist/lukasz-barczyk [Accessed 22 January 2016].

Harley, M. A. 1995. Notes on Polish women composers. *Polish Music Center: Essays*. Retrieved from http://www.usc.edu/dept/polish_music/essays/womentx.html [Accessed 20 June 2014].

International Society of Contemporary Music. 2016. Home page. Retrieved from http://www.iscm.org/ [Accessed 18 January 2016].

© University of Pretoria

Kulenty, H. 1990. Kulenty on her technique. Polskie Wydawnictwo Muzyczne (PWM) Brochure. Retrieved from http://www.hannakulenty.com/06.2_texts_technique.html [Accessed 20 Augustus 2016].

Kulenty, H. 2005. Note on 'Trumpet Concerto'. (December 2005). Retrieved from http://www.hannakulenty.com/06.2_texts_technique.html [Accessed 20 Augustus 2016].

Kulenty, H. 2016. *The official website of Hanna Kulenty – Composer*. Retrieved from http://www.hannakulenty.com/ [Accessed 30 November 2016].

Mann, J. 2016. How the surrealist movement shaped the course of history (Artsy Editorial). Retrieved from https://www.artsy.net/article/artsy-editorial-what-is-surrealism [Accessed 06 December 2016].

Newbould, B. 2016. "Texture". In A. Latham (Ed.). *The Oxford Companion to Music*. Oxford Music Online: Oxford University Press. Retrieved from http://www.oxfordmusiconline.com.uplib.idm.oclc.org/subscriber/article/opr/t114/e6743 [Accessed 23 November 2016].

Riker, P. n.d. *The serialism of Milton Babbitt*. (Unpublished). Retrieved from http://paulriker.com/?page_id=187 [Accessed 17 September 2016].

Schlosser, P. 2013. *Warsaw Autumn International Festival of Contemporary Music*. Retrieved from http://culture.pl/en/article/warsaw-autumn-international-festival-of-contemporary-music [Accessed 20 June 2014].

Shaw, J. 2005. "Symbolism". *New Dictionary of the History of Ideas*. Retrieved from http://www.encyclopedia.com/topic/Symbolism.aspx [Accessed 10 September 2016].

Soundstreams. *About us: Who we are*. Retrieved from http://www.soundstreams.ca/about-us/who-we-are/ [Accessed 22 June 2014].

Spencer, M. 2016. *20th Century music: where to start*. Retrieved from http://www.classicfm.com/discover/periods/modern/20th-century-music-beginners-guide/#IEvDXmaEeRgVMl7C.99 [Accessed 14 September 2016].

© University of Pretoria

Taube, H. 2003. *Spectral composition*. Retrieved from http://www.moz.ac.at/sem/lehre/lib/bib/software/cm/Notes_from_the_Metalevel/spectral.html [Accessed 17 June 2014].

Trochimczyk, M. 1995. *Long biography*. Retrieved from http://www.hannakulenty.com/05.2_biography_long.html [Accessed 20 June 2014].

Trochimczyk, M. 2003. *The music of Hanna Kulenty*. Retrieved from http://www.hannakulenty.com/06.1_texts.html [Accessed 25 July 2014].

Trochimczyk, M. 2010. Polish composers: Hanna Kulenty. *Polish Music Centre*. Retrieved from http://www.usc.edu/dept/polish_music/composer/kulenty.html#intro [Accessed 20 June 2014].

Warsaw Autumn: International Festival of Contemporary Music. 2016. *Hanna Kulenty*. Retrieved from http://warszawska-jesien.art.pl/en/wj2014/program-i-bilety/composers/1459124499 [Accessed 20 January 2016].

Wethington, N. 2016. Why did HAL sing Daisy? *Universe today: Space and astronomy news.* Retrieved from http://www.universetoday.com/44482/why-did-hal-sing-daisy/# [Accessed 13 October 2016].

Whittall, A. 2016a. "Form". *Grove Music Online.* Oxford Music Online: Oxford University Press. Retrieved from http://www.oxfordmusiconline.com.uplib.idm.oclc.org/subscriber/article/grove/music/09981 [Accessed 22 November 2016].

Whittall, A. 2016b. "Rhythm". In A. Latham (Ed.). *The Oxford Companion to Music*. Oxford Music Online. Oxford University Press. Retrieved from http://www.oxfordmusiconline.com.uplib.idm.oclc.org/subscriber/article/opr/t114/e5635 [Accessed 24 November 2016].

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Programme notes

Strzelecki, M. 2008. Hanna Kulenty. In *4th Festival of Polish Music*, 9-16 November 2008, Kraków. Retrieved from http://www.fmp.org.pl/pliki/k2008.pdf [Accessed on 12 November 2014]. 156-158.

Recordings

Hanna Kulenty. 2016. YouTube. Retrieved from https://www.youtube.com/channel/UCZezgv7zc1K-0qufQelX4aA [Accessed 15 November 2016].

Correspondence

E-mail correspondence. Questionnaire. 01 November 2016.

E-mail correspondence. Questionnaire. 01 December 2016.

E-mail correspondence. Text. 06 December 2016.

Scores

Kulenty, H. 1983 (1984). String Quartet No. 1: *The Song for String Quartet*. (Copy of original handwritten score received via postal mail.)

Kulenty, H. 1991. String Quartet No. 2. Kraków, PL: Polskie Wydawnictwo Muzyczne (PWM). (Copy of original handwritten score received via postal mail.)

Kulenty, H. 2006 (2007). String Quartet No. 3: *Tell me about it*. Amsterdam: Donemus.

Kulenty, H. 2007 (2008). String Quartet No. 4: *A Cradle Song*. Amsterdam: Muziek Centrum Nederland.

Kulenty, H. 2011. String Quartet No. 5. Amsterdam: Muziek Centrum Nederland.

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Kulenty, H. 2013. String Quintet No. 1: *Five for Five*. Rijswijk, NL: Donemus (Stichting Donemus Beheer).

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Appendix A

Original page of symbols and abbreviations

SKRÓTY I SYMBOLE — ABBREVIATIONS AND SYMBOLS

• arco	AR	
• pizzicato	PZ	
• pizzicato lewą ręką	+	pizzicato with the left hand
• pizzicato alla Bartok	⊘	
• ordinario	ORD	
• sul tasto	ST	
• sul ponticello	SP	
• col legno	CL	
• legno battuto	LB	
• molto vibrato	M.V	
•	RIC.	

• bardzo szybkie, nieutmizowane tremolo — very rapid, non-rhythmicizet tremolo

• najwyższy możliwy dźwięk, jednak nie flażolet — the highest possible note (not a harmonic)

• bardzo wolne vibrato — very slow vibrato

• podwyższenie o 1/4 tonu — sharpen a quarter-tone

• obniżenie o 1/4 tonu — flatten a quarter-tone

• powtarzanie grupy dźwięków — repetition of a group of notes

• przyspieszenie grupy — speeding up of the group

• zwolnienie grupy — slowing down of the group

• [illegible]

• Znaki chromatyczne odnoszą się jedynie do nuty, przy której stoją. — the accidentals apply only to the notes they precede

• czas trwania dźwięku określa długość linii poziomej następującej po nucie — the duration of the note is indicated by the length of the horizontal line which follows it

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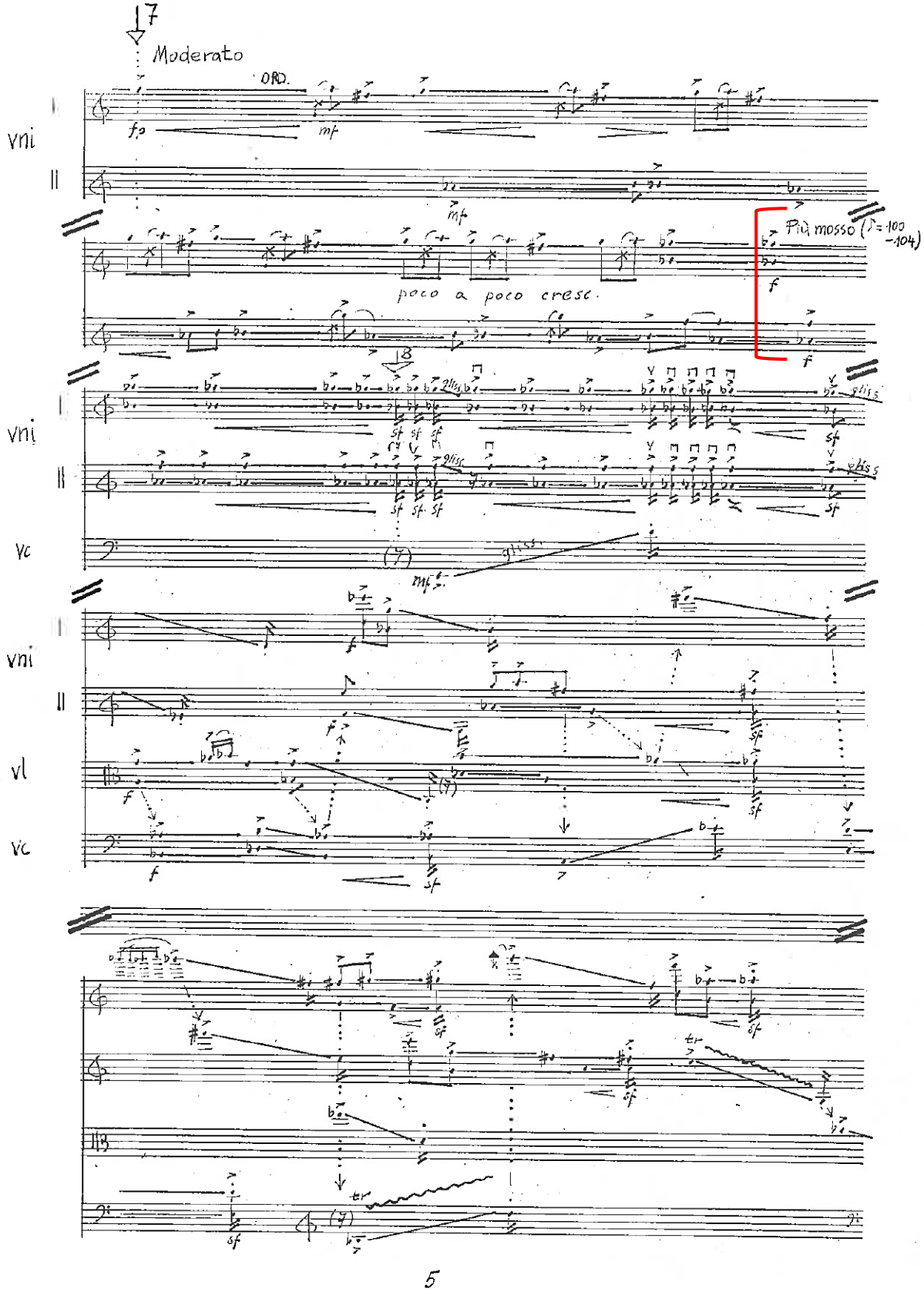
Appendix B

String Quartet No. 1, recurrence of thematic material

String Quartet No. 1, rehearsal mark 7



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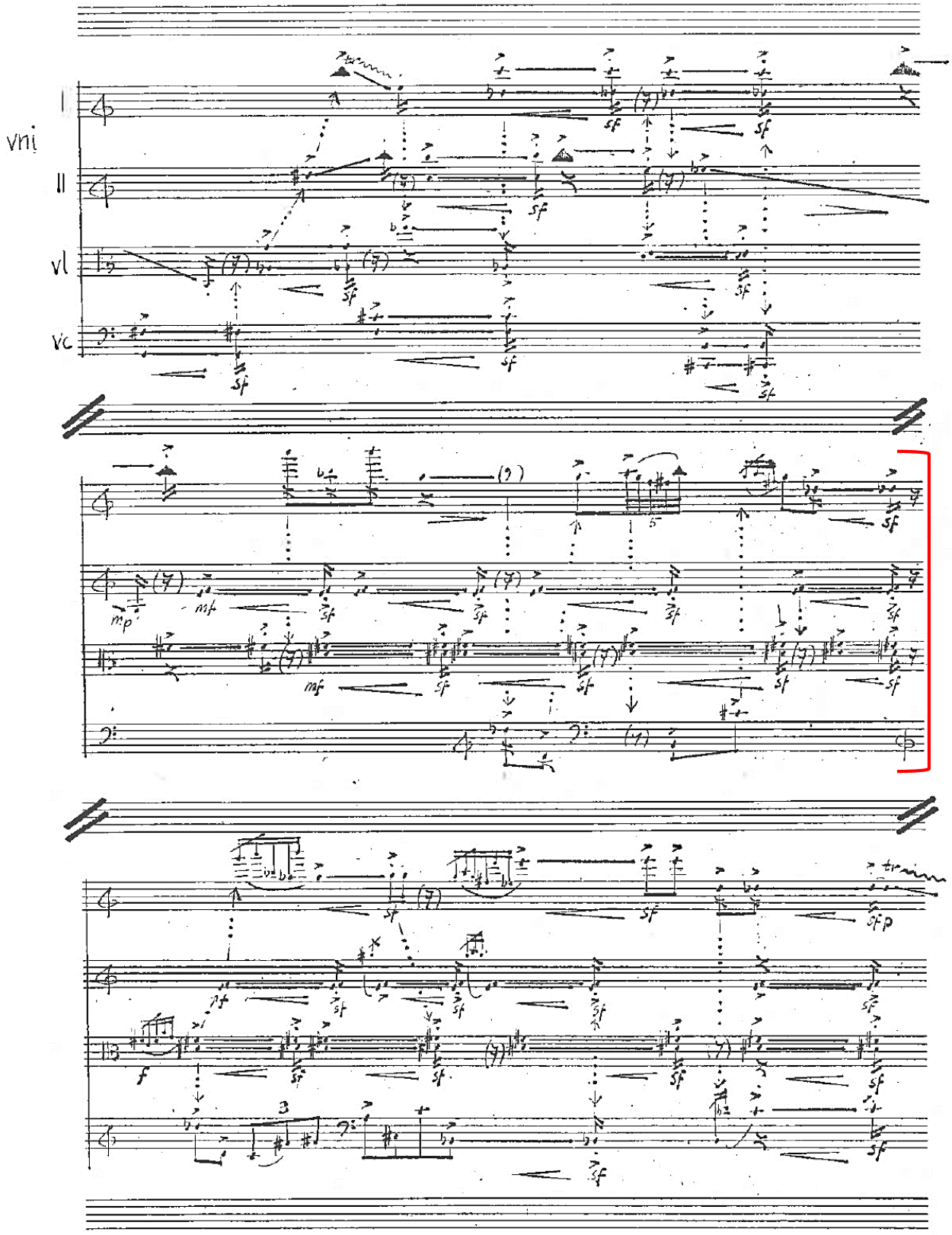

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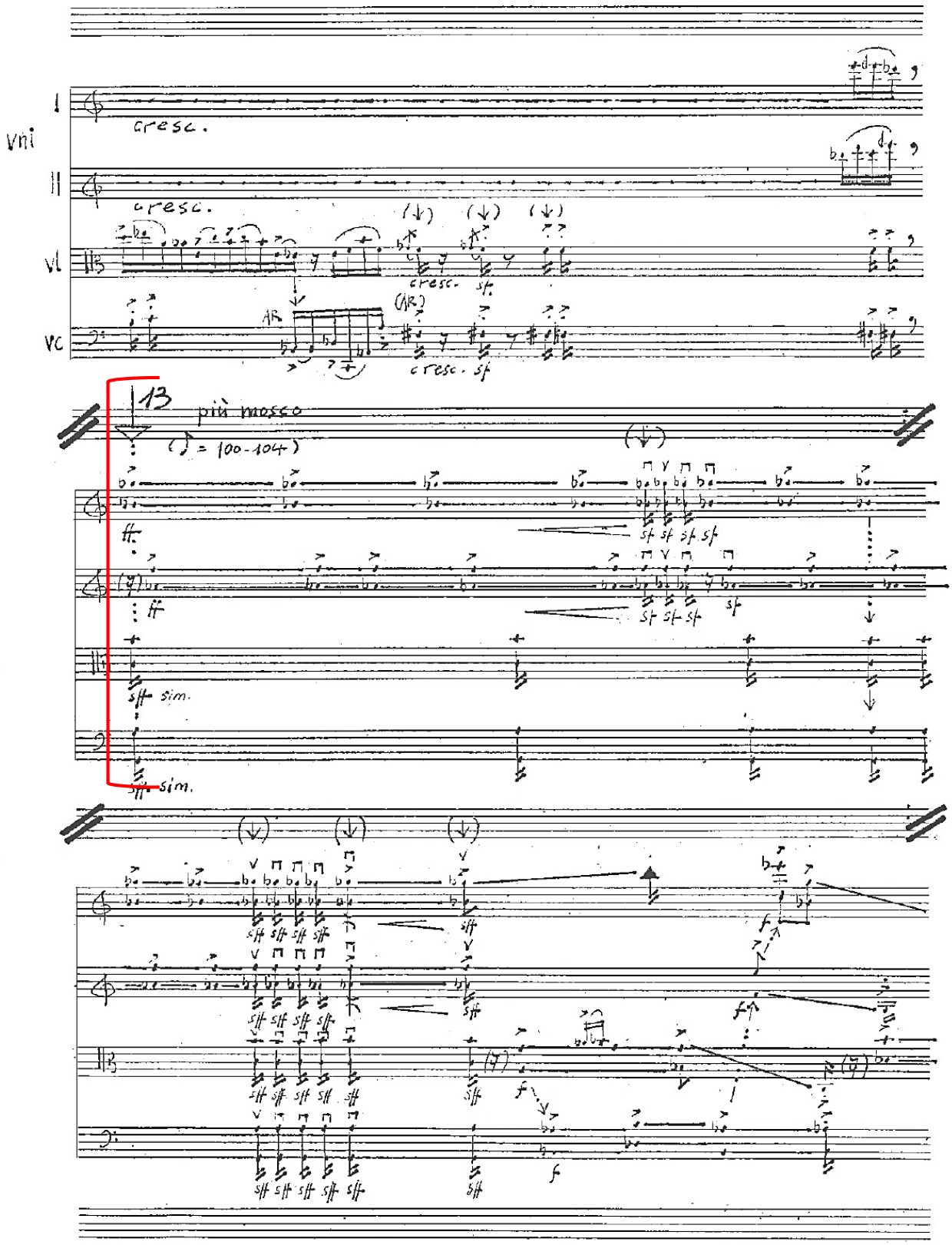
String Quartet No. 1, rehearsal mark 13



10

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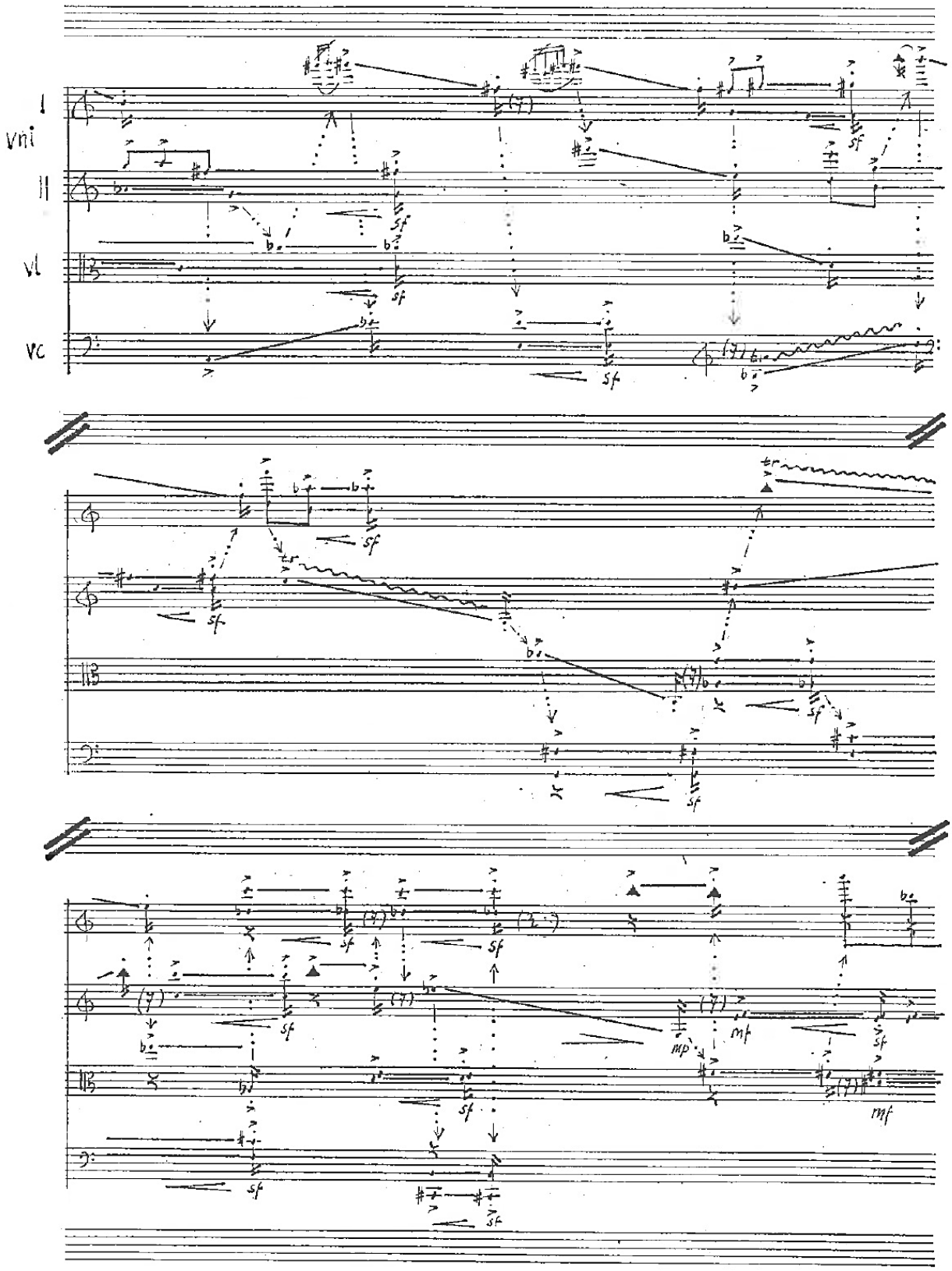

11

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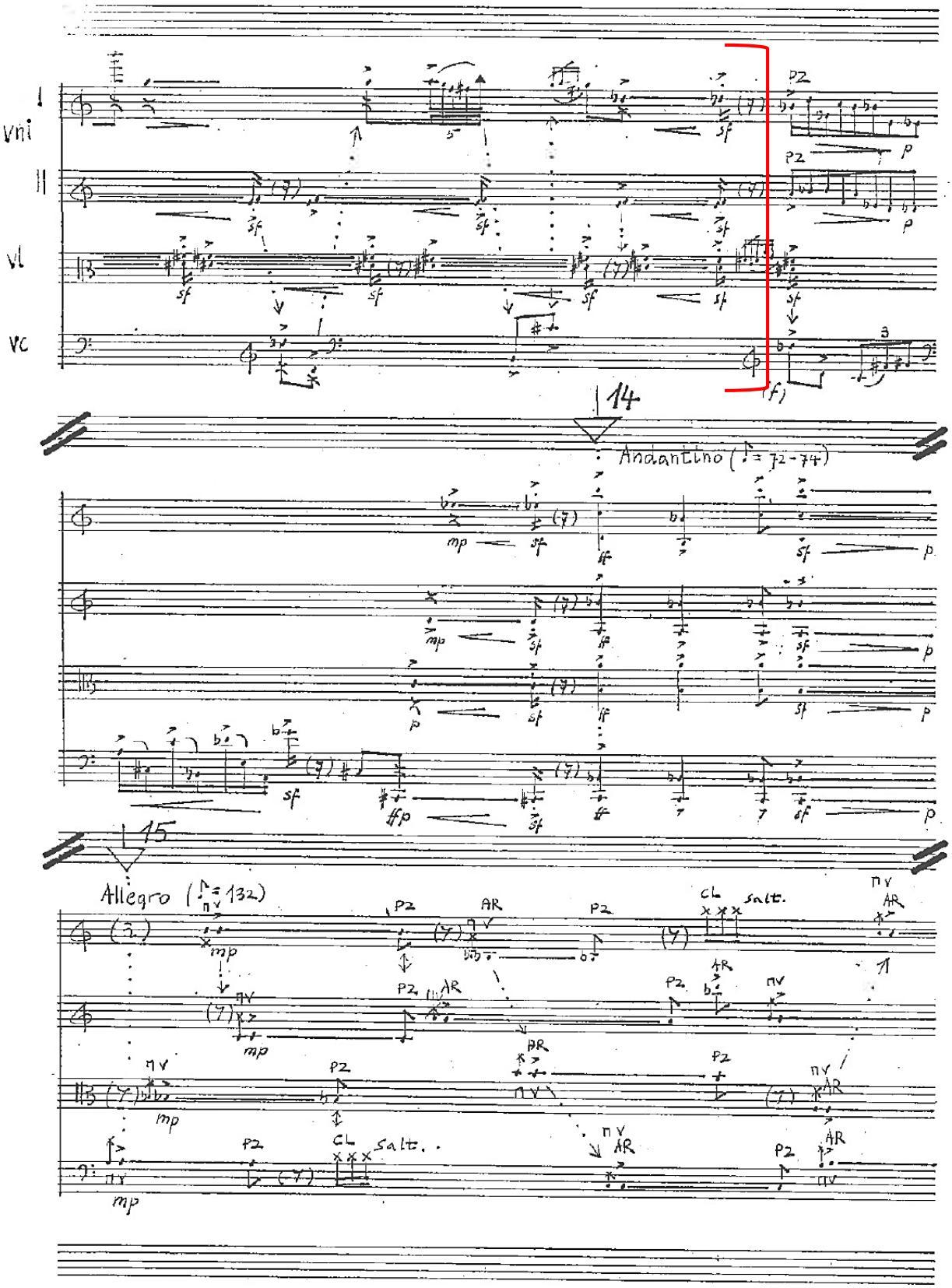

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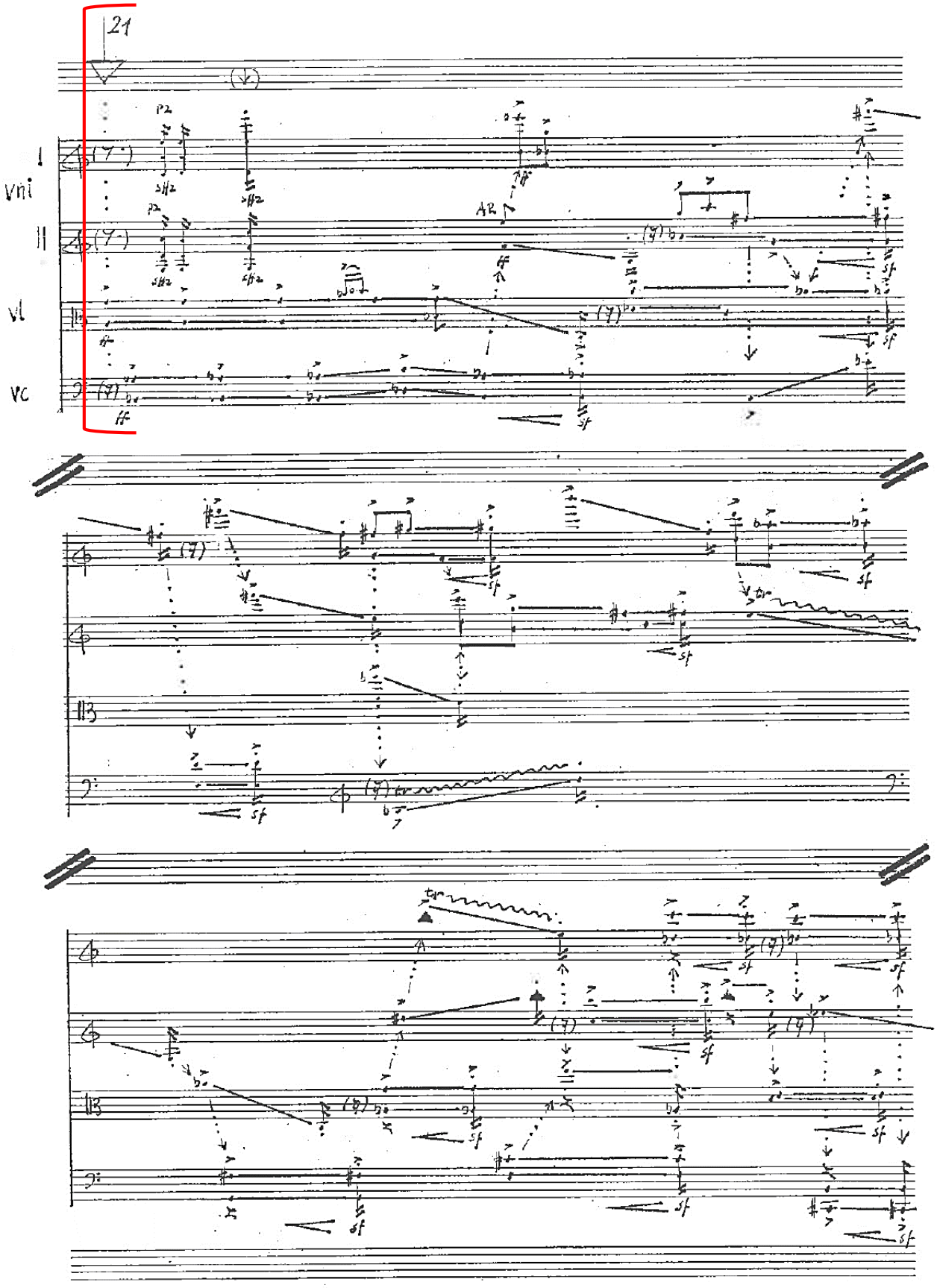
String Quartet No. 1, rehearsal mark 21



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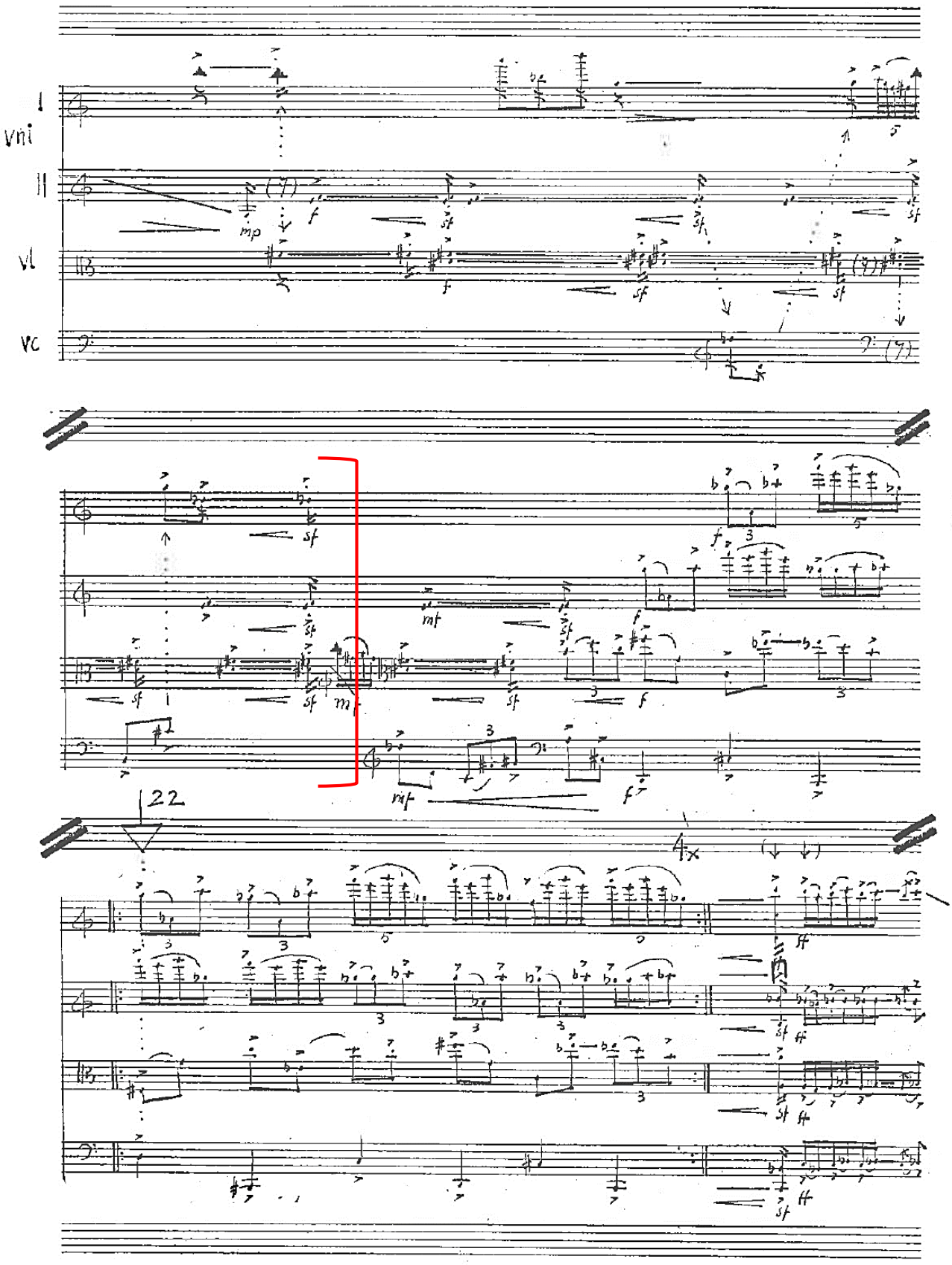

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Appendix C

E-mail correspondence

1. E-mail correspondence: 01 November 2016

from: **Martin Majoor**

to: Amoré du Plessis

date: Tue, Nov 1, 2016 at 5:38 PM

subject: Re: Masters degree subject opportunity

Dear Amoré,

Hanna has answered your questions, on her behalf I am sending you a PDF with a scan of your Word document.

All the best,
Martin

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Good morning Hanna

I have compiled a questionnaire, with regards to your five String Quartets and String Quintet. This questionnaire will serve as basis for my analyses of the above mentioned works and will mainly comprise of questions regarding the theoretical/analytical aspects behind each composition. Please answer all questions as clearly and as precise as possible.

String Quartet No. 1 (1983; commissioned by Ministry of Culture and Arts, PL)
String Quartet No. 2 (1991; commissioned by Ministry of Culture and Arts, PL / Huddersfield Festival, ENG) (12'37")
String Quartet No. 3 – Tell me about it (2006; commissioned by Zephyr Quartet; Performing Arts Fund, Netherlands) (6'27")
String Quartet No. 4 – A Cradle Song (2007; commissioned by Mrs. Ralph I. Dorfman for the Kronos Quartet; Performing Arts Fund, Netherlands) (15'29")
String Quartet No. 5 (2011; commissioned by Kronos Quartet; Performing Arts Fund, Netherlands) (13'46")
String Quintet No. 1 – Five for Five (2013; 13'37") yes!

1. SECTION 1: GENERAL

1. Many of the string quartets have been performed by the Kronos Quartet, two of which were commissioned by them (quartet 4 and 5). Do you have a close personal relationship with the group?
yes Sort of... They wrote a letter to me with the question to write music for them, (4SQ)

2. When you get a commission, how do you decide on what to start composing?
People write to me, ask me. They say in general that e.g. piece must be ± 12 minutes, and of course instruments. The rest I decide.

3. How do you decide on the rhythmic elements? (There are lots of rhythmic changes / notes, interplay between voices and even polyrhythms in your quartets.) Many times I work with the patterns of rhythmical motives. Every piece is different. I put the motives sometimes very fast, sometimes very slowly → I give them a different time.

4. On your website you state that you make use of a compositional technique referred to as "polyphony of time dimensions" – what does this imply and how do you incorporate this into your compositions? – used my habilitation on official website ..... in English

5. You make use of numerous different **tempi indications** as well as **rhythmical figures** in your works – does this tie up with the "time dimension" aspect as mentioned in question 4? yes.

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6. It is also mentioned that you turned towards Minimalism within your compositions and that you employ "single powerful arcs" – please elaborate more on this? I use ostinatos, trans It is nothing to do with minimal music.

7. What does "European trance music" refer to? – read my habilitation

8. Do you generally avoid strong goal-directed melodies? (except for A Cradle Song, which has a brief melodic line in the beginning) not always, depends of the piece.

9. You make use of microtones in these works – what timbre are you creating by incorporating microtones in these works? spectrum most of the time, colours.. etc.

10. Some of these works are very percussive in nature (especially the string quintet) – what do you hope to achieve through this? I don't think about it. Just writing.

11. The texture of each work varies indefinitely (from thick to thin or vice versa) – what effect are you hoping to create? I'am busy with time'. Time dimentions. Doppler effects, etc. Surrealisme in music

12. If you look back to the first few quartets, what would you like to say to your younger self? What advice would you like to give to your younger self? I was like that. good written music. Now I feel a bit different...

13. Do you feel that you have entered a new phase in your compositional technique/writing? Yes! Musique Surrealistique

2. SECTION 2: QUARTET AND QUINTET

String Quartet No. 1 – The Song for String Quartet (1983)

1. Was this quartet academically inclined (composed for academic purposes)? No. Just for commission.

2. What was your inspiration for this composition? I don't remember.

3. This quartet was composed very early in your career; what were your main goals for this piece? Music is in my head always!

4. You incorporate various string and modern techniques – why and how do you balance them? Like you see in the scores. I need notes to get out my philosophie, not only in music...

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5. What does the title, "The song for Quartet", represent? „Cradle Song" - based on the melody with the same title wich I wrote in piano-trio.

String Quartet No. 2 (1991)

1. Composed 8 years after your first quartet; do you feel that your style changed/developed over this period? Of course!

2. What is the main theme of this work?
Just music which I want to write!

String Quartet No. 3 – Tell me about it (2006)

1. Composed 15 years after the second quartet; do you feel that your style changed/developed over this period? (Any possible reason for the delay?) Always my style is a bit changing. Don't you think? With delay sounds better...

2. What elements did you incorporate into this piece?
Sort of Natalie Cole -> rythmical festination

3. What does the title, "Tell me about it", represent?

String Quartet No. 4 – A cradle song (2007)

1. What does the title, "A cradle song", represent? (Is there any specific reference, eg. to a childhood memory, etc.)

2. To me this composition represents a lullaby (slow tempi, almost canon-like, bass pedals) – was this your idea / goal? Non a goal, just one of the themes...

String Quartet No. 5 (2011)

1. What was your inspiration for this piece?
Nature. Time!

String Quintet No. 1 - Five for Five (2013)

1. What does the title, "Five for Five", represent?

Five people, some of the ideas from 5 SQ

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2. E-mail correspondence: 01 December 2016

from: **Martin Majoor**
to: Amoré du Plessis
date: Thu, Dec 1, 2016 at 2:51 PM
subject: Re: Masters degree subject opportunity

Dear Amoré,

Sorry for the late reply, Hanna was in London for the world premiere of het String Quartet No. 6 by Arditti Quartet. I am sending you a link where you can listen to it. https://www.youtube.com/watch?v=skV38bbWgUc&feature=youtu.be

Concerning your questions Hanna gives the following answers:

• String Quartet No. 3 – Tell me about it (2007) belongs to European Trance music
• String Quartet No. 4 – A Cradle Song (2007) belongs to Polyphony of time dimensions
European Trance music appeared first. But indeed later also in combination.

• String Quartet No. 5 (2011) belongs both to Polyphony of time dimensions and Musique surrealistique
• String Quintet No. 1 – Five for Five (2013) belongs both to Polyphony of time dimensions and Musique surrealistique

And moreover:
• String Quartet No. 6 (2014) belongs both to Polyphony of time dimensions and Musique surrealistique

Musique surrealistique is in a way always connected to Polyphony of time dimensions.

Best regards, also on behalf of Hanna,
Martin

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3. E-mail correspondence: 06 December 2016

from: **Martin Majoor**
to: Amoré du Plessis
date: Tue, Dec 6, 2016 at 12:29 AM
subject: Re: Masters degree subject opportunity

Dear Amoré,

I am now sending you the English translation of the Polish text (it was a speech she gave last year). You may not use the text in your Dissertation, however if you need to you may quote three short passages (please put Hanna's name under every quote). I hope you get a better understanding of Hanna's 'philosophy'.

[Three short passages from the text]
Art, for me, is the imitation of nature, or the interpretation of nature. I am a musical surrealist, not a sur-conventionalist, because I do not research or bury myself in conventions – neither in principle nor for the sake of compositional techniques. I am far more interested in the direct imitation and transformation of nature, not in the imitation of someone else's imitation that is I am not interested in conventions. (Hanna Kulenty.)

Best regards,
Martin

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Appendix D

Complete scores of the string ensemble works by Hanna Kulenty

Scores are printed back-to-front to minimise printing.

1. String Quartet No. 1: *The Song for String Quartet* (1983; 1984)
Copy of original handwritten score received via postal mail.

2. String Quartet No. 2 (1991)
Published by Polskie Wydawnictwo Muzyczne (PWM), Kraków, PL.
Copy of original handwritten score received via postal mail.

3. String Quartet No. 3: *Tell me about it* (2006; 2007)
Published by Donemus, Amsterdam, NL.

4. String Quartet No. 4: *A Cradle Song* (2007; 2008)
Published by Muziek Centrum Nederland, Amsterdam, NL.

5. String Quartet No. 5 (2011)
Published by Muziek Centrum Nederland, Amsterdam, NL.

6. String Quintet No. 1: Five for Five (2013)
Published by Donemus (Stichting Donemus Beheer), Rijswijk, NL.

SCORES

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NL

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Hanne Kulewatz

The Soup for string quartet

-1983-

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SKRÓTY I SYMBOLE — ABBREVIATIONS AND SYMBOLS

• arco	AR
• pizzicato	PZ
• pizzicato lewą ręką	+ pizzicato with the left hand
• pizzicato alla Bartok	⊘
• ordinario	ORD
• sul tasto	ST
• sul ponticello	SP
• col legno	CL
• legno battuto	LB
• molto vibrato	M.V
•	RIC.

• bardzo szybkie, nieutmizowane tremolo — ≷ very rapid, non-rhythmicizet tremolo

• najwyższy możliwy dźwięk, jednak nie flażolet — ▲ the highest possible note (not a harmonic

• bardzo wolne vibrato — ∿∿∿ very slow vibrato

• podwyższenie o 1/4 tonu — ♯ sharpen a quarter-tone

• obniżenie o 1/4 tonu — ♭ flatten a quarter-tone

• powtarzanie grupy dźwięków — repetition of a group of notes

• przyspieszenie grupy — speeding up of the group

• zwolnienie grupy — slowing down of the group

• znaki chromatyczne odnoszą się jedynie do nuty, przy której stoją. — the accidentals apply only to the notes they precede

• czas trwania dźwięku określa długość linii poziomej następującej po nucie — the duration of the note is indicated by the length of the horizontal line which follows it

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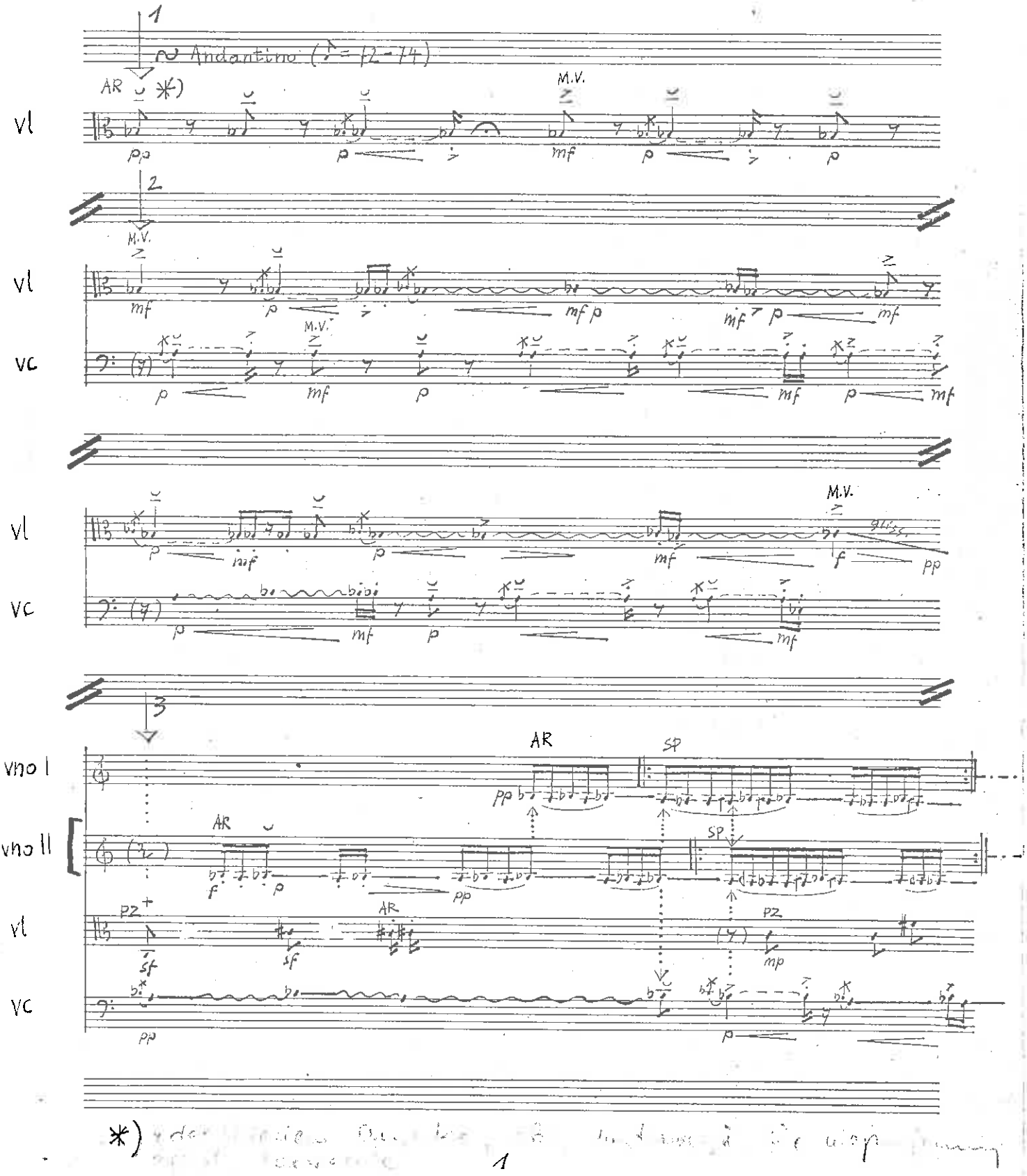
A SONG FOR STRING QUARTET



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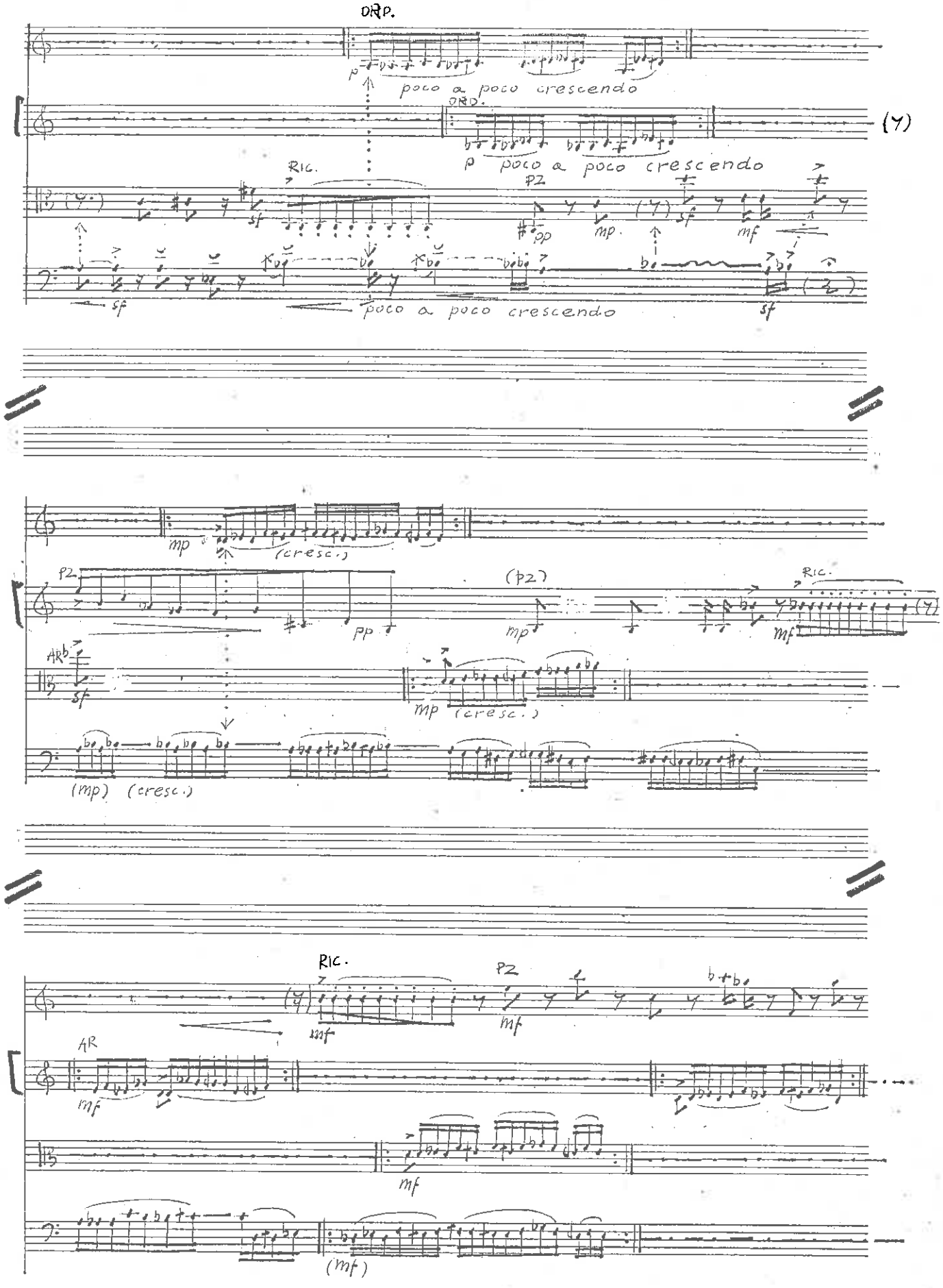

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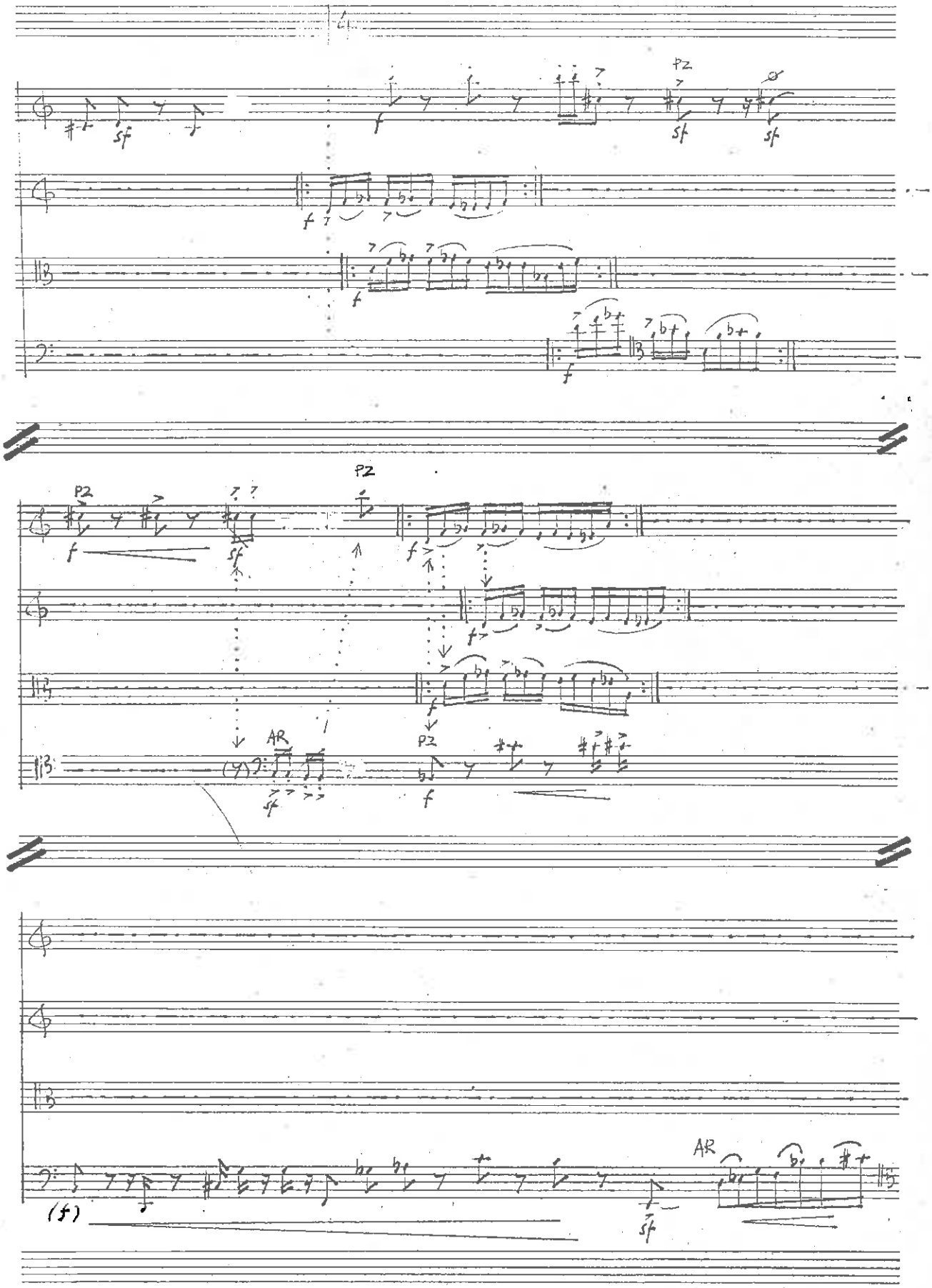

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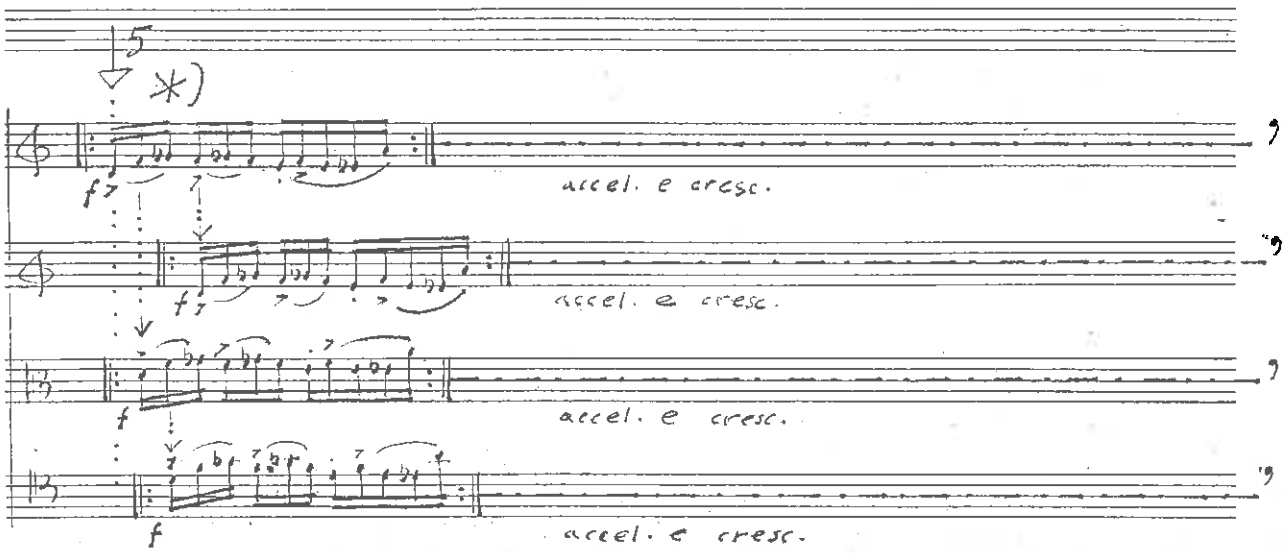

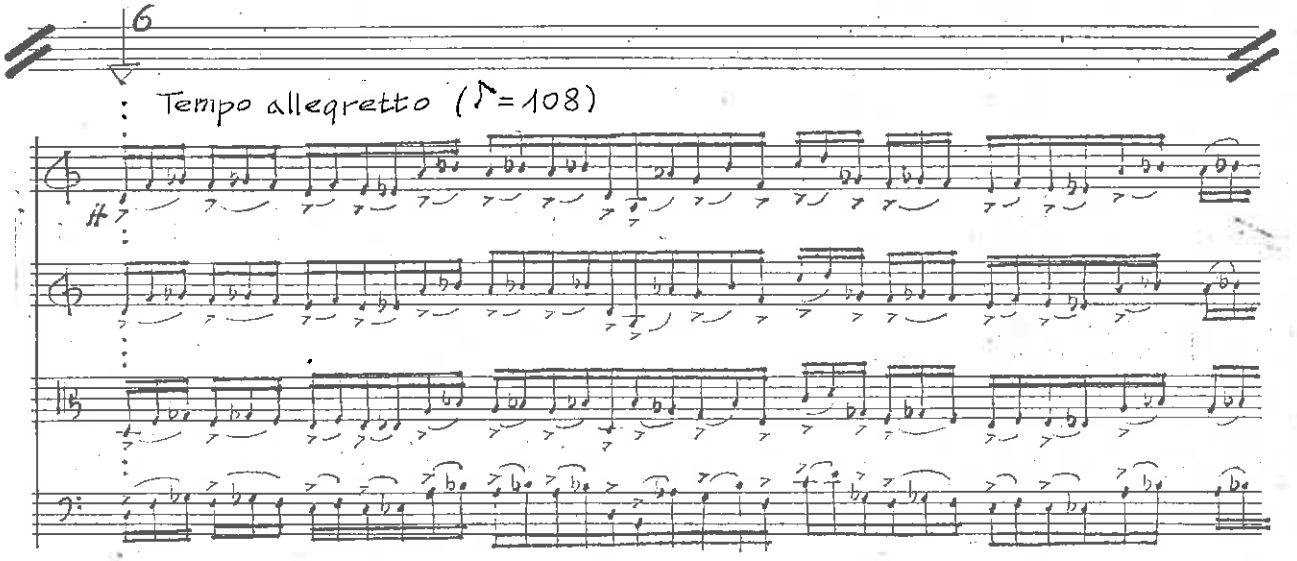

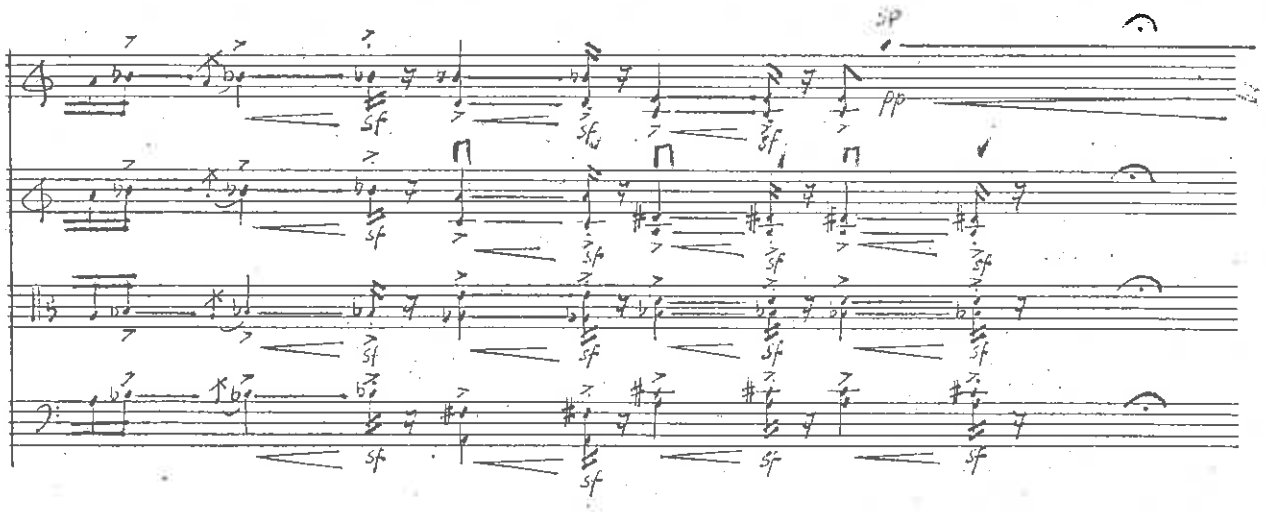

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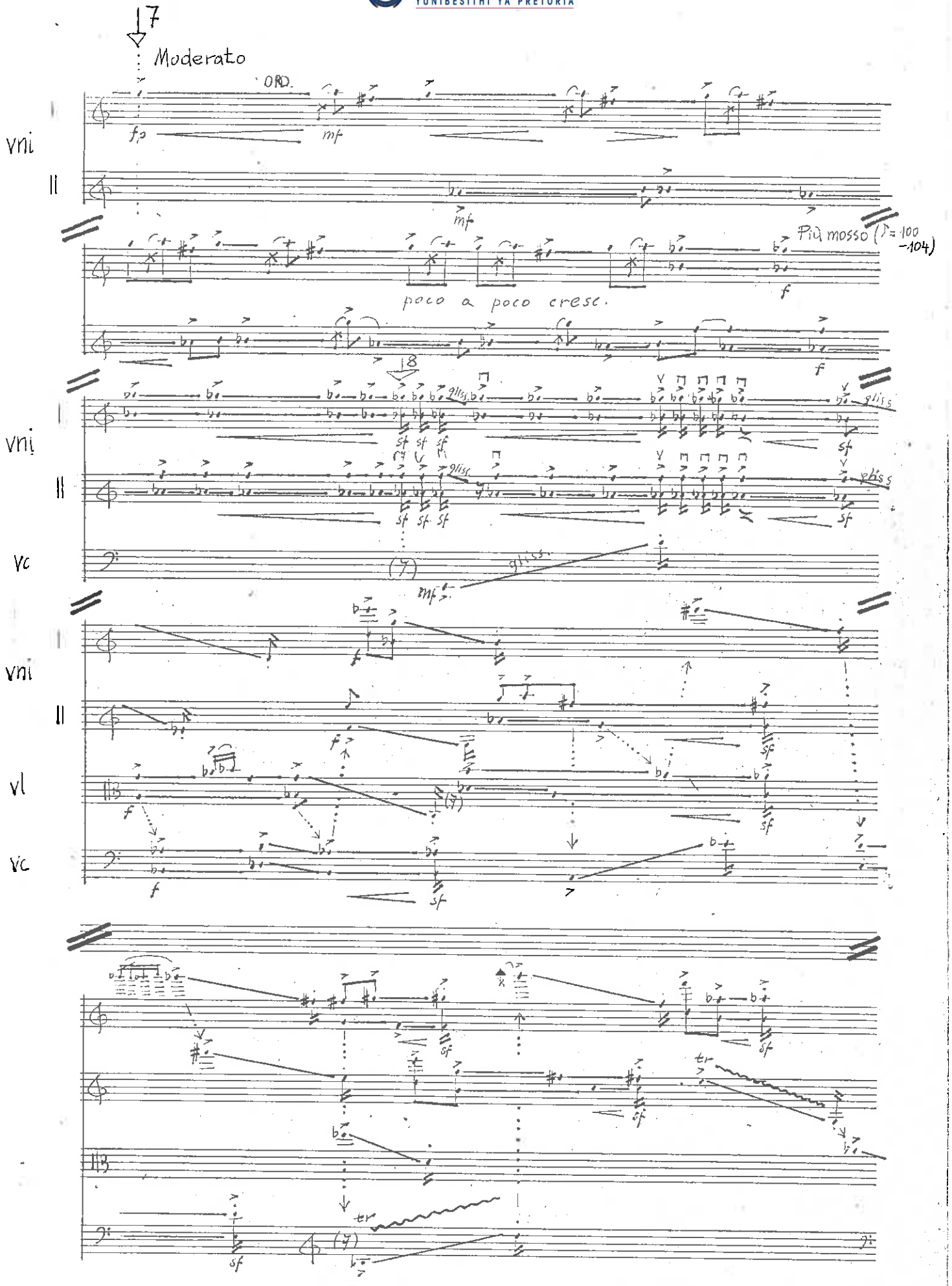

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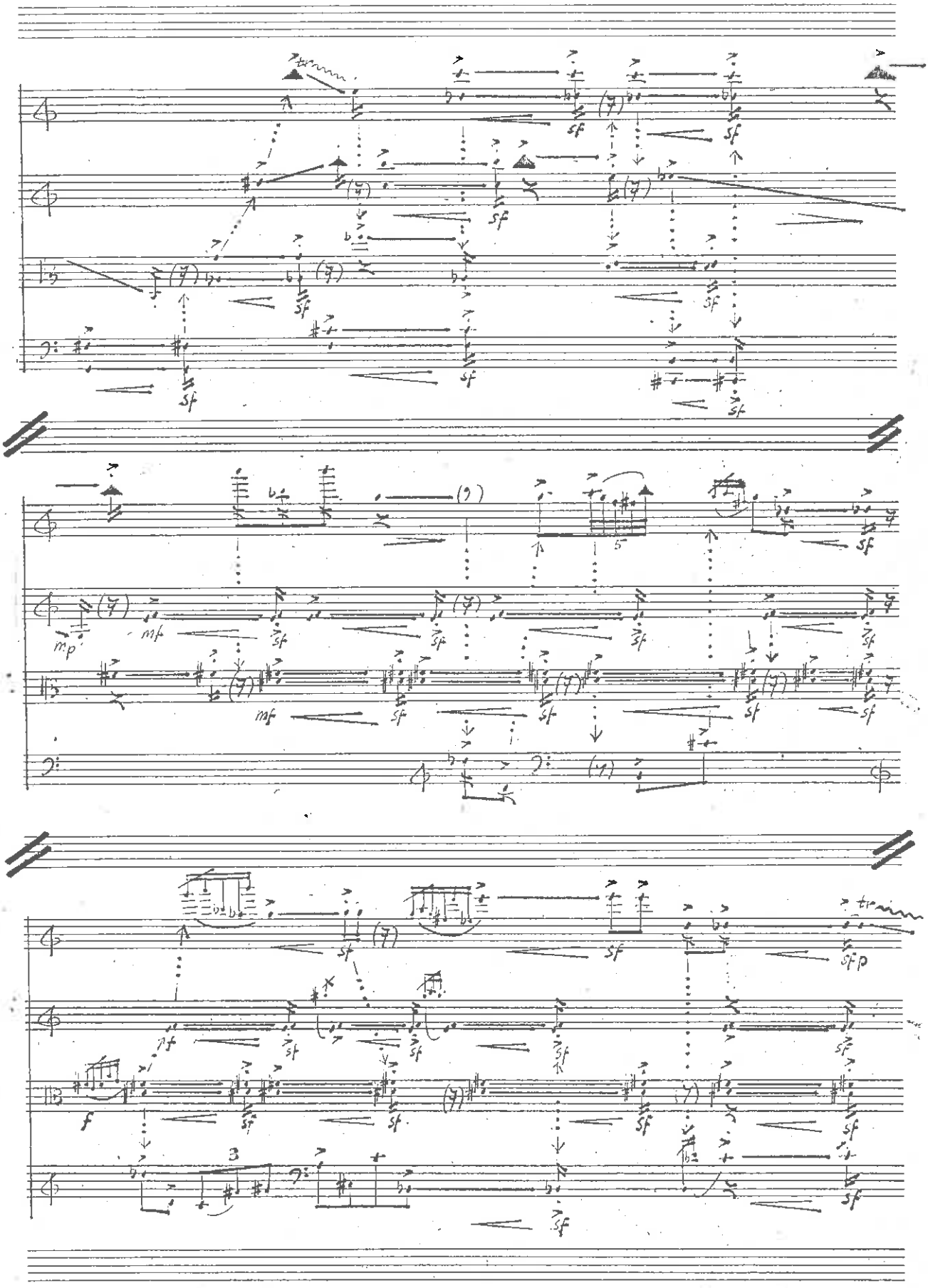

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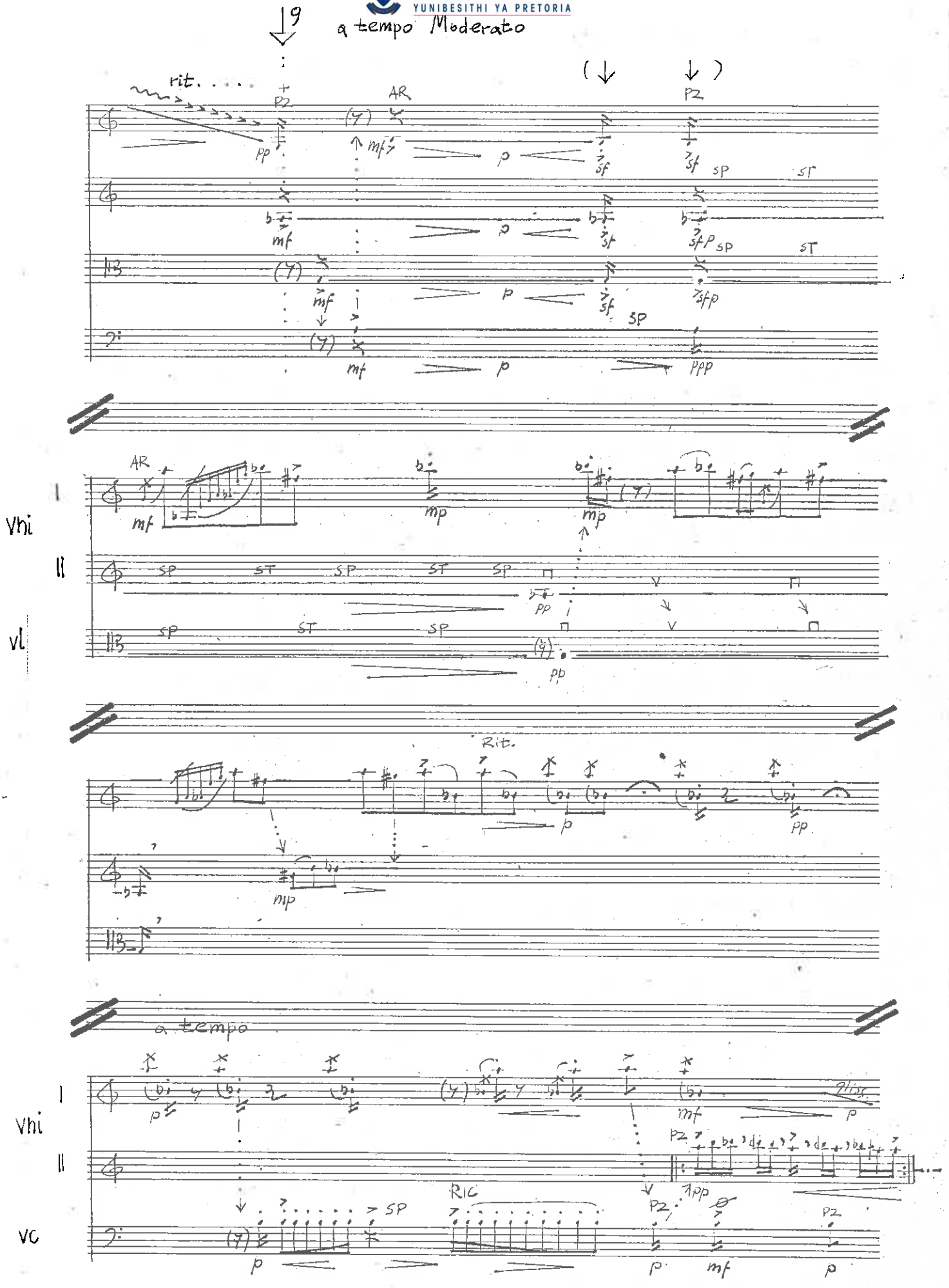

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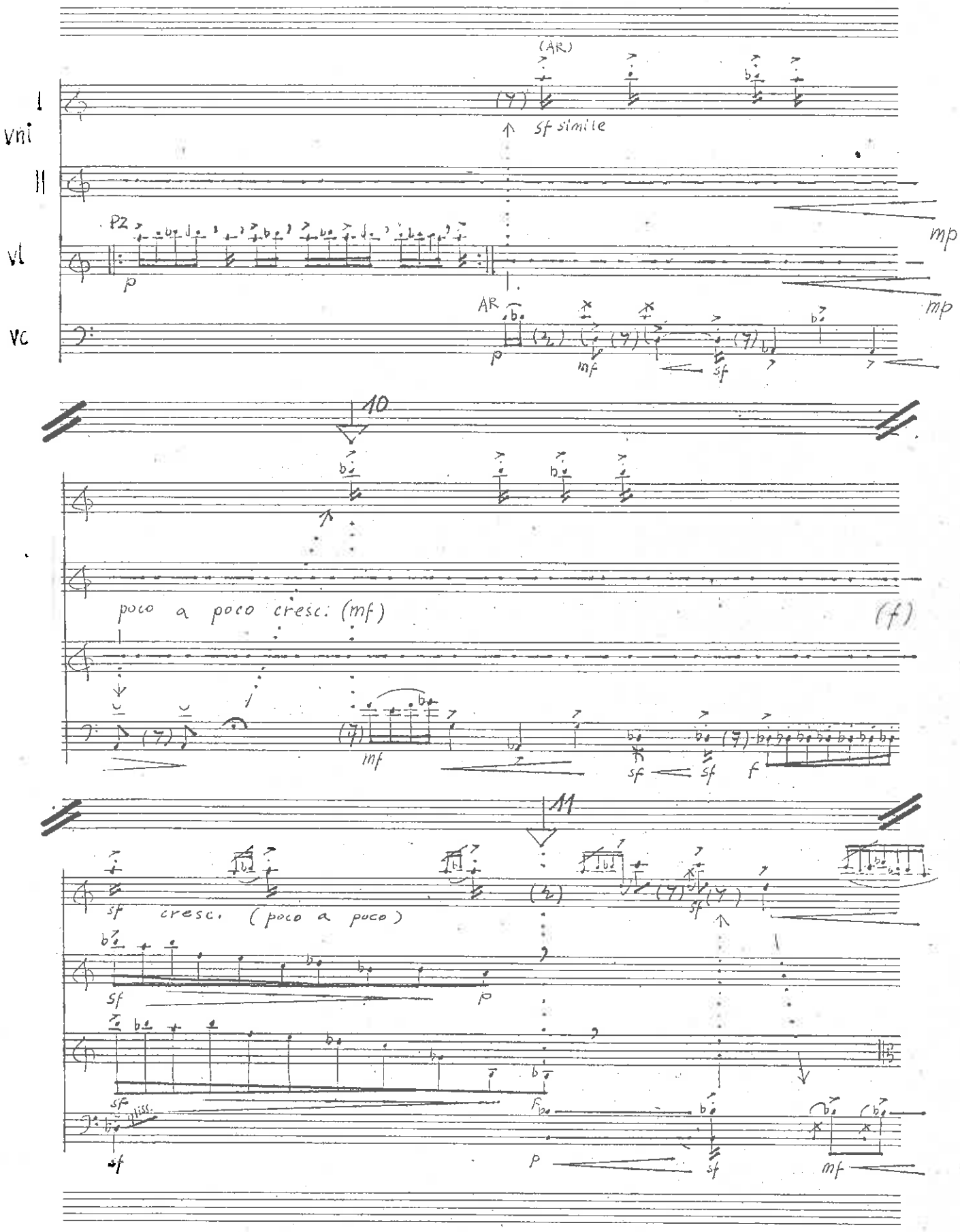

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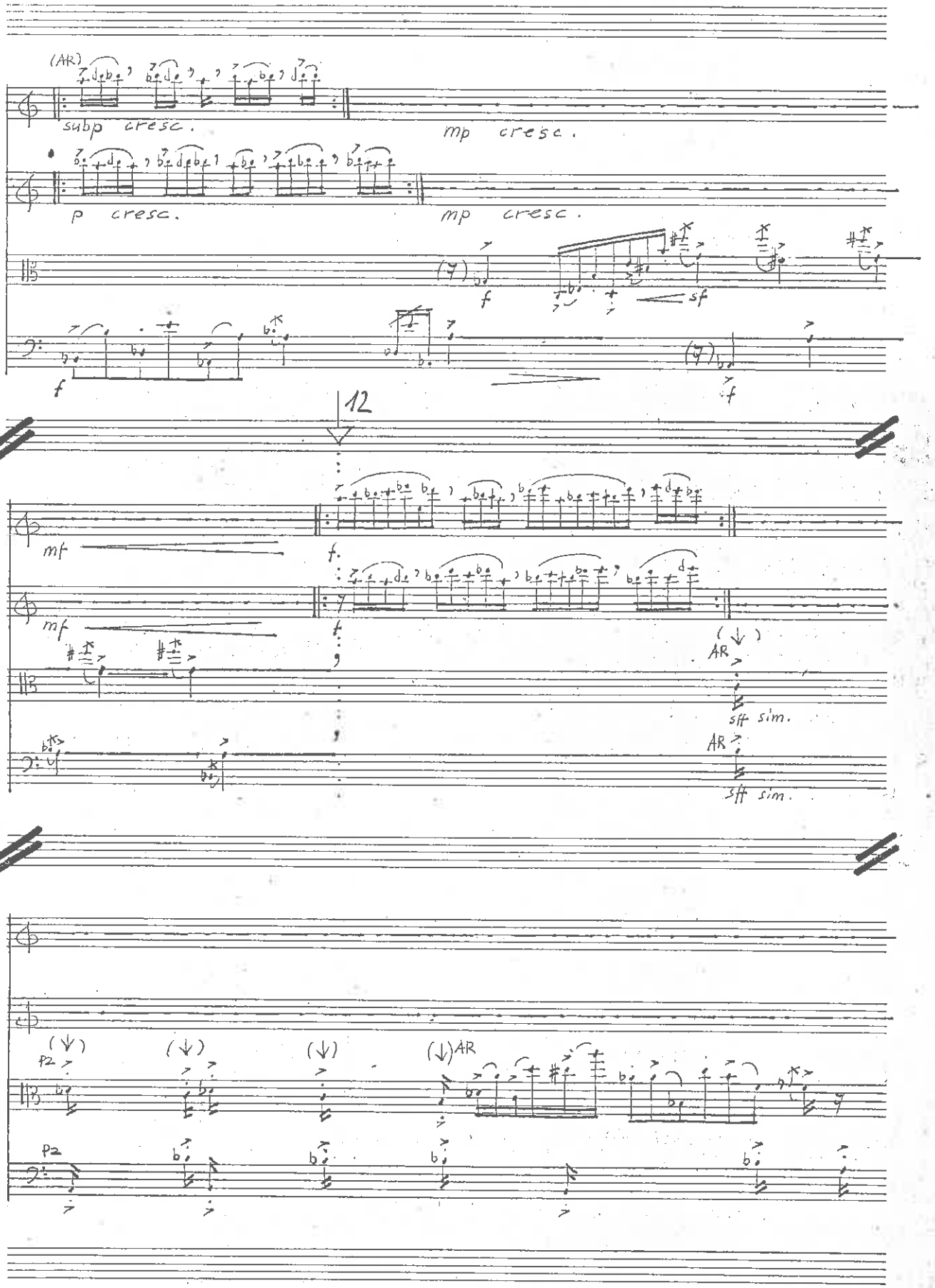

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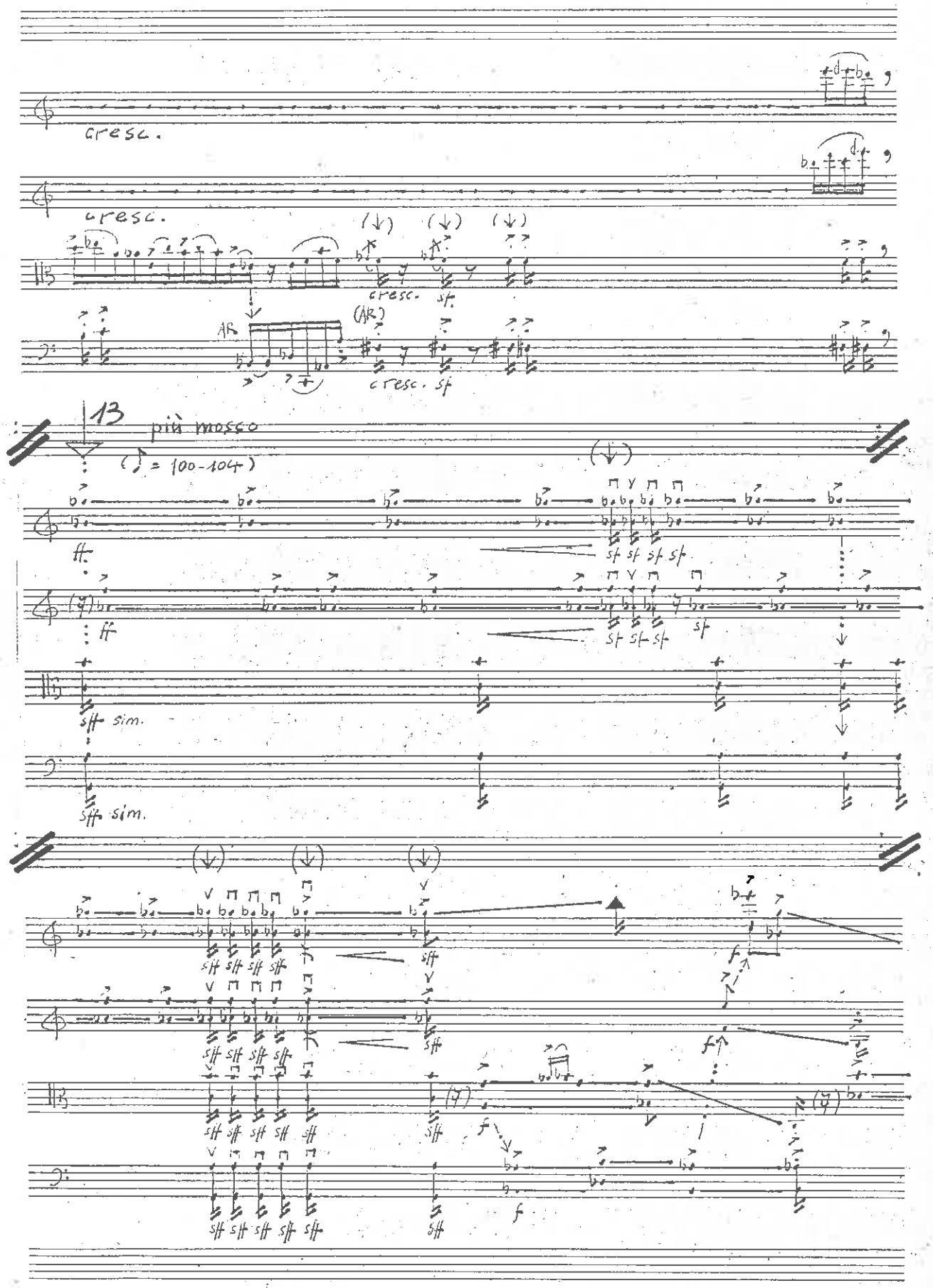

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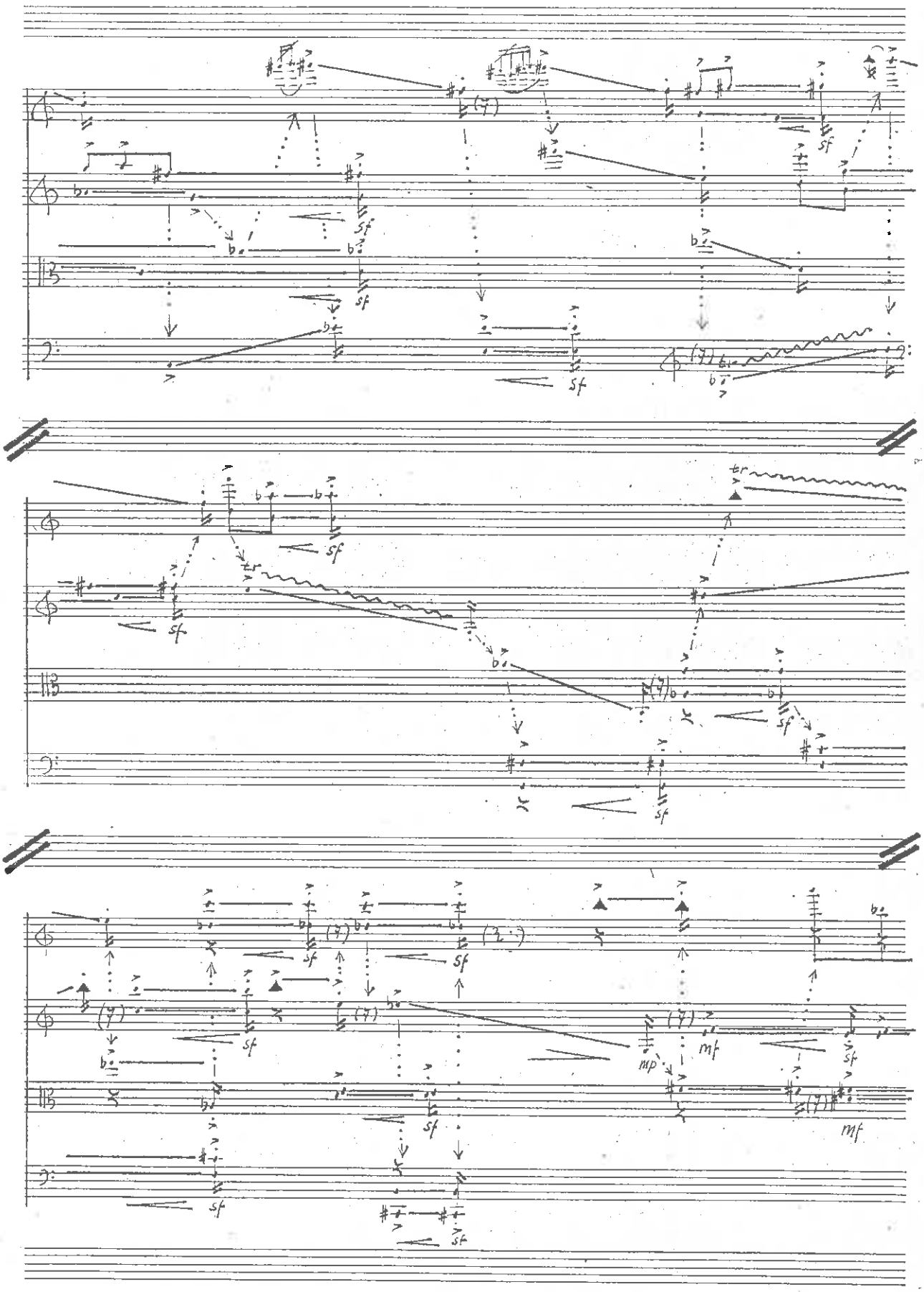

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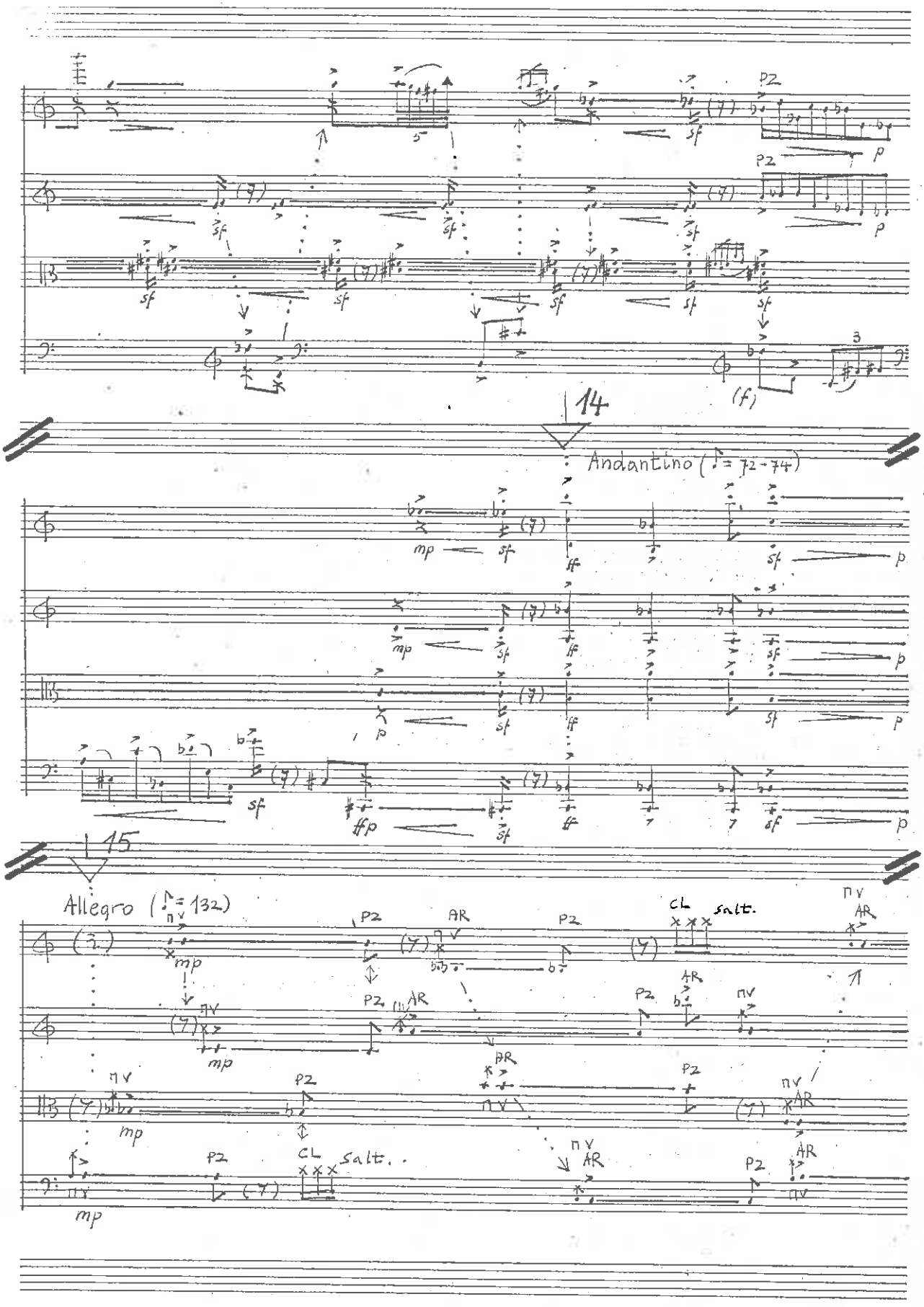

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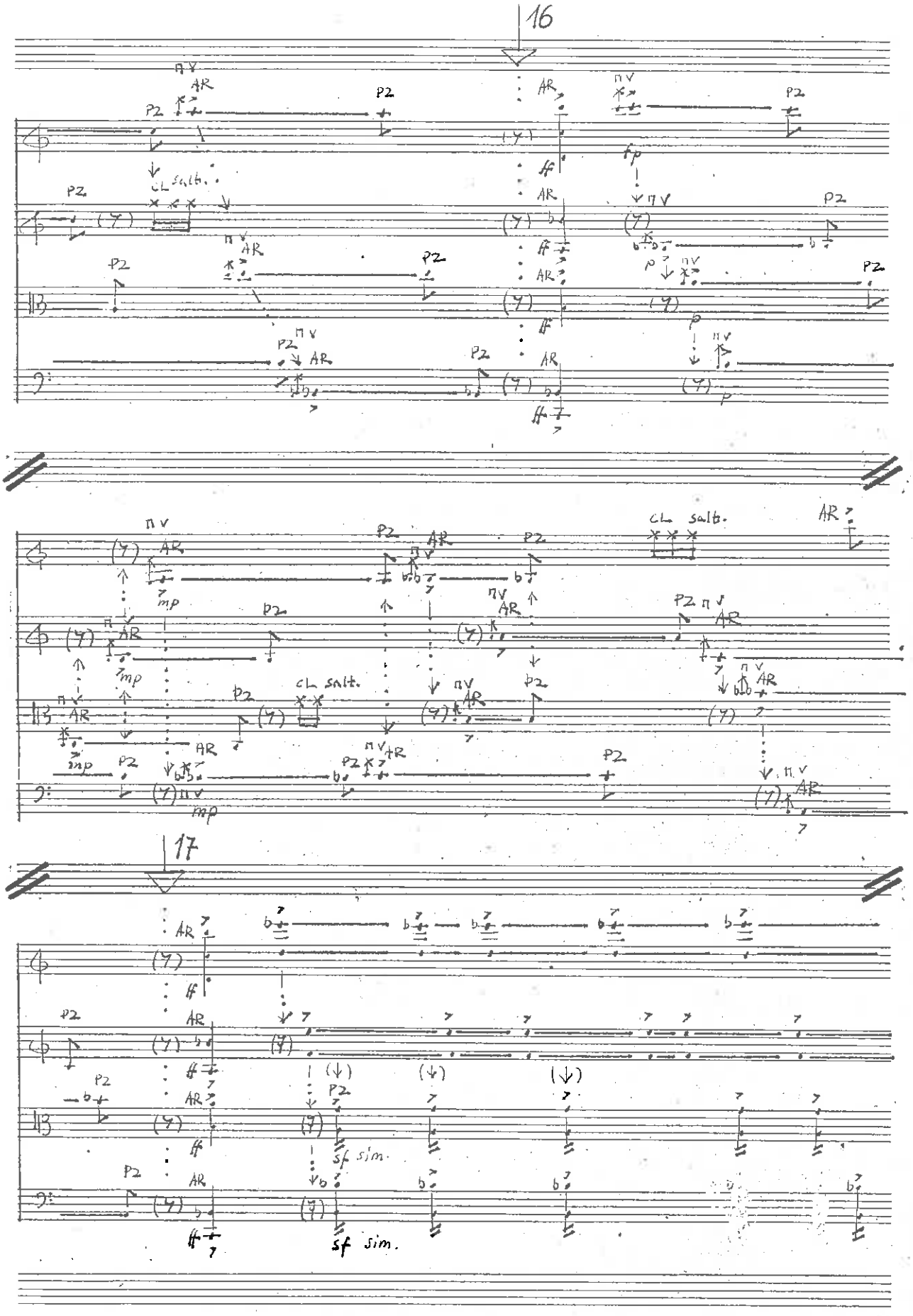

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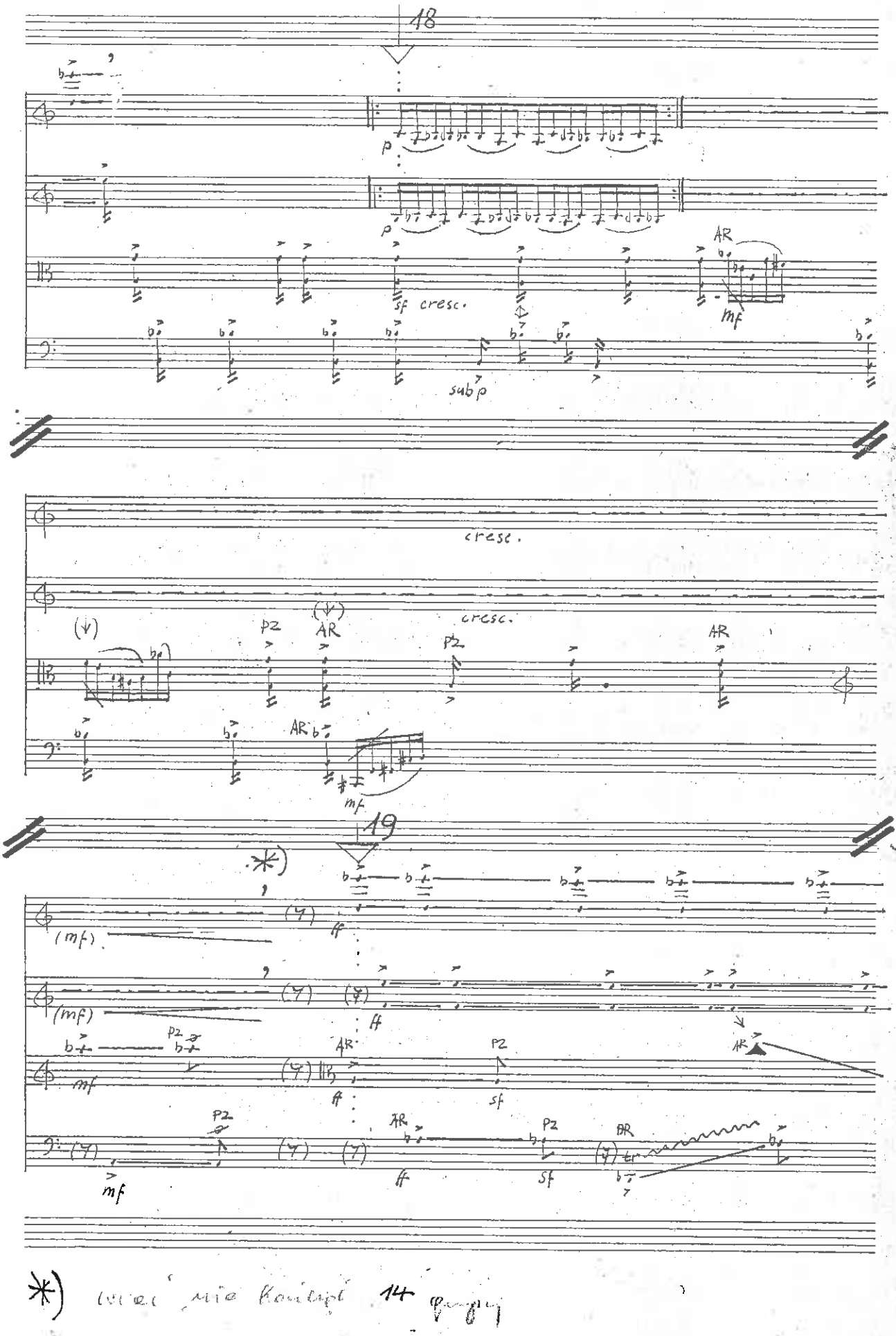

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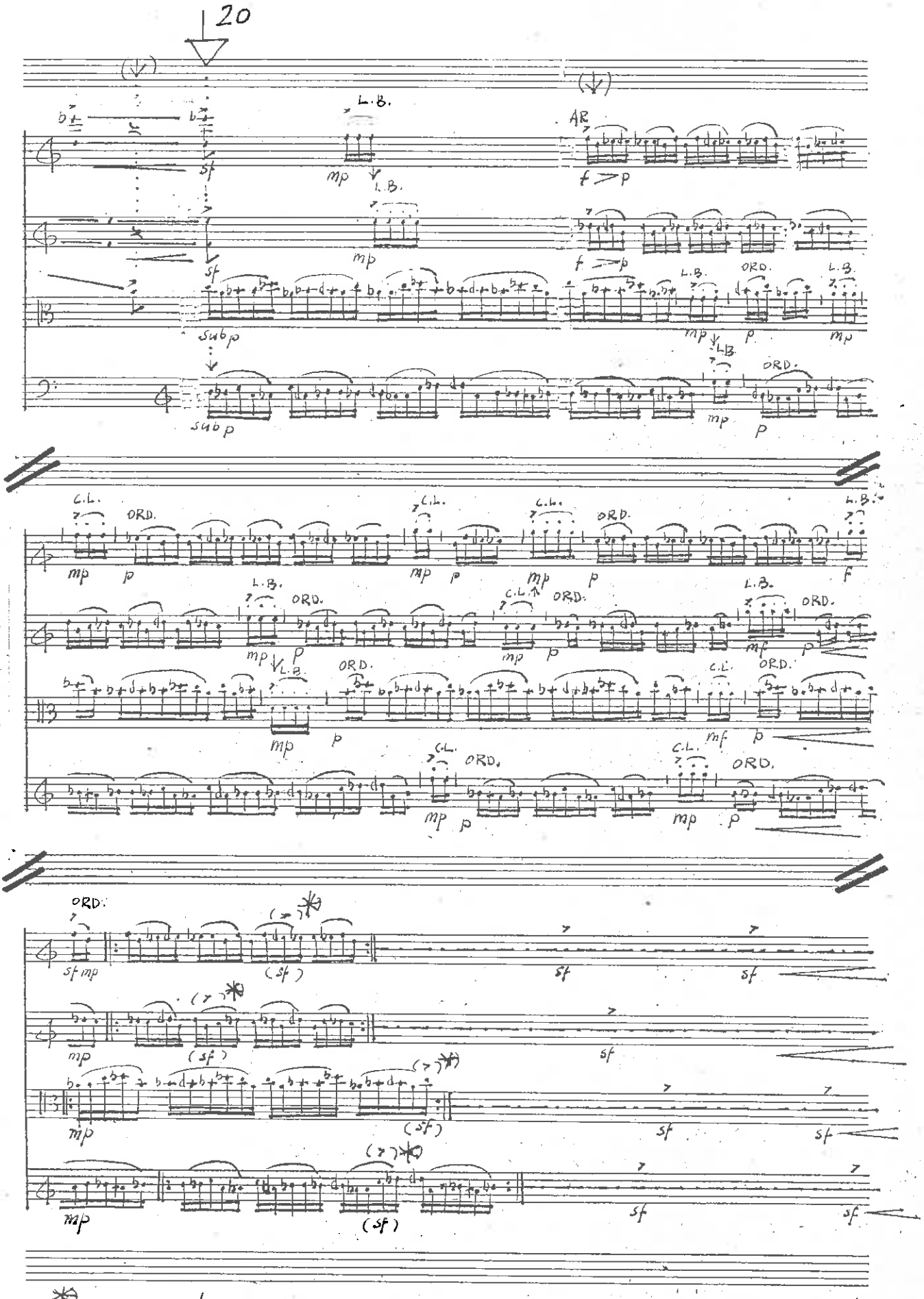

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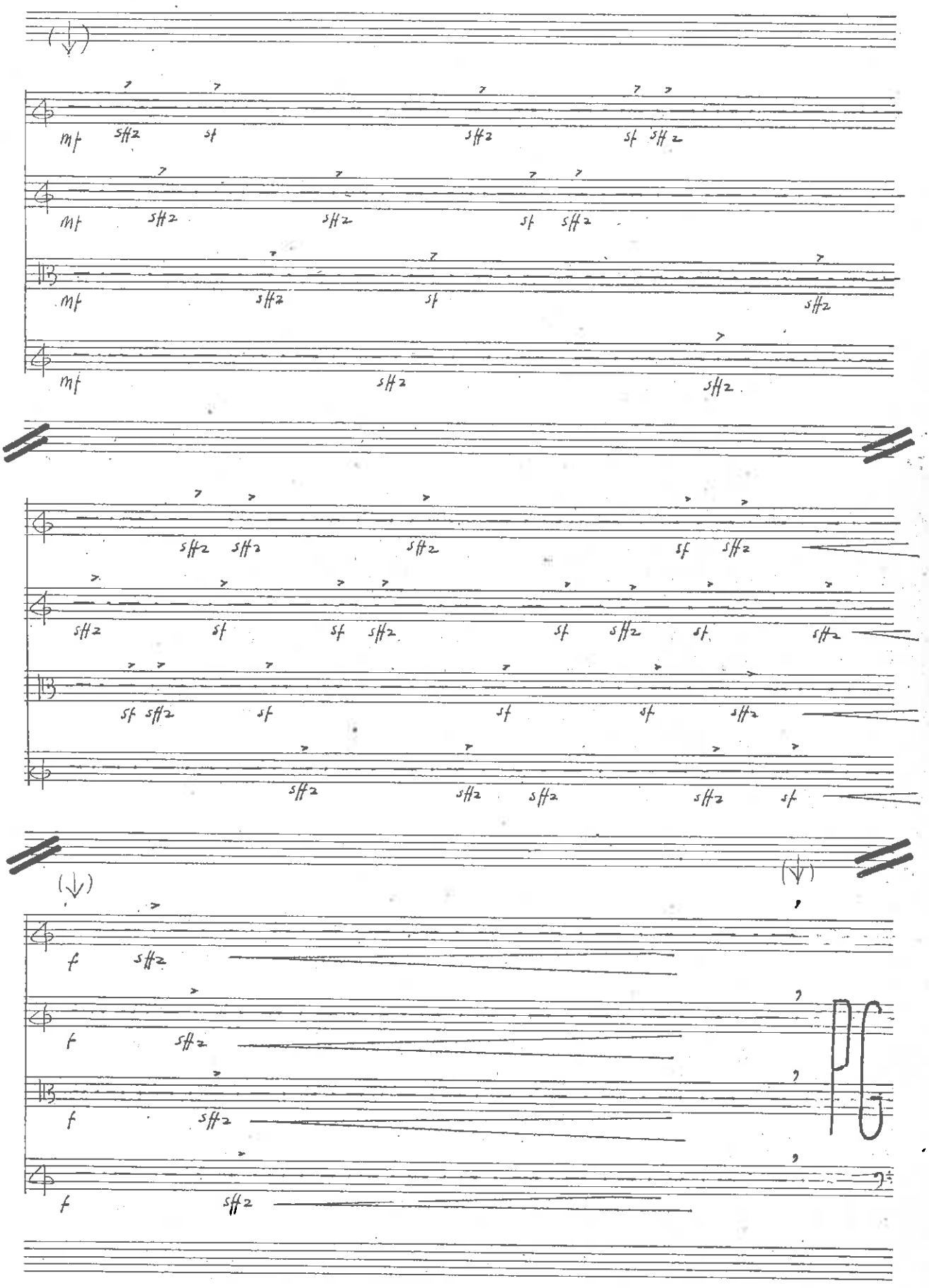

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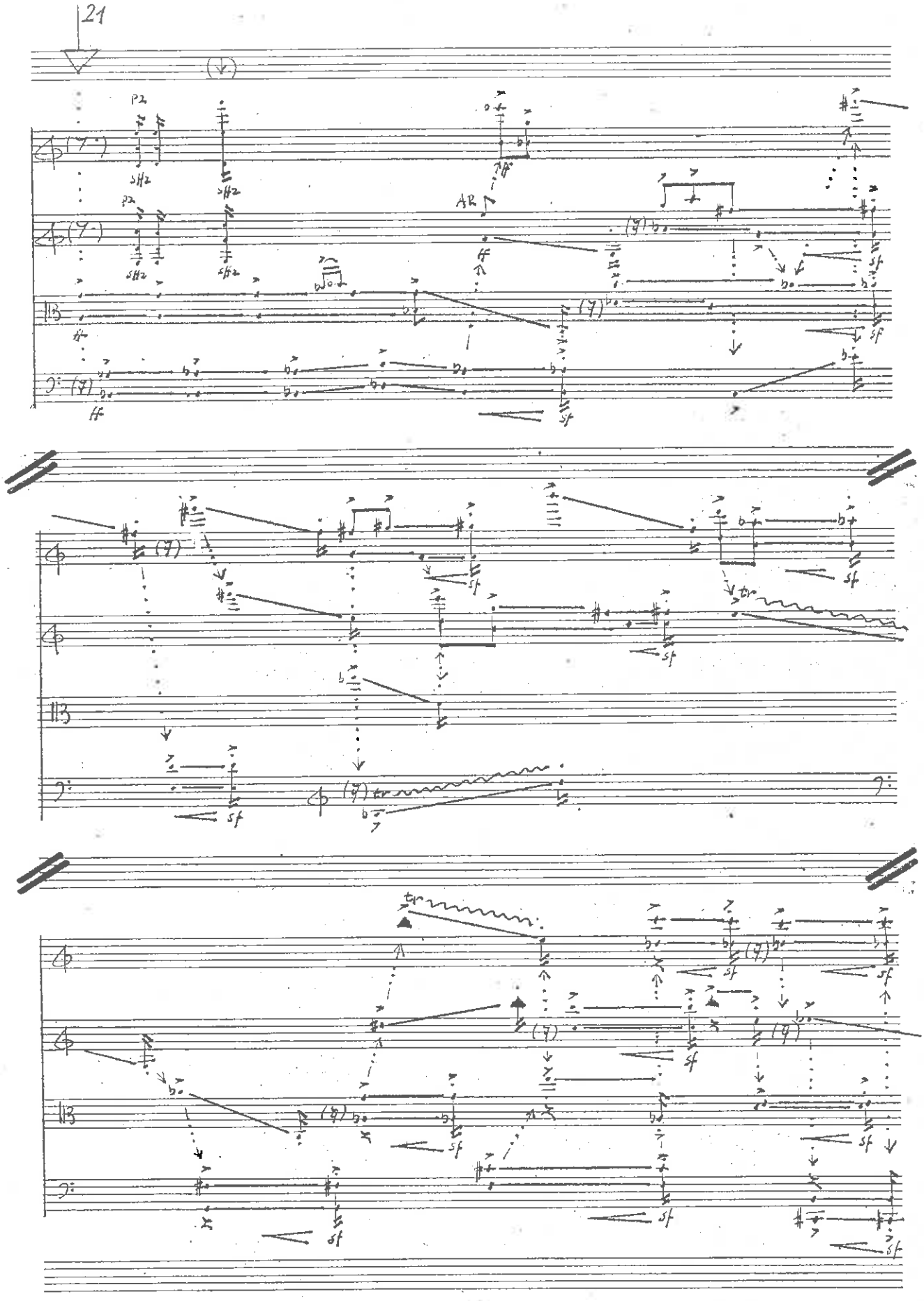

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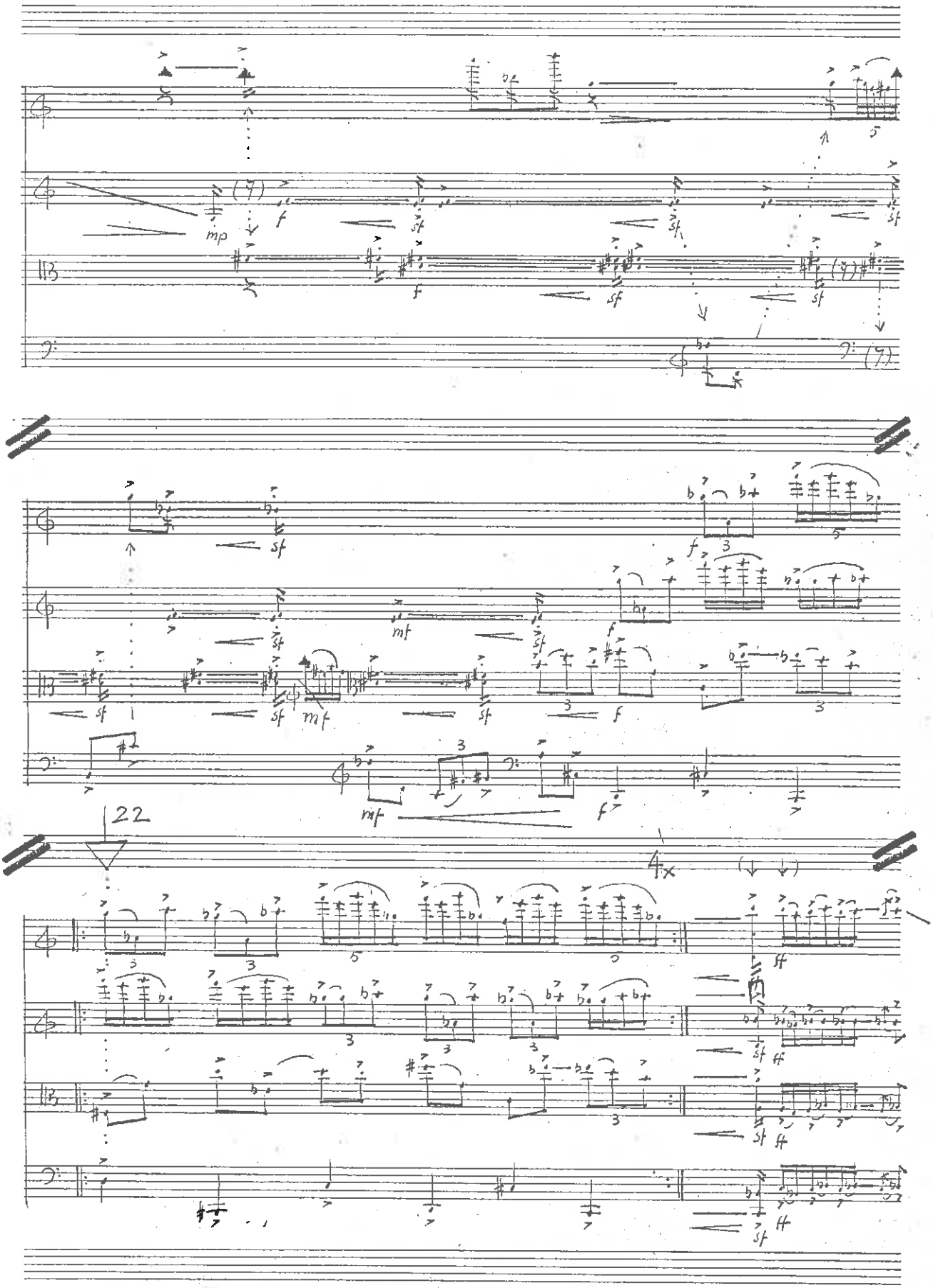

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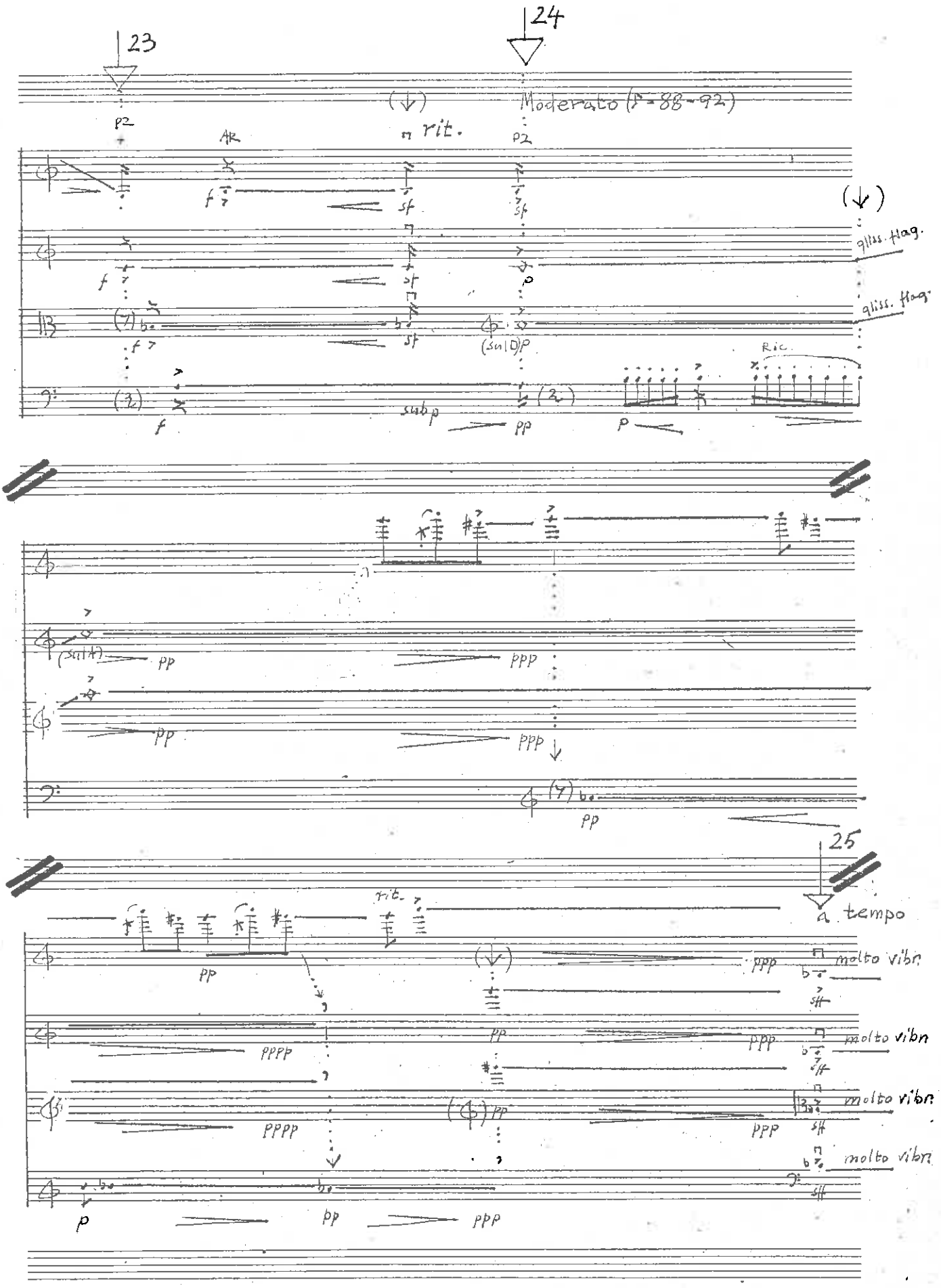

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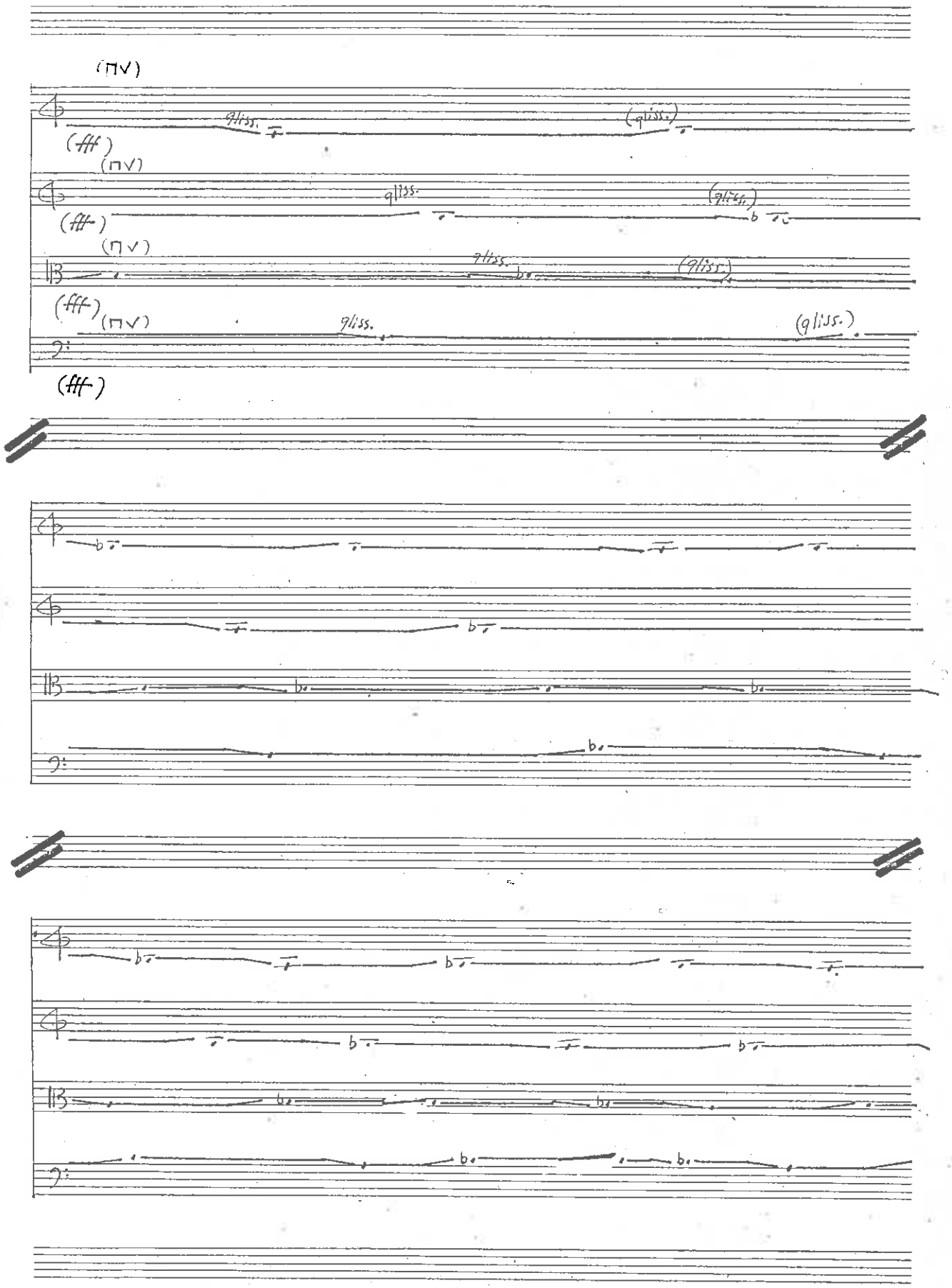

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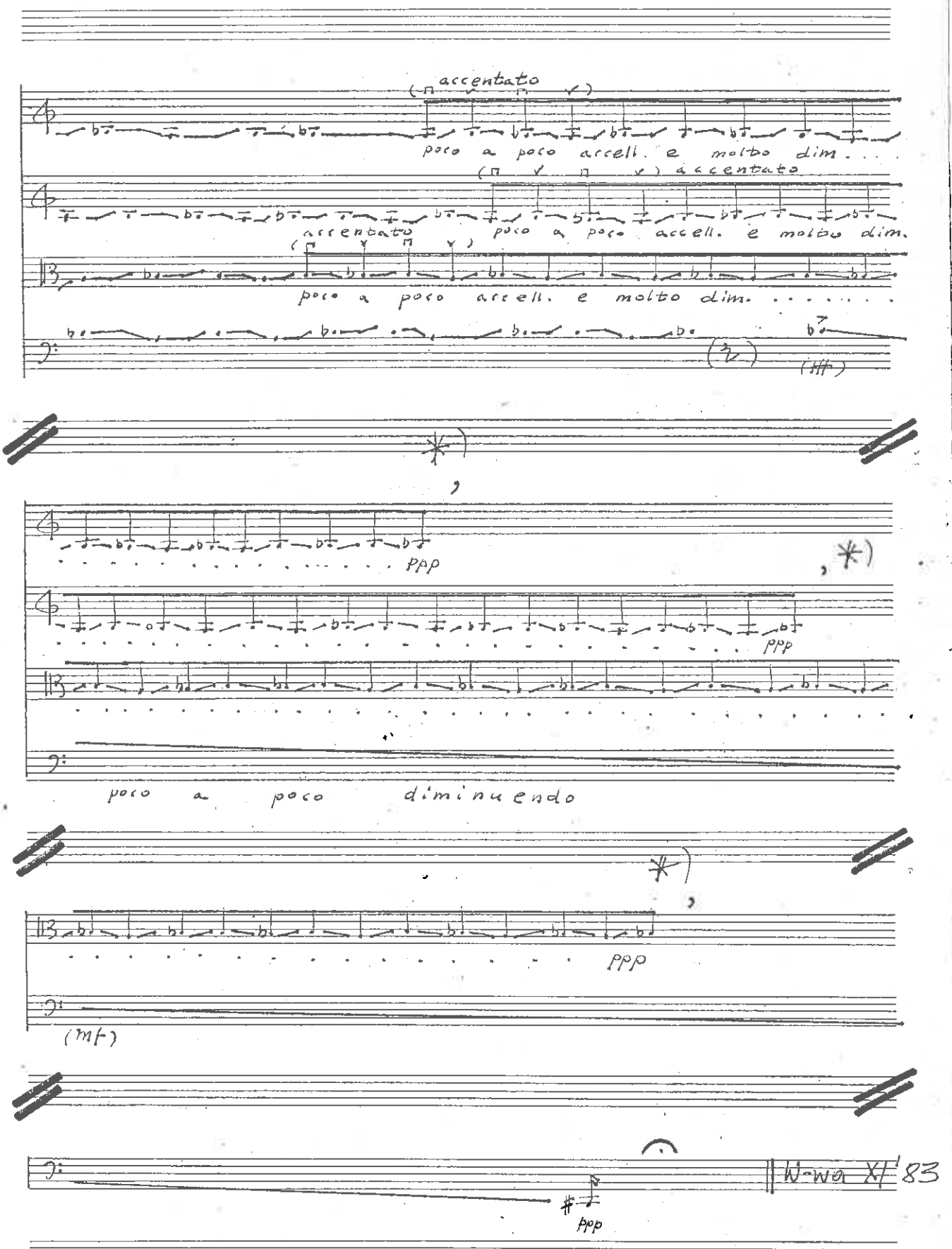

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Hanna

KULENTY

Kwartet smyczkowy nr 2
String Quartet No. 2

partytura
score

Polskie Wydawnictwo Muzyczne, Kraków

1991

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FA

I XII 1990, Huddersfield Contemporary Music Festival
Alexander Balanescu String Quartet

ca 12'

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PWM Warszawa, Fredry 8
telex 813370 pwm wa pl
fax 635 57 09

Polskie Wydawnictwo Muzyczne, al. Krasińskiego 11 a, Kraków.
Printed in Poland 1991.
Wyd. I ogr. 15 ark. wyd. 4,3 ark. druk. 4,25
Prac. Poligraf. PWM, al. Krasińskiego 11 a, Kraków.
Zam. nr 91/91

ISBN 83 224-3004-3

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FACSIMILE AUTOGRAFU

String Quartet nr 2.

Duration ± 12'

Hanna KULENTY 1990

♩= 60

*) molto sul ponti. – press very hard bows into the strings.
– dociskać bardzo mocno smyczkiem do strun.

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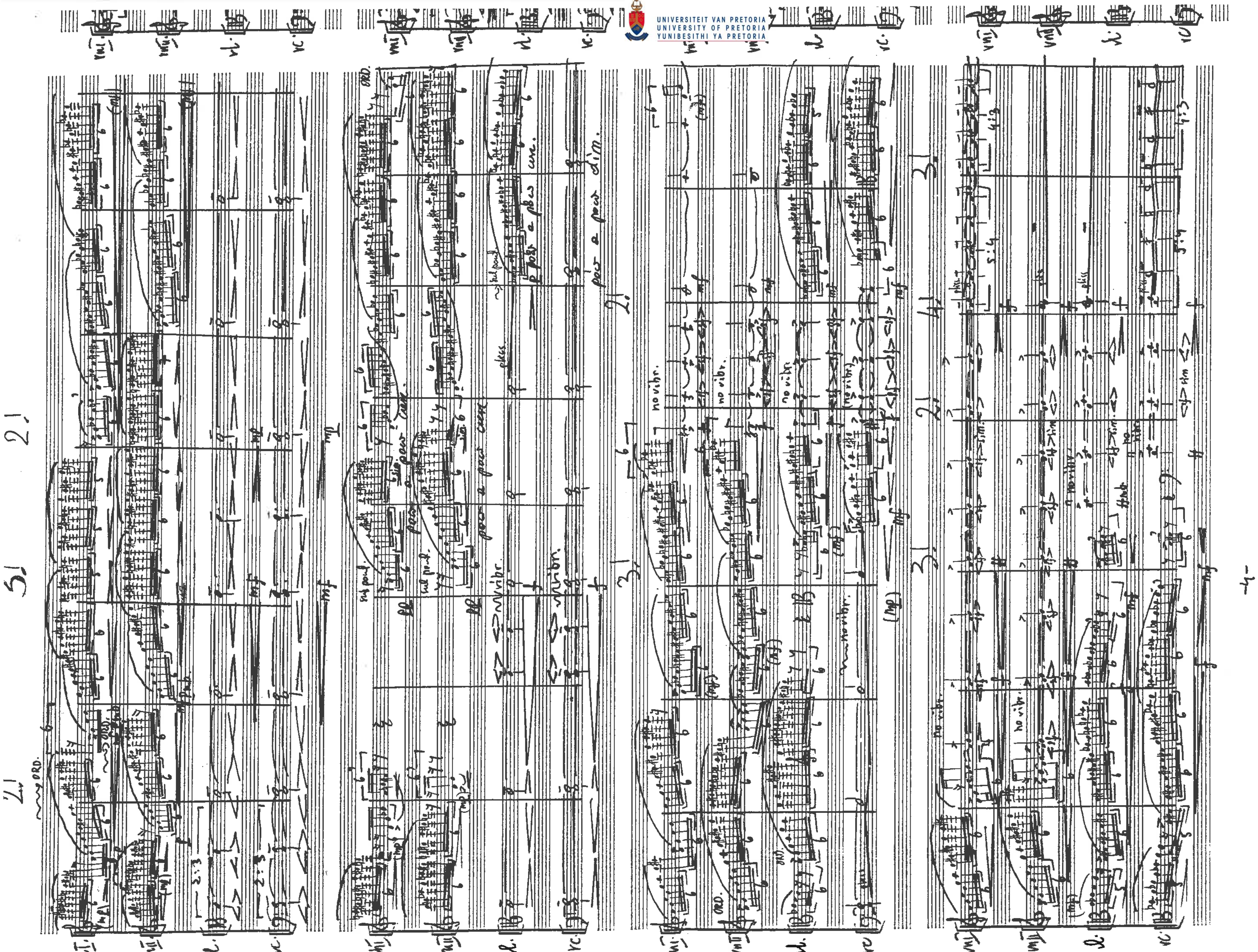

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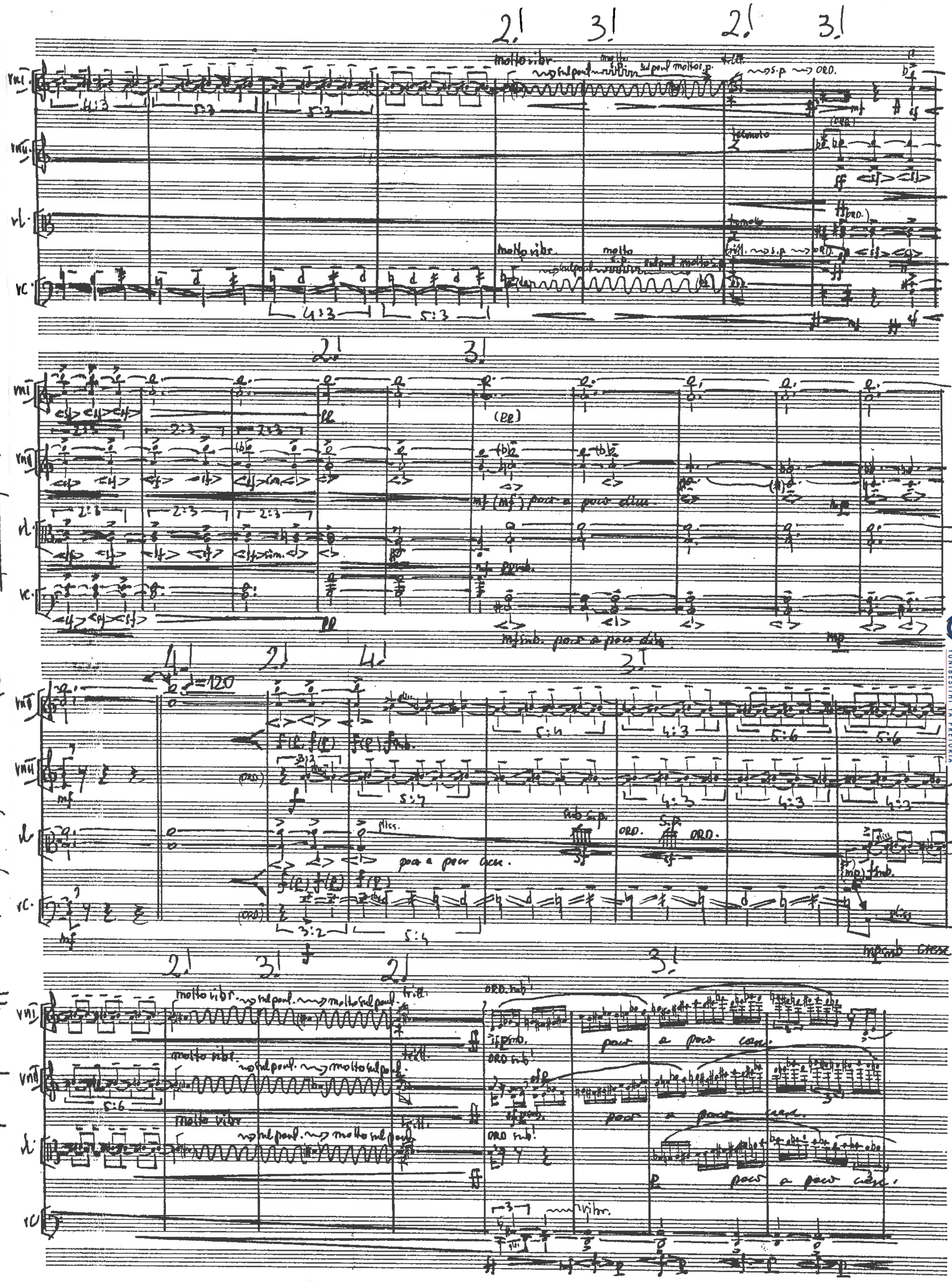

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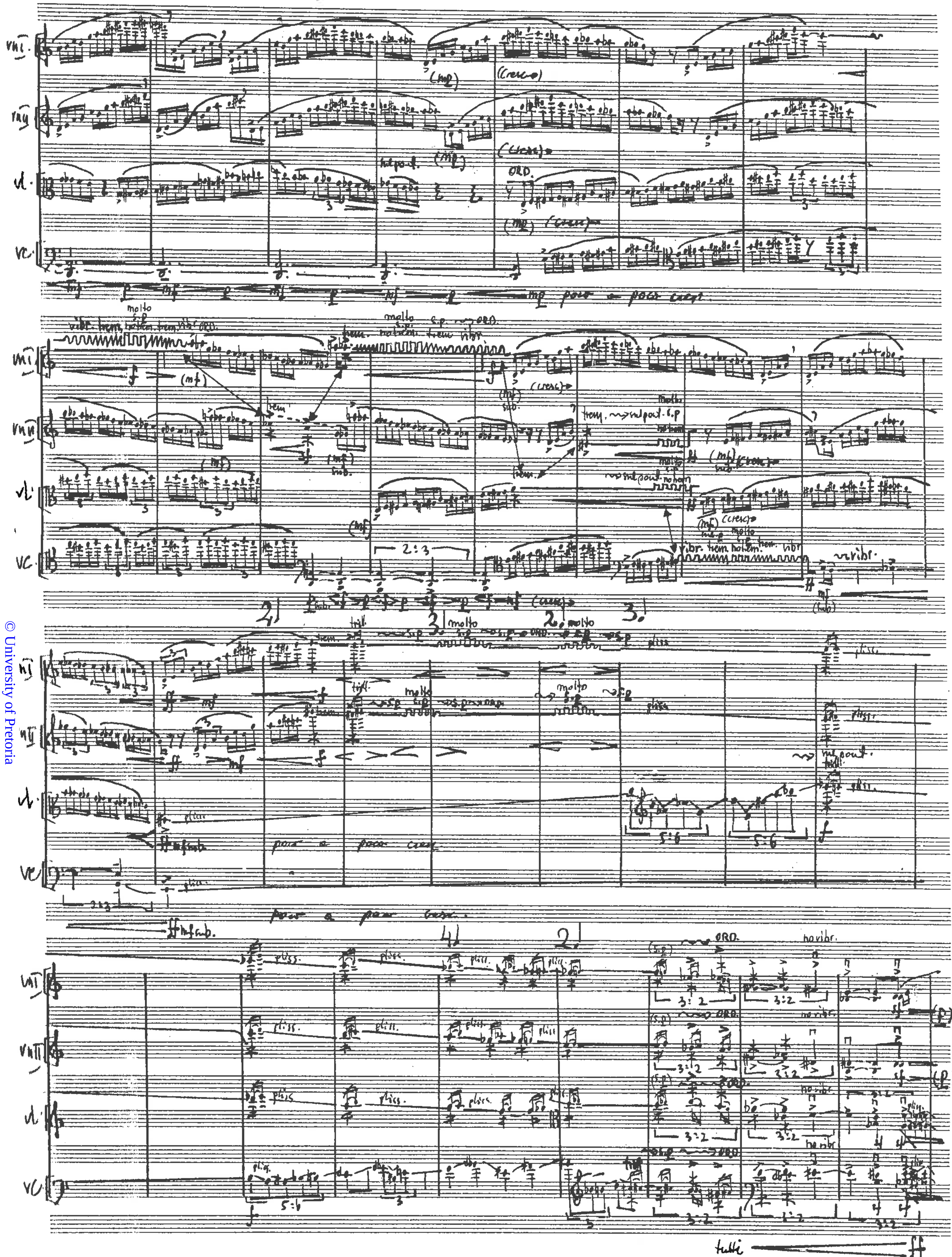

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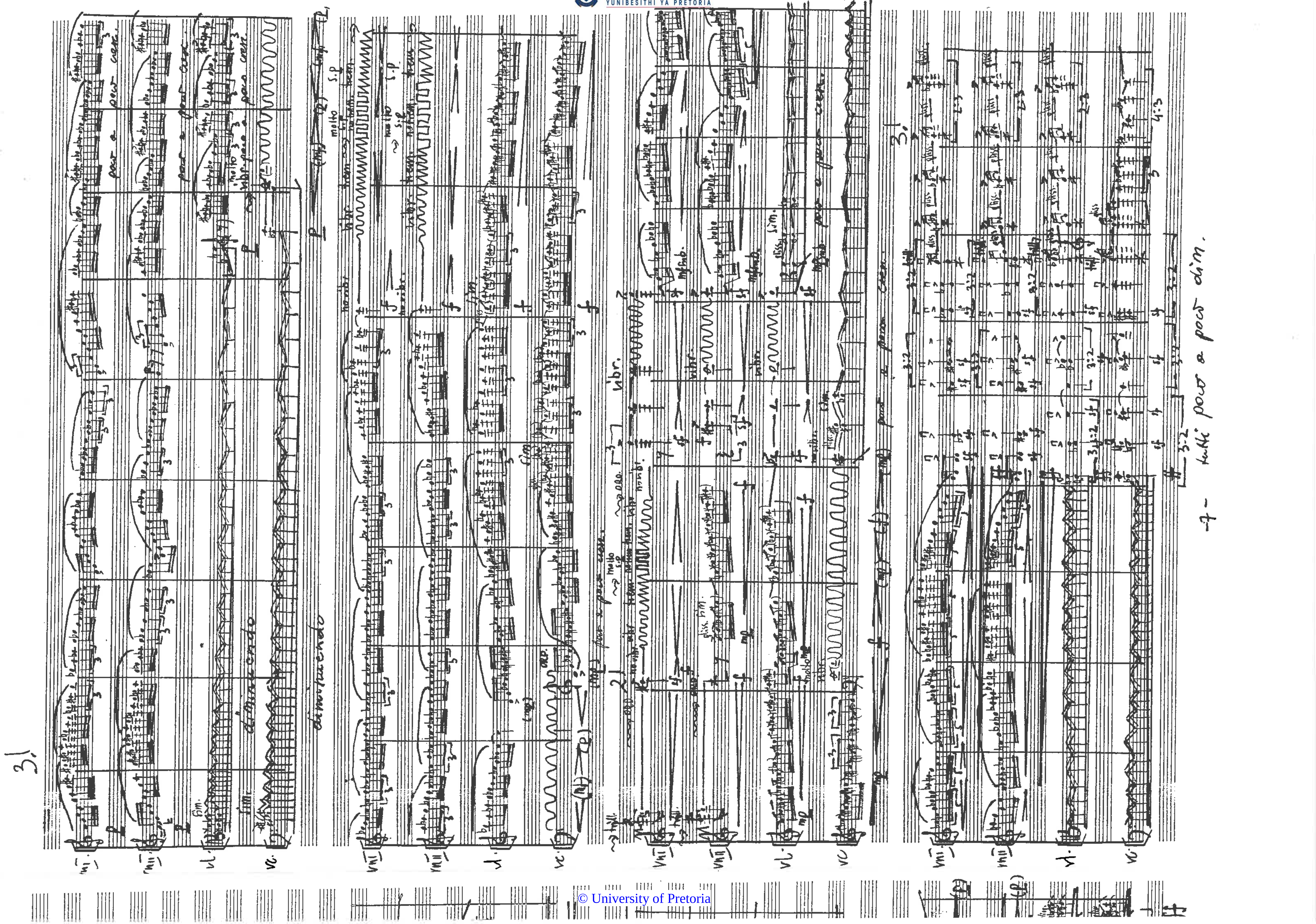

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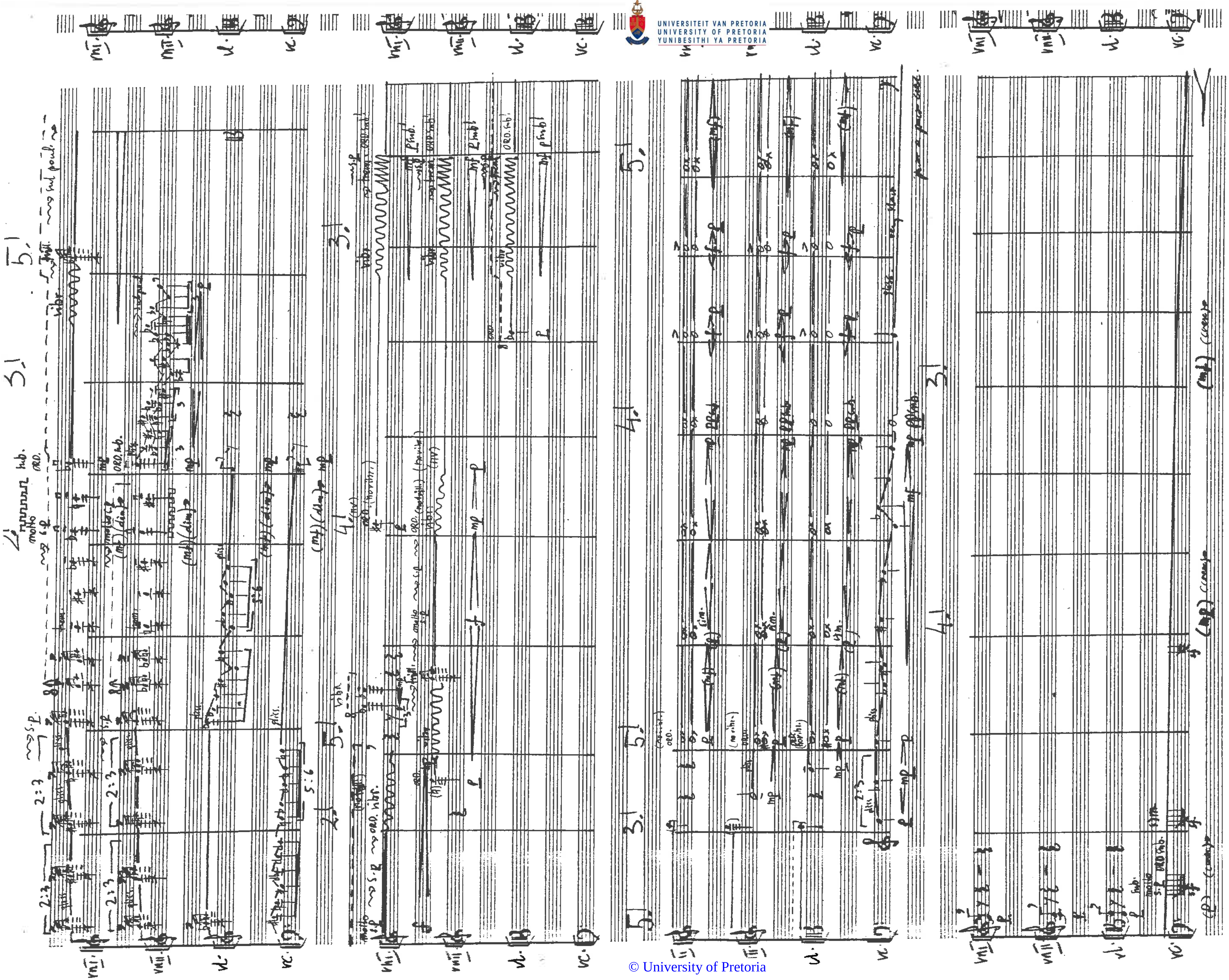

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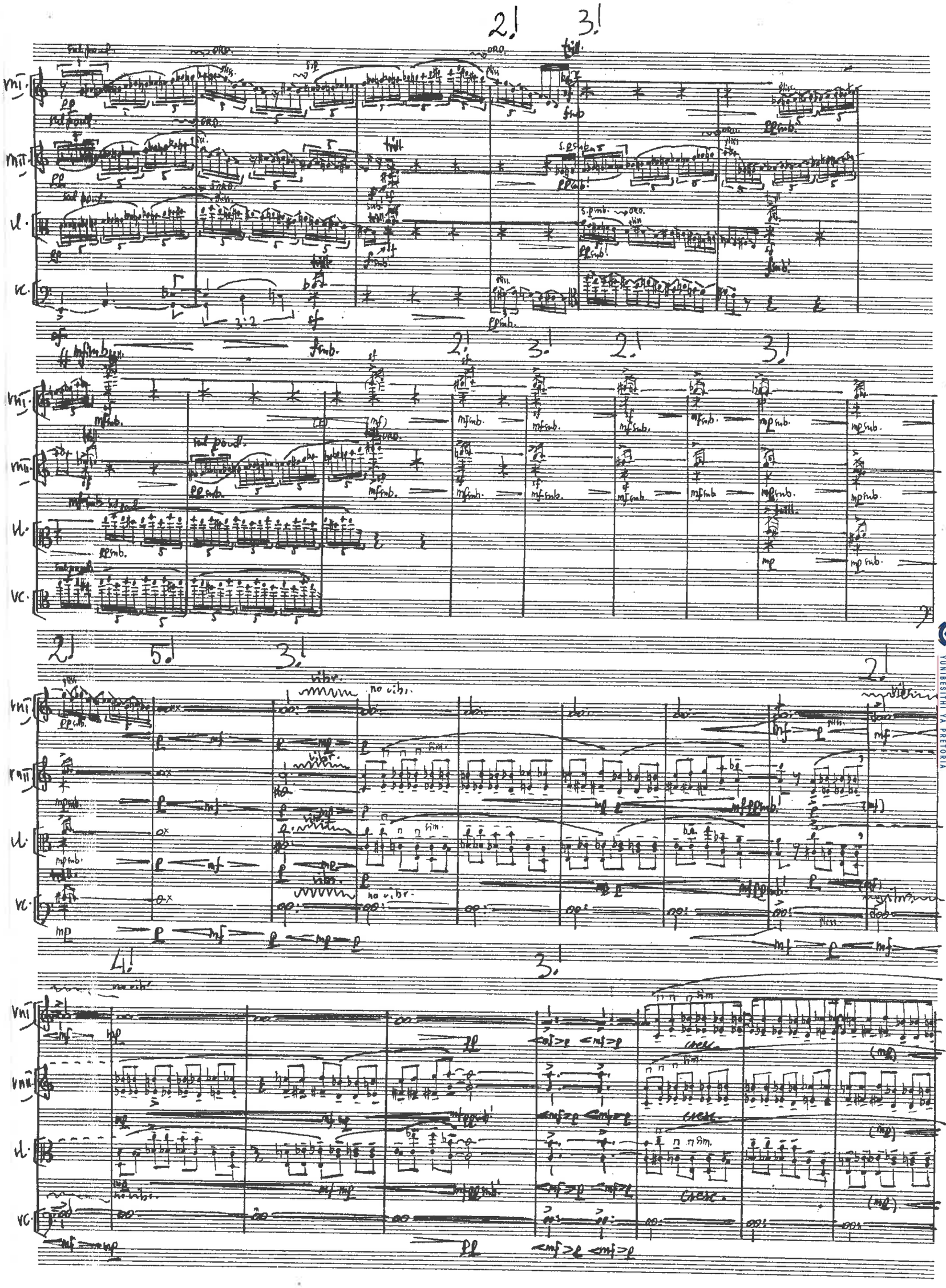

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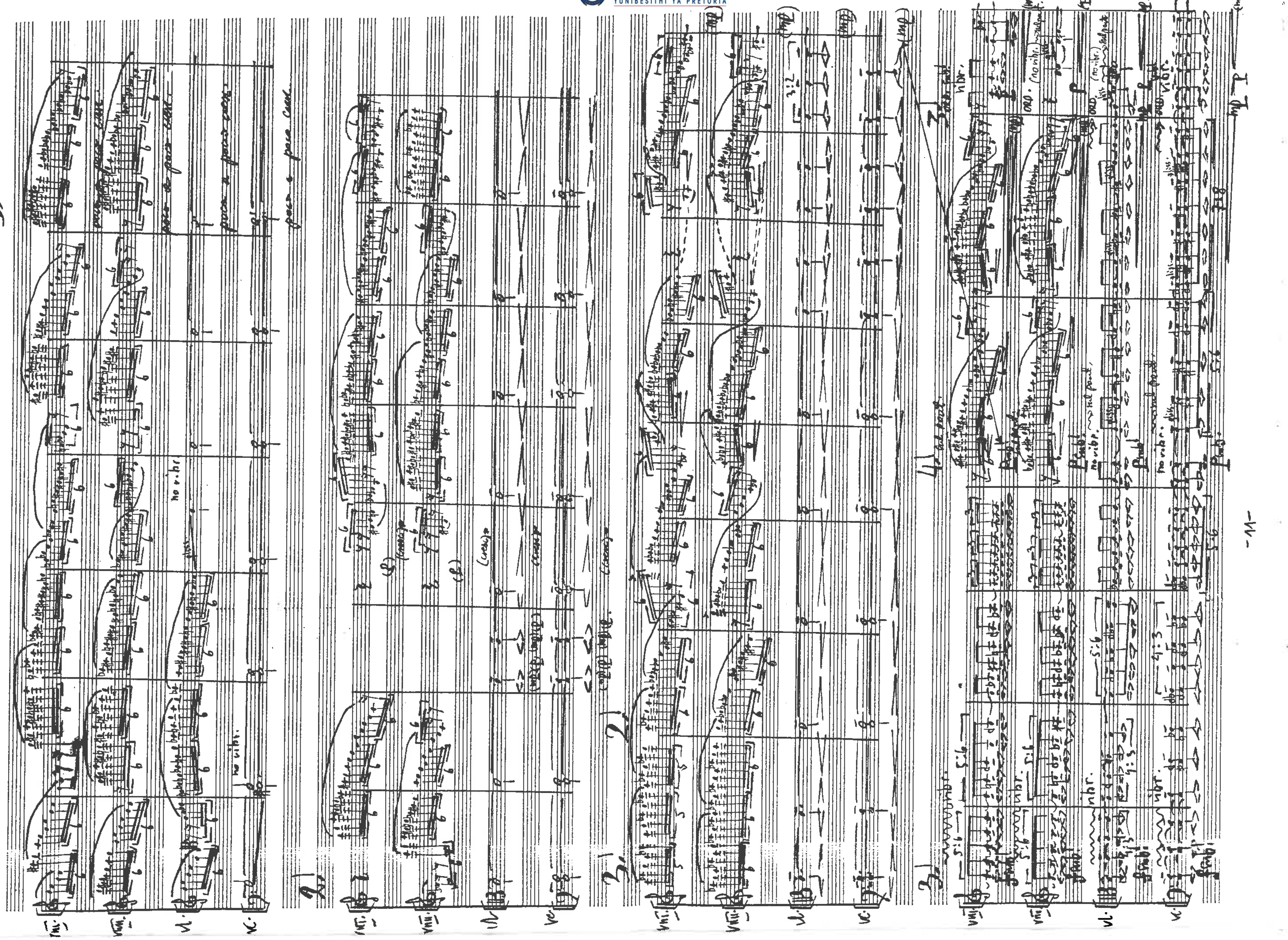

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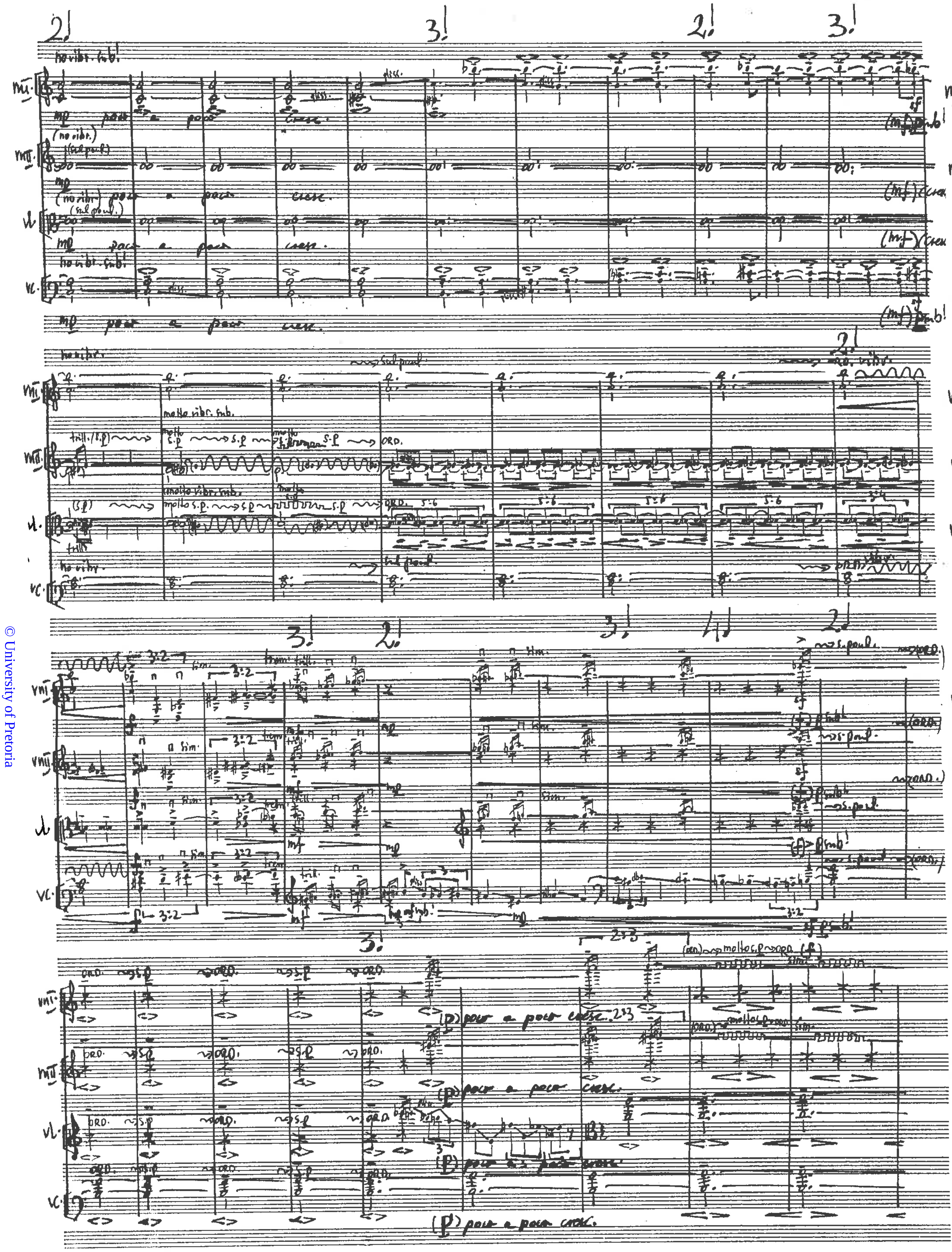

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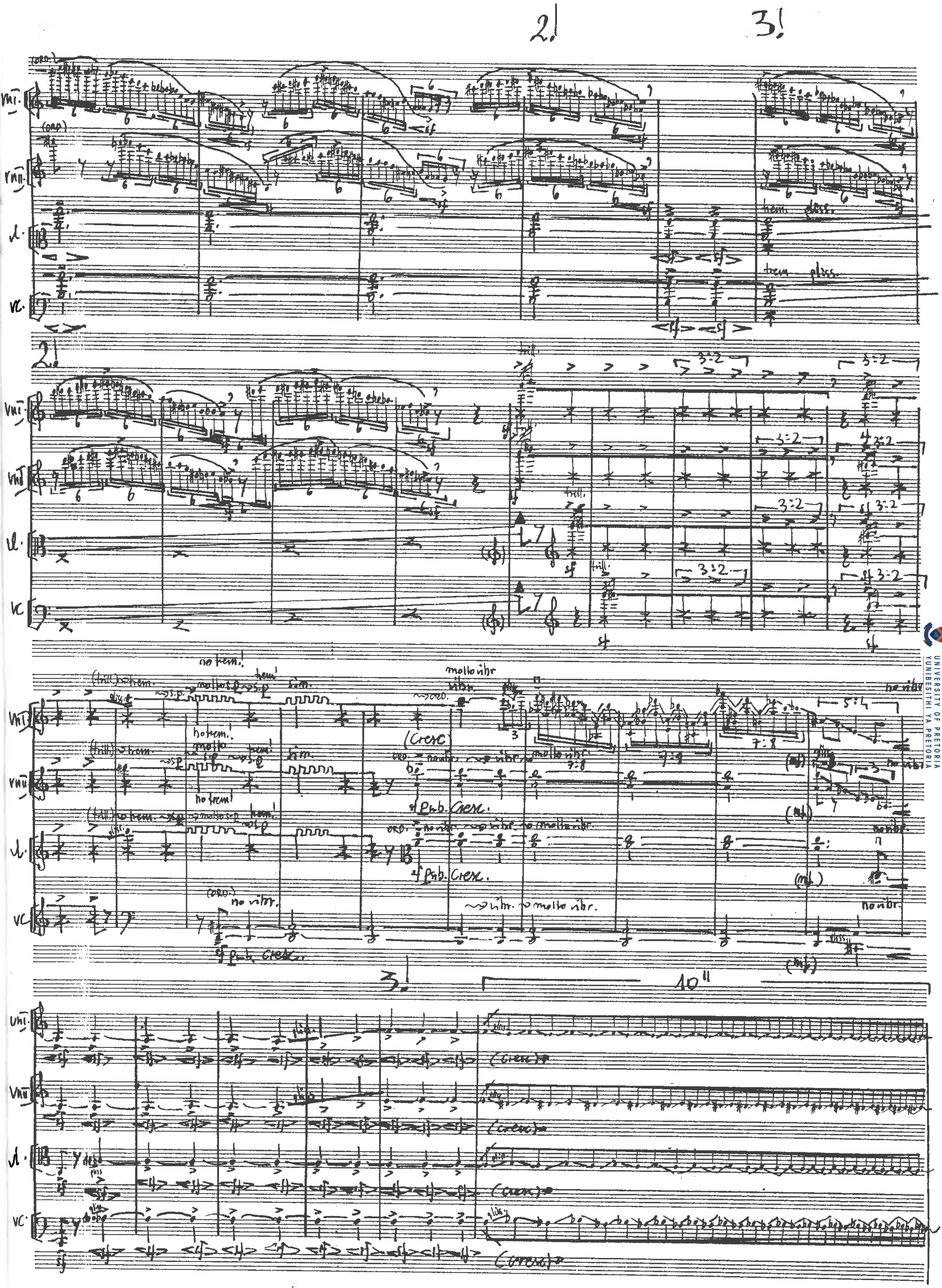

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5! 2! 5! 2! 3!

12"

5" 8" 2! 4! 5! 2! 5!

2! 5!

Pawel Kulenty
17.06.1990 Warszawa

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Hanna KULENTY

I KWARTET SMYCZKOWY / 1st STRING QUARTET – 14' – 1984
AD UNUM na orkiestrę / for orchestra – 16' – 1985
SESTO na fortepian solo / for piano solo – 9' – 1985 – PWM
MARTWA NATURA ZE SKRZYPCAMI na skrzypce solo / STILL LIFE WITH A VIOLIN for violin solo – 5' – 1985 – PWM
QUATTRO na małą orkiestrę / for small orchestra – 18' – 1986
ARCI na perkusję solo / for percussion solo – 13' – 1986
I SYMFONIA na orkiestrę / 1st SYMPHONY for orchestra – 17' – 1986
QUINTO na 2 fortepiany / for 2 pianos – 10' – 1986
RIDE dla 6 perkusistów / for 6 percussionists – 18' – 1987
II SYMFONIA na wielką orkiestrę i chór mieszany / 2nd SYMPHONY for grand orchestra and mixed choir – 18' – 1987 – PWM
BREATHE na orkiestrę smyczkową / for strings – 12' – 1987 – PWM
ARCUS dla 3 perkusistów / for 3 percussionists – 25' – 1988 – PWM
CANNON na skrzypce i fortepian / for violin and piano – 12' – 1988 – PWM
SOUVENIR FROM THE SANATORY muzyka komputerowa / computer music – 9' – 1988
ONE BY ONE na marimbafon solo / for marimba solo – 9' – 1988 – PWM
aaa TRE na altówkę, wiolonczelę i kontrabas / for alto, cello and double bass – 11' – 1988 – PWM
PERPETUUS na orkiestrę kameralną / for chamber orchestra – 12' – 1989 – PWM
TRIGON na orkiestrę kameralną / for chamber orchestra – 16' – 1989 – PWM
I KONCERT na fortepian i orkiestrę kameralną / 1st CONCERTO for piano and chamber orchestra – 18' – 1990 – PWM
II KWARTET SMYCZKOWY / 2nd STRING QUARTET – 12' – 1990 – PWM

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String Quartet N° 3

(Tell me about it)

Hanna Kulenty

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(Tell me about it)

2006

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Commissioned by the **Fonds voor de Scheppende Toonkunst**

Duration: c. 7'

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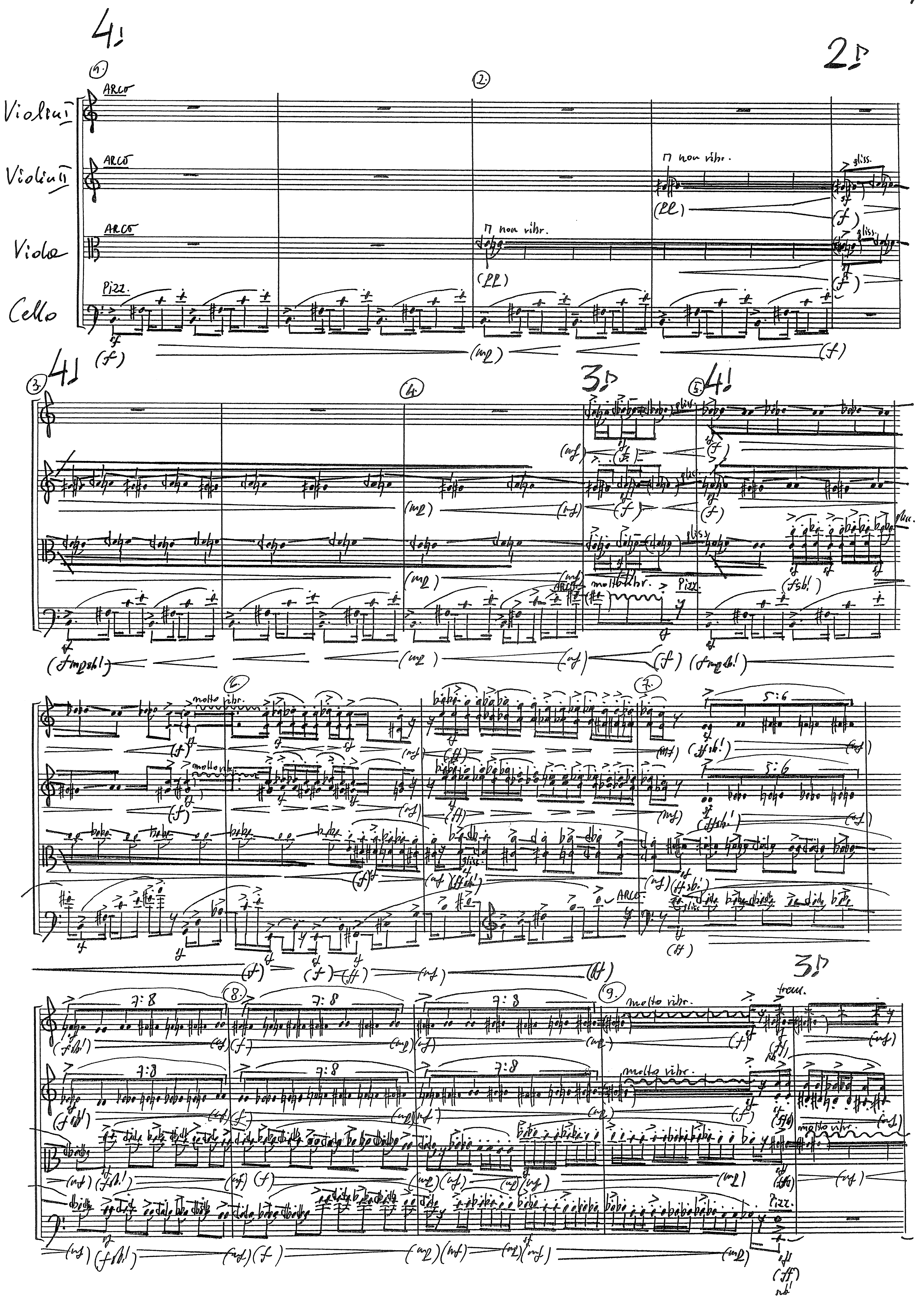
STRING QUARTET NO. 3

(Tell me about it)

2006

Hanna Kulenty

♩= ±80



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accel. ---- a tempo (♩=80 = ♪=160)

3♪ 2♪ 3♪ 2♪ 3♪ 2♪ 3♪

30. 31. 32. 33. 34. 35. 36.

Pizz. Arco molto rit. trem. gliss.

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acc.

♩=168

2♪ 3♪ (37.) 2♪ 3♪ 2♪ 3♪ (38.) 2♪

3♪ 2♪ 3♪ (39.) 2♪ 3♪ 2♪

4

3♪ (40.) 2♪ 3♪ 2♪ 3♪ (41.) 2♪ 3♪

accel. - - - - →

2♪ 3♪ (42.) 2♪ 3♪ 2♪ 3♪ (43.) 2♪

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♪=176

Pizz. Arco Pizz. Arco Pizz. Arco Pizz. Arco

poco a poco cresc. →

molto vibr. trem. gliss.

poco a poco cresc. →

accel. ♪=184

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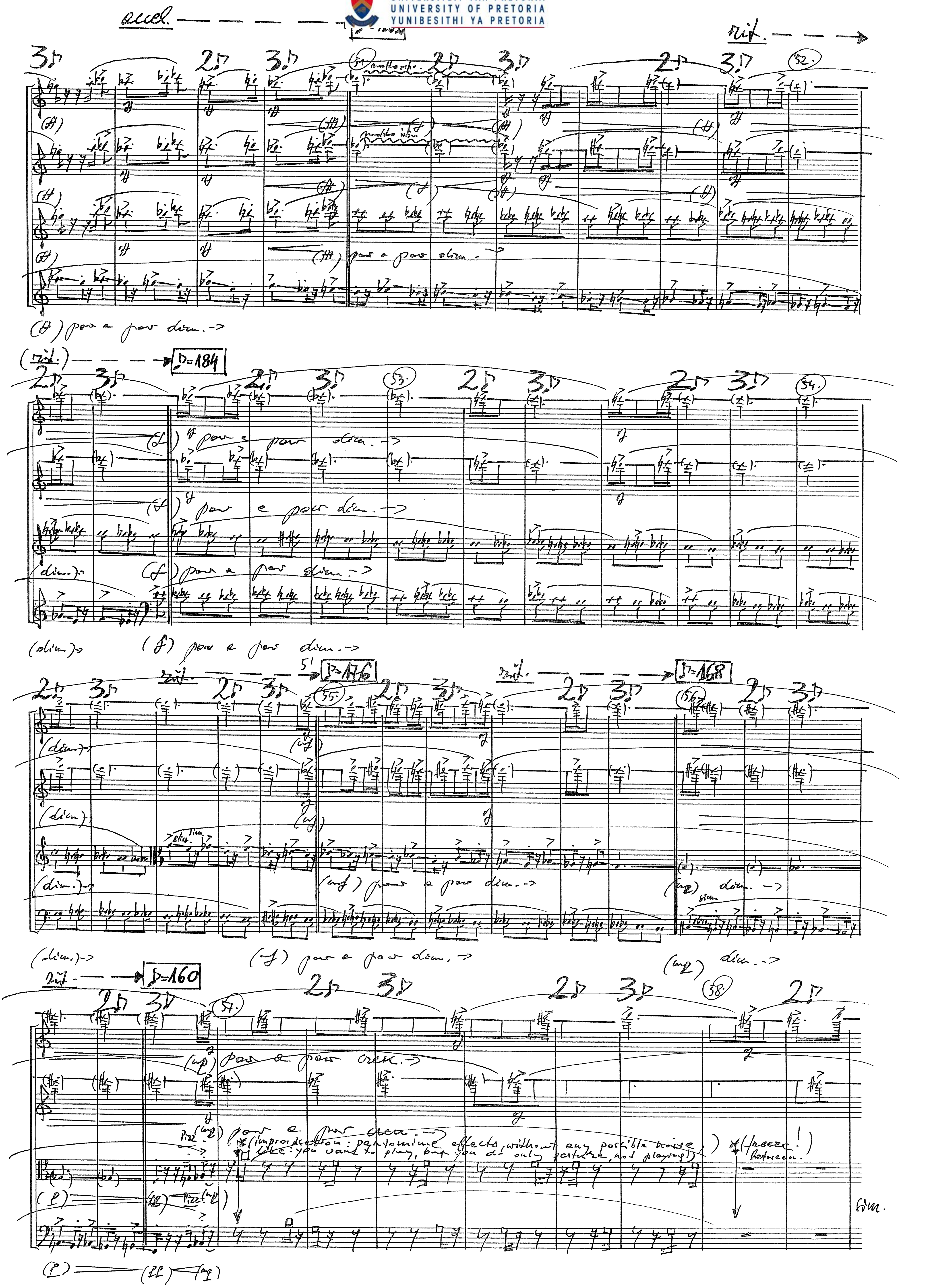

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3/2 2/2 3/2 (59.) 2/2 3/2 2/2 3/2 (60.)

(nerv.)→ (nerv.)→ (ff) pour à pour dim.→

(61.) (62.) 4/2

(dim.)→ 8va (nerv.)→ (ff) pour à pour dim.→

5/2 (63.) 6/2 (64.) 7/2

(8va) (dim.)→ (dim.)→

8/2 (41) (65.) (66.) (67.)

(8va) (dim.)→ ff (gradually above the bridge with irregular pics.)

(dim.)→ p (breeze) niente (PPP) (dim.)→ (PPP) (niente)

(dim.)→ (PPP) (dim.)→ (PPP) (niente)

p ff (breeze / niente

Nov. 2006

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String Quartet nº 4
(A Cradle Song)

Hanna Kulenty

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String Quartet nº 4

(A Cradle Song)

2007

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Commissioned for the **Kronos Quartet** by Mrs. **Ralph I. Dorfman**.

Additional funds were provided by the **Phyllis C. Wattis Foundation** and the **National Endowment for the Arts**

Duration: c. 16'

D 11670

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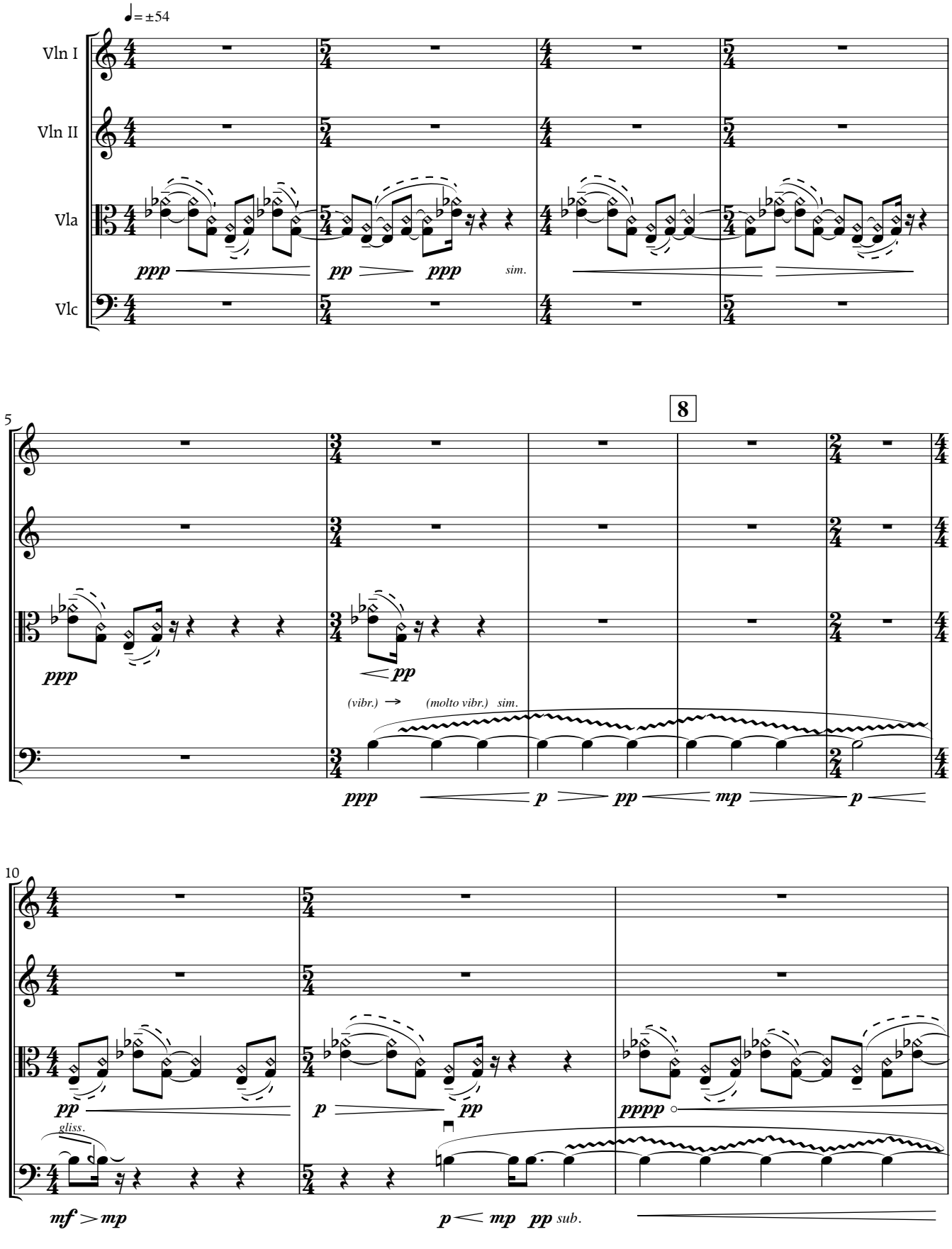
String Quartet no 4

Hanna Kulenty



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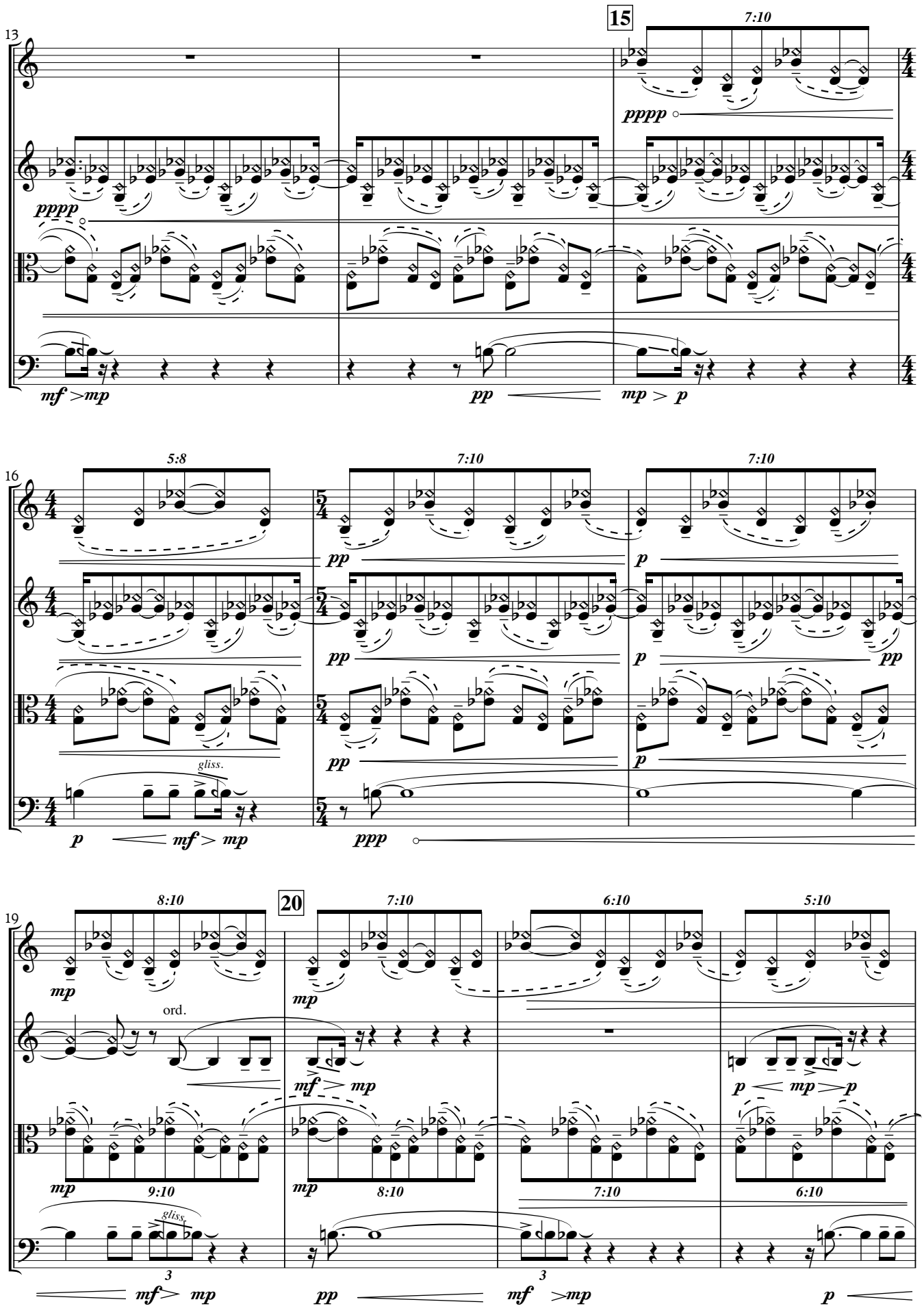

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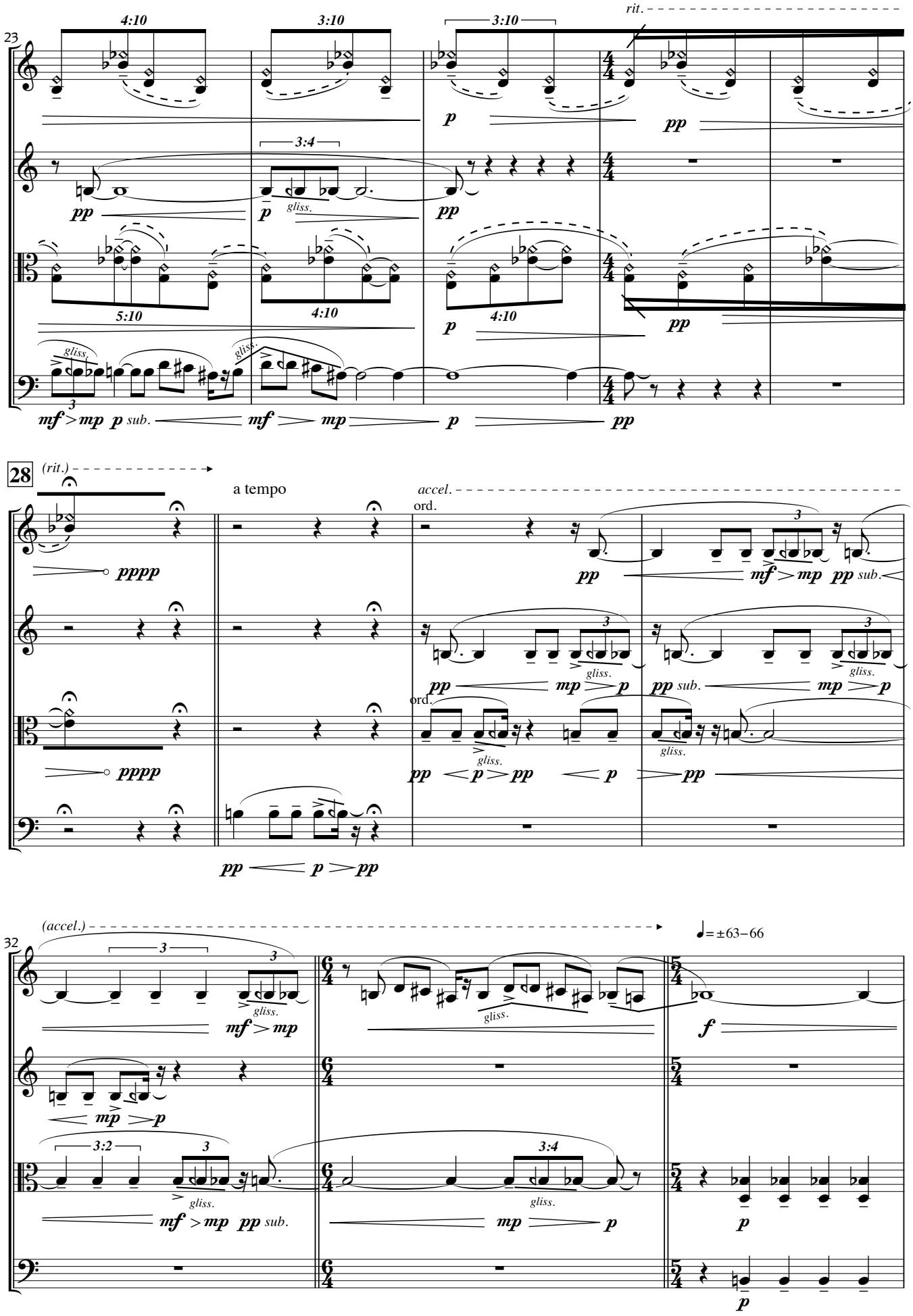

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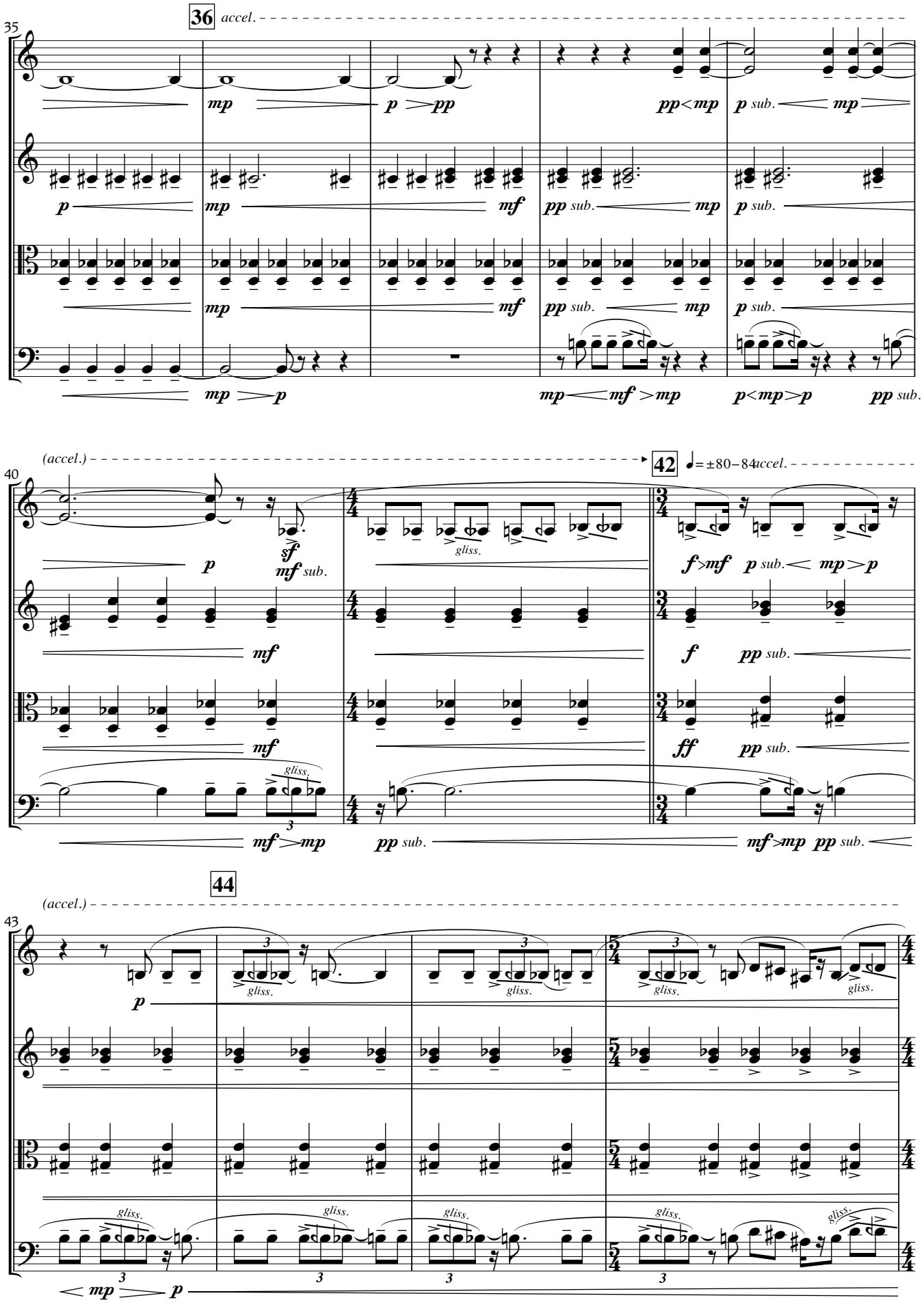

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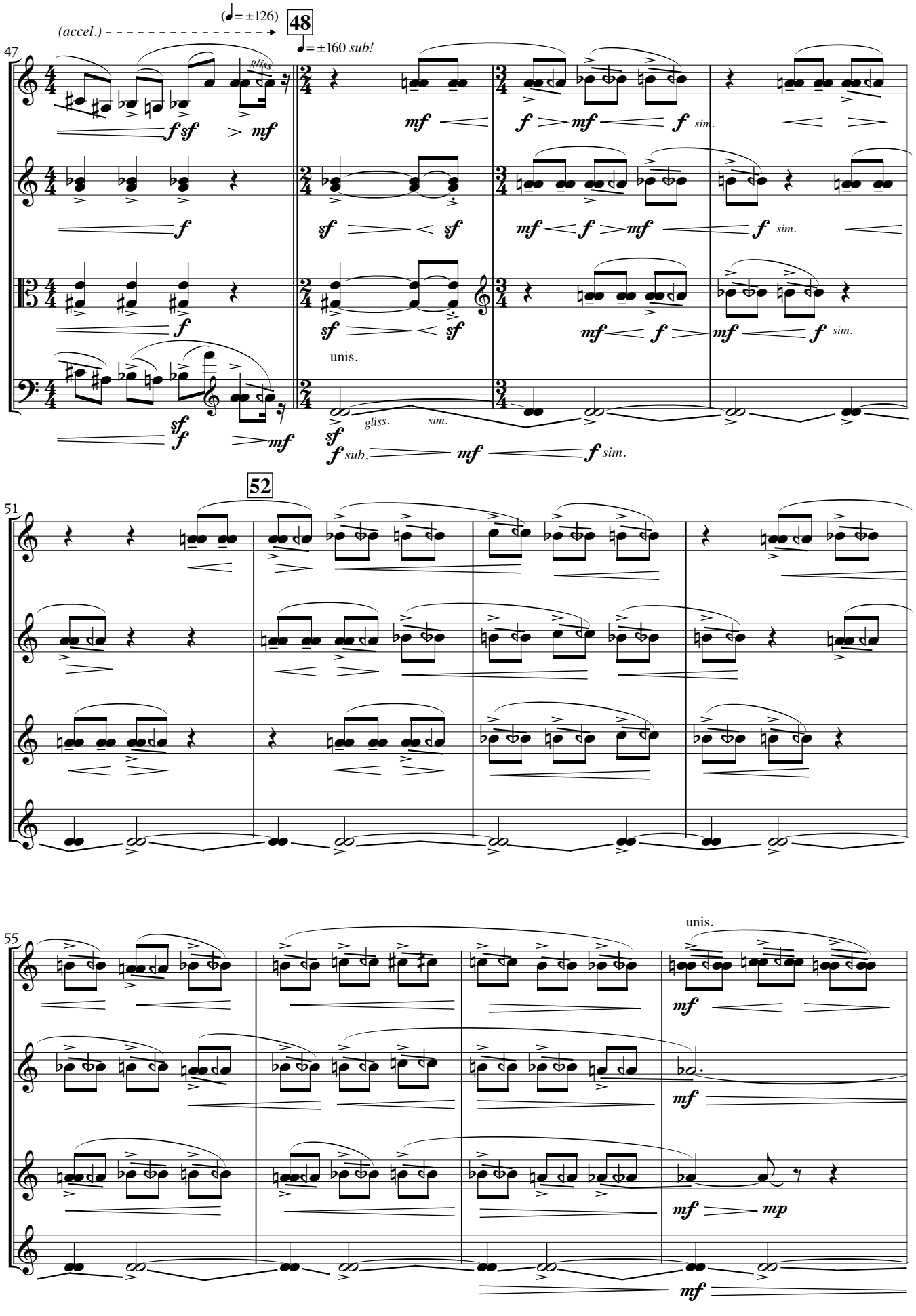

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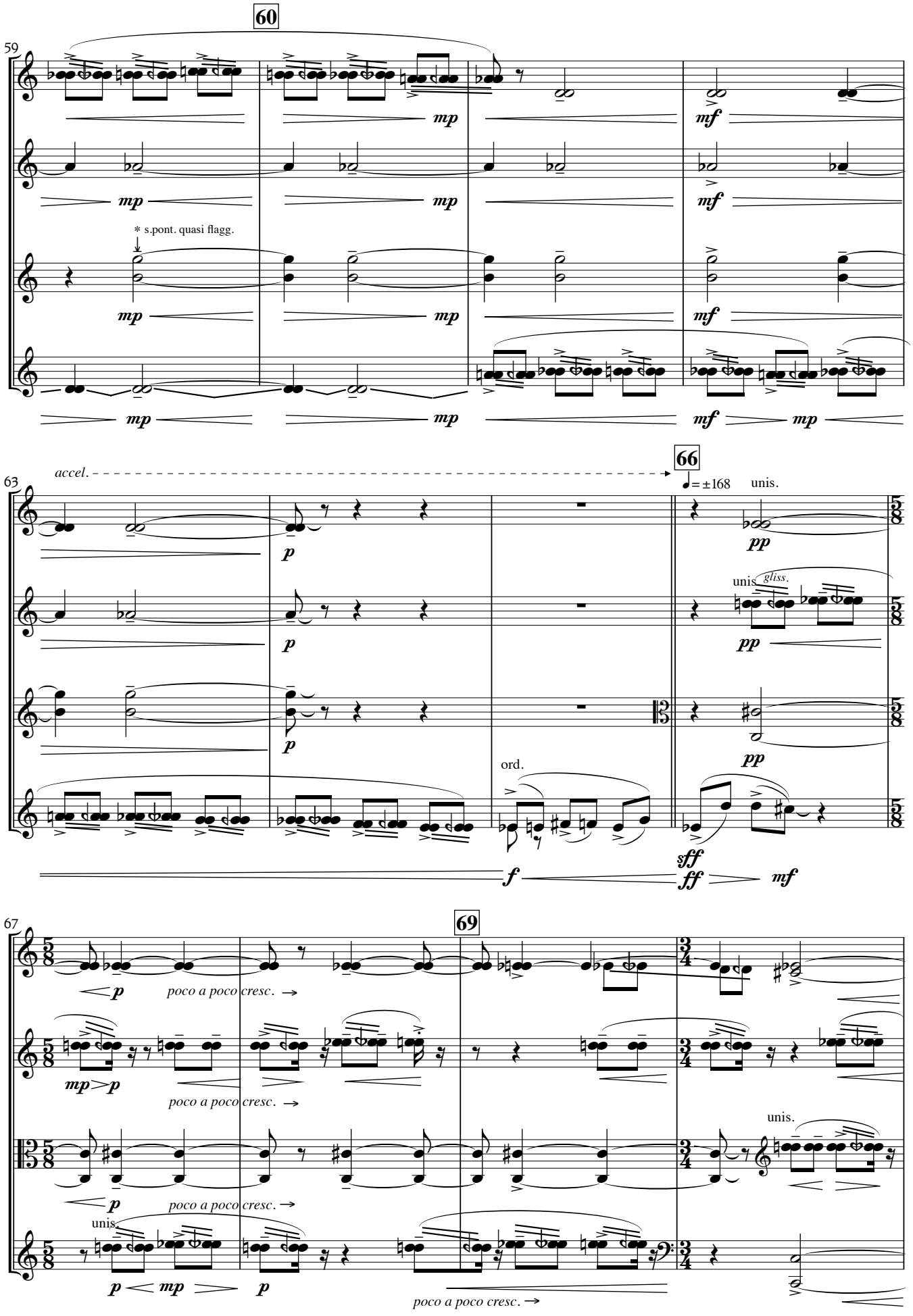

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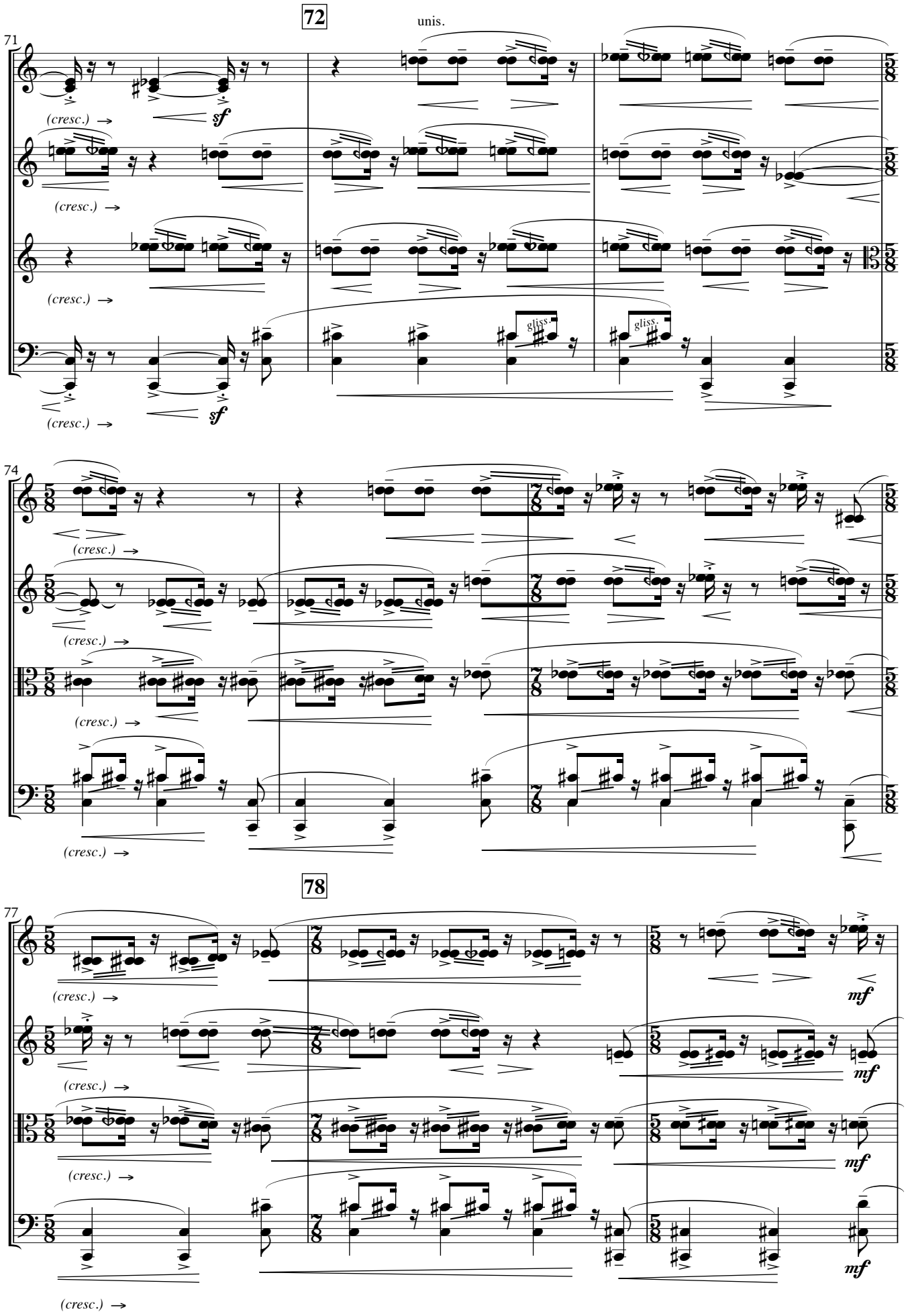

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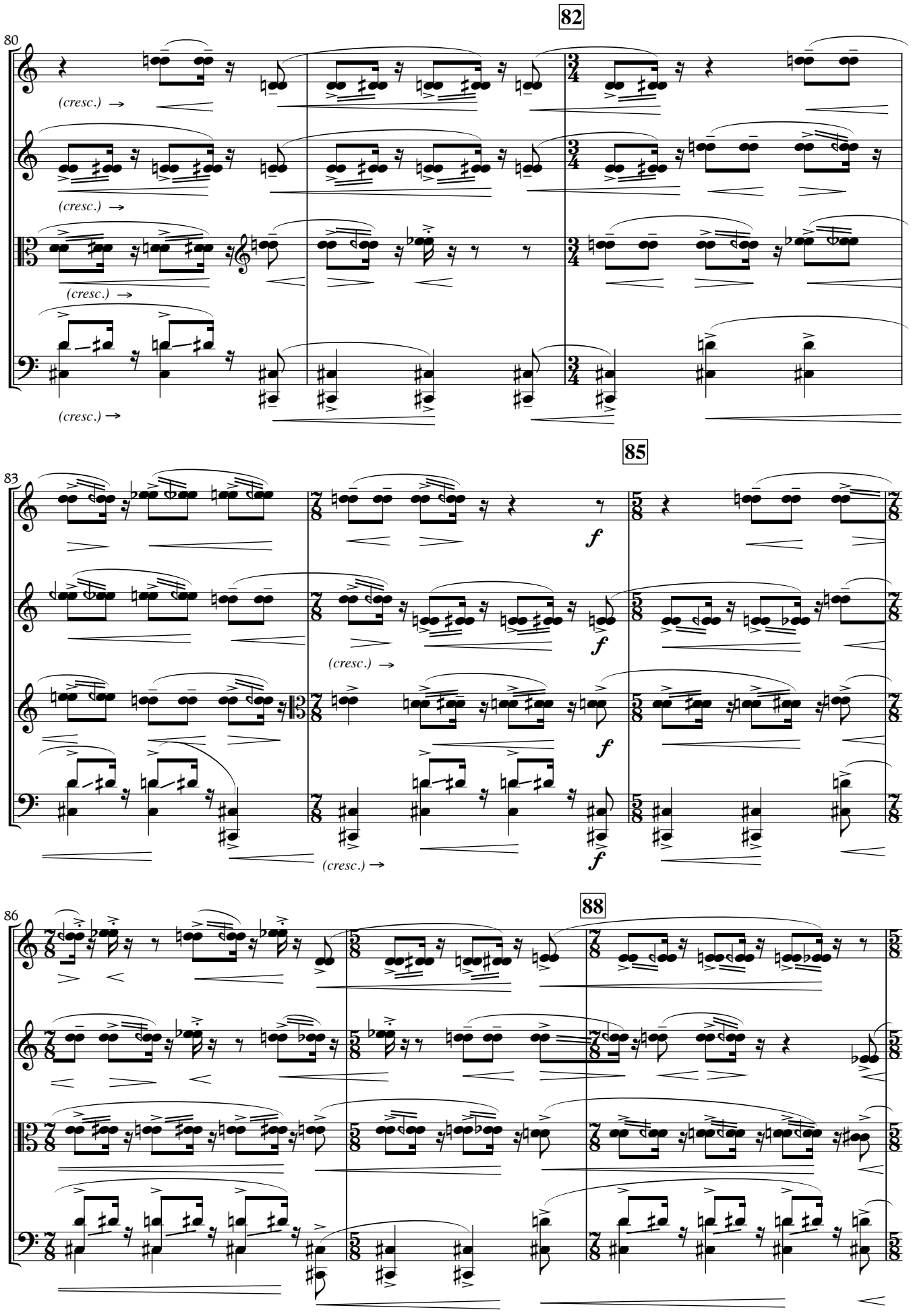

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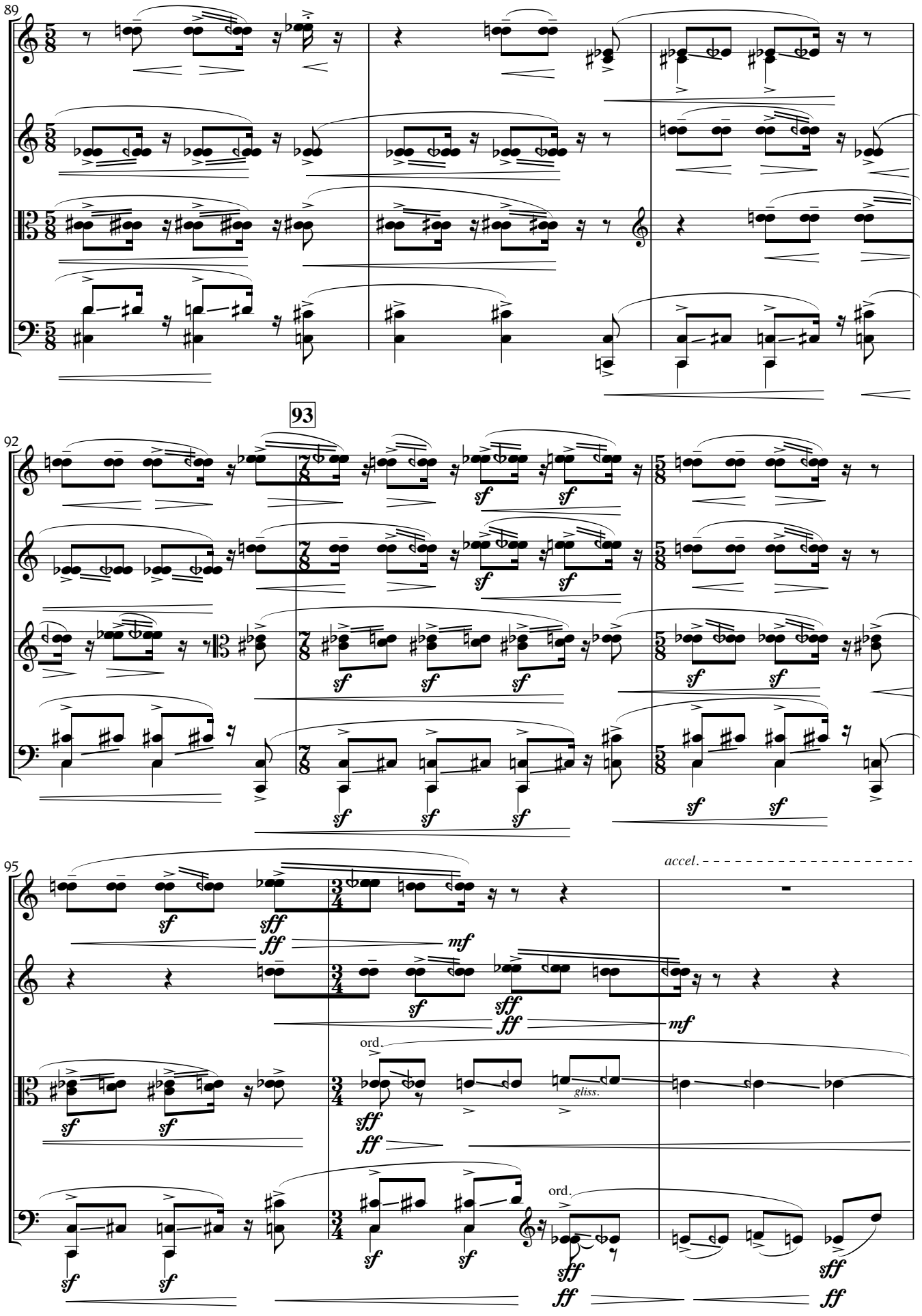

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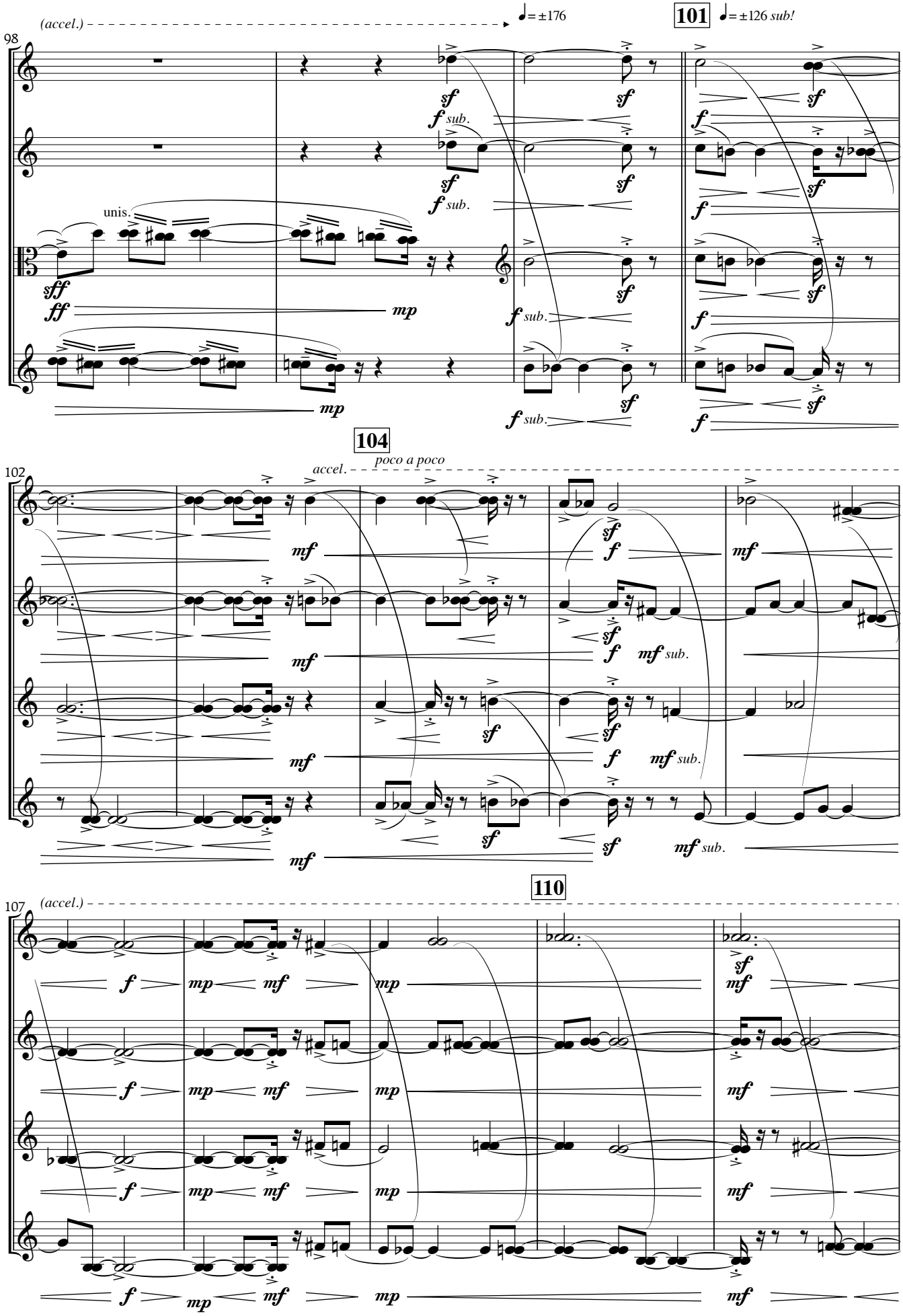

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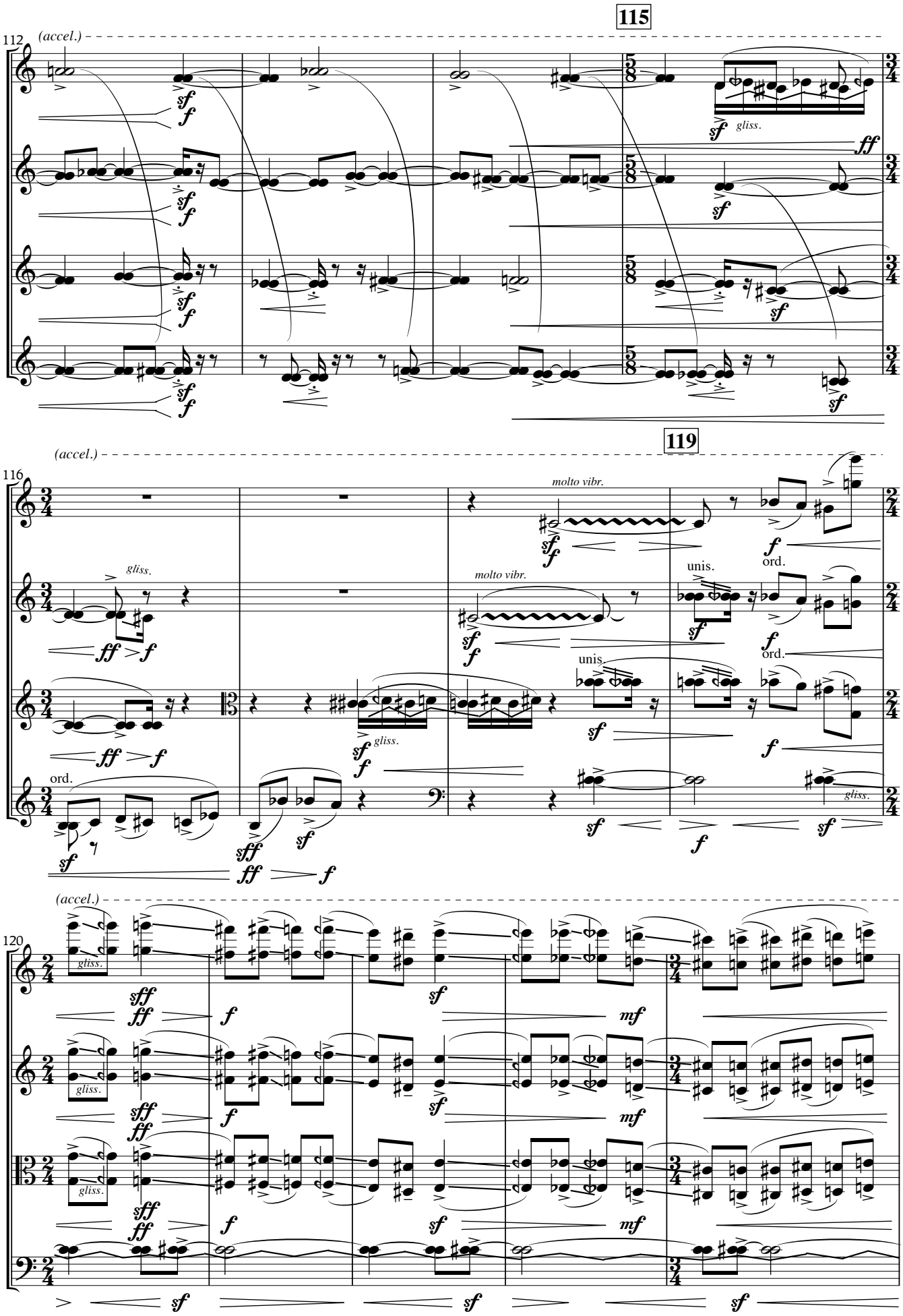

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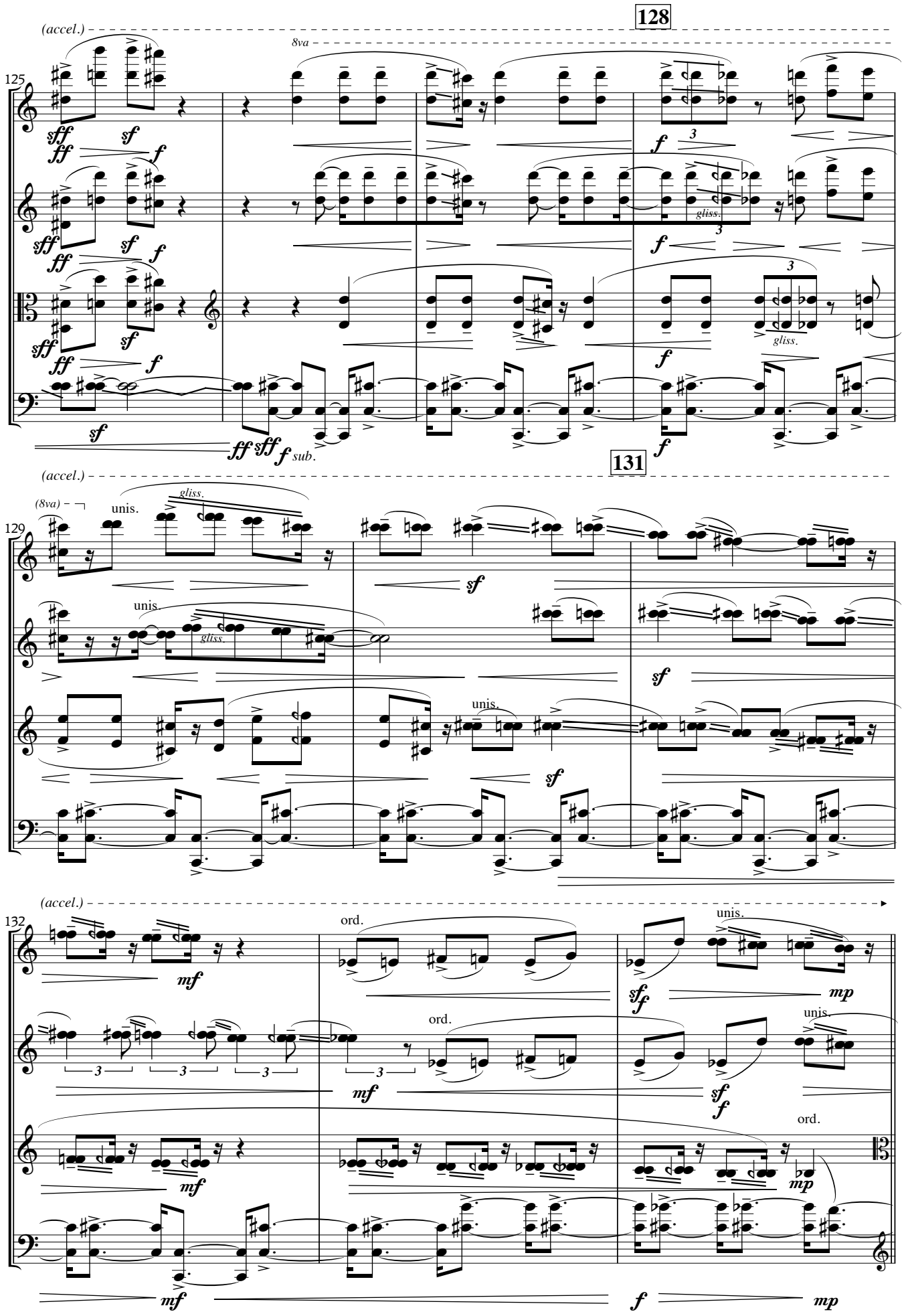

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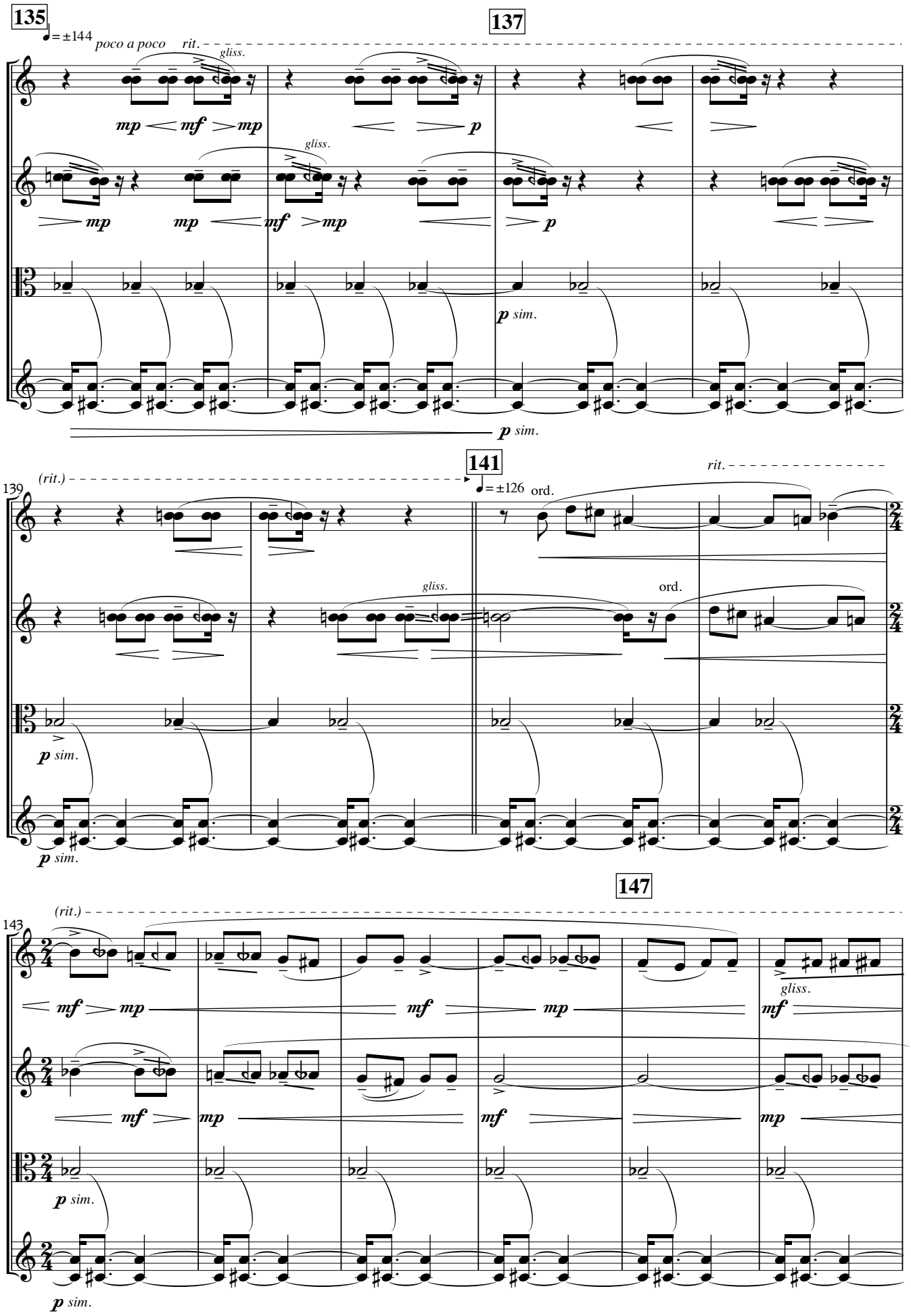

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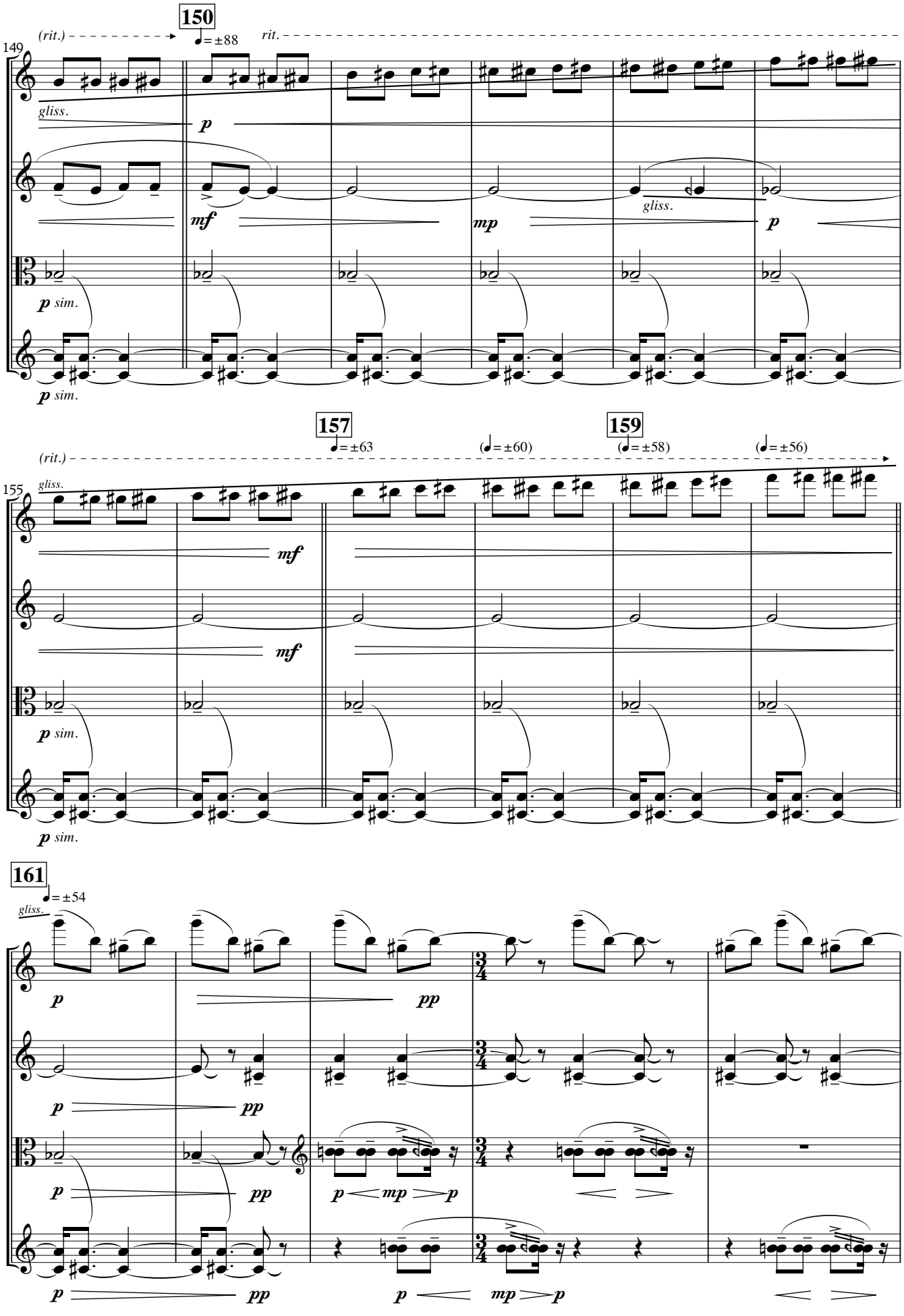

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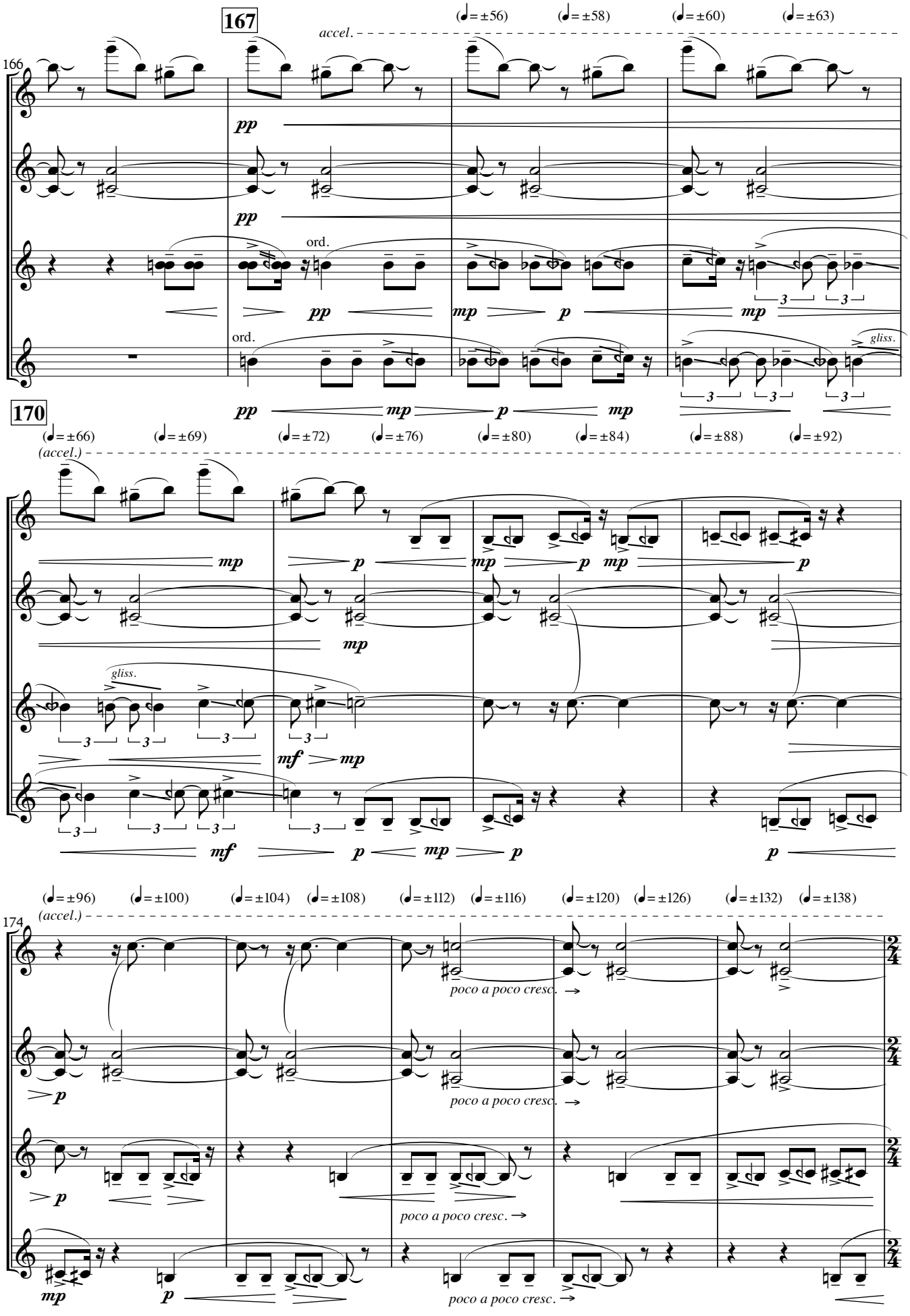

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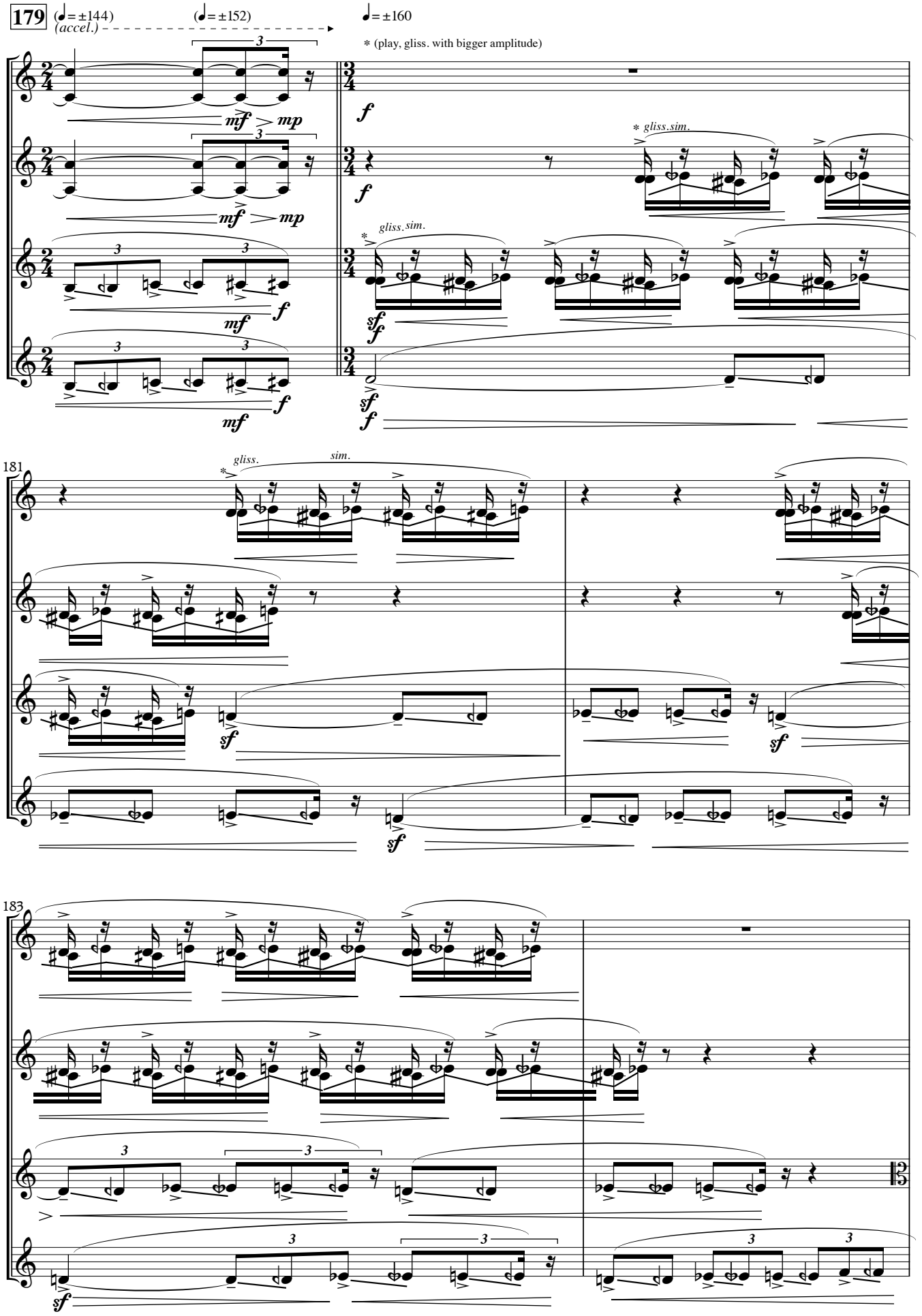

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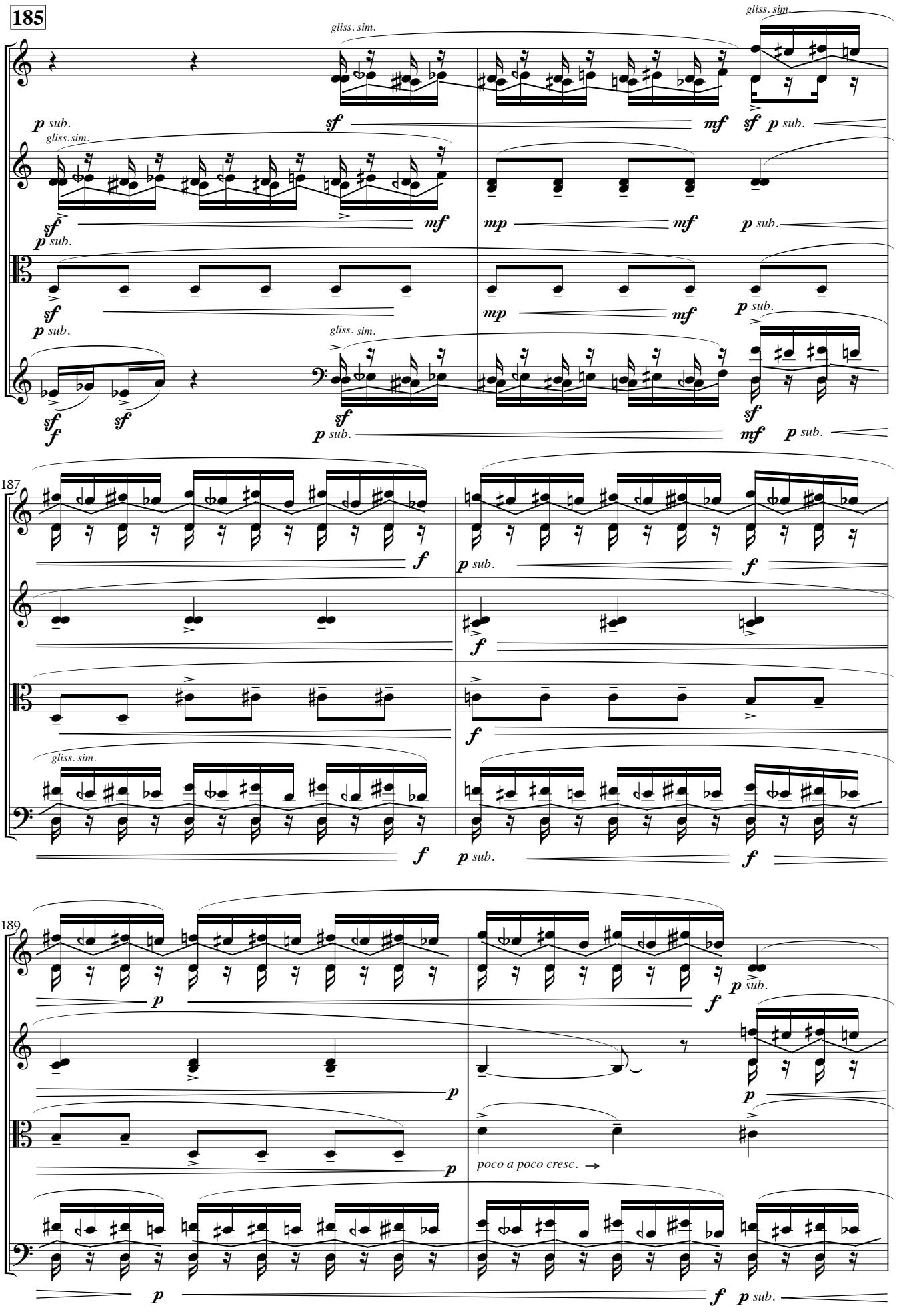

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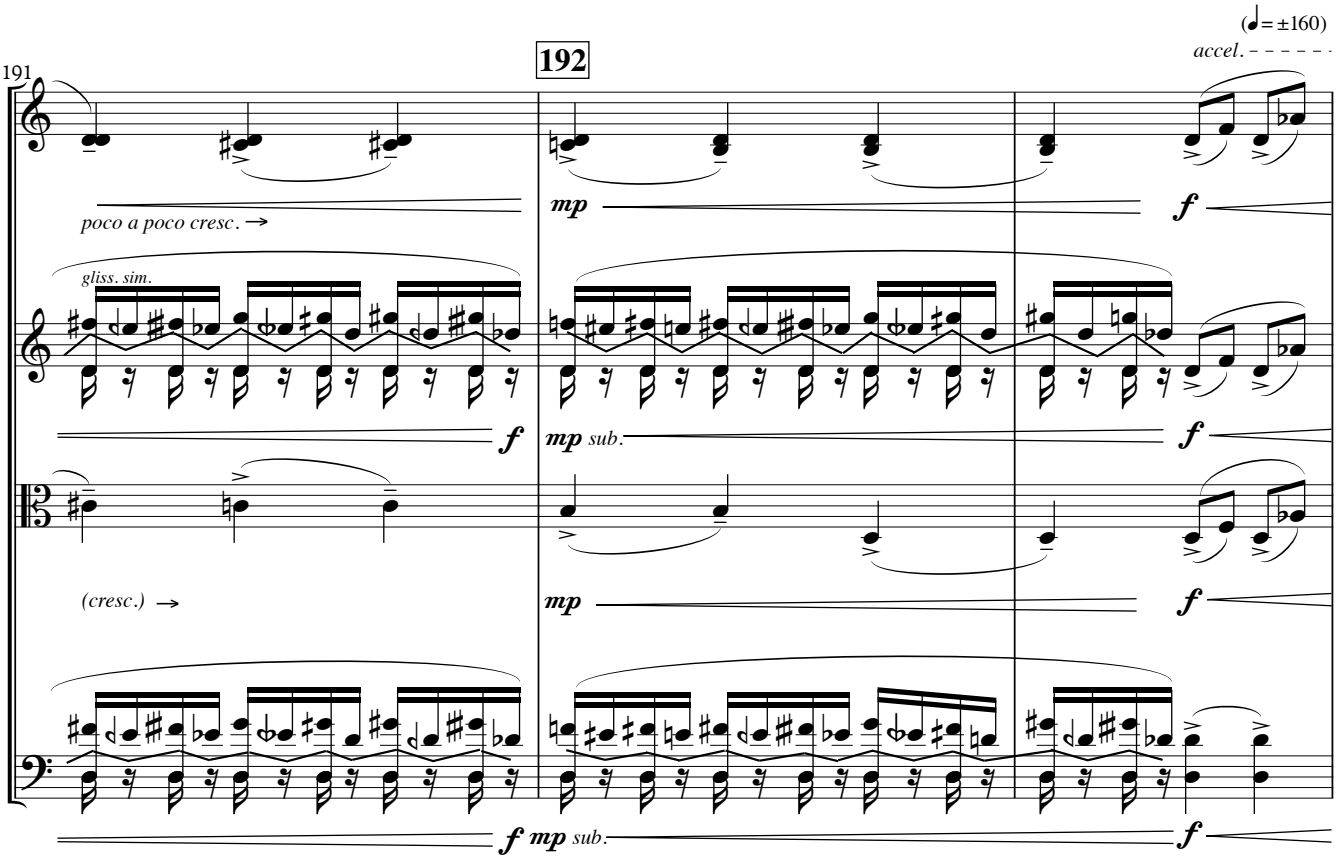

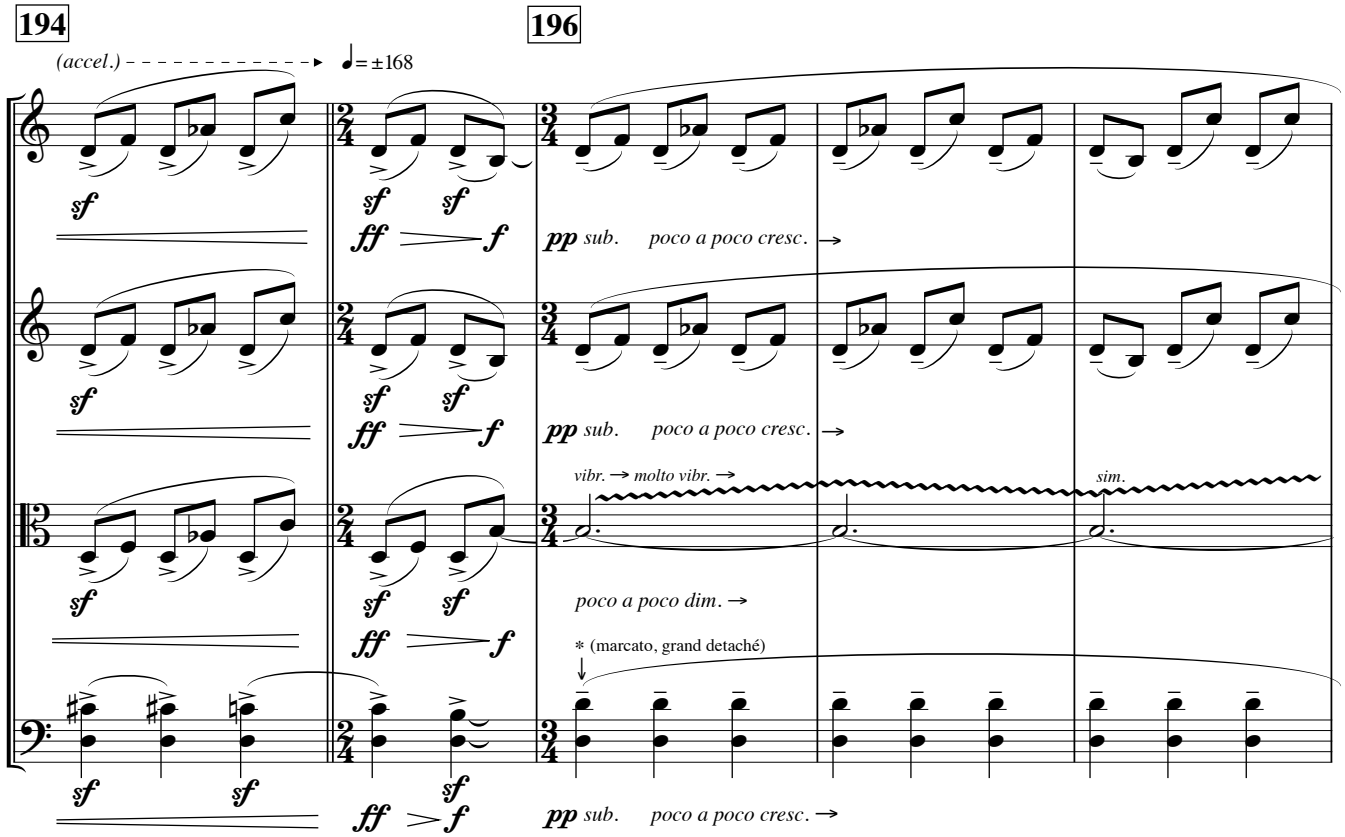

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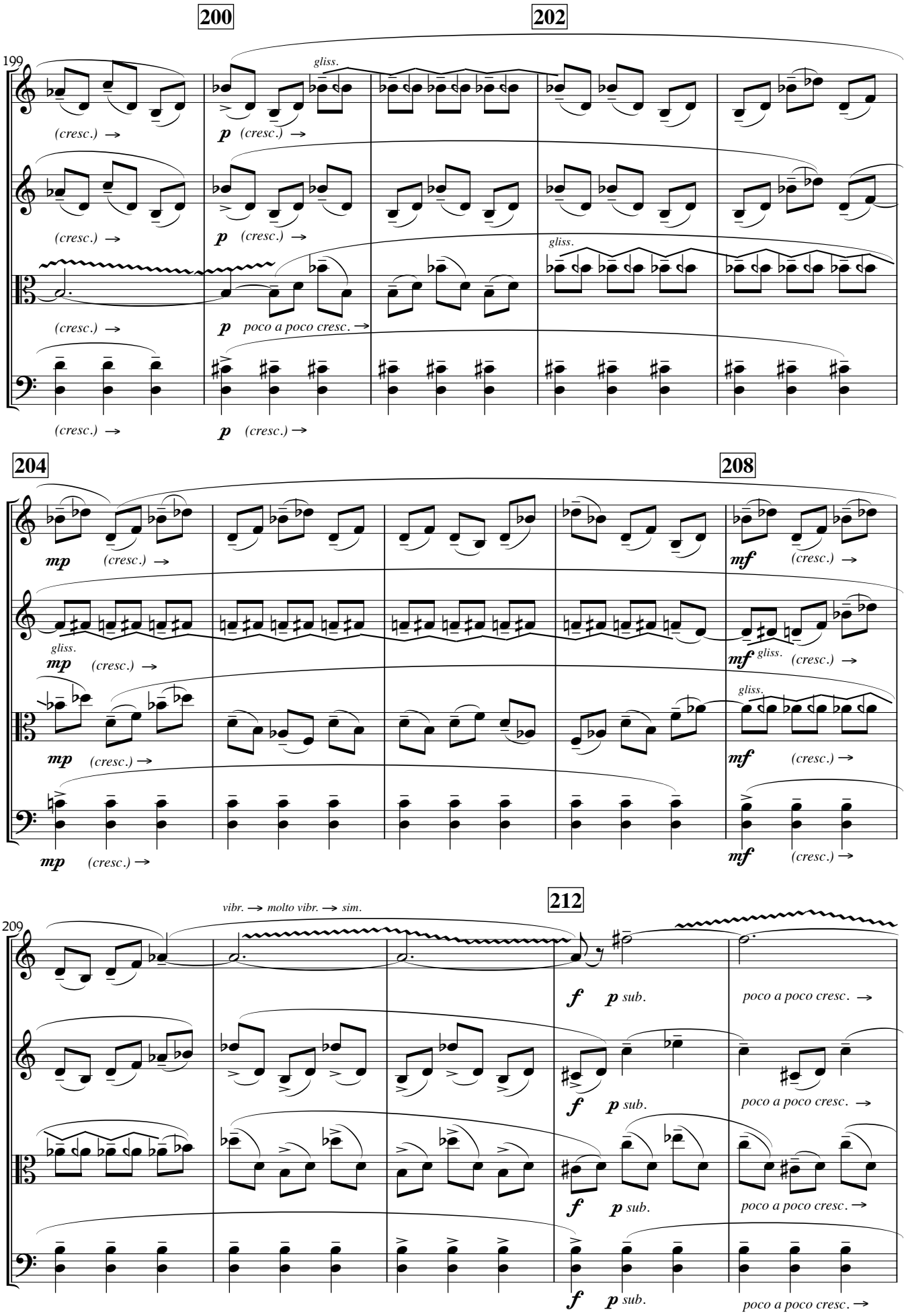

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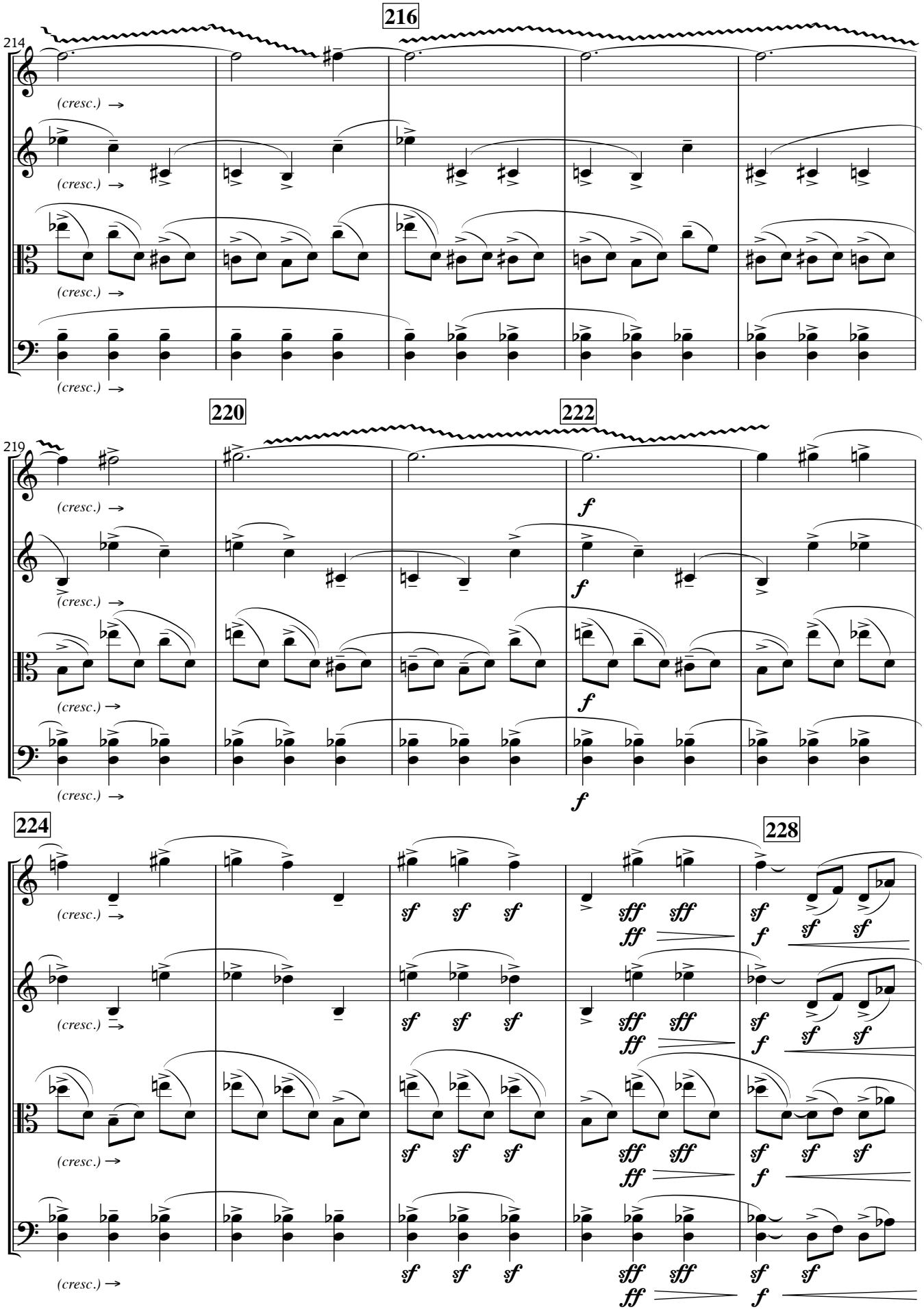

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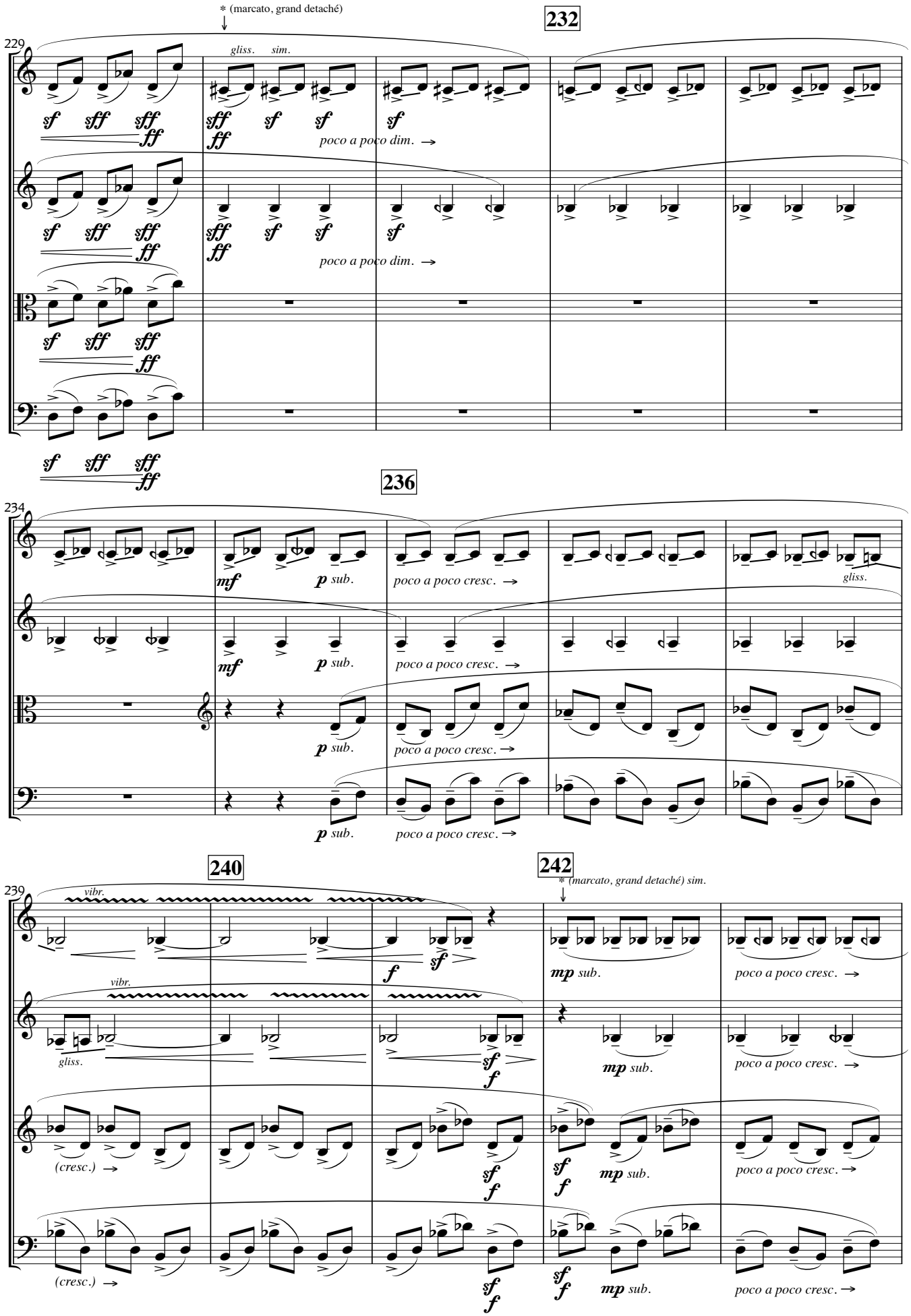

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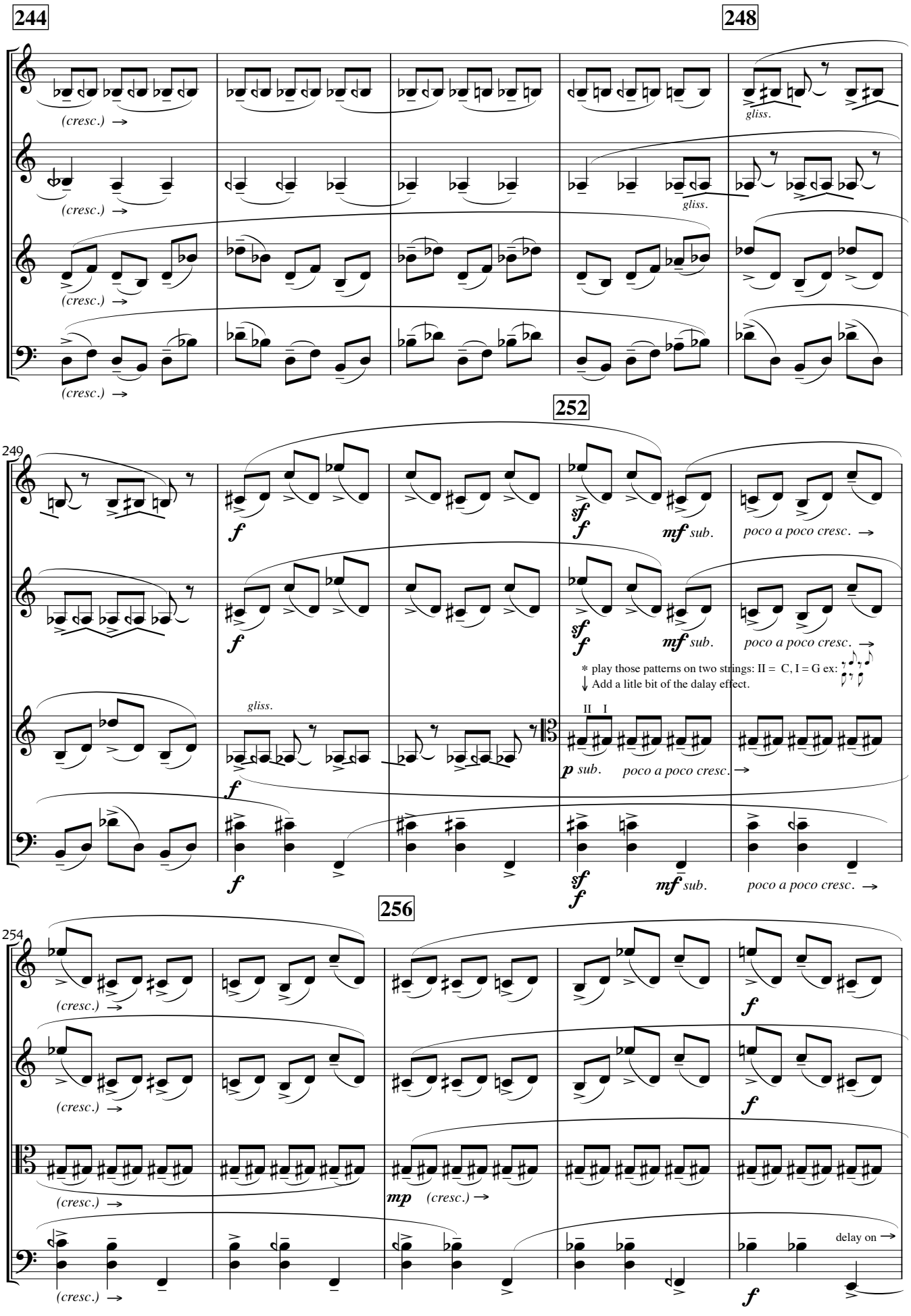

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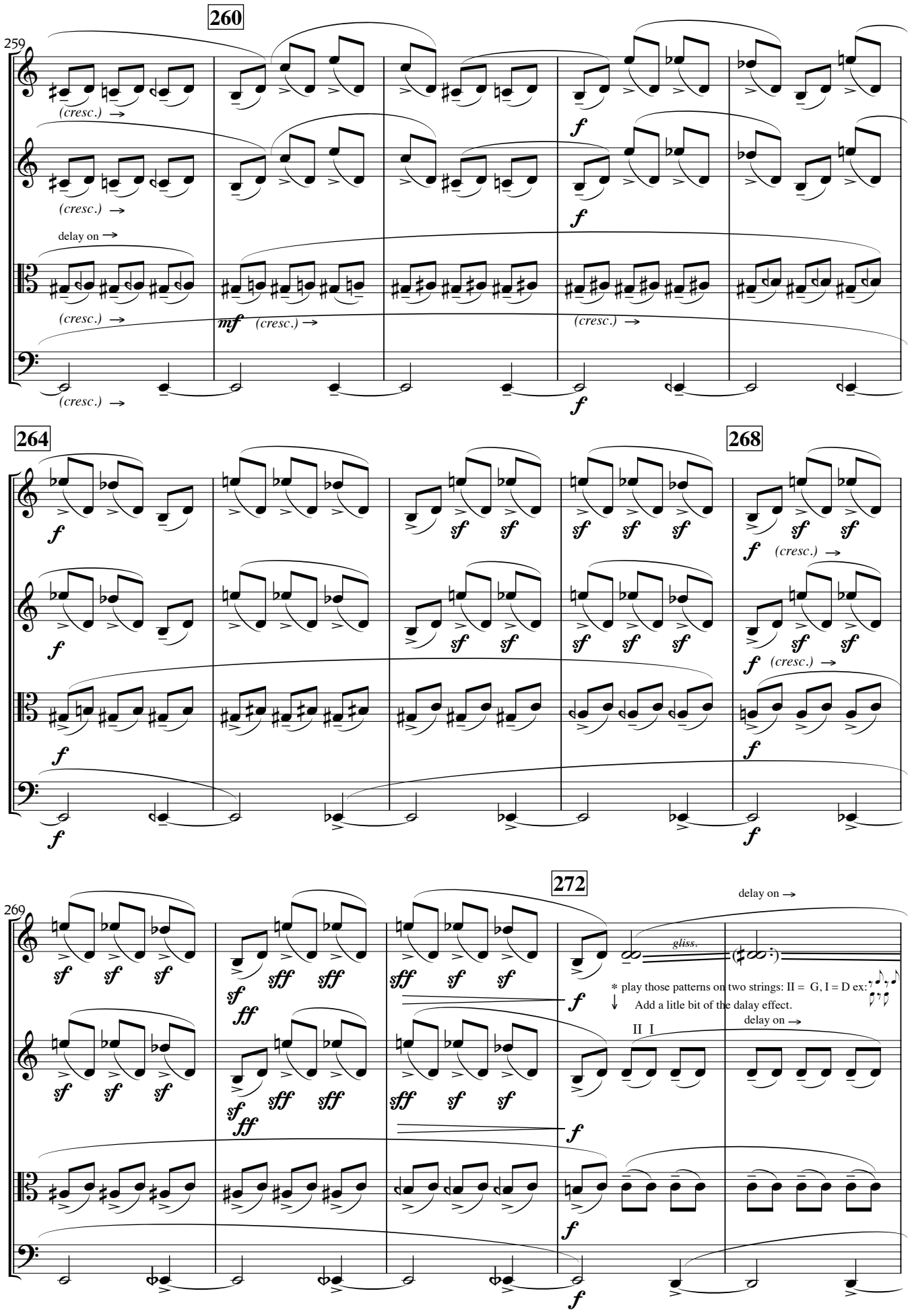

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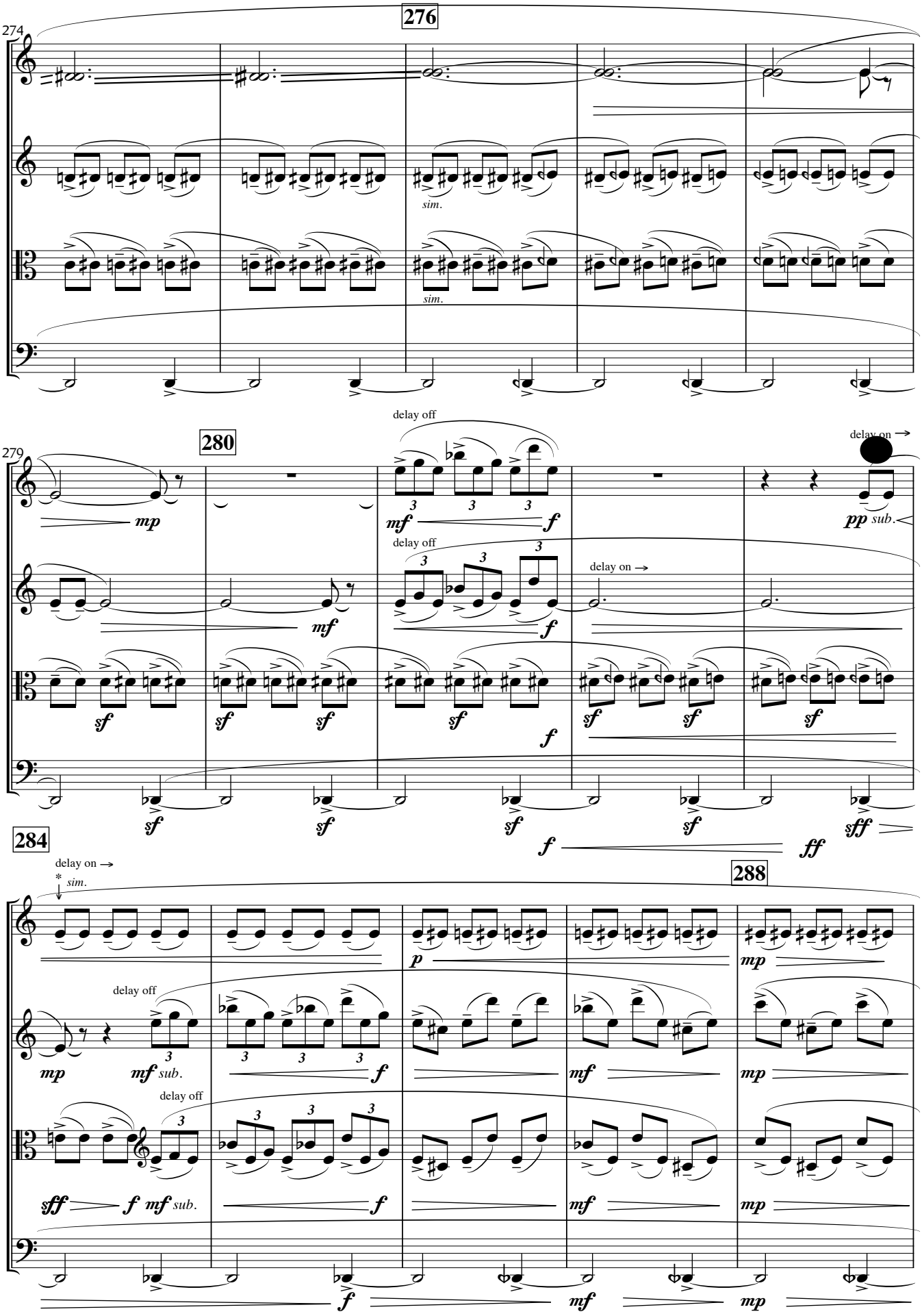

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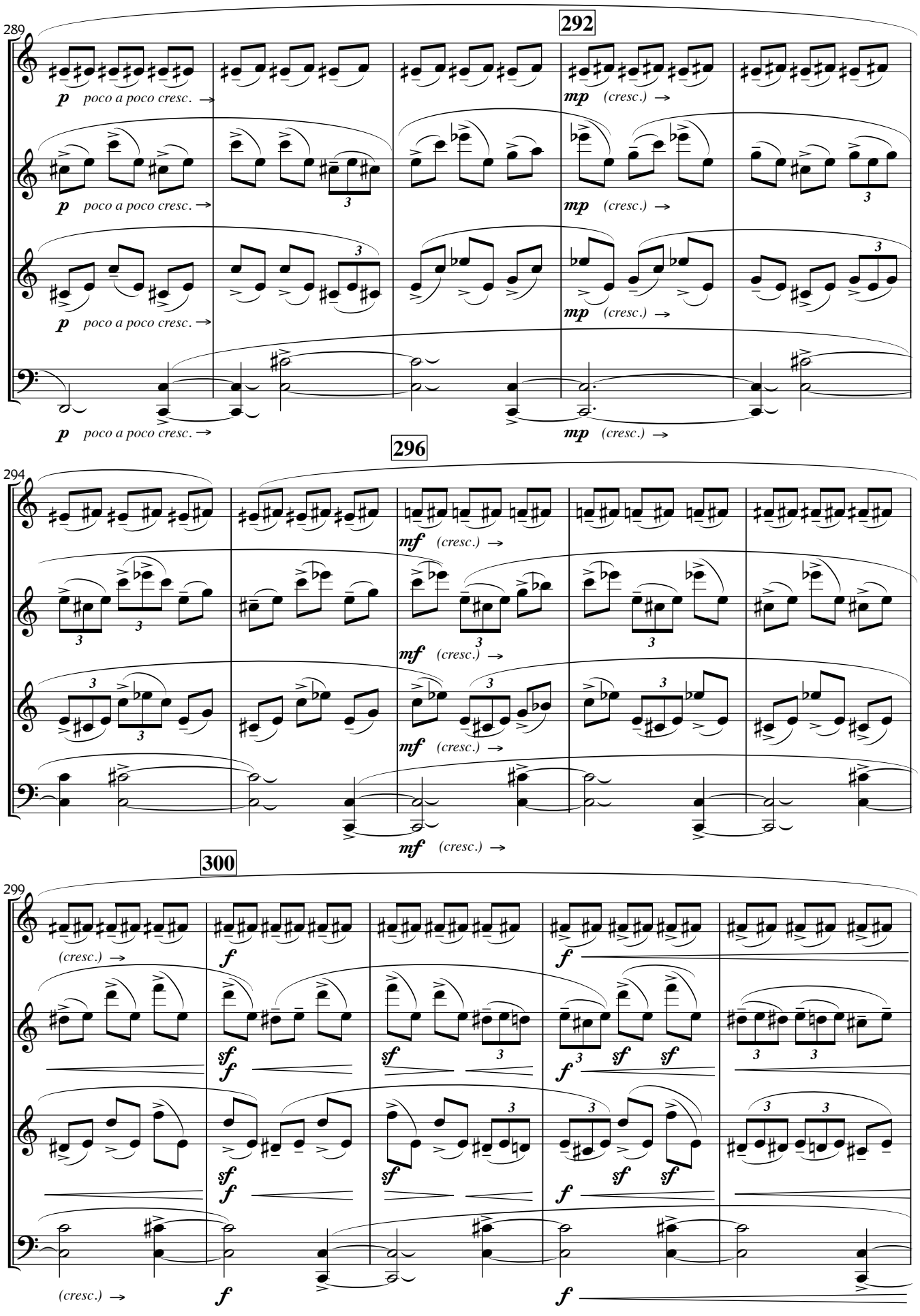

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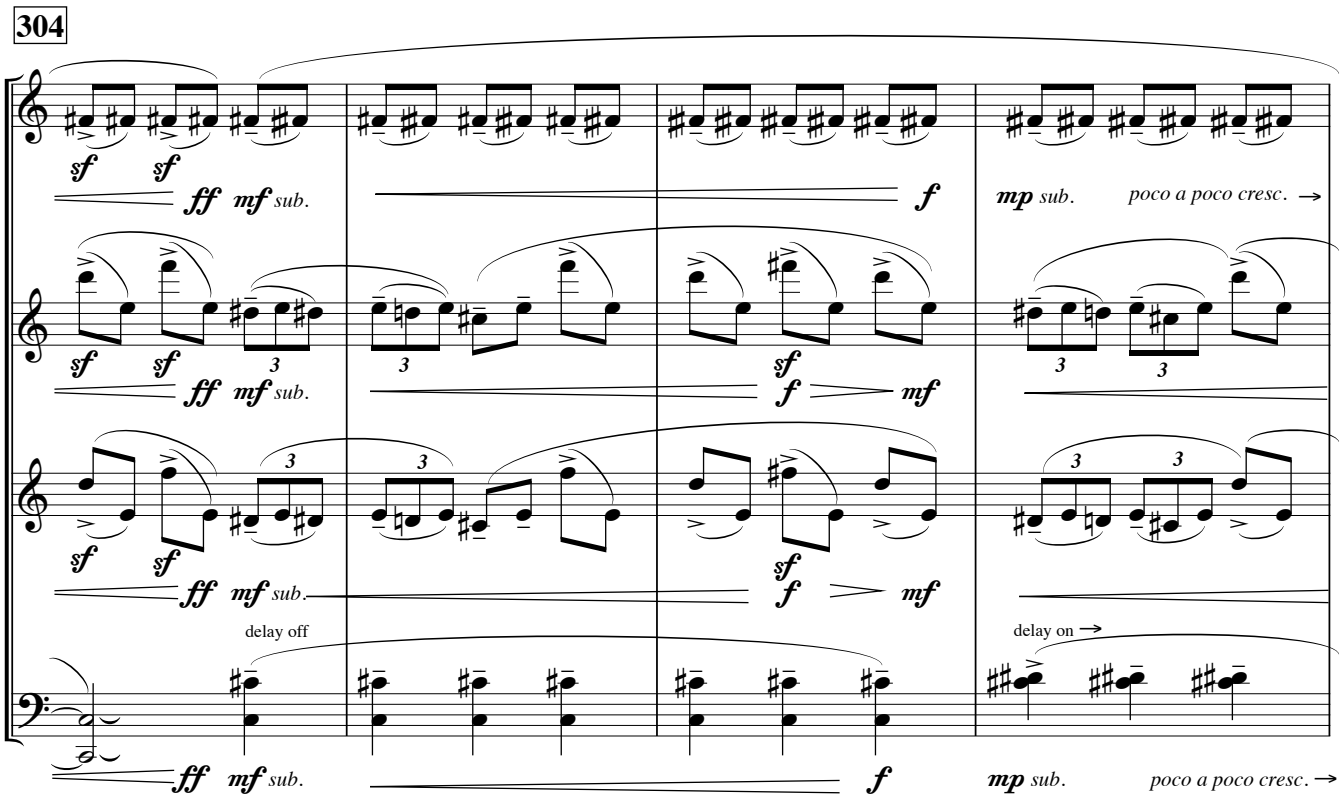

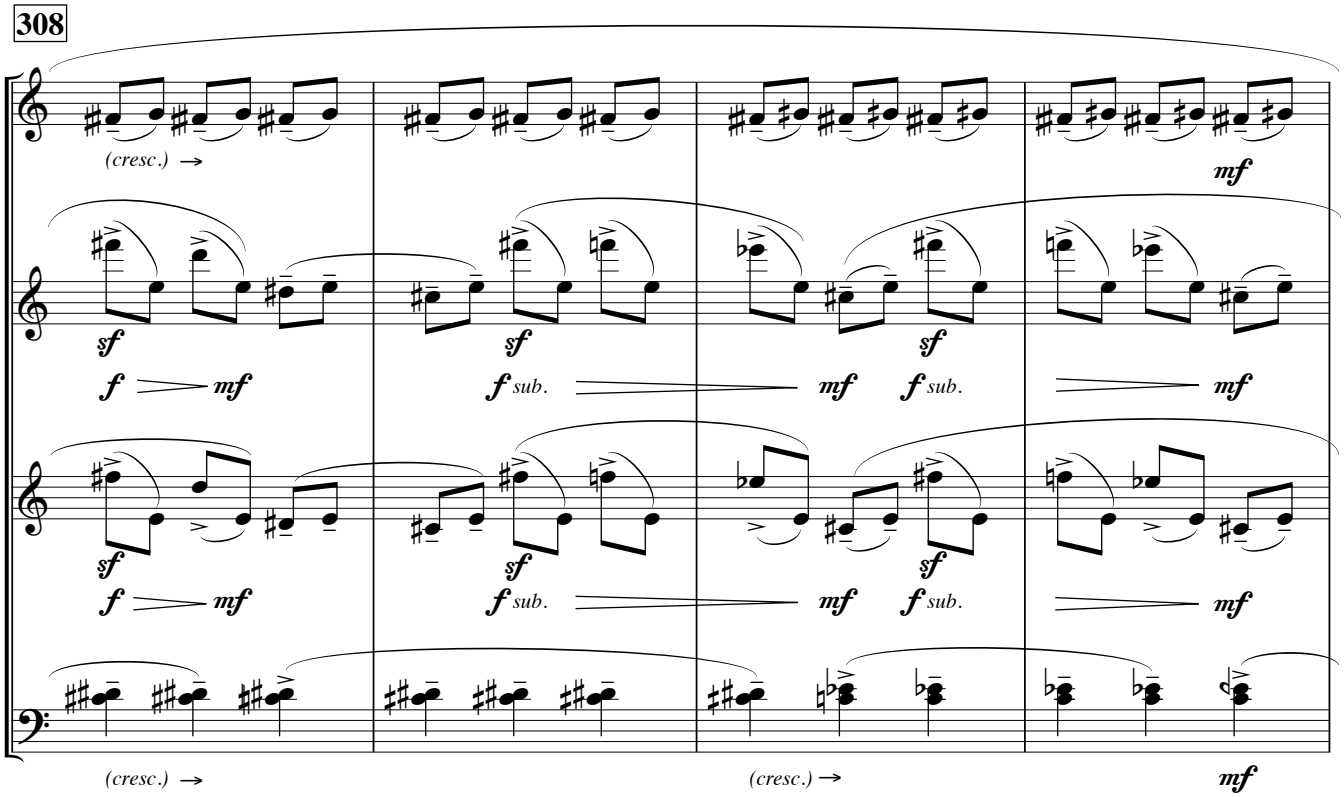

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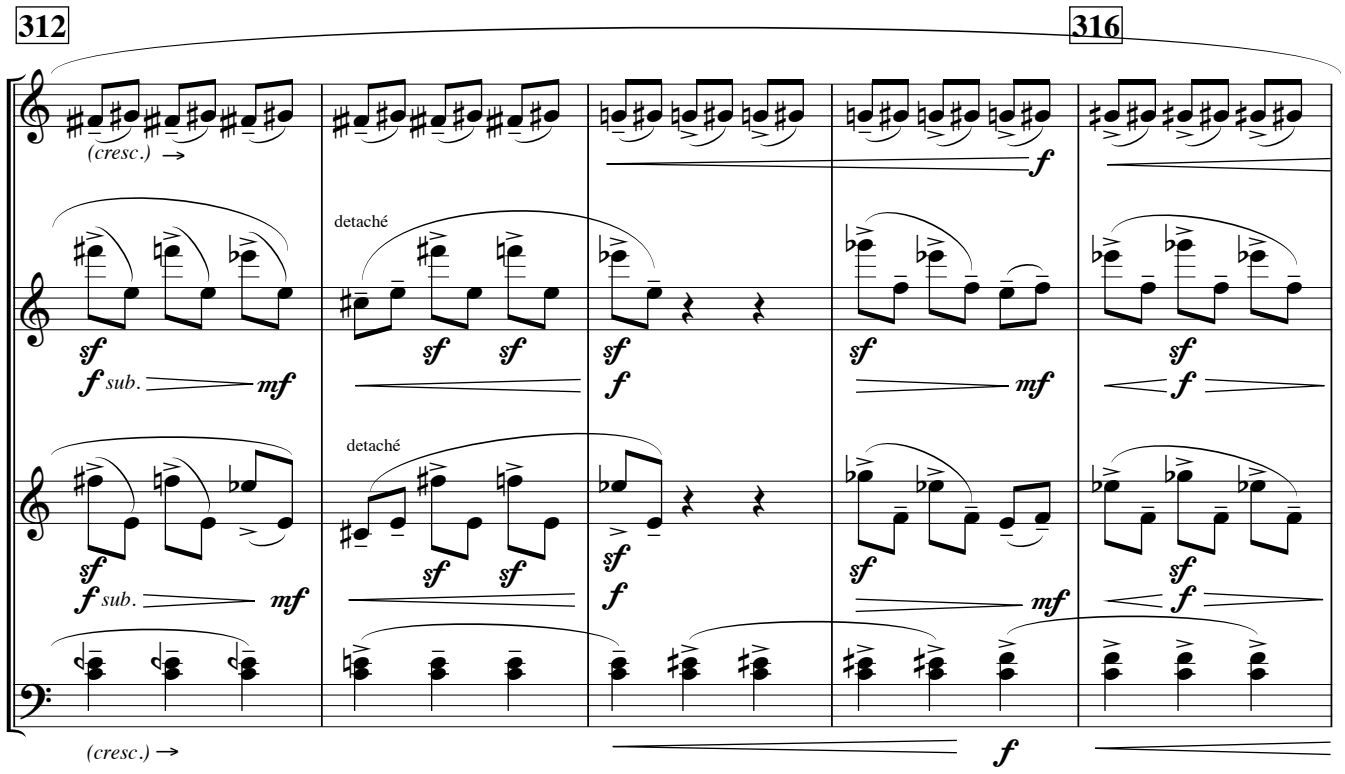

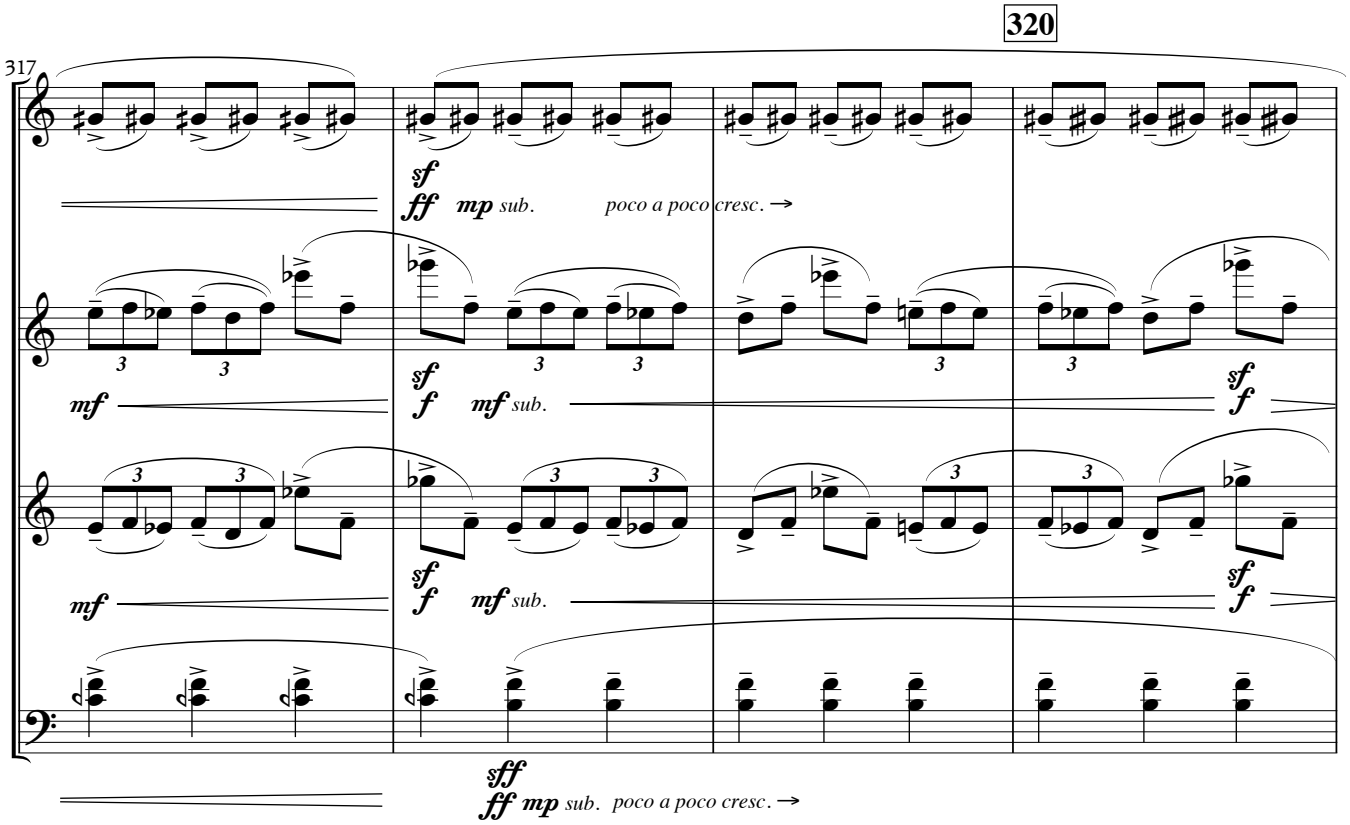

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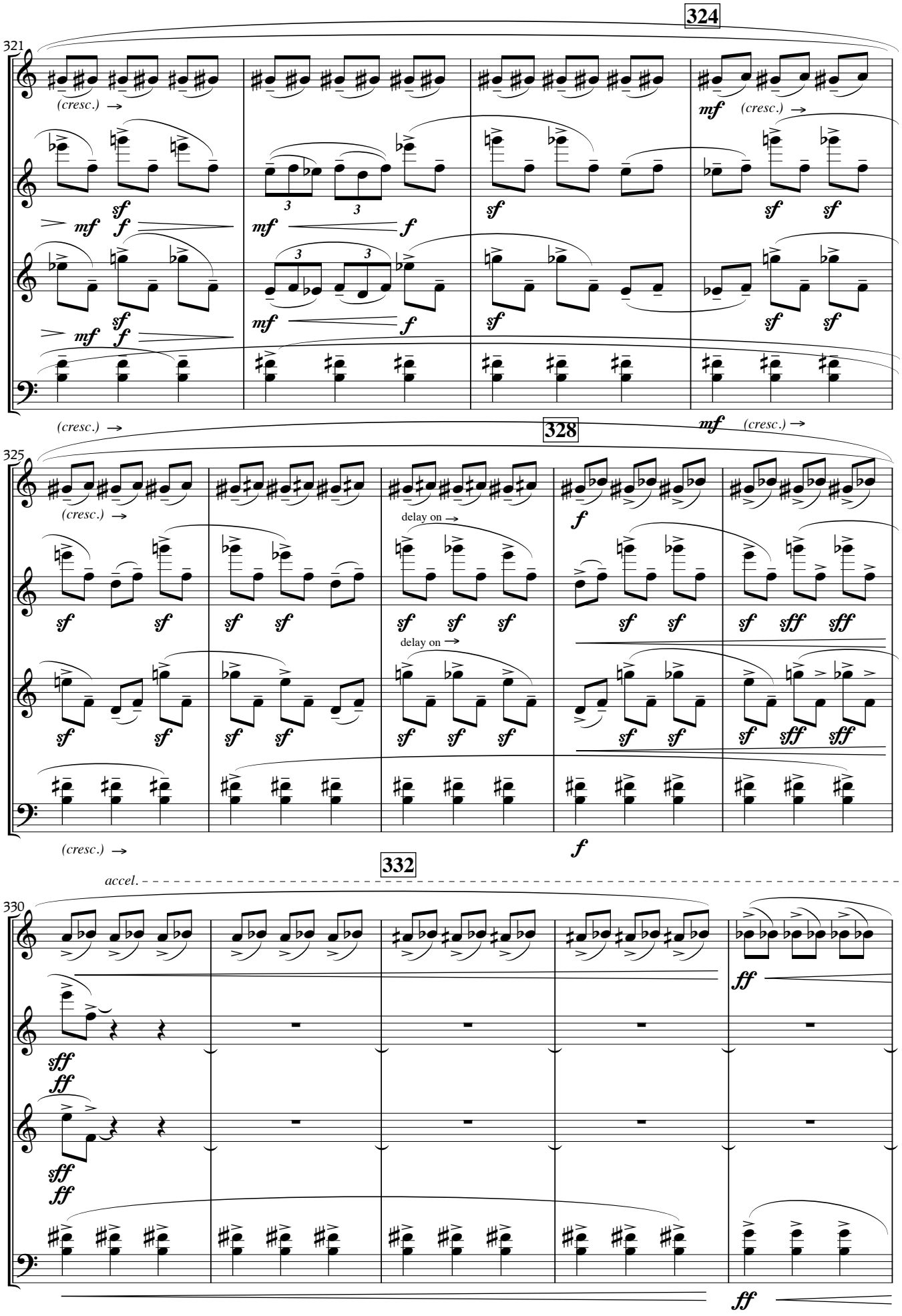

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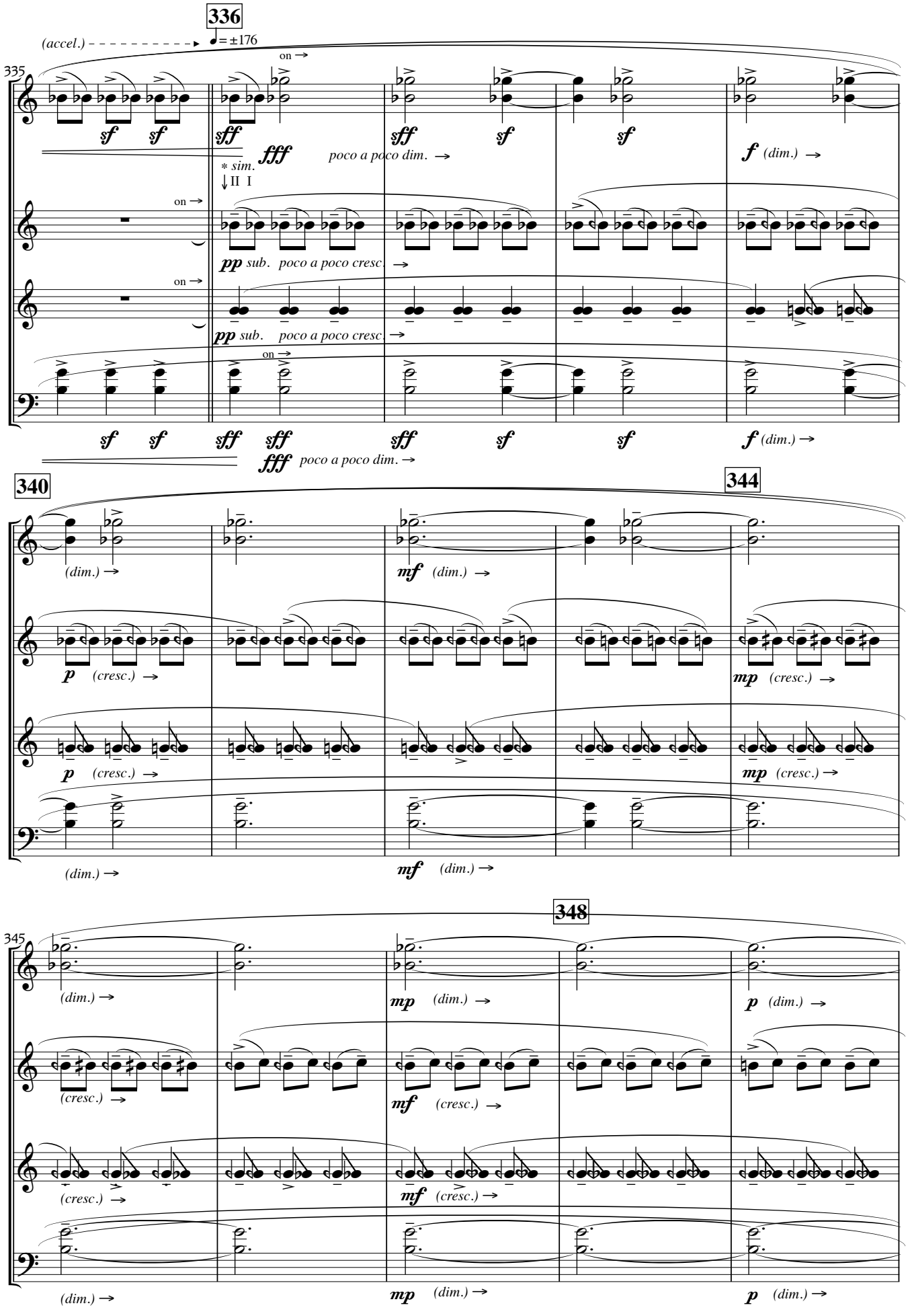

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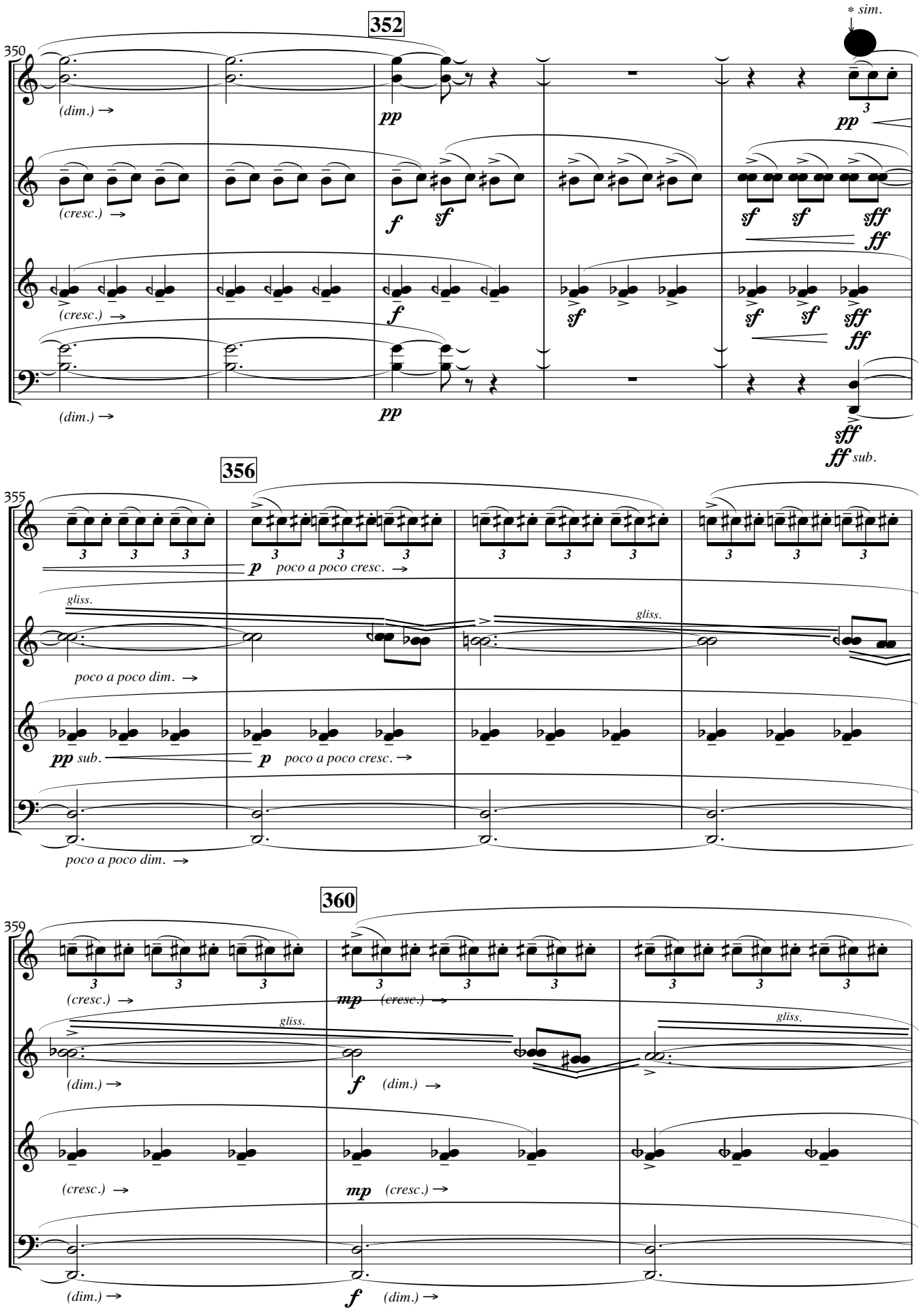

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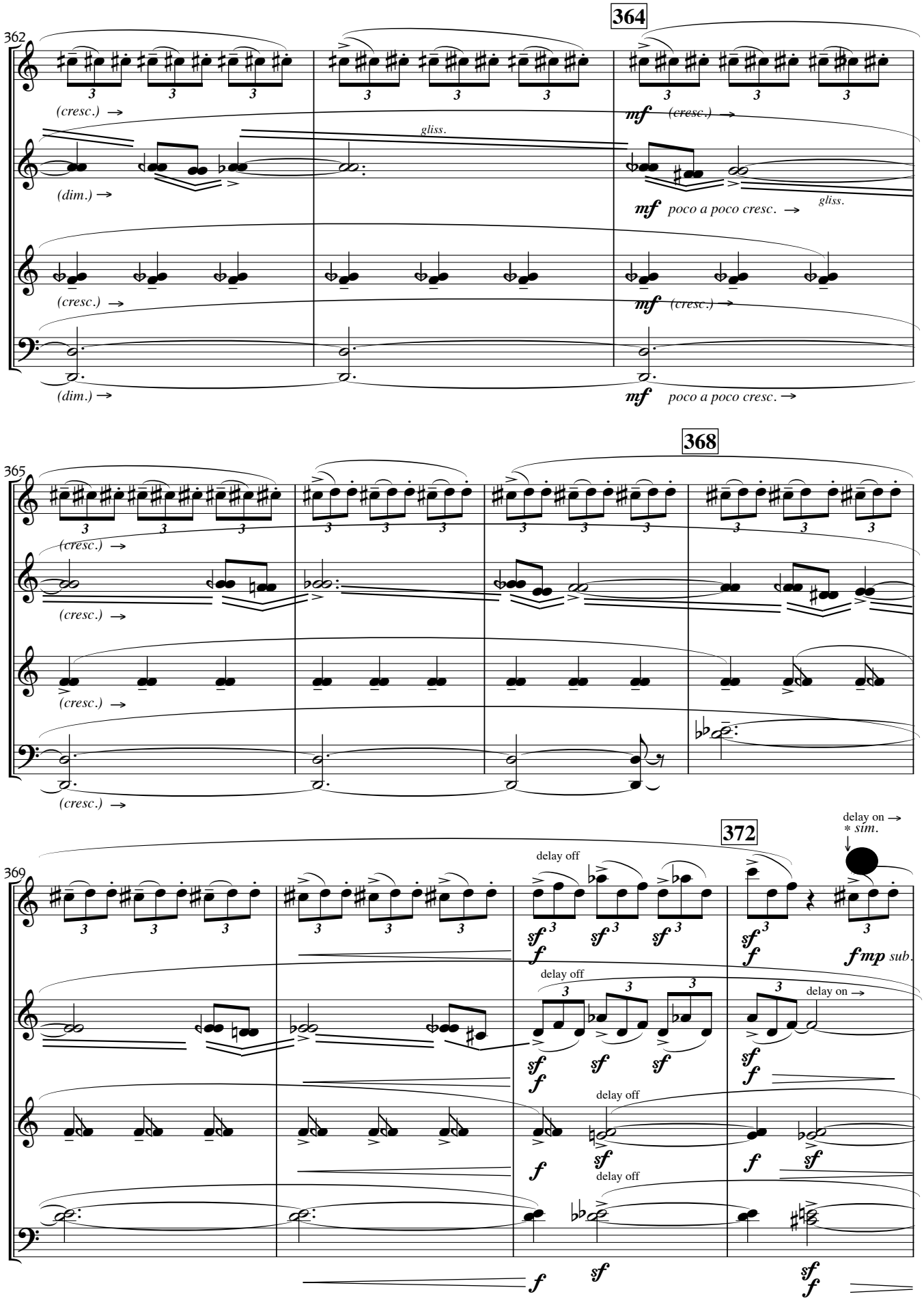

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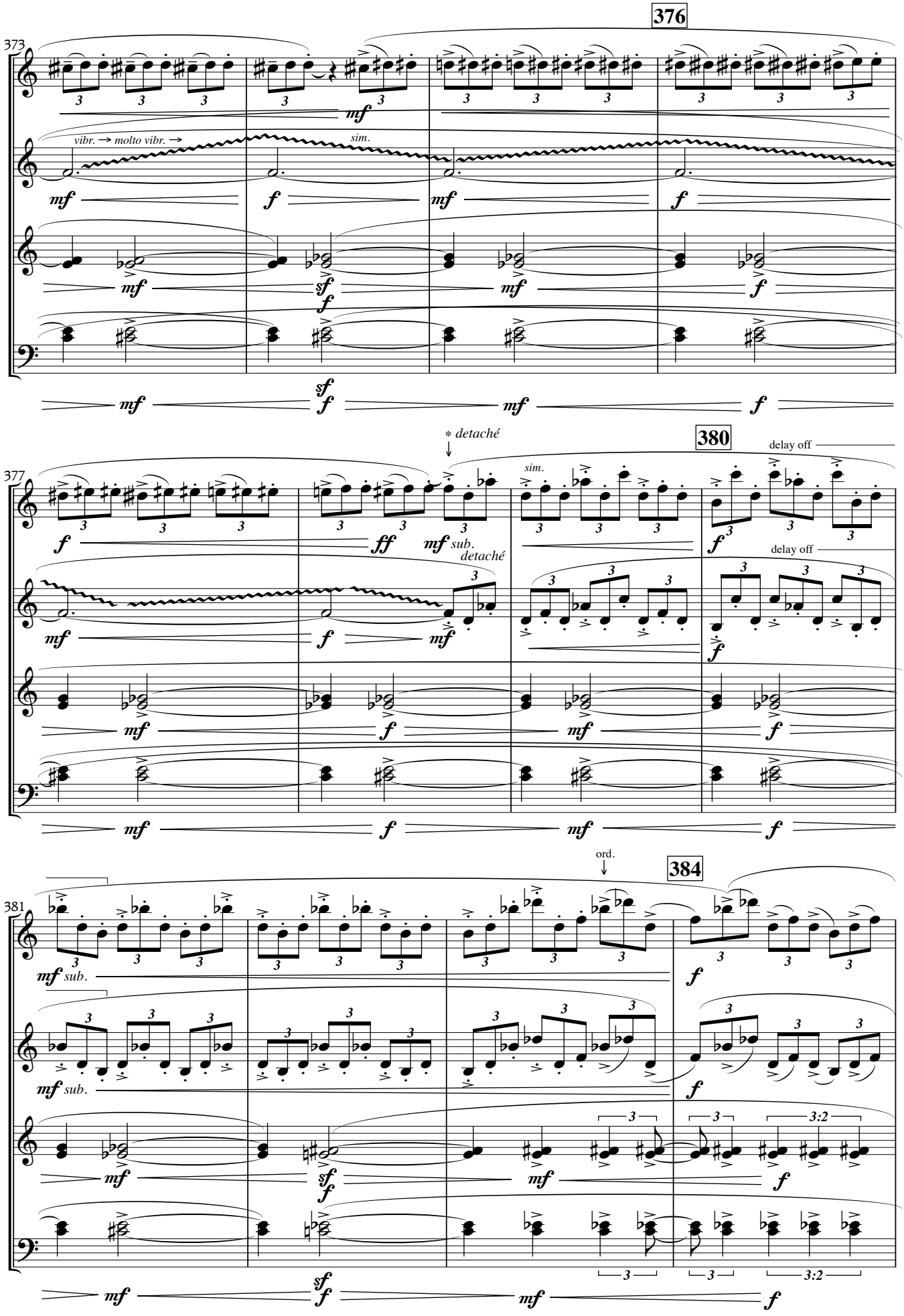

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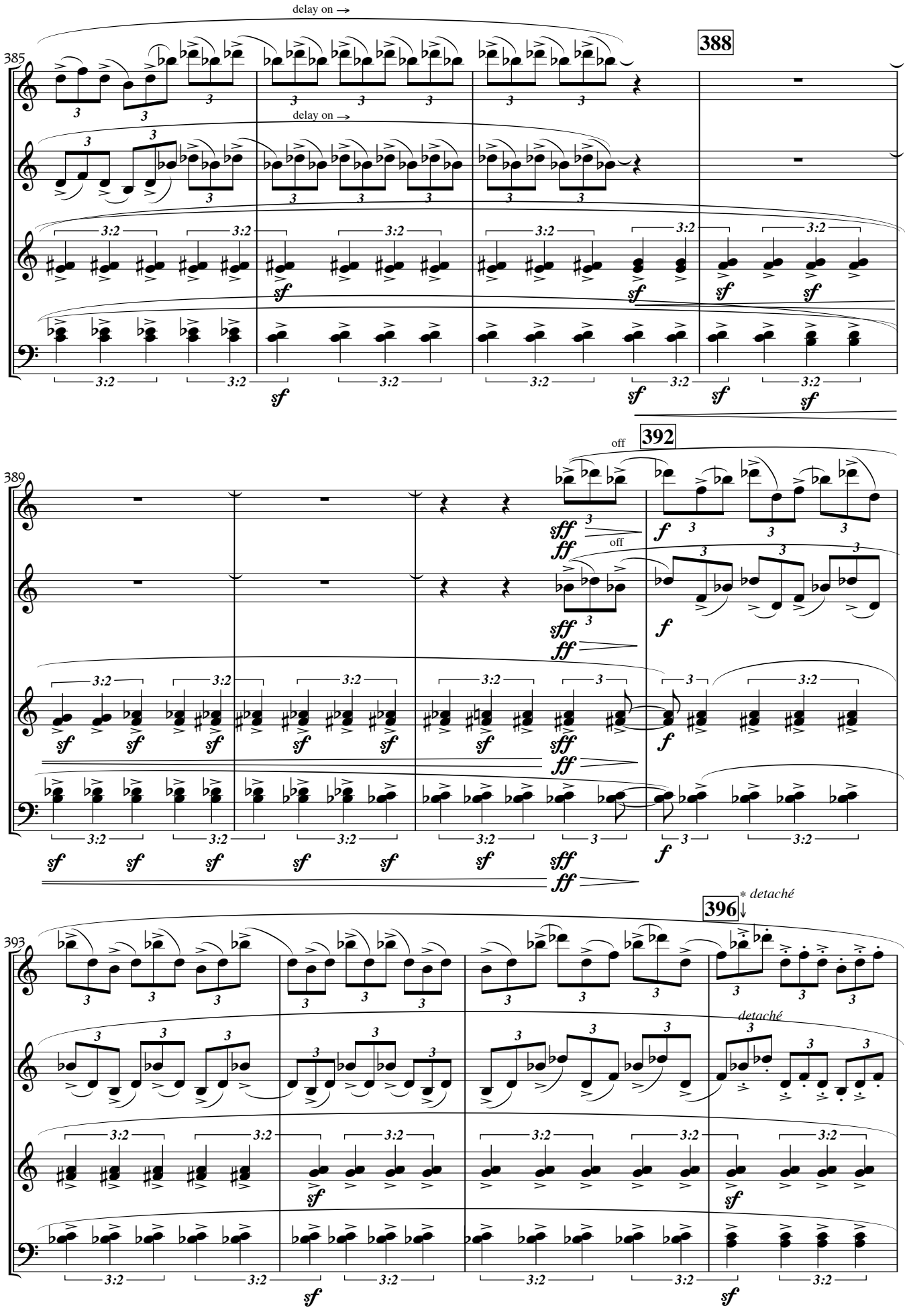

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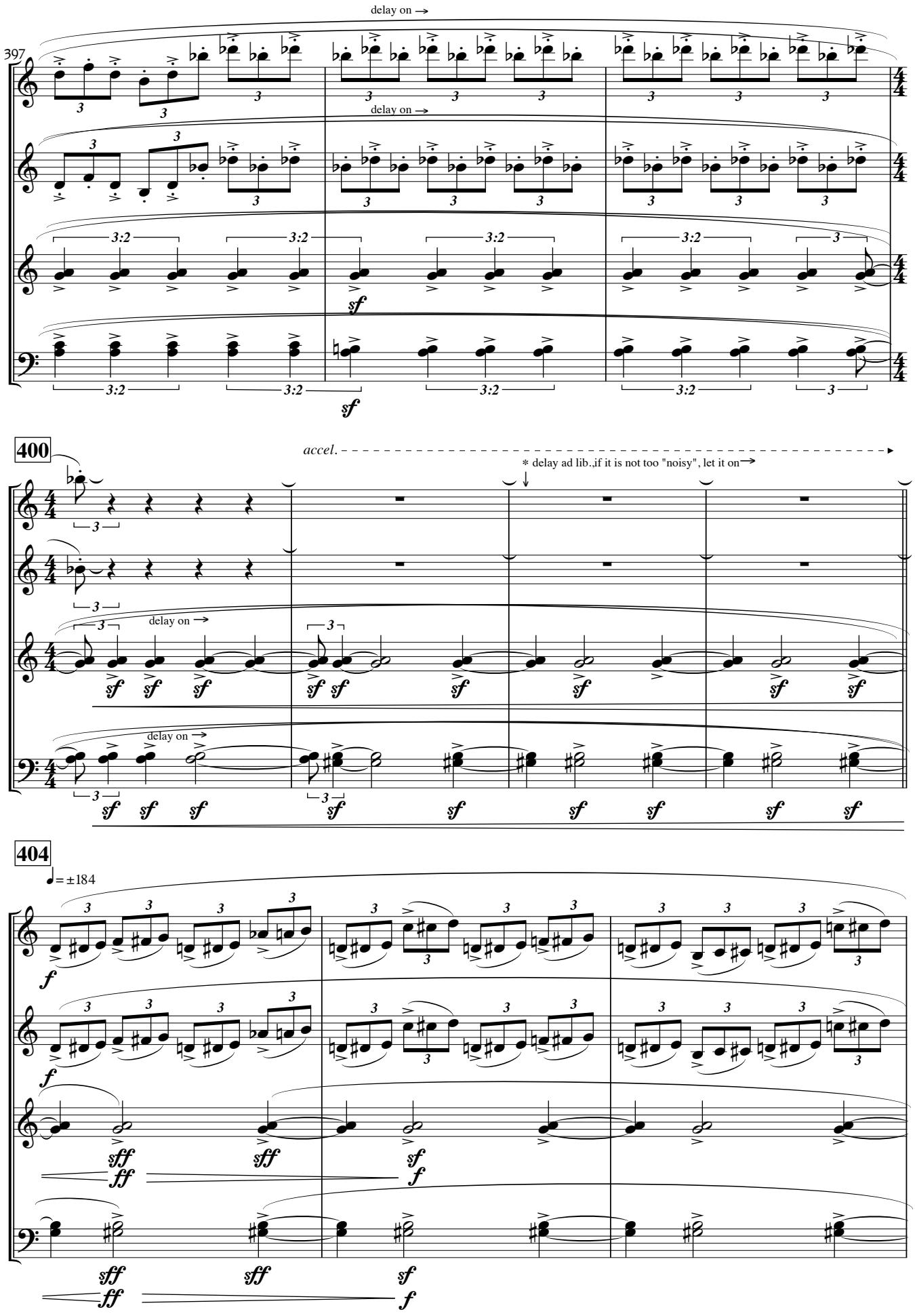

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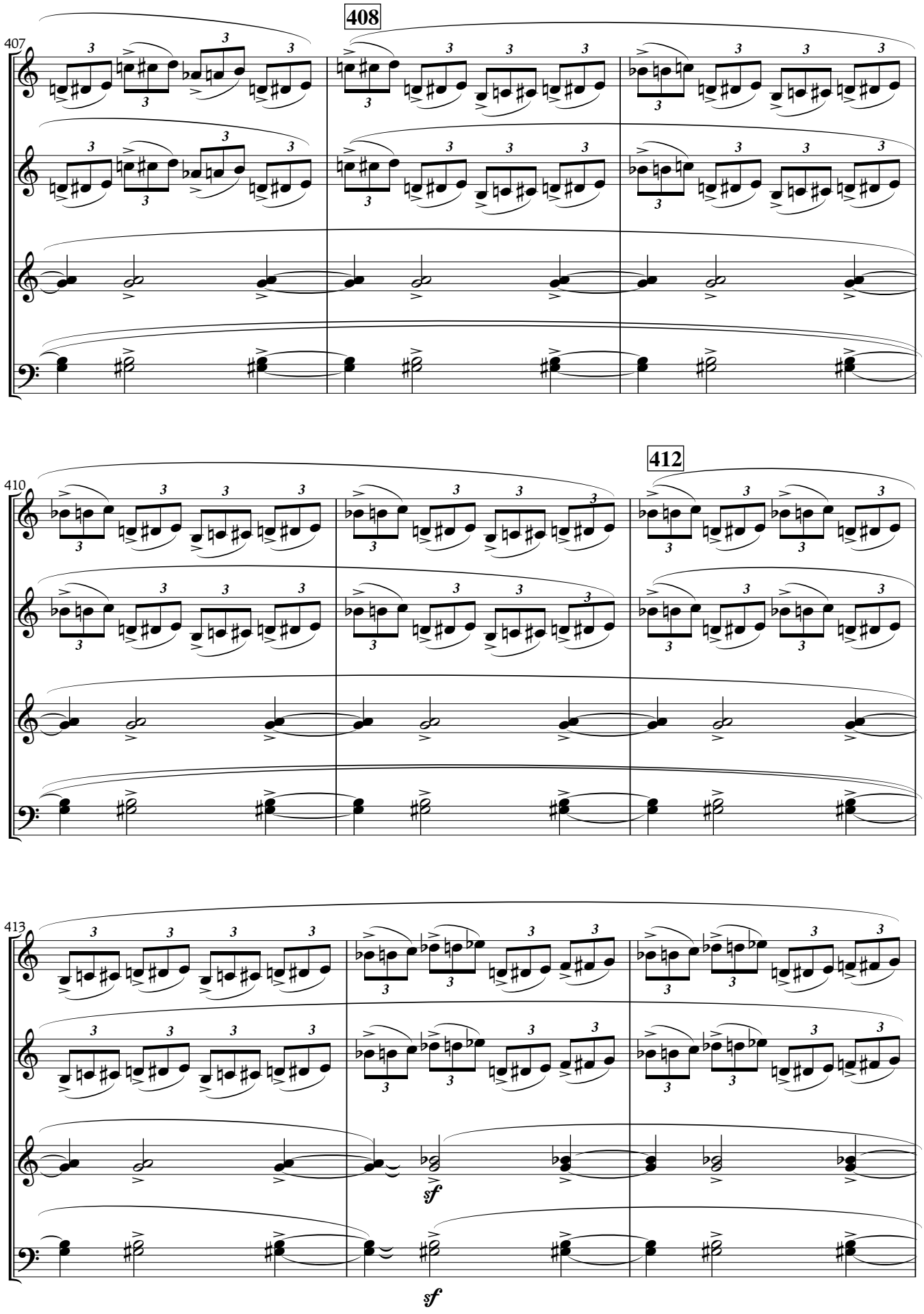

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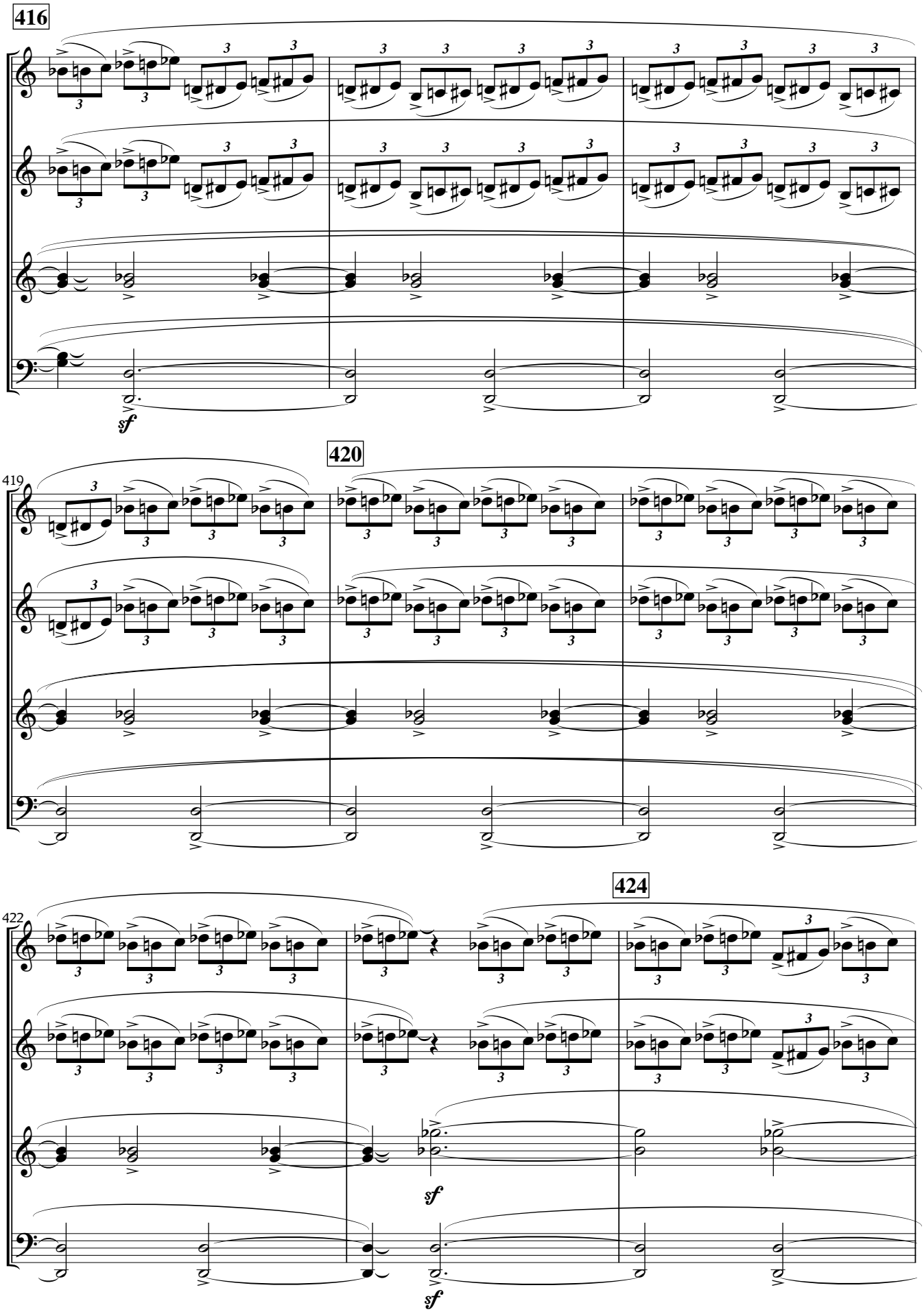

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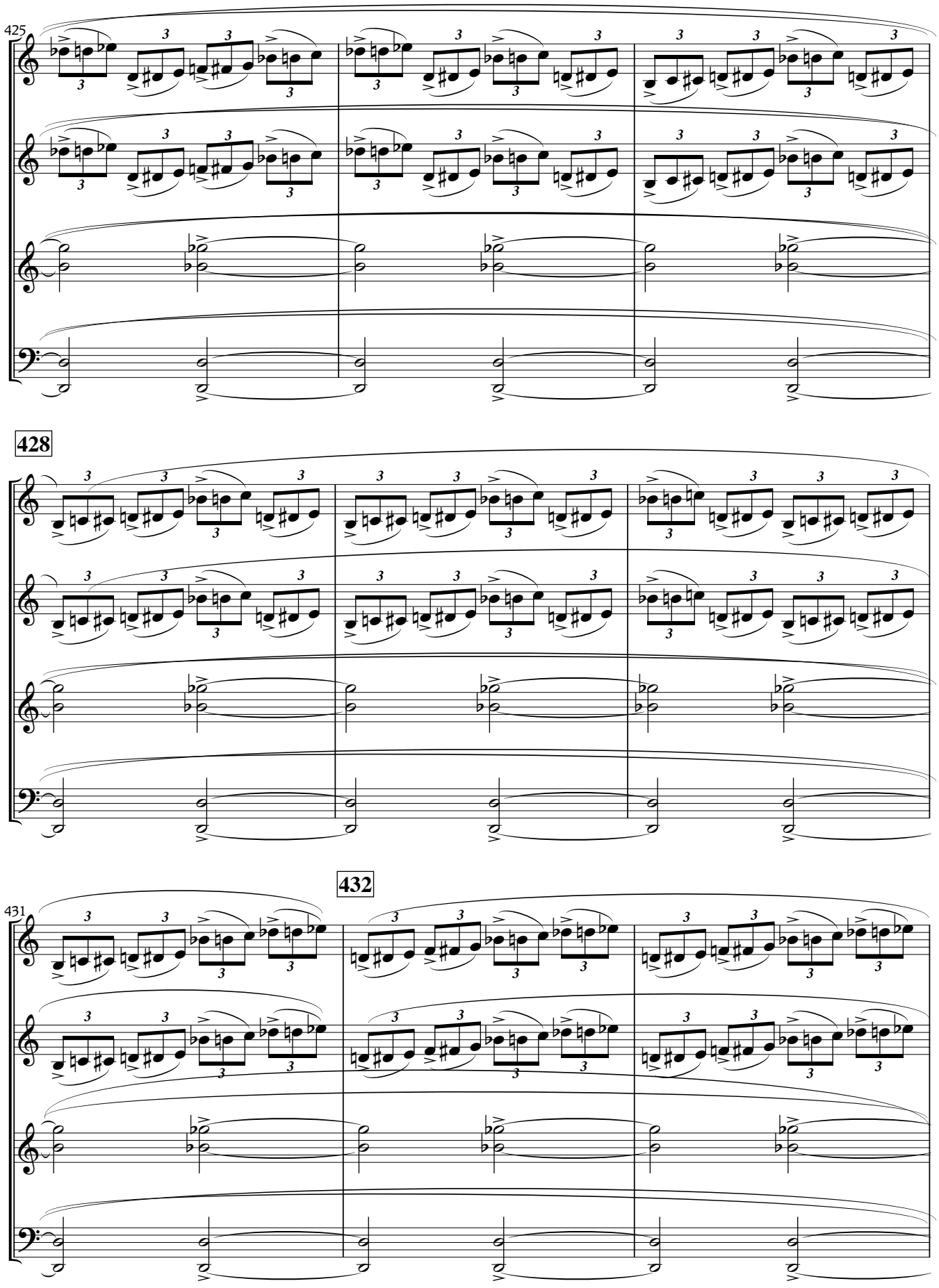

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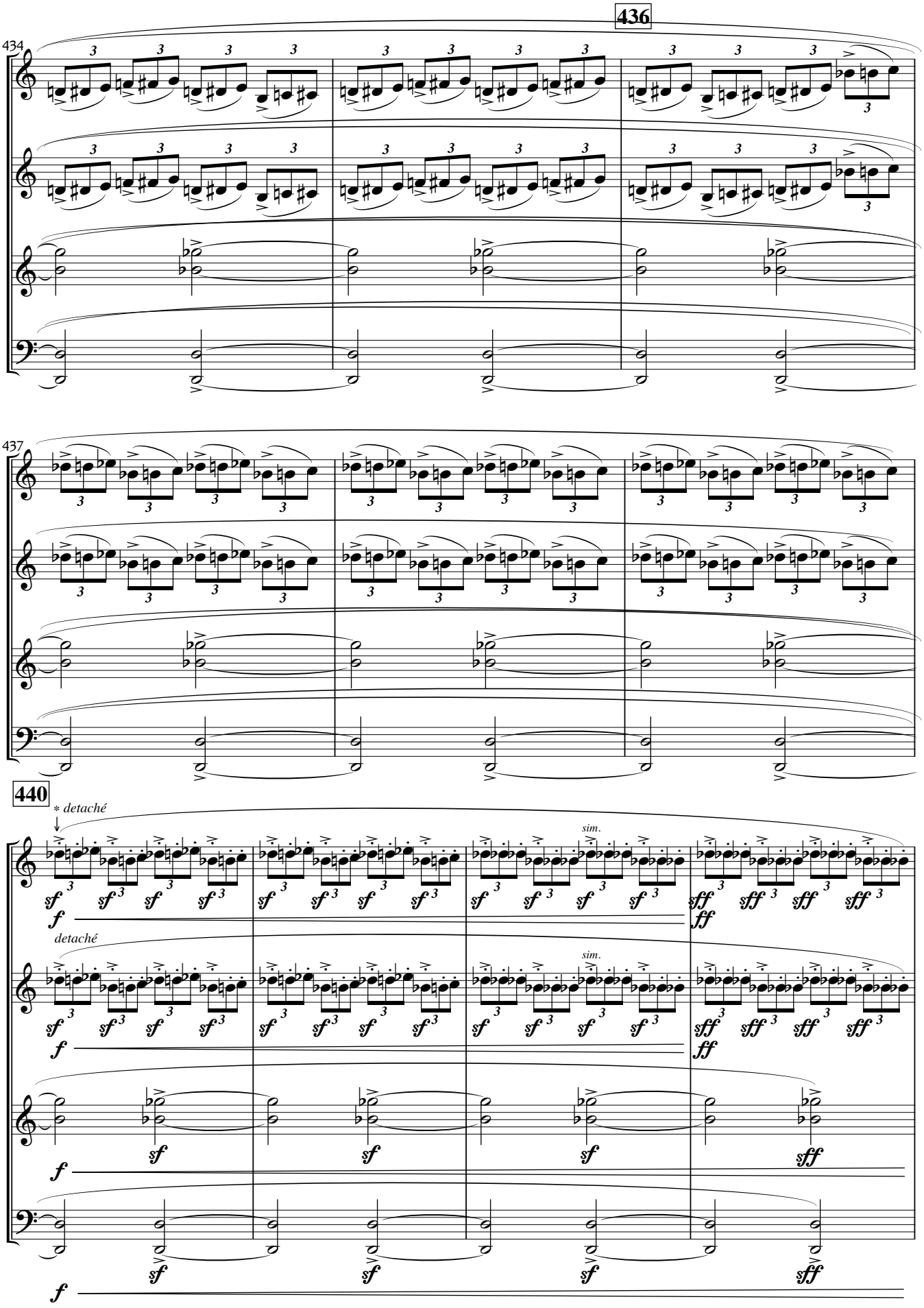

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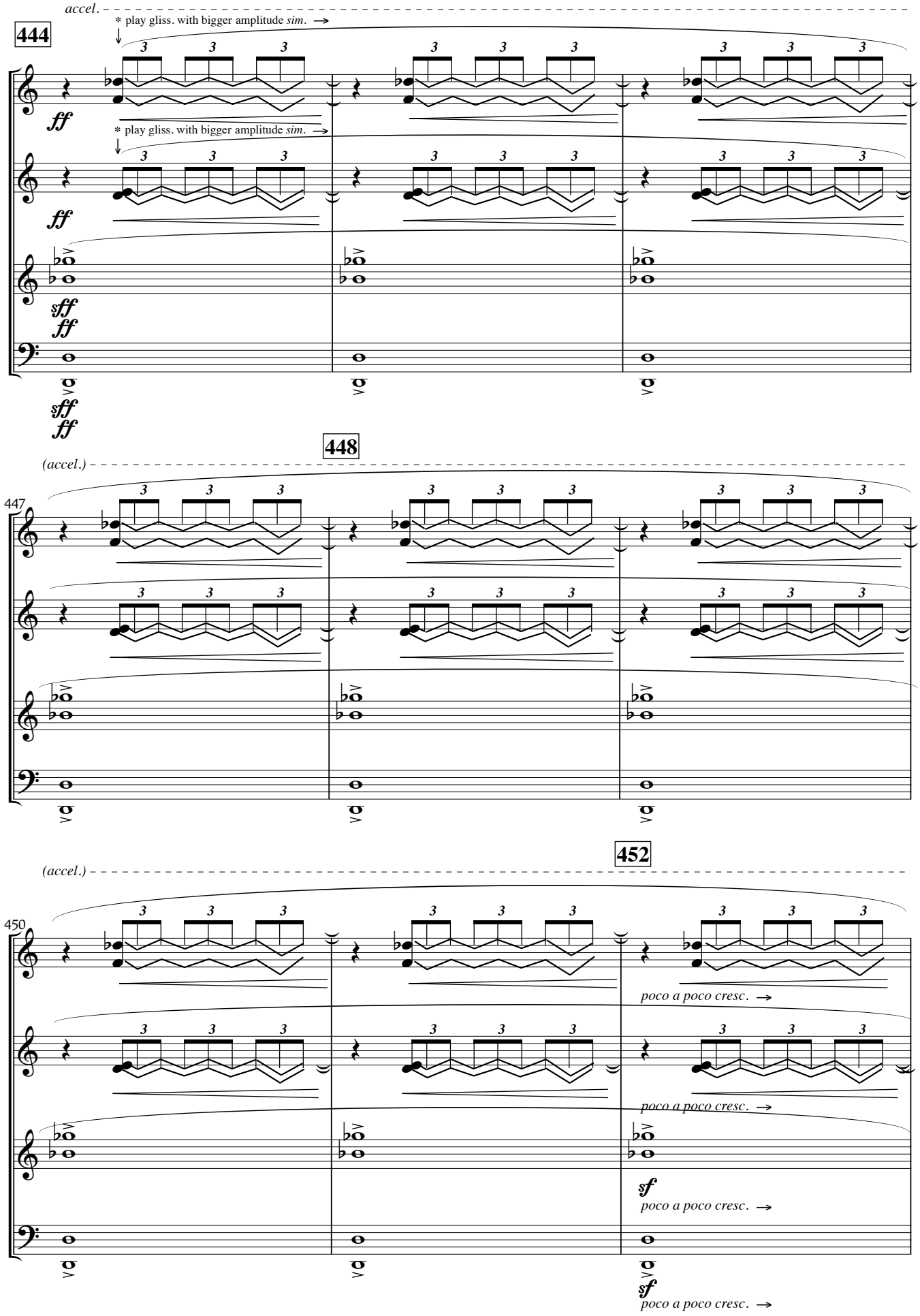

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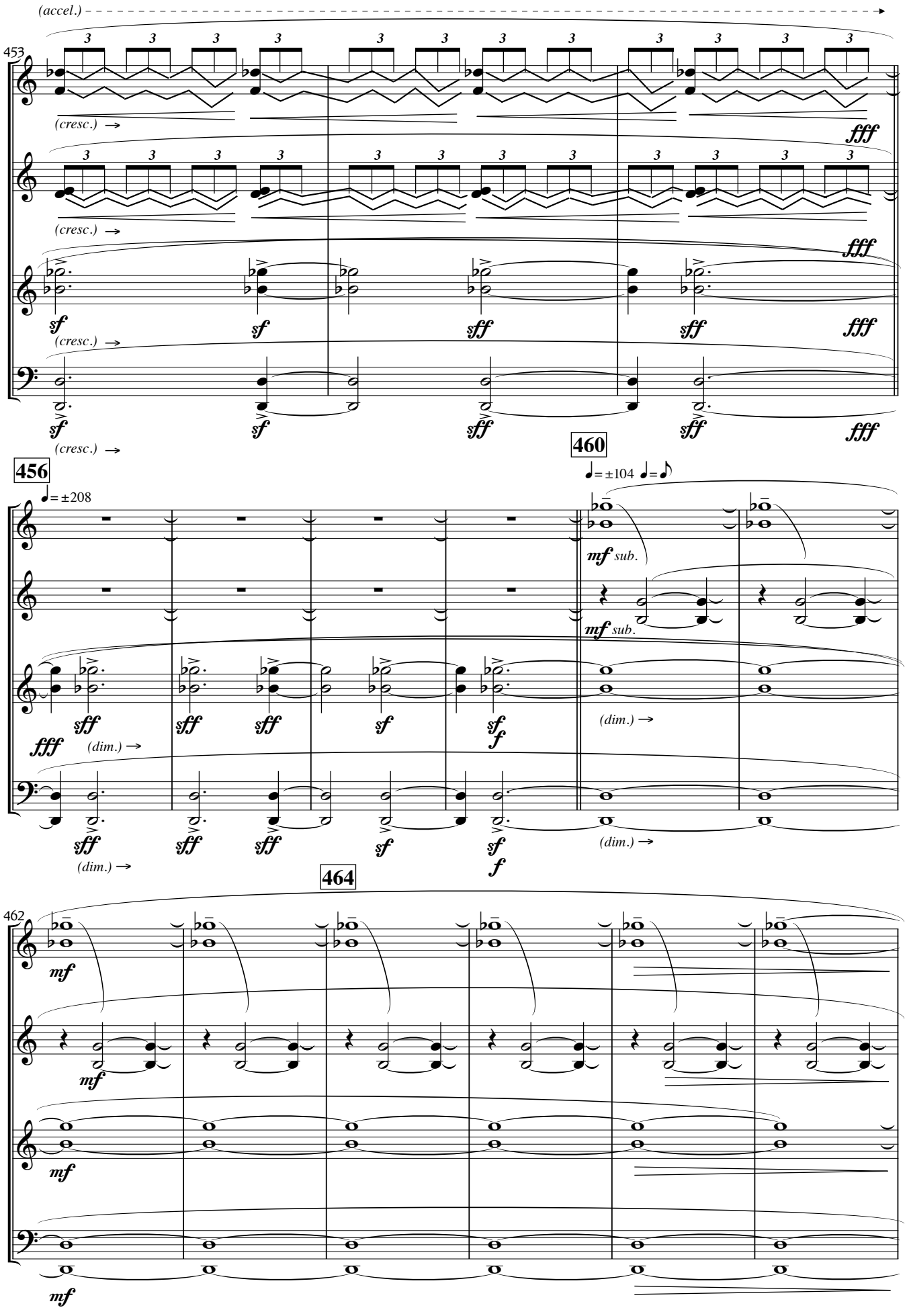

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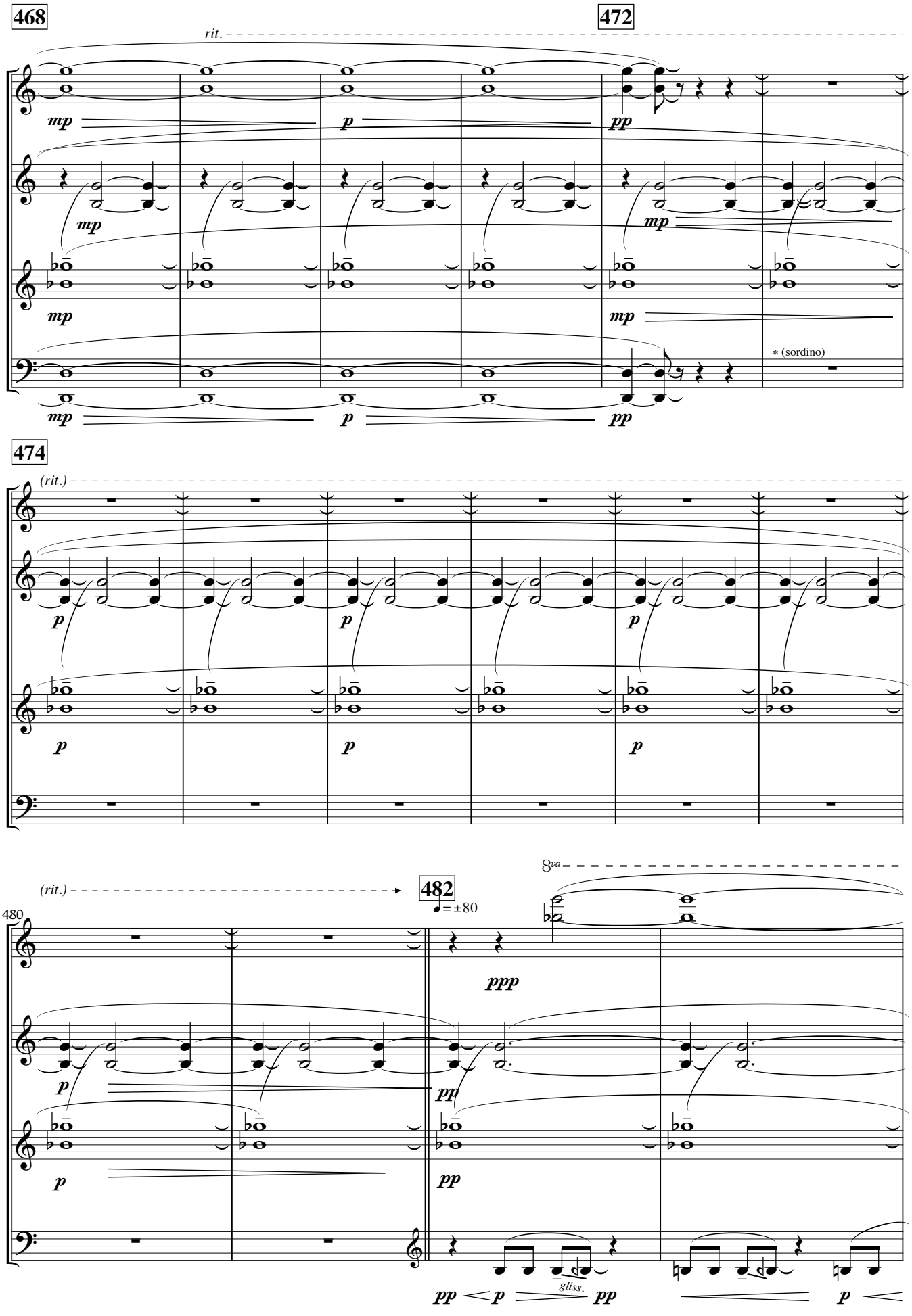

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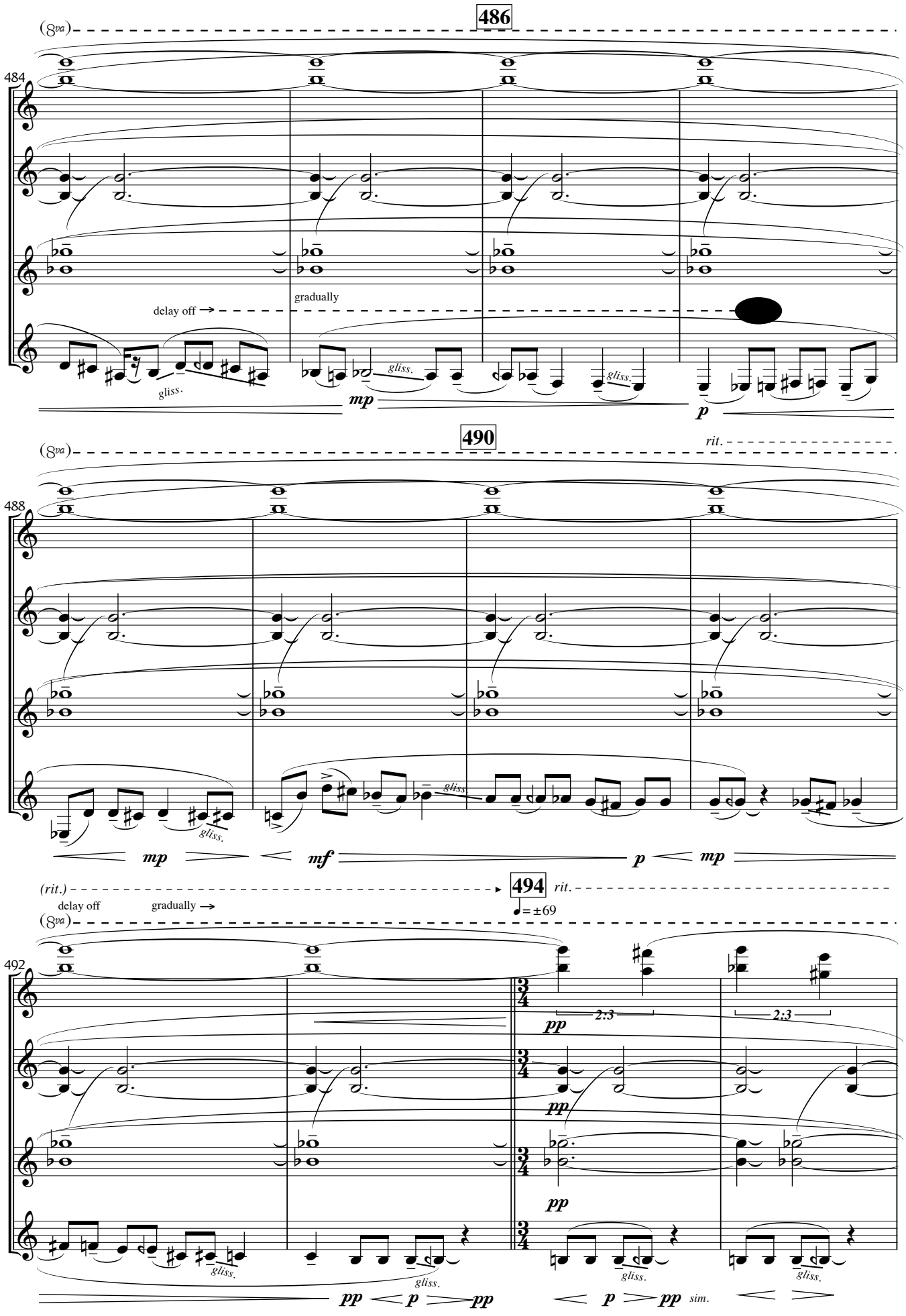

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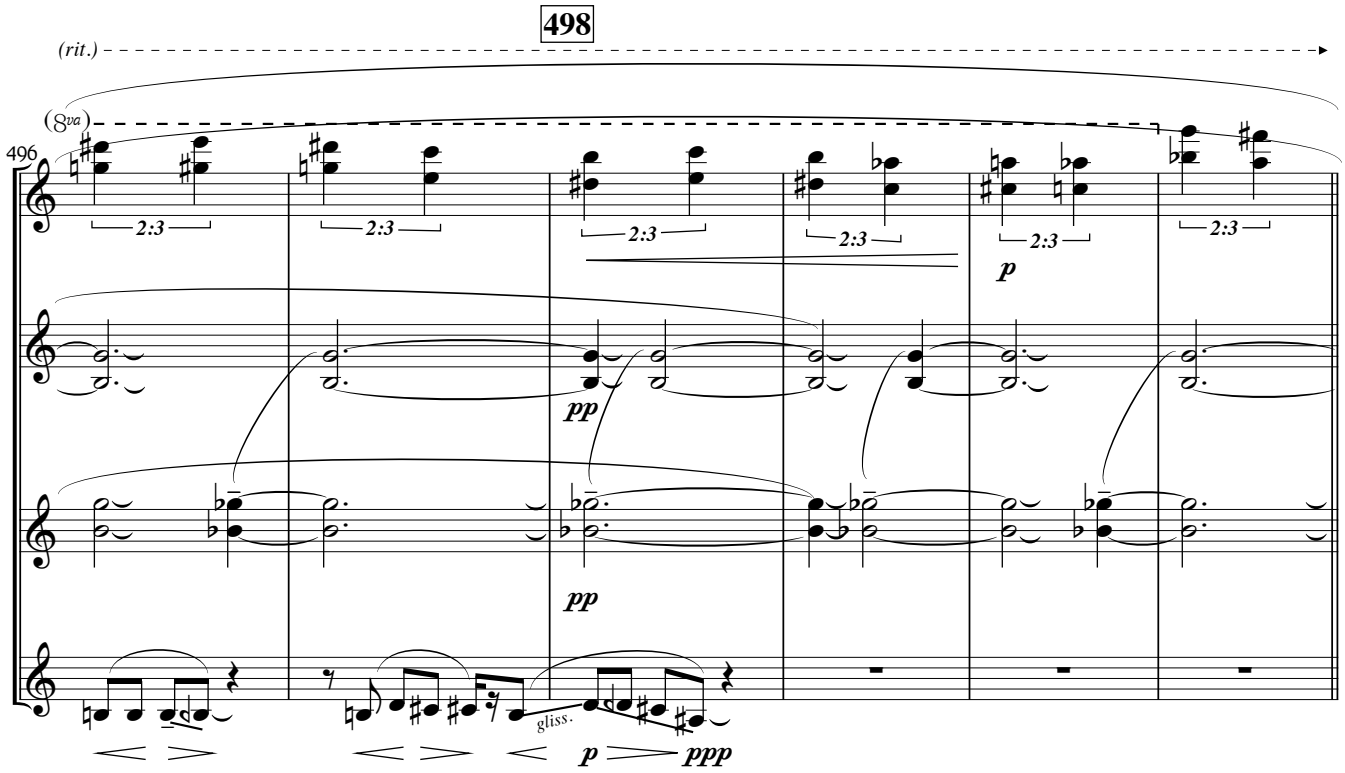

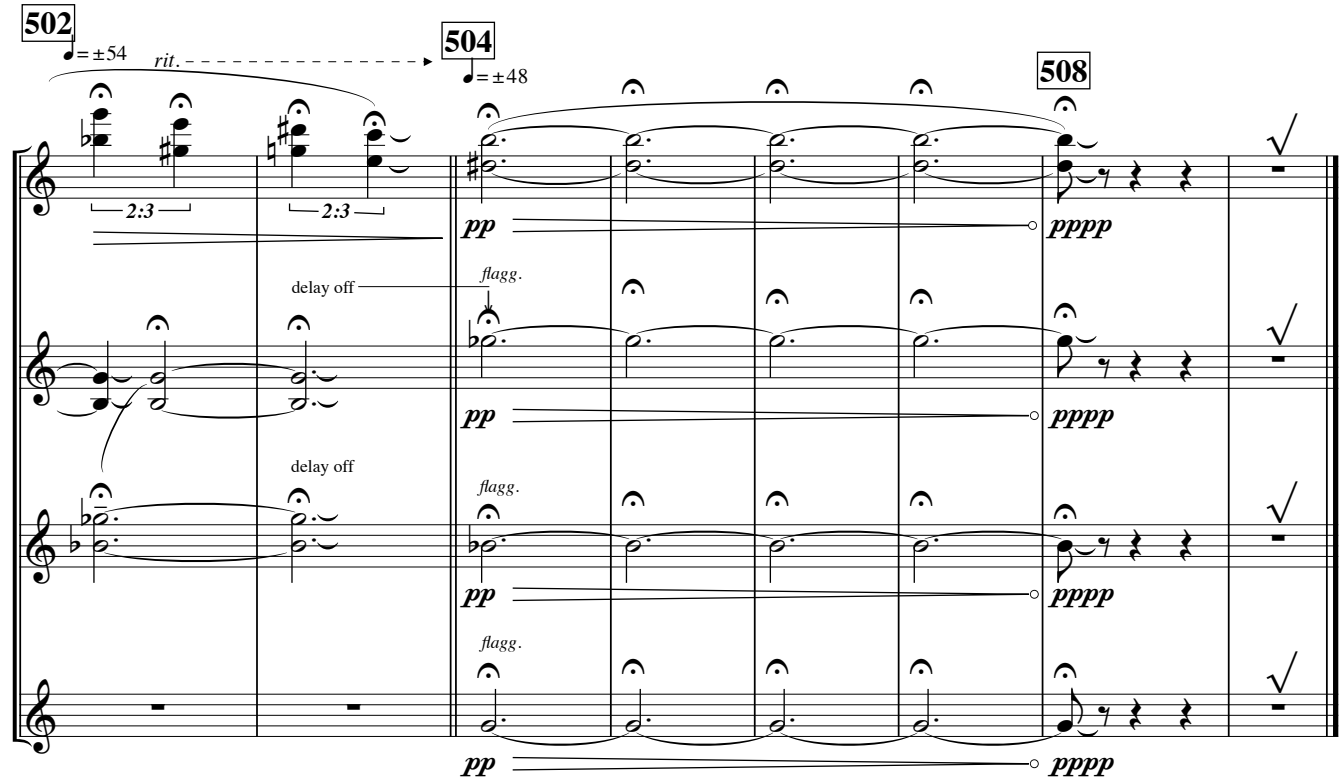

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Composed for the **Kronos Quartet**

Duration: c. 12'

D 12370

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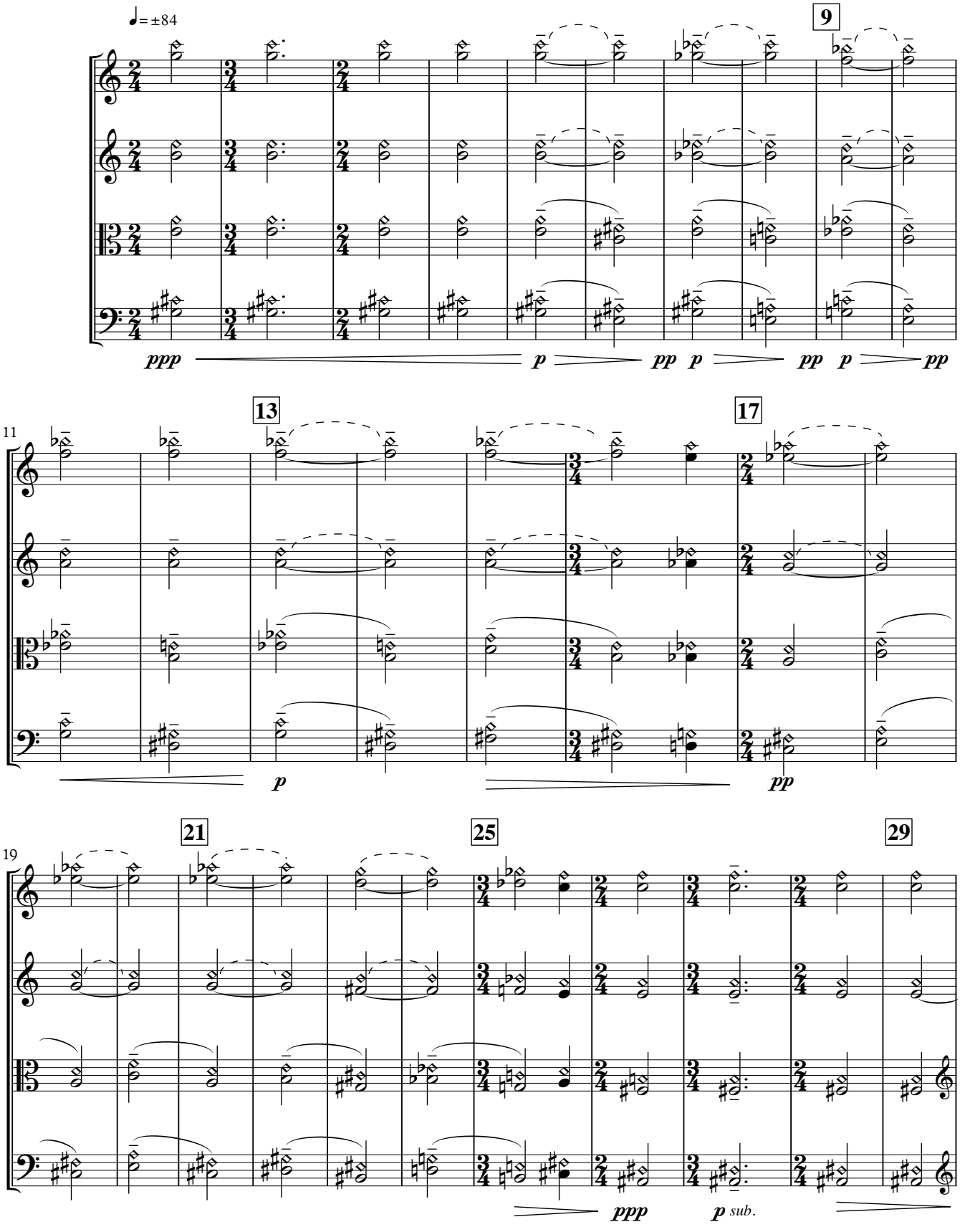

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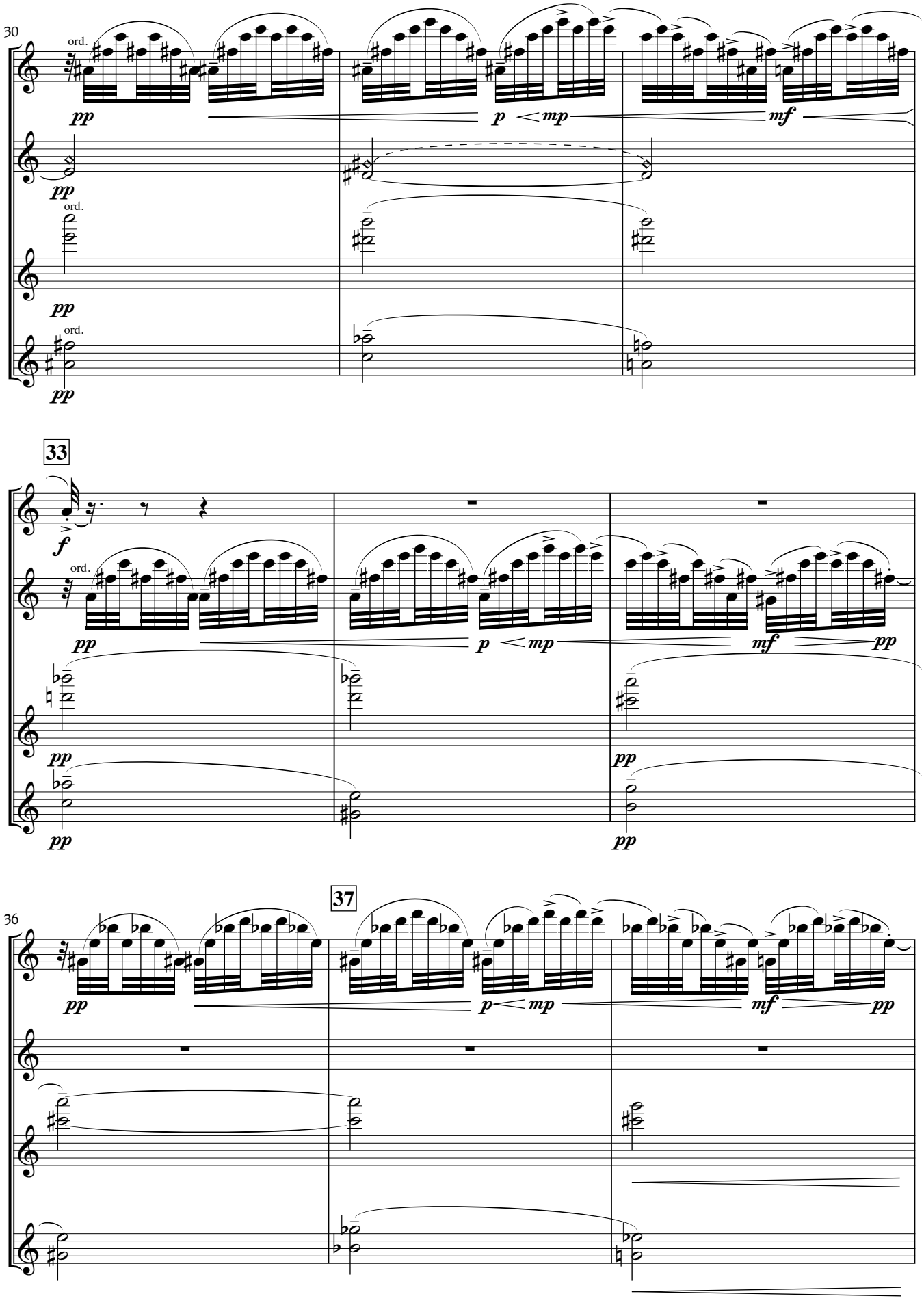

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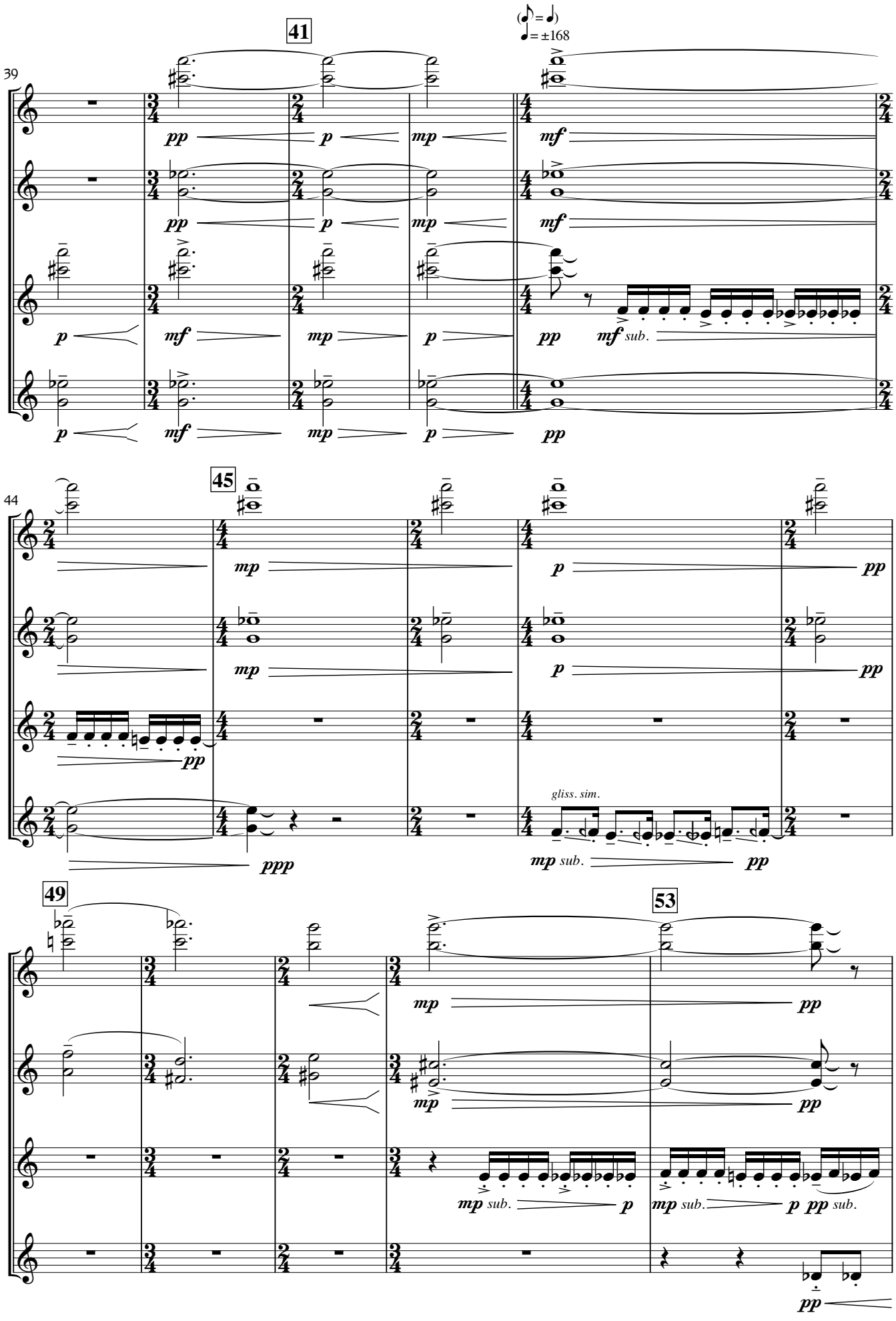

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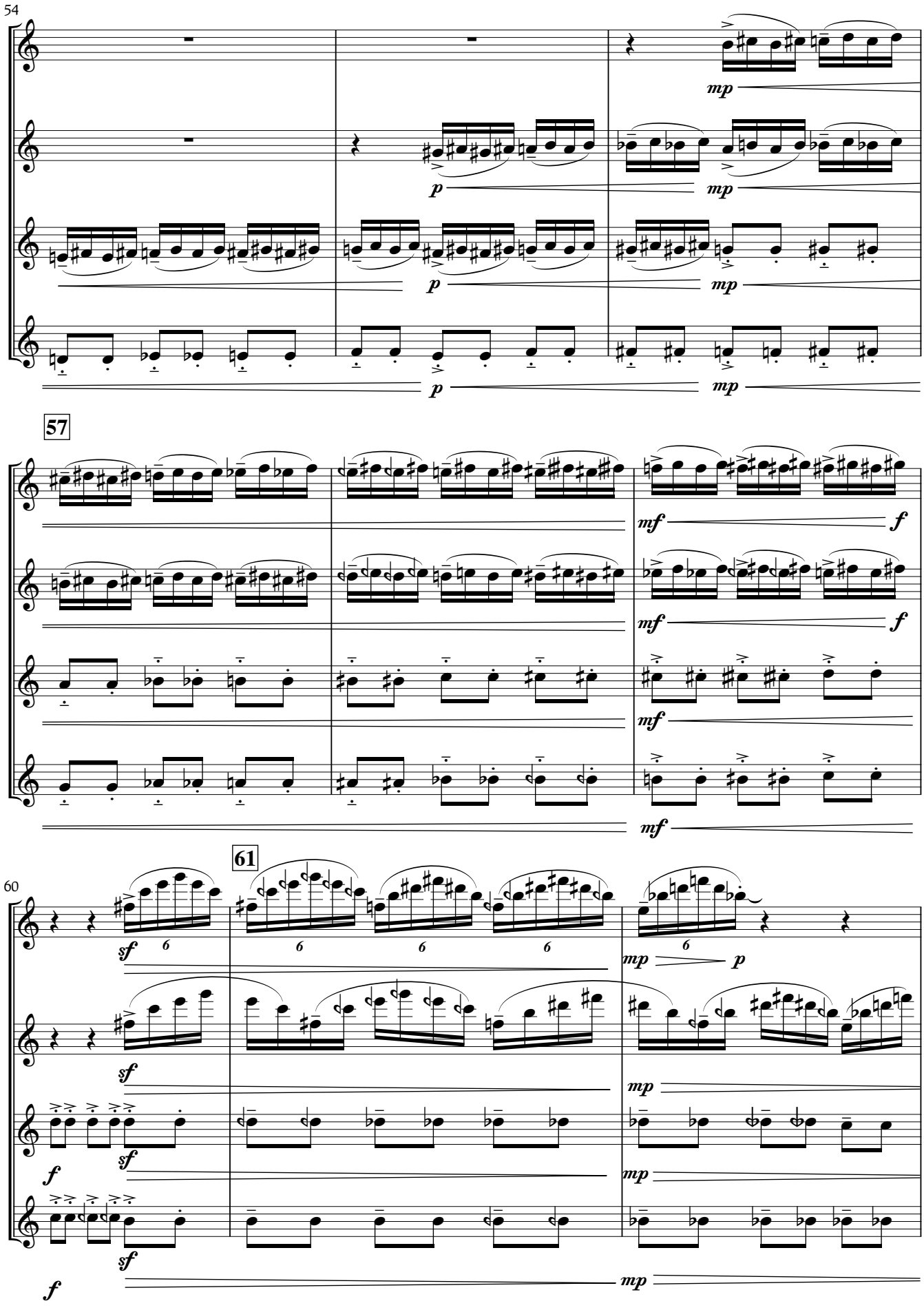

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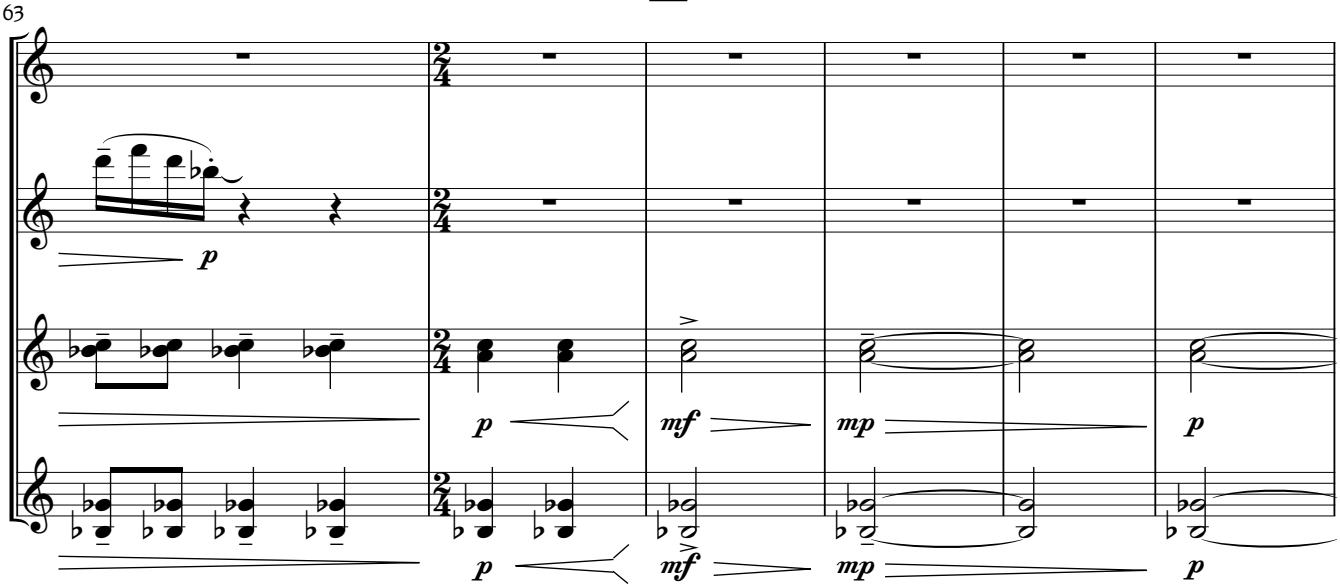

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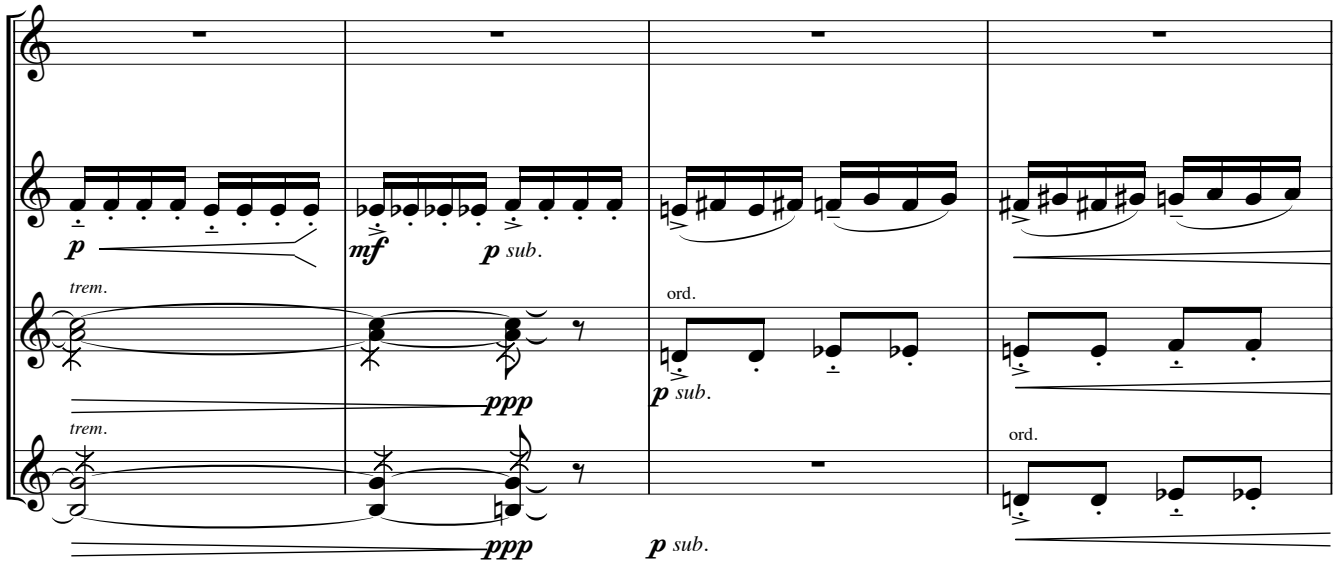

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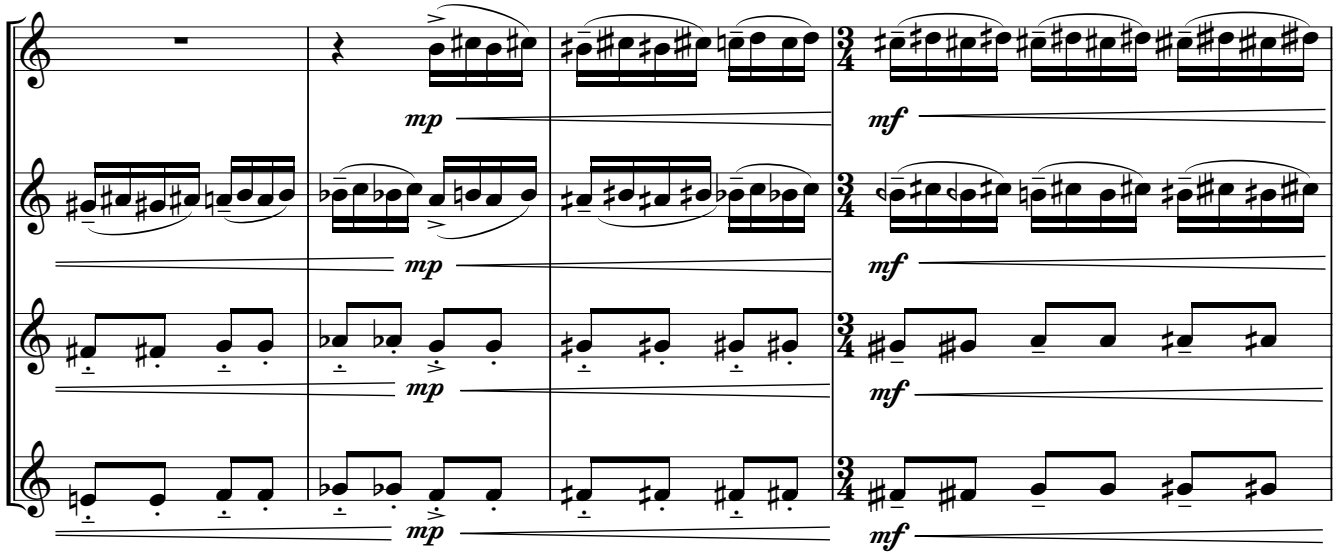

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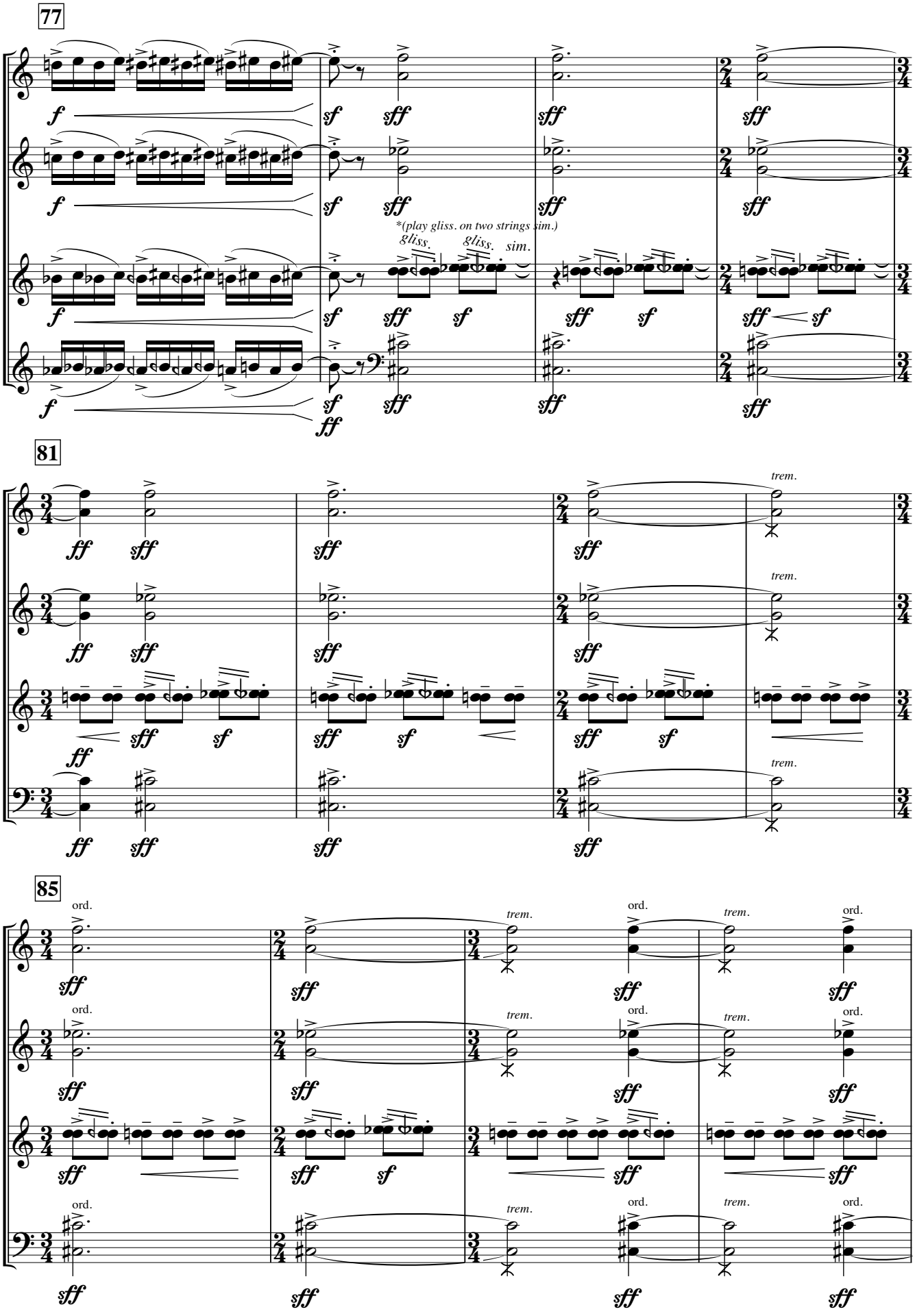

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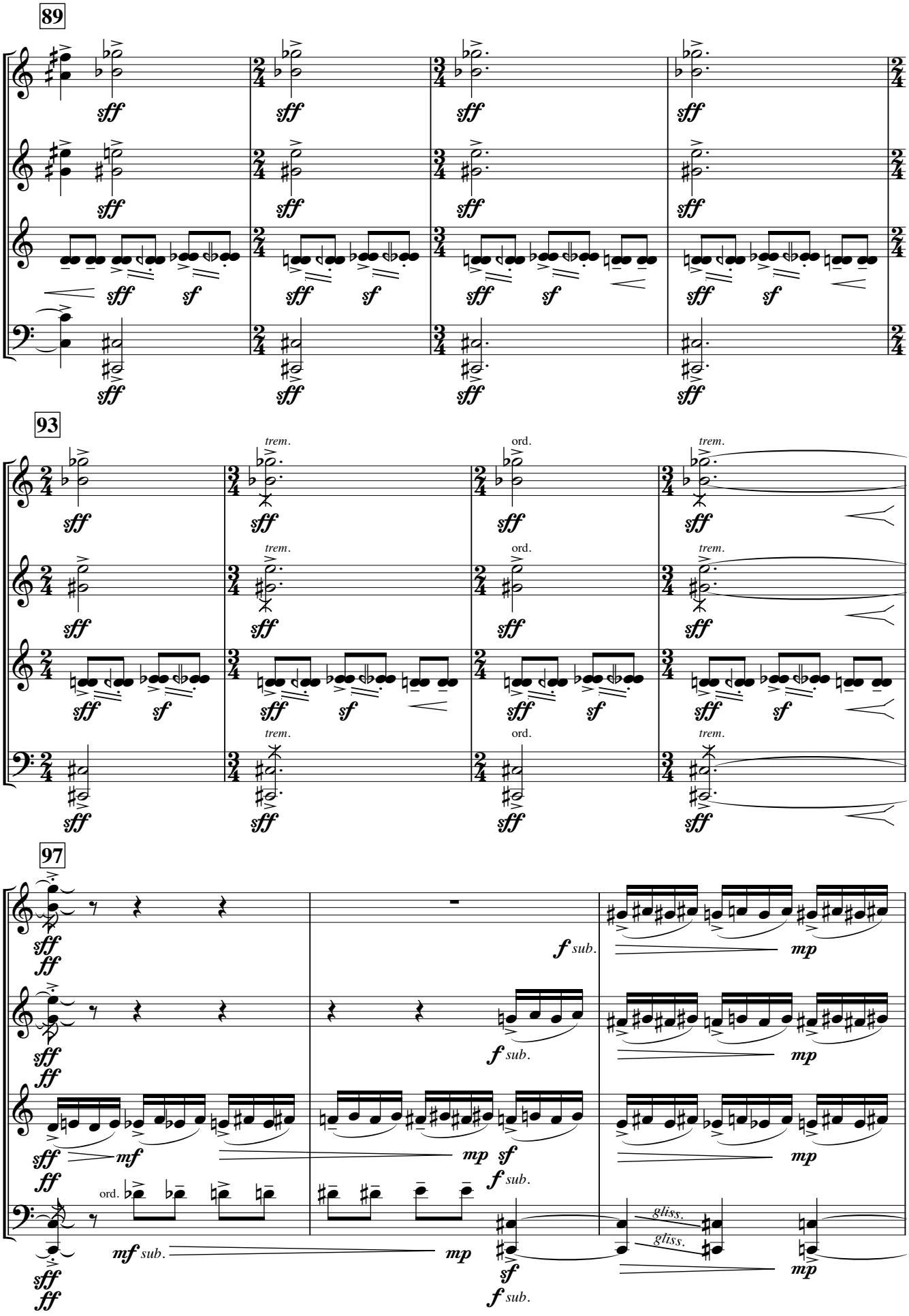

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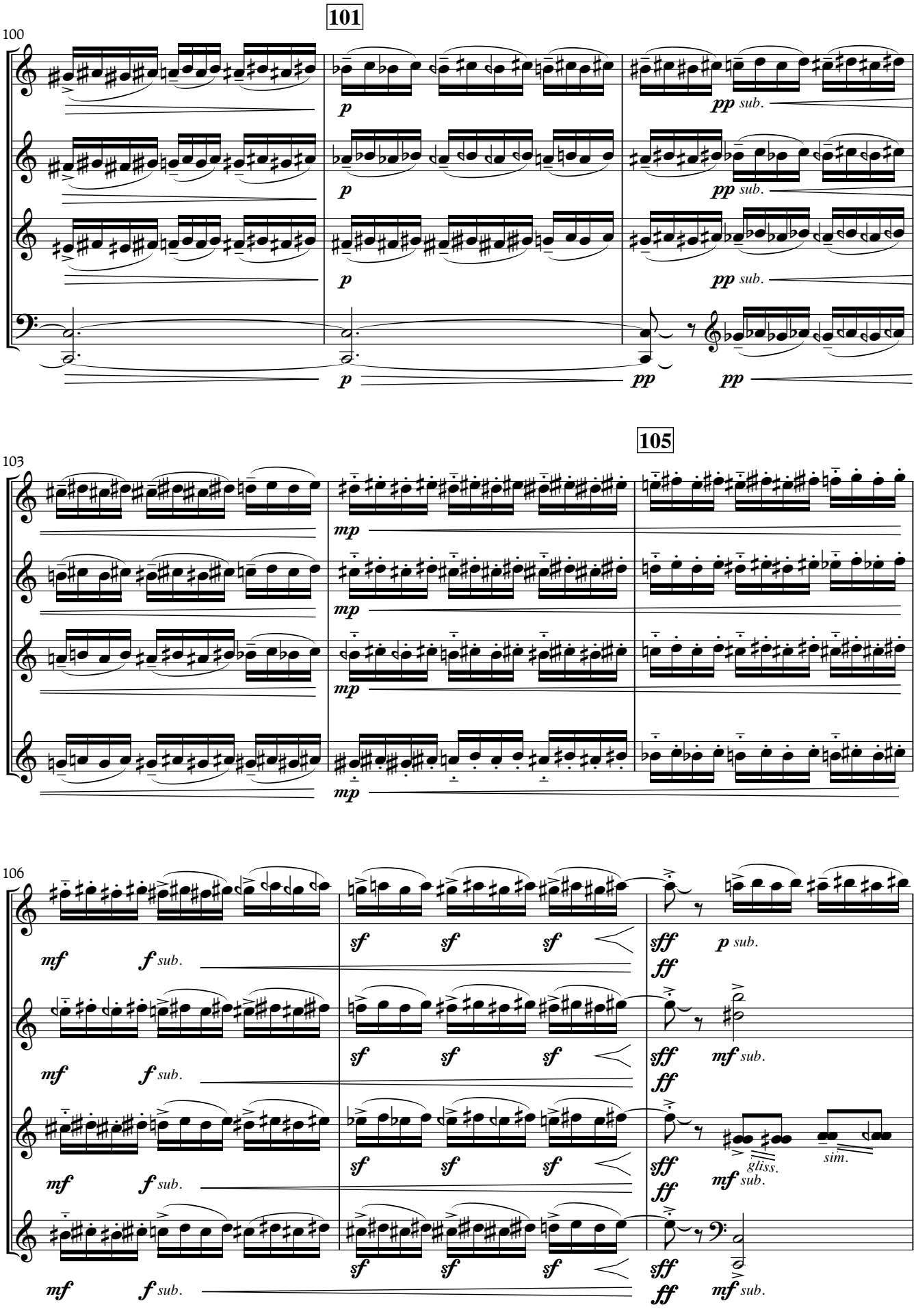

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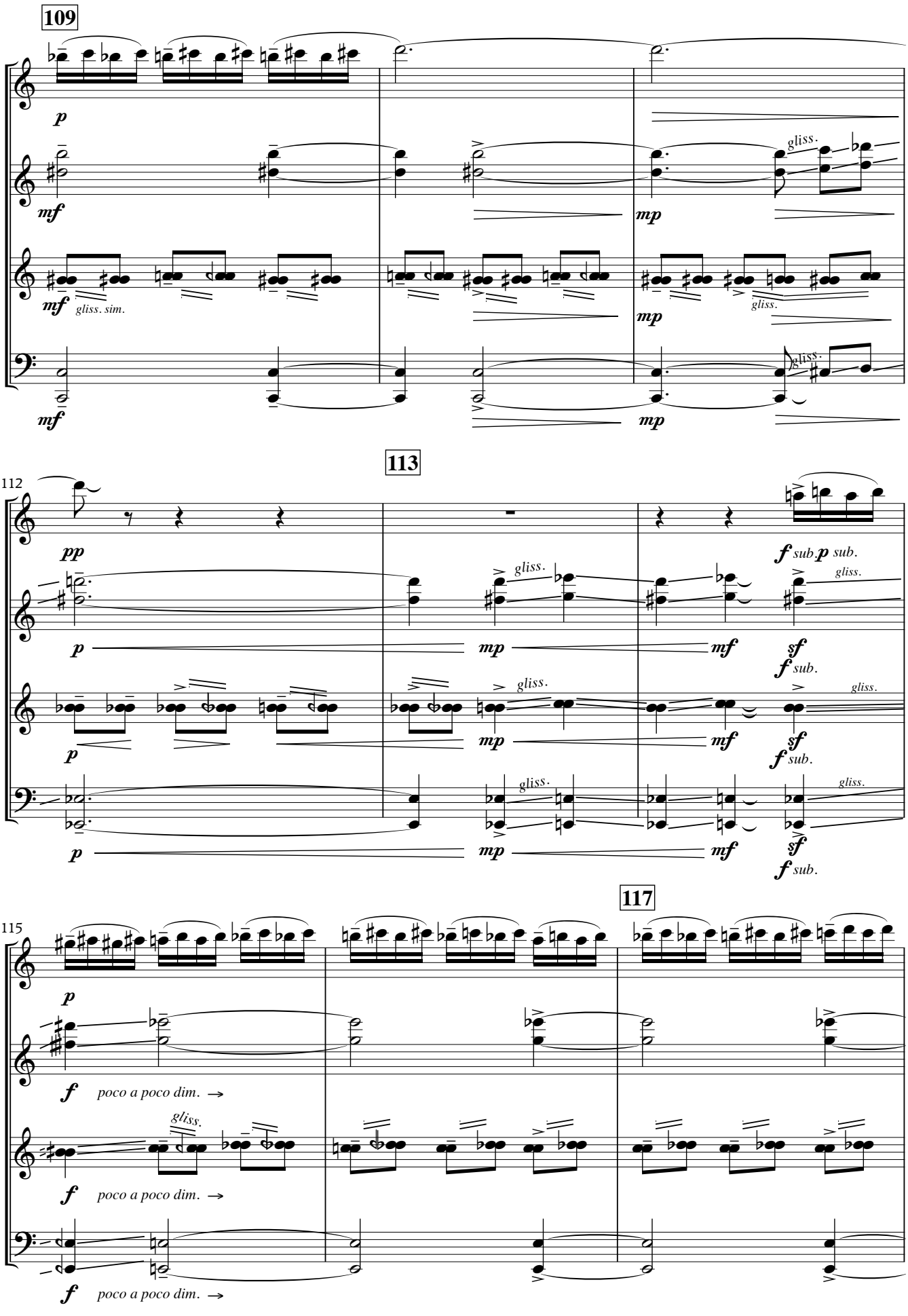

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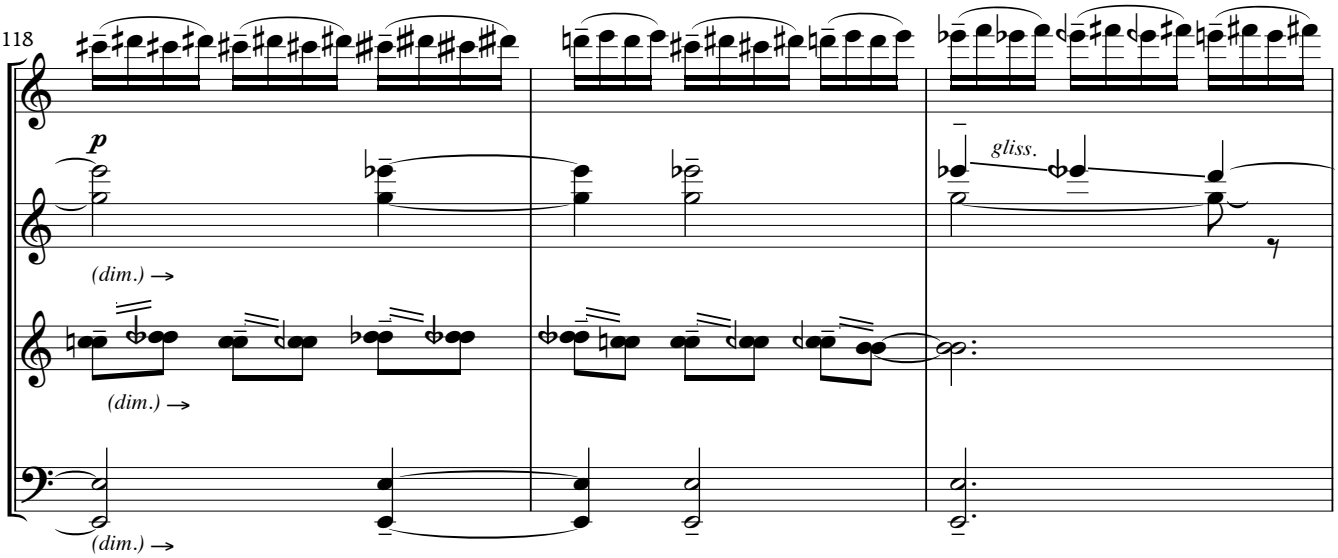

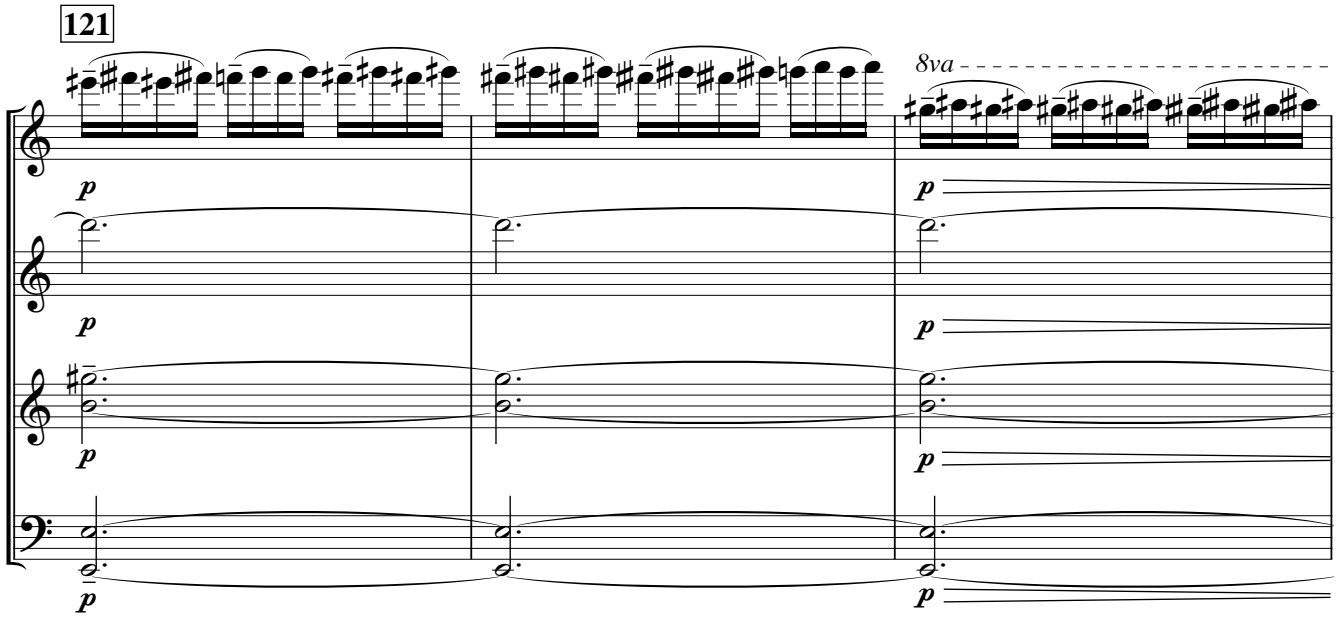

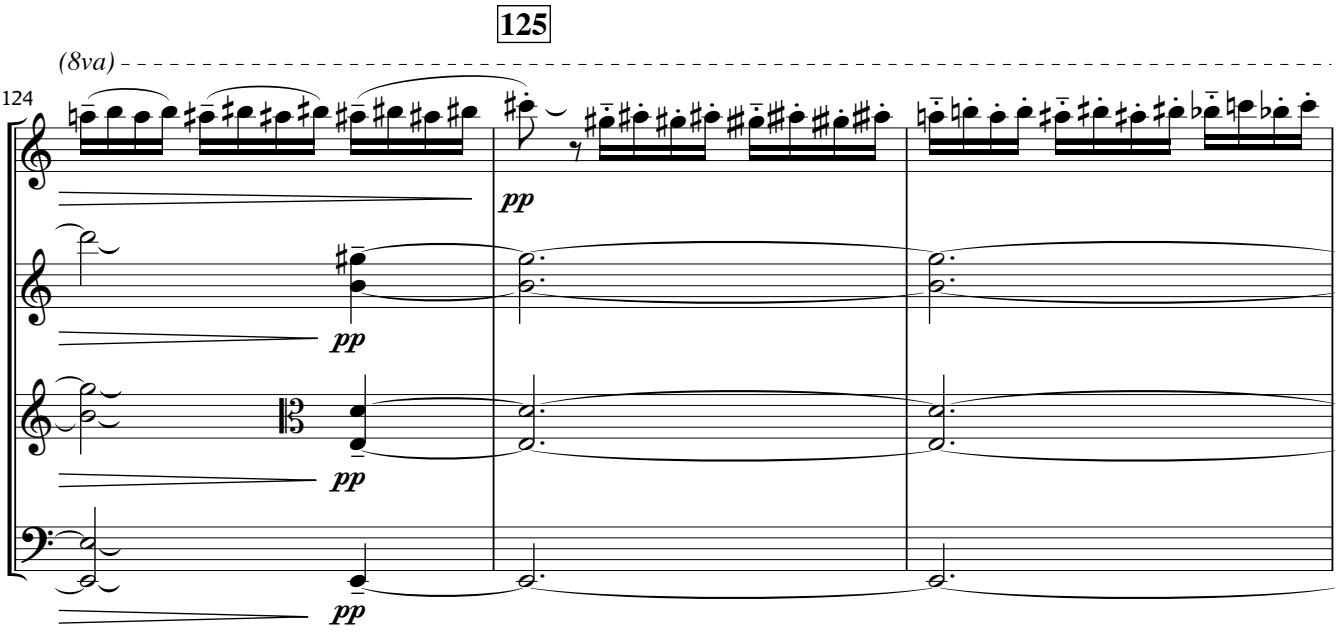

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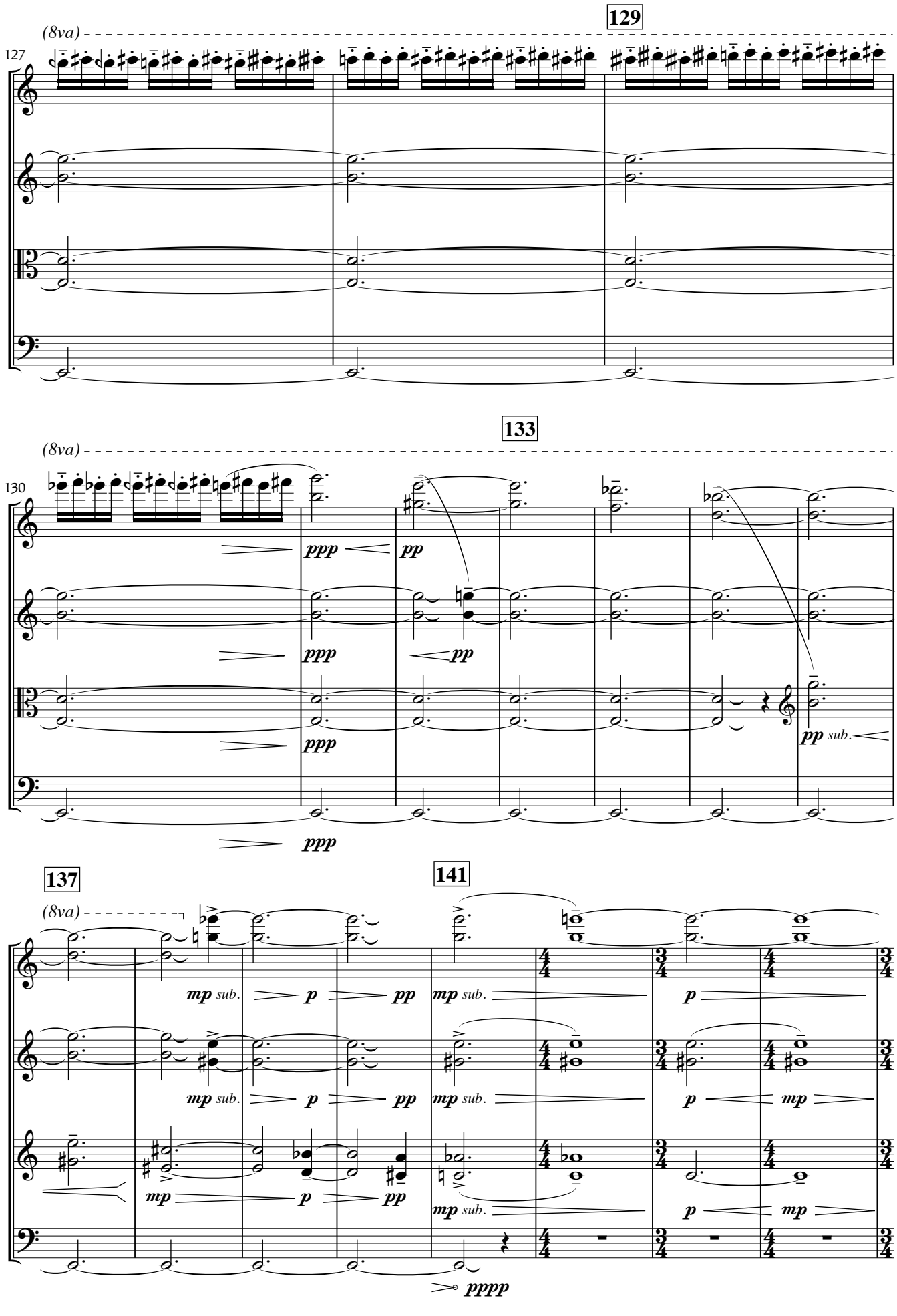

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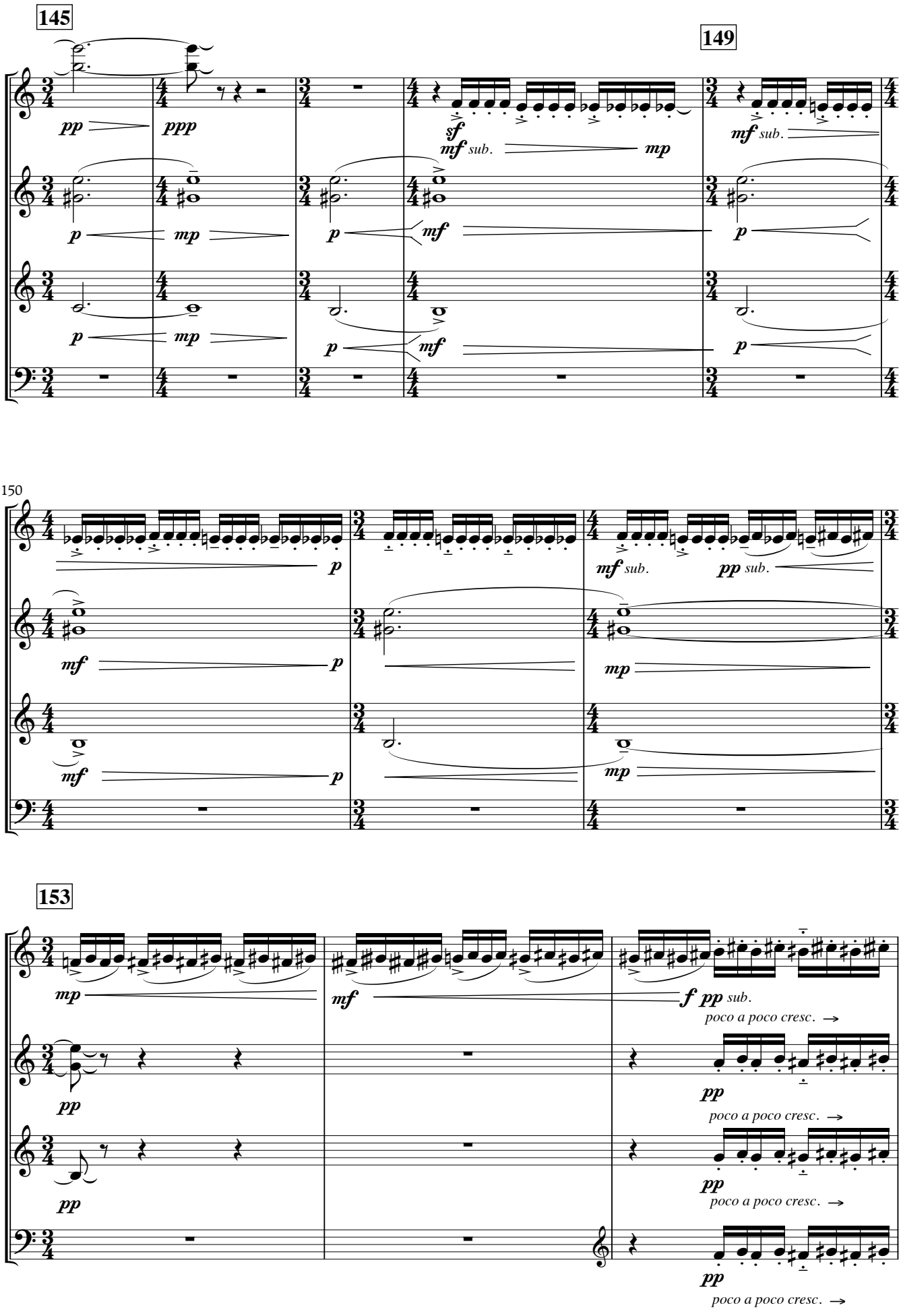

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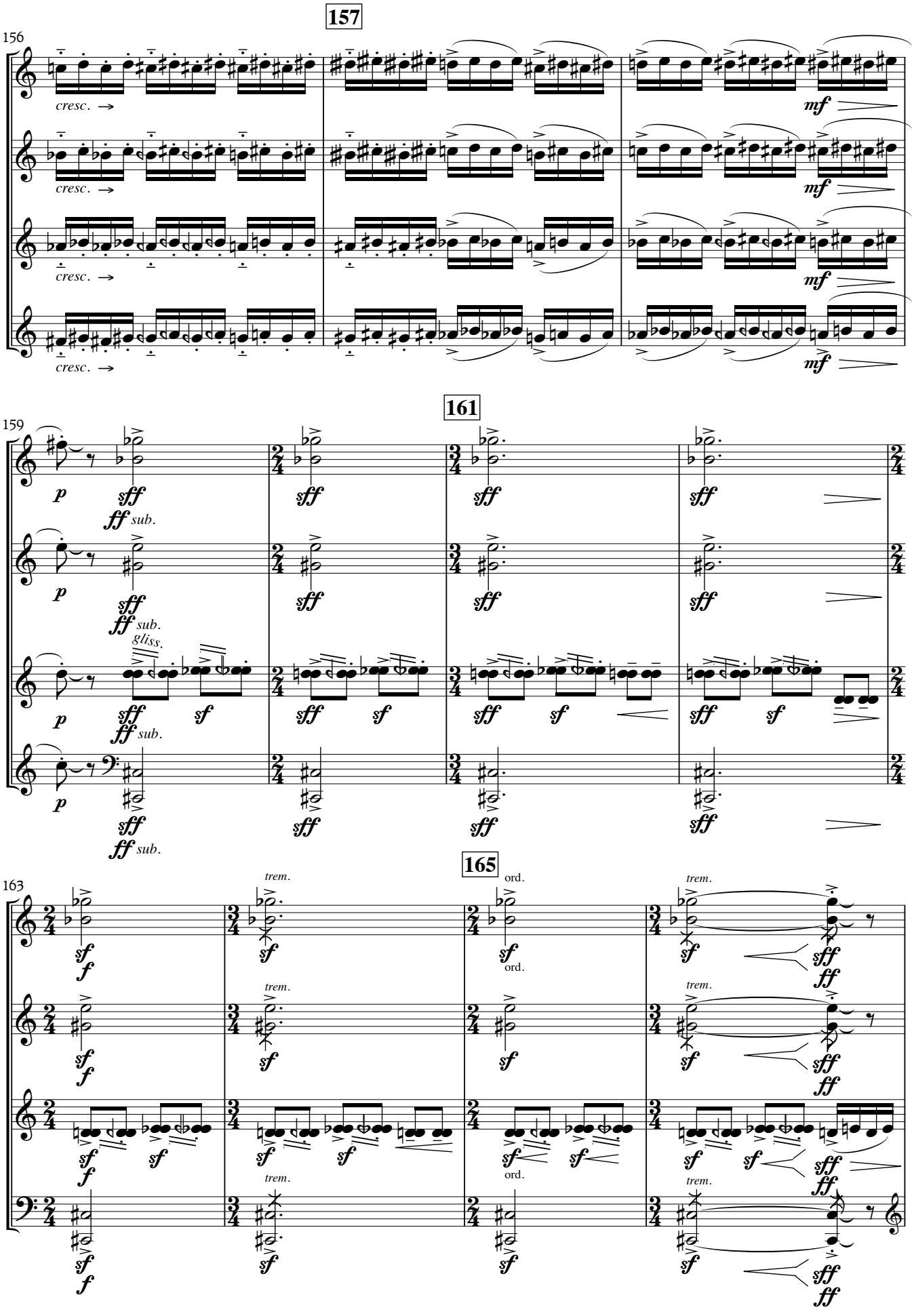

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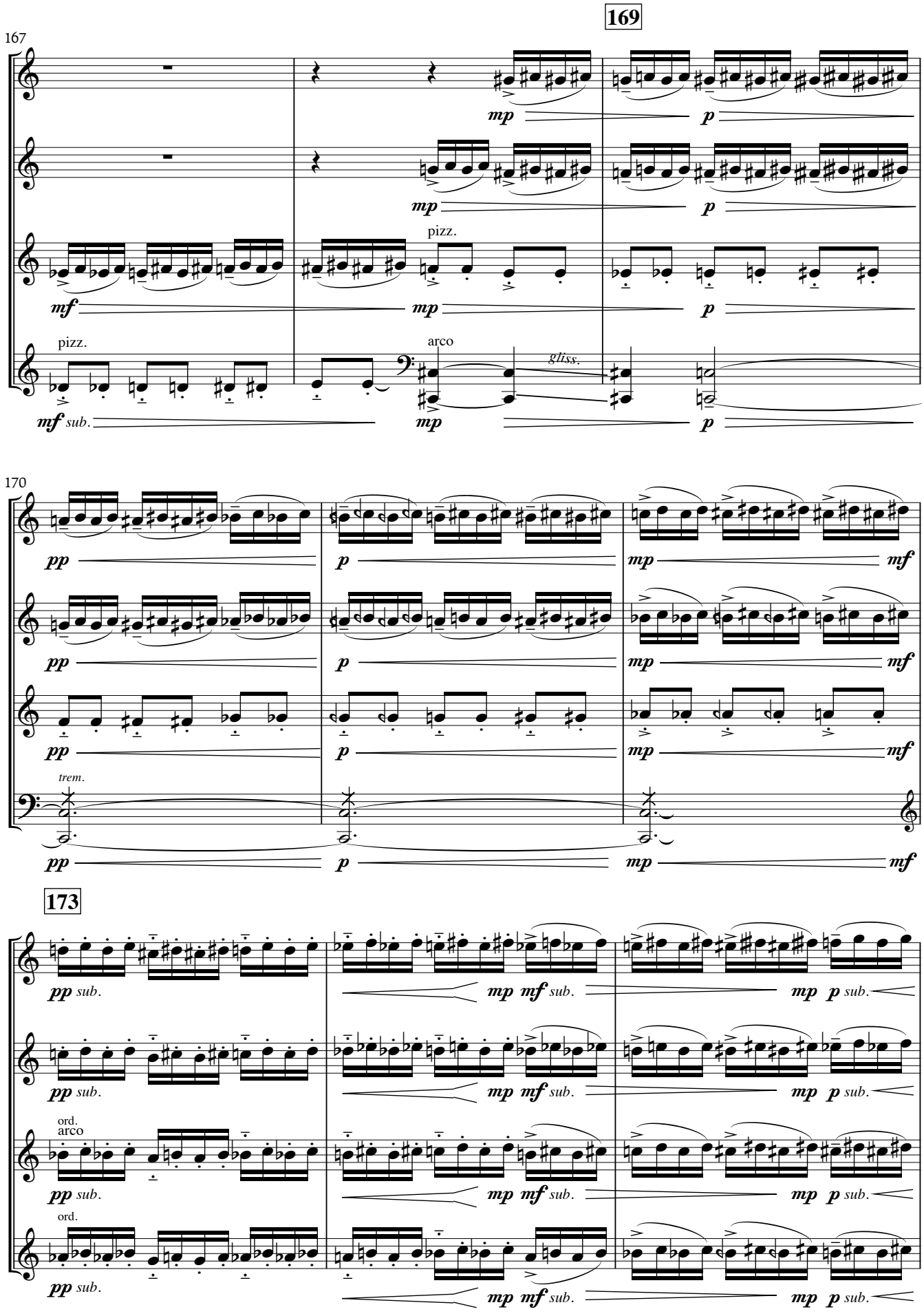

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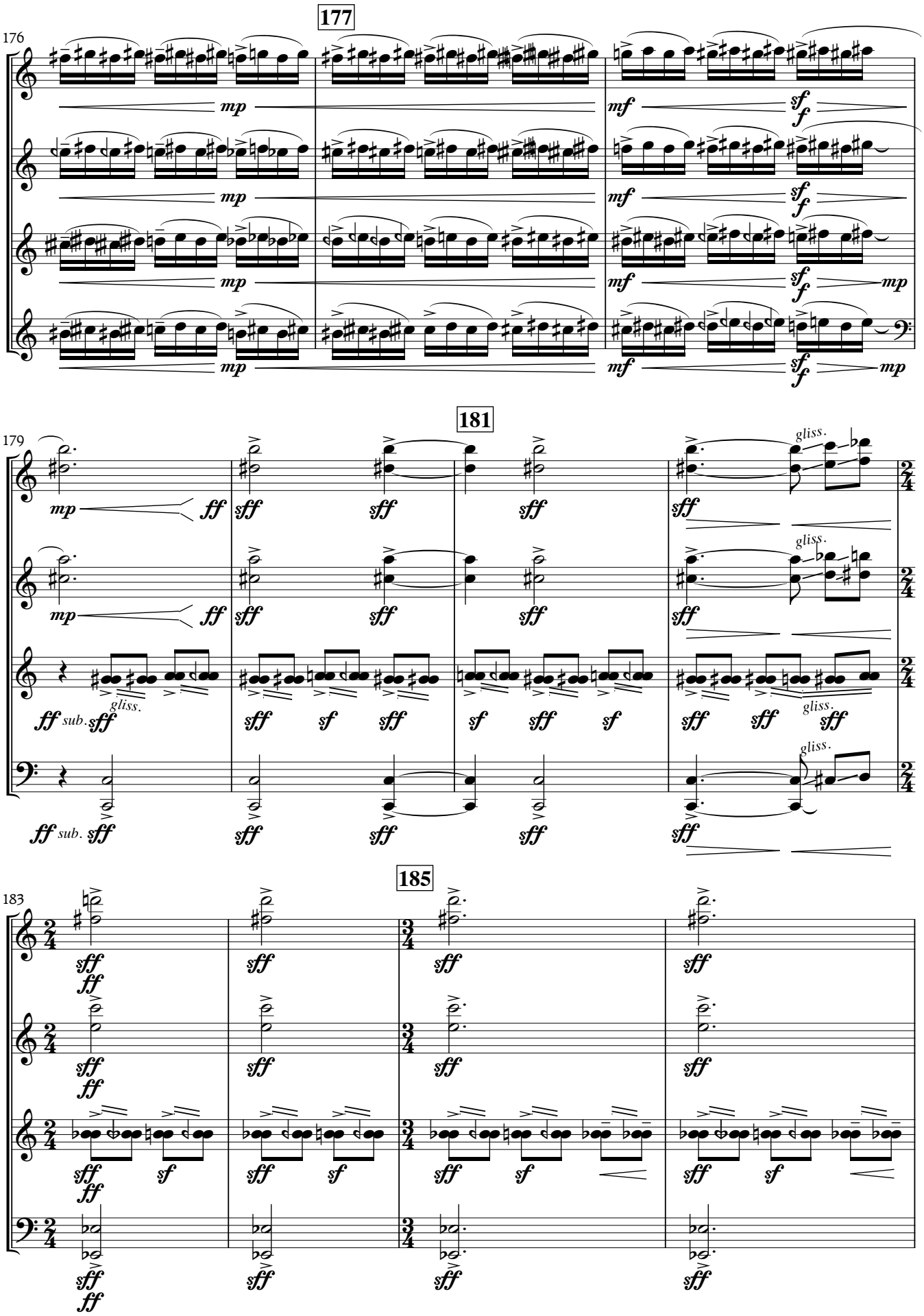

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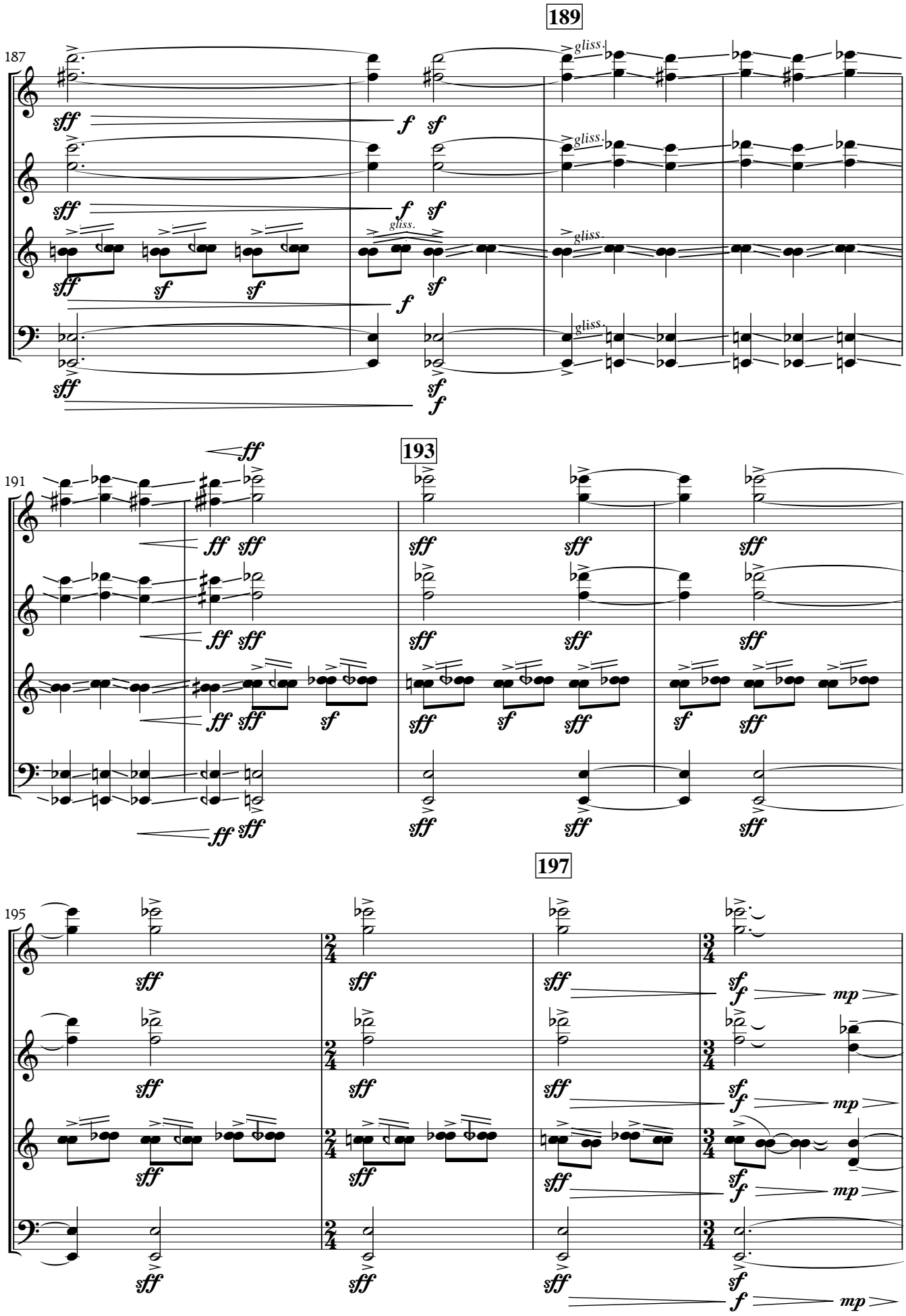

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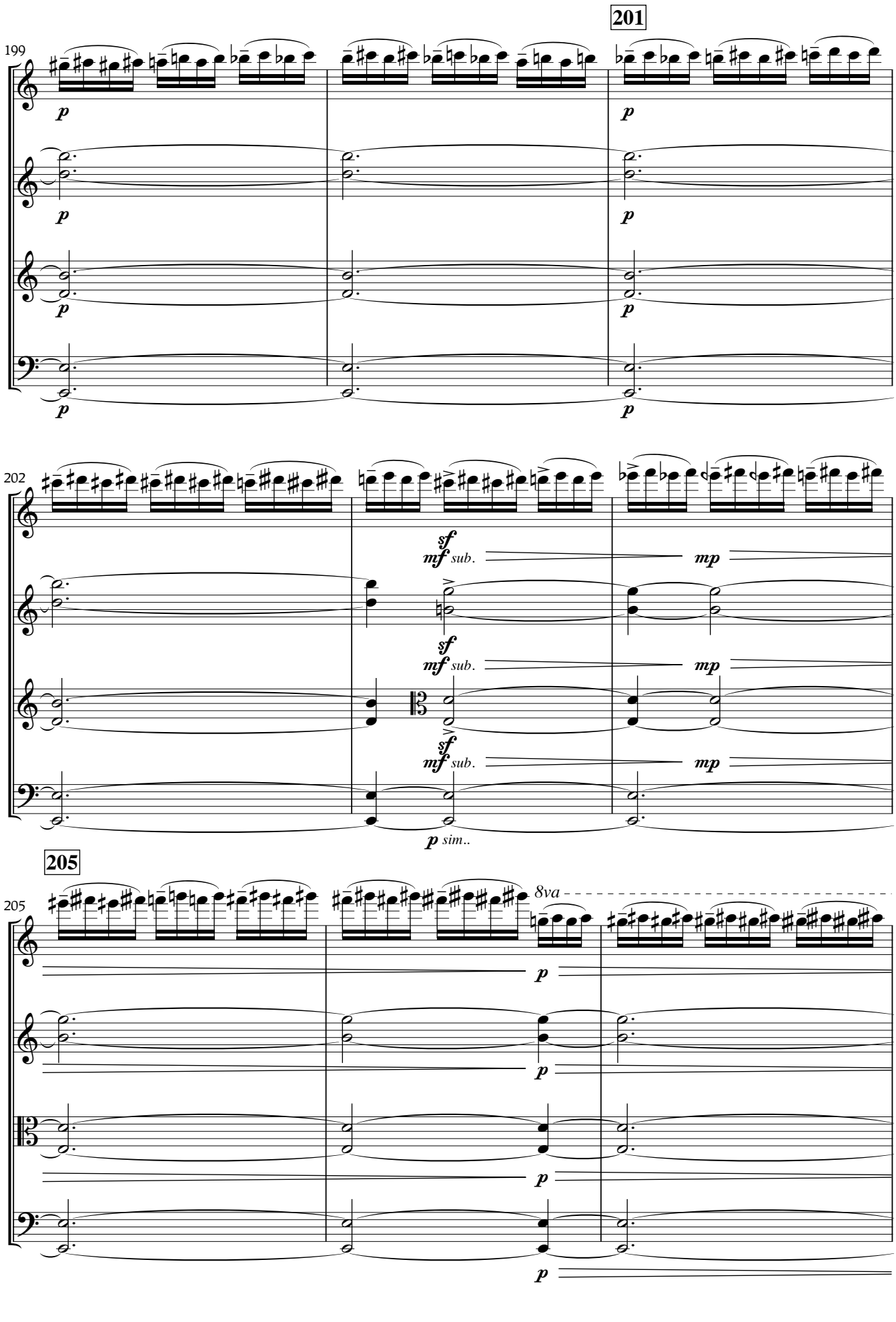

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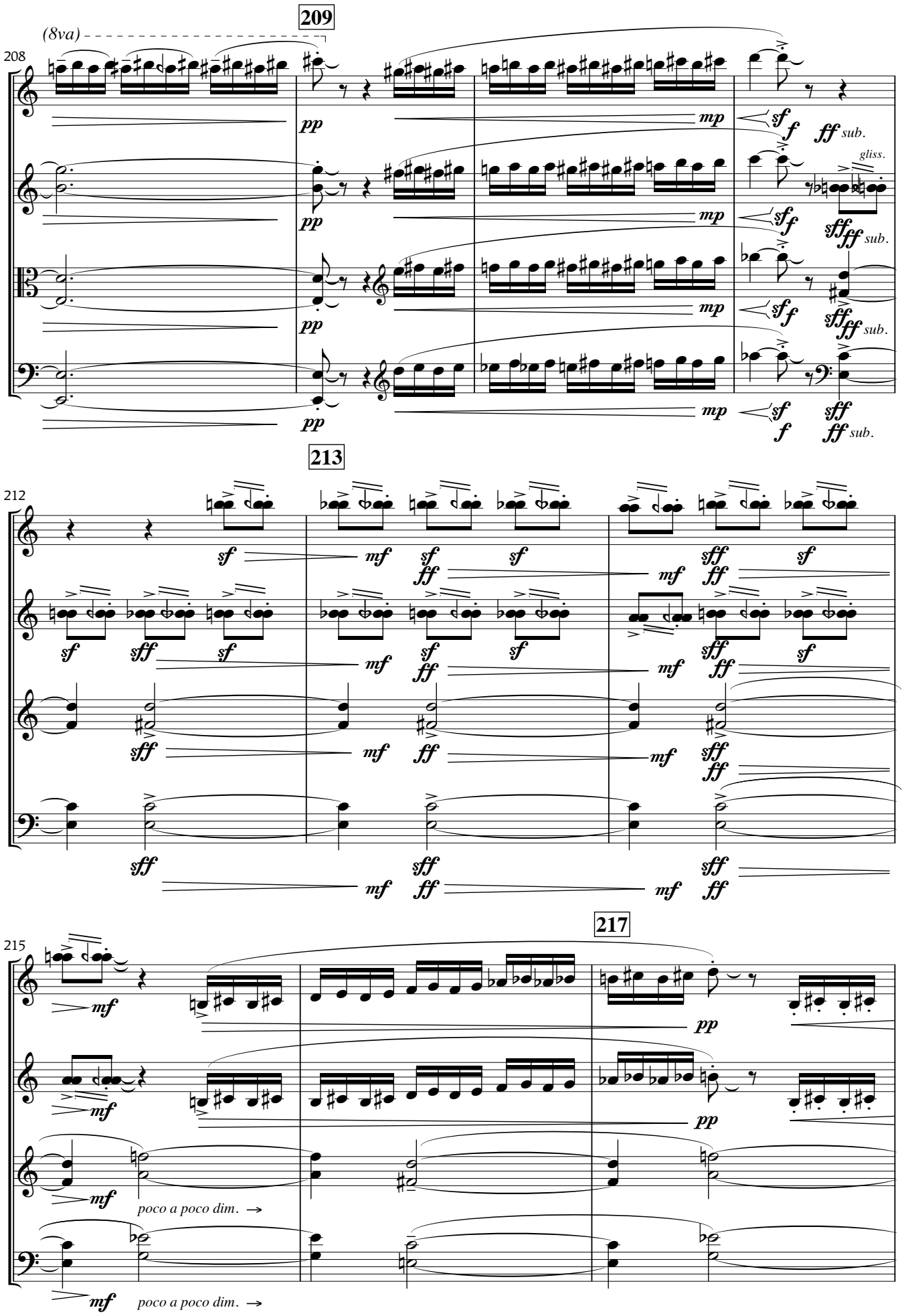

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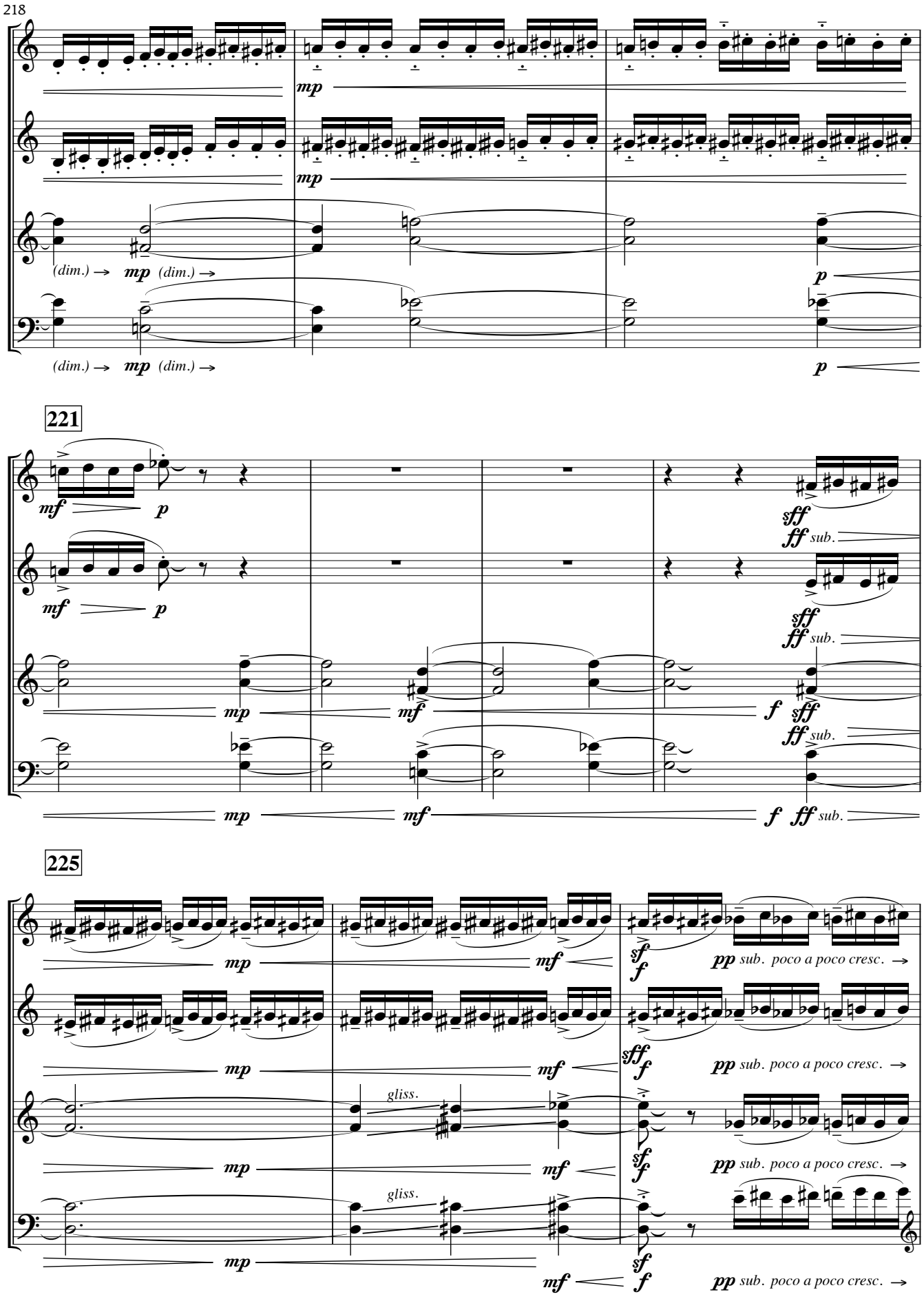

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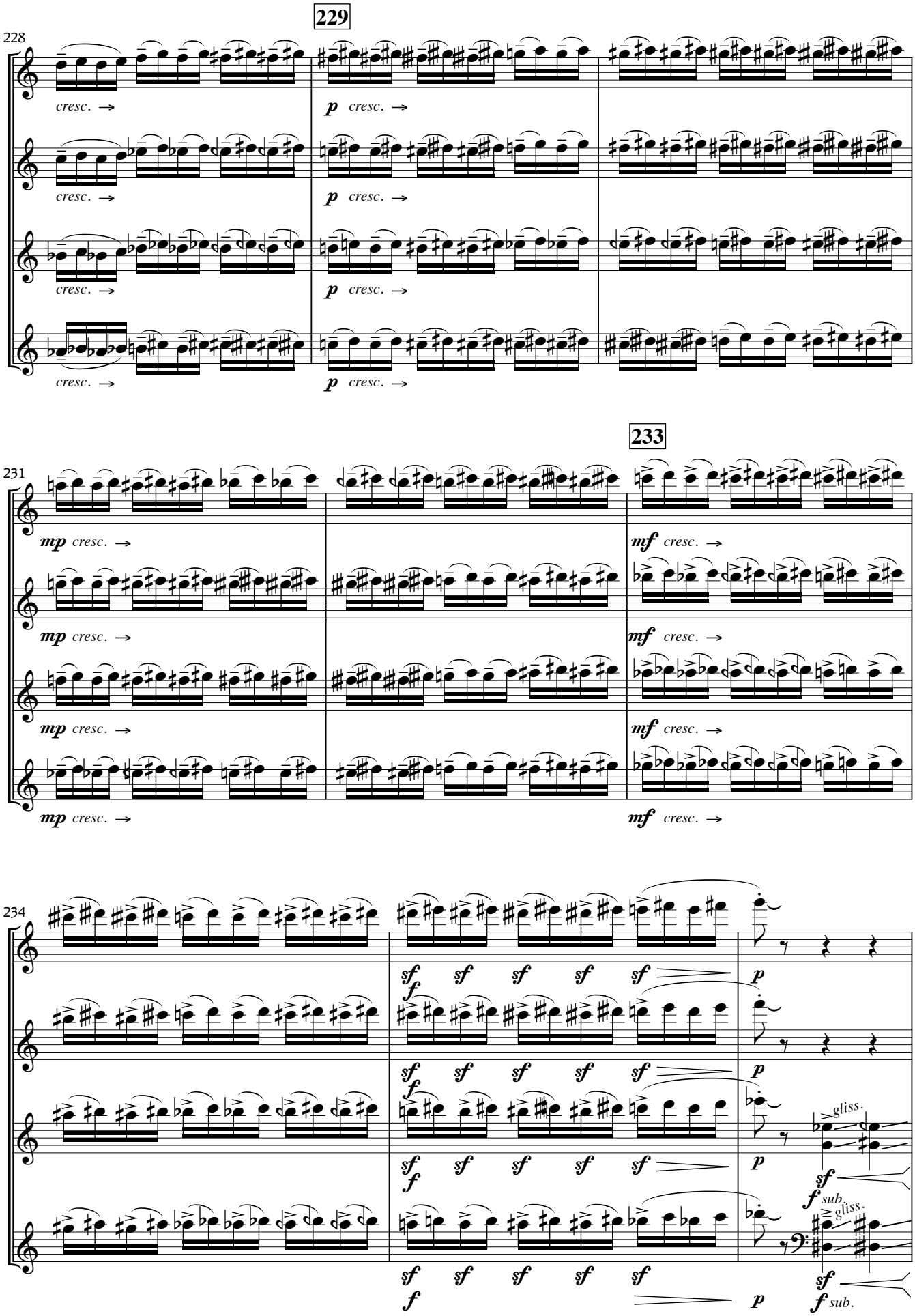

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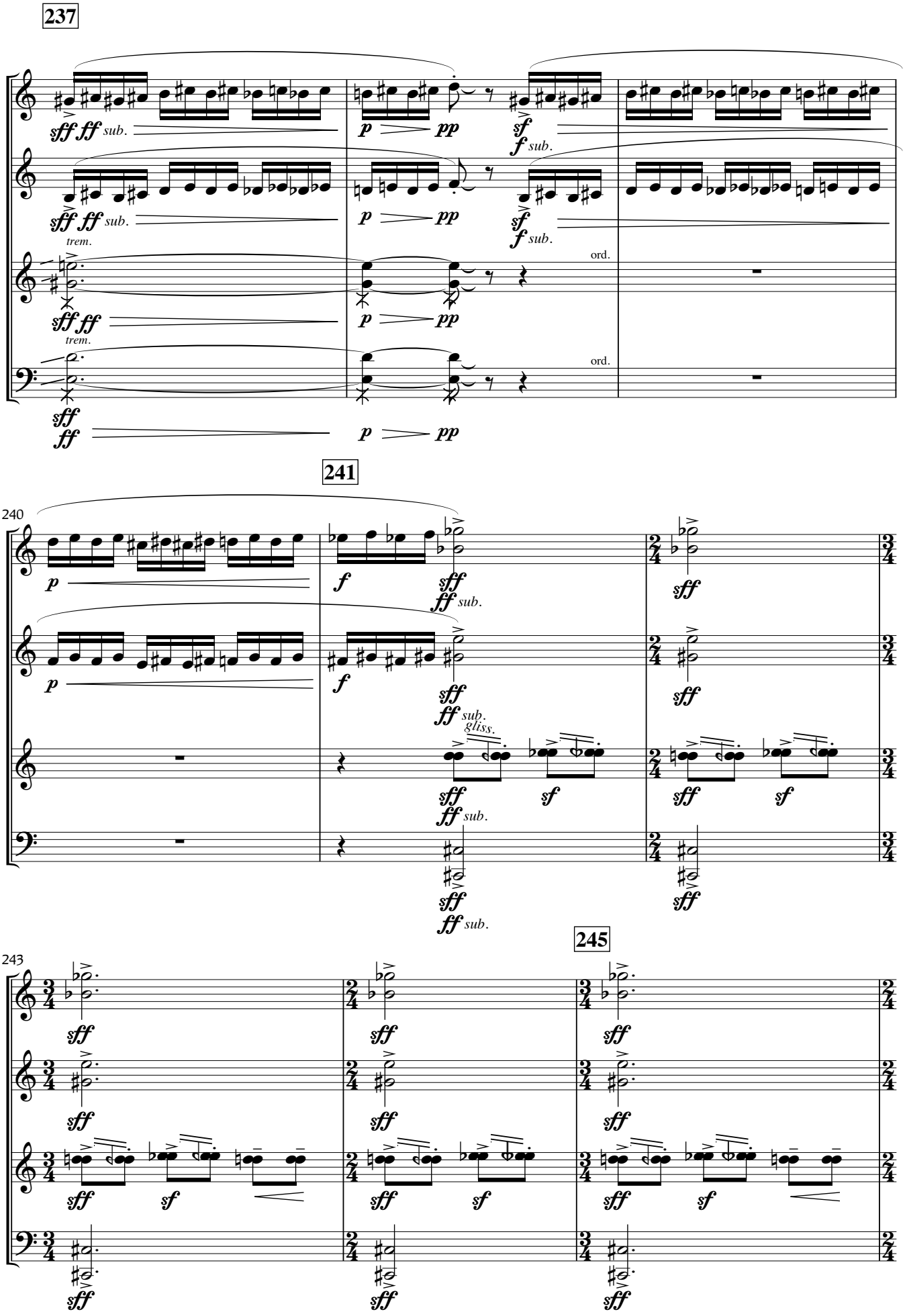

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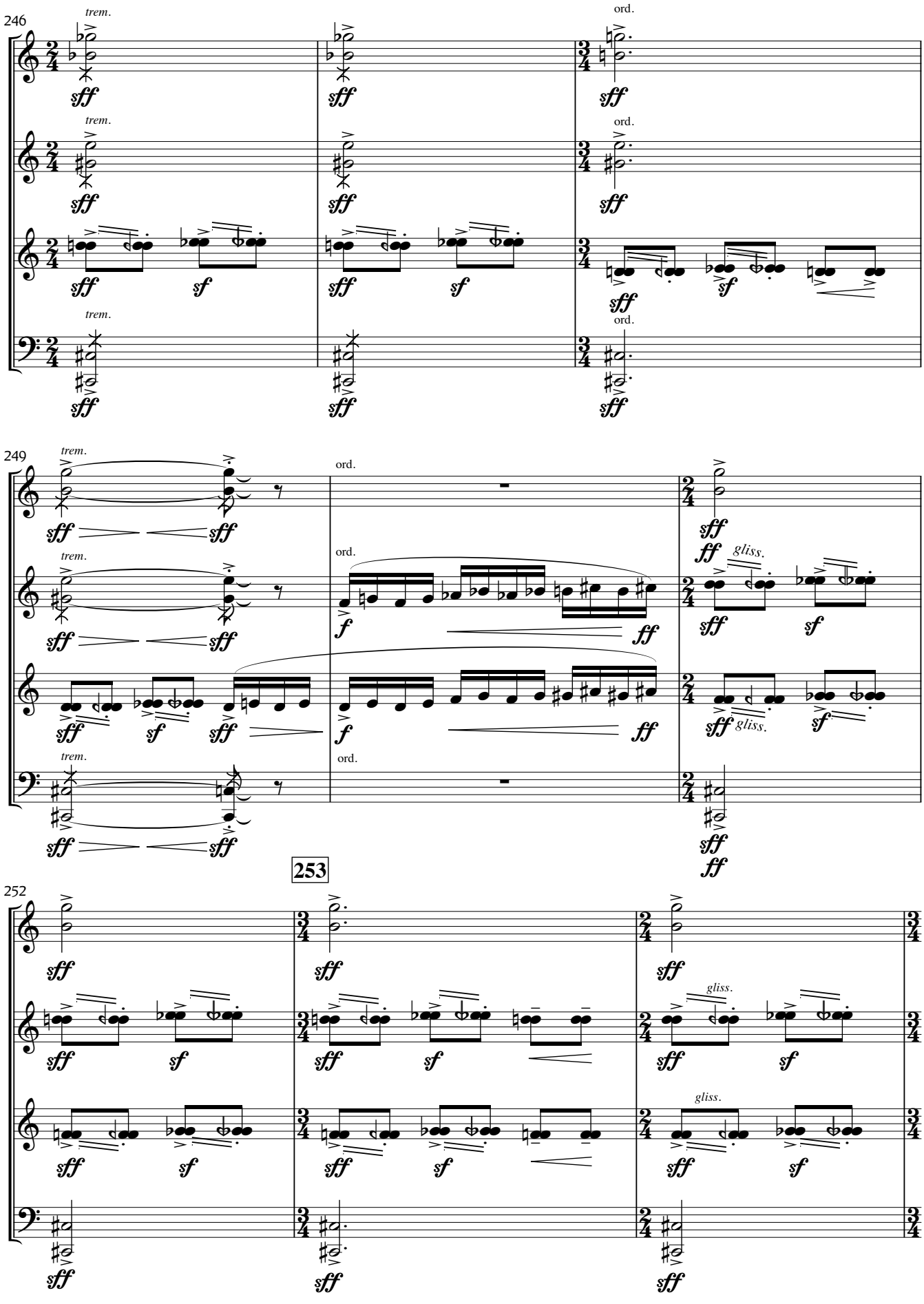

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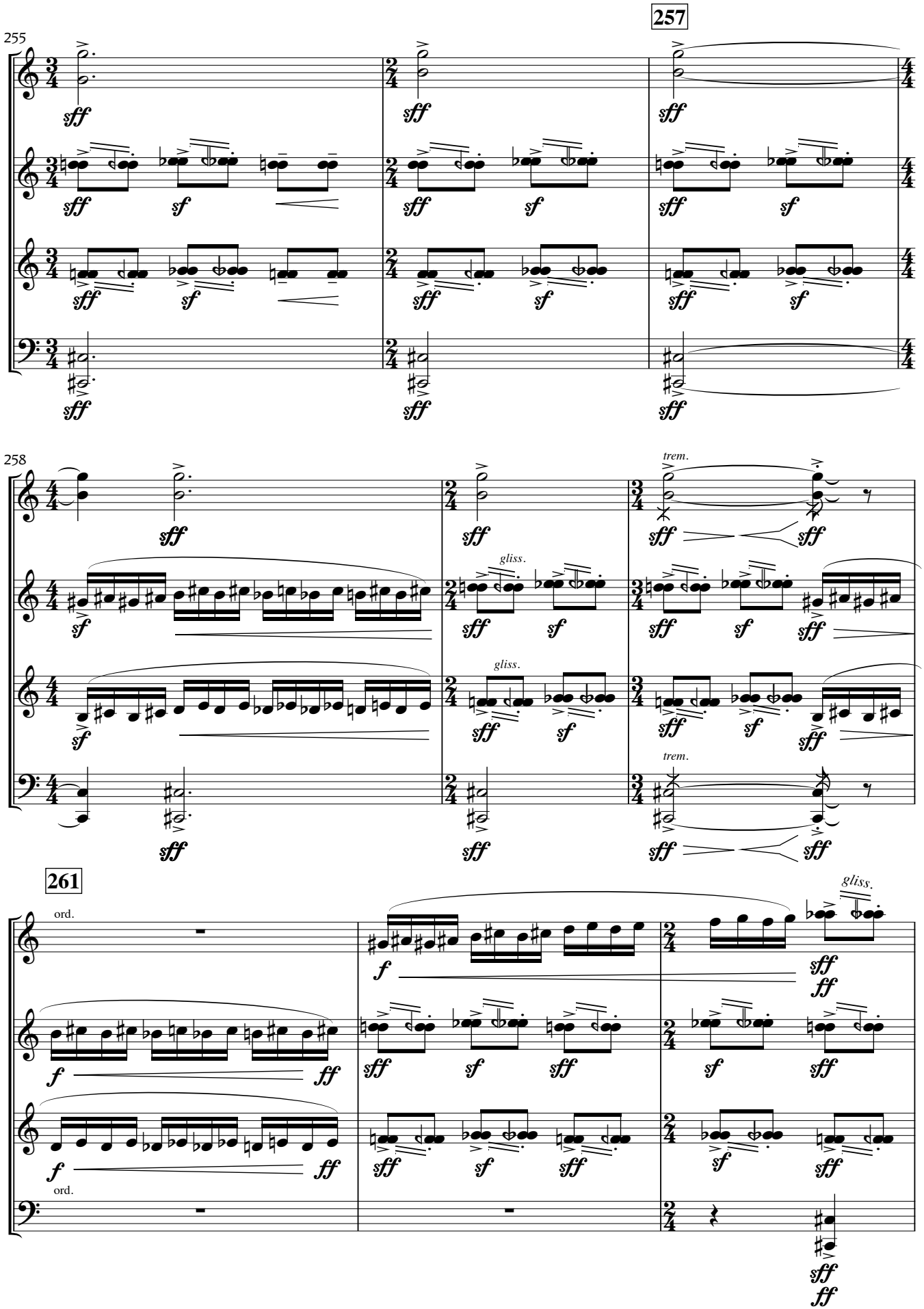

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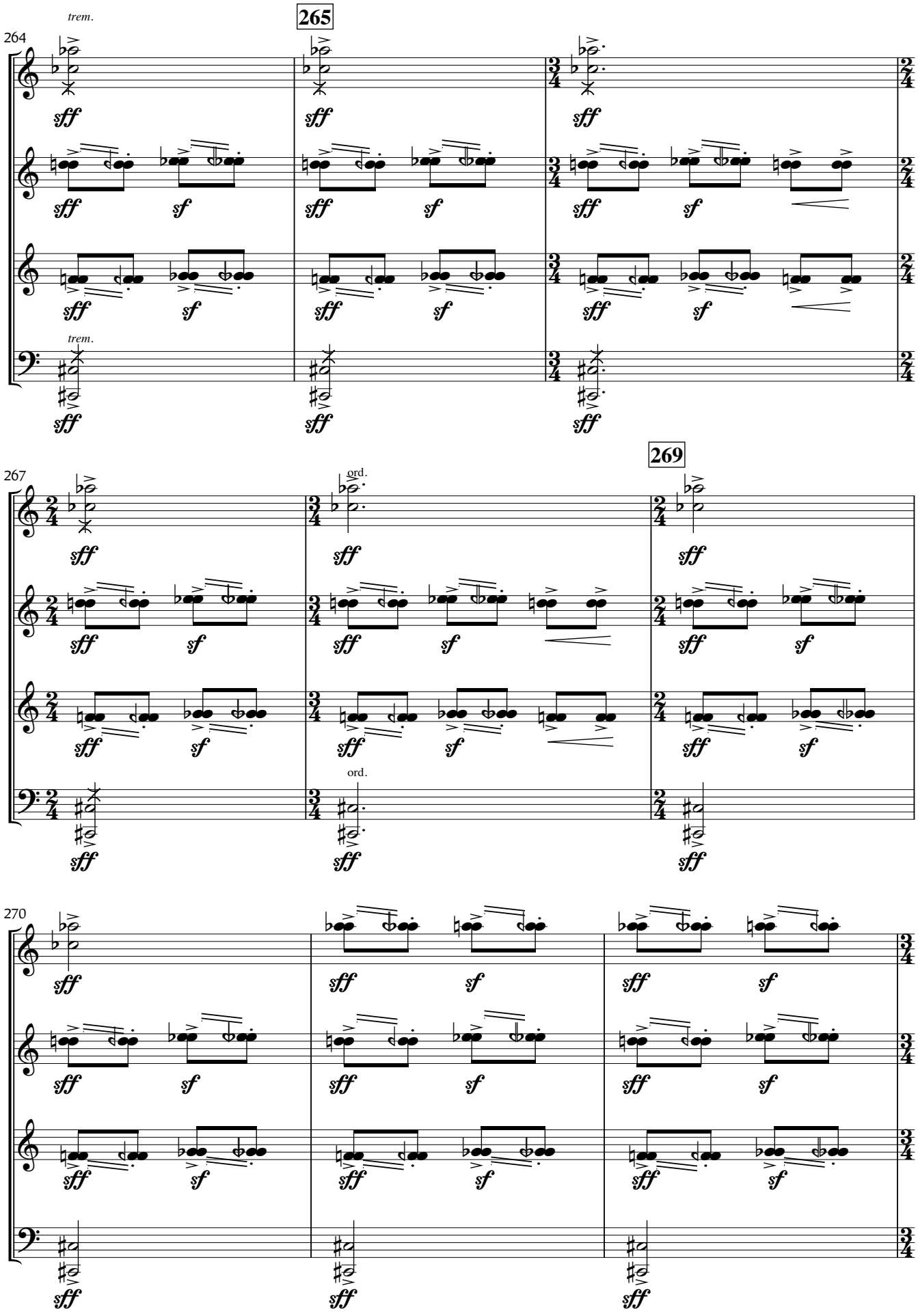

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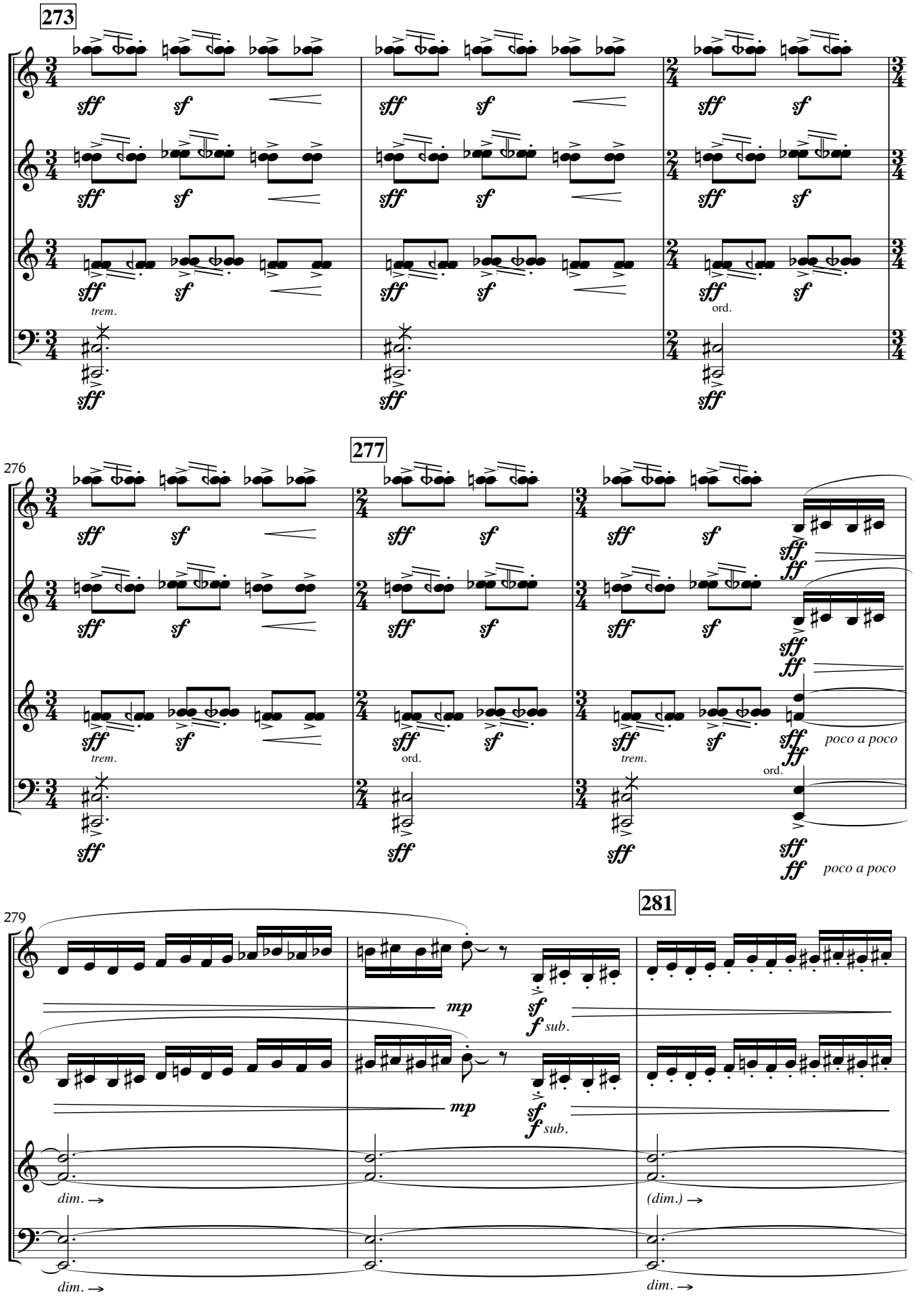

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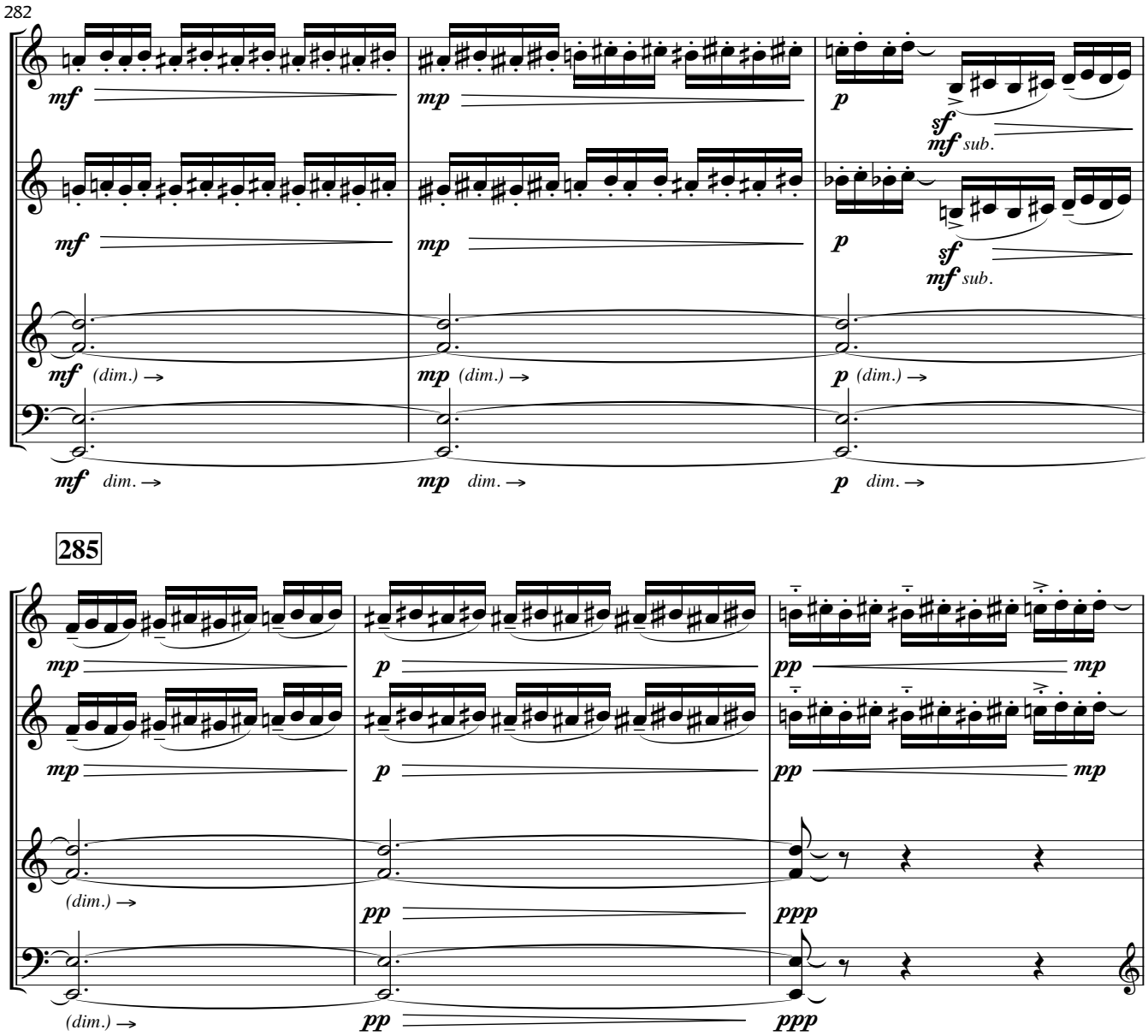

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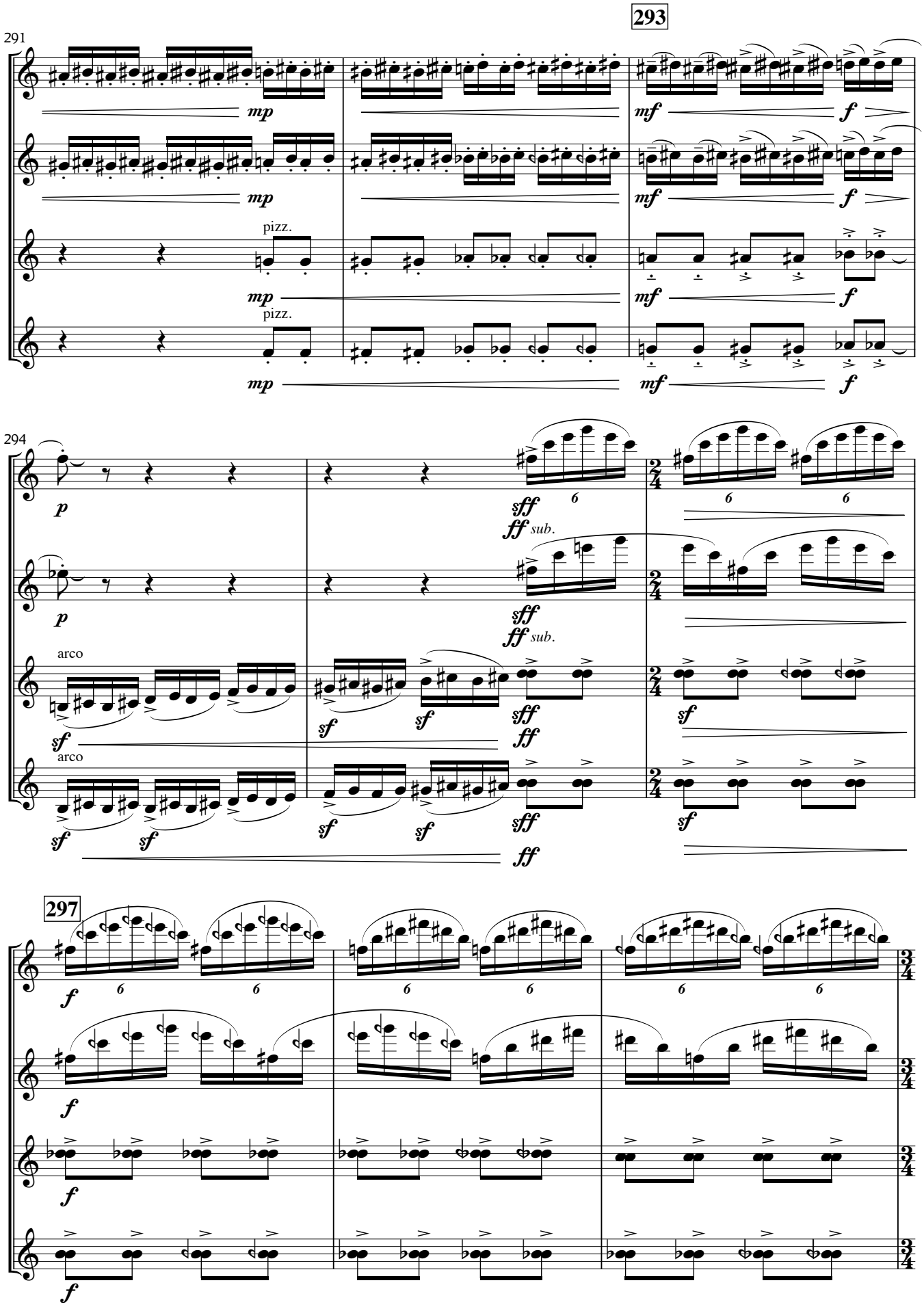

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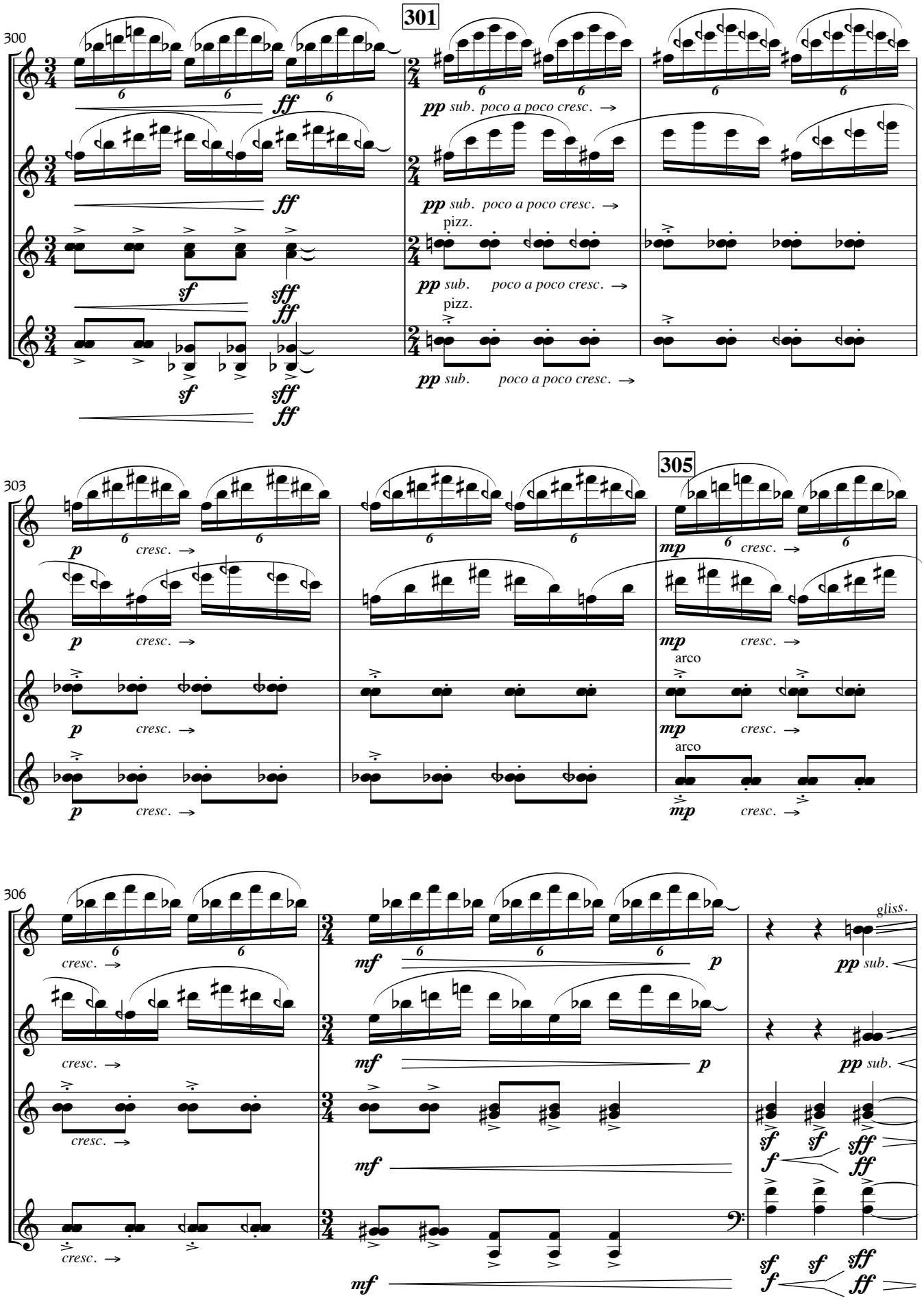

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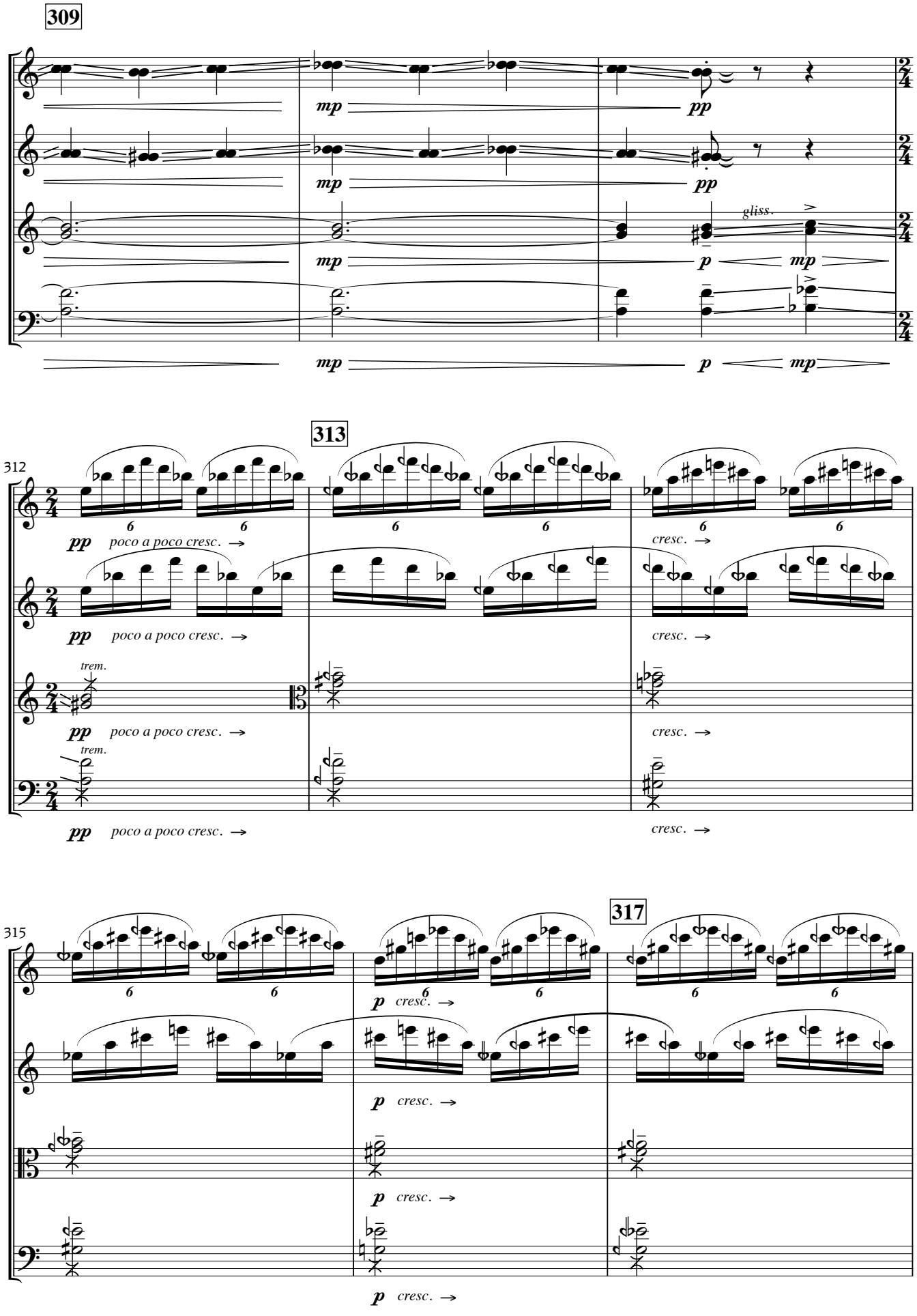

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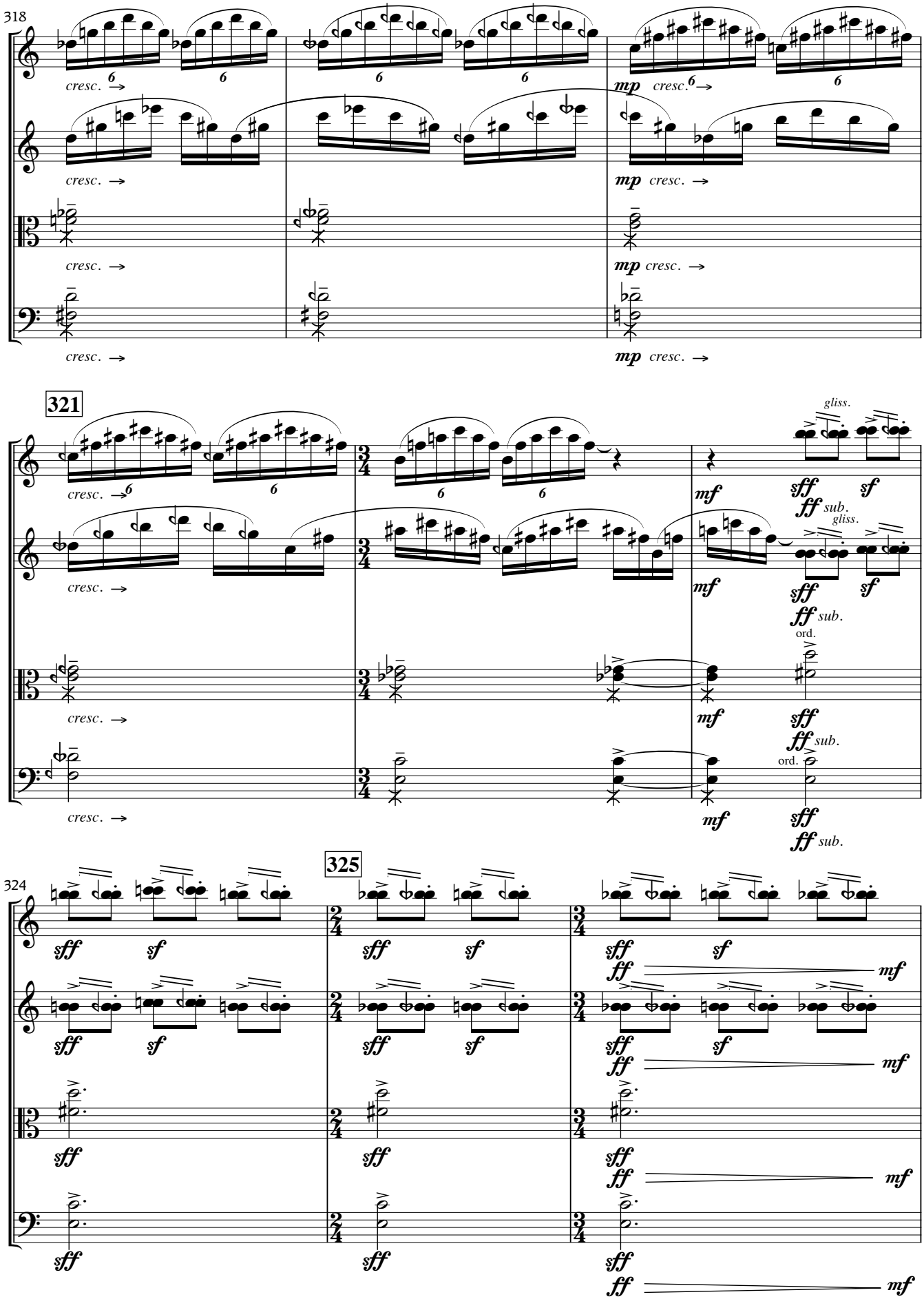

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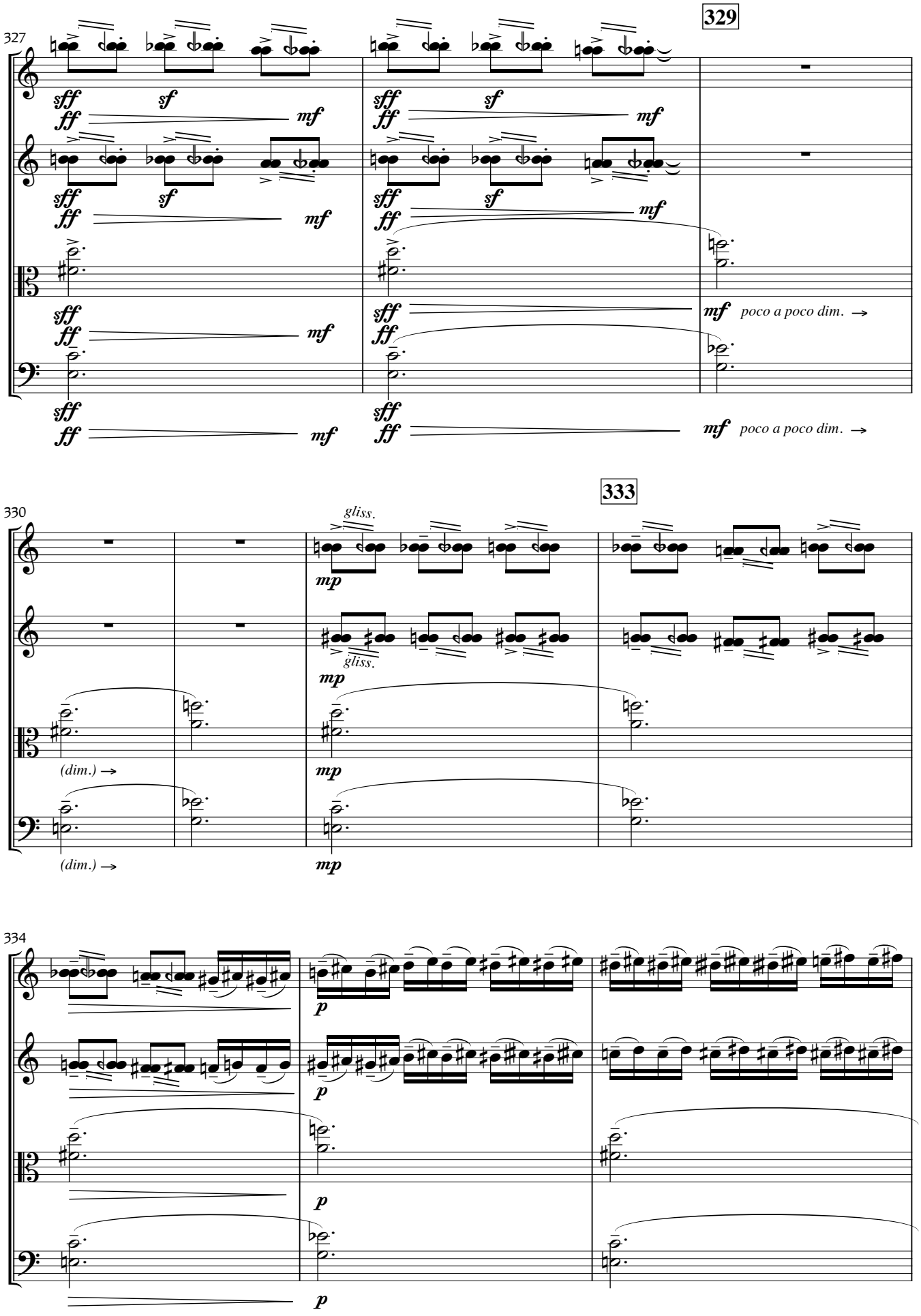

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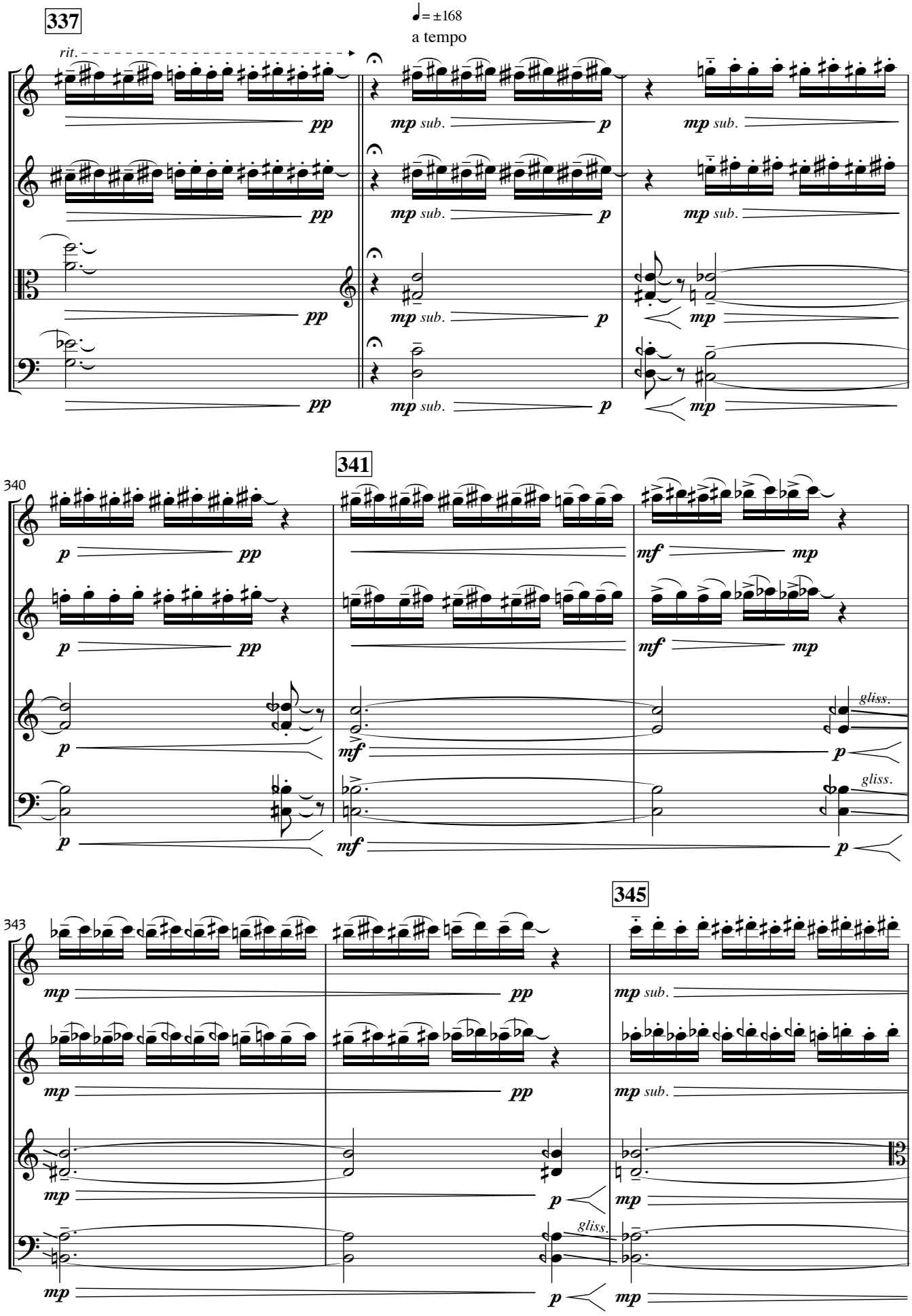

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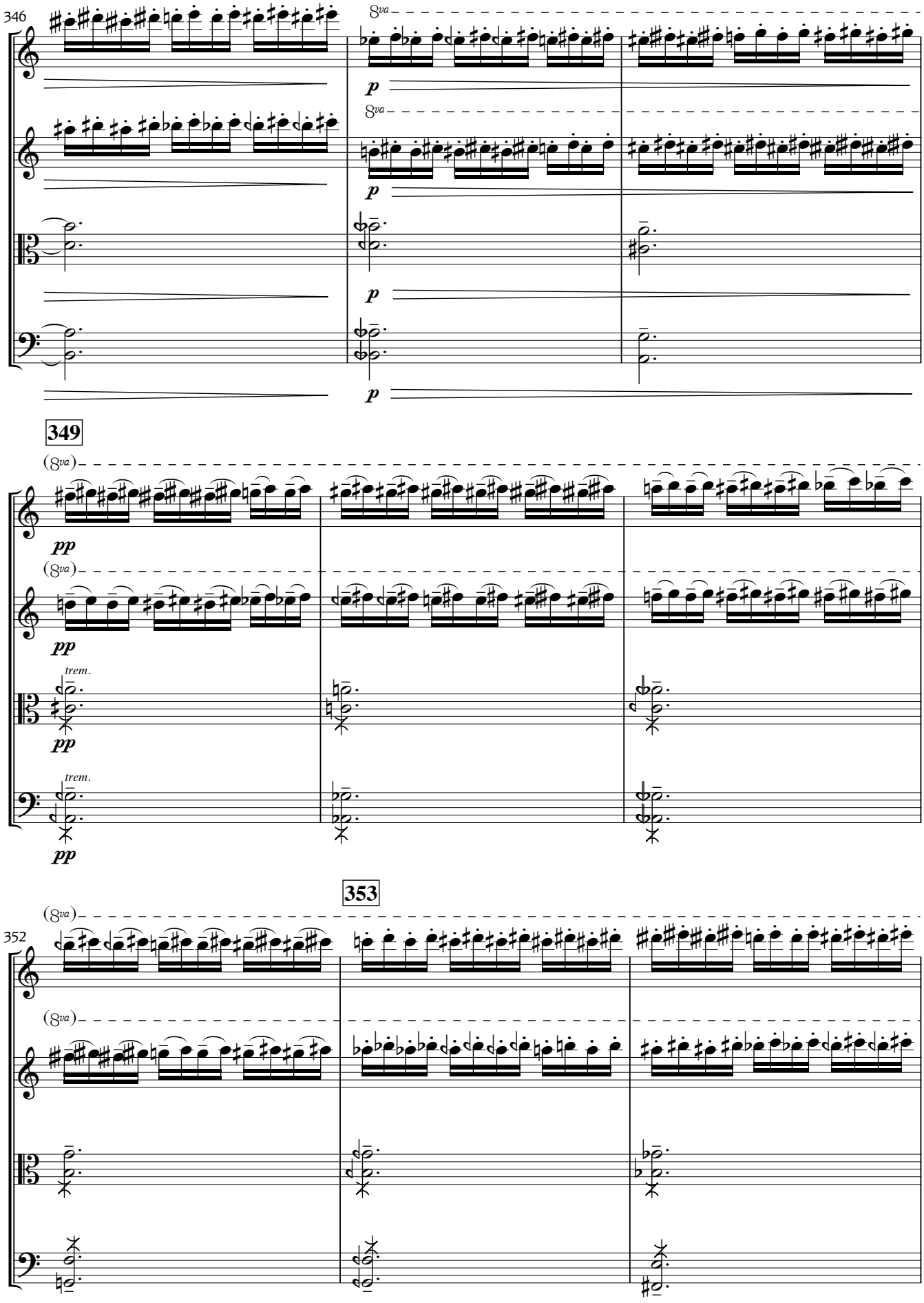

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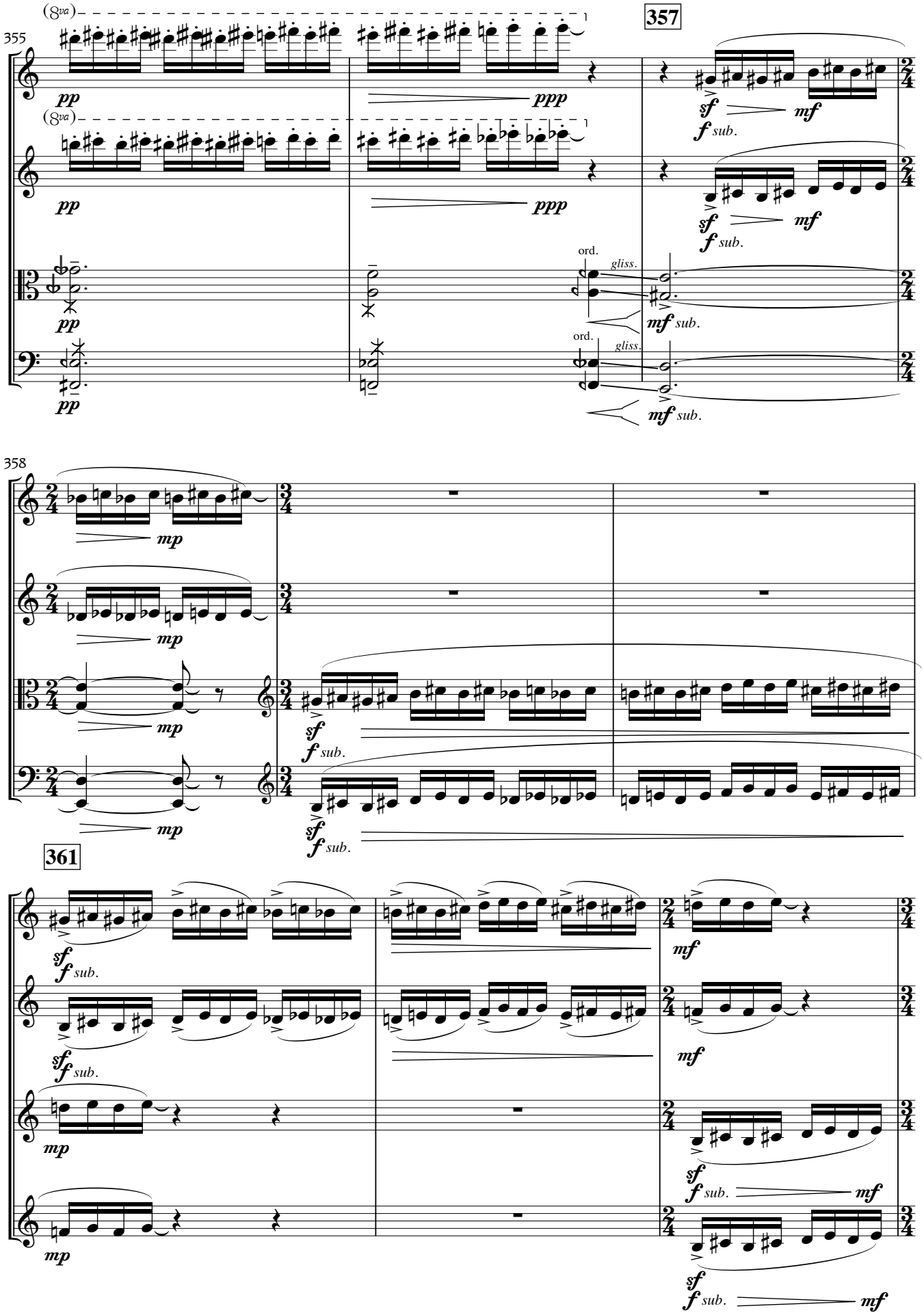

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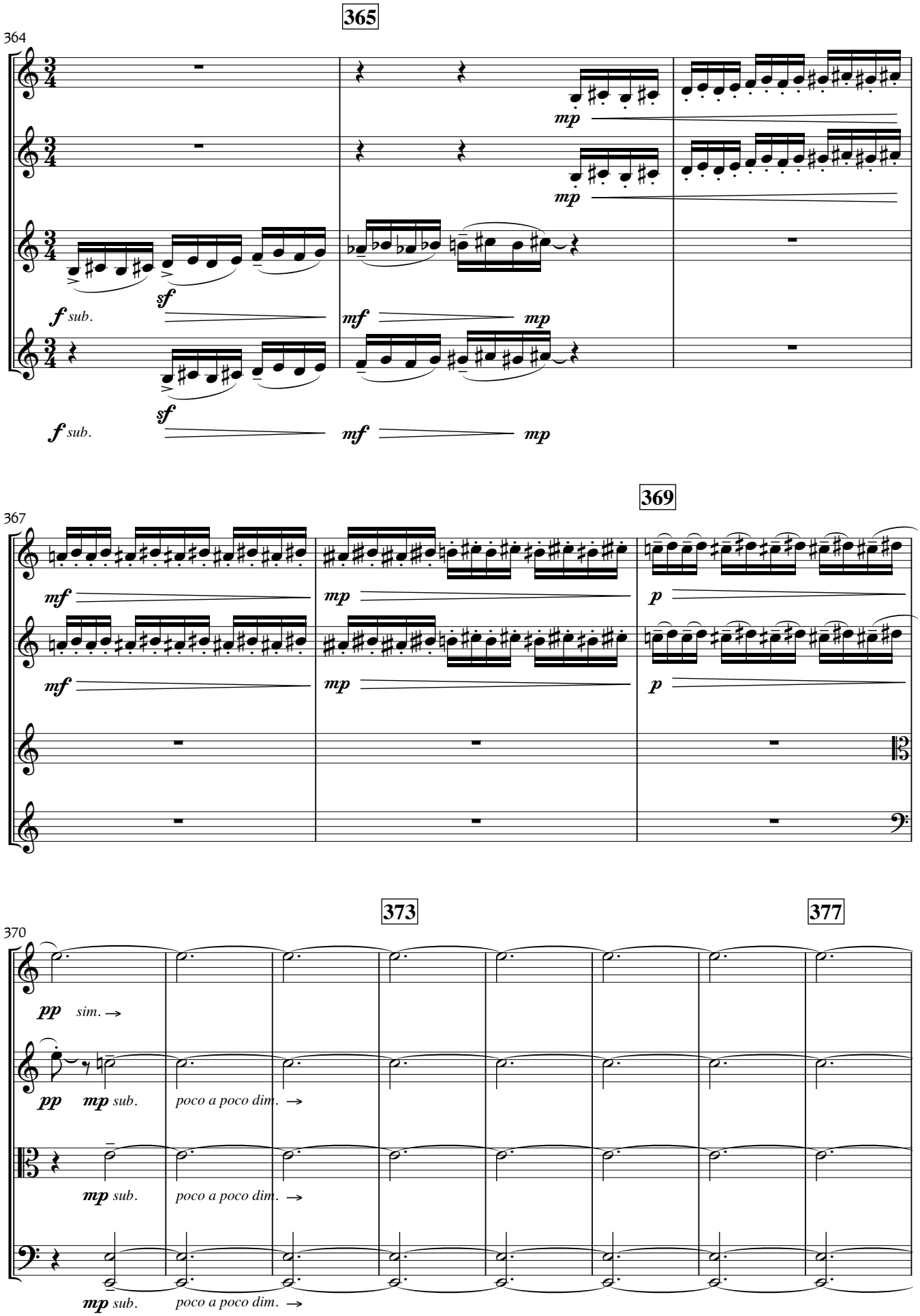

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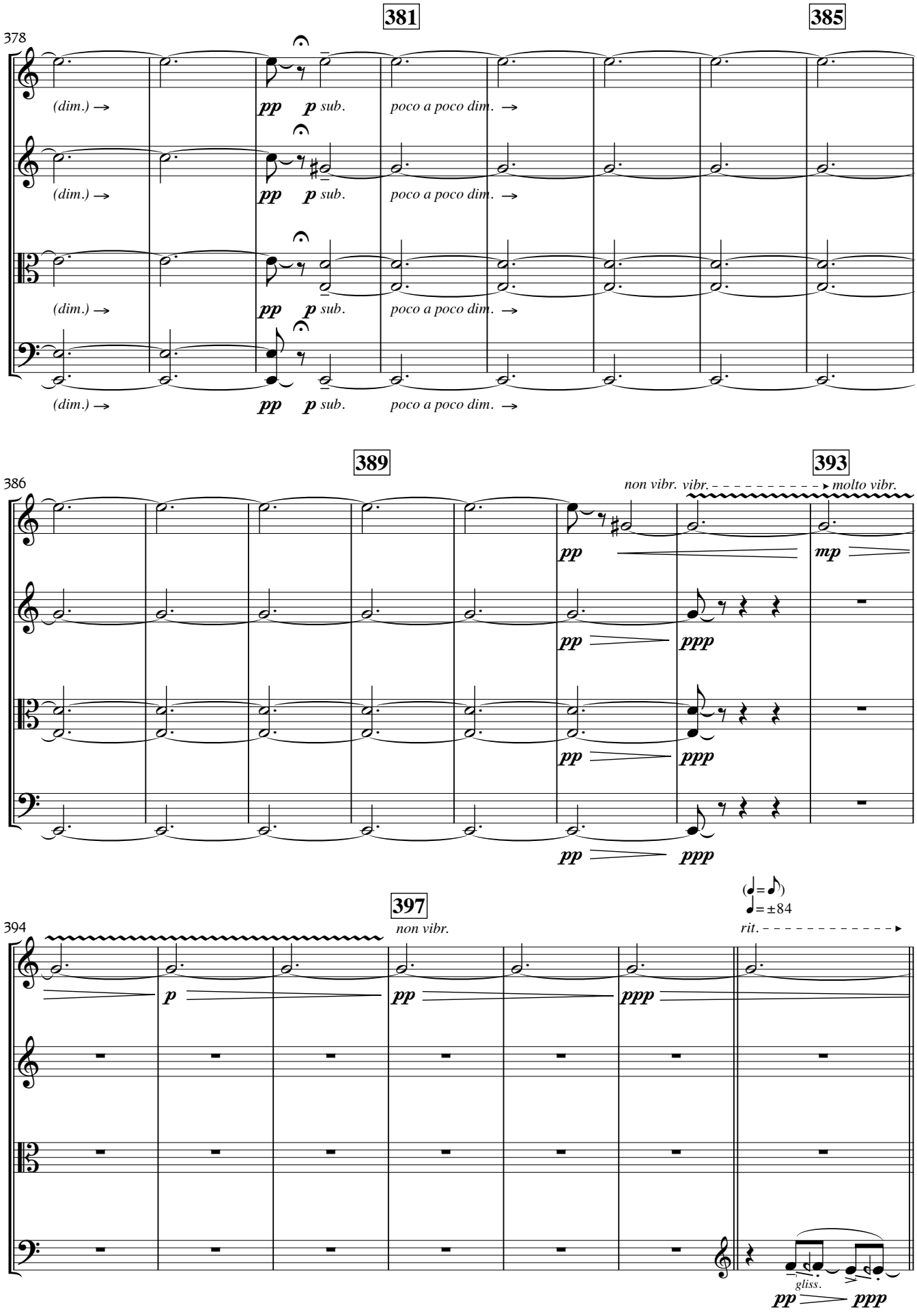

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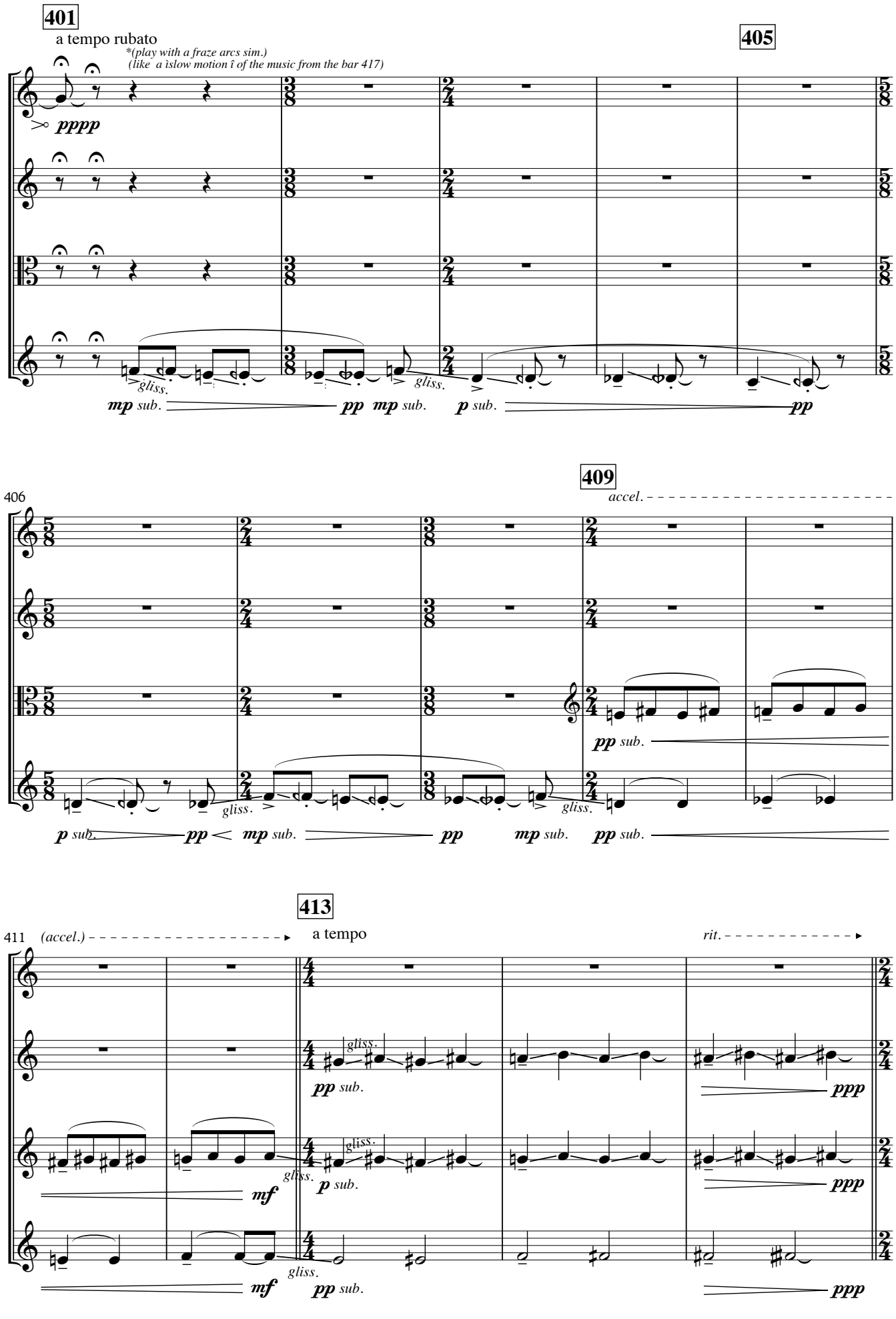

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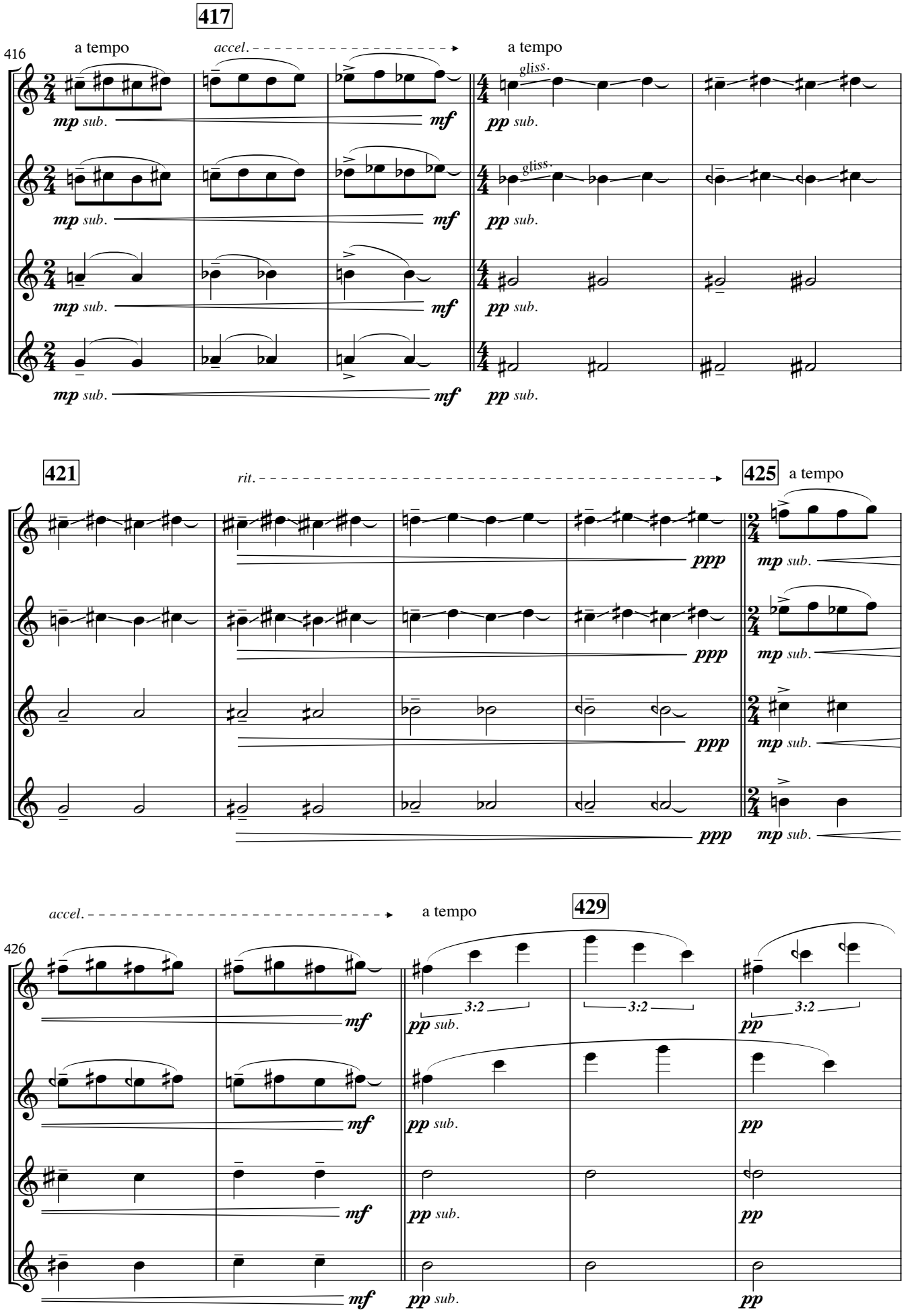

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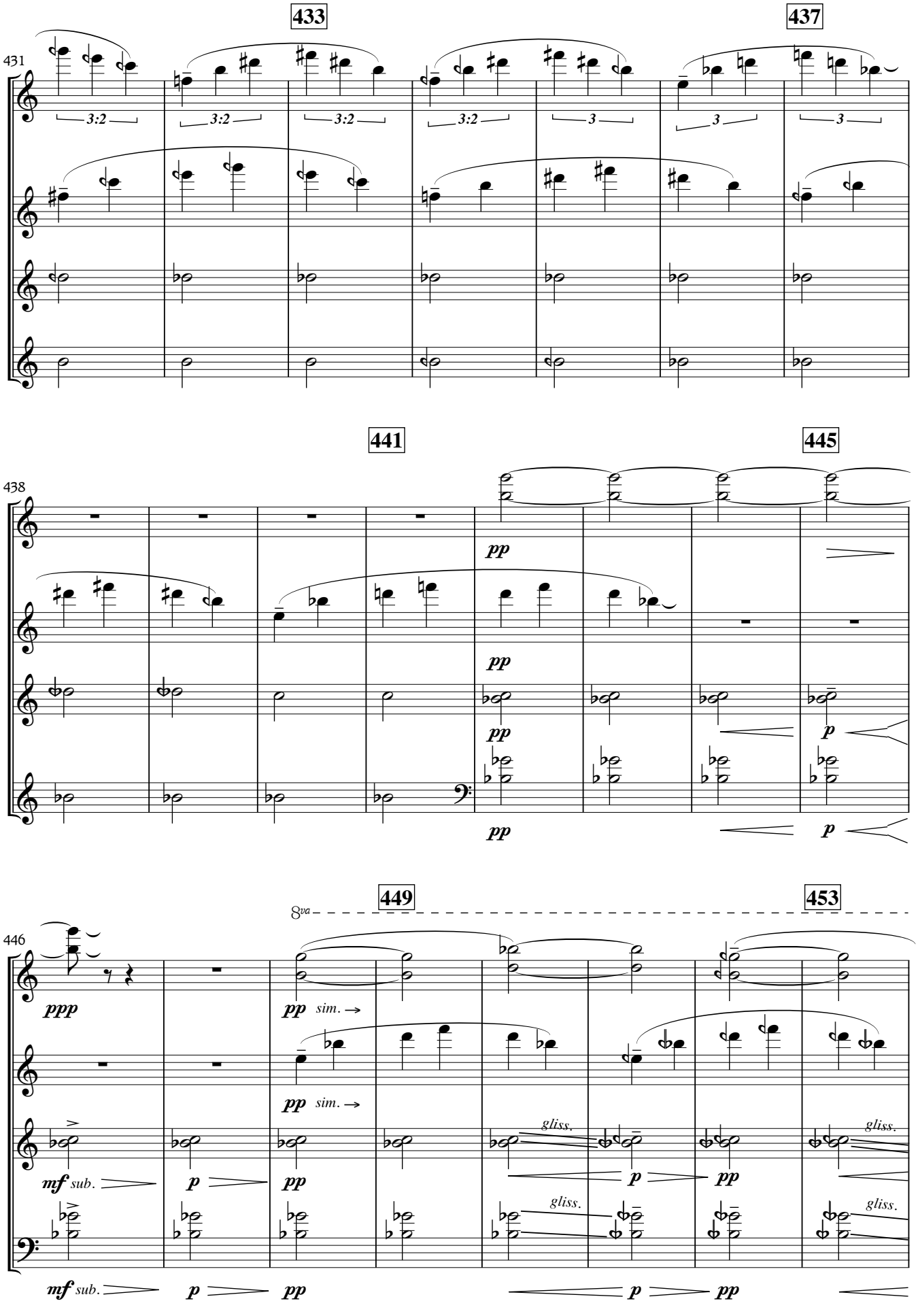

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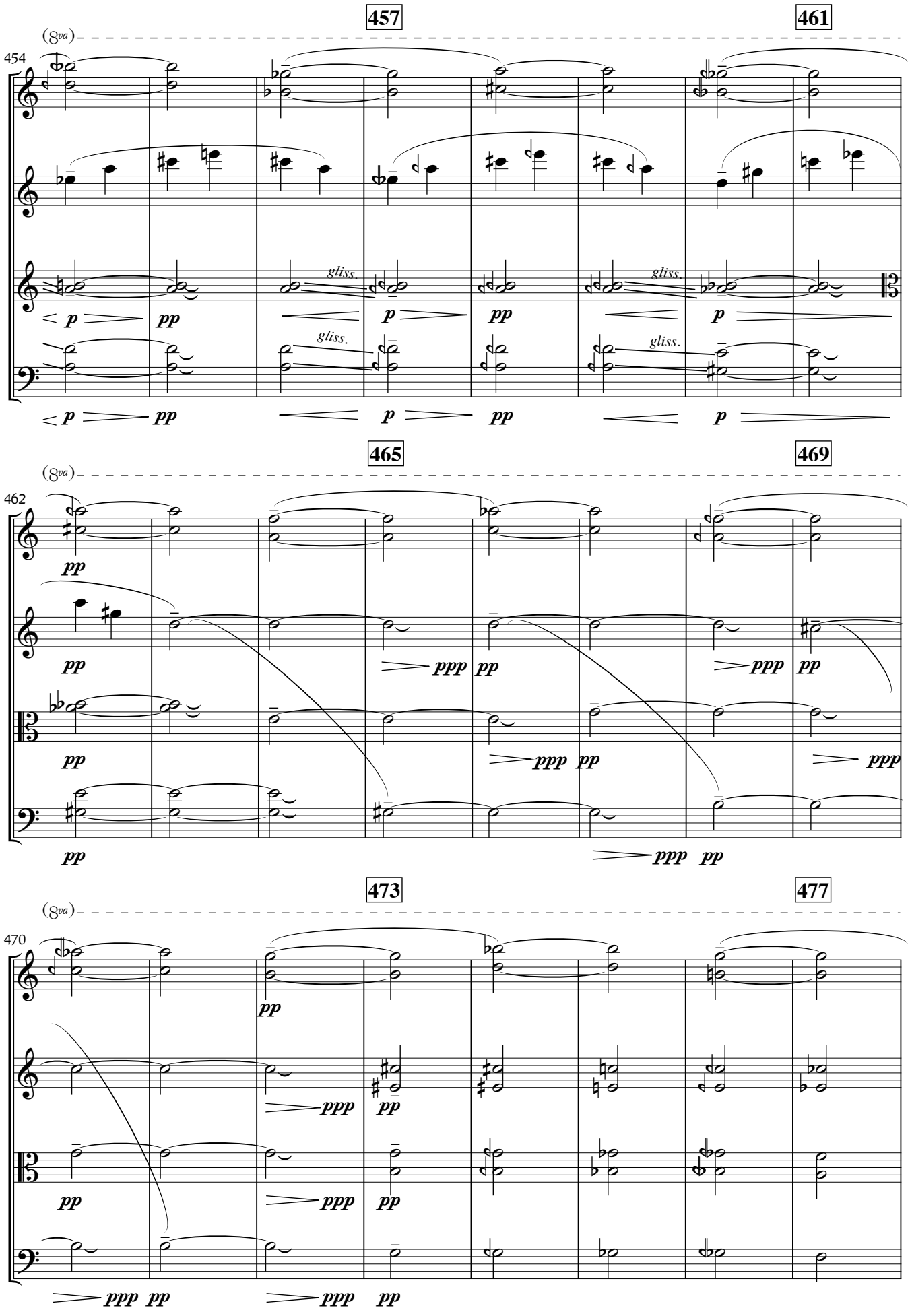

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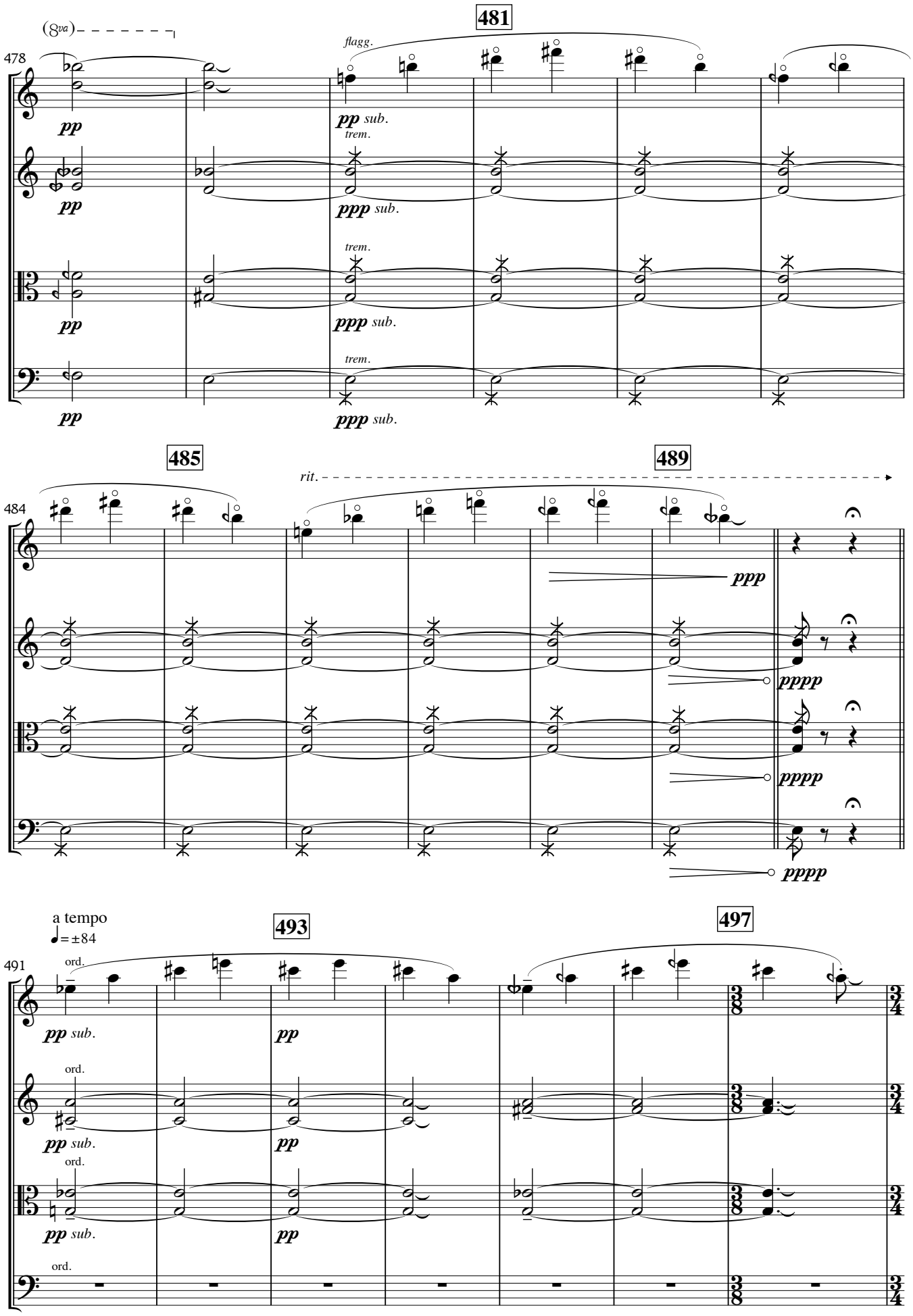

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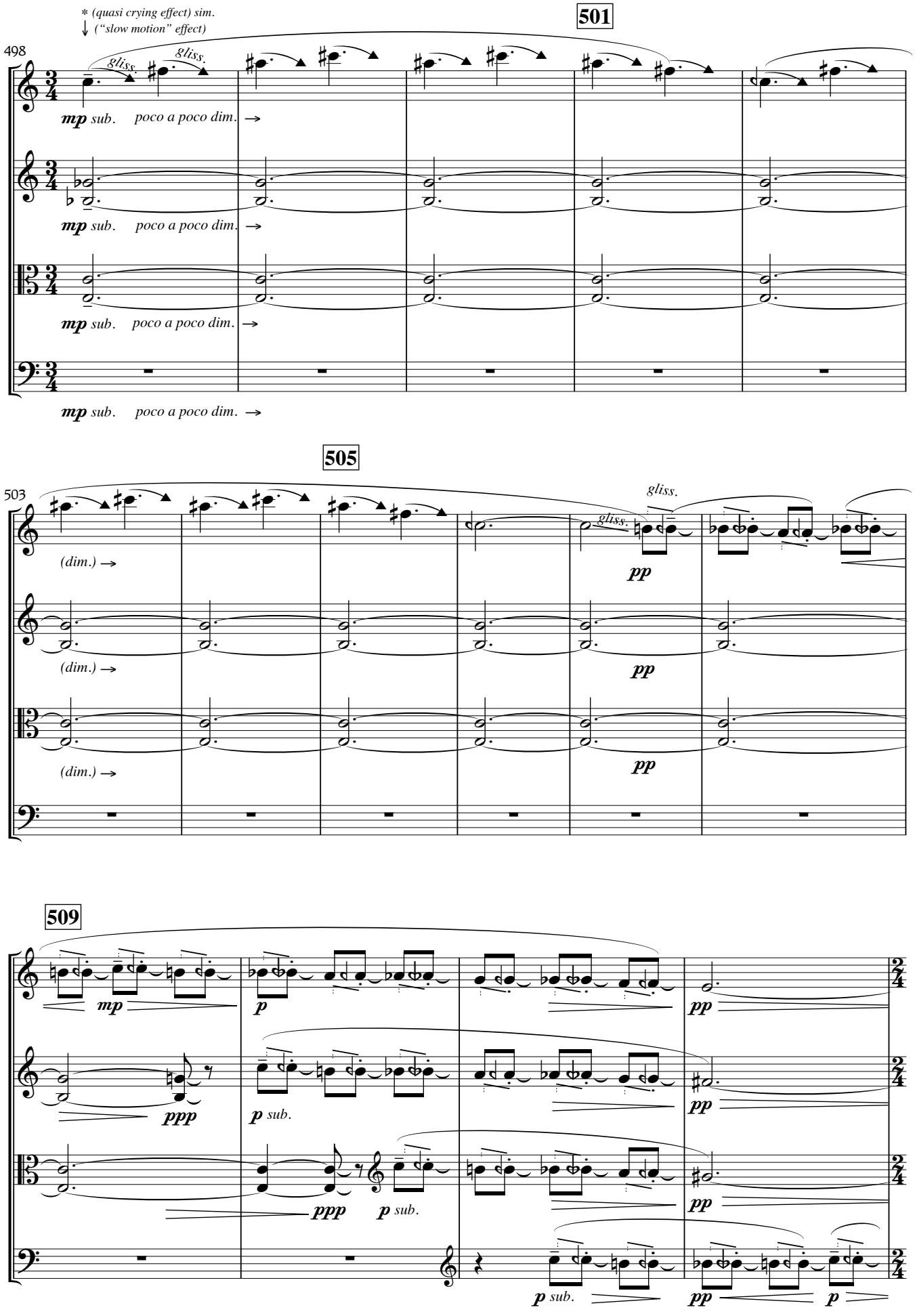

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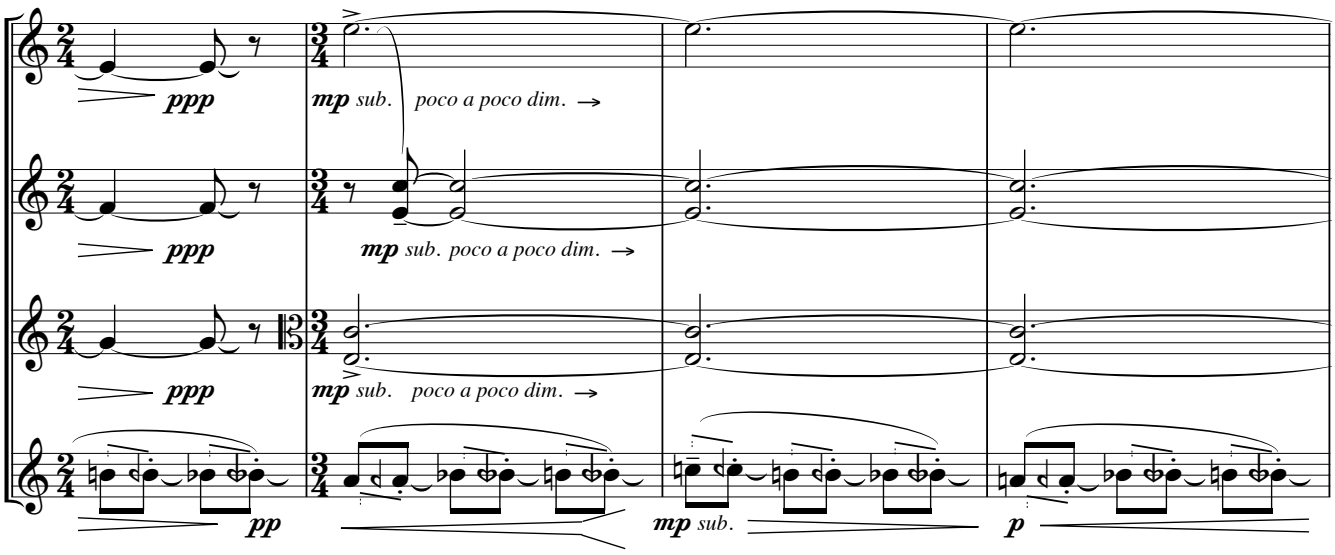

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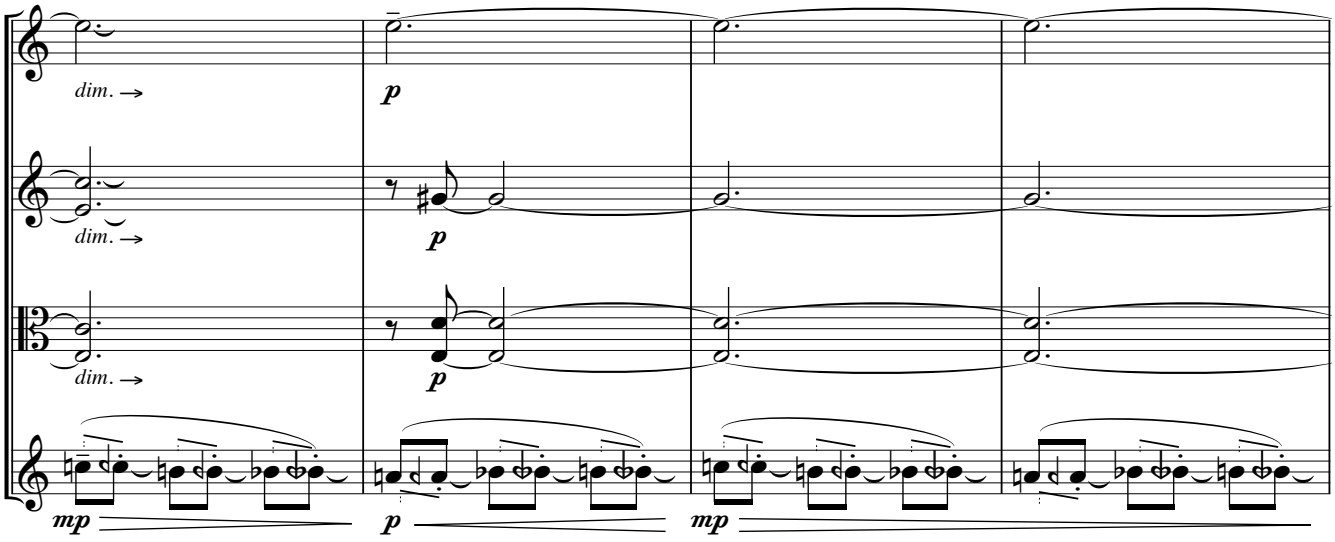

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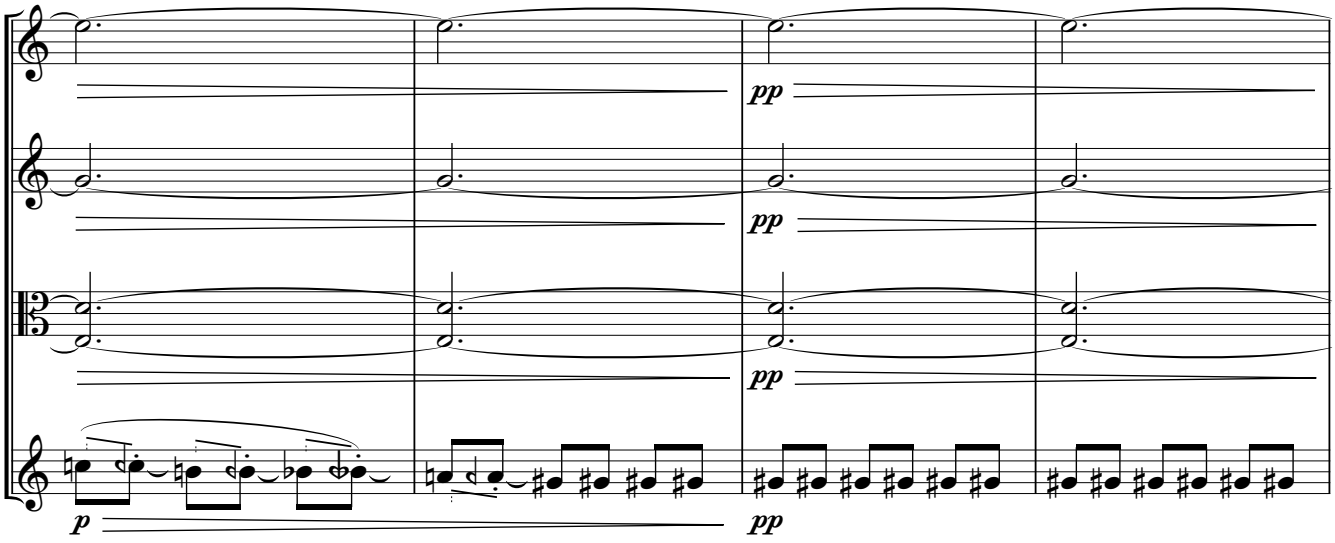

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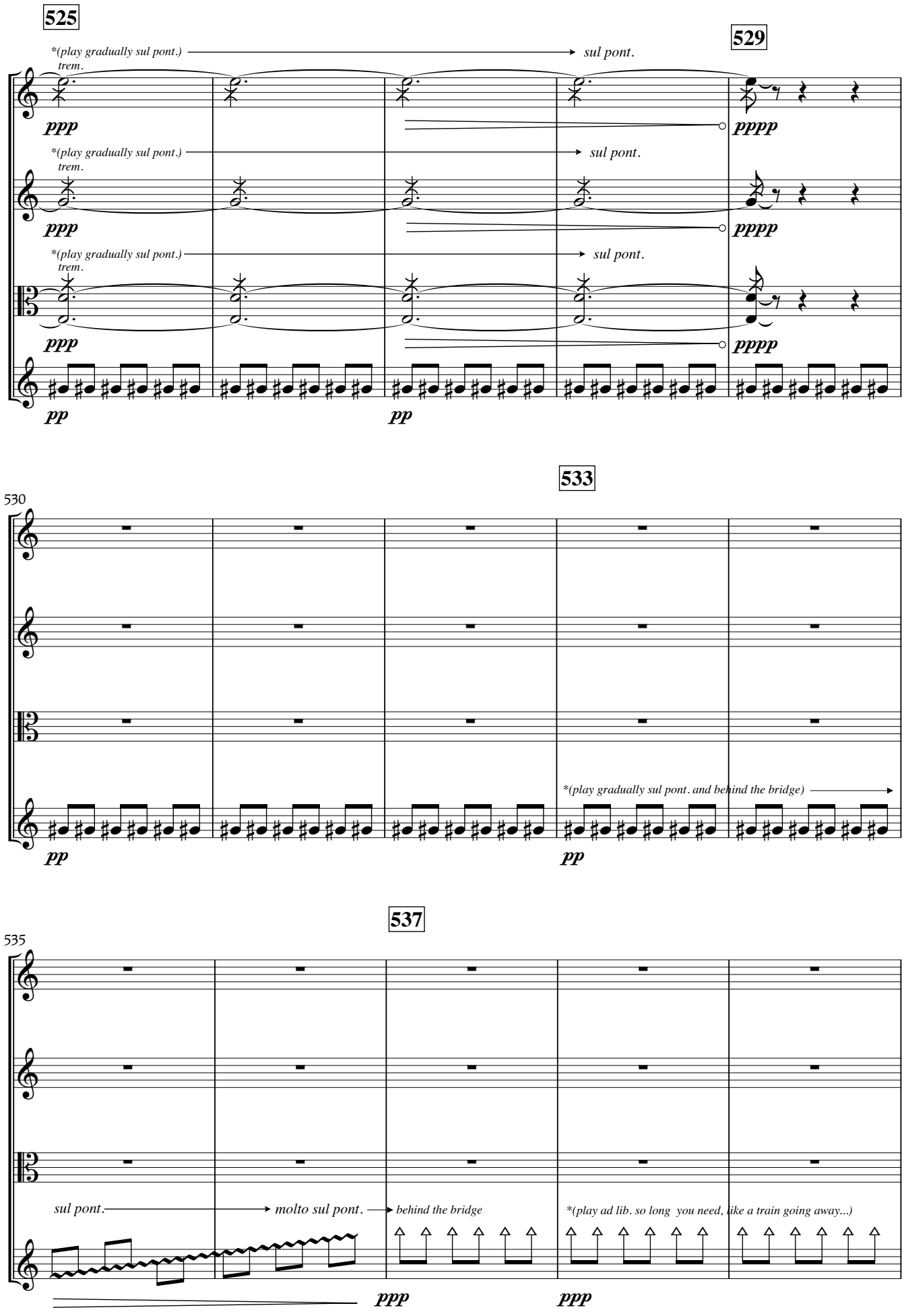

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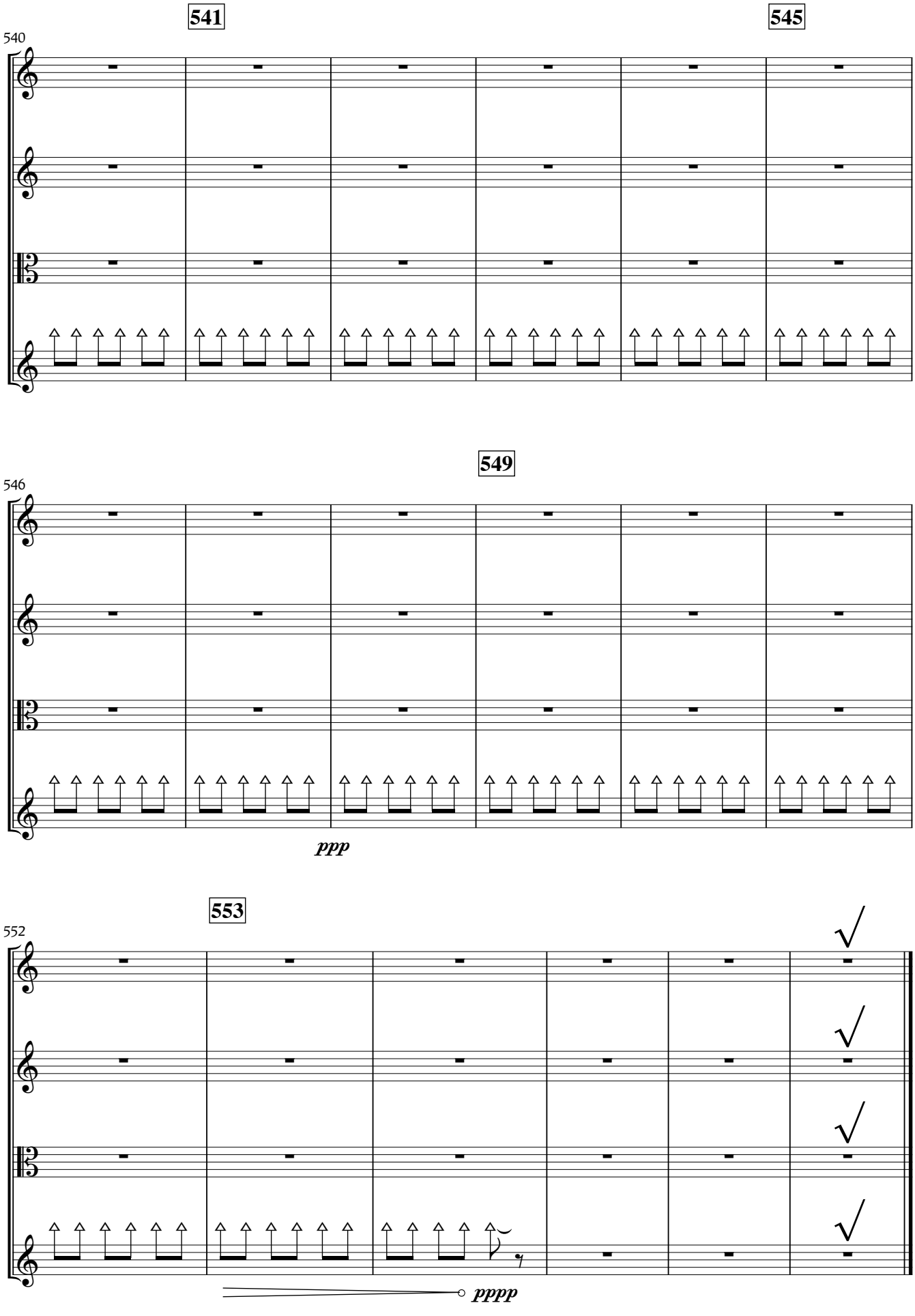

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Five for Five

String Quintet N° 1

Hanna Kulenty

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String Quintet N° 1

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Scoring:(*)

Violin 1
Violin 2
Viola
Violoncello
Double Bass

(*) Possible amplification

Duration: c. 15' 30"

D 13005

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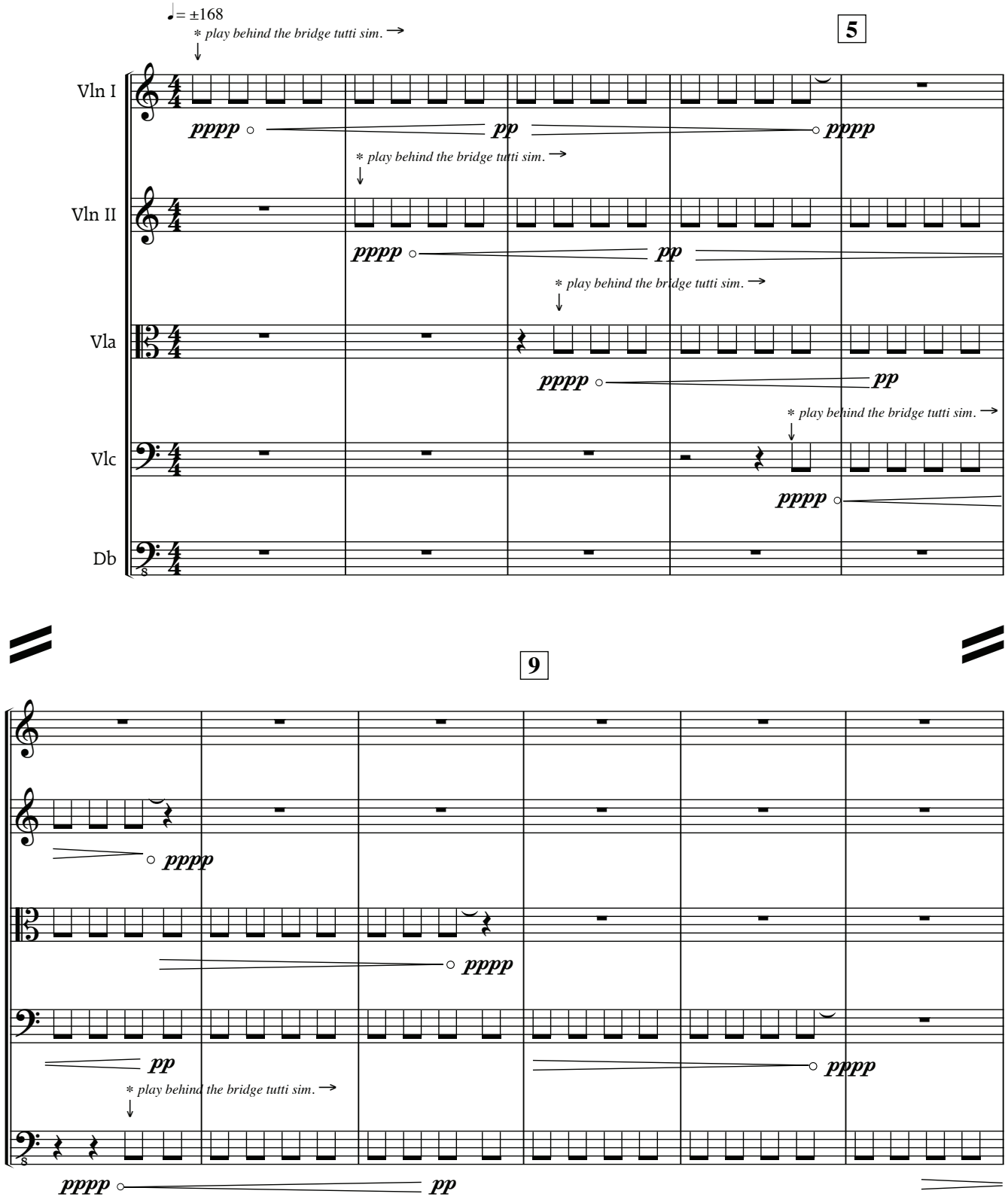
Hanna Kulenty



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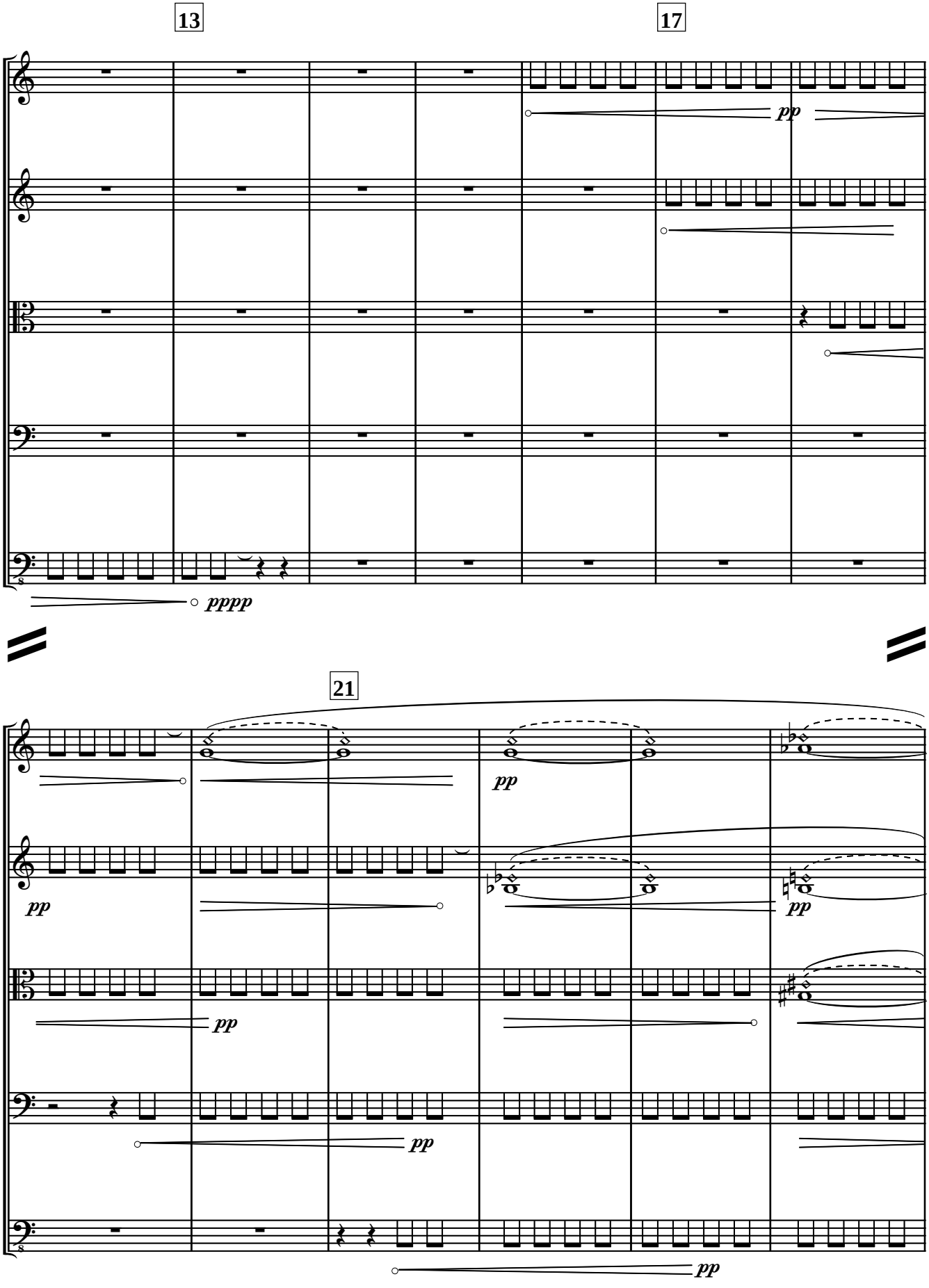

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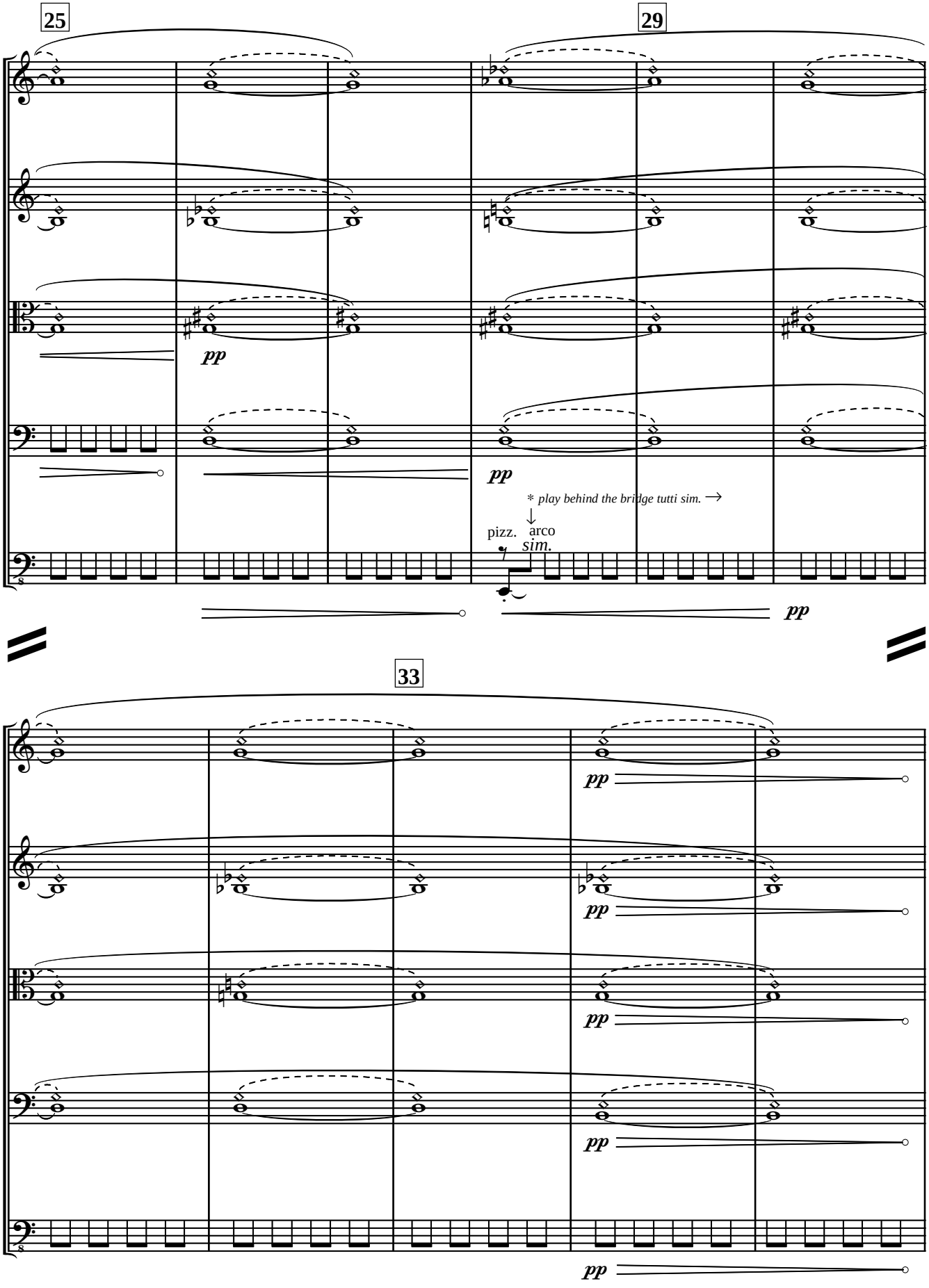

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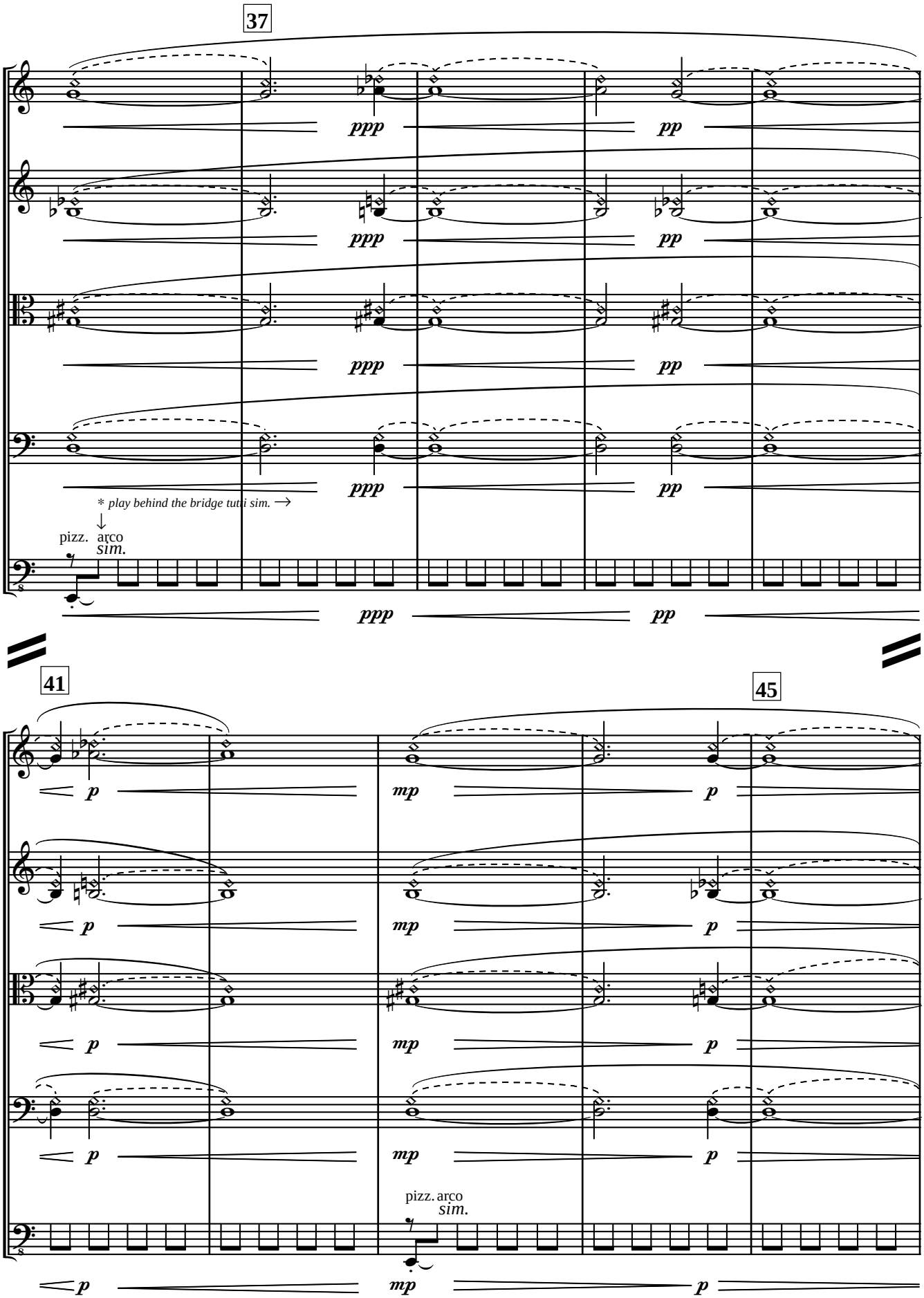

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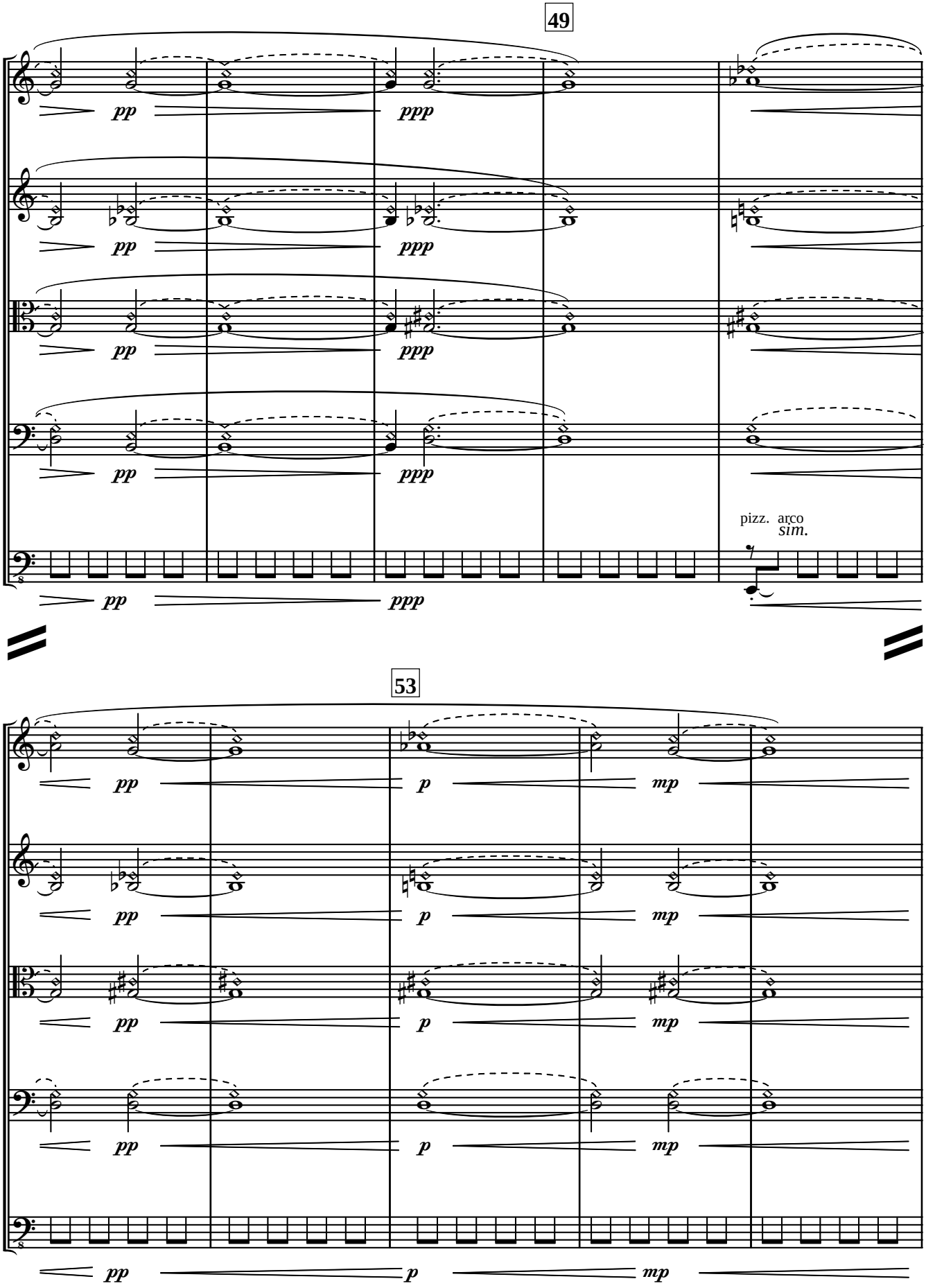

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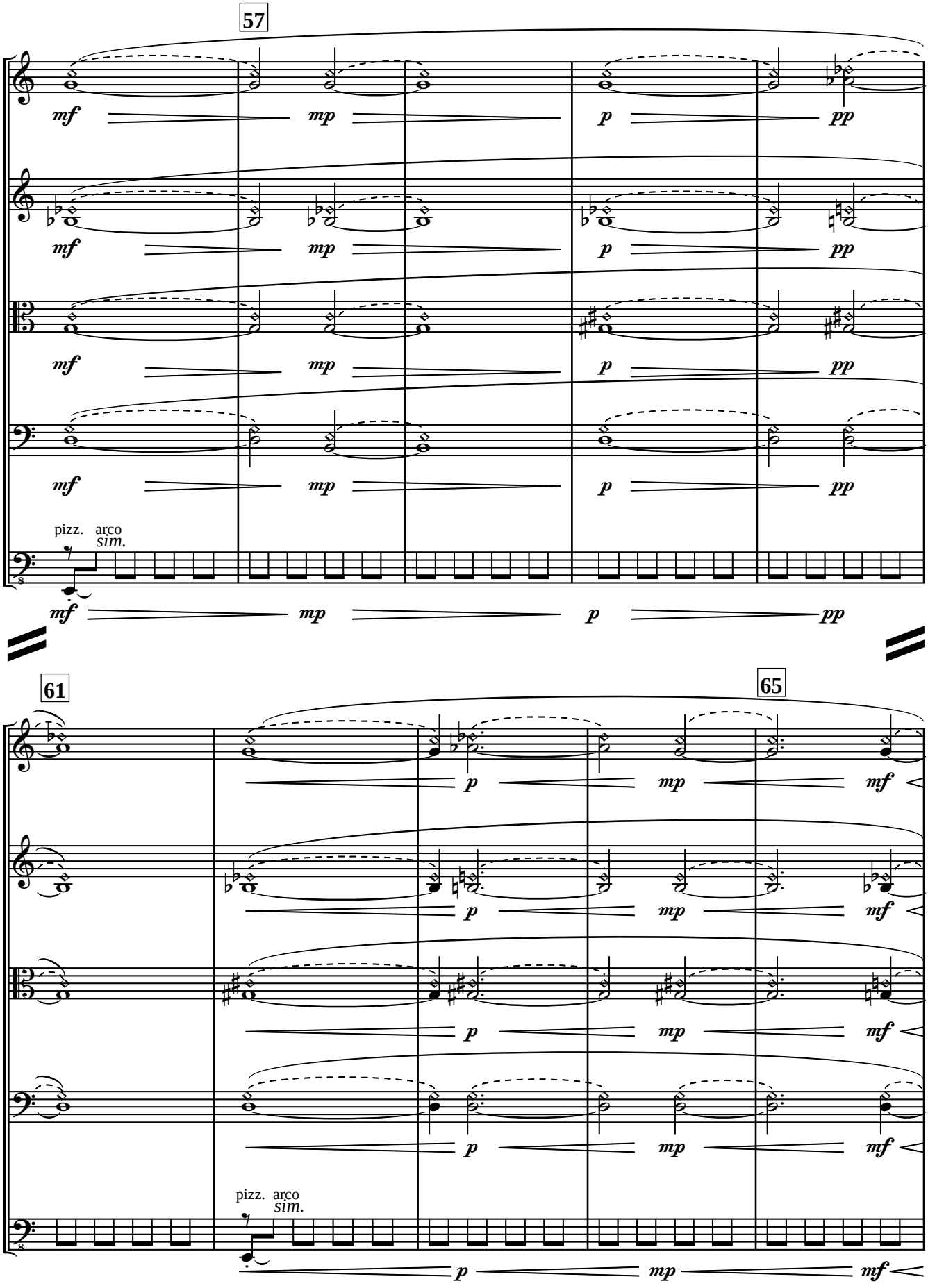

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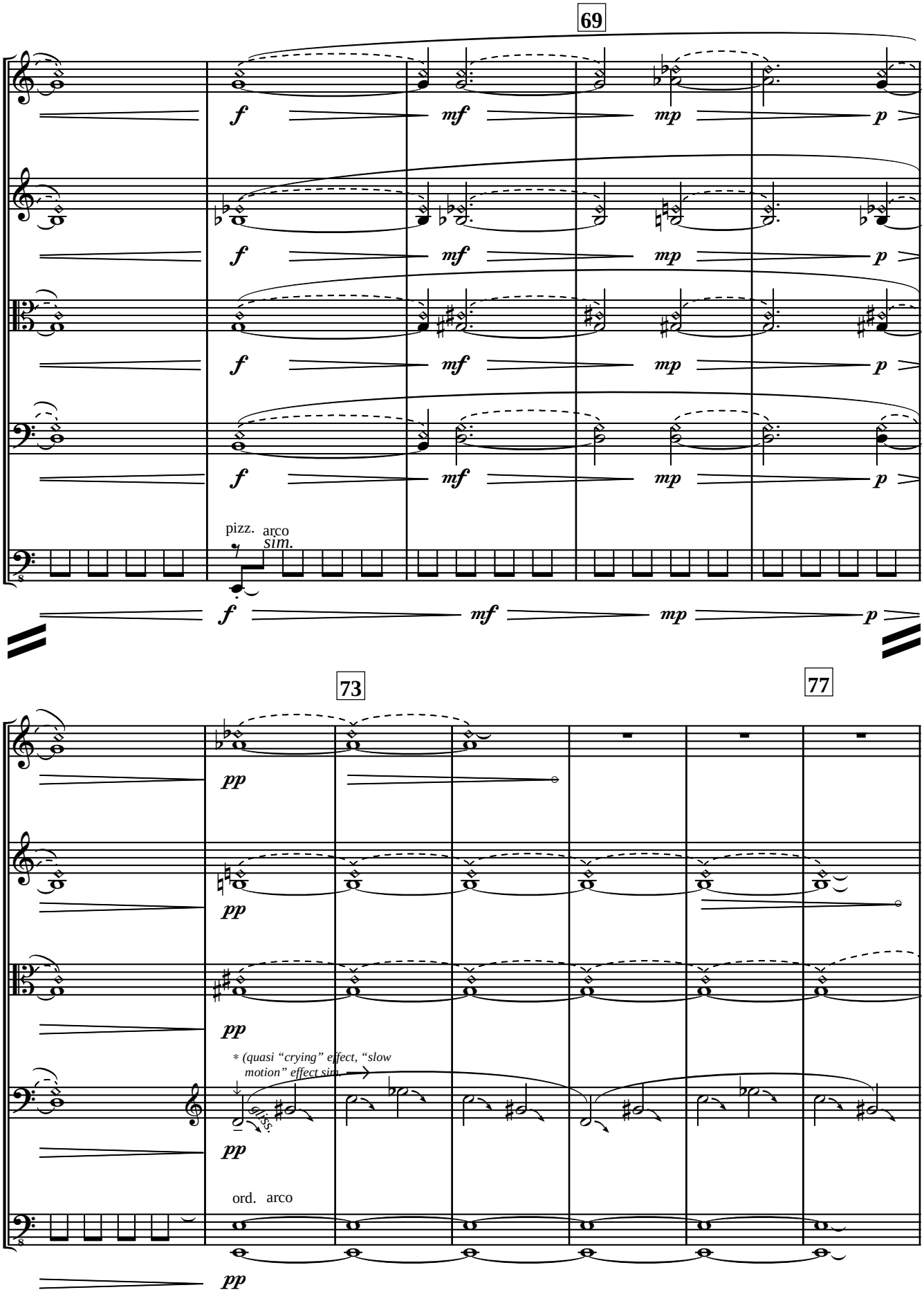

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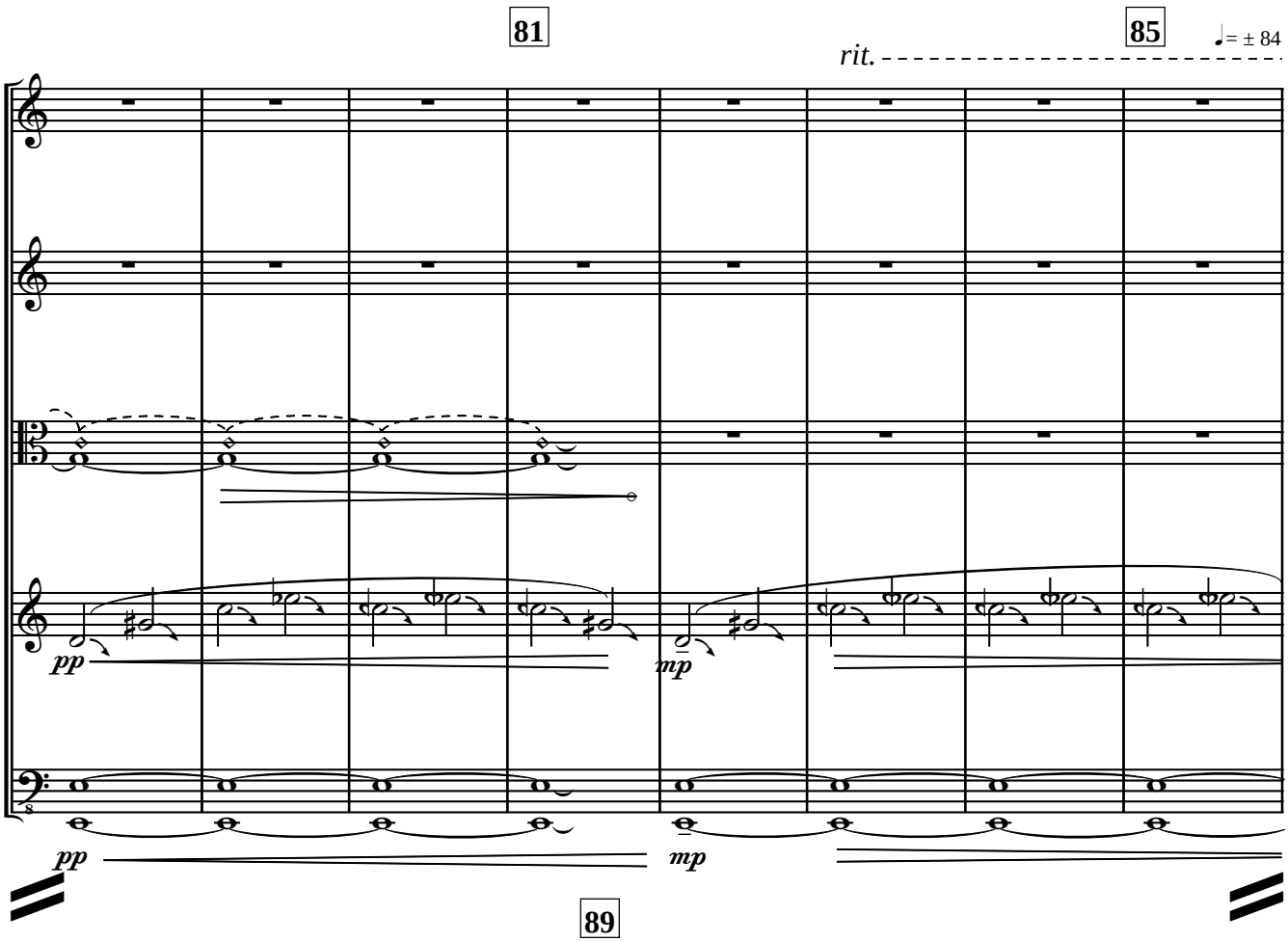

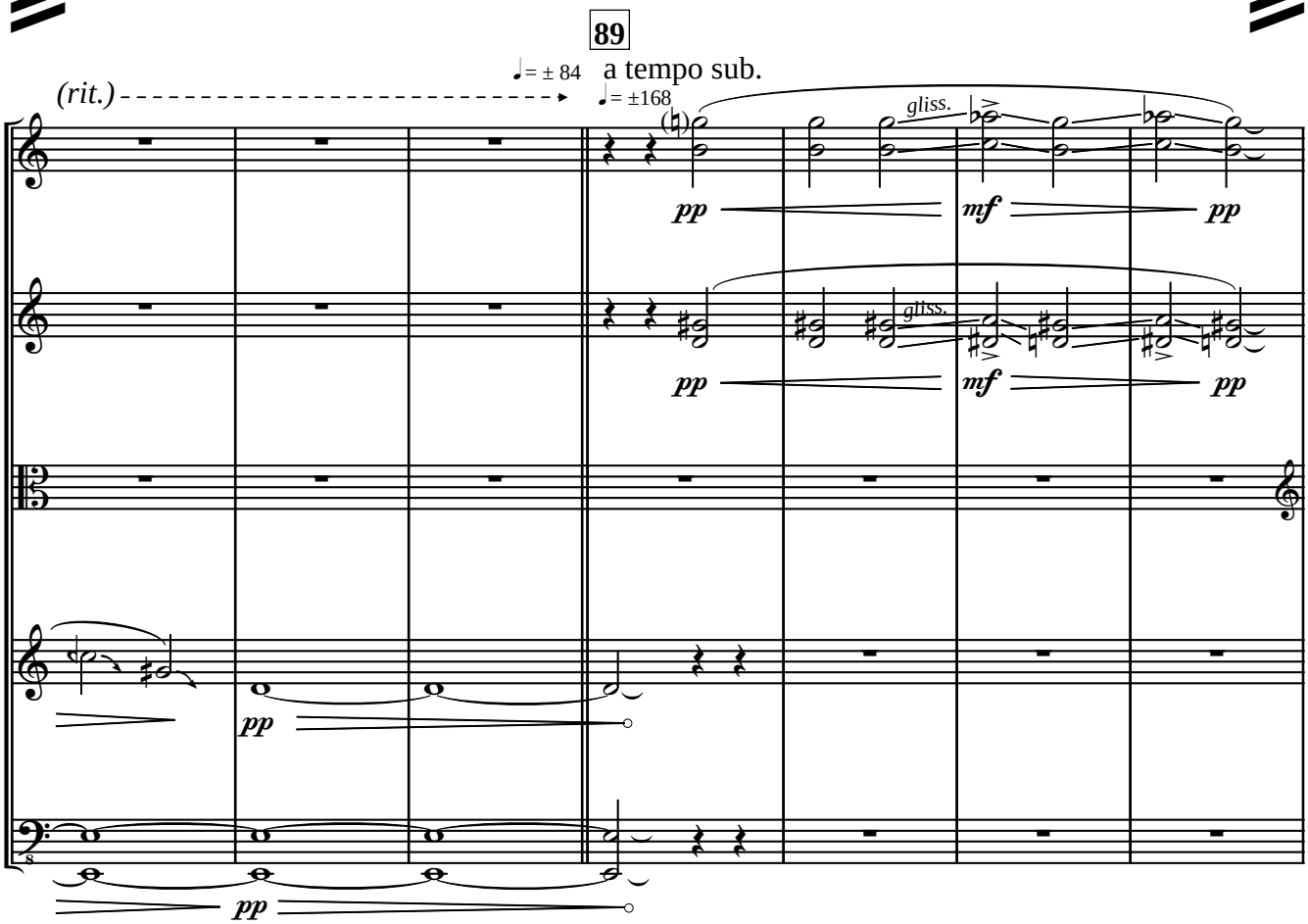

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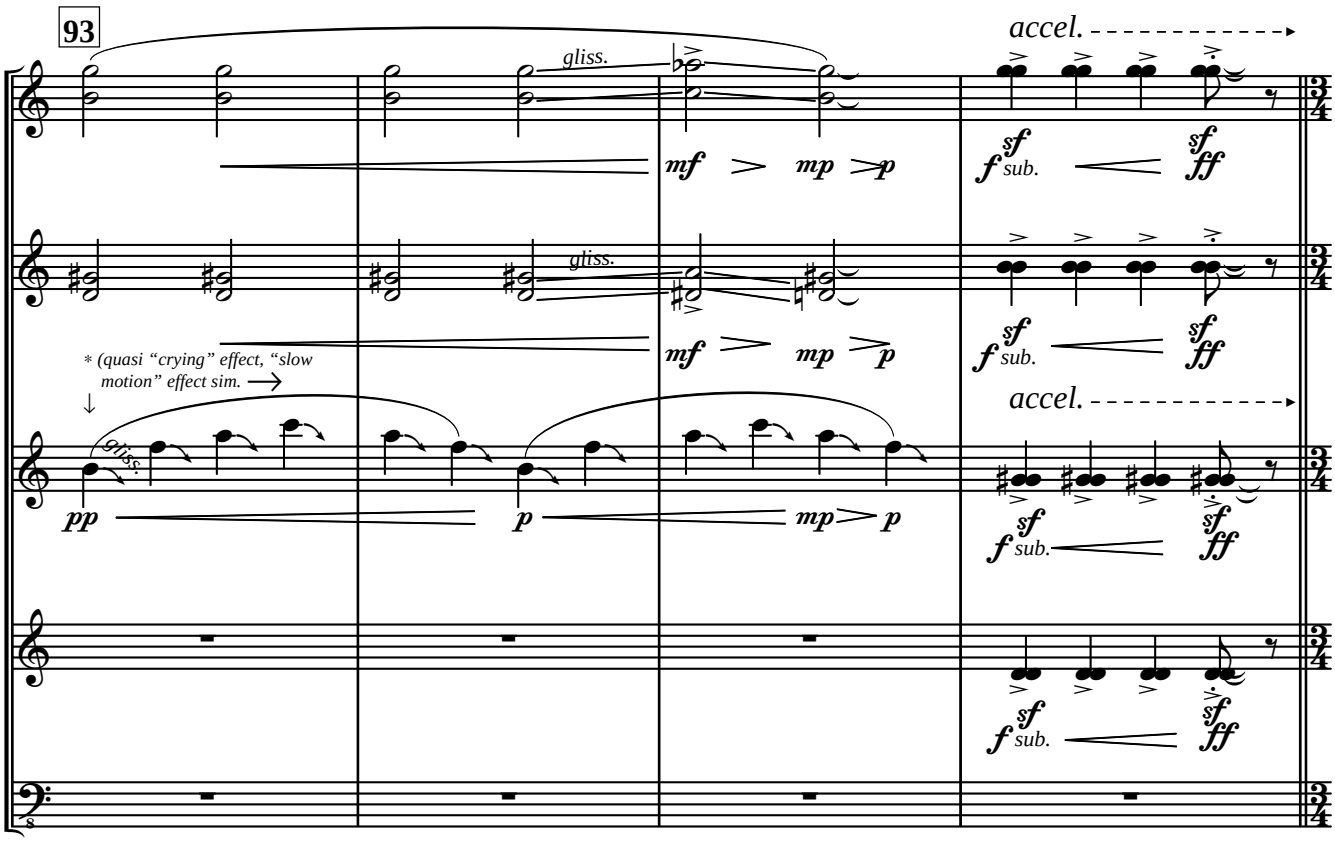

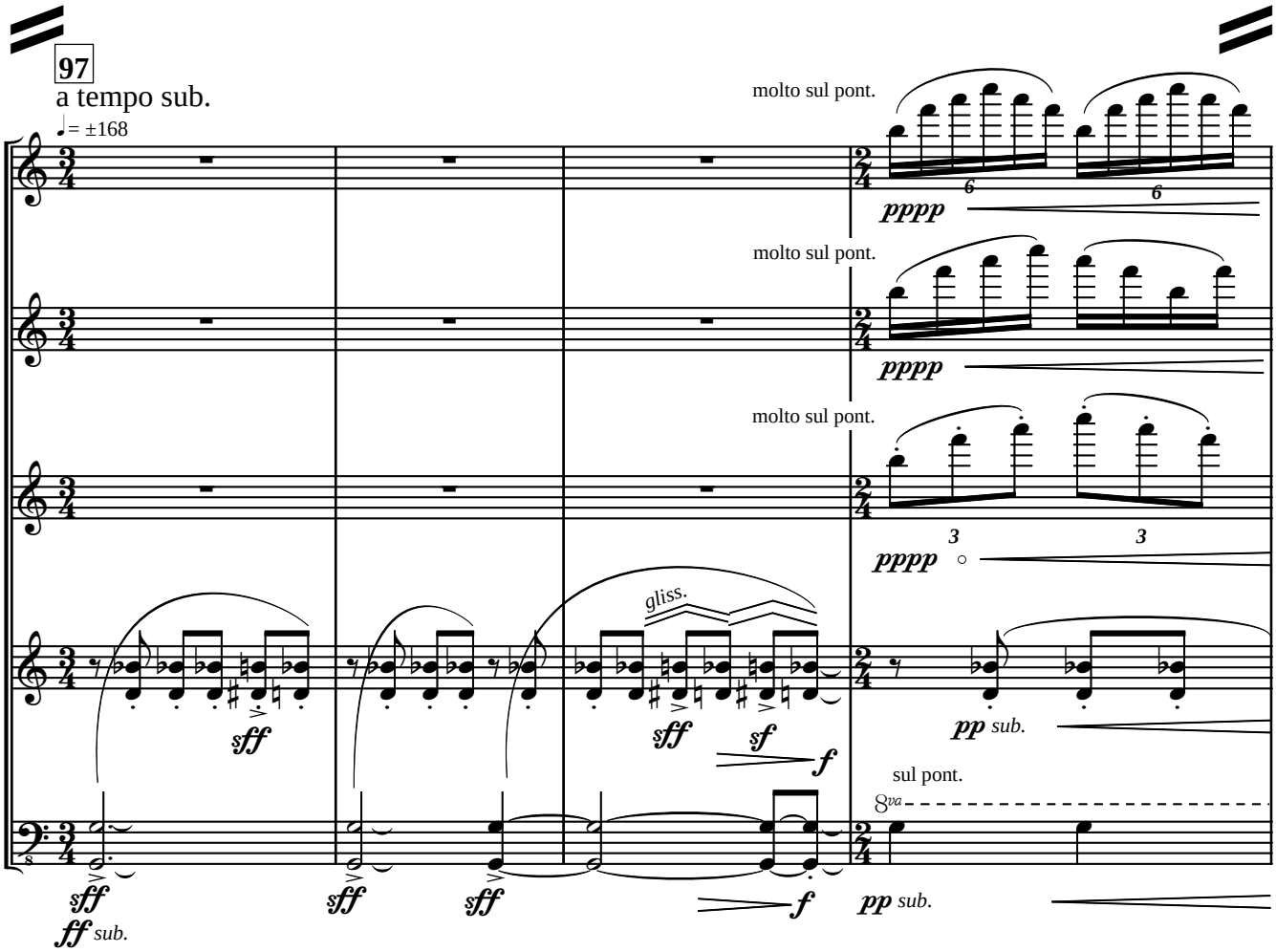

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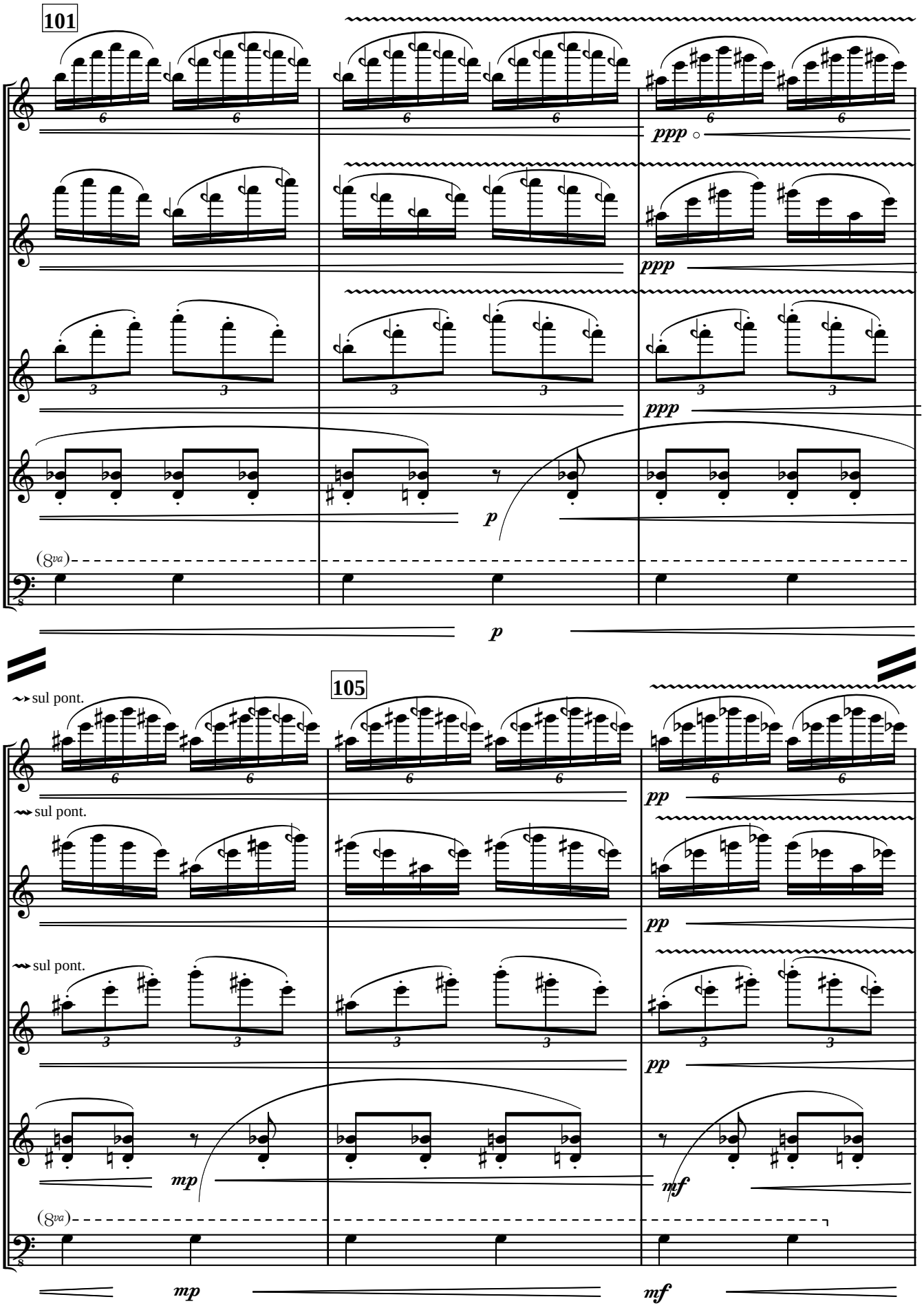

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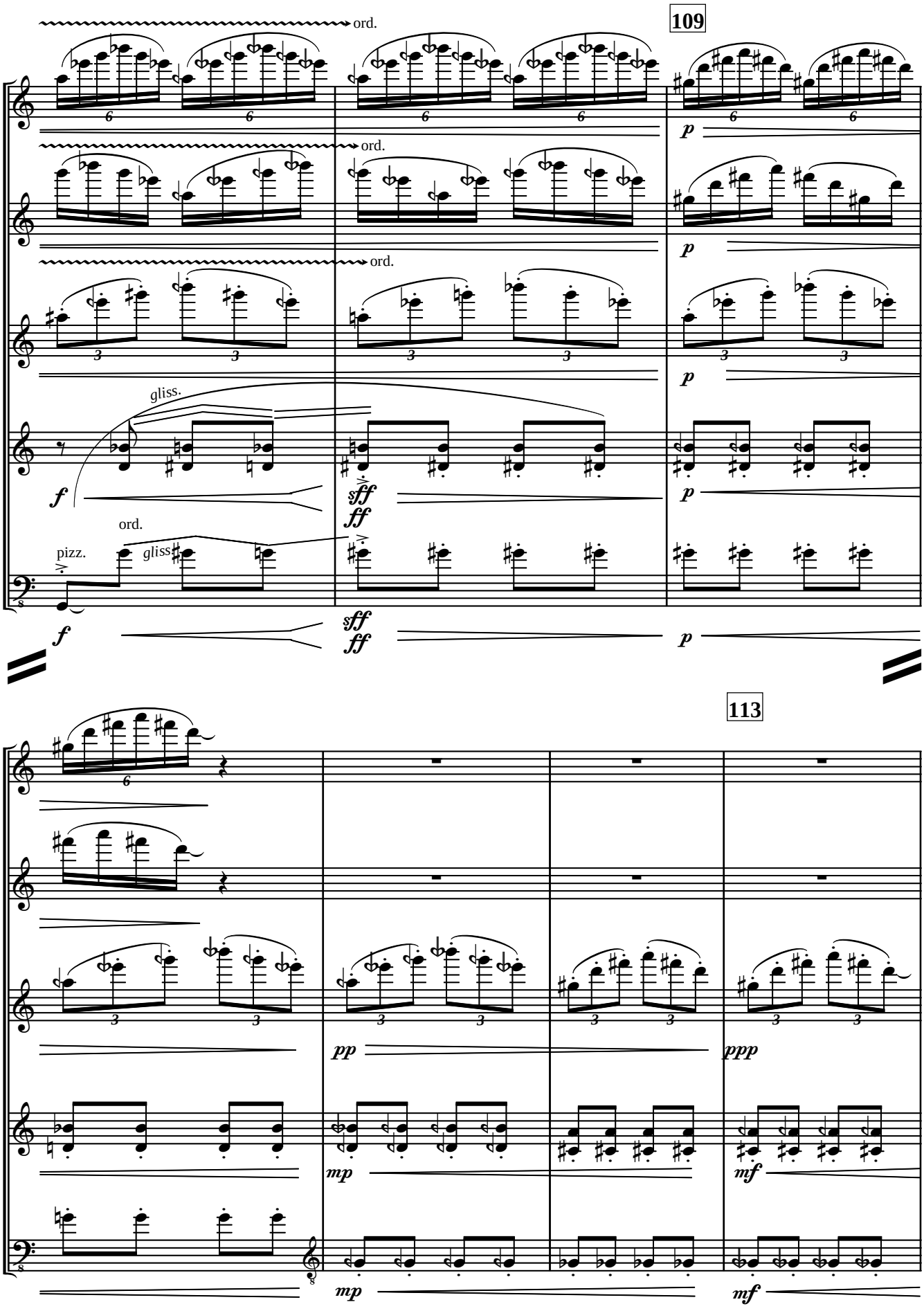

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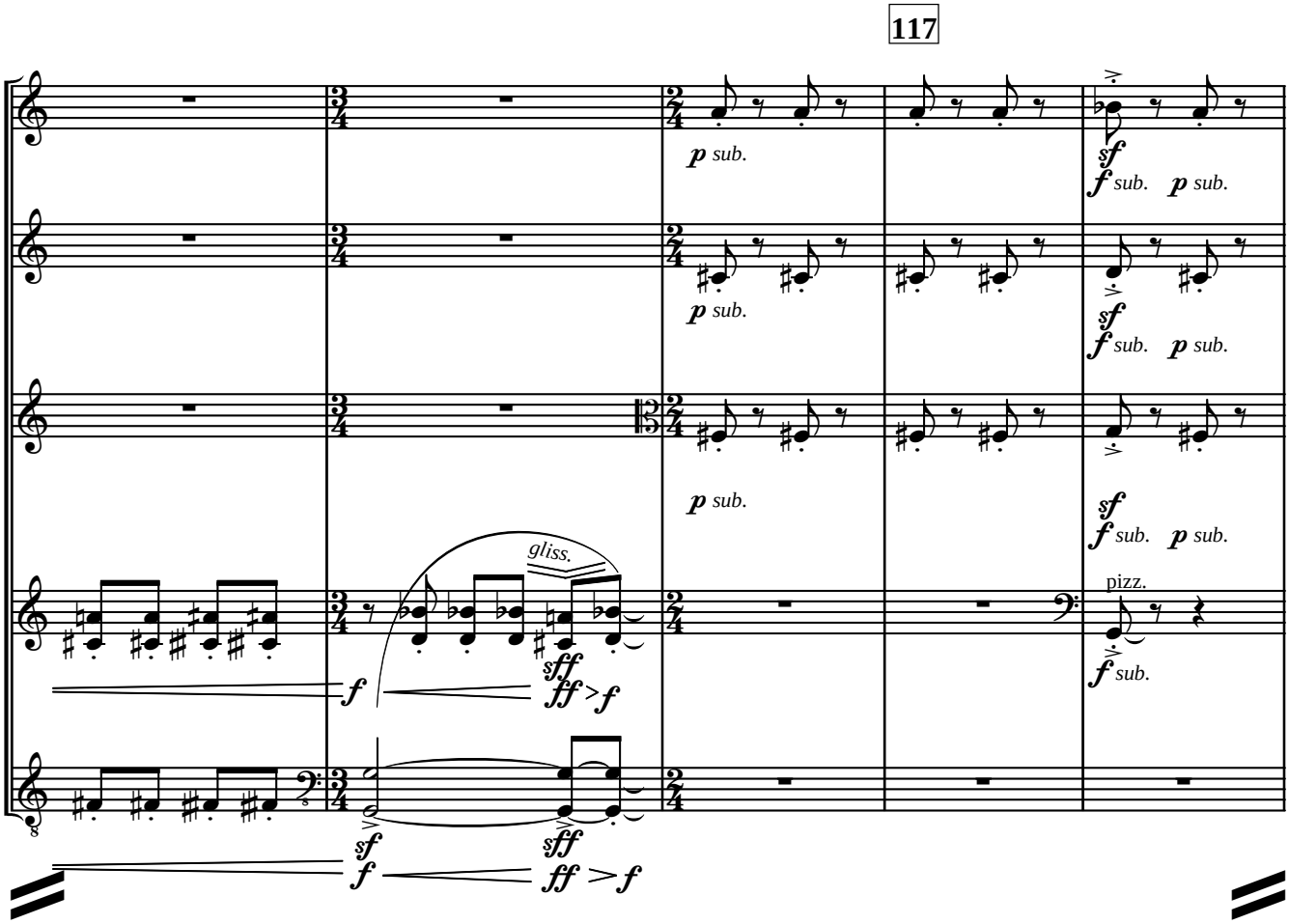

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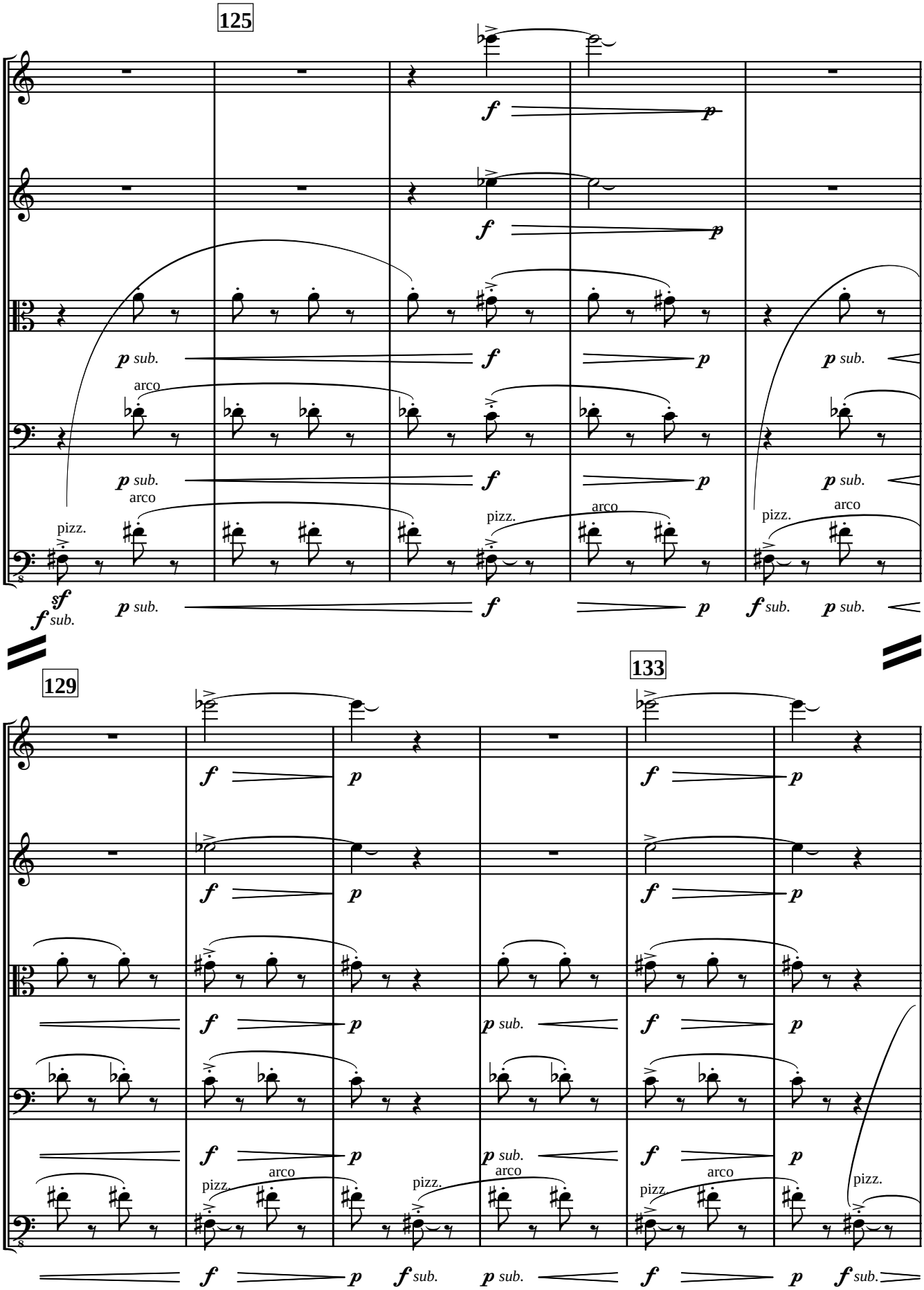

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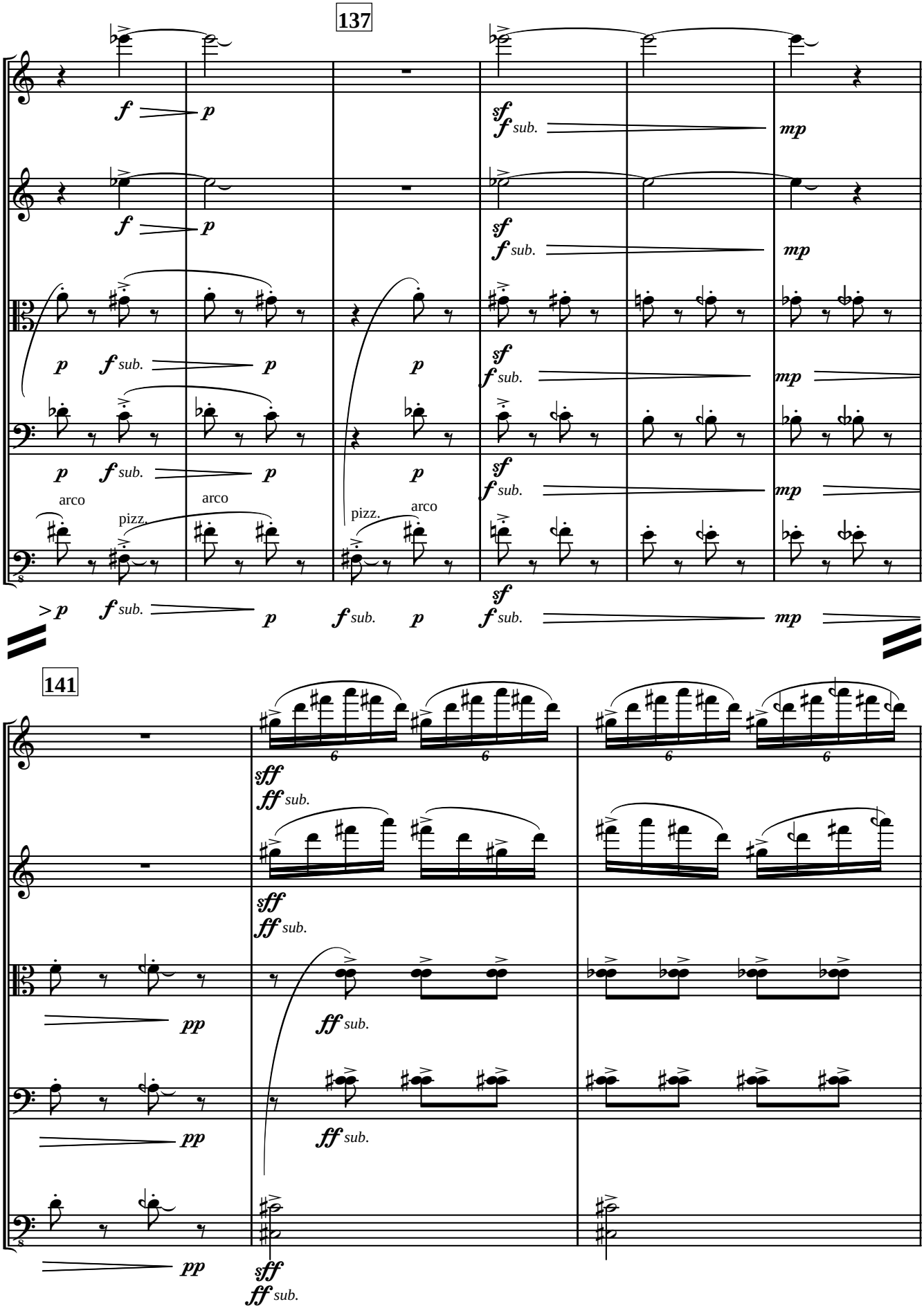

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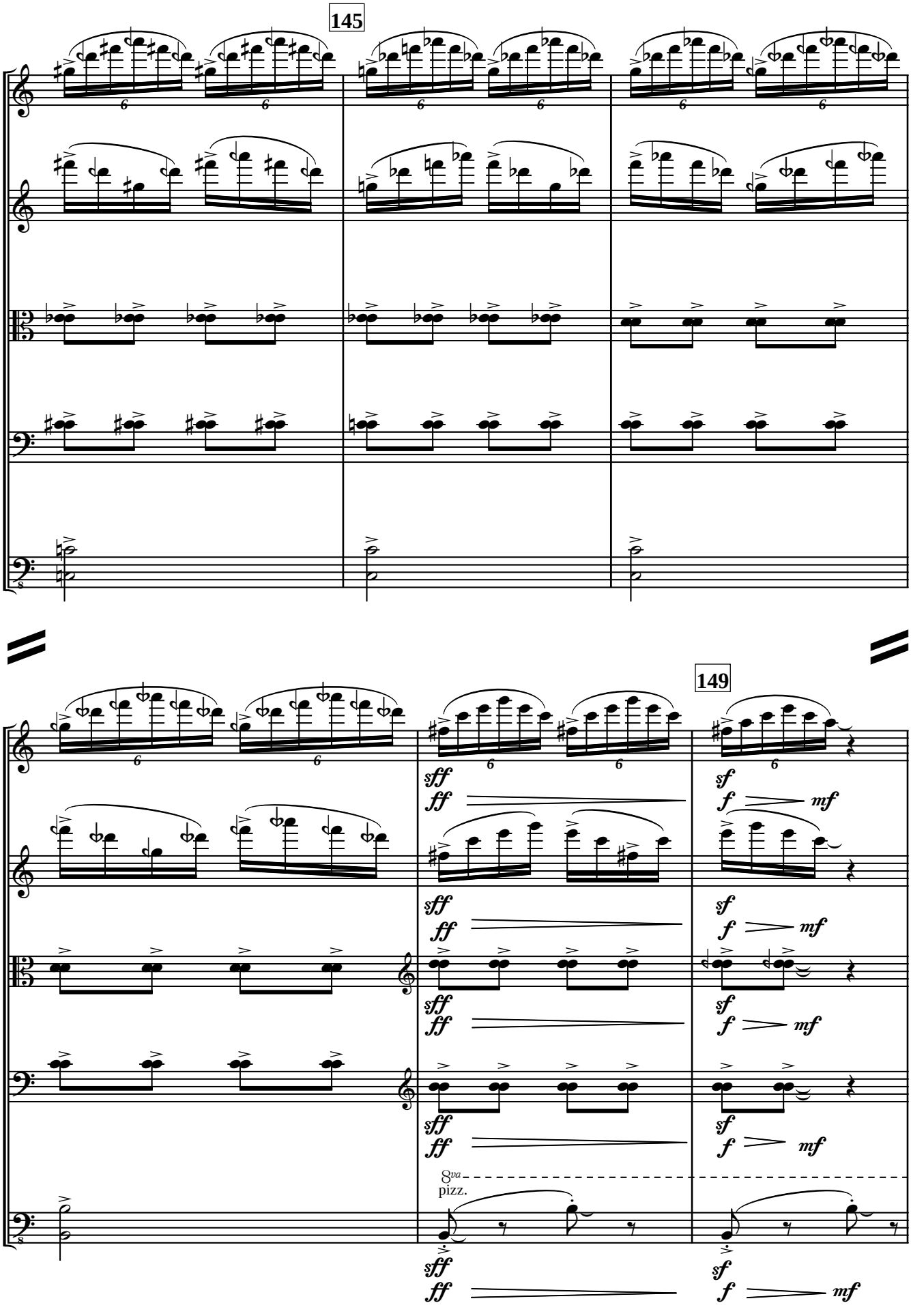

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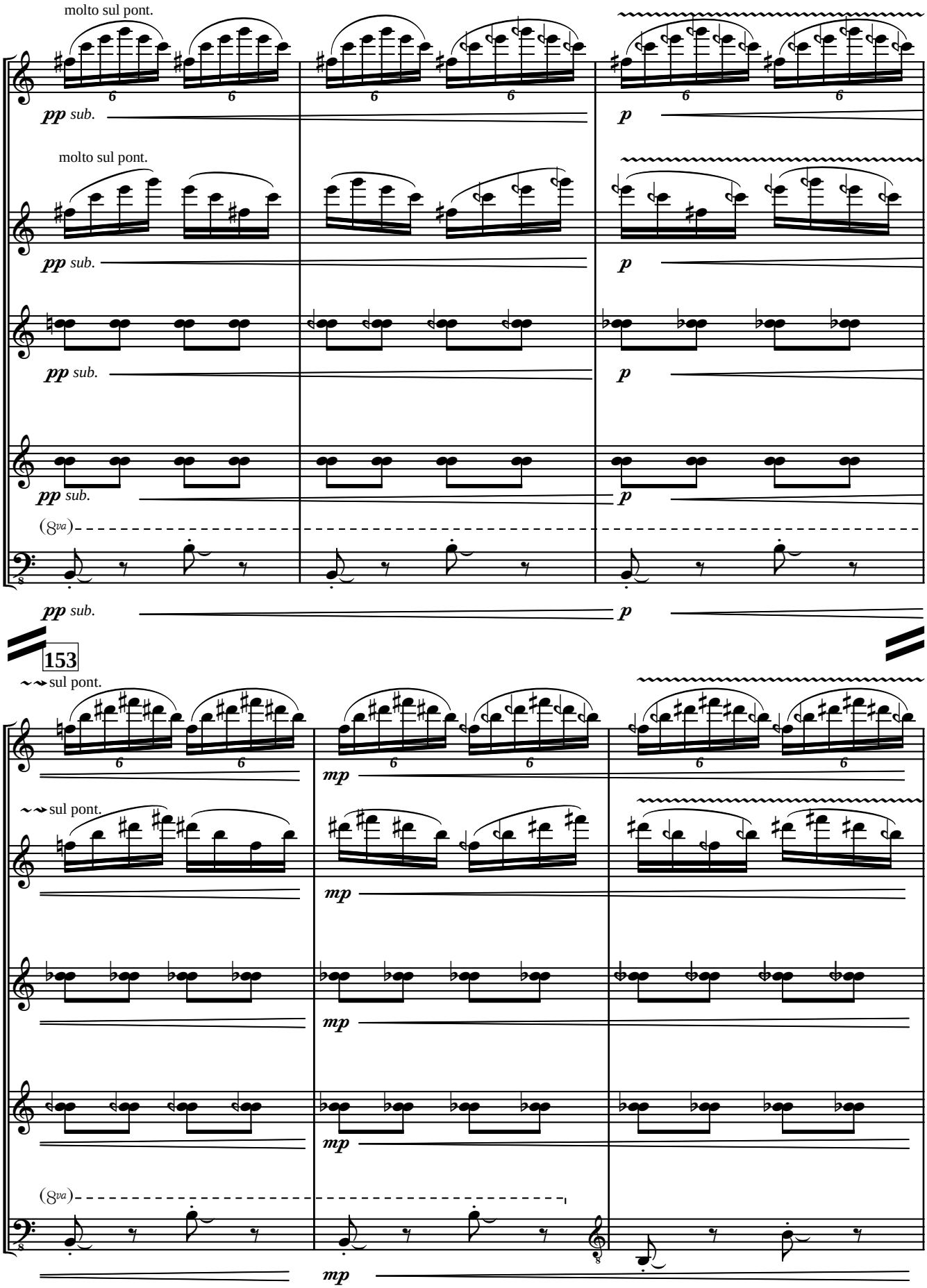

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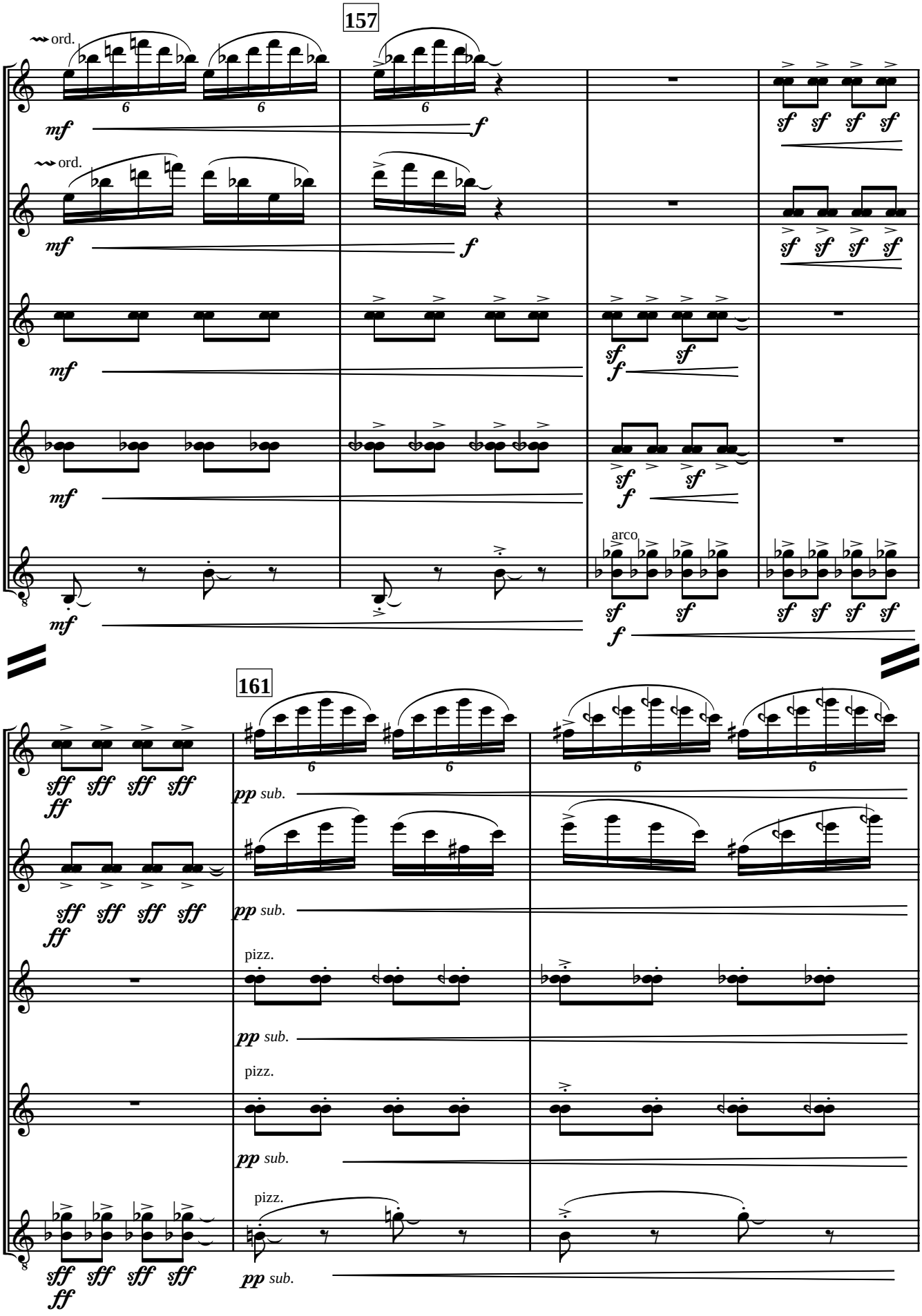

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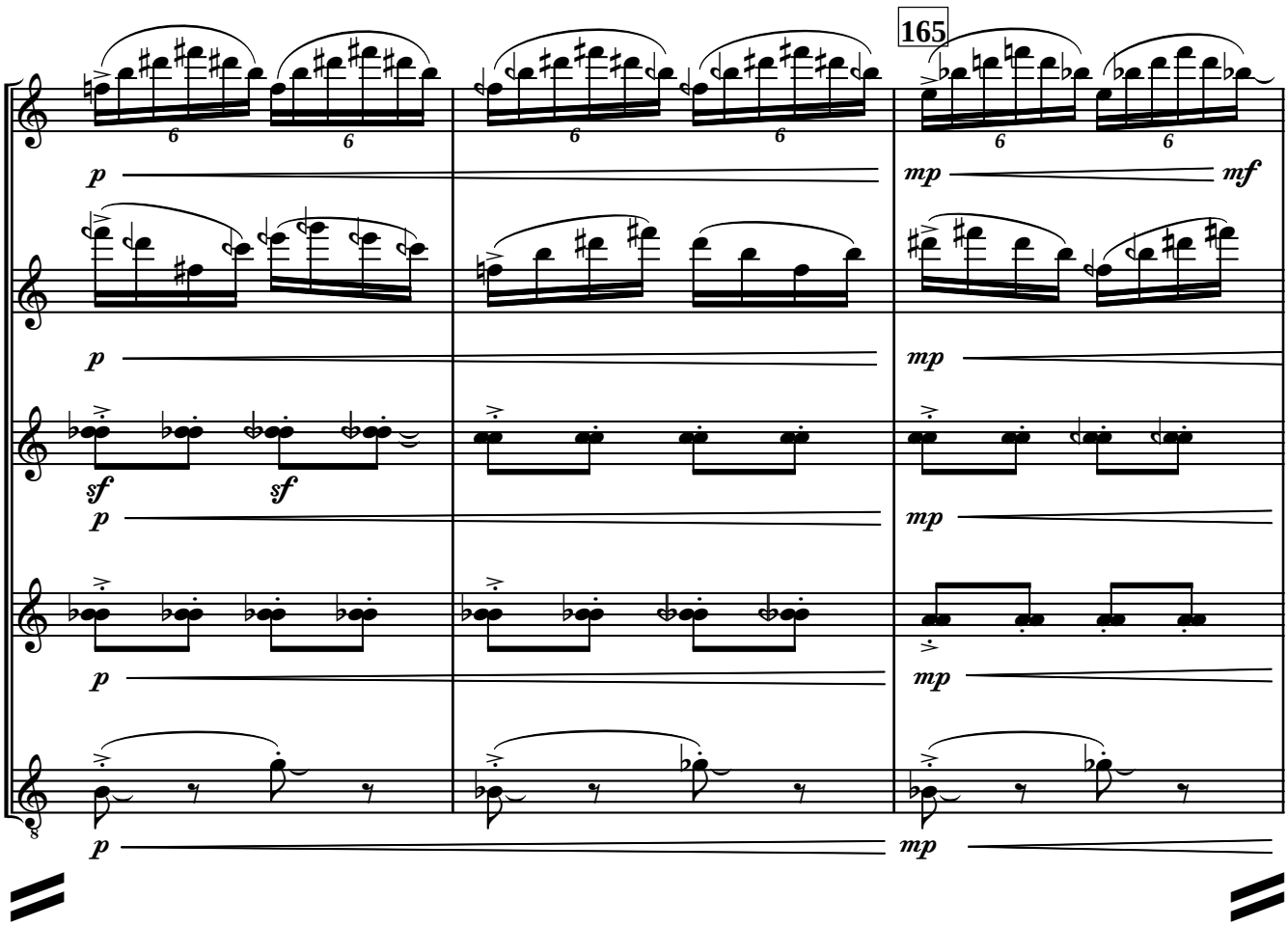

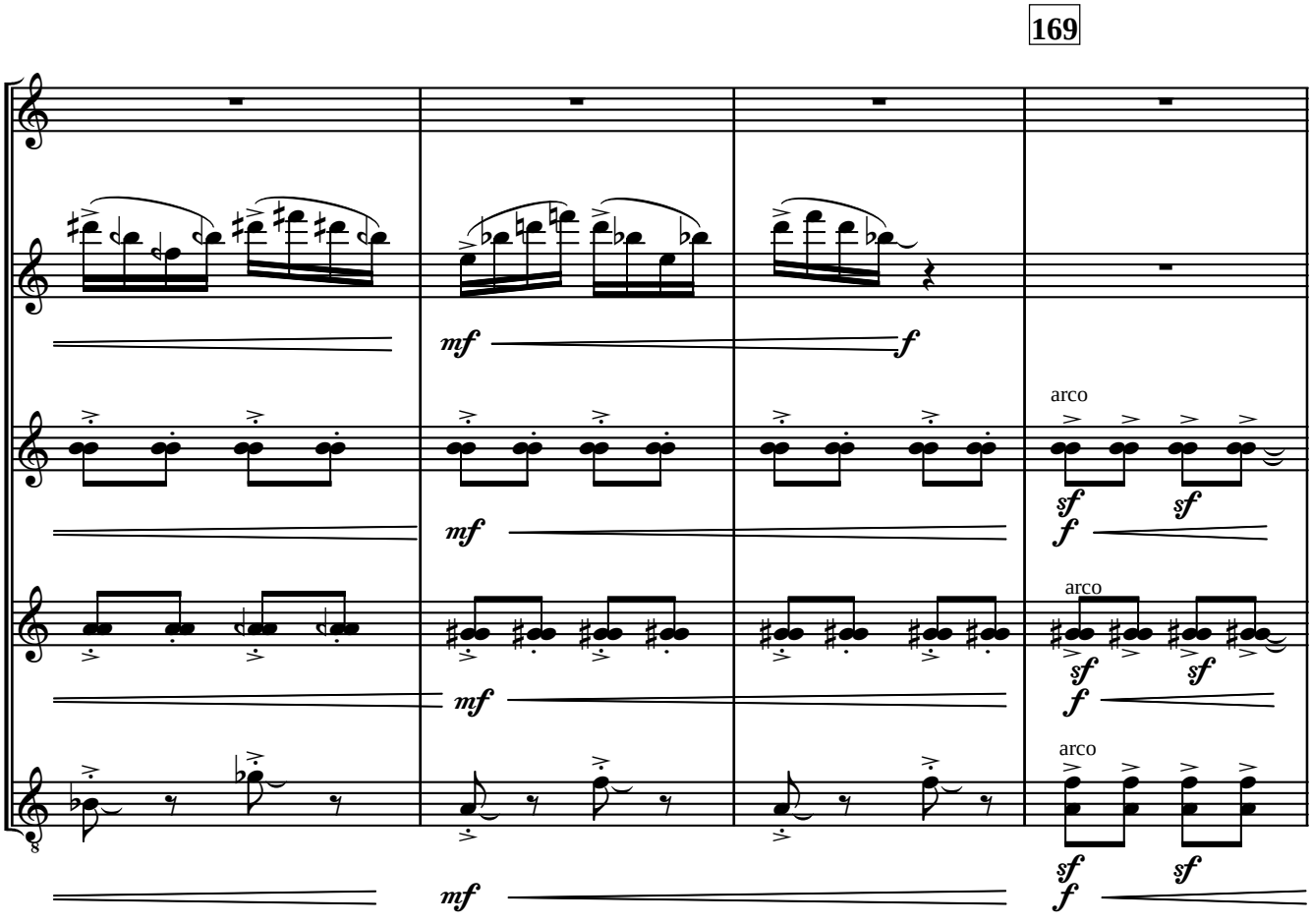

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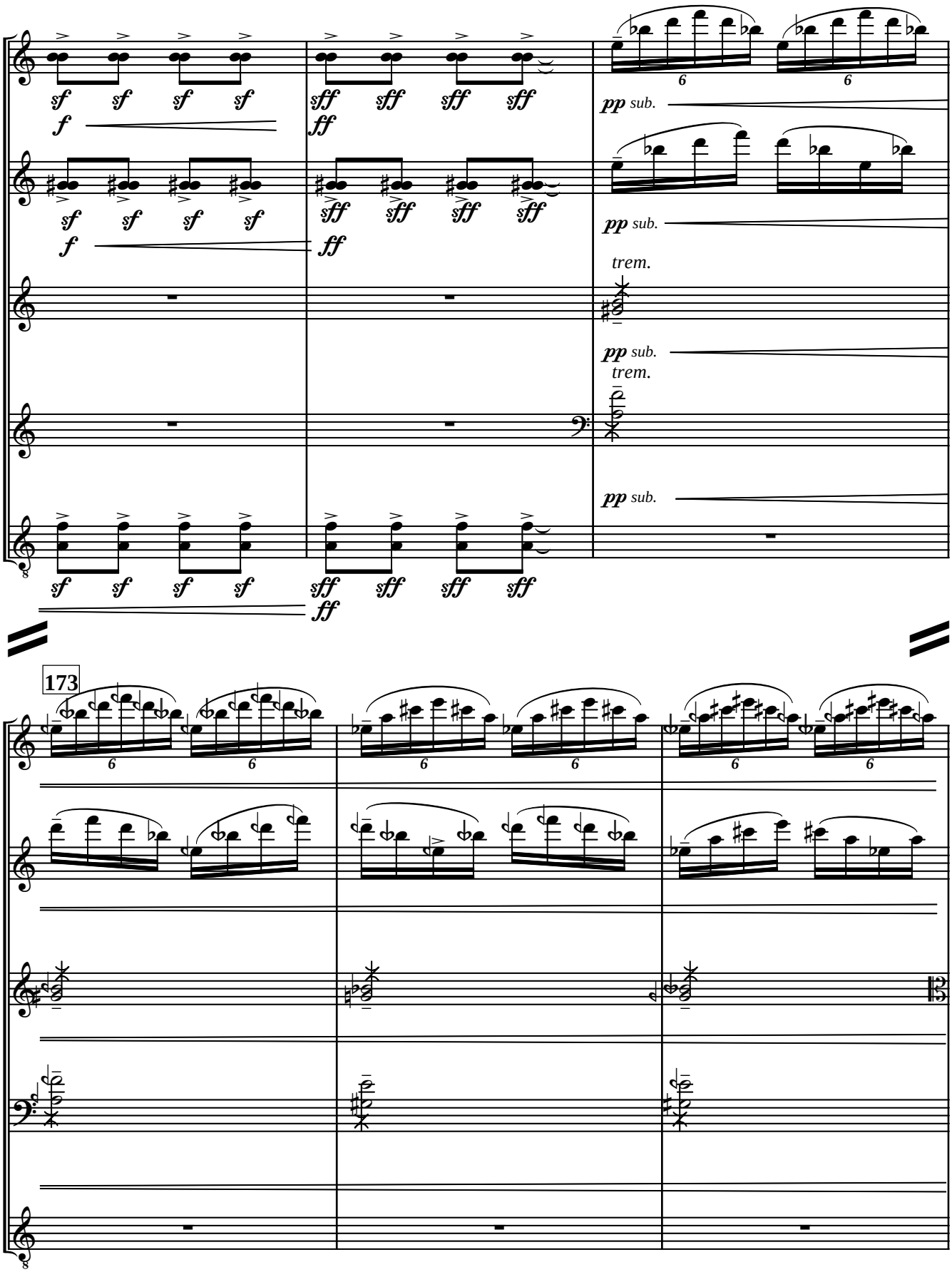

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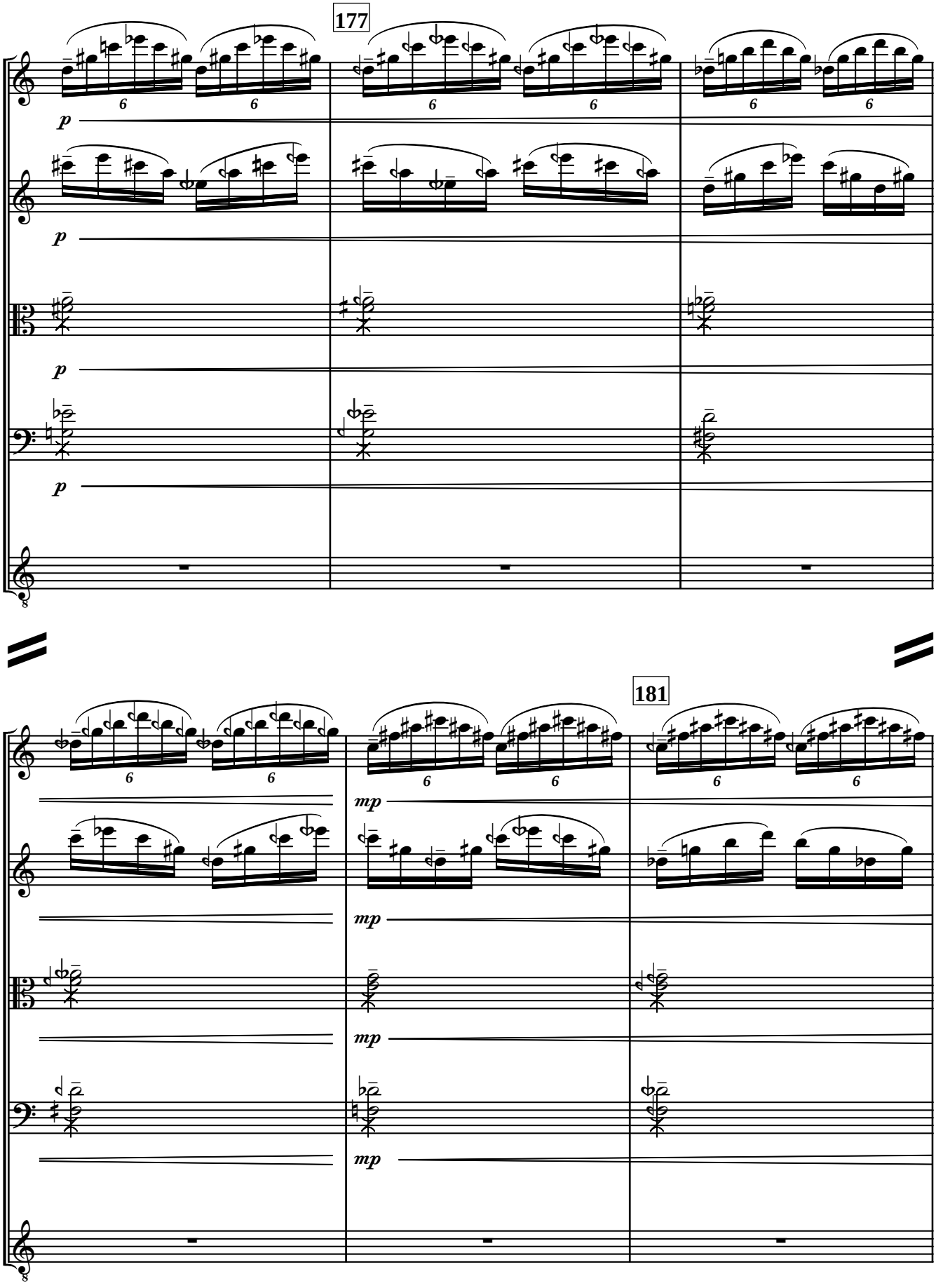

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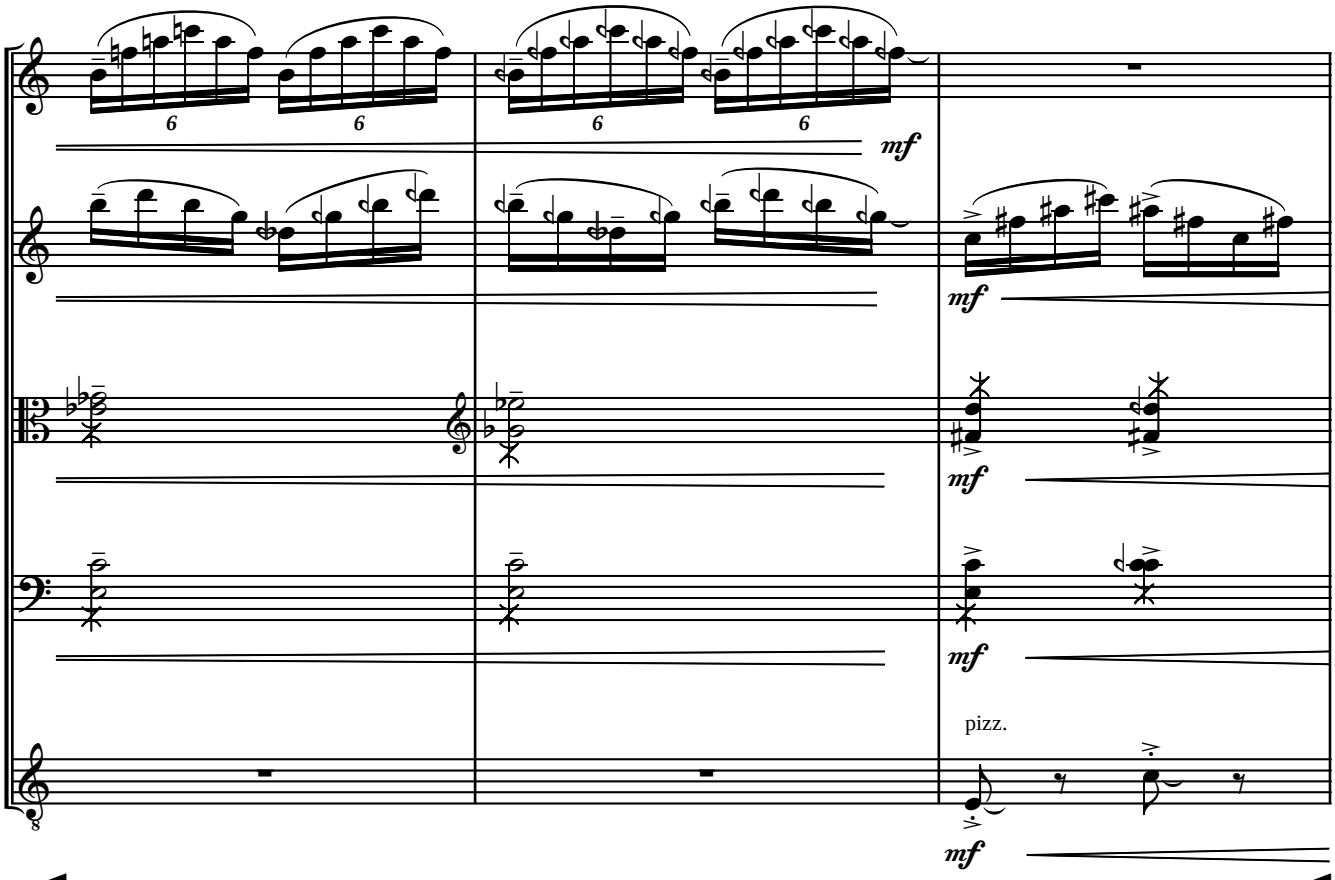

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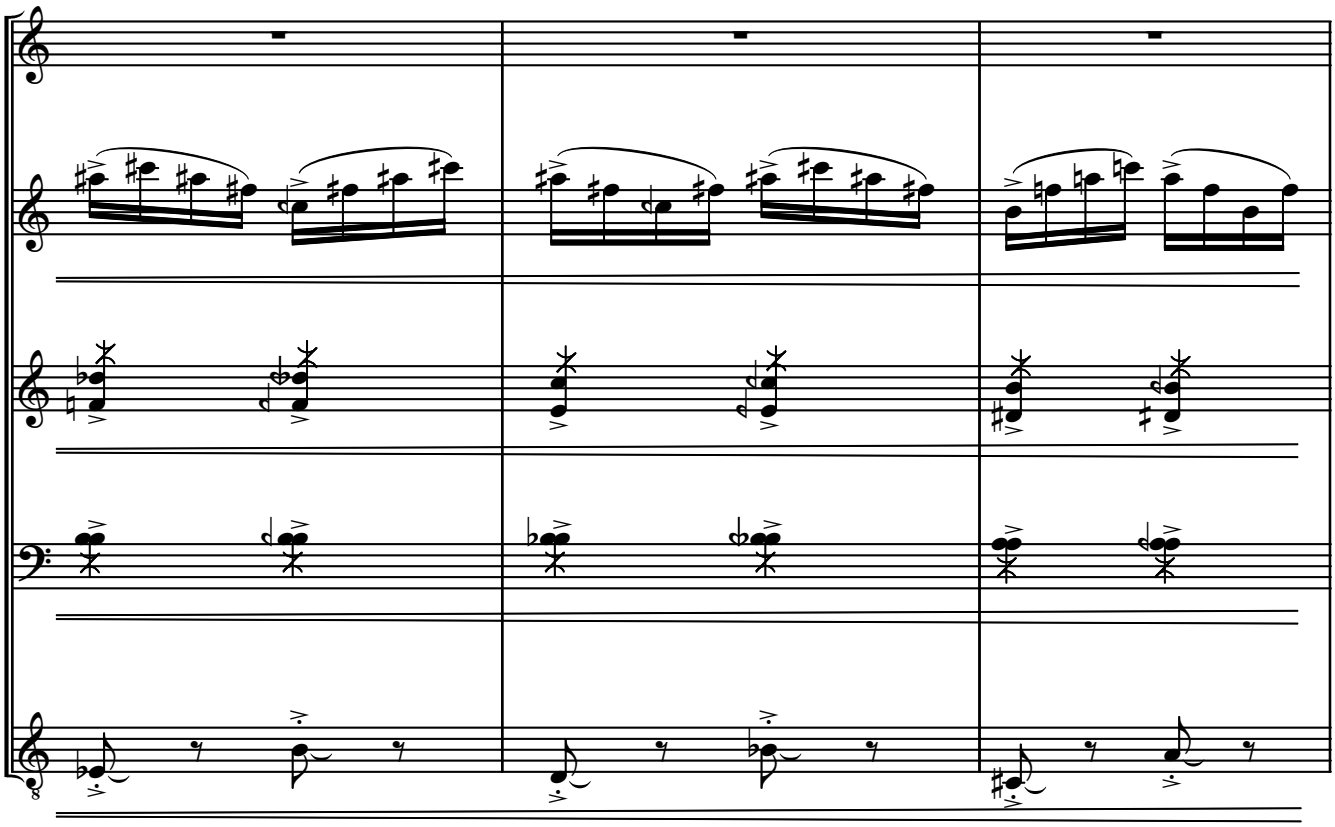

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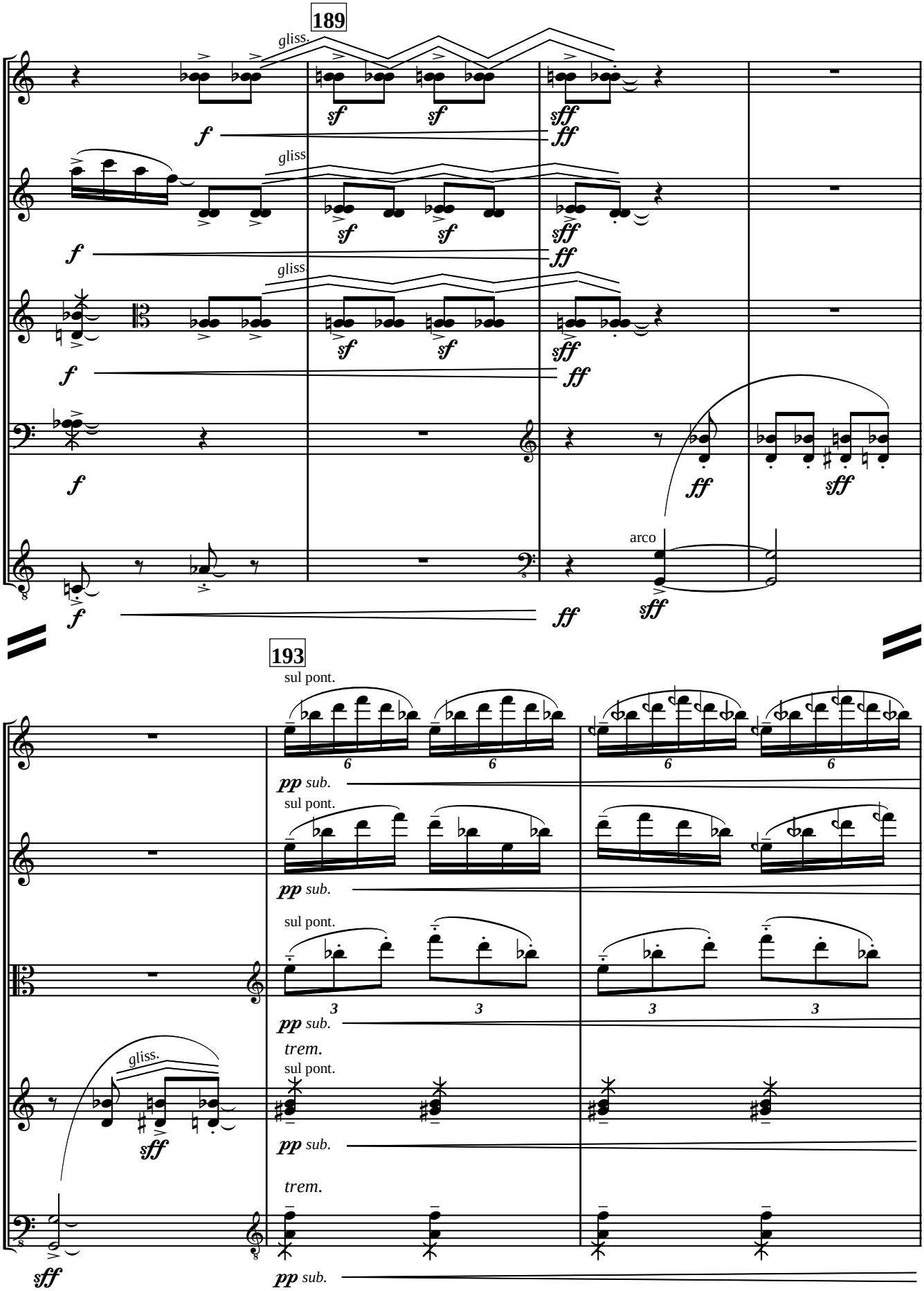

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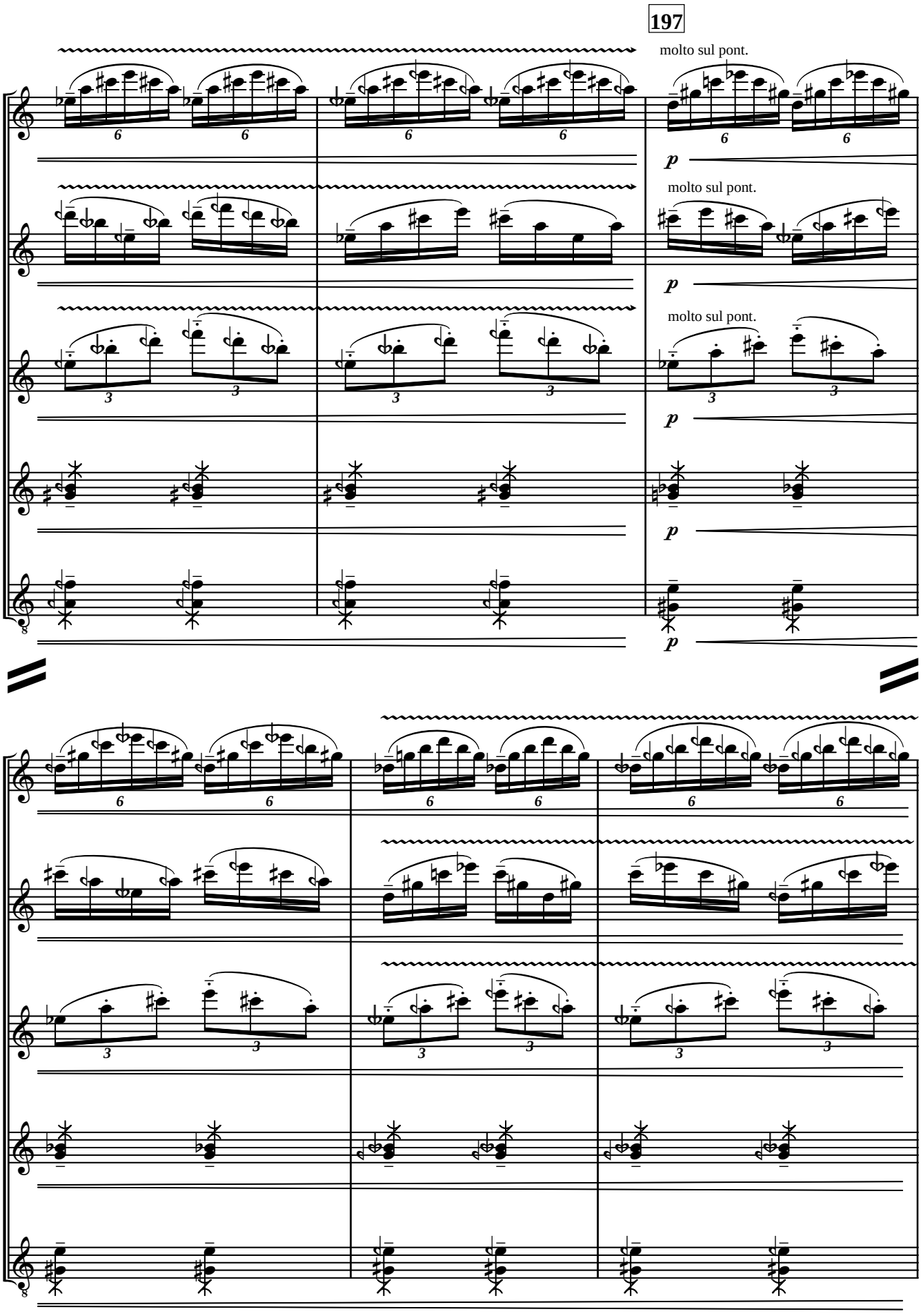

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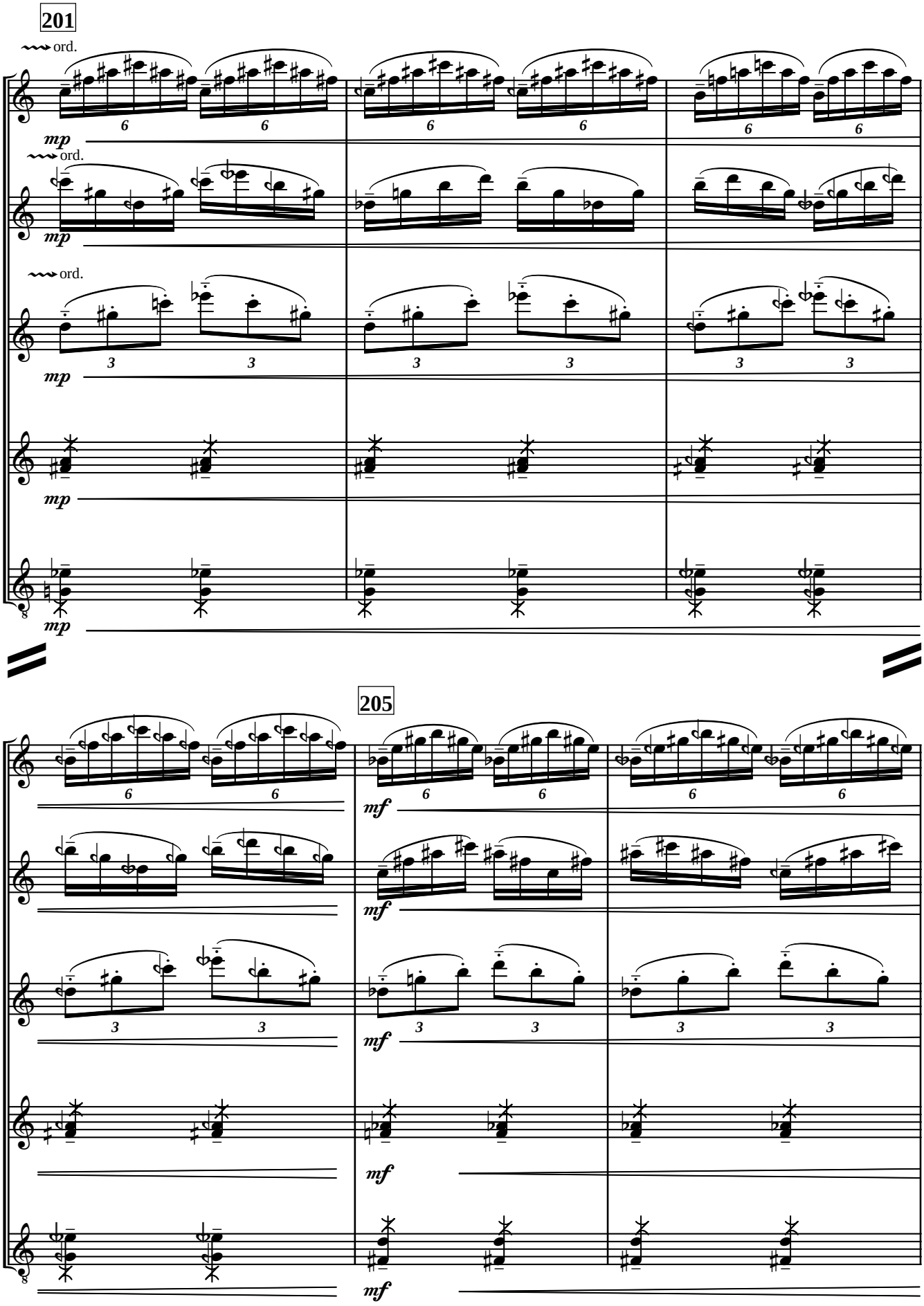

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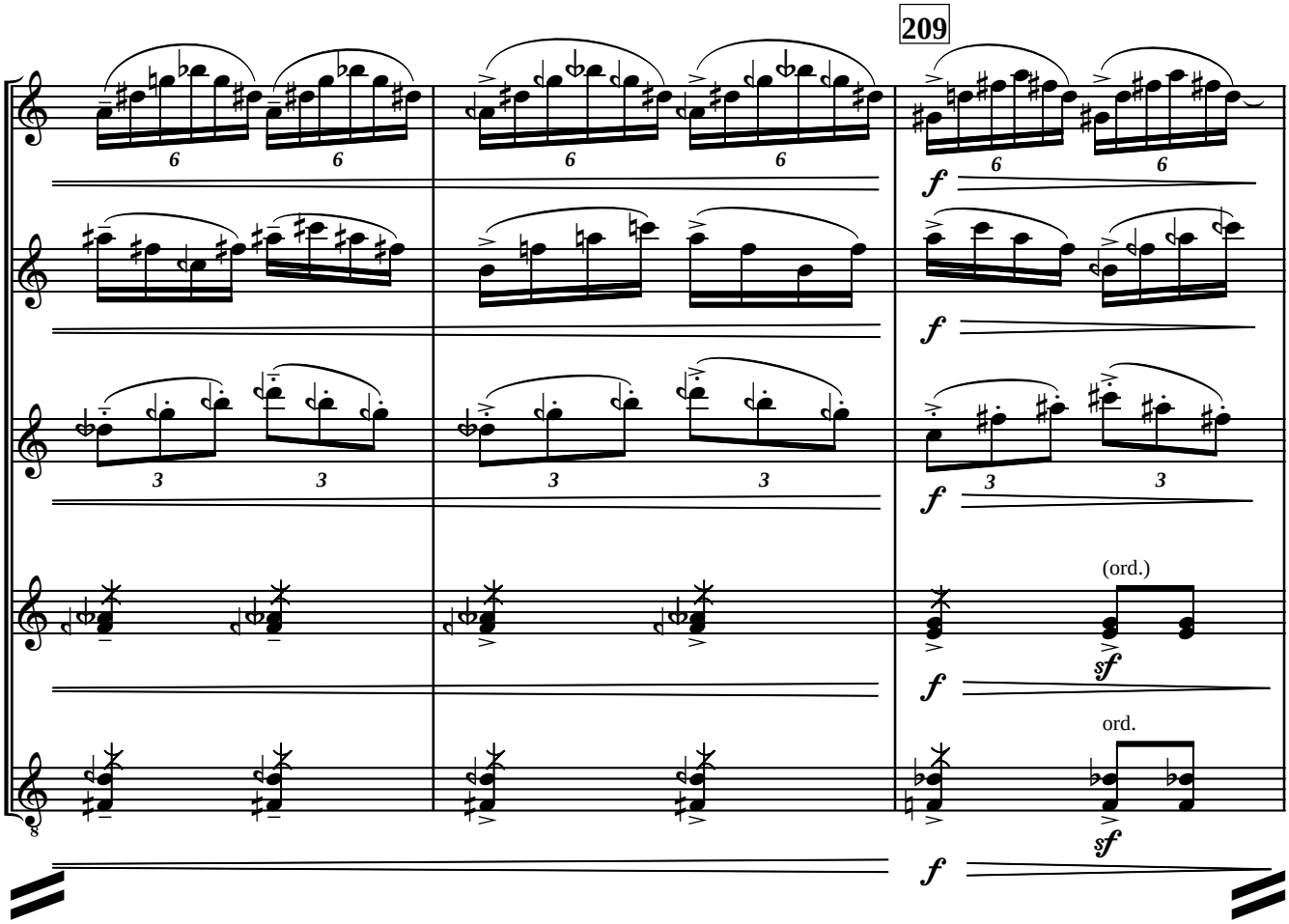

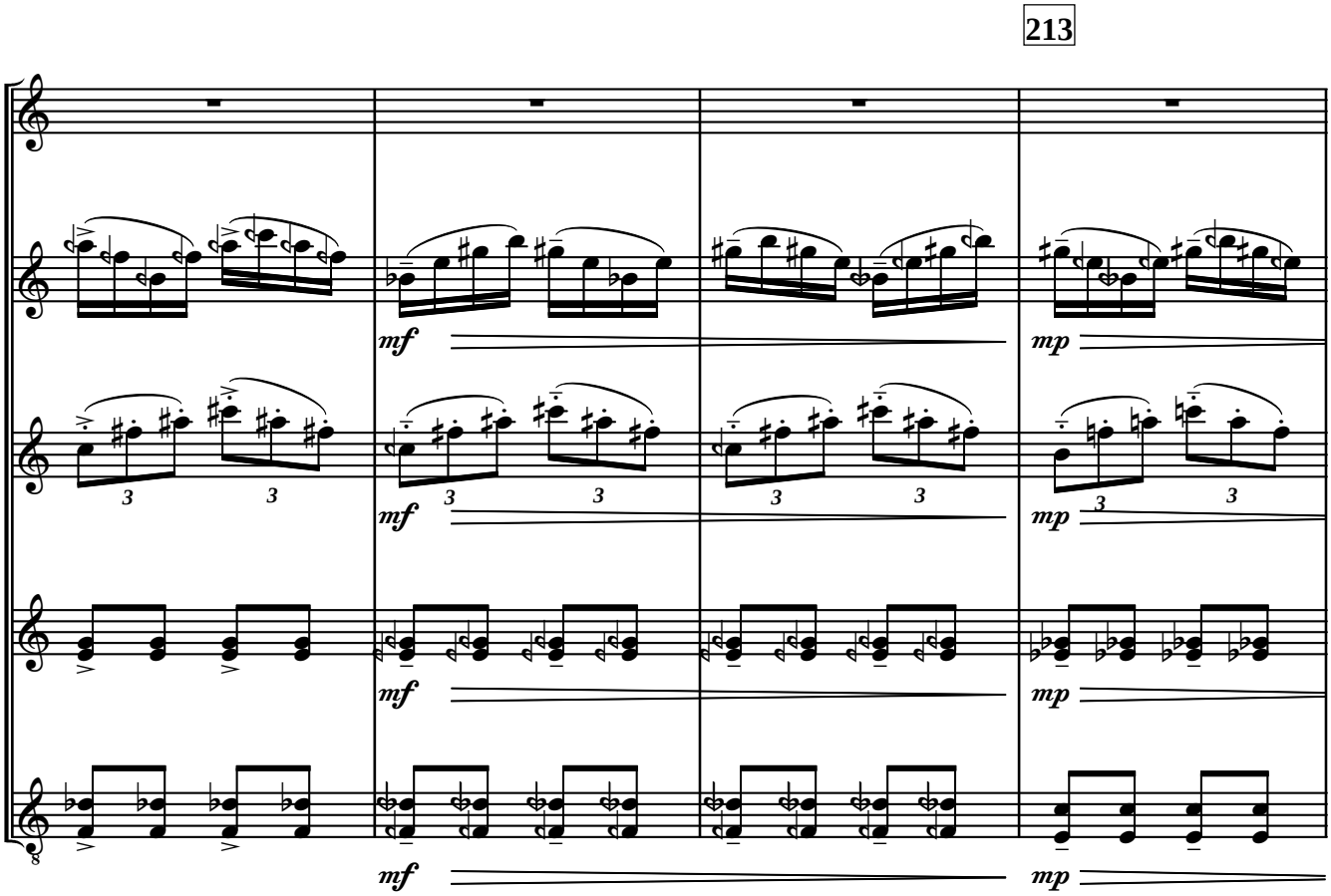

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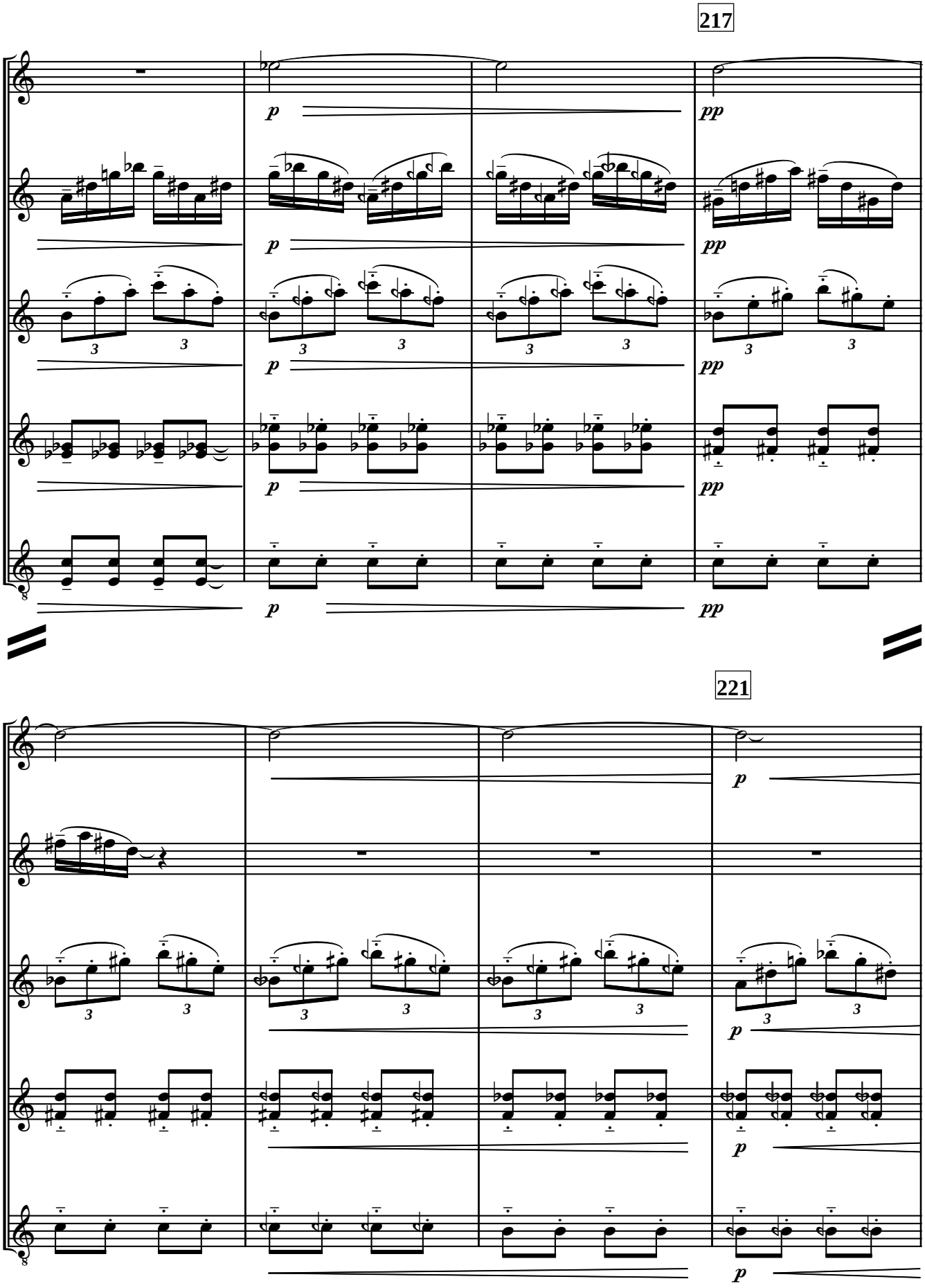

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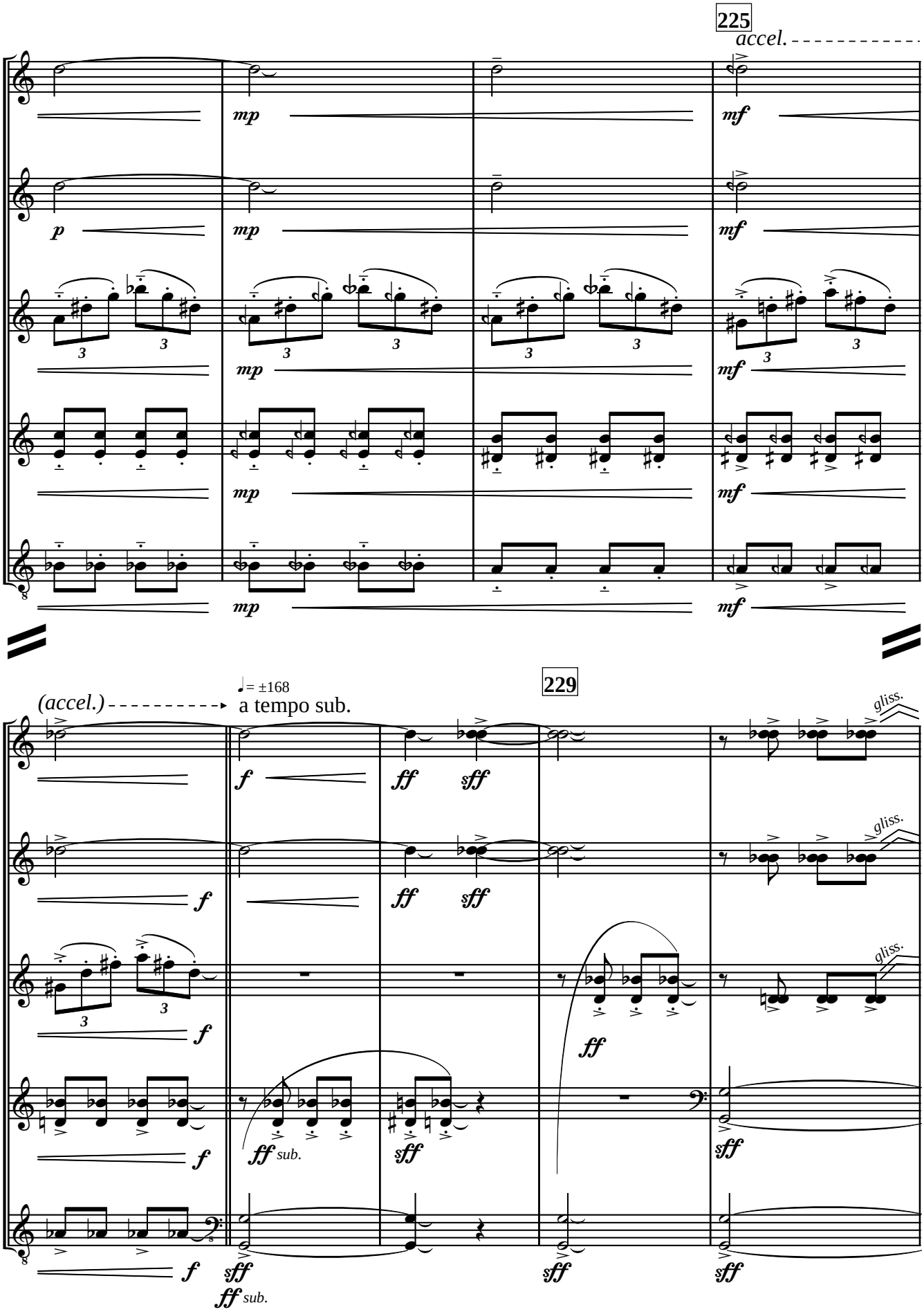

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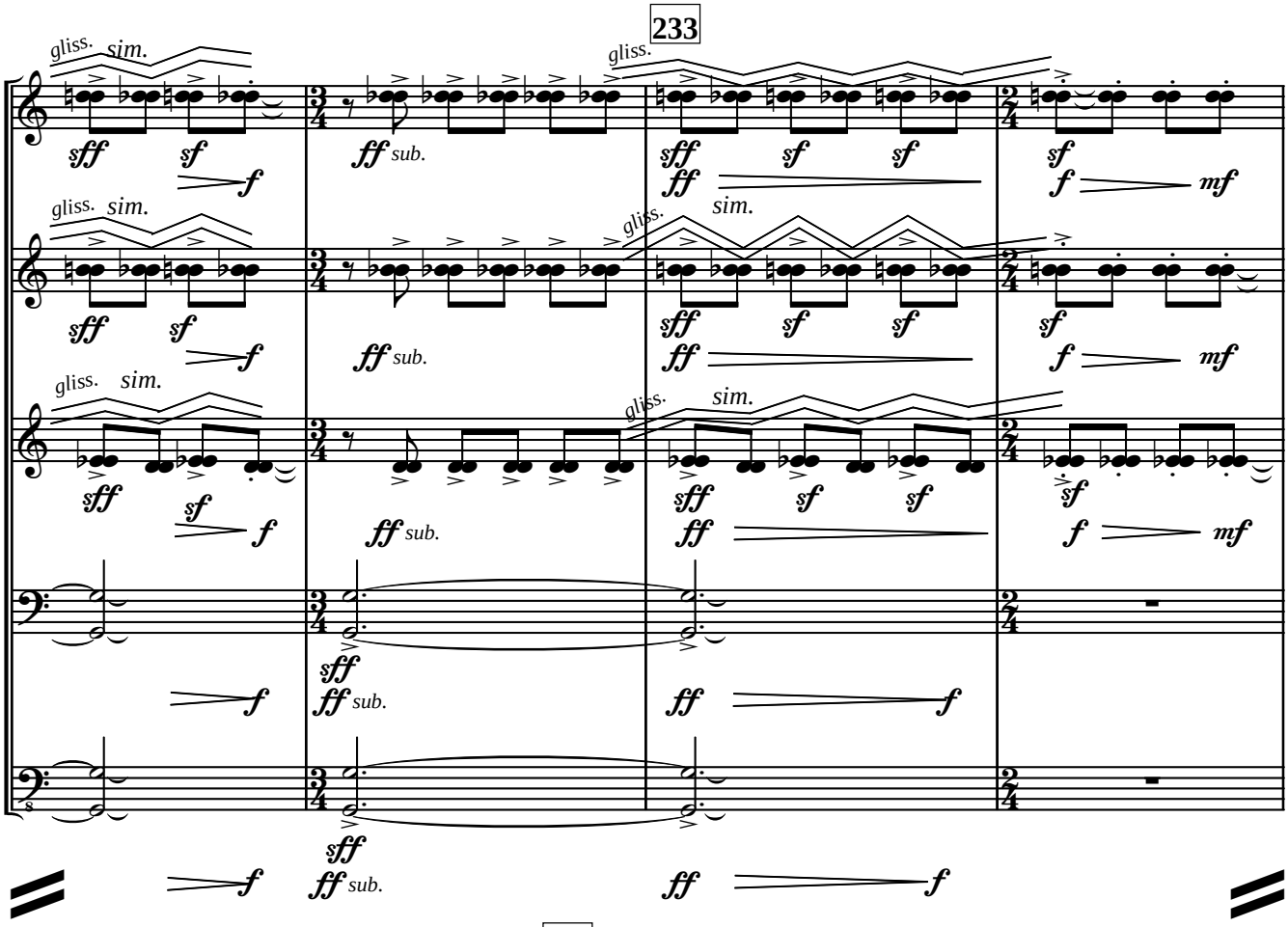

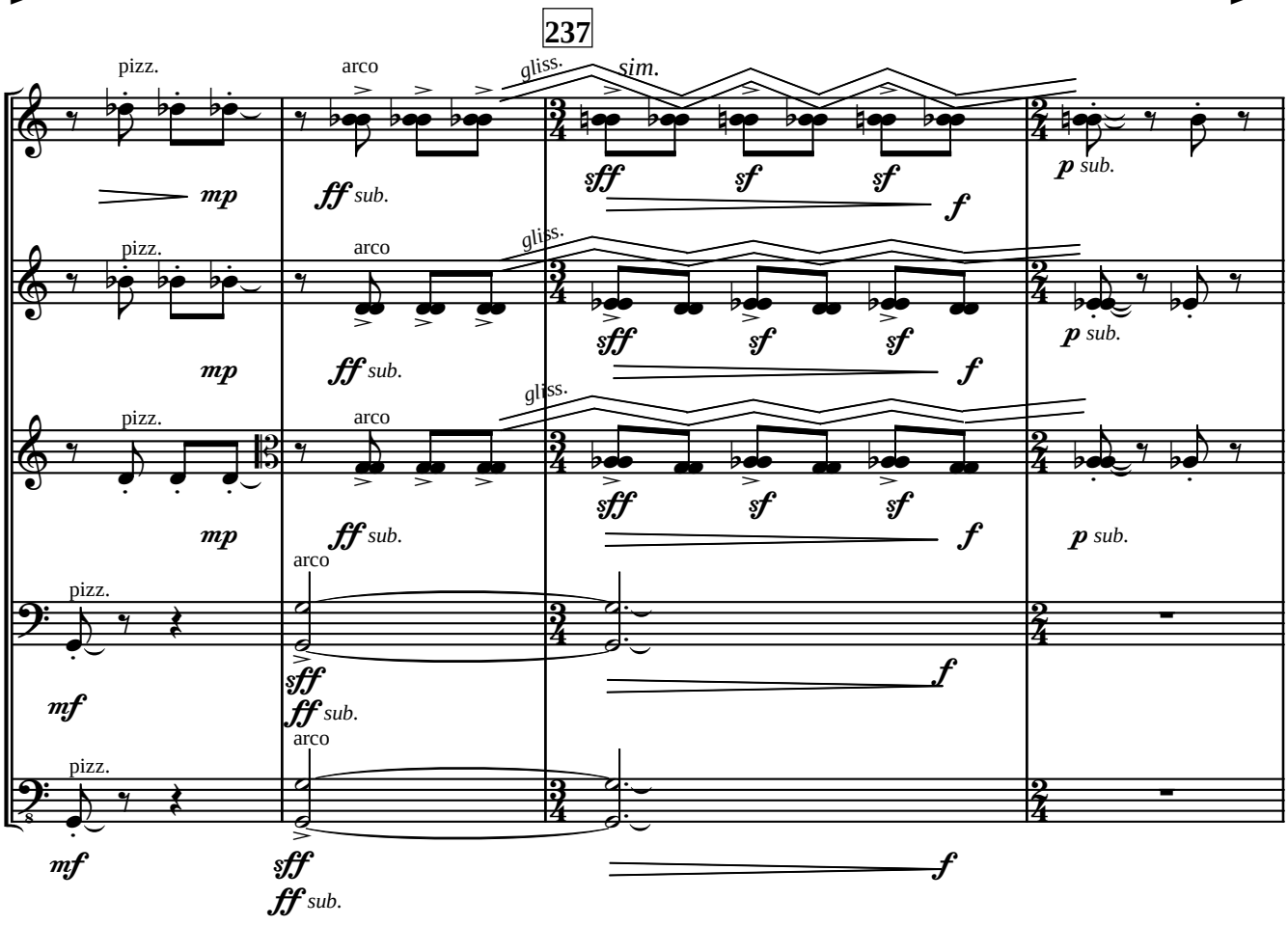

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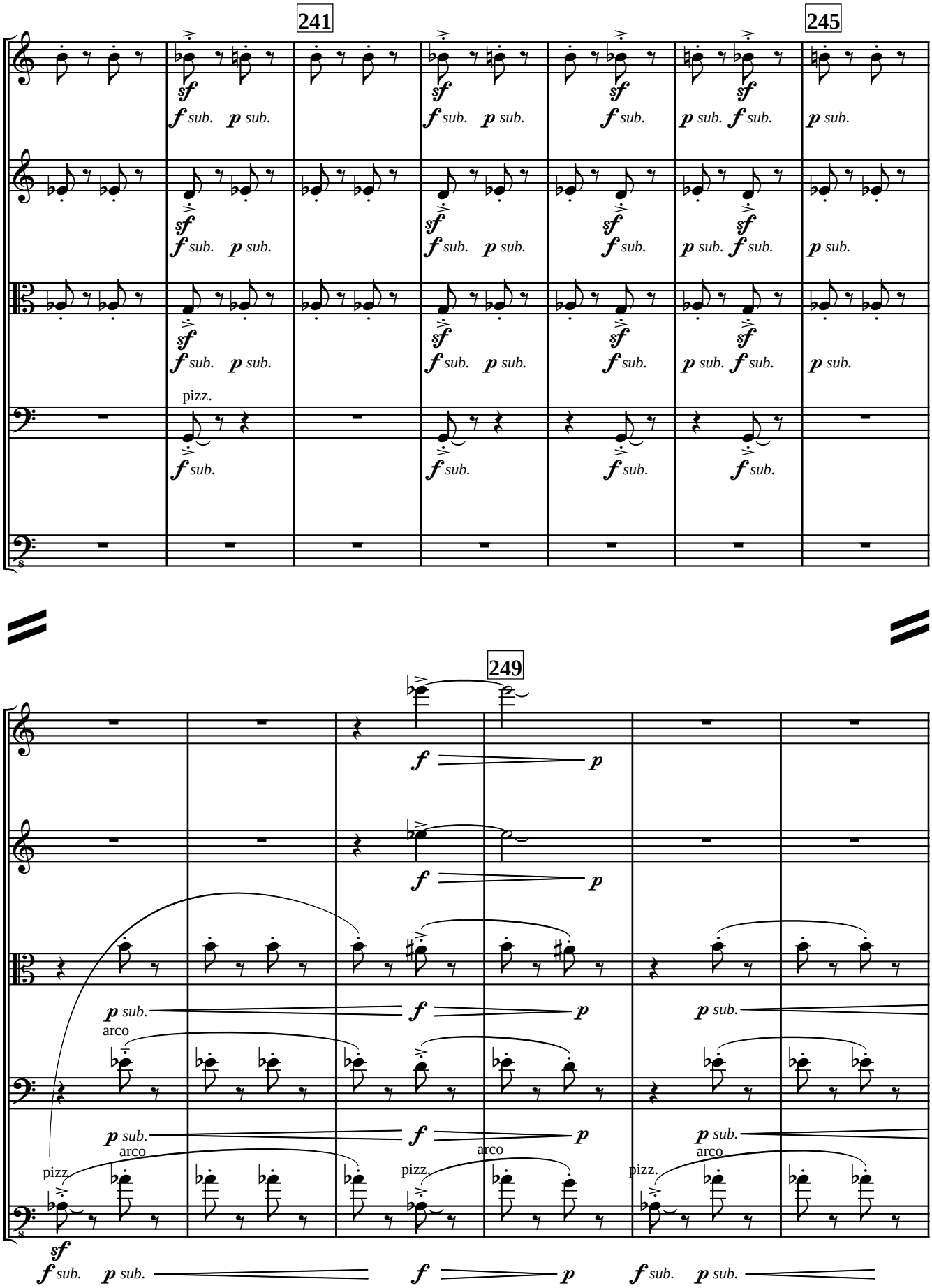

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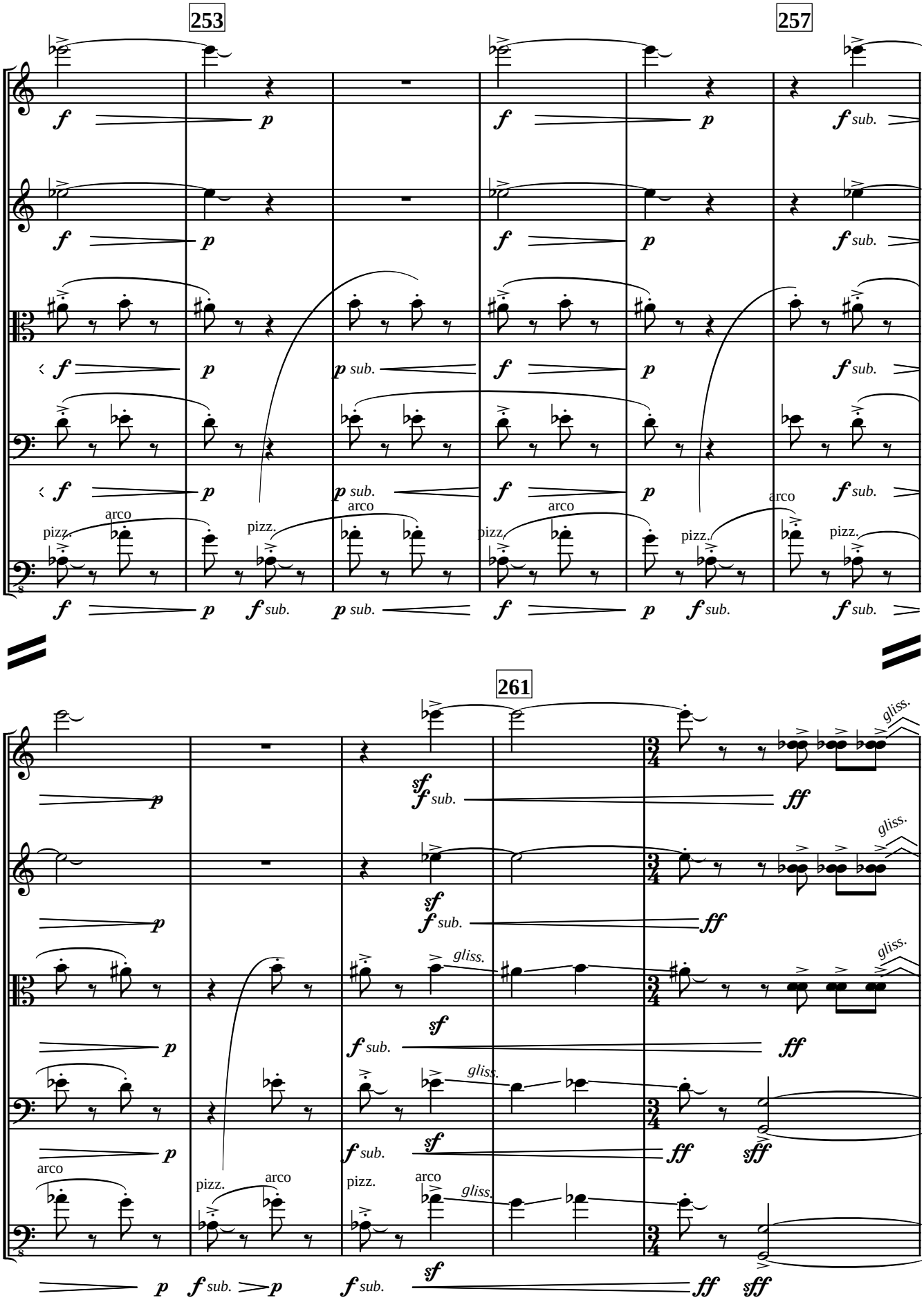

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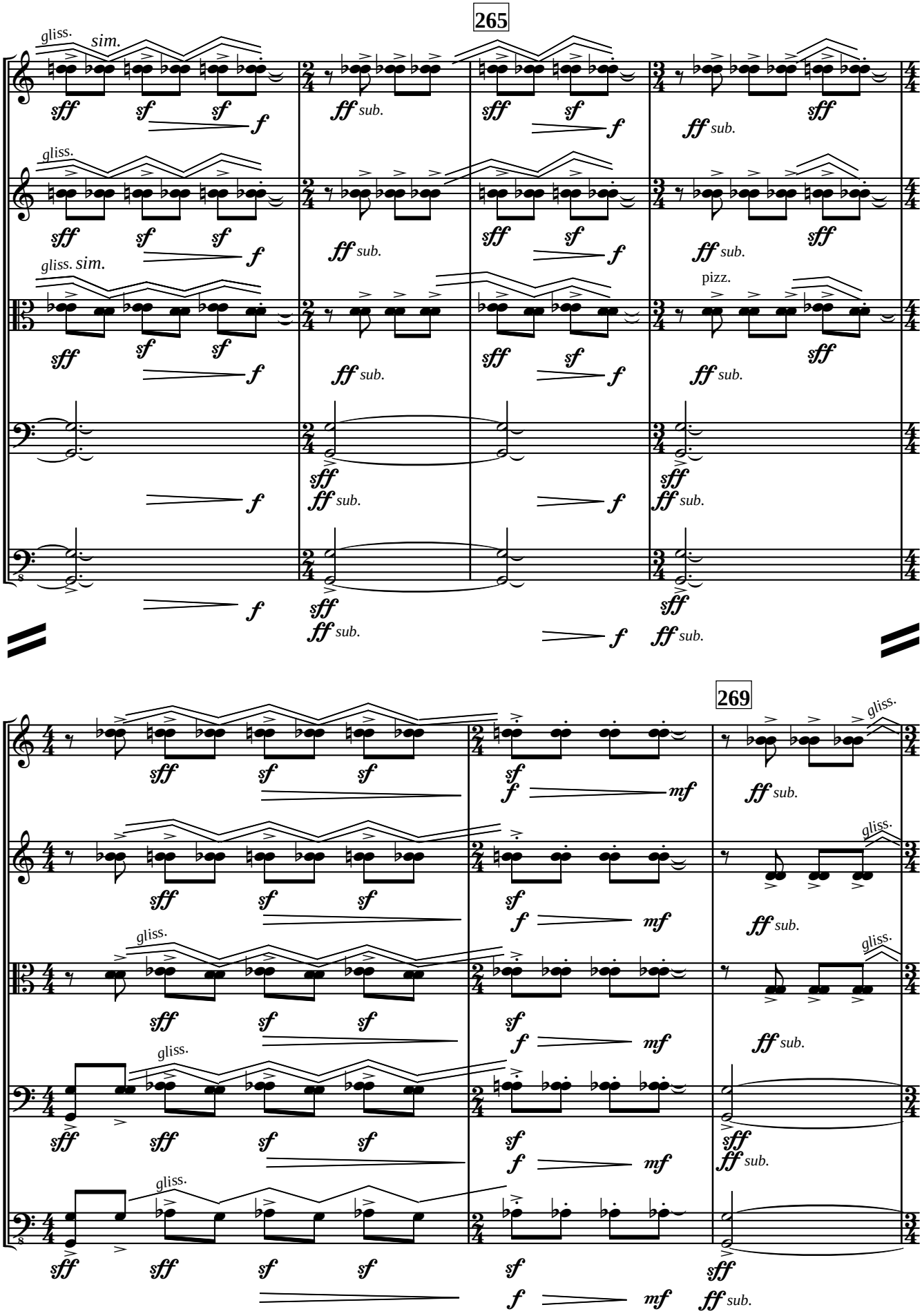

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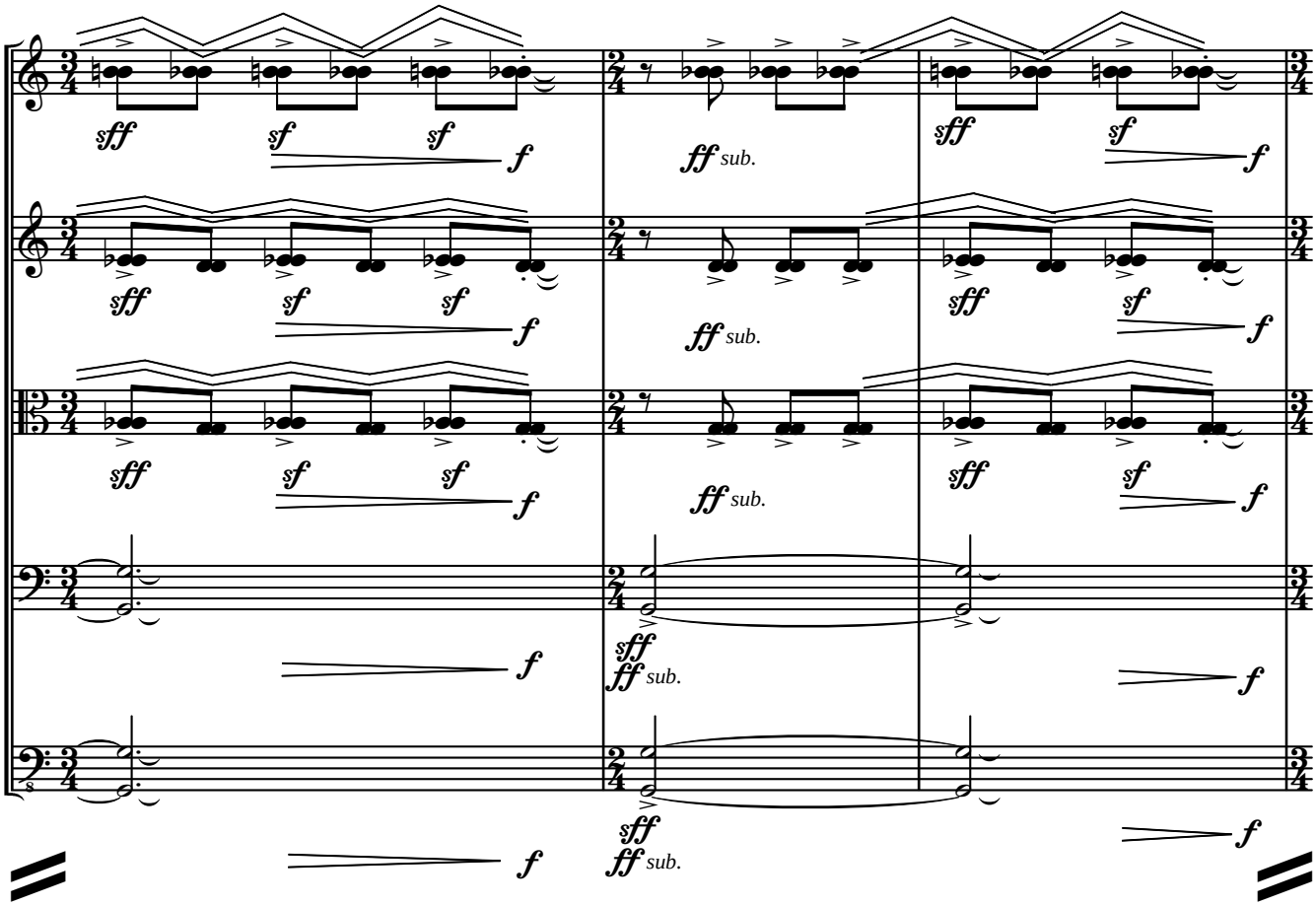

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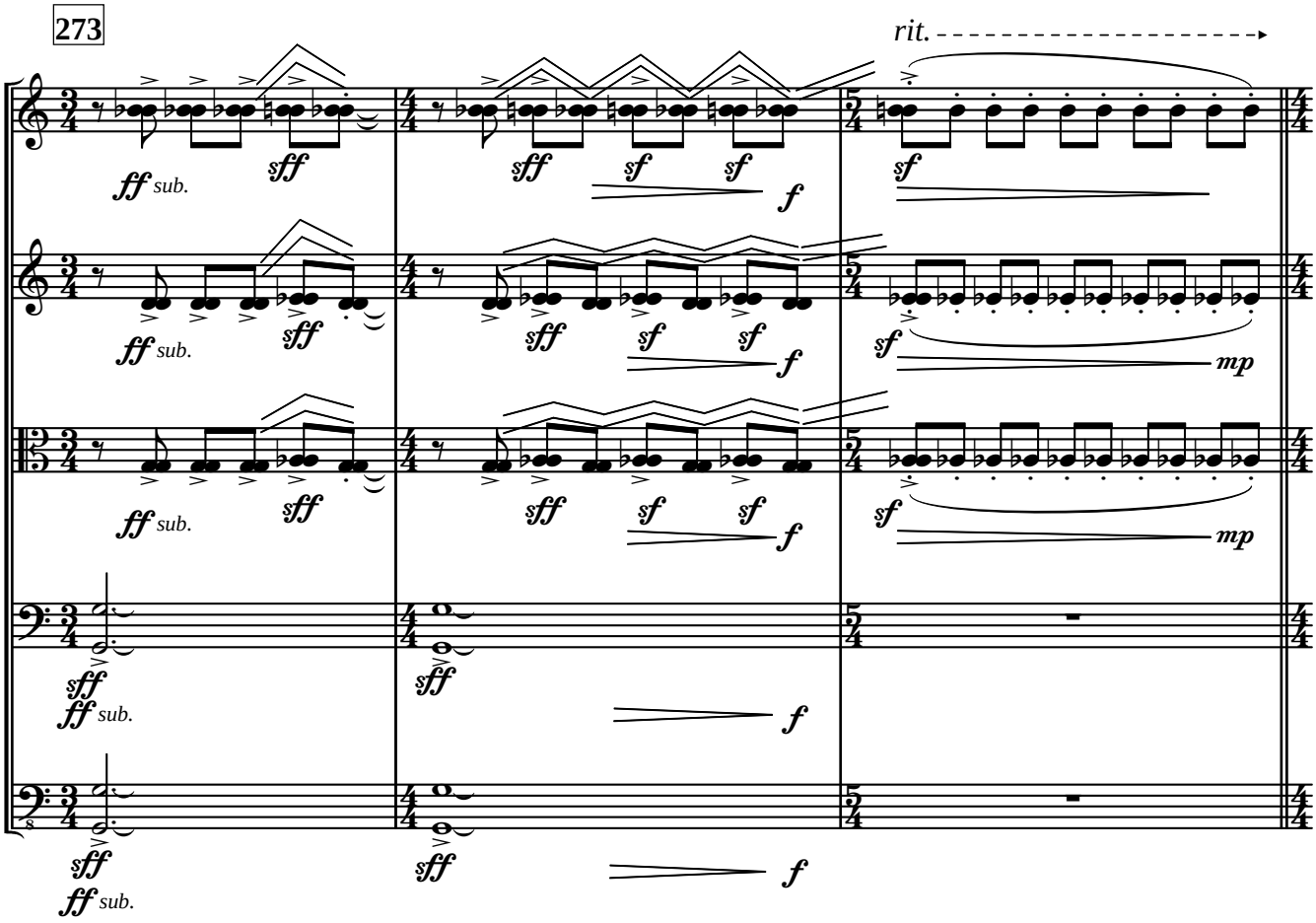

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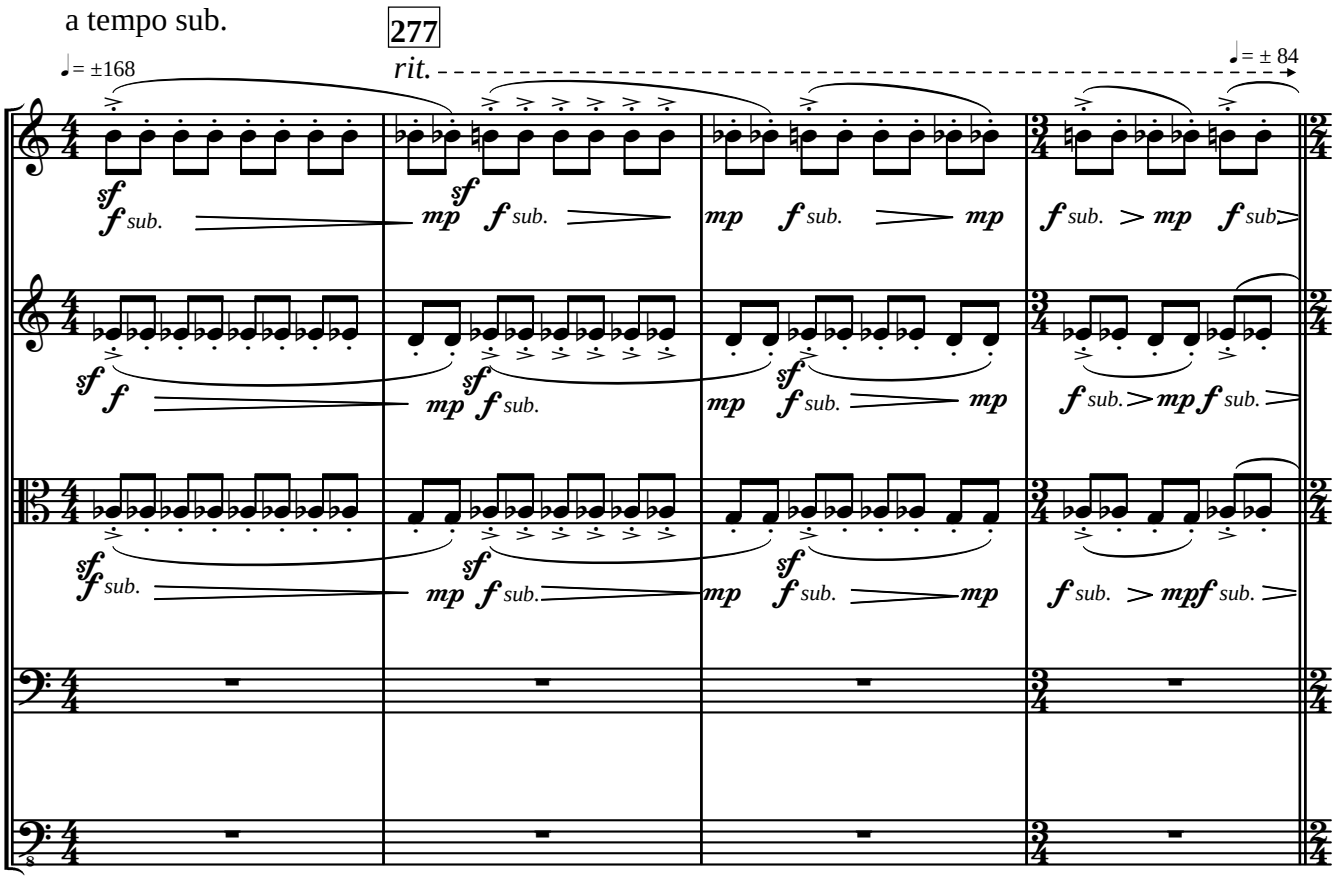

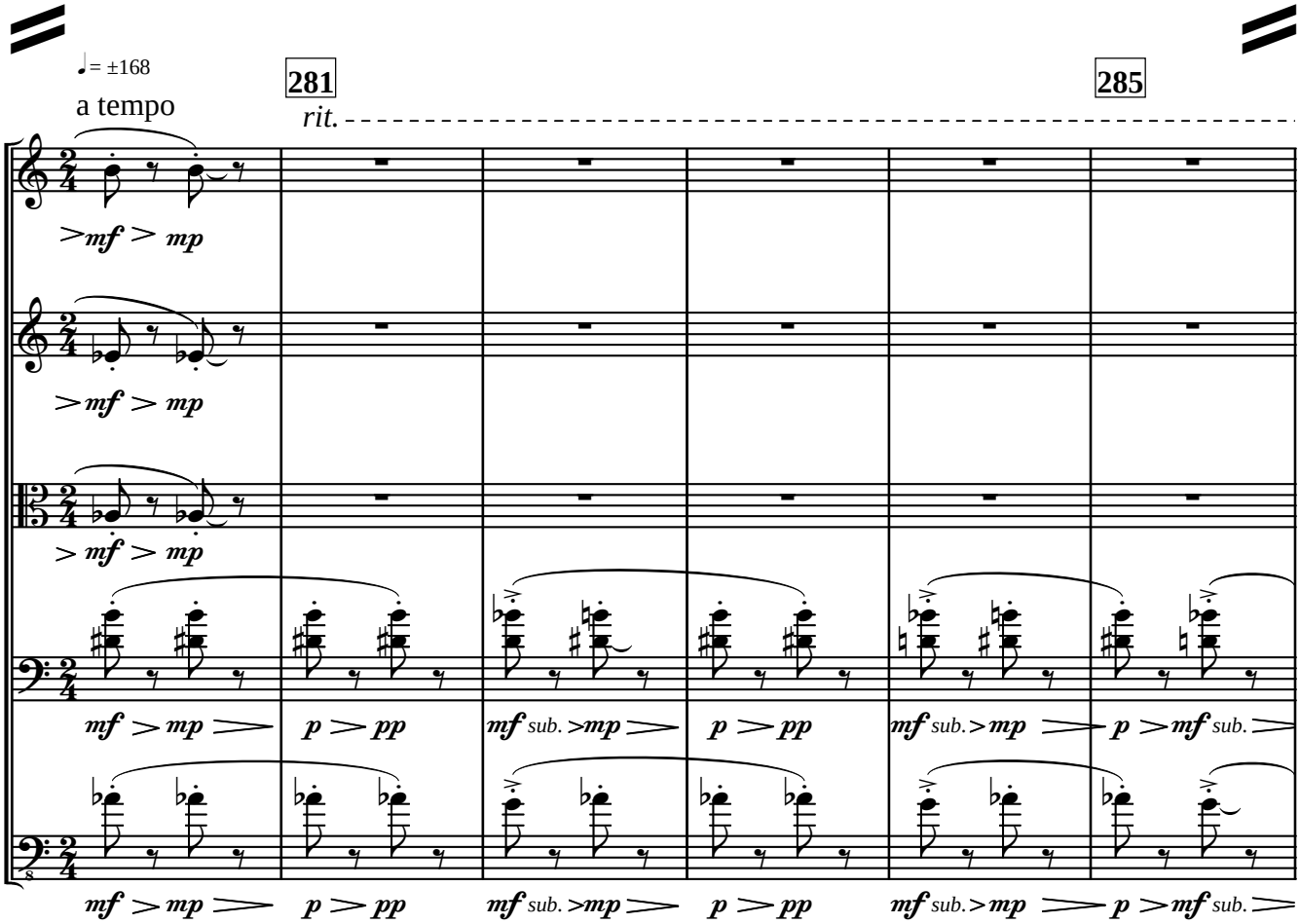

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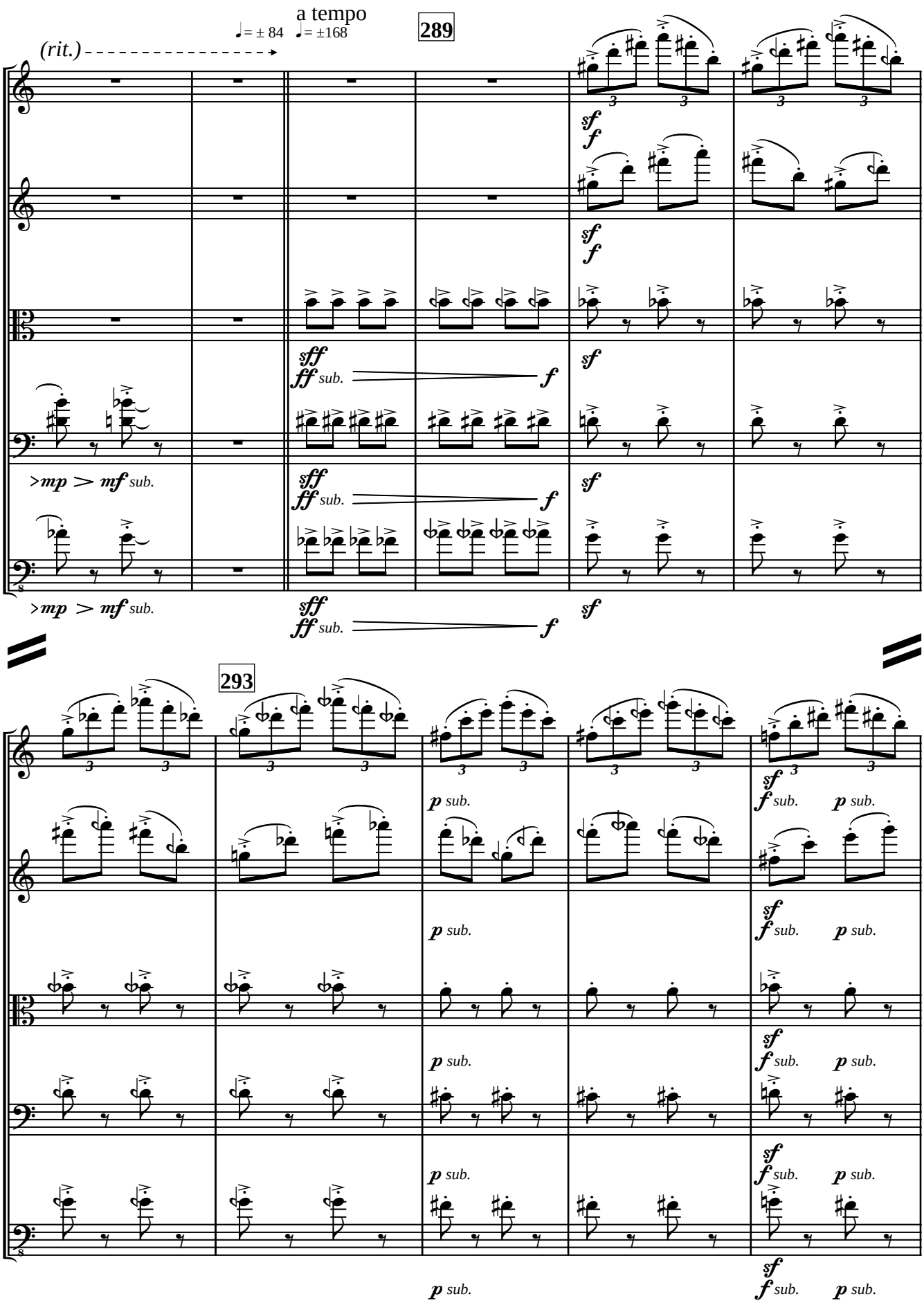

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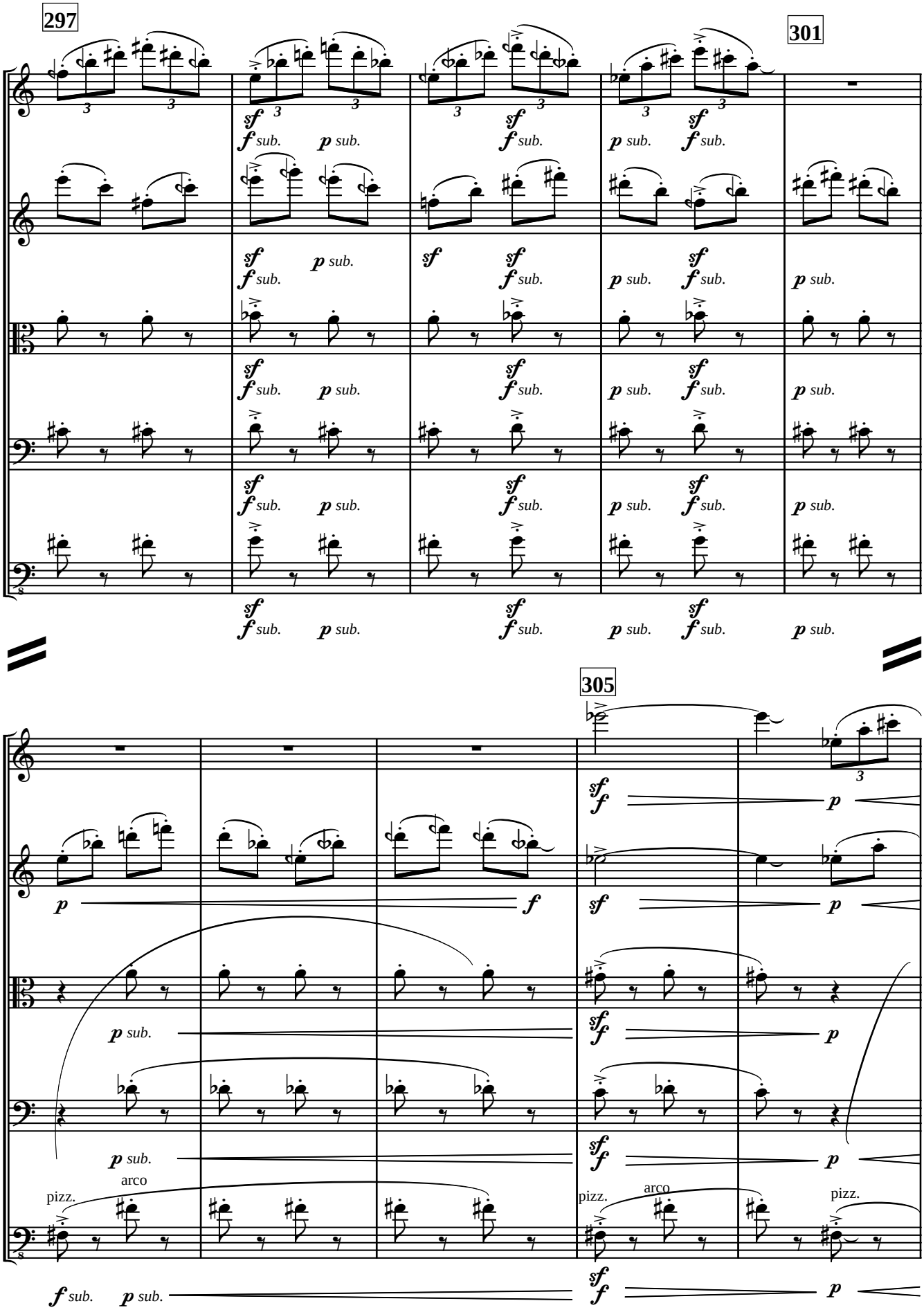

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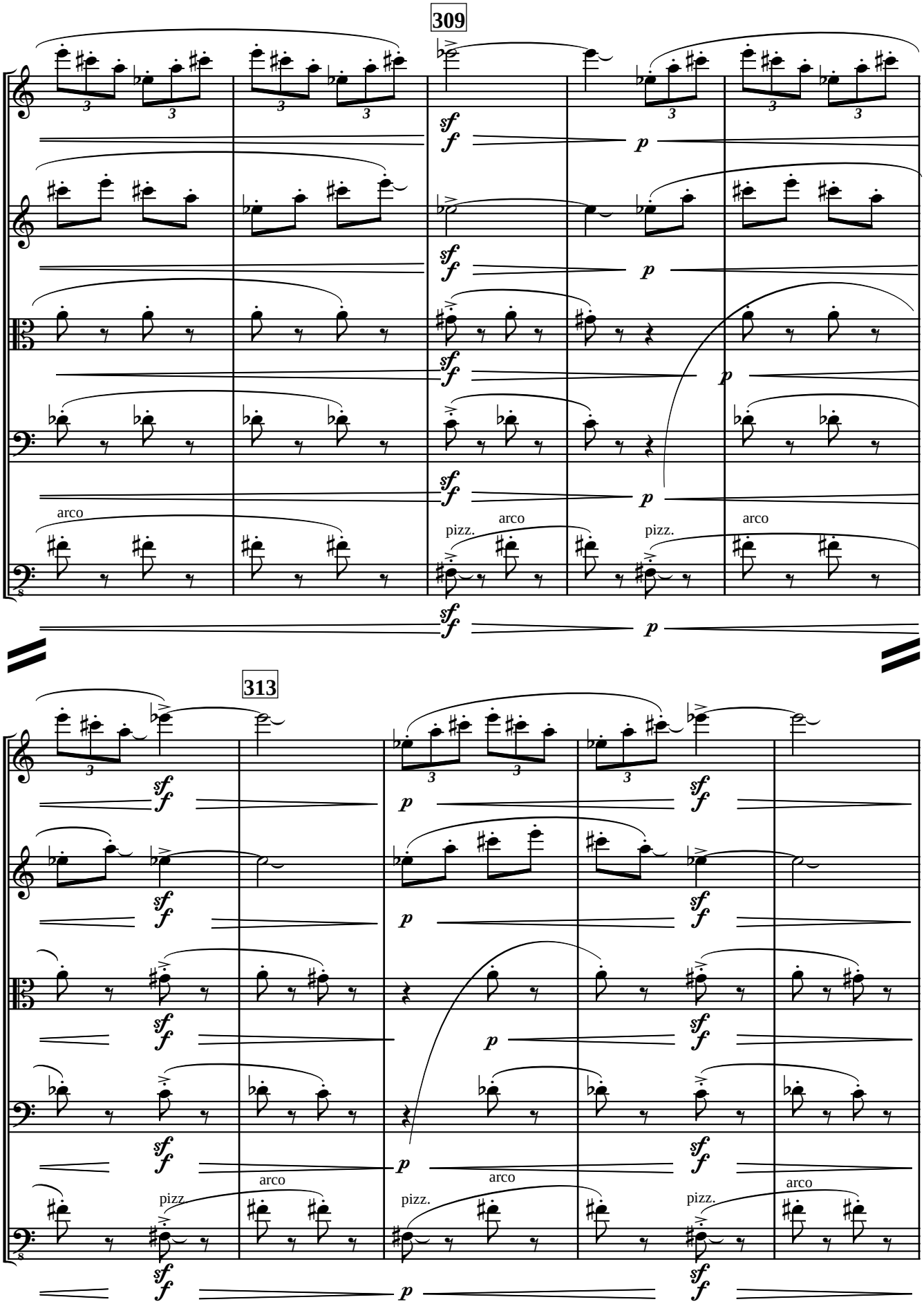

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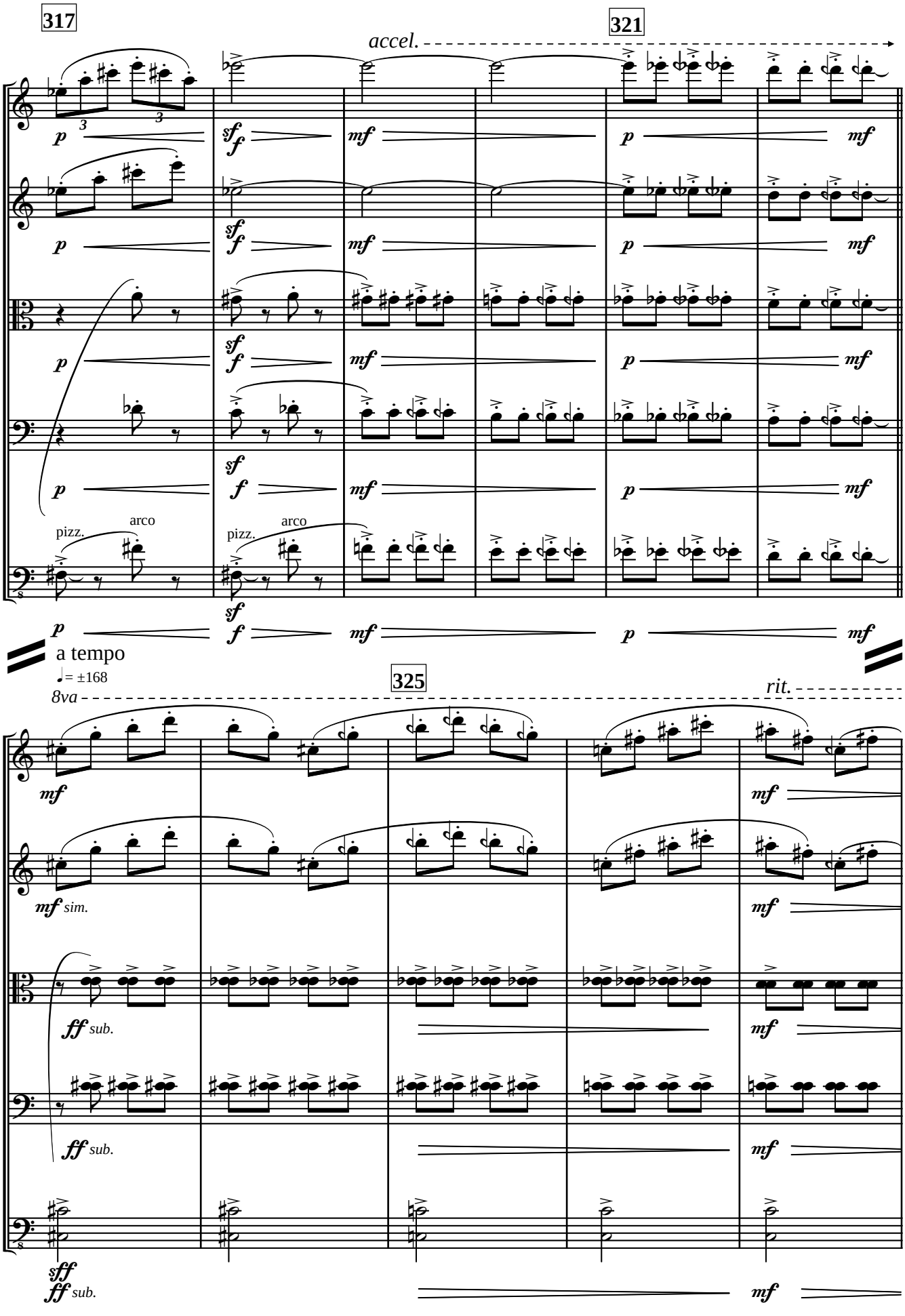

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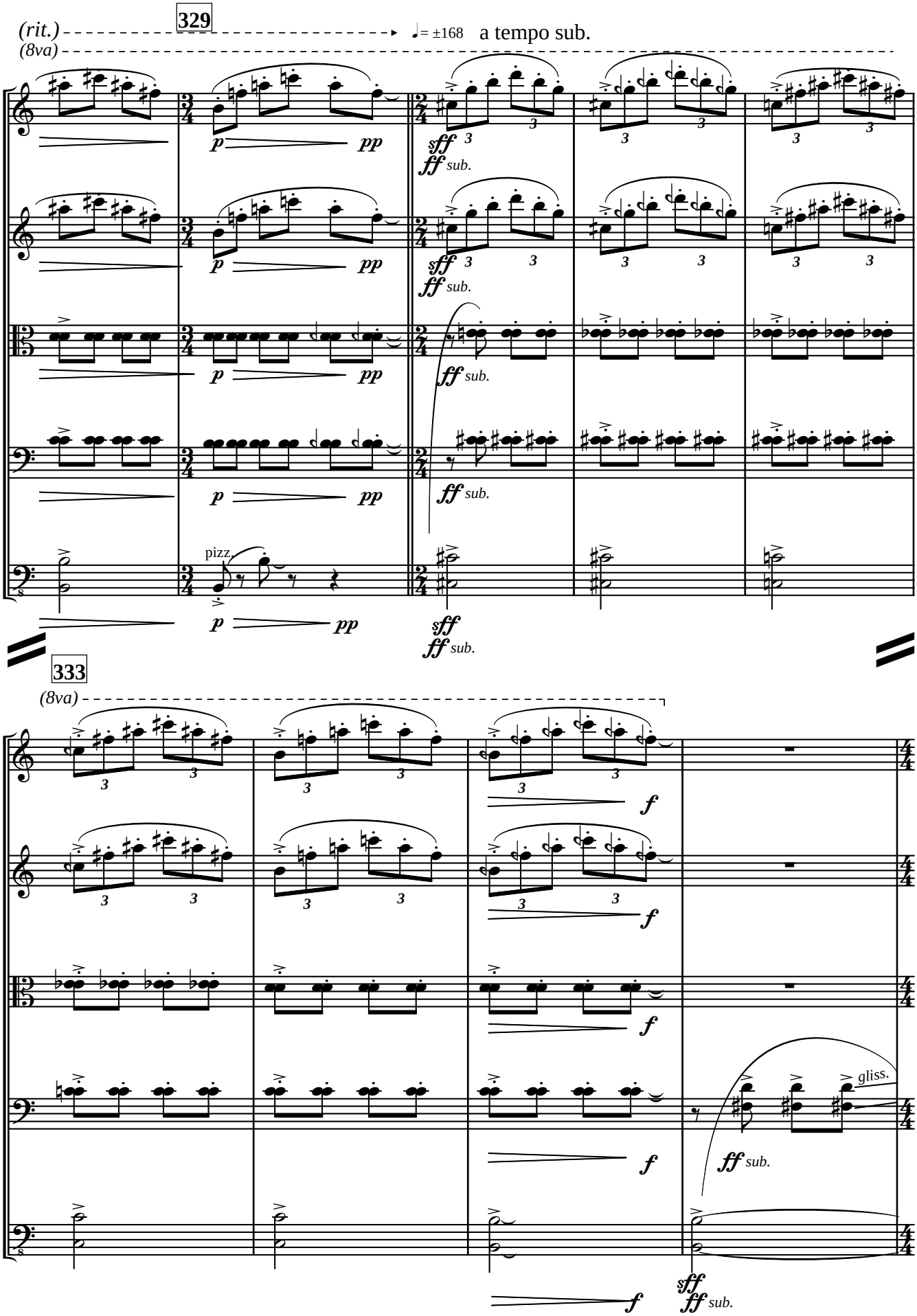

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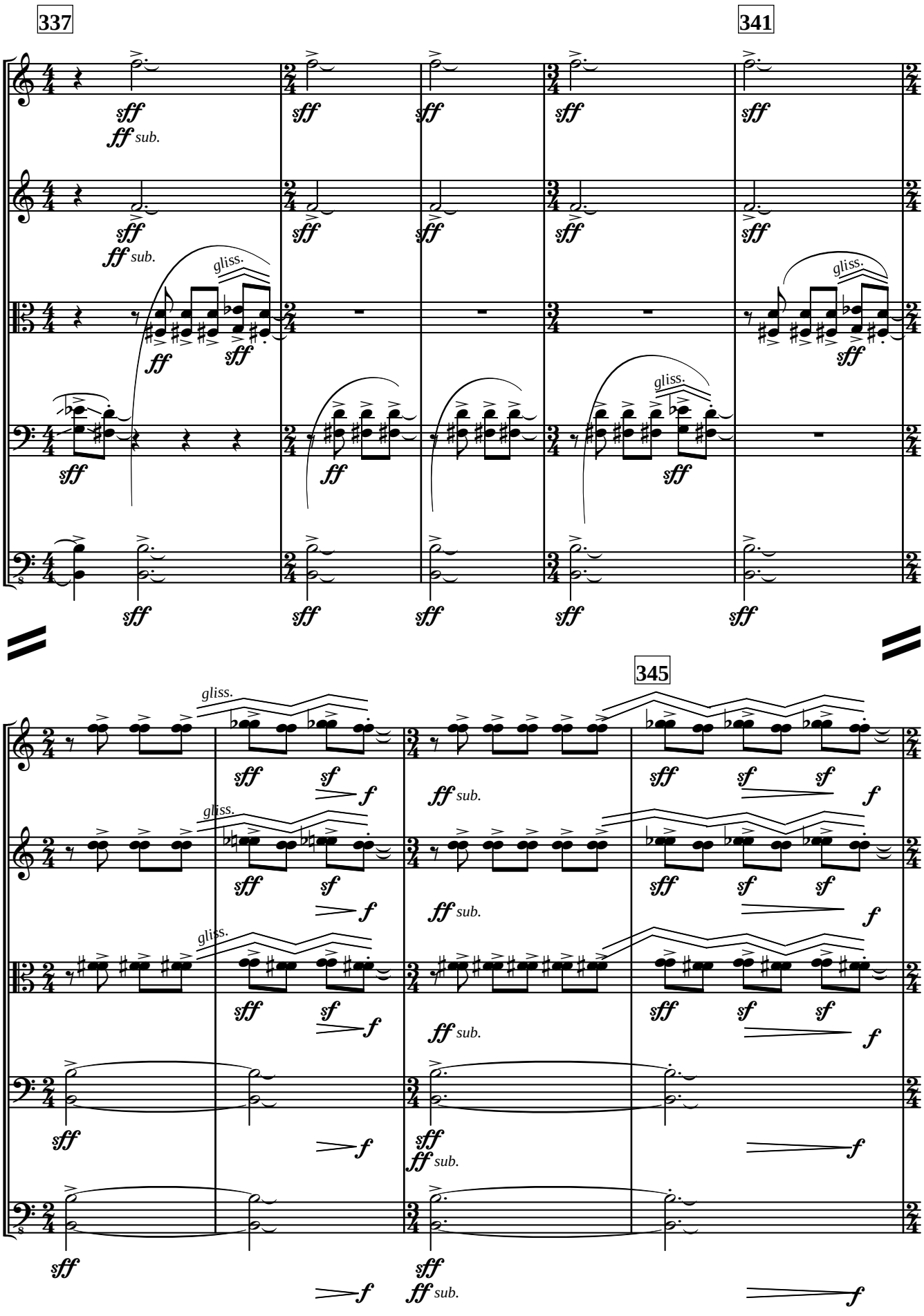

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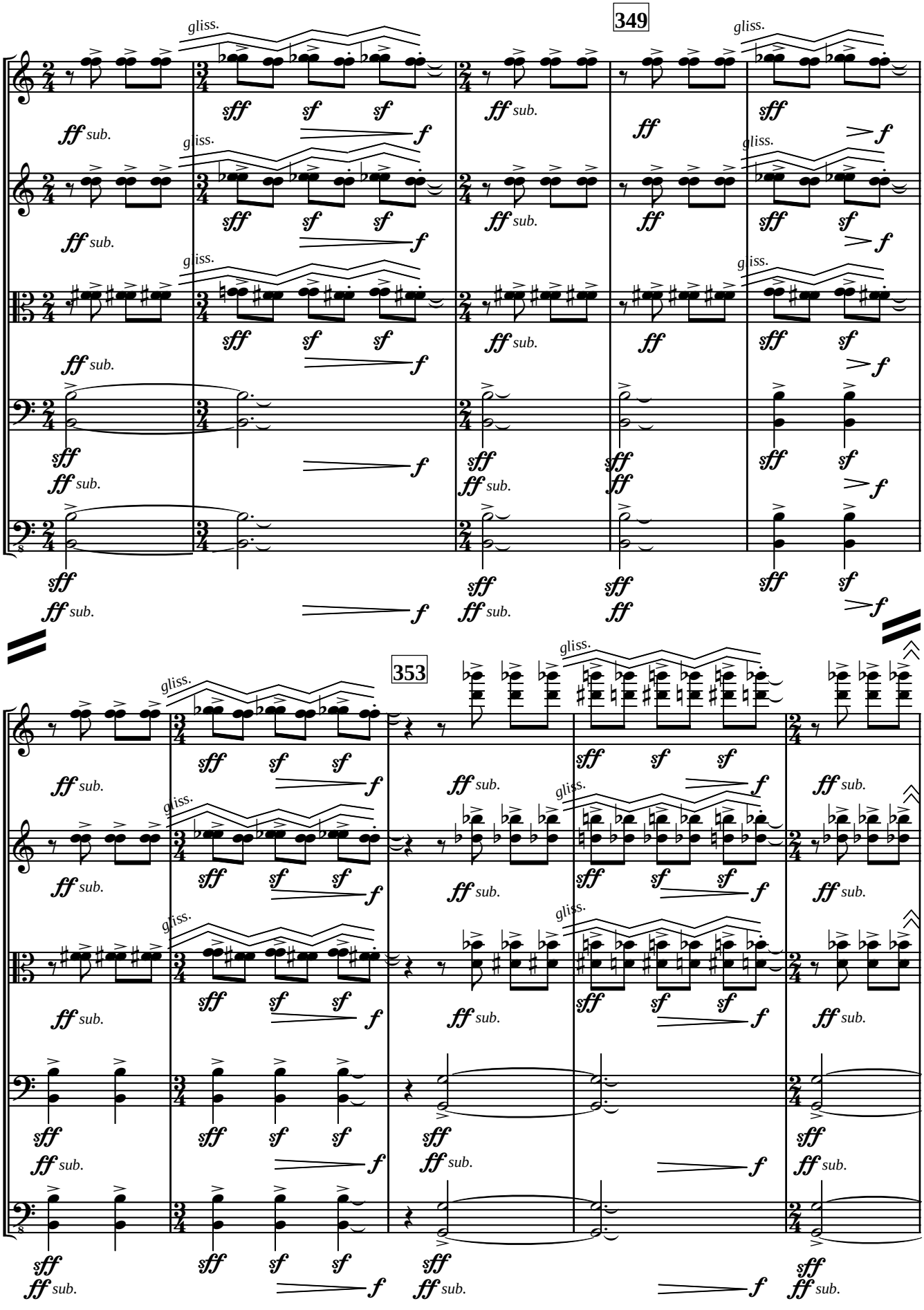

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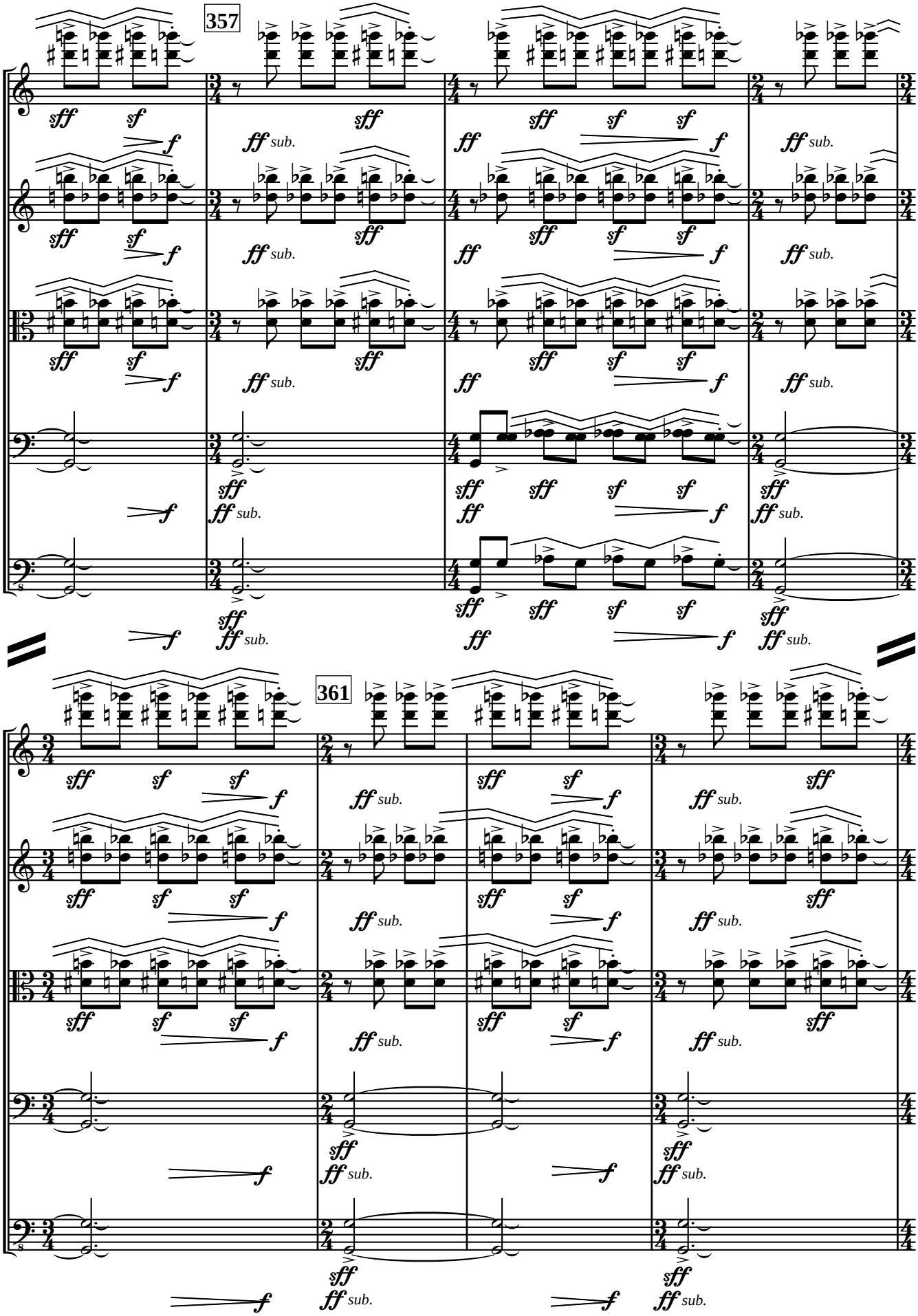

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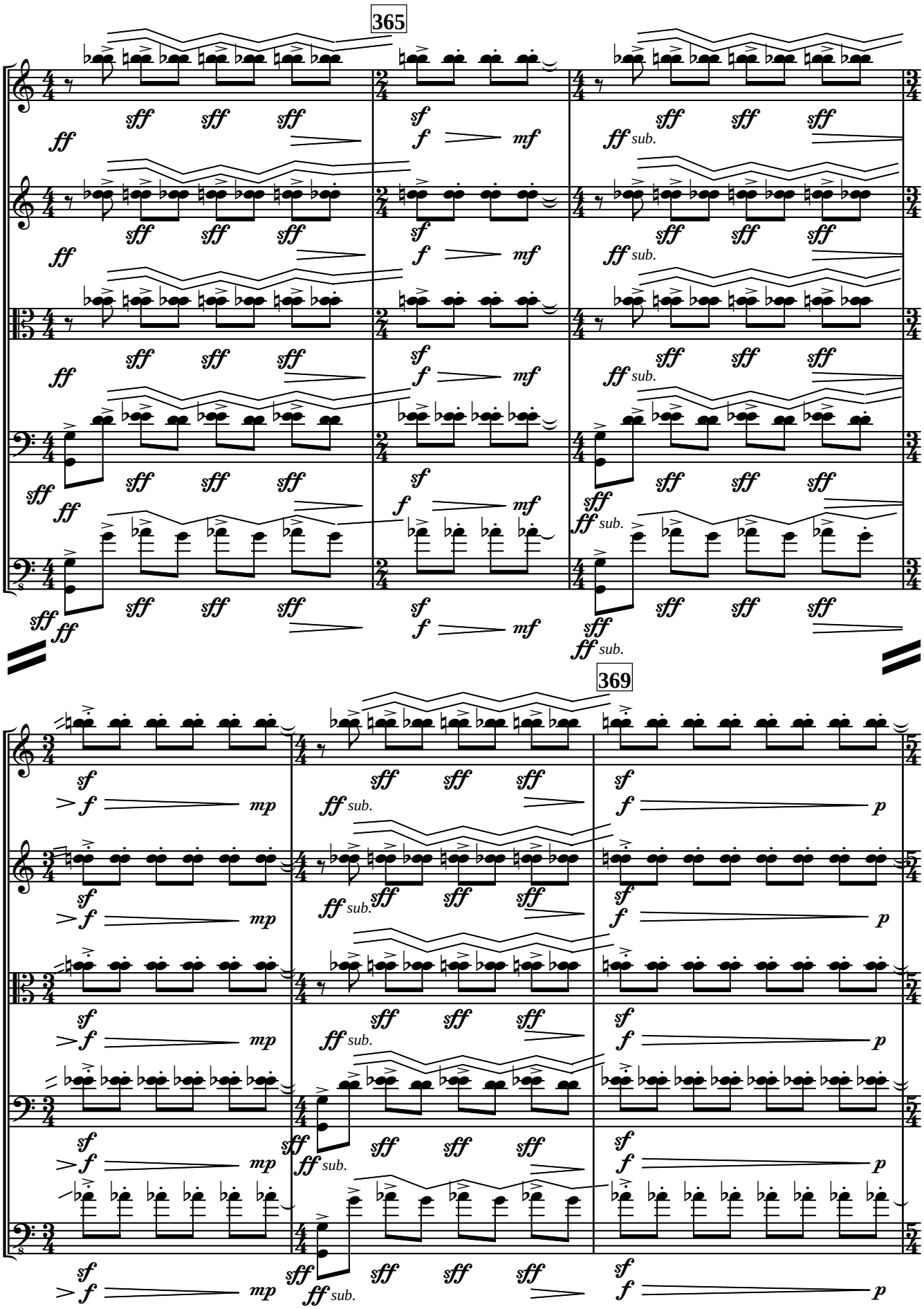

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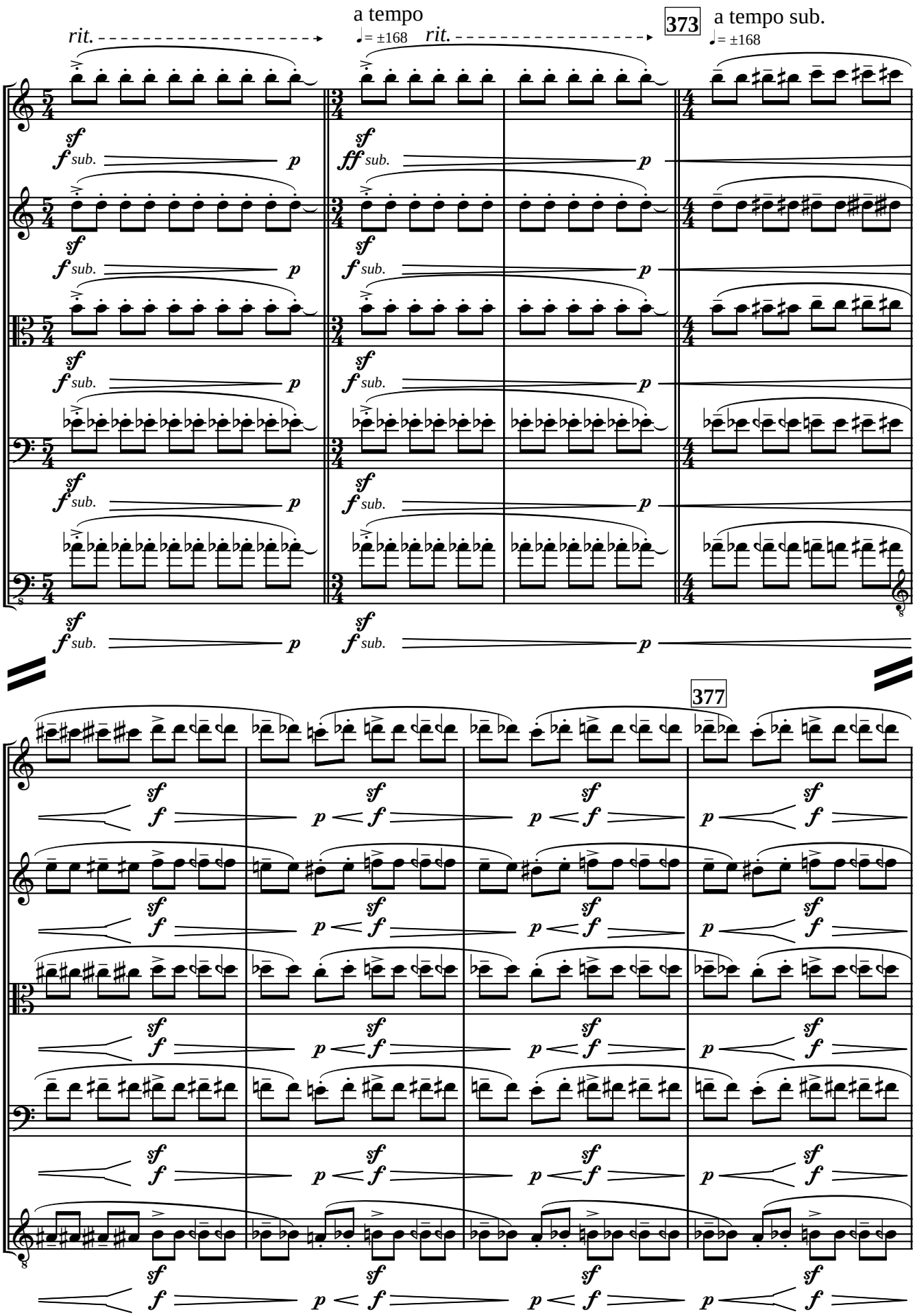

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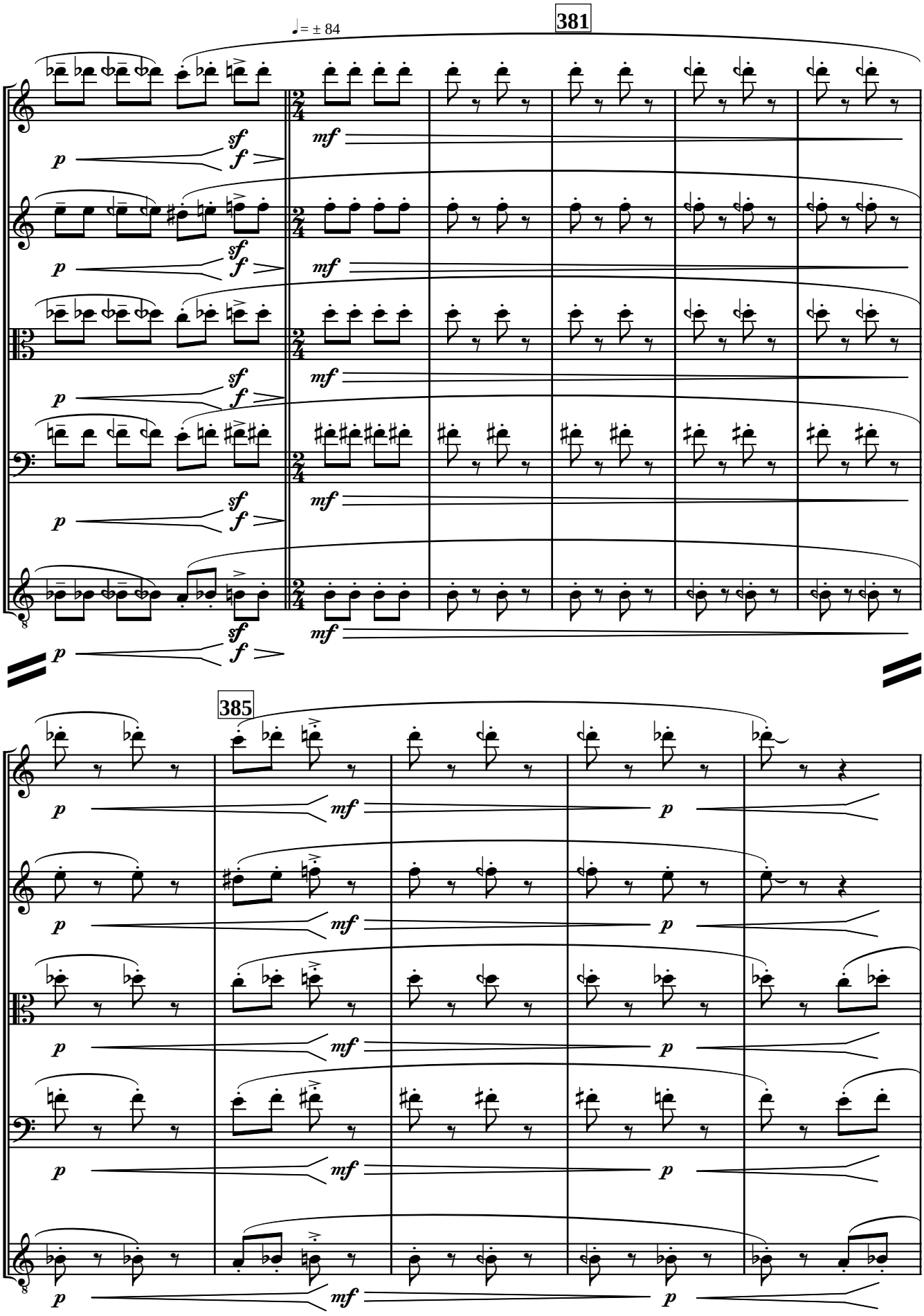

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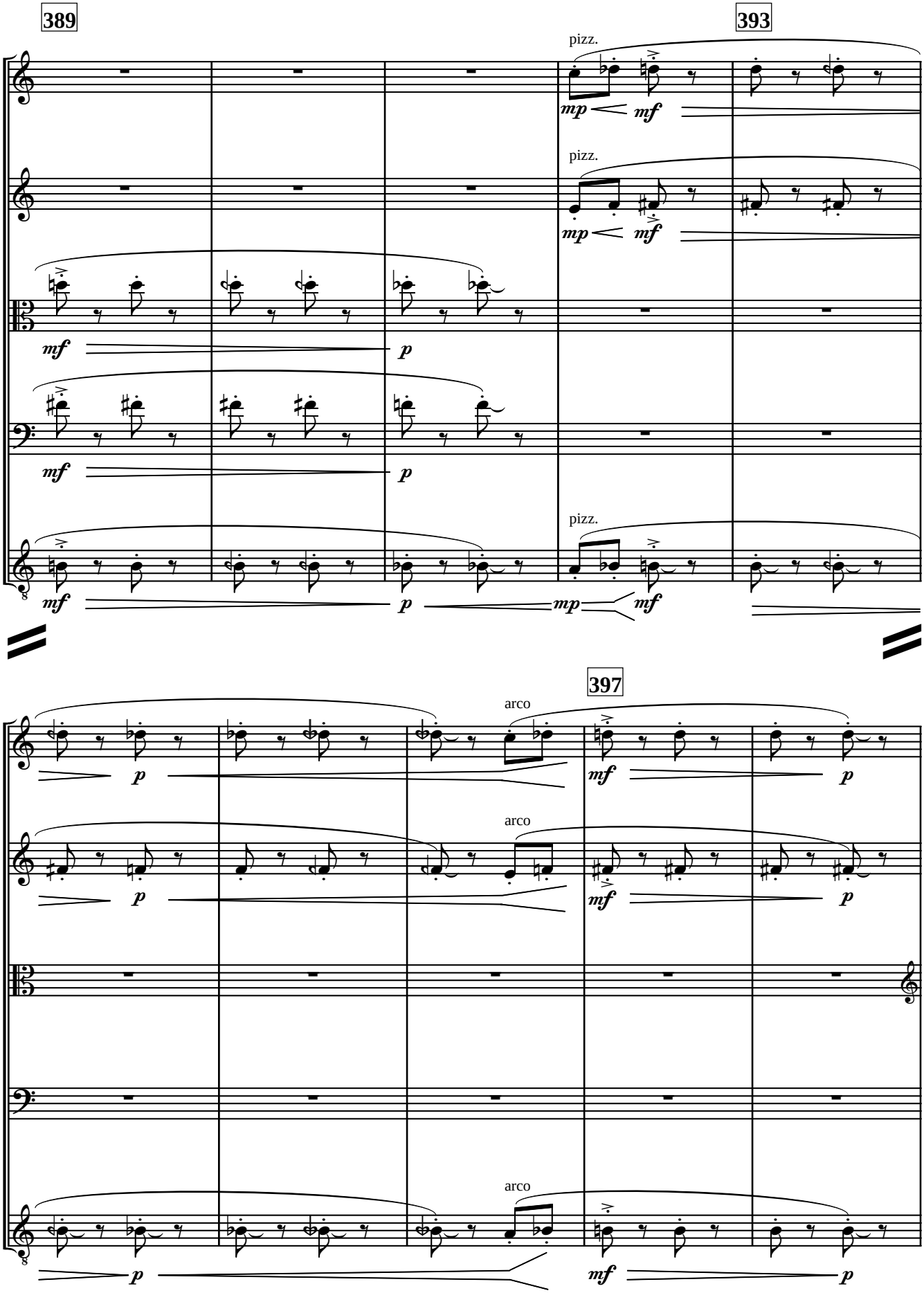

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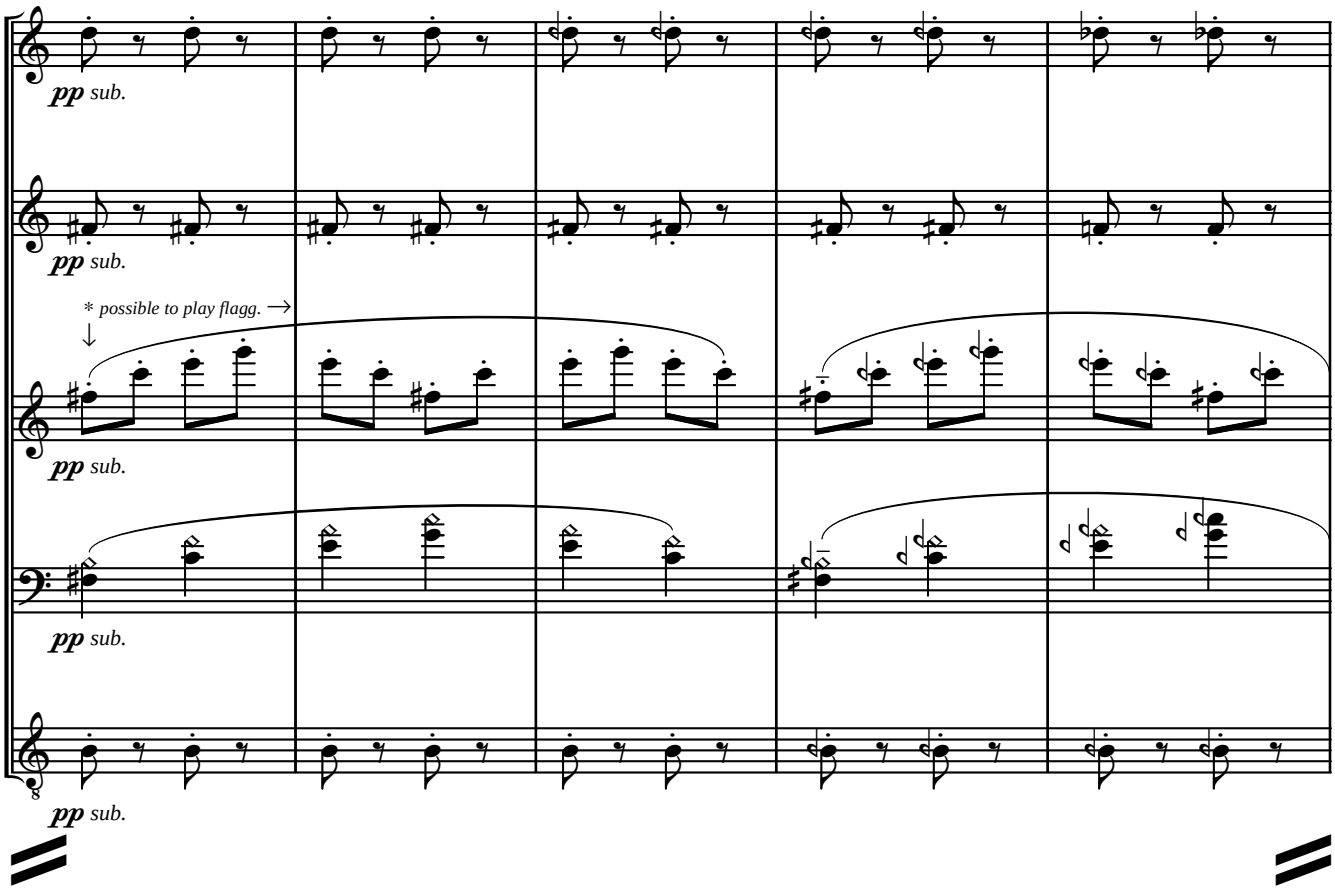

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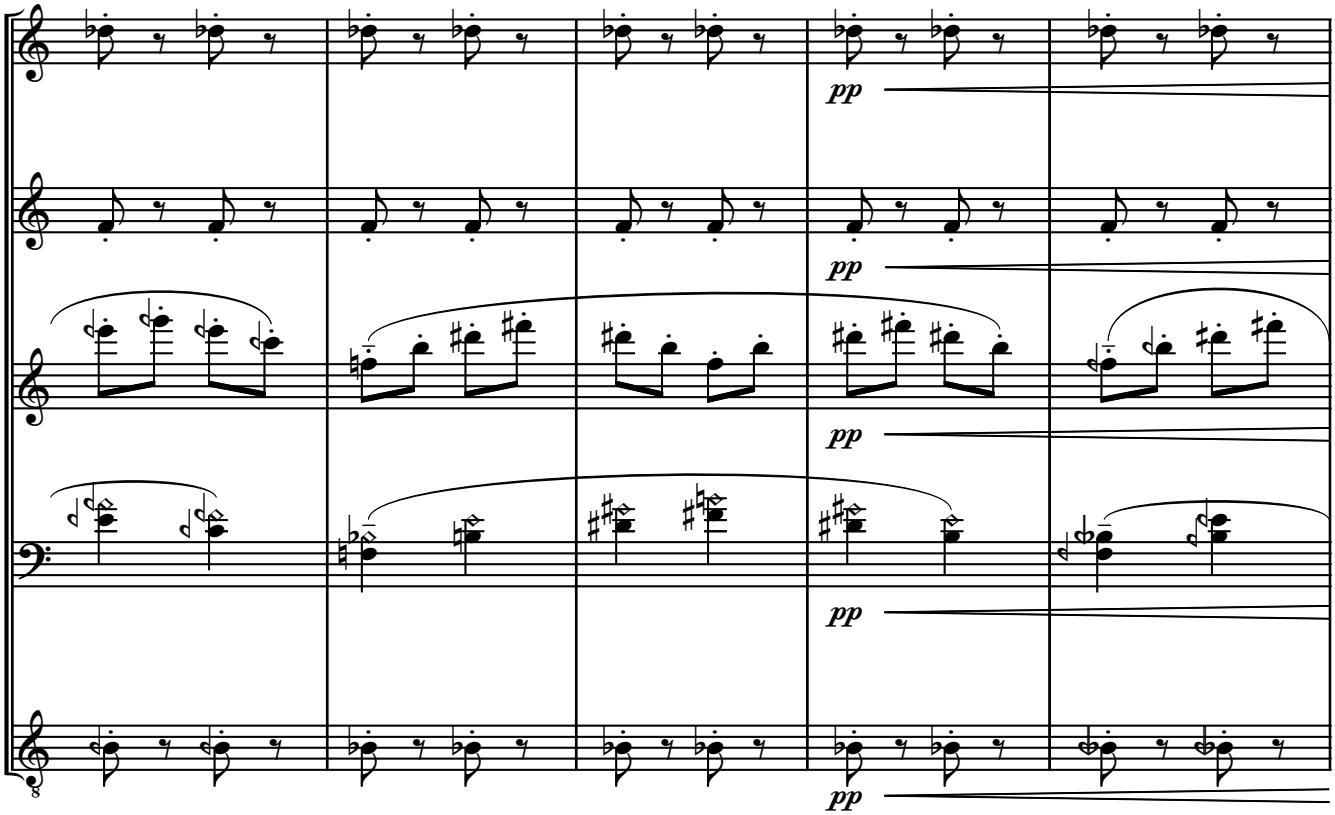

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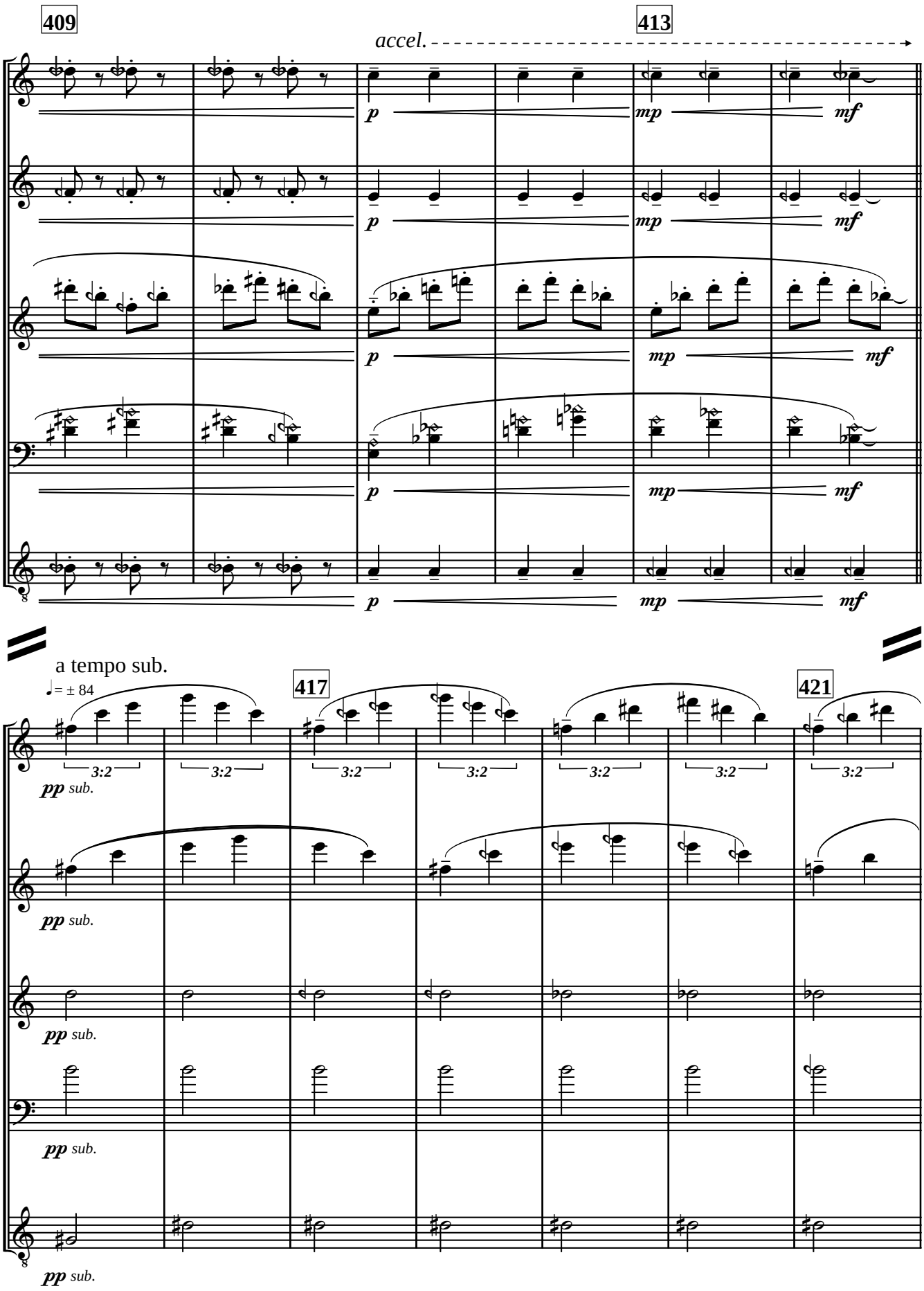

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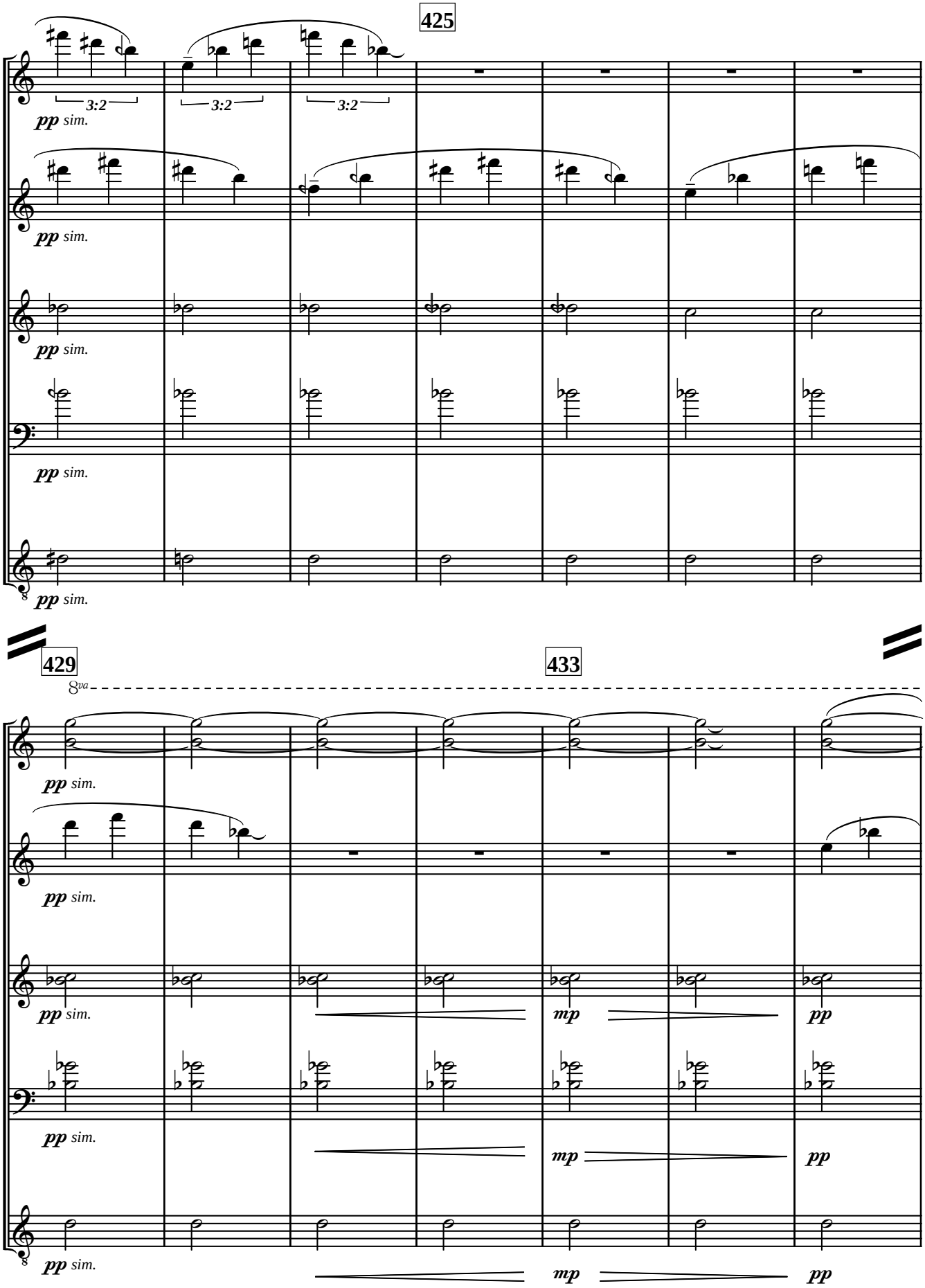

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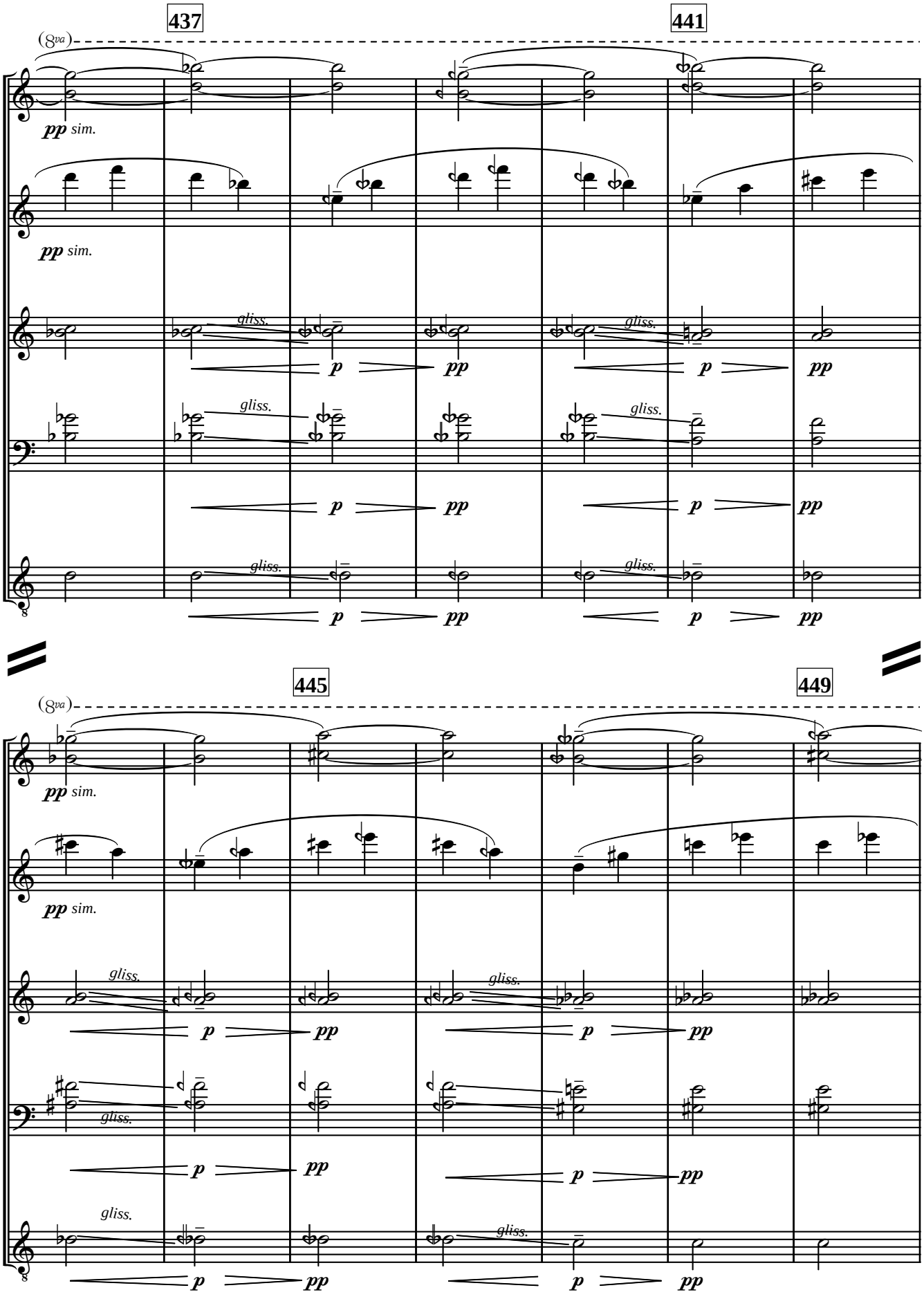

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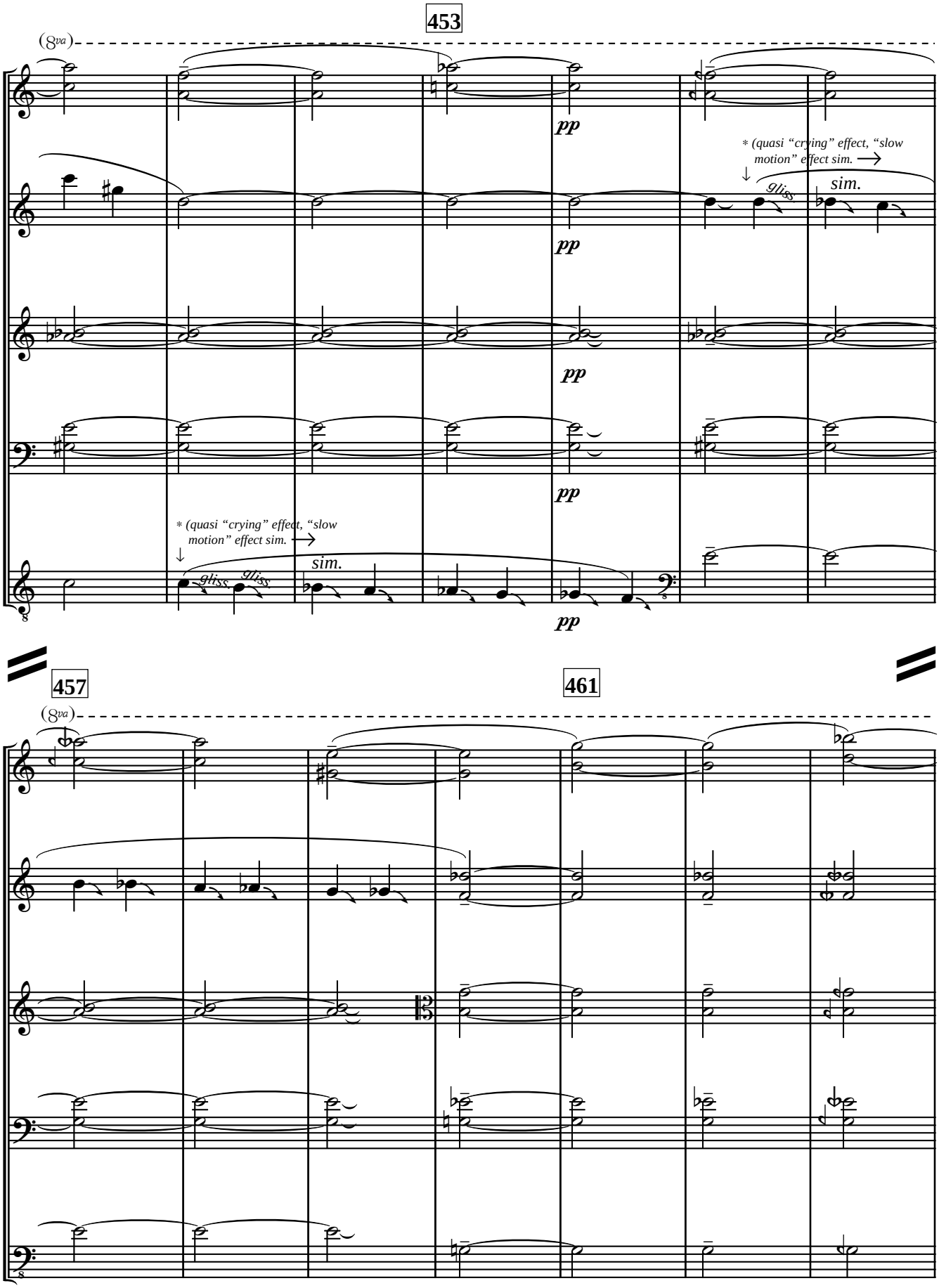

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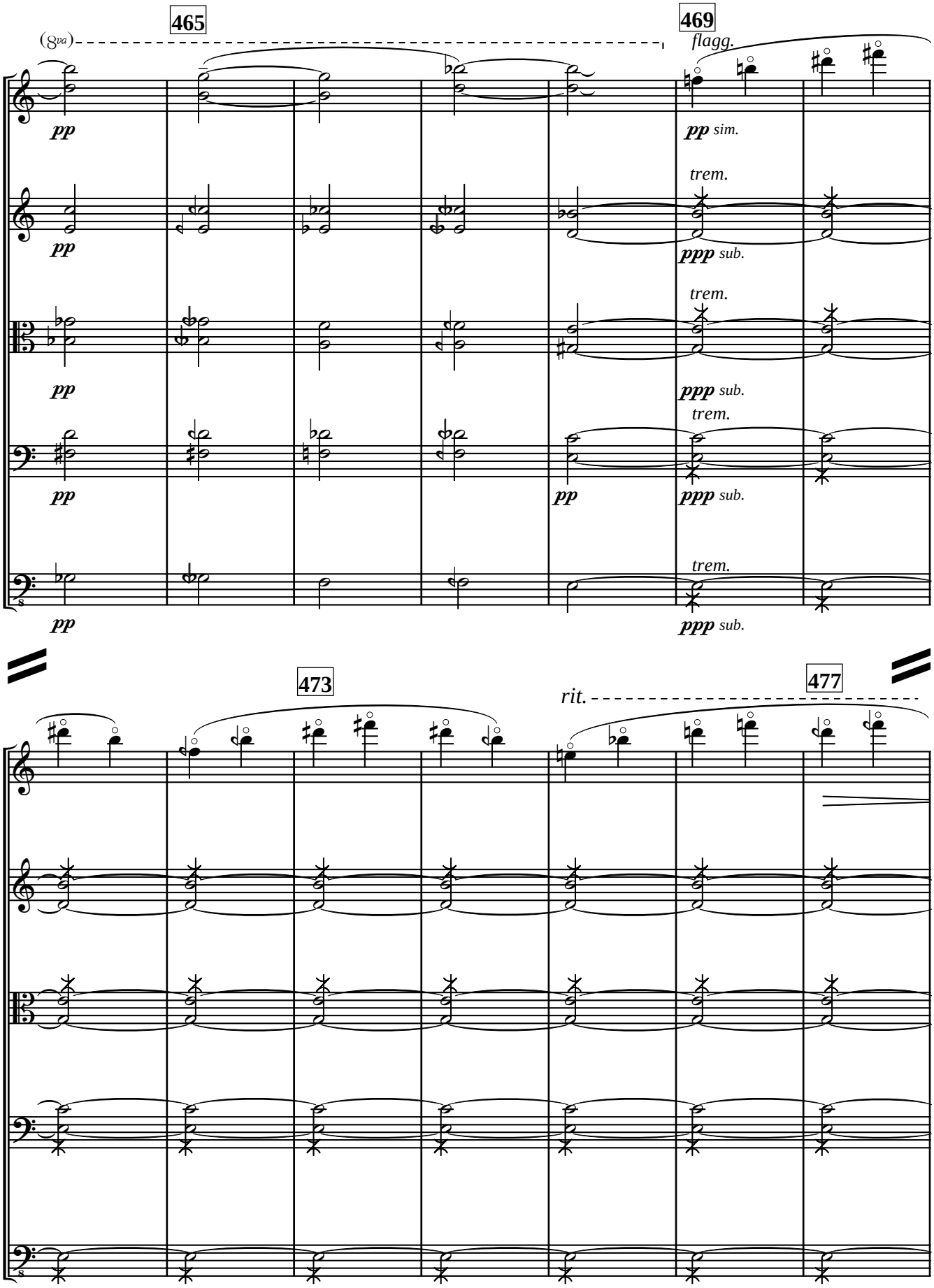

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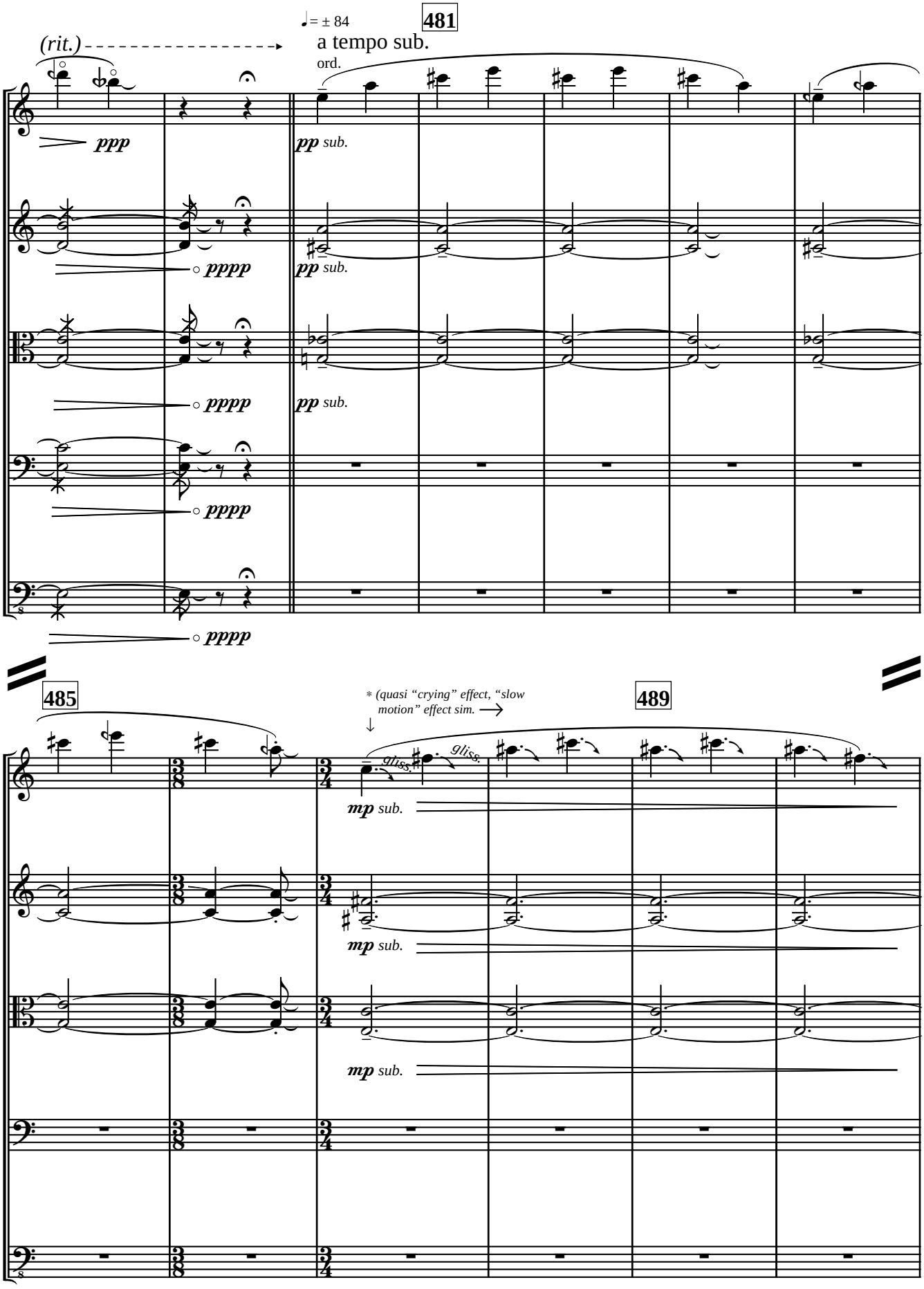

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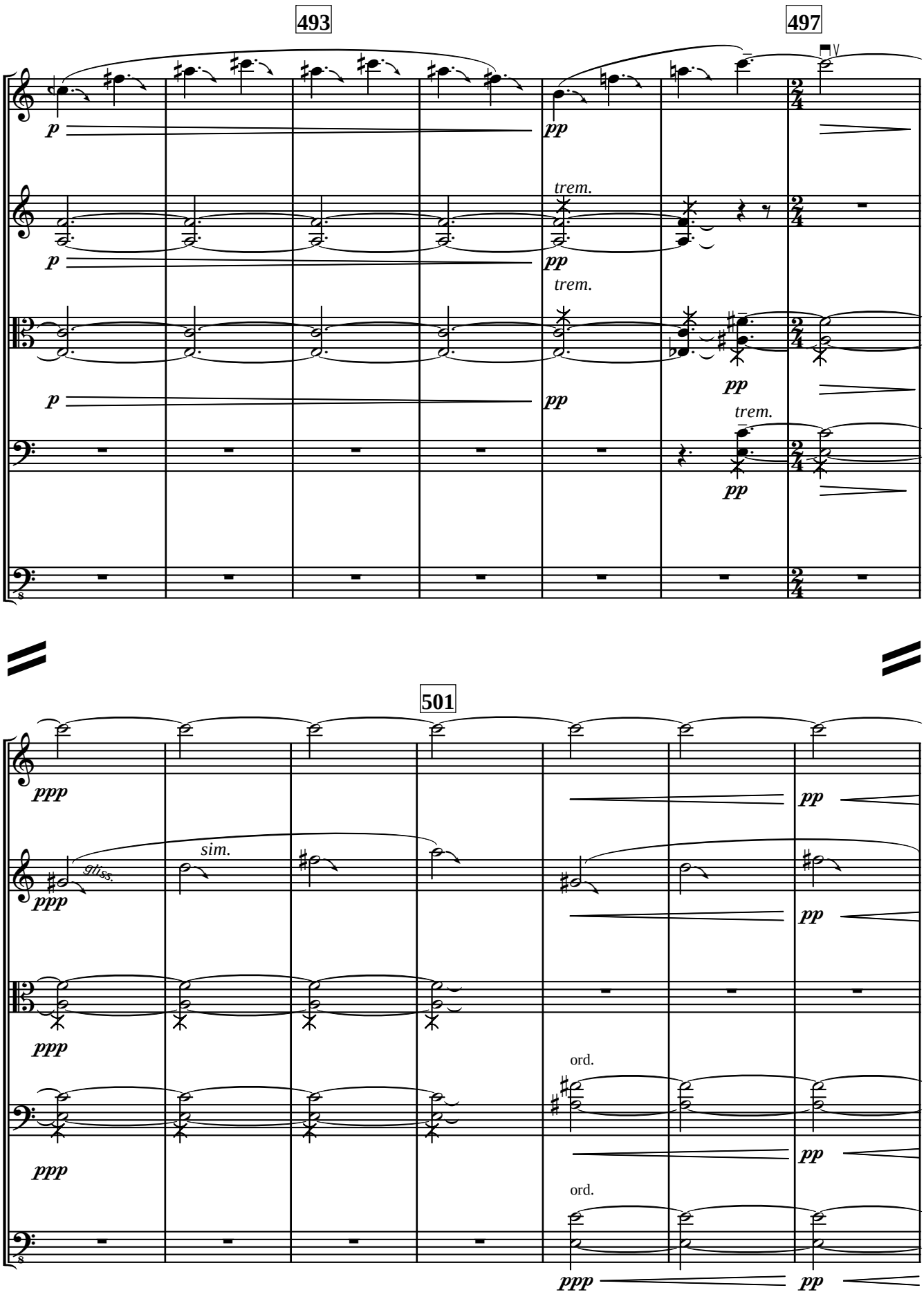

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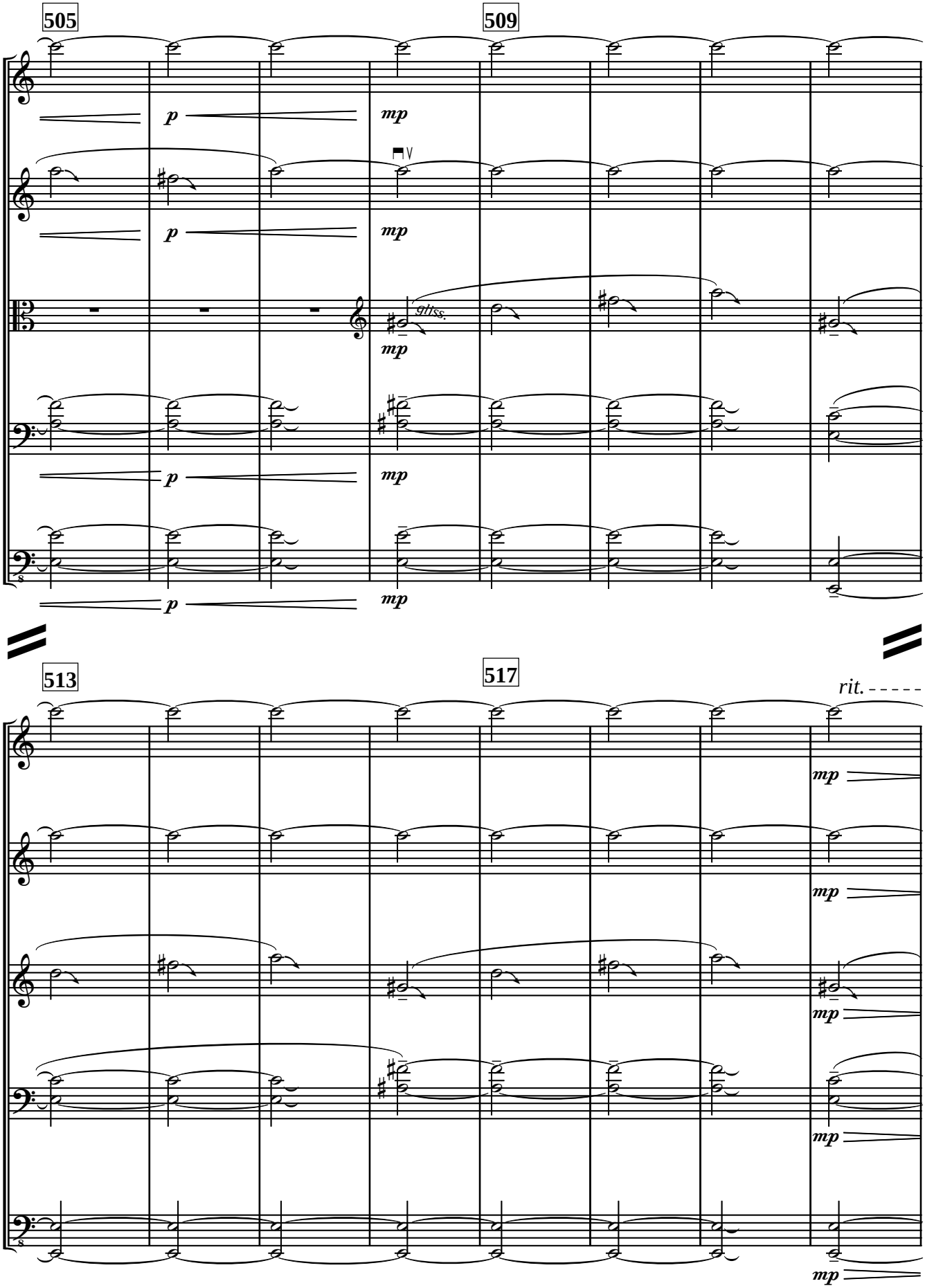

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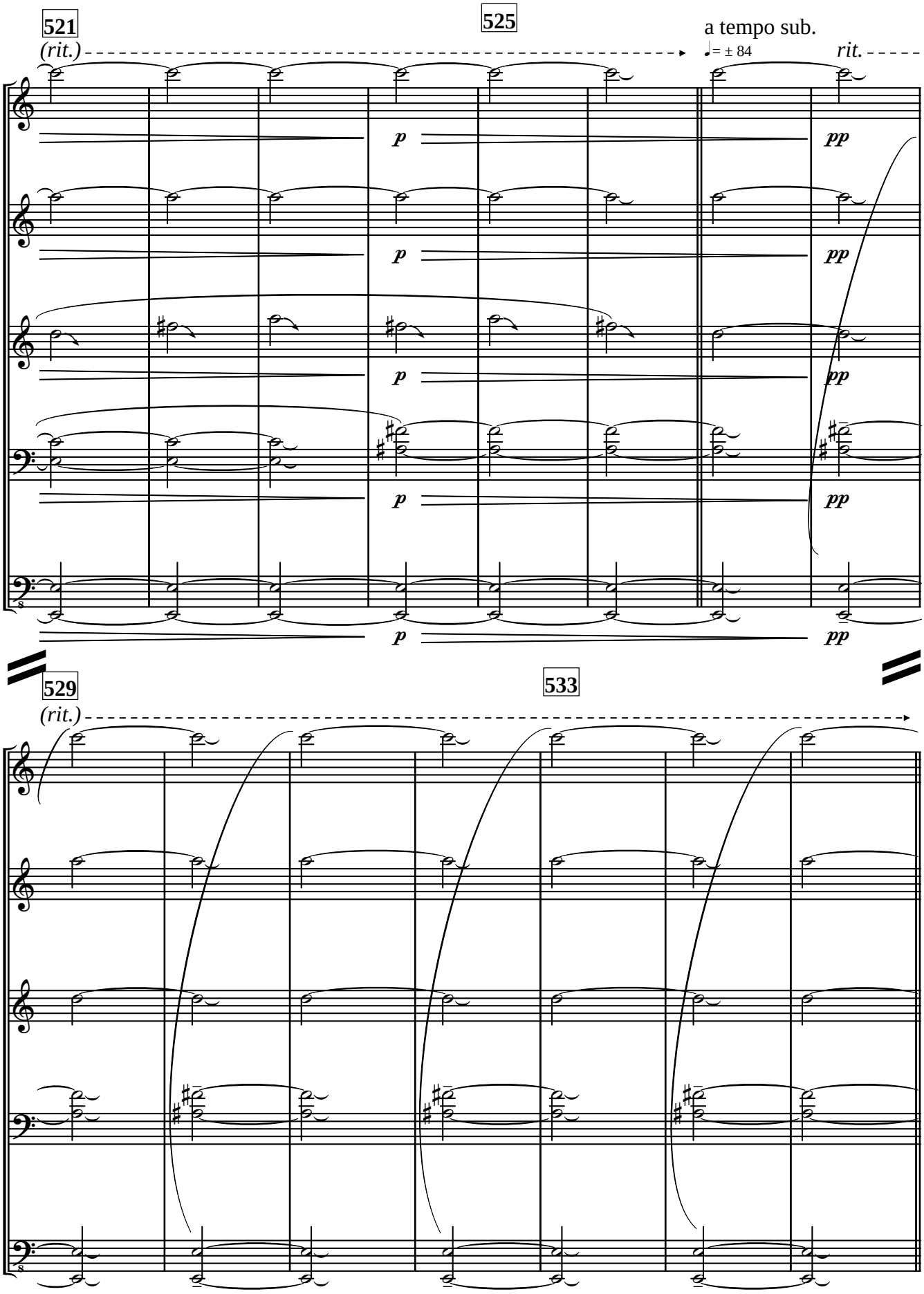

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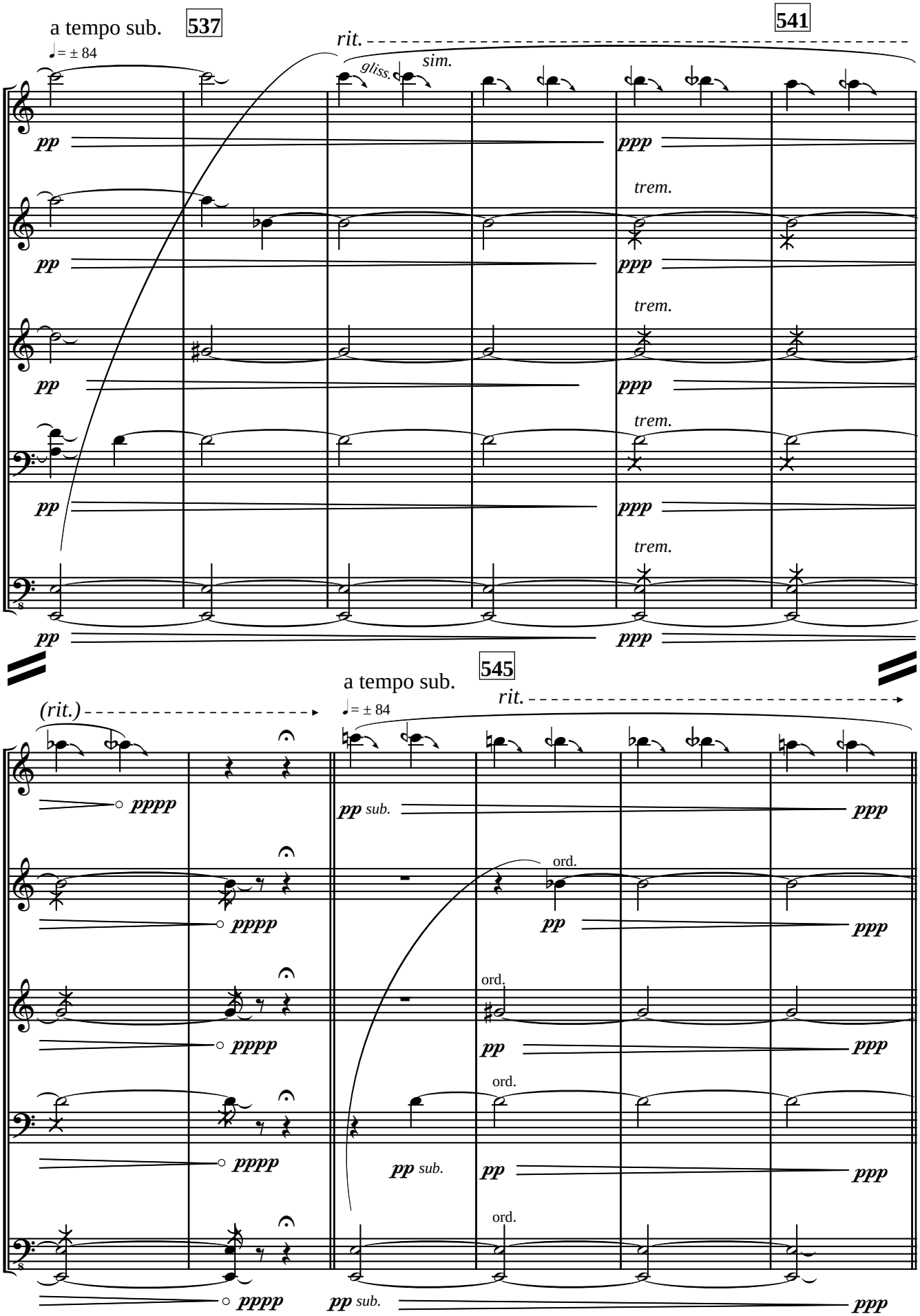

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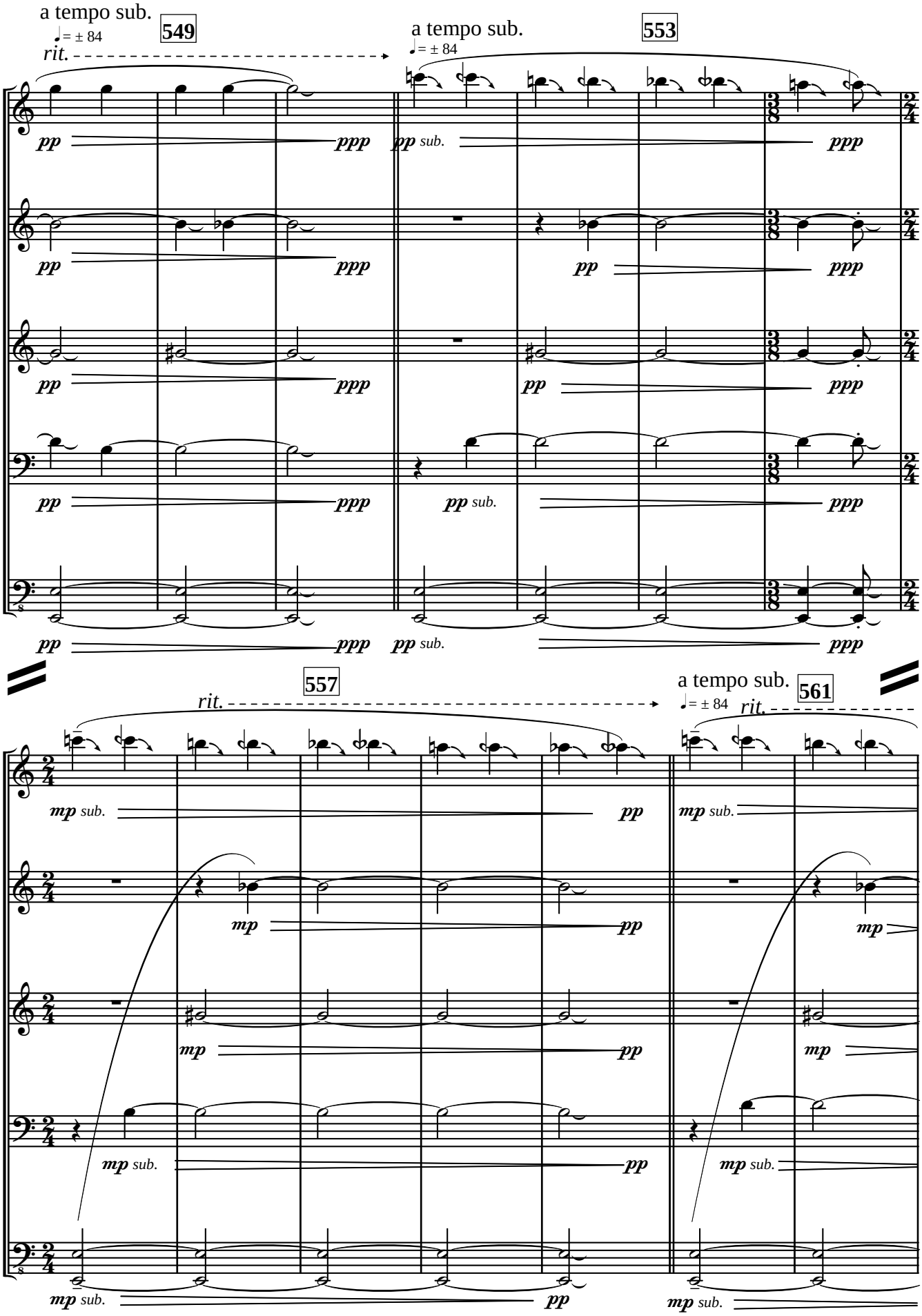

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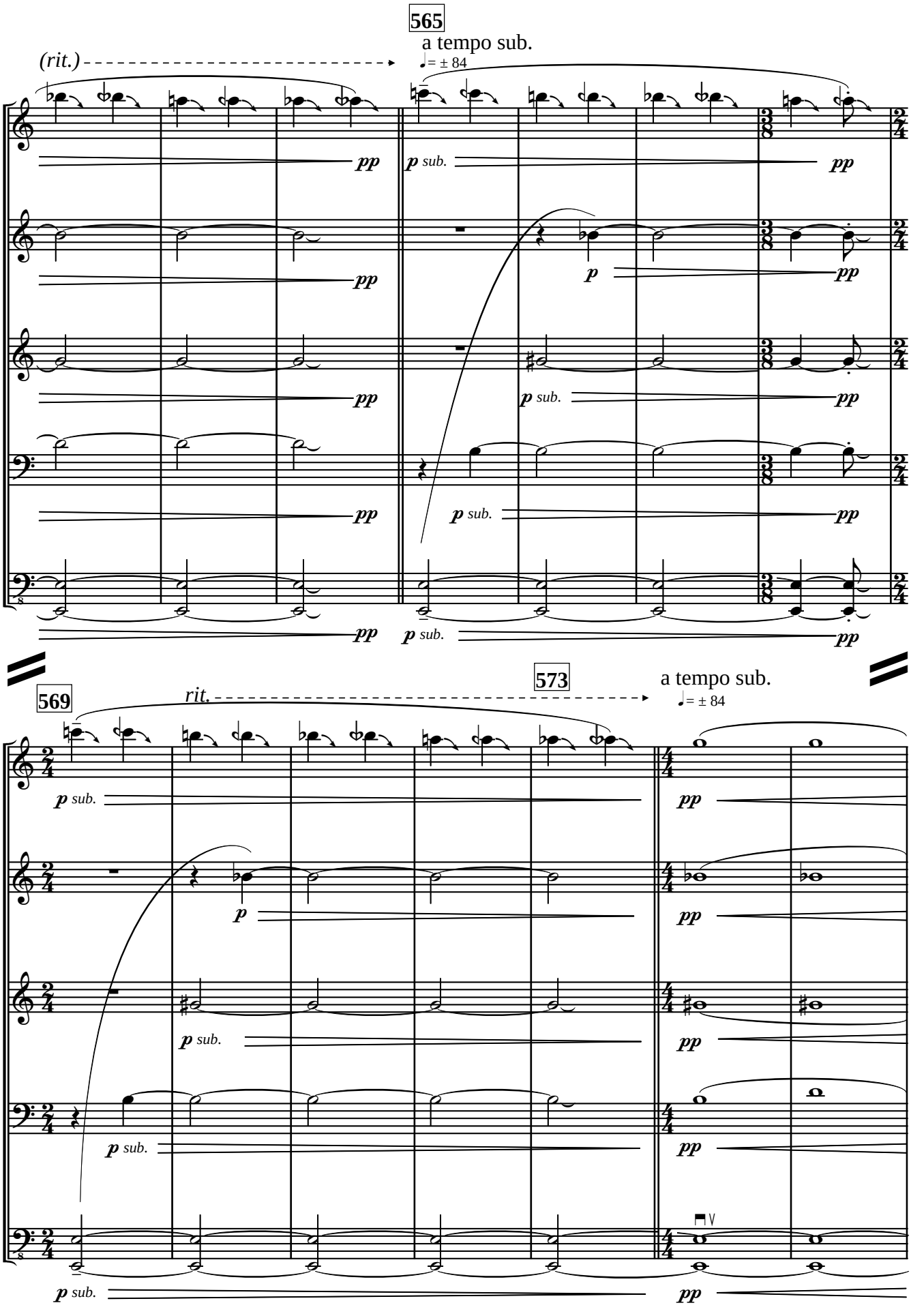

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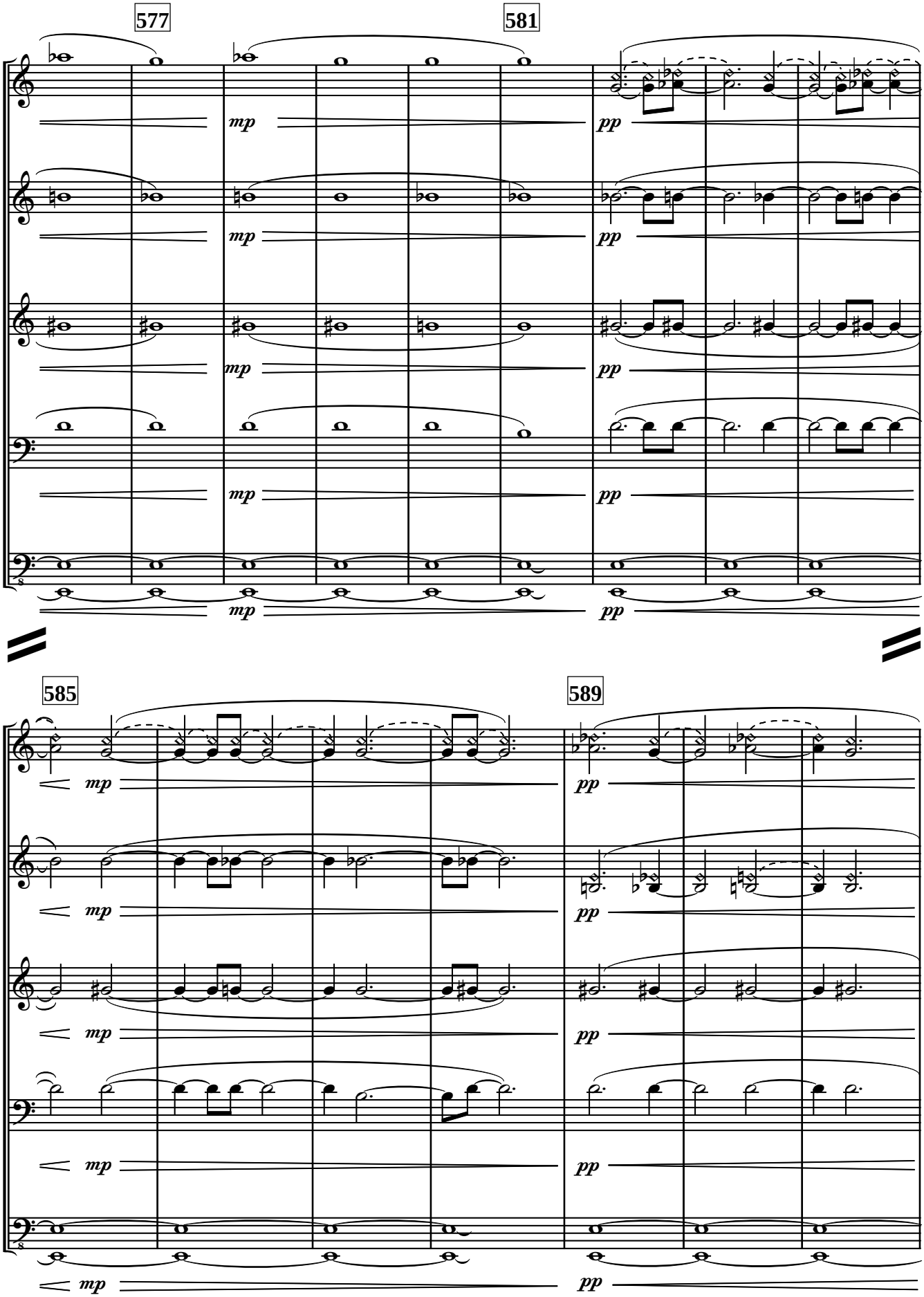

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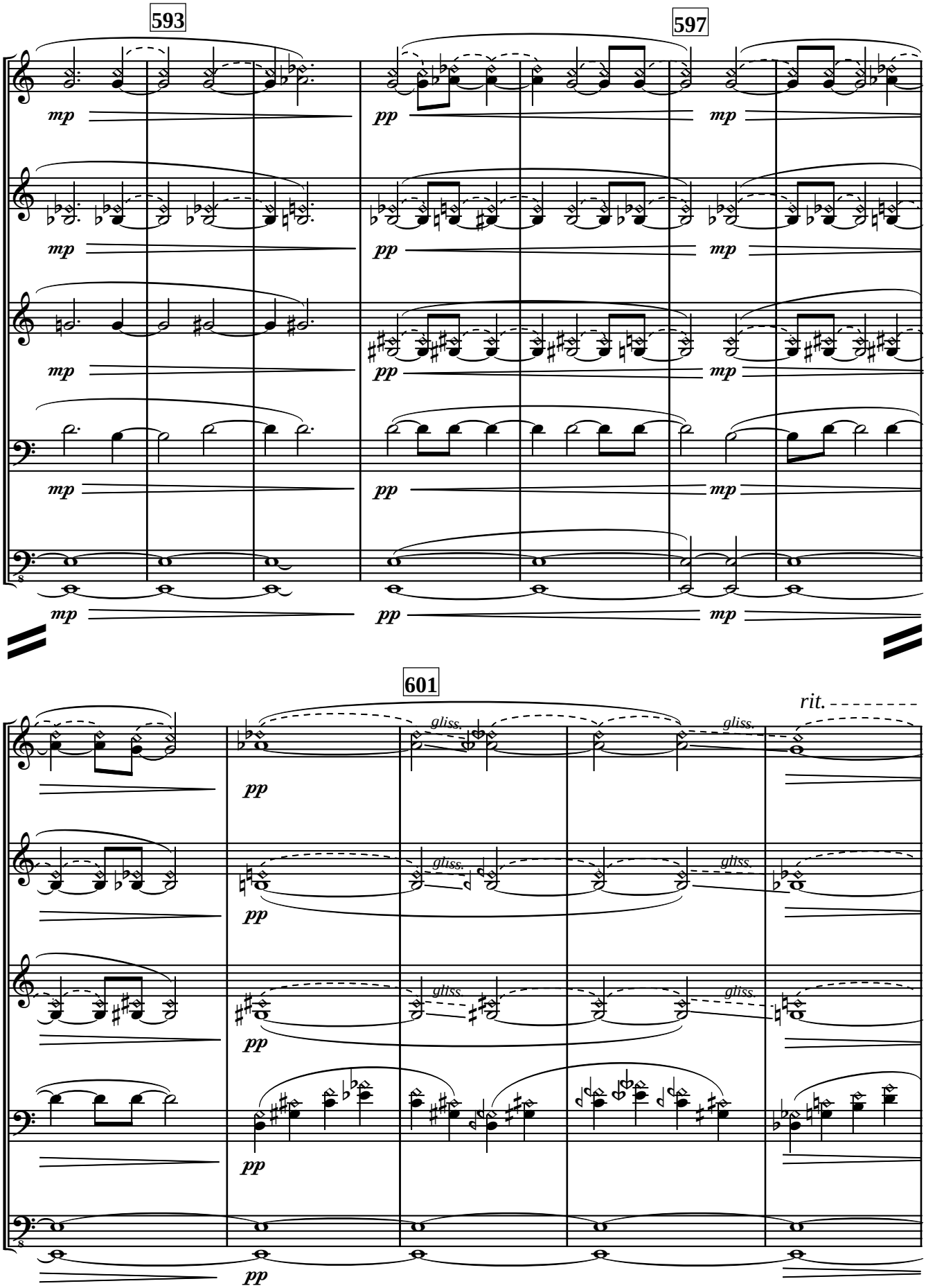

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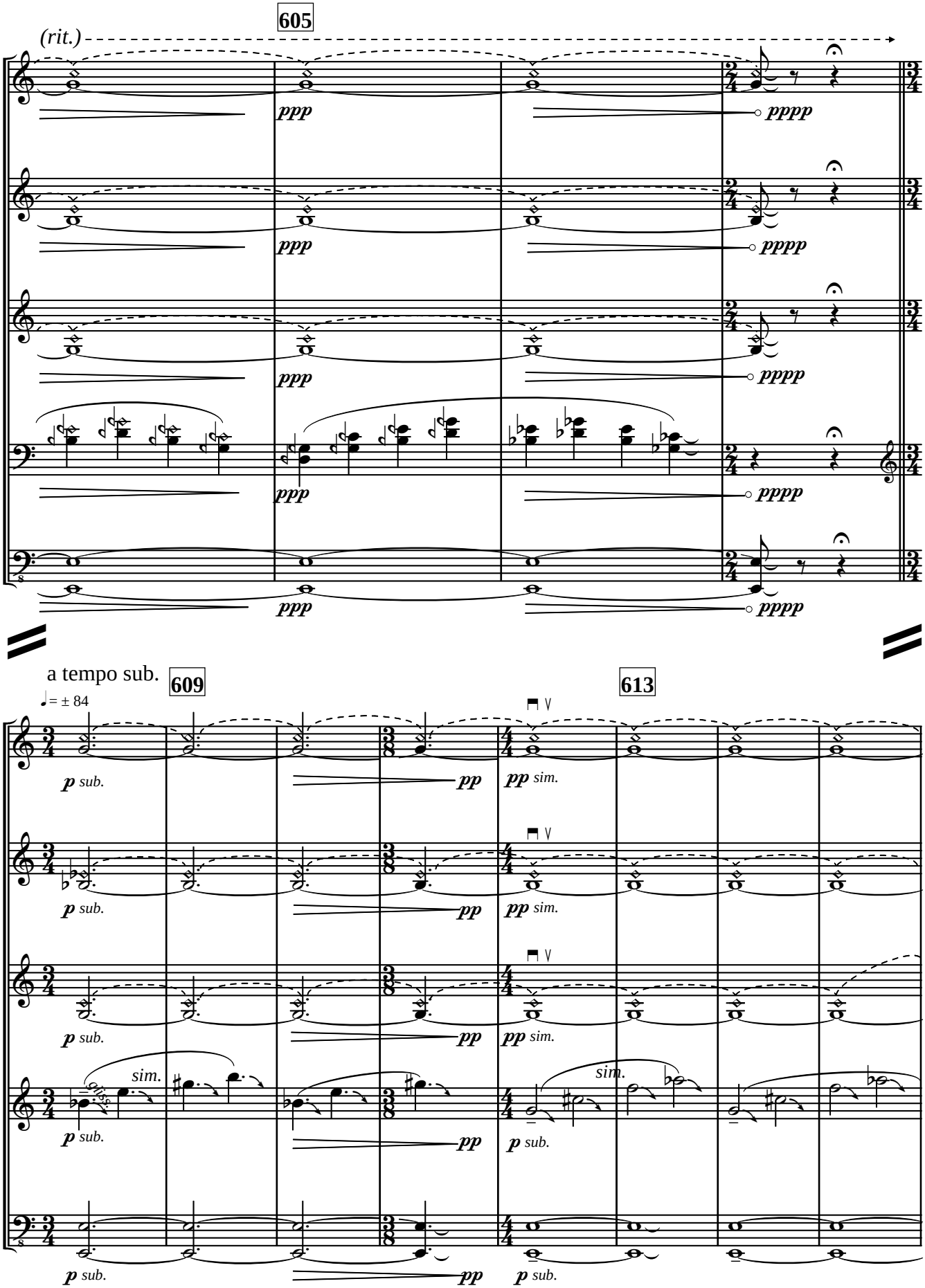

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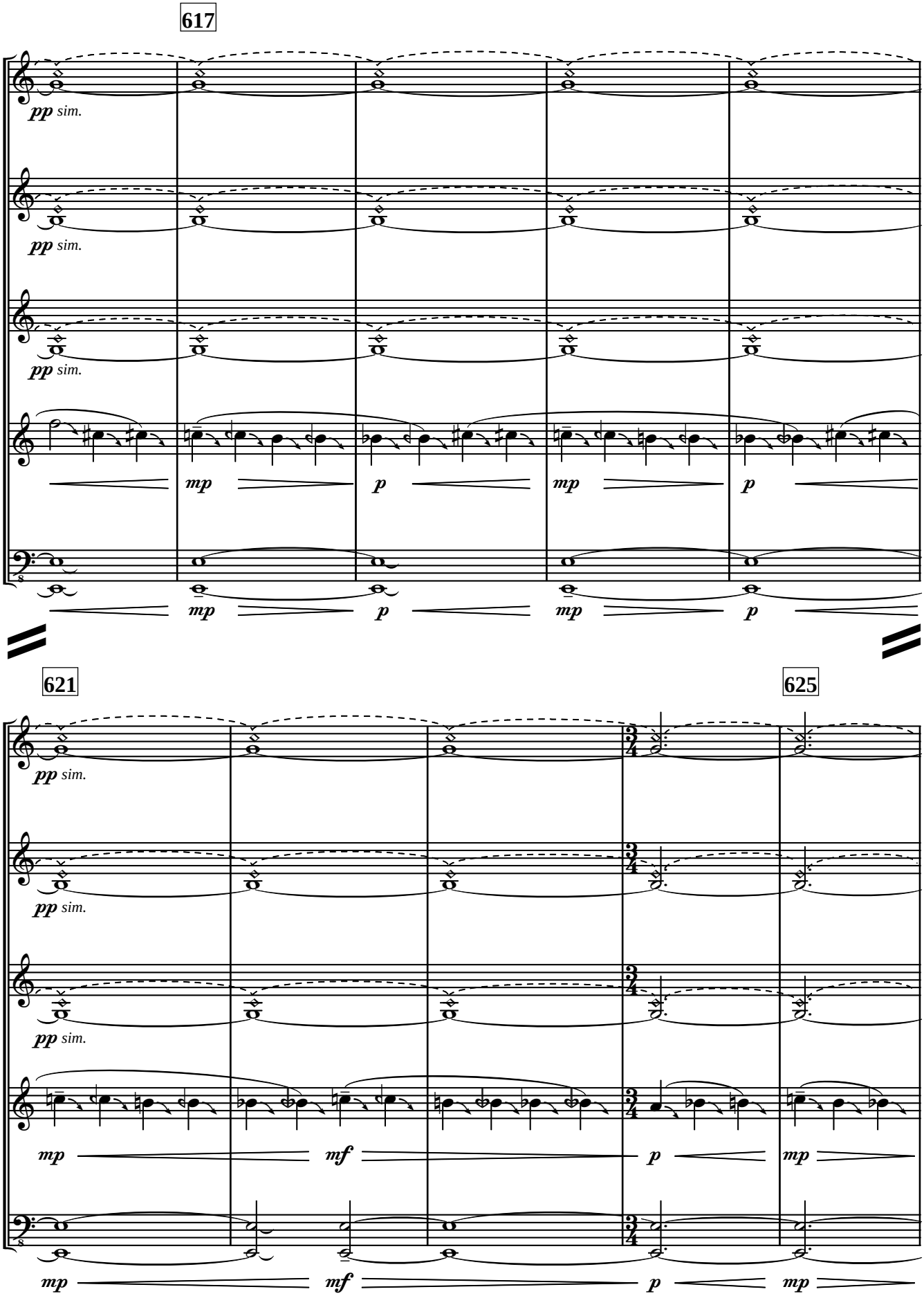

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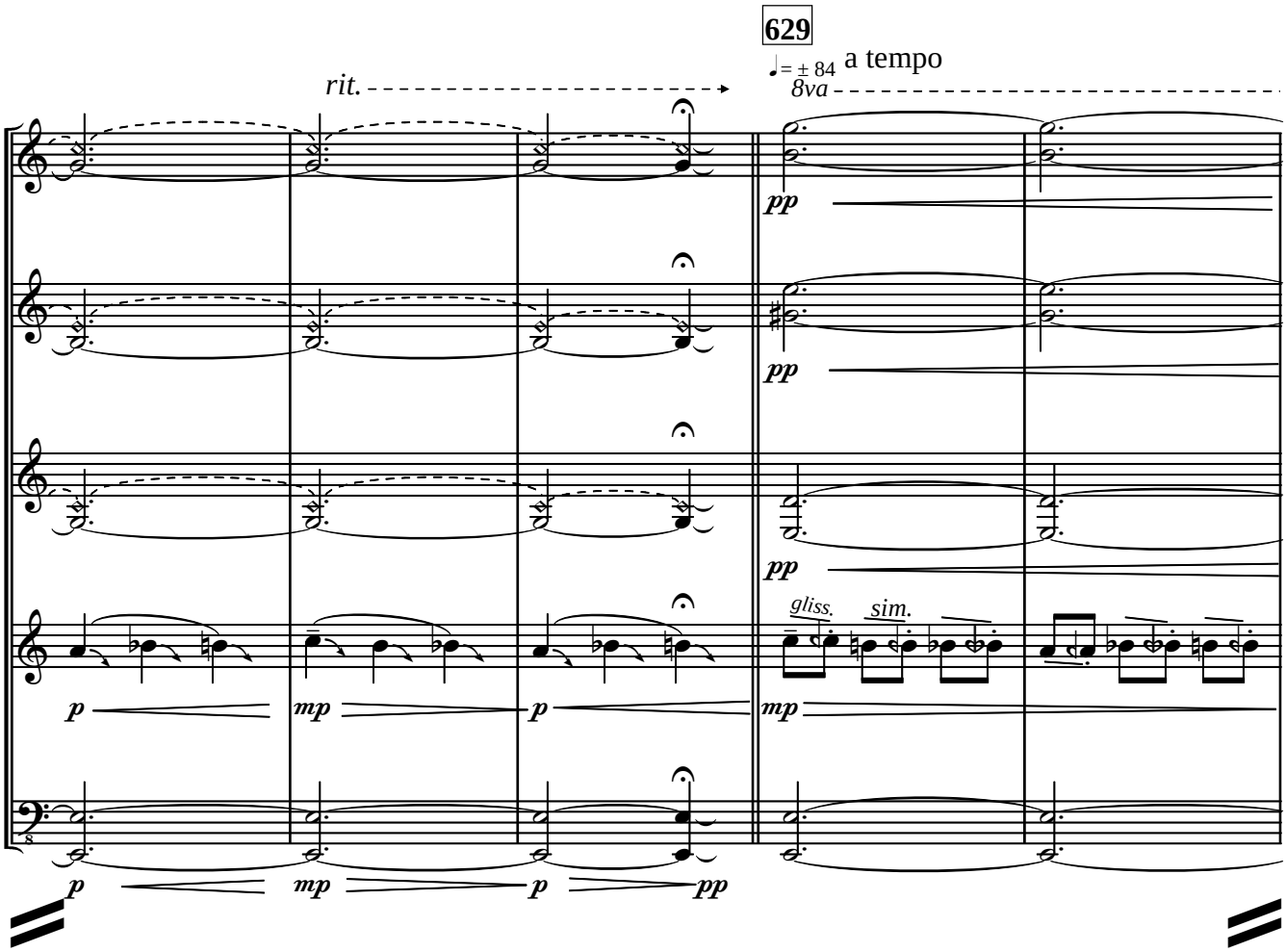

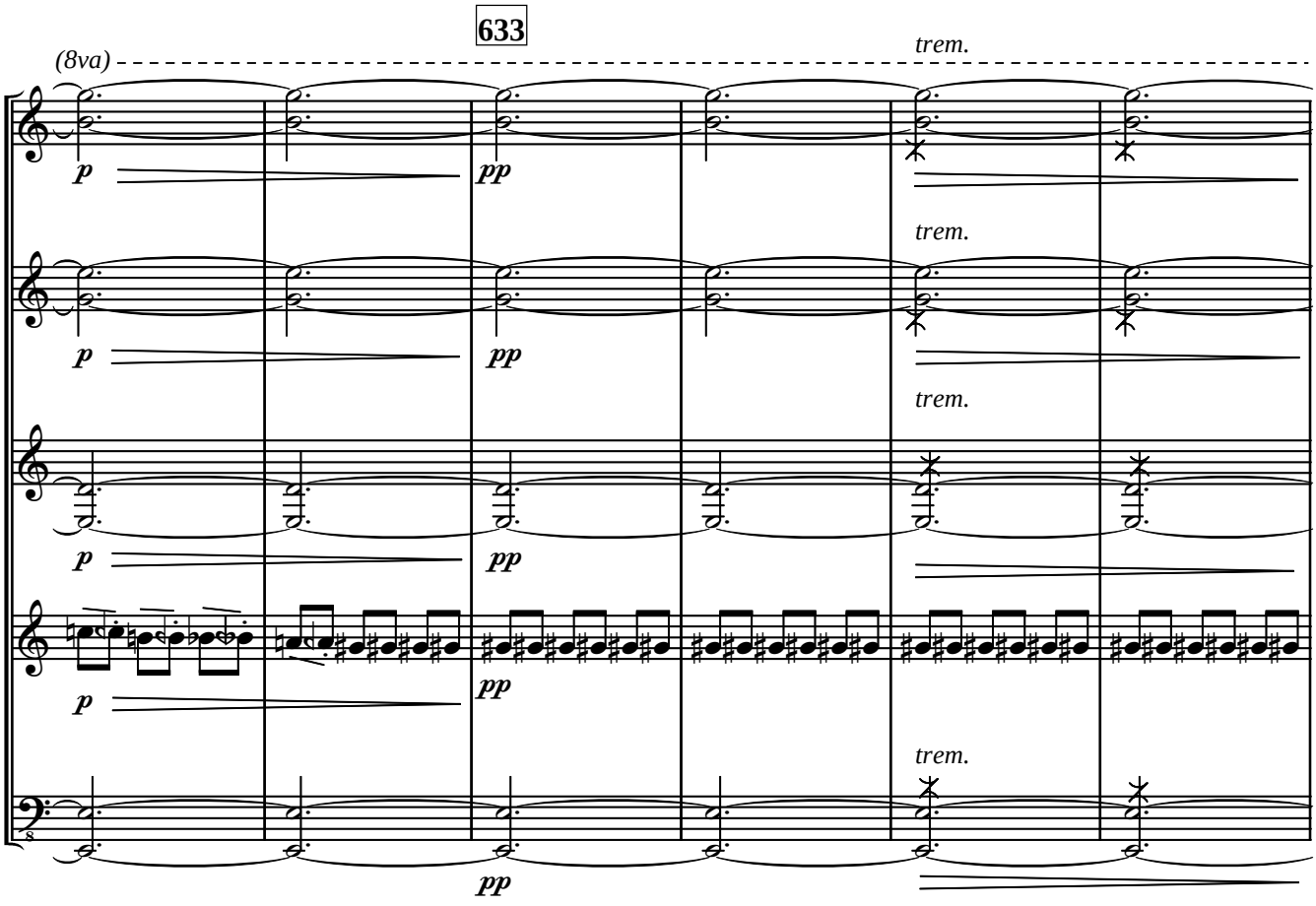

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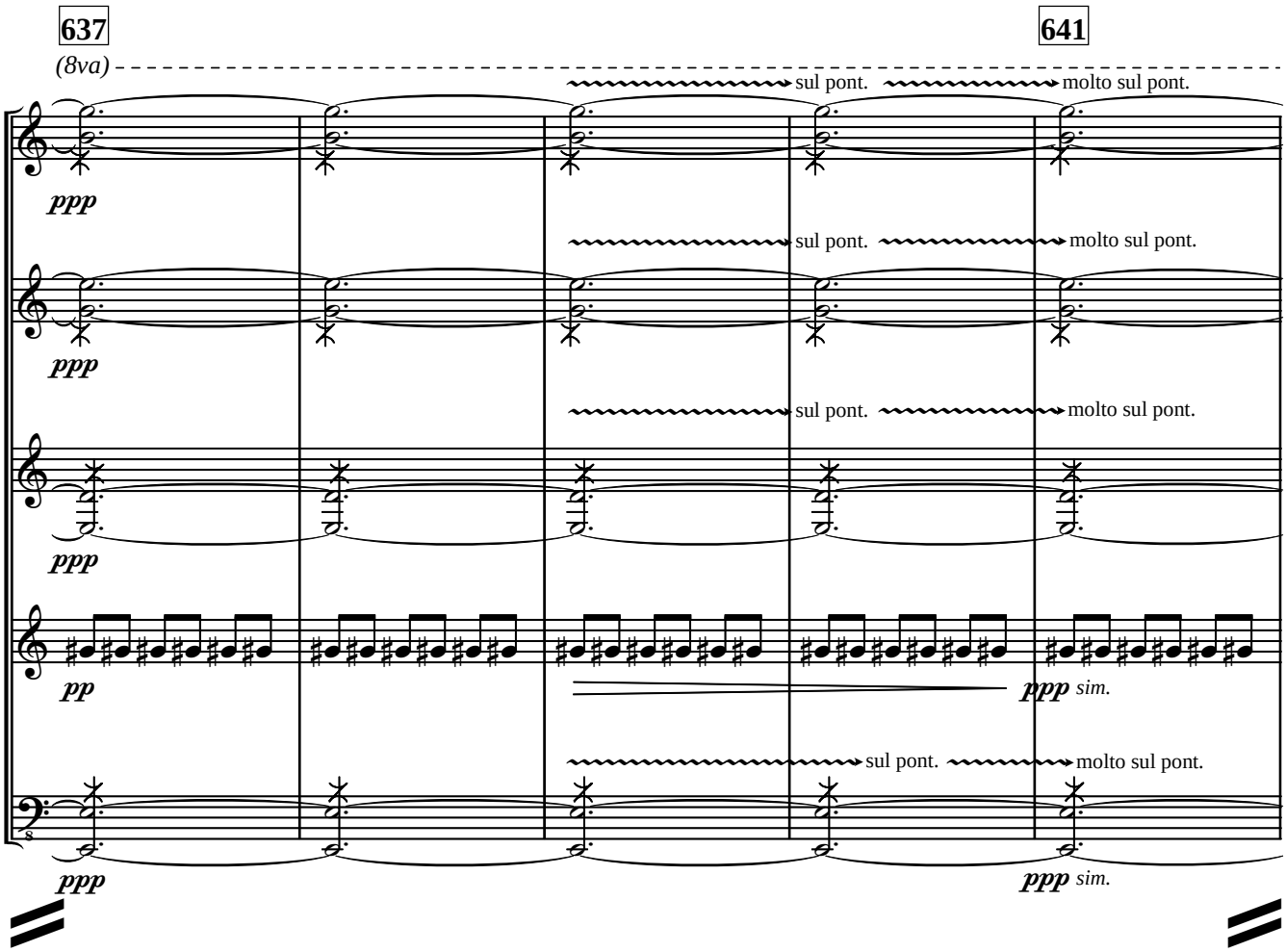

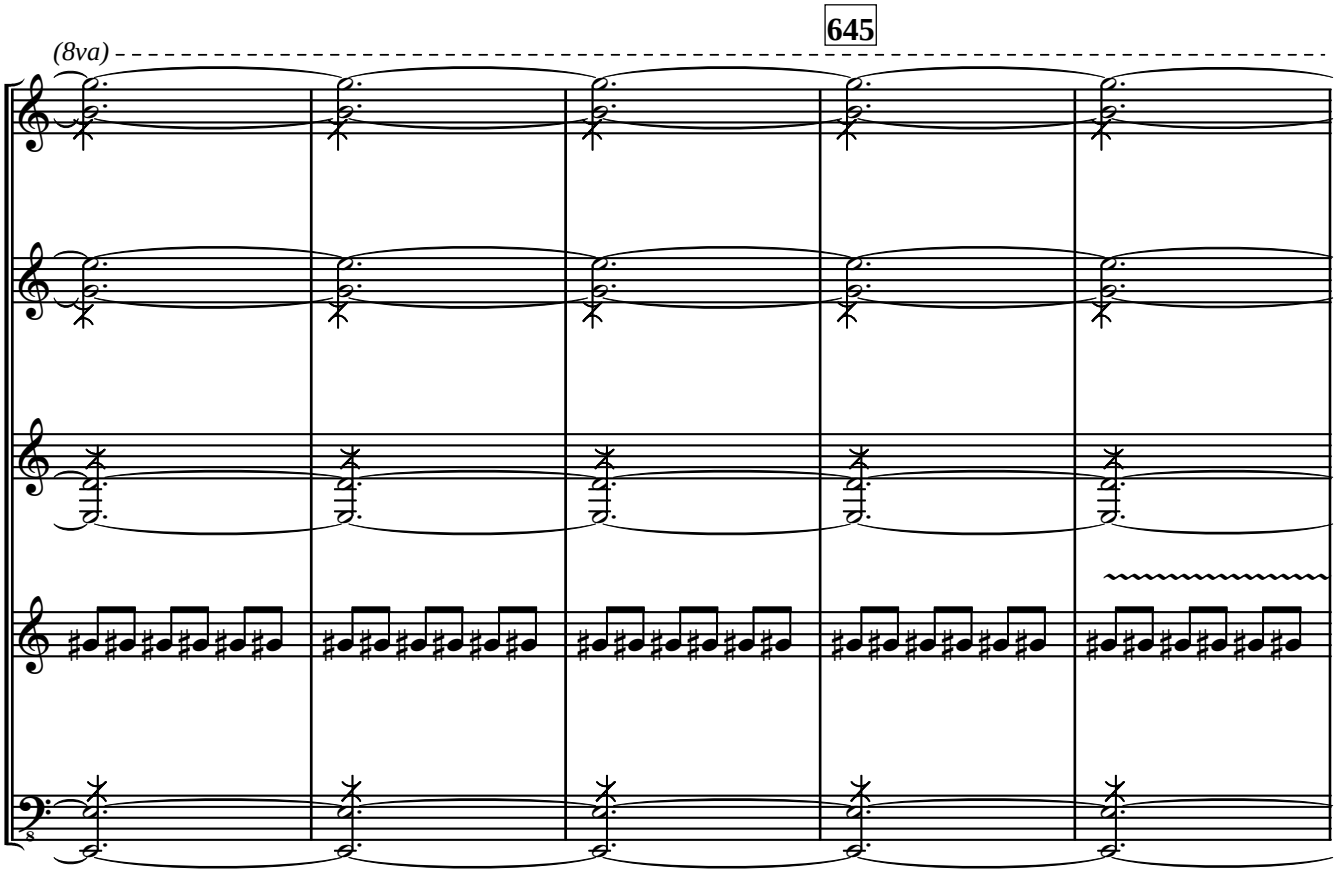

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649

(8va)

pppp

pppp

pppp

sul pont. molto sul pont.

* play behind the bridge sim. →

(like a train going away)

ppp

pizz.

pppp

653

ad lib. so long as you need →

ppp

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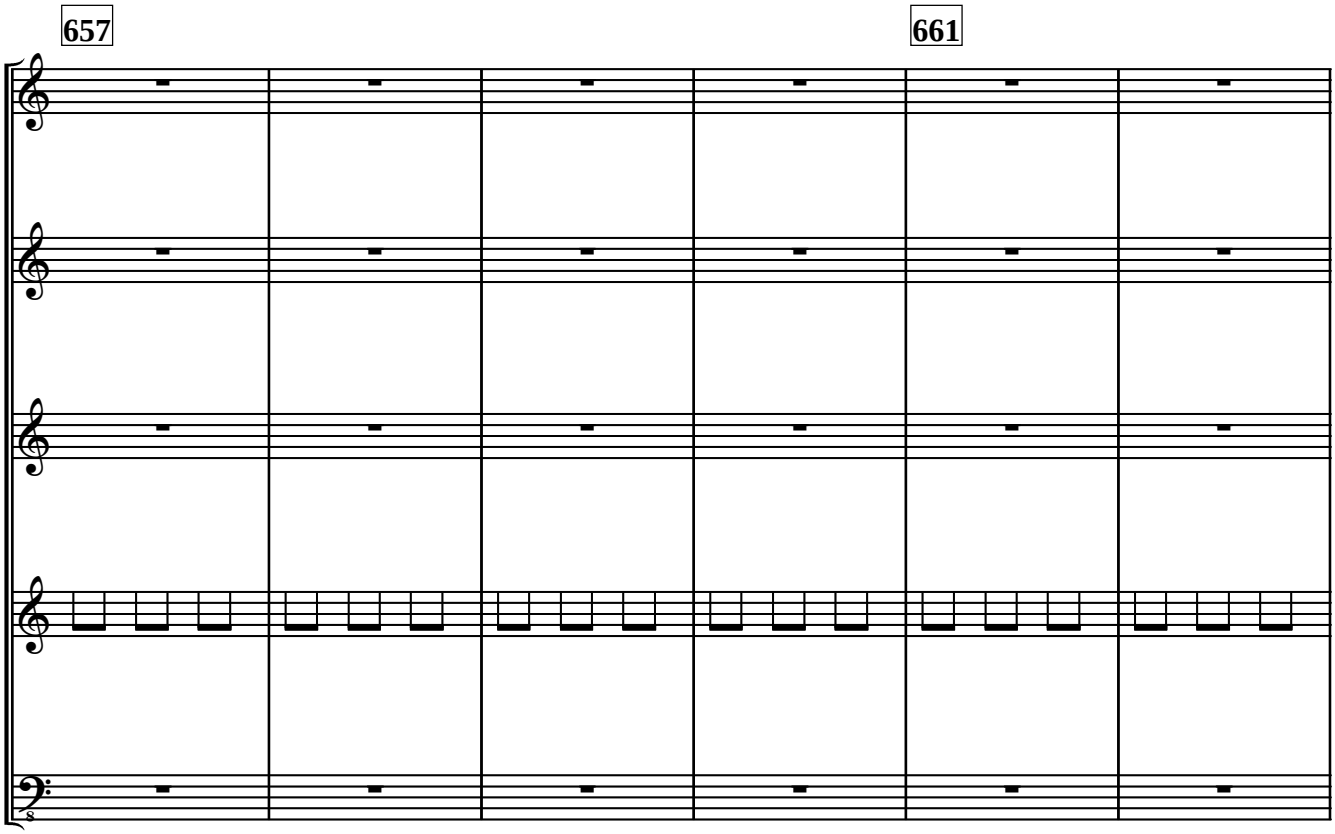

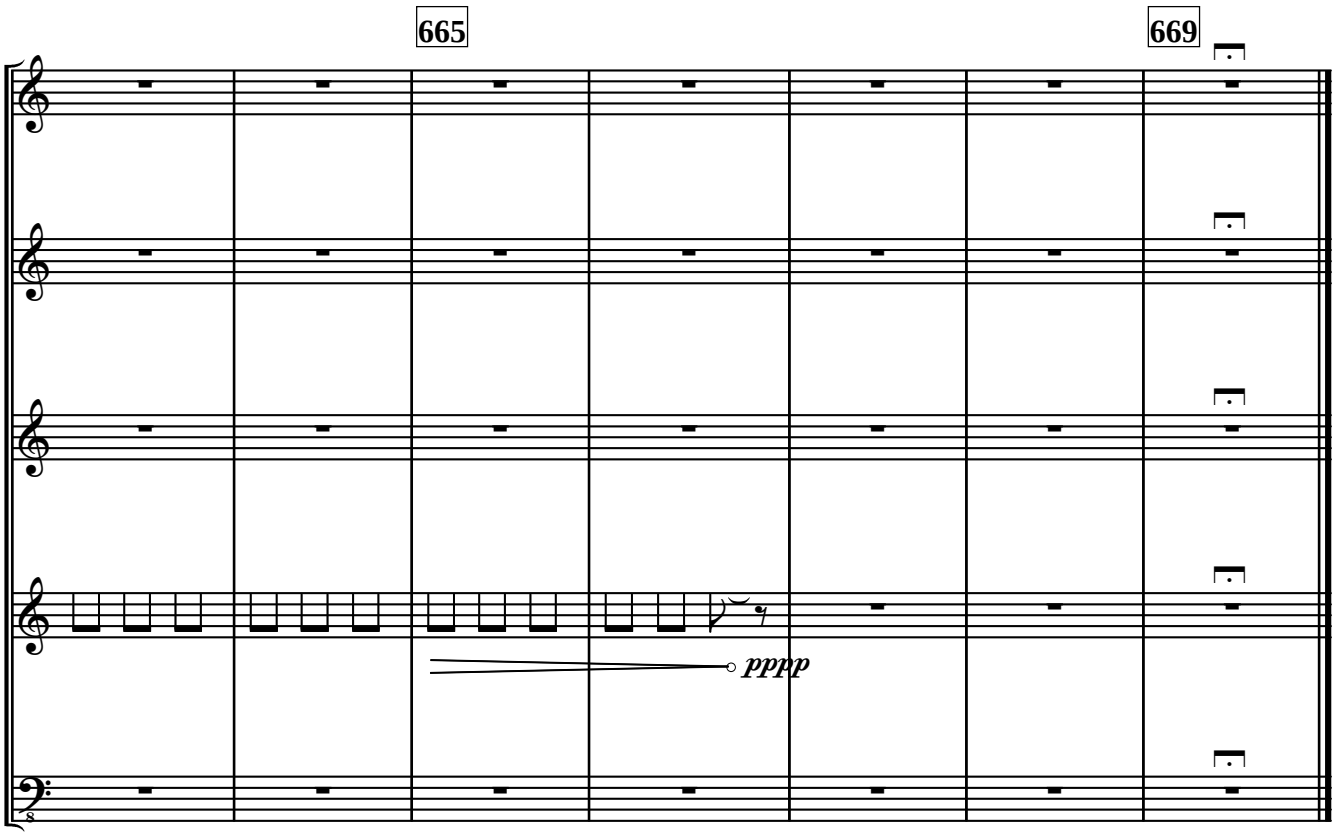

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