An Algorithmic Approach to the Analysis of Glenn Branca's *Symphony No. 6 (Devil Choirs at the Gates of Heaven)* and *sea garden.*, a Song Cycle in Four Books with Poetry by H.D. [Original Composition]

by

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Ryan McMasters, PhD

University of Pittsburgh, 2023

Glenn Branca's 1989 *Symphony No. 6 (Devil Choirs at the Gates of Heaven)* for nine electric guitars, electric bass, and drums is hailed by Tim Holmes as "one piece of music [that] could be all music" and a "time-bomb ticking inside the locked citadel of music history." This project uses the syntax of the popular programming language Ruby to take an algorithmic approach to the analysis of several sections of Branca's guitar-driven, hard-hitting exploration of timbre and time and makes a case for algorithmic analysis as a synthesis of traditional analytic approaches and contemporary musical computer programming concepts. Further applications of this type of analysis are proposed, including the development of a new musical programming language, OREAD, to help composers and performers engage with algorithmic music in a vernacular more closely resembling interpreted programming languages. The accompanying original song cycle, based on "Sea Garden," a collection of poems by H.D., includes examples of this language and represents an approach to writing for the voice that is heavily influenced by Branca's use of texture, direction, and intensity.

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1.0 Introduction

Consider first the hairline bristle of Wagnerian climax c/w the ascending major triad 'ah-ah-ah-ah flattened seventh)-WAAAAA' of 'Twist & Shout' (they're playing simultaneously); distill whatever peak febrile intensity you've ever experienced musically into a single shimmering pinprick of white noise [remember lysergic vision: the collapse of polarities : god=not-god: the micro-wave/ micro-tonal tapestry continually weaving/ unweaving]; the attack and decay of each note expanding exploding into sub-atomic operas. Multiply to the nth degree.

-Tim Holmes, Liner Notes to Symphony No 6.

The liner notes for the 2006 re-release of the recording of Glenn Branca's *Symphony No. 6 (Devil Choirs at the Gates of Heaven)* paint a picture of a slash-and-burn guitar-and-drum laden sonic wasteland full of nuance and fury. While such visions of über-grandeur might be avoided in the unravelling of the piece that is to follow, Branca's use of sheer sonic power to deliver both violent and mollified textures takes center stage (or studio, in this case) as the unifying feature of these five distinctively potent movements. The music Branca made leading up to *Symphony No. 6* exhibits constant refinement, yet *Symphony No. 6* lets loose with a barrage of visceral and potent gestures that harken back to his first recordings with Theoretical Girls; the music that follows No. 6 continues his trend of refinement yet remains obsessed with several musical facets that are cemented in *Symphony No. 6*. This analysis project aims to identify and expand on Branca's synthesis of raw sonic power (from his early work as a No Wave rocker) with refined

compositional techniques (from his experiments with just intonation and structure that directly precede *Symphony No. 6*) through his use of both timbral (harmonic and spatial) and temporal (rhythmic and proportional) distortion throughout the composition, recording, and mixing of *Symphony No. 6*.

1.1 Glenn Branca: Making Some Noise

Coming from an experimental theater background, Branca's (b. October 6, 1948, Harrisburg, PA; d. May 13, 2018, New York, NY)[1] path to composition is woven through the highly successful Soho No Wave bands Theoretical Girls and the Static.[2] After leaving both bands, Branca formed his own group, honing his individual style on the road, rather than in the academy[3]. Reflecting on his writing after the 1981 album *The Ascension,* Branca concluded that he had "already done everything [he] could in the rock context"[4] and turned to creating distortion-filled and tuning-obsessed electric guitar Symphonies, equipped with a new found appreciation and application of music theory.[5] Branca's subsequent Symphonies and concert music display a hard rock approach to composition and performance that mirrors trends in minimalism and spectral music while remaining fiercely devoted to the sonic aesthetics that made his No Wave music

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[1] Gann, Kyle. *American Music in the Twentieth Century.* (New York: Schirmer Books, 1997), 301.

[2] Masters, Marc, *No Wave,* (London: Black Dog Publishing, 2007), 112-115.

[3] Masters, *No Wave,* 129.

[4] Masters, *No Wave,* 130.

[5] Masters, *No Wave*, 132.

popular. His contributions to contemporary classical music, while acknowledged in histories of the twentieth century, have yet to be given the same level of analysis and representation as many of his contemporaries. Preliminary research (through ProQuest and SMT abstracts) reveals no dissertations or theses focused on the music of Glenn Branca, though his name appears in several papers on popular music relating to the No Wave rock scene, and particularly the band Sonic Youth. To this end, I feel that a comprehensive study of one of his symphonies is greatly overdue.

This paper will begin the analytical discussion of Branca's music by compiling a diverse set of analytical tools, including a self-designed software suite that will successfully address his compositional and performance processes in *Symphony No. 6.* and can subsequently be applied to other works by both Branca and music constructed through similar means.

1.2 *Symphony No. 6 (Devil Choirs at the Gates of Heaven)*

Branca's symphonies, starting with 1981's *Symphony No. 3 (Tonal Plexus)*, represent a self-described departure from the previously song-format works both for Branca's bands and his own newly-formed ensemble. The works are longer in length and tend to fixate on one sonic idea, whether a new tuning system, freshly invented instrument, or rhythmic concept. *Symphony No. 6* is, in a way, a return to Branca's No Wave roots after 1984's *Symphony No. 5 (Describing Planes of an Expanding Hypersphere)*. While *Symphony No. 5* similarly utilizes electric guitar, drums, and varying levels of distortion, *Symphony No. 6* is less obsessed with clean tones, perfect combinations of just intervals, and tidy resolutions. In *Symphony No. 6*, commissioned by the Mass

Council for the Arts New Works Program,[6] Branca works with a palette of sonic density, rather than cleverly mapped tuning systems and uses nine electric guitars, one electric bass, and a drum set as its maximum instrumentation.

A work purely for the recording studio, the piece exists in two forms: *Symphony No. 6 (Angel Choirs at the Gates of Hell) in four movements* (1987)[7] and *Symphony No. 6 (Devil Choirs at the Gates of Heaven) in five movements* (1988).[8] The longer, 1988 version, adds The Fifth Movement, which Tim Holmes describes as "the entwining of daemonic and celestial threnody..."[9] and is the version recorded by the Glenn Branca Ensemble on Blast First in 1989.[10] Through studio over-dubs and remixing, the revised movement combines elements and compositional techniques from the previously completed four movements and cements this version as a piece that can (and does) only exist as a studio recording. Compared to the production characteristics of the recording of *Symphony No. 5* (recorded 1984), Branca and producer Wharton Tiers opted for a (subjectively) less polished sound in *Symphony No. 6*, which says as much about Tiers as a producer as Branca as a composer. The production and mixing of other records by Tiers in the same year, notably

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[6] Tim Holmes, liner notes for Glenn Branca, *Symphony No. 6 (Devil Choirs at the Gates of Heaven)*, Glenn Branca Ensemble, recorded 1988, Atavistic Records, 2006, CD.

[7] Glenn Branca, "glenn branca: the official website," Glenn Branca Official Website, accessed December 15, 2018, https://www.glennbranca.com.

[8] Branca, "glenn branca: the official website."

[9] Holmes, liner notes for Glenn Branca *Symphony No. 6*,

[10] Glenn Branca, *Symphony No. 6 (Devil Choirs at the Gates of Heaven)*, Blast First BFFP 39, 1989, CD.

releases from Dinosaur Jr*, Sonic Youth, and Nick Cave,[11] all feature this more distortion laden and lightly mixed sound, which ultimately adds a layer of interpretation and complexity to the analysis of a work for which the recording represents the composer's preferred presentation.

Symphony No. 6 is also Branca's last symphony from his first rock-driven phase of symphonies. *Symphony No. 7 (Graz)* (1989) is Branca's first work for traditional orchestra, and more closely resembles the work of minimalist composers John Adams and Philip Glass than the junk-tuning romps of Sonic Youth or Theoretical Girls. The rest of Branca's output oscillates between the guitar driven sound of his first phase and the symphonic grandeur of later works, drawing the two ever closer in works like *Symphony No. 11 (The Nether Lands)* (2000) for orchestra and chorus and *Symphony No. 15 (Running Through the World Like An Open Razor)* (2000), described by the composer as "music for strange orchestra in seven movements."[12] Scattered between the symphonies are chamber works for both his band, the Glenn Branca Ensemble (four electric guitars, bass, and drums, a format that most closely resembles the ensemble of *The Ascensions*), and other commissions for orchestra, chorus, or sound installation.[13] *Symphony No. 6*, while highly emblematic of Branca's previous career in No Wave rock bands and early style, clearly contains all the compositional elements that continue to make Branca a unique voice as both a symphonist and composer for his own ensemble.

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[11] Wharton Tiers, "Fun City Clients 1982-2006," Wharton Tiers Official Website, accessed December 15, 2018, https://www.whartontiers.com/fun_city/fun-city-clients.

[12] Branca, "glenn branca: the official website."

[13] Branca, "glenn branca: the official website."

1.3 Methodologies for audio analysis

1.3.1 Digital Capture of Files

Given the nature of Branca's composition/performance practice, which makes use of notation only as a vague road map, the official recording of this piece (originally issued in 1989 on the Blast First label, reissued in 2006 on Compact Disc by Atavistic) will serve as the score for the majority of this analysis. All audio files used for analysis have been imported using the .WAV conversion codec in iTunes (release 12.5.4.42) and opened in REAPER v6 for tempo mapping, manipulation, and spectral analysis. The original vinyl recording and CD recording are, for the purposes of this project, sonically identical and thus timings used in the subsequent chapters are in reference to the CD timings.[14]

1.3.2 Listening Systems for Analysis

Equally critical to the method of importing and manipulating files are the variety of listening systems upon which the following analysis has been made. Several early listenings were made on less-than-critical listening systems, including the use of low fidelity headphones and a car stereo in noisy environments. While these early listenings provided clues about the rhythmic relationships or large-scale structural features found within Symphony No. 6, their usefulness for identifying minute variations in timbre or overtone content has proven limited. The most critical listenings, upon which many conclusions of this project have been drawn, were conducted on the

[14] Glenn Branca, *Symphony No. 6 (Devil Choirs at the Gates of Heaven)*, Atavistic, 2006, CD.

following system: the aforementioned .WAV files were hosted in REAPER for playback using a Focusrite Scarlett 18i20 USB 2.0 audio interface set at a 48 kHz sample rate and 24 bit resolution, through JBL LSR305 bi-amplified studio monitors which have been calibrated and positioned for as flat a frequency response as possible in a studio-like listening environment. This listening system provided the widest sound stage, greatest clarity, and the most objectively flat listening experience possible, short of listening to the original recordings at the studio in which they were mixed and mastered. This system, which combined visual information in the form of spectral graphs and tempo mapping and audible information, was both the most revelatory in terms of the piece itself and artifacts present in the CD recording that arose as a result of the transfer from vinyl to digital formats (e.g. a perceivable shift in noise floor after a given movement, clicks and pops that exist outside the recorded sound that are either stochastic in their occurrence or, at least, in a different realm of periodicity than the music being recorded).

2.0 Methodology: Why Ruby?

In finding an approach to the music of Glenn Branca, much of which is either algorithmically generated or at least may be interpreted as such, turning to computer programming language syntax is an obvious choice. While using computers for analysis is not new to music theory, including early work by James Tenney on the music of Carl Ruggles,[15] the incorporation of these languages as a grammar for analysis can account for loops, iteration, and complex, concurrent data structures. Their use as an analytical tool, or, at least, an alternate means of understanding algorithmically constructed or influenced music, with some adaptation, provides a level of insight specific to a new approach to music making and analysis. This approach invites the listener to both experience the piece from the perspective of a performer, highlighting individual components of the overall soundscape and as conductor/composer, harboring the secrets of the large-scale formal, timbral, and rhythmic structures of the music. While not able to express certain facets of music (timbral specifics, purely analog phenomena, psychoacoustic effects, etc.), the use of algorithmic language analysis in conjunction with other approaches, including in this project, creates a new approach to understanding a given piece and a potential for a unique guided-listening experience.

A growing community of music makers use both general and music-specific languages to generate sound, and being able to use these tools to analyze music created by different means will only broaden creative possibilities within the field. The ultimate choices for this project – Ruby

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[15] James Tenney, "The Chronological Development of Carl Ruggles's Melodic Style (1977)," In *From Scratch: Writings in Music Theory*, (Chicago, IL: University of Illinois Press, 2015), 180.

and Sonic Pi – combine natural yet powerful grammar, wide acceptance by both musicians and computer programmers, and are both highly customizable making them ideal for adaptation for various musical concepts.

2.1 Interpreted Coding Languages for Musical Analysis

When considering classes of programming languages based on their comparative merits (and to avoid unnecessarily complicated languages like machine code), two categories quickly emerge: compiled and interpreted languages. Compiled languages, while demonstrably faster[16] than interpreted languages, do not feature the same kind of flexibility, including dynamic typing[17] and a wider adoption rate among the existing sonic coding languages such as Sonic Pi and SuperCollider, both of which feature interpreted structure and server/client relationships. On the surface, compiled languages like C, C++, and Haskel may resemble interpreted languages and therefore could be used as tools for the analyses to follow. Ultimately, the use of interpreted syntax and structure proved most beneficial for the task at hand. To select a language for analysis, a brief overview of the most popular scripting and musical languages follows.[18]

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[16] "Interpreted vs Compiled Programming Languages: What's the Difference?," freeCodeCamp, January 10, 2020, https://www.freecodecamp.org/news/compiled-versus-interpreted-languages/#:~:text=In%20a%20compiled%20language%2C%20the,reads%20and%20executes%20the%20code.

[17] freeCodeCamp, "Interpreted vs Compiled."

[18] "11 Most In-Demand Programming Languages," Berkeley Extension, accessed January 10, 2023, https://bootcamp.berkeley.edu/blog/most-in-demand-programming-languages/.

2.2 Other Potential Languages and Their Relative Merits

2.2.1 JavaScript (ECMA-262)

JavaScript, the language upon which a large portion of the internet is built and the most popular language for coding,[19] is a potential choice for an analysis syntax given its popularity and ability to be transformed to fit a variety of applications. A variety of extensions for JavaScript exist for music creation, including the powerful web API based tone.js,[20] which is used for "interactive music in [a] web browser" and "aim[s] to be familiar to both musicians and audio programmers."[21] While this level of adoption in the audio world and far reaching cross applications are certainly appealing, the end goal of JavaScript is to build tools "for performing computations and manipulating computational objects within a host environment,"[22] a worthy task, but somewhat removed from the goal of creating a meaningful algorithmic based representation of a given piece of music (or components thereof).

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[19] "ECMA-262, 13th edition, June 2022 ECMAScript 2022 Language Specification," ECMA International, accessed January 3, 2023, https://262.ecma-international.org/13.0/.

[20] "Tone.js," Tone.js, accessed January 3, 2023, https://tonejs.github.io.

[21] Tone.js, "Tone.js."

[22] ECMA International, "ECMA-262."

2.2.2 Python

Python, another in-demand and powerful scripting language,[23] features a grammar and syntax that is not entirely dissimilar to Ruby but lacks clarity in its ability to express algorithms as clearly for human interpretation. While a step closer to vernacular programming than JavaScript, Python's syntax utilizes control structures and organizational features that, for programming, are clear and concise but, do not, ultimately lend themselves to the goal of expressing algorithmic music in terms that can be interpreted by both human and computer. Several other music theory and musicological projects, including the popular music21,[24] use Python to conduct corpus and other data-driven analyses, but the output of the code, rather than the language of the code itself, is the eventual goal. Python is a close second to Ruby in terms of grammar and syntax, but the benefits of being able to use Ruby within Sonic Pi and its slightly more humanistic syntax make it the most likely choice for analysis.

2.2.3 SuperCollider

SuperCollider, which is largely text-based and not dissimilar from Sonic Pi in its overall approach to syntax, is a standalone language that mirrors C++ at times but ultimately demands its own specific grammar. A powerful tool for creation (the winning language combination of Ruby and Sonic Pi use SuperCollider in the background for sound generation), it lacks a broader

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[23] Berkeley Extension, "11 Most In-Demand."

[24] "music21: a toolkit for computer-aided musicology," music21, accessed January 2, 2023, http://web.mit.edu/music21.

acceptance in the computer programming community and therefore has limited appeal as a tool for demonstrating how music may be expressed as concise algorithms in this project and beyond.

2.3 Ruby and Sonic Pi: A Vernacular Choice

Of all the languages that could be considered for musical analysis, Ruby is an obvious choice due to its simple syntax, relatively wide implementation in professional programming, and, perhaps most importantly, its pre-existing use in algorithmic music as the language underneath the popular coding environment from Sam Aaron called Sonic Pi. Ruby, developed by Yukihiro "Matz" Matsumoto, is intended to be "a language of careful balance,"[25] combining the flexibility of JavaScript with the object-oriented nature of Python, building on both to deliver an experience that is "natural, not simple."[26]

While Ruby can be used to implement sound libraries and web-based applications (similar to tone.js from JavaScript), what makes it a clear choice as the grammar of analysis for algorithmically derived or inspired music is its use as the interface language for Sonic Pi, an open source music creation and coding environment from Sam Aaron. Sonic Pi, which is a fusion of Ruby front end (syntax) and SuperCollider back end (synthesis and audio playback), is a powerful tool for amateur and professional musicians and is designed as both a tool to get students interested in coding and to get musicians thinking about music creation in new ways.[27] Sonic Pi contains the

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[25] "About Ruby," Ruby,org, accessed December 10, 2022, https://www.ruby-lang.org/en/about/.

[26] Ruby.org, "About Ruby."

[27] "Sonic Pi," Sonic Pi, accessed December 10, 2022, https://sonic-pi.net.

full implementation of Ruby, including advanced data structures and control beyond the included tutorials and documentation, making it an excellent way to audition analyses generated in Ruby and reinterpret traditionally notated pieces as text-based computer programs. While musical analysis may not have been the goal of Matsumoto or Aaron, the combined flexibility of Ruby and the musical possibilities presented in Sonic Pi make the syntax of Ruby the most straightforward and far-reaching choice for the sample analyses and adaptations presented below.

3.0 A few Examples from Glenn Branca's *Symphony No. 6*

Presented in the order in which the concept of algorithmic analysis was first conceived for and applied to this piece, the following examples highlight the translation of extant examples from Branca's notes or the results of multiple listening passes. The Ruby scripts have been generated in the Sonic Pi IDE and adhere as closely as possible to executable code, with exceptions made for cases of analytical clarity.

3.1 Second Movement: The Inspiration

> *The Second Movement: the hive shatters, each fragment a labyrinth swirl, the ascent, the inexorable and endless harmonic climb to the Gates of Heaven, the point where the knowable demands access to the invisible.*
>
> *-Tim Holmes, Liner Notes to Symphony No 6.*[28]

Perhaps the simplest sounding of the five movements, movement 2 was the inspiration for the analytical approach taken for the rest of this project. It is easy to describe the overall process of this movement: two sets of voices start in unison, one voice remains fixed as the other ascends an octave, and this gesture is repeated a second time with a drum set back beat as accompaniment.

[28] Holmes, liner notes for Glenn Branca *Symphony No. 6*,

This structure mirrors that of Rhys Chatham's *Guitar Trio,*[29] but the two pieces vary wildly in their sonic result. While Chatham's piece invites the listener to approach the subtle changes in timbre presented through each section, Branca grabs the ear through loudness and combination/difference tones that become present and diminish as the sliding voice passes through certain just intonation relationships. These difference tones, combined with the overall saturation of the guitar sound, create an abrasive yet always forward-moving texture.

To describe the piece in these terms, however, requires more verbal dexterity than is strictly necessary. An algorithmic summation of the structure and motion can, in a short block of code, convey the essential motion(s) of the movement and closely aligns with Branca's approach to performance and conducting.

To begin, the interlocking guitar voices can be described as independent loops with slightly different functions:

```
#guitar voice 1
loop do
  play E3
end

#guitar voice 2
i = 0
1200.times do |i|
  play E3 + i/100
end
```

Figure 1 Ruby representation of the Second Movement

[29] Grayson Haver Currin, "Guitar Trio Is My Life!," Pitchfork, March 11, 2008, https://pitchfork.com/reviews/albums/11263-guitar-trio-is-my-life/.

In Figure 1, lines preceded by # are inserted as comments, used as labels and/or descriptors, a common practice in coding. The first loop, #guitar voice 1, is a simple infinite loop in Ruby, which describes how the first voice merely plays the pitch E3 for the entire piece. Through the conglomeration of multiple performers in each voice, this layer becomes a single, sustaining sound through the entire movement. The second, a moving voice, requires slightly more analysis and instruction than the first. By using Ruby's increment function (|i|) after setting the variable i's initial state to 0, the ever-ascending line can be described as a loop of 1200 repetitions (1200.times do) that add 1 cent to E4 on each repetition.[30] As an introduction to the type of algorithmic analysis carried out in this project, this particular representation makes several compromises in the representation of an objectively analog phenomenon, namely, a smooth, non-incremental glissando across the neck of the guitar and highlights the challenge of interpreting some experiences in the digital realm. While not a true reflection of the experience of the performer, the use of the 1200 cents-per-octave system is an attempt to relate numerical and algorithmic structures to a concept familiar to most musicians and highlights the need for a programming language for human interpretation such as OREAD, described in Chapter 4. Other similar concessions are made throughout this project, but the overall value of algorithmic representation of certain facets of Branca's music outweighs the need for an absolute representation within the algorithm itself.

To describe the entirety of the movement, with its binary structure and added drums, requires a few more lines of analytical code. Simply wrapping the entire system in a repeat yields:

[30] In Ruby (and Sonic Pi), the default unit of pitch is the MIDI integer per half-step system. The incremented value must be scaled by 1/100 to accommodate for the adaptation of cents to MIDI values.

```ruby
2.times do

  #guitar voice 1
  loop do
    play E3
  end

  #guitar voice 2
  i = 0
  1200.times do |i|
    play E3 + i/100
  end

end
```

Figure 2 Second Movement with repetition

To express the addition of the drums on the second repeat, which grow in complexity and intensity as the movement continues, requires the establishment of several variables in Ruby. If the complexity of the rhythmic pattern (i.e., the increased addition of cymbals, rolls, and overall activity) can be expressed as a variable "complex", one approach to the description of the drum component could mimic the second guitar voice quite easily with a few substitutions in language.

```ruby
#drum pattern
complex = 0
100.times do |complex|
  play drumFill + complex/100
end
```

Figure 3 Second Movement drum fill in Ruby

In the above example, "100.times do" is an attempt to scale the intensity of the pattern from 0% - 100% and "complex/100" scales the percentage to a decimal value, similar to the pitch scaling in the guitar algorithms. These relationships are somewhat arbitrary in this analytical context, but merely attempt to give reasonable numerical values to given conditions.

However, to more accurately represent the evolution of the drum part from simple floor tom, to kick and snare, to all-out fill, a more complicated algorithm must be generated.

```
#drum pattern
motif = [floorTom, kickSnare, drumFill]
i = 0
3.times do |i|
  play motif[i]
end
```

Figure 4 Three stages of drum pattern

A synthesis of the first and second algorithms yields the most accurate representation of the overall drum performance as the drum fill section (starting at 7:10) does grow in complexity as described in the first approach to the algorithm. Additionally, at 4:38 a subsection of the guitar and bass voices breaks away from the upper groups and introduces a lower octave of E than the opening two lines, serving to increase density and complement the introduction of the drums.

```ruby
repeat = 1
2.times do |repeat|
  #guitar voice 1
  loop do
    play E3
  end
  #guitar voice 2
  i = 0
  1200.times do |i|
    play E3 + i/100
  end
end

when repeat == 2
#guitar voice 3
loop do
  play E2
end
#drum pattern
motif = [floorTom, kickSnare, drumFill]
i = 0
3.times do |i|
  play motif[i]
end
if motif == drumFill
  complex = 0
  100.times do |complex|
    play drumFill + complex/100
  end
end
```

Figure 5 The Second Movement as Ruby code

The net result of the drums and new sub-octave voice, when added to the guitar voice tracks, creates a holistic picture of the movement and paves the way for the analysis of other sections of the symphony and of subsequent movements.

3.2 First Movement: A Look at The Text

The First Movement: The Devil Choirs in boot camp, the diabolical sturm und drang of fading needlepoint memory of every goddam 'rock' riff you ever heard strung along the DNA/DEW line, microscopic melodies tangling the cilia in metallic buzz, the Fibonacci Sequence spiraling into beehive swarm.

-Tim Holmes, Liner Notes to Symphony No 6.[31]

If the Second Movement inspired the use of algorithmic analysis, the First Movement confirms Branca's intent and strict adherence to a system based on a single data set. The only publicly available page from the entire symphony is a chart of pitches, rhythms, and processes that unfold over the entire movement. The image quality of the chart leaves much room for interpretation, but through a reconciliation of the recording and the chart, a holistic understanding of the structure of this movement may be inferred.

[31] Holmes, liner notes for Glenn Branca *Symphony No. 6*,

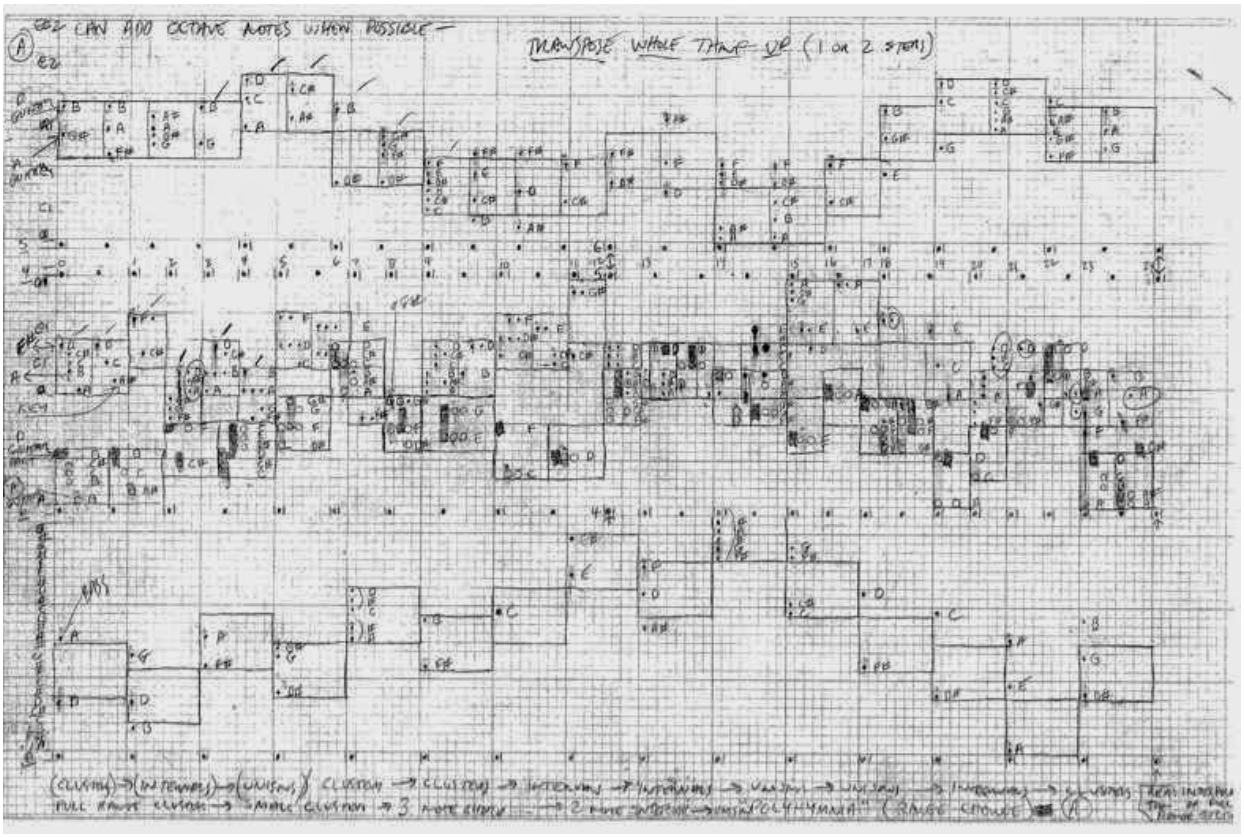

Figure 6 Branca's chart for *Symphony No. 6: The First Movement*

From this single chart, Branca creates a movement that evolves in processes, guided by an over-arching set of principles. The entire chart is repeated multiple times while different information from the rectangular cells, indicated pitch classes, and rhythmic layers (dots in between rectangular voices) are used to generate new material based on the form presented at the bottom of the page: 1. Clusters, 2. Intervals, 3. Unisons, 4. Clusters, 5. Clusters, 6. Intervals, 7. Intervals, 8. Unisons, 9. Unisons, 10. Intervals, 11. Full Range Clusters, 12. Small Clusters, 13. 3 Note Clusters, 14. 2 Note Clusters, 15. "POLYRHYTHMIA" (RANGE CLUSTERS), and 16.

Return to A.[32] To decipher how each section and approach relate to the chart above, and to introduce the algorithmic structures of this movement, it proves helpful to begin with the basses.

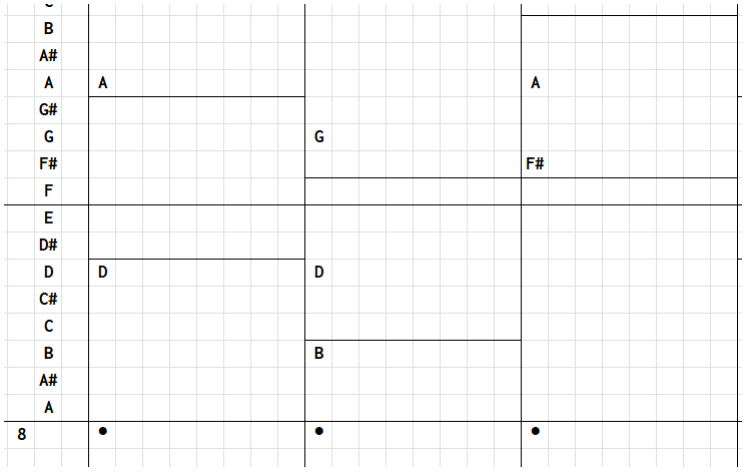

Figure 7 Bass parts reinterpreted

The above figure is a reinterpreted representation of the original chart based on careful listening and comparison. Each box, pitch name, and relative position is used throughout different sections to indicate parameters for interpretation. To begin, Branca specifies pitches for every member of the group within a given rectangle. These pitches are used in both the Unison and Interval subsections of the movement. Algorithmically speaking, in the bass part, Branca indicates an array of pitches to be iterated once every eight eighth notes,[33] which can be expressed as:[34]

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[32] These interpretations of the written text are based on the single, low-resolution image available of the chart and the corresponding activity in the recording. Pitches referenced hereafter are based on a close inspection of the chart and confirmation through transcription of the audio itself.

[33] This interpretation of metrical subdivision assumes the repeating kick-snare pattern represents the quarter note throughout the movement.

[34] In Ruby, a '#', typically used to indicate a sharp, triggers a comment, which alters the structure of the code. To avoid this, Sonic Pi uses the conventions of 's' for sharp and 'b' for flat. These conventions will be used for the duration of this analysis.

```
pitches = [[D1,A1],[B0,D1,G1],[FS1,A1]]
i = 0
loop do
  play pitches[i]
  sleep 8
  i = i +1
end
```

Figure 8 First three measures of bass part in Ruby

In this representation of the first three measures of the chart, the array 'pitches' contains the notes specified on the page and the 'loop' statement rotates through the array once per 8 metrical units. This representation describes the Interval sections of the movement and can be expended to include the pitch arrays for all 15 "measures" of 8 beats. The upper guitar parts (top of the chart), can be expressed as easily as the basses simply by modifying the input pitches and frequency of repetition.

```
pitches = [[Gs1,B1],[Fs1,A1,B1],
          [G1,Gs1,A1,As1],[G1,B1]]
i = 0
loop do
  play pitches[i]
  sleep 5
  i = i +1
end
```

Figure 9 Upper guitar parts expressed in Ruby

The upper guitar parts follow a similar process, but repeat every 5 beats rather than every 8. The inner voices may be similarly expressed, and the combination of representing several voices together is matter of simply combining the lines of code (with some variable specification).

```
pitches_bass = [[D1,A1],[B0,D1,G1],[FS1,A1]]
i = 0
loop do
  play pitches_bass[i]
  sleep 8
  i = i +1
end

pitches_upper_guitar = [[Gs1,B1],[Fs1,A1,B1],
                        [G1,Gs1,A1,As1],[G1,B1]]
i = 0
loop do
  play pitches_upper_guitar[i]
  sleep 5
  i = i +1
end
```

Figure 10 Bass and upper guitar parts in Ruby

While the chart form of the score clearly demonstrates the polyrhythmic interlockings of the parts, the algorithmic notation illustrates the concurrency of the processes and the individual mandate for each group of performers.

By extracting the process (repeating every 8 or 5 beats) from the input (in this case, individual pitches), the application of Branca's various processes can utilize the same loop function with different input states. Full Range Clusters, as specified in the 11th subsection, substitute individual pitches with clusters of 6 half steps, as indicated by boxes in the chart. Often, these boxes include the pitches from the Clusters or Intervals, but, as a rule, they span 6 chromatic half steps and may fall above or below their pitch array counterparts. To reduce and express this construction in Ruby involves the use of a few more lines of code, but is just as straightforward.

```
root_upper_guitar = [Fs1,Fs1,Fs1,Fs1,A1,A1,
                     Ds1,Ds1,C1,C1,C1,C1]
root = 0
loop do
  i = 0
  6.times do #to fill out the Full Range Cluster
    play root_upper_guitar[root] + i
    i = i+1
  end
  sleep 5
  root = root + 1
end



root_bass = [Ds1,C1,Fs1,Ds1,A1,Fs1,A1]
root = 0
loop do
  i = 0
  6.times do #to fill out the Full Range Cluster
    play root_bass + i
    i = i+1
  end
  sleep 8
  root = root + 1
end
```

Figure 11 Full Range Clusters expressed in Ruby

If the process of filling out each Full Range Cluster involves the generation of 6 chromatic half-steps, a simple '6.times do' command coupled with an incrementation will generate clusters. While more concise approaches creating this array of half-steps exist for coding environments, the loop-based structure presents a picture of what most closely aligns with the sonic result and intention.

The above processes may be applied to the other sections of the movement, but no moment is as ear-grabbing or as clearly demonstrative of the significance of the algorithmic approach to the composition and performance of this movement than the "POLYRHYTHMIA" section, which arrives around 10:10 in the recording. At this moment, Branca combines Full Range Clusters and four layers of polyrhythm against a straight-ahead 4 beat rock drum pattern.

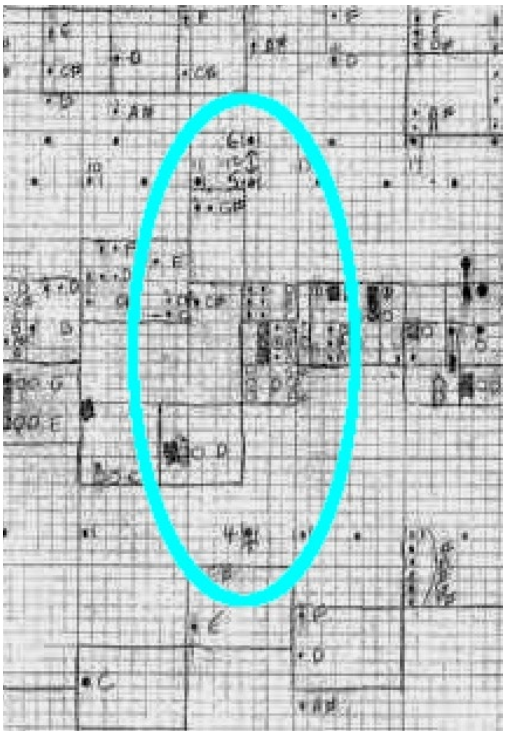


Figure 12 Temporal ratio shift

Midway through the roadmap, Branca changes the temporal relationships (5:4:6:8 to 6:5:4:8, upper to lower, respectively), which can be easily accounted for in algorithmic notation. A complete set of concurrent algorithms for the “POLYRHYTHMIA” section is as follows:

```ruby
#upper guitar
root_upper_guitar = [Fs1,Fs1,Fs1,Fs1,A1,A1,
                     Ds1,Ds1,C1,C1,C1,C1,Ds1,
                     Ds1,A0,A0,C1,Fs1,A1,A1,Fs1,Fs1]
root = 0
12.times do
  i = 0
  6.times do #to fill out the Full Range Cluster
    play root_upper_guitar[root] + i
    i = i+1
  end
  root = root + 1
  sleep 5
end

10.times do
  i = 0
  6.times do #to fill out the Full Range Cluster
    play root_upper_guitar[root] + i
    i = i+1
  end
  root = root + 1
  sleep 6
end

#middle_guitar
root_middle_guitar = [A1,A1,C1,Fs1,A1,Fs1,Ds1,
                      A1,A1,C1,C1,Ds1,Fs1,A1,A1,
                      Fs1,Fs1,Ds1,Fs1,Ds1,Ds1,A1,
                      C1,Fs1,A1,A0,A0]
root = 0
30.times do
  i = 0

  6.times do
    play root_middle_guitar[root] + i
    i = i + 1
  end
  sleep 4
  root = root + 1
end
```

Figure 13 POLYRHYTHMIA upper and middle guitars in Ruby

```
#low guitar
root_low_guitar = [A1,A1,C2,C2,Ds2,A2,Ds2,Ds2,
                   C2,C2,A1,A1,A1,A1,Ds2,Ds2,
                   Ds1,A1,Fs1,Fs1,Fs1,Fs1]
root = 0

10.times do
  i = 0
  6.times do
    play root_low_guitar[root] + 1
    i = i + 1
  end
  sleep 6
  root = root + 1
end
12.times do
  i = 0
  6.times do
    play root_low_guitar[root] + 1
    i = i + 1
  end
  sleep 5
  root = root + 1
end



#bass
root_bass = [Ds1,C1,Fs1,Ds1,A1,Fs1,A1,Ds2,C2,Fs2,C2,Fs1,Ds1,Ds1,Ds1]
root = 0
15.times do
  i = 0
  6.times do #to fill out the Full Range Cluster
    play root_bass[root] + i
    i = i+1
  end
  sleep 8
  root = root + 1
end
```

Figure 14 POLYRHYTHMIA low guitar and bass in Ruby

The full expression of the POLYRHYTHMIA section in Ruby illustrates the simplicity of the algorithmic approach to this movement as influenced by the only extant example of 'notation' for the entire symphony. A few modifications notwithstanding, this script would be executable in Sonic Pi and, while it would not convey the intensity or timbral qualities of the section or movement, the intersection of pitch and rhythm would be clearly realized and recognizable. Yet to fully realize the potential of algorithmic based analysis in Ruby, specifically in *Symphony No. 6,* an examination of the Fourth Movement proves most beneficial.

3.3 Fourth Movement: Further Analysis

The Fourth Movement: the new ordering of the swarm, the pummel becomes a drill, a humming double-helix lateral staircase screwing its way into the marrow of divine matter.

-Tim Holmes, Liner Notes to Symphony No 6.[35]

While the First and Second Movements encouraged the use of algorithmic analysis and confirmed Branca's approach to composition through the interpretation of the score as a graphical algorithm, the Fourth Movement is an all-out confirmation of an implied algorithmic process at work. This movement, consisting of a hocketed middle ground layer on top of the ever-present 4/4 drums with swelling descant chords (often dyads of a perfect fifth or fourth) floating overhead, is steadfast in its approach to timbral evolution as a direct result of the algorithm in process.

The opening measures feature four distinct guitar voices, each with their own consistent cell for repetition. Each layer is built around an alternation between a given note and its chromatic lower neighbor, a rule that remains in place for the entire movement. The complexity of sound arrives from cells of different lengths entering at different moments throughout the movement. While not a problem for traditional notation, this approach to hocket is easily expressed in algorithmic terms.

[35] Holmes, liner notes for Glenn Branca *Symphony No. 6*,

```ruby
loop :a do
  2.times do
    2.times do
      play :C4
      sleep 0.5
      play :B3
      sleep 0.5
    end
    sleep 1
  end
  play :C4
  sleep 0.5
  play :B3
  sleep 1.5
end

loop :b do
  sleep 1
  2.times do
    play :A3
    sleep 0.5
    play :Gs3
    sleep 0.5
  end
end

loop :c do
  2.times do
    play :G3
    sleep 0.5
    play :Fs3
    sleep 0.5
  end
  sleep 1.5
end

live_loop :d do
  sleep 2
  loop do
    2.times do
      play :D4
      sleep 0.5
      play :Cs4
      sleep 0.5
    end
    sleep 1
  end
end
```

Figure 15 The four guitar algorithms in Ruby

As the movement evolves, new layers enter the hocket, largely sticking to the central pitch/lower neighbor motif (e.g. C B C B), but the pattern is interrupted at 3:03 with a new pattern of three notes followed by a lower neighbor (G4, G4, G4, F#4). This pattern falls in line with the algorithm as its frequency in repetition is consistent, but after this particular entrance, the hocket becomes more and more dense with each successive voice using its own approach to the tone/lower chromatic neighbor convention.

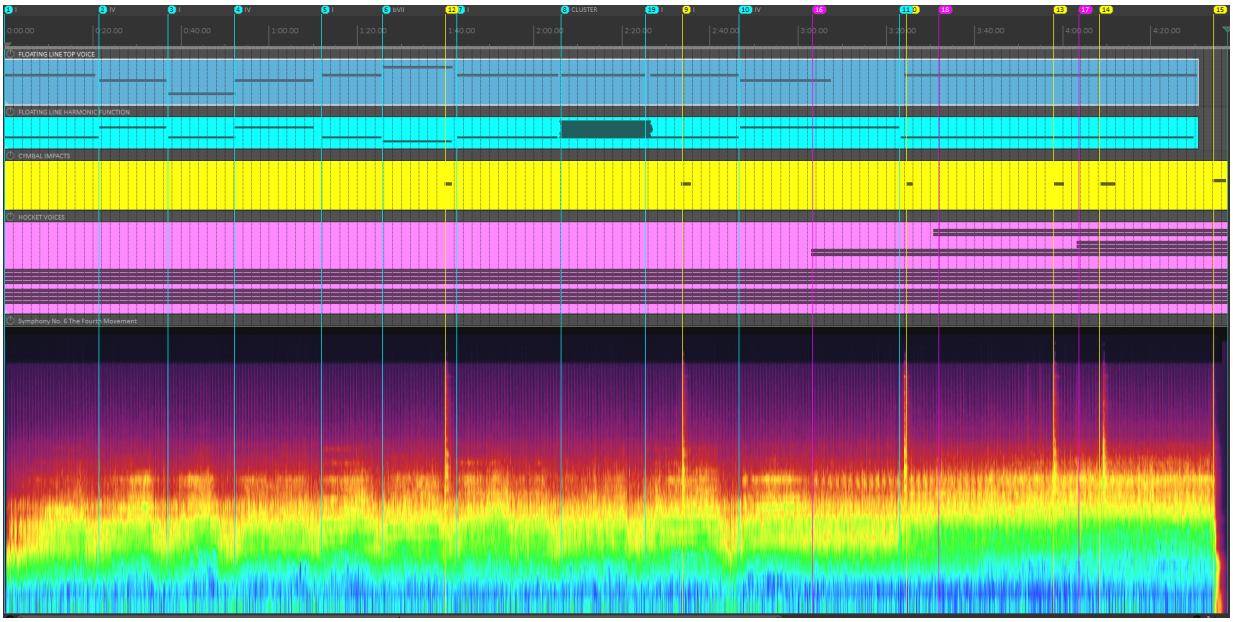


Figure 16 Spectral, chordal, and motivic analysis of the Fourth Movement in Reaper

In the above figure, the magenta lane represents the chromatic figures as they enter throughout the movement, the blue lane follows the top voice of the floating line; the cyan lane describes the relative harmonic function of the floating line chords; and the yellow lane highlights the few moments of structural impact as signified by cymbal crashes. As new layers enter, it becomes increasingly more difficult to decipher individual voices as a majority of the chromatic octave between G3 and C5 becomes fully saturated. The maximum density of the hocketed voices is finally reached at 4:03 and sustains in intensity until the end of the movement.

The upper floating line, in stark contrast to the ever-complex layer below, remains relatively simple and consistent throughout the movement. Each chord in the line swells to a maximum volume and recedes, except the last entrance (3:25), which arrives and sustains its intensity until the end of the movement. While the waveform analysis of this movement highlights

the hocket and pulsing drums, the spectrogram quickly reveals the shape and duration of each floating line chord as they all activate the highest register of the movement.[36]

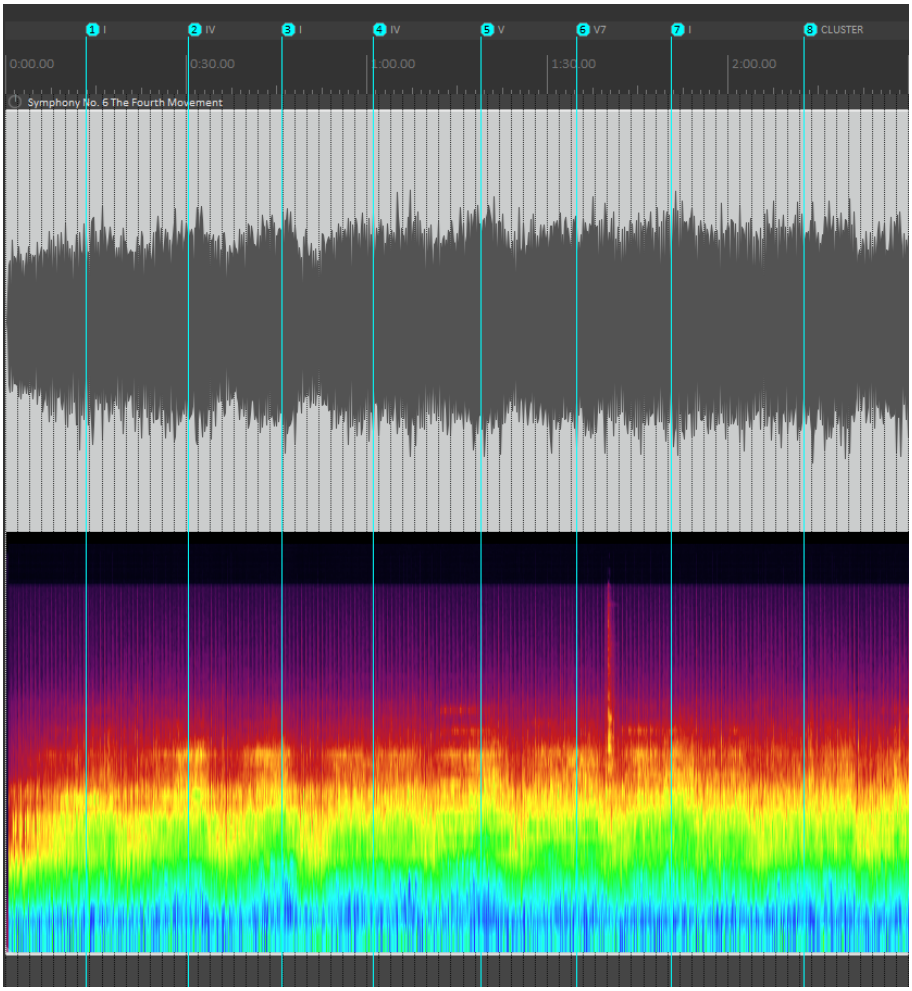


Figure 17 Waveform (top) and spectral (bottom) analysis of the Fourth Movement in Reaper (0:00 – 2:30)

[36] For this example, the Reaper waveform and spectrogram images are used as they most accurately convey the relationship between loudness and harmonic saturation.

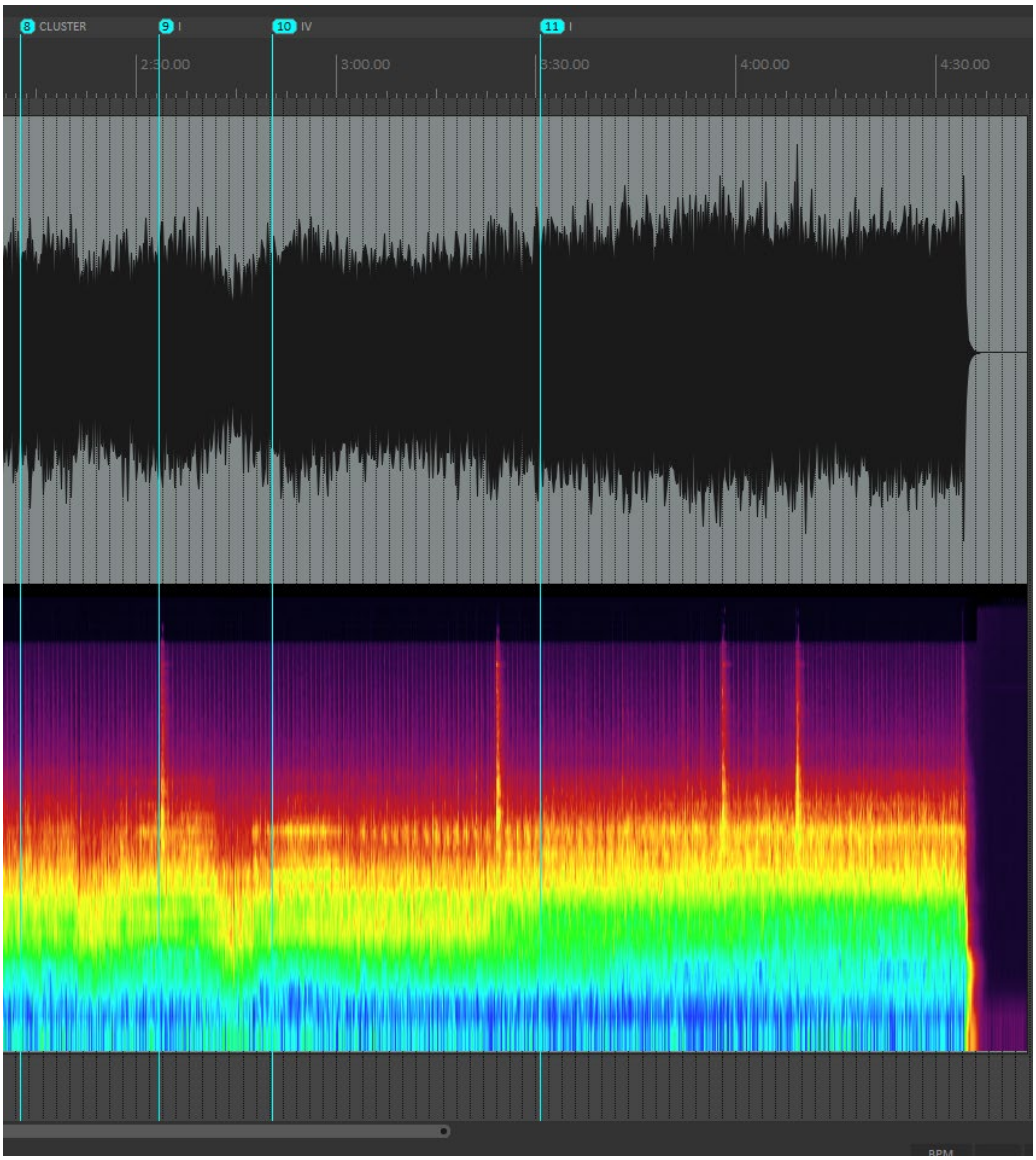


Figure 18 Spectral and waveform analysis of the Fourth Movement in Reaper (2:30 - end)

In the above figures, floating lines appear as gentle rise-and-fall shapes (most clearly seen in the green band) and their volume peaks are indicated by each vertical cyan line. Cymbal crashes present as sharp yellow-red spikes in both figures. The chords,[37] which are relatively evenly

[37] Numbers appearing in cyan boxes at the top of the figure correspond with each floating line chord event. Their approximate harmonic function is also provided.

spaced, outline a surprisingly tonal progression for the first half, centered in E major: I-IV-I-IV-I-bVII-I. Only at the eighth chord event is there any deviation from the simplicity, where the chord becomes a chromatic cluster from E4 to G#4, suggesting the influence of the lower material. After this single event, however, Branca returns to I-IV-I to end the movement atop an exceedingly chaotic ocean of dense chromatic activity. The spectral overview of the top layer, combined with the algorithmic approach to the middle ground provide a holistic overview of the process in this movement and open the door to continue this approach for the two remaining movements.

3.4 The Third Movement: A Hybrid Approach

The Third Movement: the pummeling of the Gates, the shrill jack-hammer nattering of all souls whose desire exceeds the limits of the flesh, the radiant pulse of pneumonic energy.

-Tim Holmes, Liner Notes to Symphony No 6.[38]

While the First, Second, and Fourth Movements allow for the expression of significant portions of their content to be represented in the above algorithmic analyses, the remaining movements require a multi-faceted approach to analysis that includes both algorithms to describe temporal events and spectral analysis to show trends in timbral evolution.

---

[38] Holmes, liner notes for Glenn Branca *Symphony No. 6*,

The Third Movement follows a relatively simple process: an array of fifteen cluster classes are combined with four rhythmic values to push the motion of the movement forward and create intensity in density and time. The constant drum beat pins the entire movement together, much like the rest of the symphony, and provides a baseline level of noise against which to analyze the relative densities of each cluster class. Within each cluster, there are variations at the individual performer level, but large-scale changes in density and register happen at distinct moments. To describe the rhythmic progression in Ruby is relatively straightforward as compared to the previous movements:

```
23.times do
  1.times do
    play cluster
    sleep 4
  end
end

35.times do
  2.times do
    play cluster
    sleep 2
  end
end
```

Figure 19 The first two rhythmic sections in Ruby

It is possible to explicitly state all six rhythmic sections in the above manner, but an extraction of the number of measures (the first line in each above block of code) and their associated durations (the second line) into separate arrays allows for an extremely concise expression of the rhythmic structure:

```ruby
measures = [23,35,35,57,9,33]
beats = [1,2,4,8,4,8]
i = 0
measures.size.times do
  measures[i].times do
    beats[i].times do
      play cluster
      sleep 4.0/beats[i]
    end
  end
  i= i + 1
end
```

Figure 20 Rhythmic algorithm of the Third Movement in Ruby

Determining that the movement consists of six sections, each with various diminutions of whole note values, is only part of the story of the evolution of sound across the five and a half minutes of the Third Movement. Moving at a pace independently from the rhythmic patterns, the array of clusters conveys much of the forward momentum of the movement. A change in cluster is sometimes coincident with a rhythmic shift (4:23), but often serves as an independent indicator of a new section. Unlike the Second Movement, which gradually evolves, these sudden and drastic cluster events are a clear demarcation of the structure of the movement.

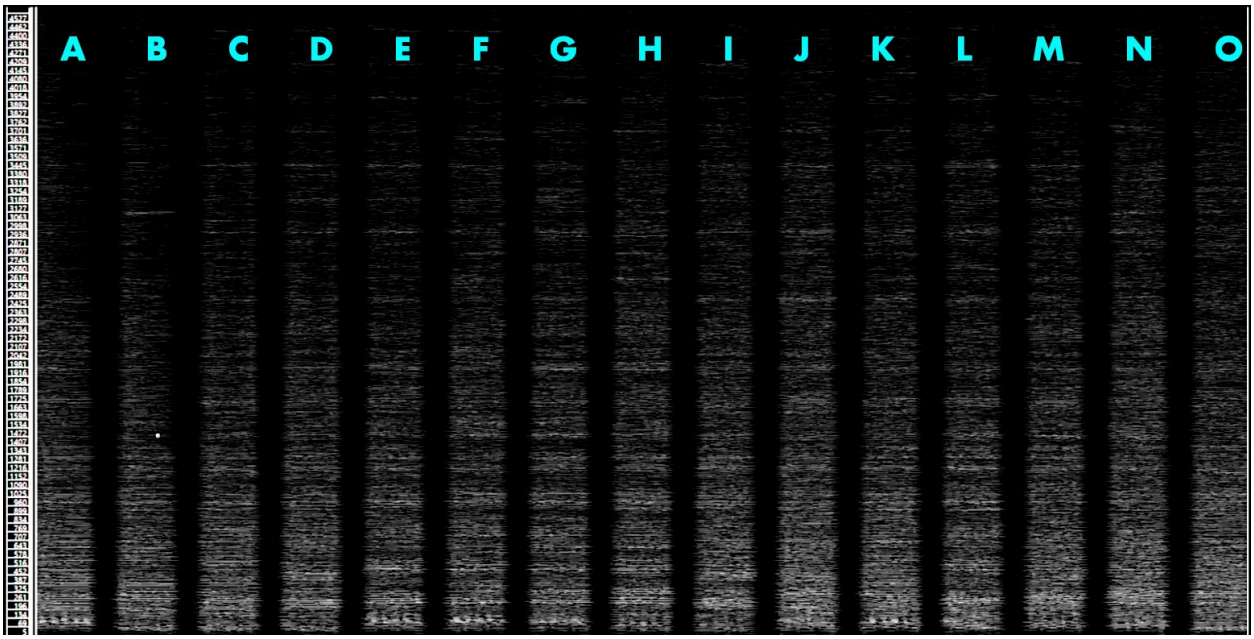


Figure 21 A spectral view of the 15 tone clusters[39]

A spectral analysis of each cluster (presented above as equal length extracted samples from the recording, listed in appearance order from left to right) reveals the relative densities in timbre that evolve across the piece. Clusters A and B are relatively low in density while the final clusters, N and O are the most complex and saturated moments of the movement. The visualization of saturation and timbre, devoid of rhythm, highlights the tonal building blocks of the movement and the integration of these clusters to the rhythmic Ruby code above yields a result that fully explains the construction of the movement.

[39] Spectral analysis was generated in Sonic Visualizer using dB^2 weighting with a window size of 1024.

```ruby
#clusters
cluster_array = [A,B,C,D,E,F,G,H,I,J,K,L,M.N,O]
cluster_length = [12,22,16,19,9,9,19,7,14,14,16,9,8,9,7]

i = 0
cluster_arrary.size.times do
  $cluster = cluster_array[i]
  sleep cluster_length[i]*4
  i = i + 1
end

#rhythms
measures = [23,35,35,57,9,33]
beats = [1,2,4,8,4,8]

i = 0
measures.size.times do
  measures[i].times do
    beats[i].times do
      play $cluster
      sleep 4.0/beats[i]
    end
  end
  i= i + 1
end
```

Figure 22 The Third Movement pitch and rhythm in Ruby

The above Ruby code, used in conjunction with the chart of cluster densities, displays the independent movements of rhythmic and timbral densities throughout the movement and closely aligns with Branca's extraction of rhythm and pitch in the single page of score available for the First Movement.

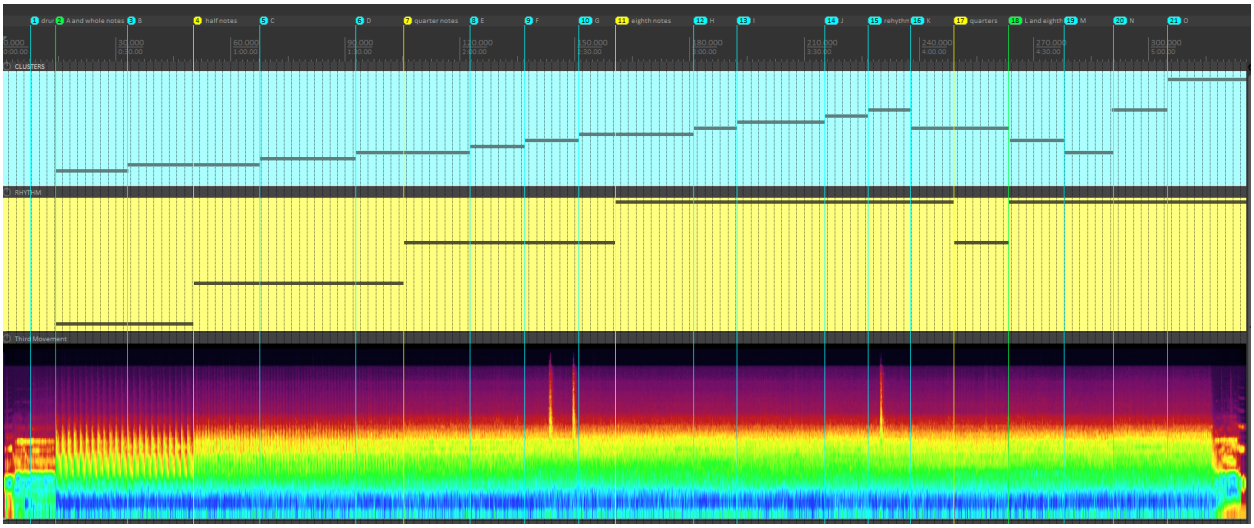


Figure 23 Spectral, cluster, and rhythmic analysis of the Third Movement in Reaper

The above figure uses MIDI piano roll notation to indicate relative duration and density of the clusters (blue lane, higher is more dense) and the rhythmic base-unit (yellow lane, whole notes to eighth notes, bottom to top). Cluster events are labeled in the top timeline by cyan markers, rhythmic shifts by yellow, and moments of cluster-rhythmic coincidence by green. It can be seen from the integration of cluster duration vs spectral density, that Branca tends to hold on to clusters with the most timbral density (e.g. N and O) for shorter durations while using the relatively less dense clusters as pivot points for the rhythmic shifts, creating an interlocking relationship between density and motion.

3.5 The Fifth Movement: Bringing it All Together

The Fifth Movement: the entwining of daemonic and celestial threnody, polyhymnody, absorption and subsummation of consonant-dissonant conflict, puncturing the transparent membrane, infinity, collapse, question mark, exclamation point…

-Tim Holmes, Liner Notes to Symphony No 6.[40]

The Fifth Movement, of all the movements, benefits least from an algorithmic approach to analysis. While creating micro-level algorithms to describe the individual guitar parts or drum patterns may be of some interest, the monolithic structure of these twelve minutes stand up best to

[40] Holmes, liner notes for Glenn Branca *Symphony No. 6*,

an examination of overall timbre and loudness, with a potential descriptive algorithm generated as a result.

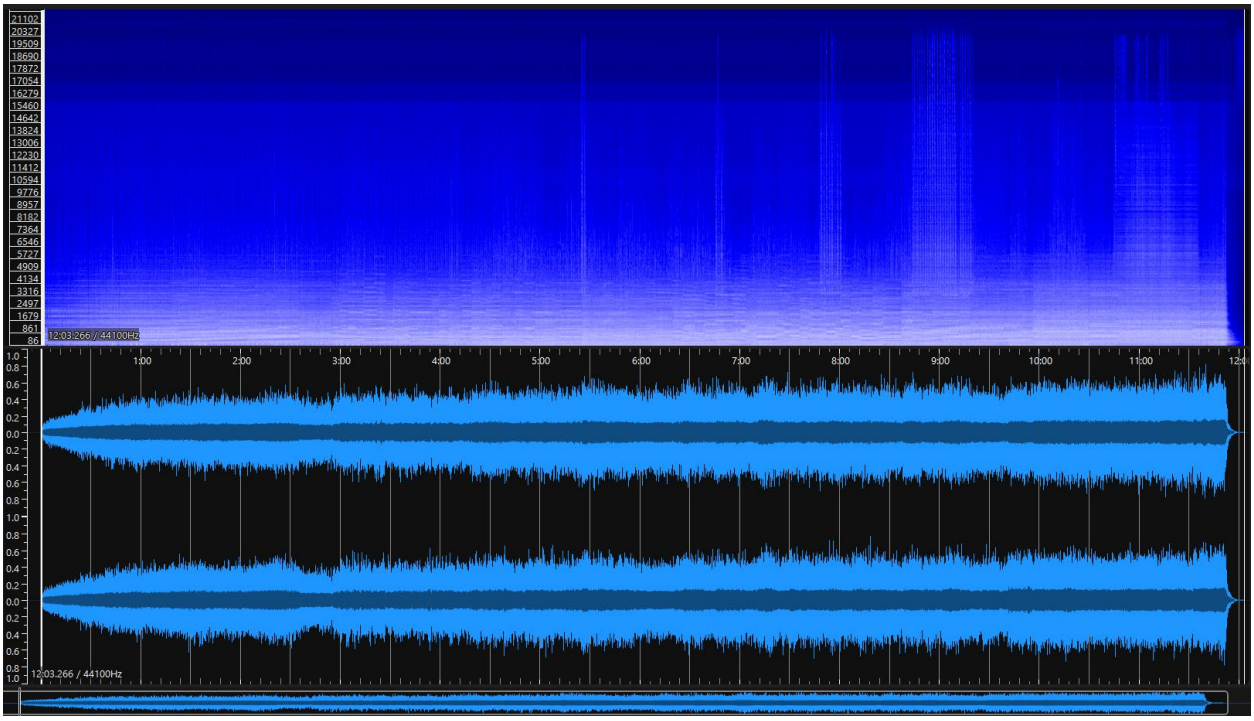


Figure 24 Spectral and waveform analyses of the Fifth Movement

When comparing the full-range spectrogram and waveform, two slightly different stories of this movement emerge. The waveform shows a clear and rapid rise in loudness over the first minute, then a gradual climb to the finish (the slight dip between 2:30 and 3:00 not withstanding), while the spectrogram bears out a much more varied set of timbres.

The spikes in density (e.g. 5:30) are full cymbal crashes, that trigger new cluster densities, each of which seems to rise much like the Second Movement towards the next event. These particular relationships become more apparent in a spectrogram of more limited scope:

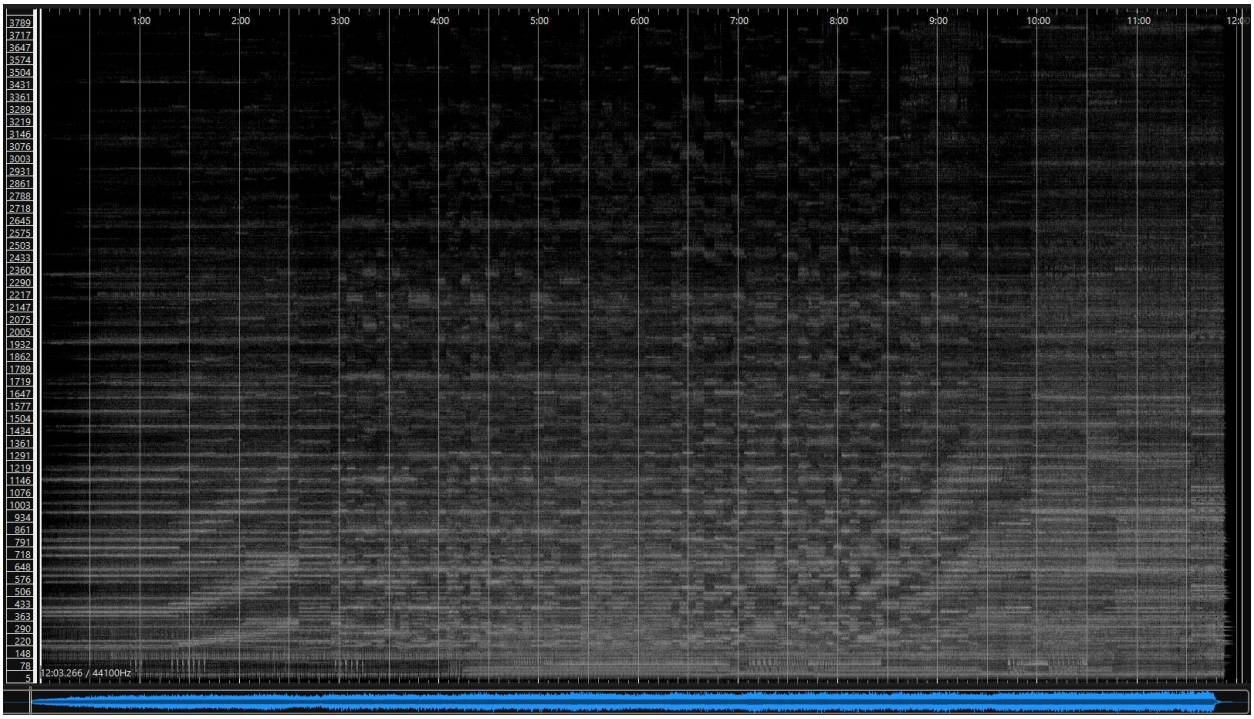


Figure 25 Spectogram of the Fifth Movement (0-4000 Hz)

A closer look at the spectra between 0 and 4000 Hz highlights the underpinning of the Fifth Movement: moments of stasis, movement, and oscillating complexity alternating over the 12-minute span. Notably, the dip in volume reflected in the waveform above corresponds to the relative stasis of 2:30, a moment that is not immediately apparent in the wide-range spectrogram. The large-scale structure of the movement is also more clearly reflected in this limited band of spectra, including the two moments of rapid pitch ascension (1:30 and 8:00). These revelations within the various visual representations of the sound recording can, ultimately, be expressed in Ruby, but the concise presentation of techniques and sections of this particular movement through spectral and waveform analysis prove to be most invaluable.

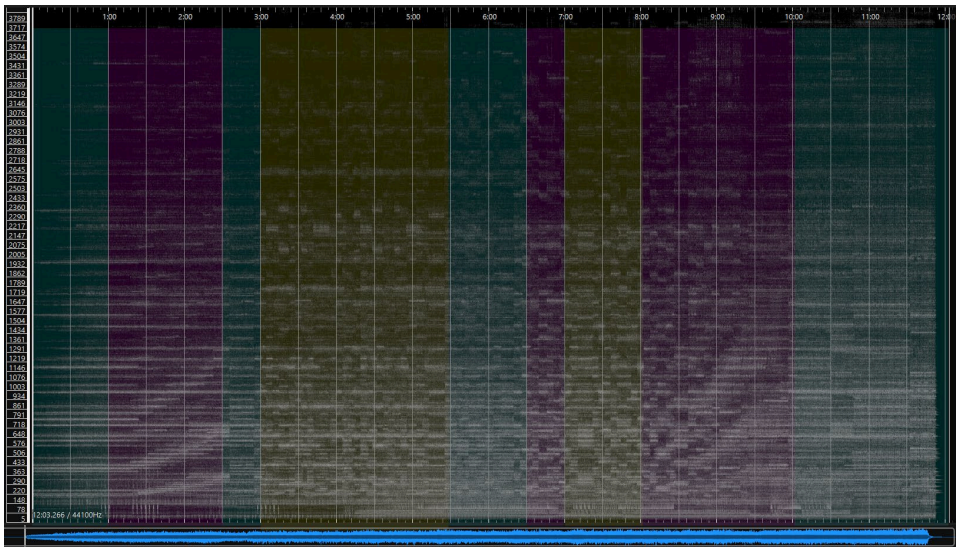


Figure 26 Colorized spectrogram of the Fifth Movement (0-4000 Hz)

The moments of stasis (cyan in the figure above) borrow early cluster material from the First Movement while the moments of ascension (magenta) draw on the process outlined in the Second Movement. Material highlighted in yellow most closely resembles music from the Third Movement but is a manifestation of new material to come. These two moments (3:00-5:25 and 7:00-8:00) most clearly resemble what Holmes describes in the liner notes as "[the] absorption and subsummation of consonant-dissonant conflict"[41] and can be clearly seen on the spectrogram as an oscillation between harmonically stable spectra and inharmonic clusters.

[41] Holmes, liner notes.

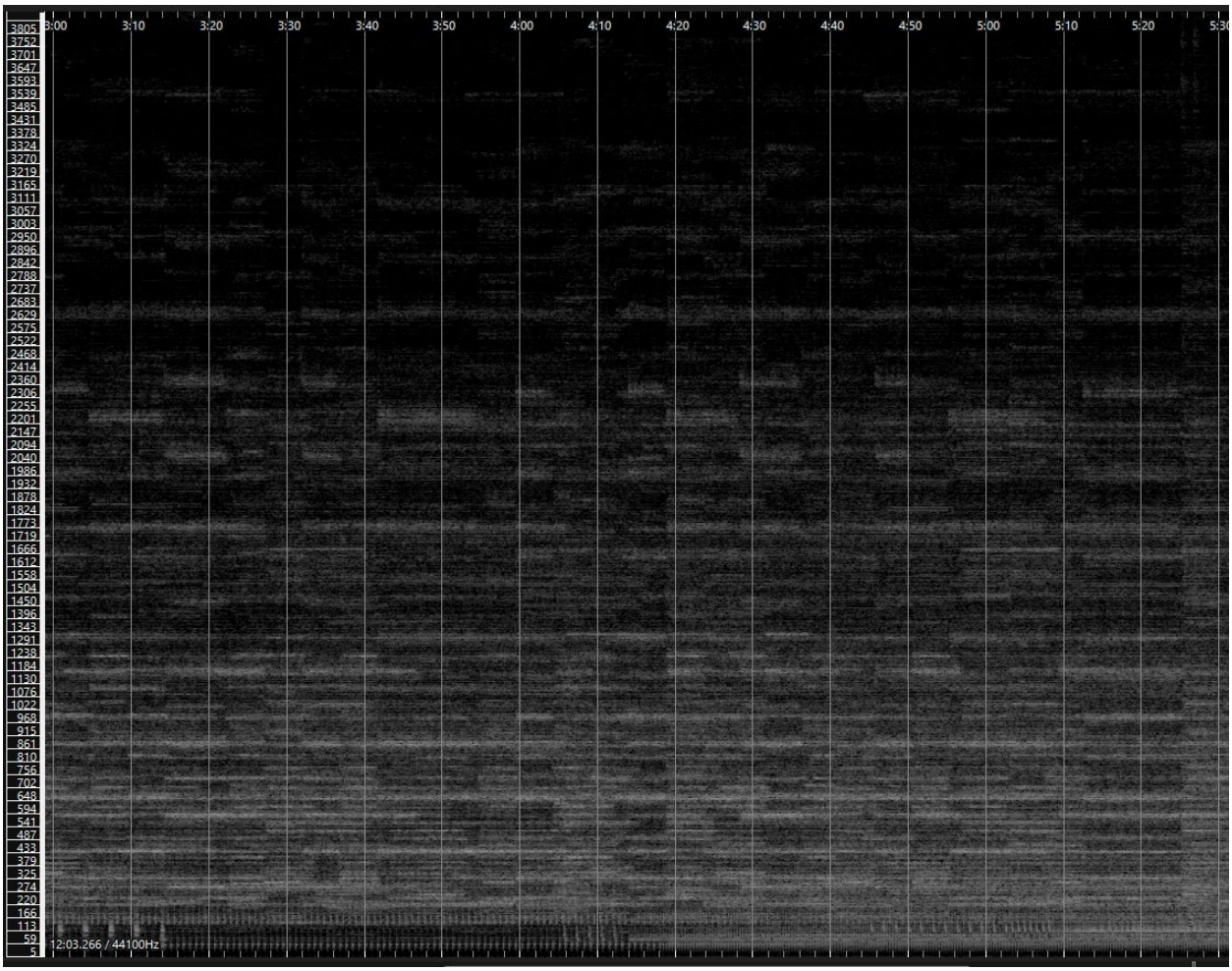


Figure 27 Moments of harmonic and inharmonic spectra in the Fifth Movement (3:00-5:30)

In the first section of oscillation, Branca abruptly changes chords every three measures, occasionally using octaves in the highest register to pivot between these moments, a technique upon which he expands in the second section of consonant-dissonant conflict.

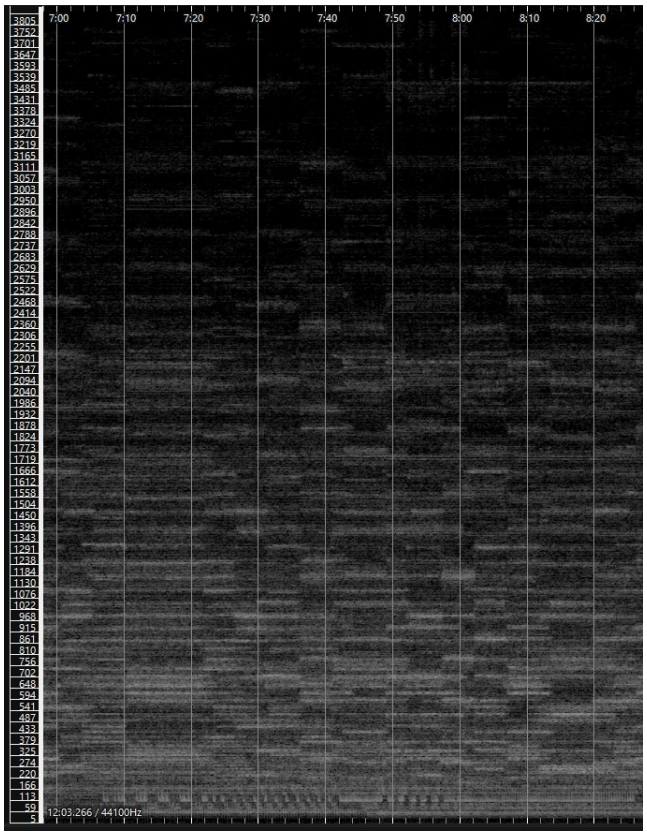


Figure 28 Harmonic and inharmonic spectra (7:00-8:00)

The seventh minute brings with it a more interlocked structure, as if to represent an intensifying struggle between the titular Devil Choirs and presumed angels before the conclusion of the symphony. These chords maintain an average harmonic rhythm of three measure units but utilize more frequent pivot points within a given timbre to swing between stable and unstable vertical distributions. The harmonies in this moment are denser and more complex than the first moment (3:00-5:25) and use short bursts of harmonic stability to pivot between events, as if to subvert the traditional tonal concept of using dissonance as preparation for consonance. This increased rapidity of the internal statis-motion duality catapults the movement forward and provides a crucial texture-timbre relationship against which Branca builds the contrastingly slow push to the finish from the eighth minute onward.

To understand Branca's retrogression in terms of pace towards the conclusion of the Fifth Movement, a larger scale glimpse at form is in order. While early moments in the movement hint at music from the previous movements, the cymbal crash at 5:30 ushers in a new set of textures and levels of saturation. The music that emerges, specifically from the third magenta section onward, is altogether more extreme in its rate of ascension and overall saturation. If the final push at 10:43 is considered a coda to this movement, the relative proportions of each spike roughly line up with whole number ratios (1:2 at 5:25, 2:3 at 6:45, 3:4 at 7:46, and 4:5 at 8:43), approximating nodes of the first five partials of the harmonic series. This theory is reinforced by the fact that the 1:2 moment is met with two crashes, the 3:2 with three. While Branca states this piece is not just-intonation centered, these proportions hint at his interest in ratios and symmetries. A simple Ruby explanation of these proportions could mathematically demonstrate these relationships but is perhaps more convoluted than a visual representation of peaks in a spectrogram.

```
dur_of_mvt_5 = 644 #seconds to coda

sleep dur_of_mvt_5/2
play crash
sleep dur_of_mvt_5/(3/2) - dur_of_mvt_5/2
play crash
sleep dur_of_mvt_5/(4/3) - dur_of_mvt_5/(3/2)
play crash
sleep dur_of_mvt_5/(5/4) - dur_of_mvt_5/(4/3)
play crash
```

Figure 29 Temporal nodes in Ruby

Similarly, each harmonic ascent following a temporal node (crash) can be described in a similar fashion to the Second Movement, yet the overall impact of the gesture serves to further the motion towards the coda, the most harmonically saturated moment in the entirety of *Symphony No. 6*. The comparison of relative rates of ascent and maximum values therefore carry more importance than the expression of process as described by the algorithm.

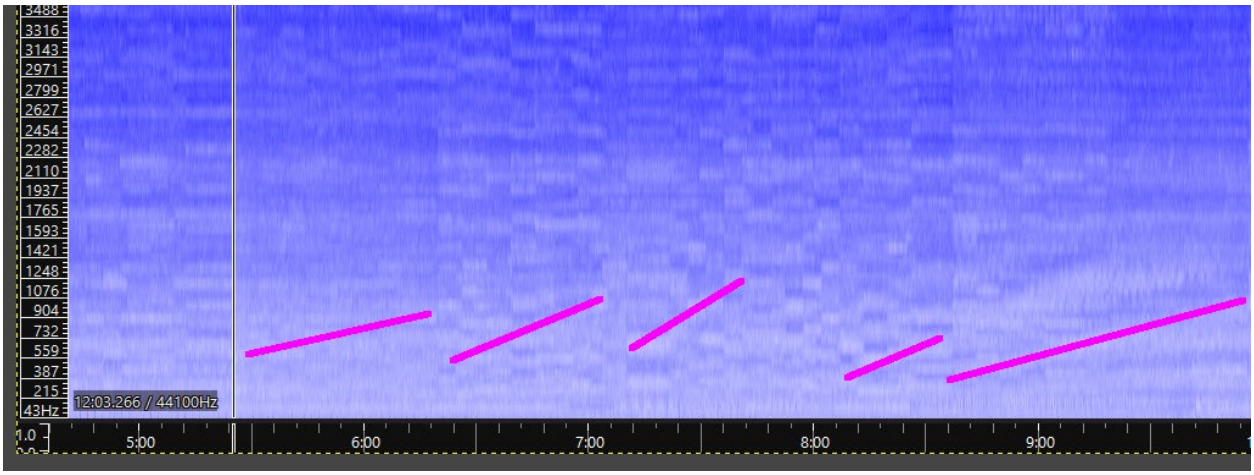


Figure 30 Approximate trends of pitch ascent in upper guitar voices

To that end, however, approximate rates of ascent over time (slopes) may be generated in Ruby (via the Sonic Pi interpreter) using a similar format to the delineation of the ratioed sections before.

```ruby
dur_of_mvt_5 = 644 #seconds to coda

for dur_of_mvt_5/(3/2) - dur_of_mvt_5/(2/1)
  rise 1
end

for dur_of_mvt_5/(4/3) - dur_of_mvt_5/(3/2)
  rise 1.5
end

for dur_of_mvt_5/(5/4) - dur_of_mvt_5/(4/3)
  rise 1.5
end

for dur_of_mvt_5 - dur_of_mvt_5/(5/4)
  rise 2
end
```

Figure 31 Relative rates of ascent in Ruby

While these algorithmic representations may be of some use in understanding shapes and process, their use in conjunction with the spectrogram and waveforms for the Fifth Movement prove the most useful. The Fifth Movement is a sonic synthesis of material and techniques from the rest of the symphony so it is only fitting that a combination of the various analytical techniques

used throughout this project would yield the best result when looking at saturation and temporal proportions.

3.6 Other Considerations

Beyond the algorithmic, spectral, and waveform analyses of the individual movements, a few other considerations and trends throughout the entirety of *Symphony No. 6* merit discussion as they relate to Branca's compositional process and the overall listening experience for this piece.

Much of the above-analyzed timbral, rhythmic, and otherwise sensational content requires a steady frame of reference against which to create tension, resolution, and movement. This role is taken up almost entirely by the steadfast, four-on-the-floor style drumming of Stephan Wiscthern in each movement. The drum patterns more often than not remain grounded in 4/4 time with occasional accents and fills for color. Only in moments of absolute frenzy (the endings of the Second and Fifth Movements, specifically), do the drums leave their gridded position and contribute to the chaos.

The steadfastness of the drums contributes to a particularly interesting phenomenon in each movement of the symphony, as well. After hearing a movement from start to finish, the listener is left with a sense that the music accelerated in tempo gradually across the timespan of the music. Drop-the-needle style investigation reveals, however, that the tempi of each movement remain constant. This effect may very well be attributed to changes in the levels of timbral or rhythmic saturation occurring throughout each movement stimulating alterations in a listener's temporal perception, similar to the sensation of constant pitch ascension in a Shepard tone. Many of Branca's other works feature monolithic linear progression like the movements of *Symphony No.*

6 and the sensation of acceleration is similarly compelling. While this sensation falls outside the scope of this project, it is a trend in Branca's music that merits attention and consideration.

Lastly, the scale and scope of the entire symphony is worth discussing as Branca himself amended the original composition with the expansive Fifth Movement upon revision. The experience of listening to the first four movements alone does present the sensation of temporal compression and the necessity of the Fifth Movement feels inevitable (even if every attempt at subjective isolation of the original form of the work is colored by the knowledge of the existence of the Fifth Movement). Without the last movement, the piece is decidedly front end loaded, with the First Movement clocking in over sixteen minutes in length. Proportionally, the Second, Third, and Fourth Movements are roughly one half, one third, and one quarter the length of the First Movement, while the Fifth Movement is three quarters the length of the First Movement. These proportions, given other ratios discovered throughout the analysis, are certainly no accident and highlight Branca's adherence to guiding principles throughout his entire compositional process, whether in pitch, timbre, or duration.

4.0 Extensions and Applications

The analysis of Branca's *Symphony No. 6* prompts further investigation into the use of computer language syntax, and algorithmic structures in general, in both musical analysis, interpretation, and creation. While the approaches outlined above can be easily applied to other musics that stem from, or suggest, an algorithmic approach to creation, the extension of this work has proven useful in areas beyond theory alone. Two such projects, the adaptation of several pieces of standardly notated music and the development of OREAD, a language for human interpretation, have proven to be the most fruitful outcome of this research.

4.1 Translating Existing Pieces from Notation to Algorithms

The first extension of this approach to analysis comes in the form of the reinterpretation of existing works as functional algorithms in native computer music languages. In order to accomplish this task, whether for performance or study, a form of analysis must take place. To distill a notated piece to its algorithmic essentials and translate them into executable code is as practical an application for this work as any and has proven beneficial in a handful of real-world examples.

4.1.1 Eve Beglarian – *Until it Blazes*

Eve Beglarian's 2001 piece, "Until it Blazes," for piano or plucked string instrument and delay processing, while appearing as a formally notated score, follows two algorithmic processes and therefore lends itself well to reinterpretation as an algorithmic piece in Sonic Pi, using a few extended functions from Ruby that work natively in the Sonic Pi environment. The piece can largely be described as an array of pitches that is augmented as time goes on, which is easily represented in Ruby. The accent patterns move at a slower overall rhythm than the array of pitches, creating a hyper-metric array that is further amplified by the delay processing.

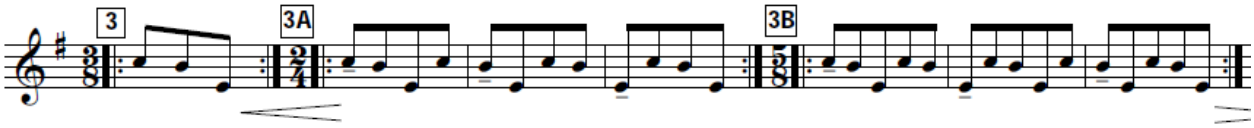


Figure 32 Excerpt from *Until It Blazes*

The above figure demonstrates how an array of three notes [C,B,E] is modified into hypermetric arrays through accent patterning. All three of these facets – a growing array of pitches, a non-congruous pattern of accents, and a dual channel delay processor – are easily accomplished in Sonic Pi using Ruby.

```
1  #until it blazes
2  #eve beglarian
3
4  use_bpm 99
5  use_synth :sine
6  use_synth_defaults attack: 0, release: 0, sustain: 0.75
7
8  #color = [0,64,0,64,0,64,0,64,0,64,0,64,0,64,0,0]
9  #color = [72, 71, 69, 67, 64]
10 color = [72,0,71,0,69,0,67,66,64,0]
11
12 $t = color.size
13
14 a = 1
15 b = 0.3*a
16 $d = 0
17
18 amp = Array.new(5,b)
19 amp.insert(0,a)
20 r = 2
21
22 live_loop :until_it do
23   with_fx :distortion, distort: $d do
24     i = 0
25     $t.times do |i|
26       amp2 = amp.tick
27       with_fx :echo, phase: 0.75 do
28         play [color[i]], pan: rrand(-1,0), amp: amp2
29       end
30       with_fx :echo, phase: 0.5 do
31         play [color[i]], pan: rrand(0,1), amp: amp2
32       end
33       sleep 0.5/r
34     end
35   end
36 end
37
38 100.times do
39   d=0
40   $d = $d + 0.01
41   sleep 0.01
42 end
```

Figure 33 *Until It Blazes* as Sonic Pi Code

The entirety of the piece, including written instructions concerning the crescendo and addition of distortion in the last measure and the stereo delay processing, is expressed in the above algorithm. This particular state of the code is the result of a complete performance, with the distortion component added and with the pitch array (color) in its final state. Lines 4-6 establish basic parameters about the piece: tempo (use_bpm 99), synthesis voice (use_synth :sine), and the shape of the envelope for the synthesizer (use_synth_defaults…). Lines 8-10 are the various arrays needed for adding pitches throughout the performance, each needed to be commented out (i.e. essentially "unarmed" for interpretation) at various stages of the performance. In 12-16, variables

are established to control amplitude of the unaccented (b) and accented (a) notes and $t is defined as the number of values in the pitch arrays (used to control repetition in the following lines). Lines 18-36 is the code that controls the input to and output from the synthesizer during a performance, including the application of delay (:echo) and eventual inclusion of distortion, which is added when lines 38-42 are uncommented and sent to the interpreter. A successful performance of this version of the piece requires the performer to add values to the array of pitches labeled 'color' and update the script in real time, but this element can also be automated using the Ruby function 'puts[].' Beglarian has authorized this realization for performance and views it as fully capturing the spirit of the piece as intended.[42]

4.1.2 James Tenney – *Harmonium 1*

Similarly to *Until It Blazes,* James Tenney's 1976 work *Harmonium* 1 is easily expressed as an algorithmic process and was adapted for performance in SuperCollider for WOLFTRAP at the 2020 Beyond: Microtonal Festival. By treating each vertical harmony as a simple array of pitches, an interactive SuperCollider patch was created that allowed performers to activate notes as the arrays updated in clock-time. Cent derivations were translated to decimal values in MIDI and the overall effect of the piece remained (i.e., a slowly modulating set of harmonies that leveraged the naturally occurring "dominant seventh" chord between partials 4, 5, 6, and 7 of a given fundamental as a form of secondary dominant modulation). Tenney's original score is elegantly notated and simple:

[42] Eve Beglarian, telephone interview by Ryan McMasters, December 9, 2023.

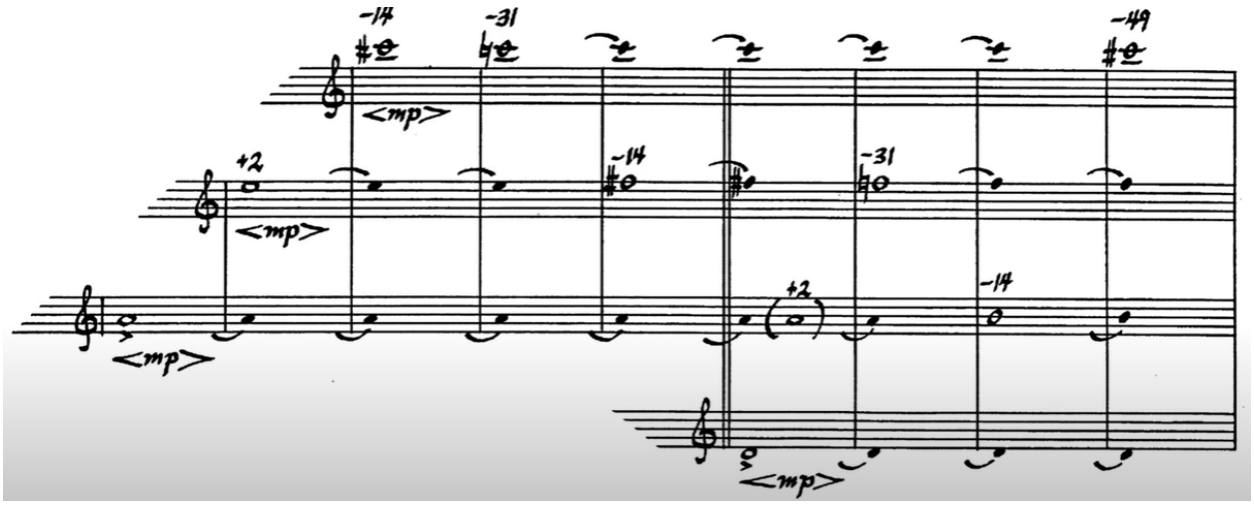


Figure 34 James Tenney's *Harmonium 1*

In this case, the algorithmic representation and translation is much more complex, which is largely attributed to the demands of SuperCollider, rather than the concept of the piece itself. A collection of arrays was used to represent the measures of the piece:

```
26      //section 1
27      ~m01 = [0,     0,     69, 0, 0, 0];
28      ~m02 = [0,     76.02, 69, 0, 0, 0];
29      ~m03 = [84.86, 76.02, 69, 0, 0, 0];
30      ~m04 = [83.69, 76.02, 69, 0, 0, 0];
31      ~m05 = [83.69, 77.86, 69, 0, 0, 0];
32
33      //section 2
34      ~m06 = [83.69, 77.86, 69,    62,    0,  0];
35      ~m07 = [83.69, 76.69, 69,    62,    0,  0];
36      ~m08 = [83.69, 76.69, 70.86, 62,    0,  0];
37      ~m09 = [84.51, 76.69, 70.86, 62,    0,  0];
38      ~m10 = [84.51, 76.69, 70.86, 62,    55, 0];
39      ~m11 = [84.51, 76.69, 69.69, 62,    55, 0];
40      ~m12 = [84.51, 76.69, 69.69, 63.86, 55, 0];
41      ~m13 = [85.05, 76.69, 69.69, 63.86, 55, 0];
42      ~m14 = [85.05, 77.51, 69.69, 63.86, 55, 0];
43
44      //section 3
45      ~m15 = [85.05, 77.51, 69.69, 63.86, 55, 48];
46      ~m16 = [84,    77.51, 69.69, 63.86, 55, 48];
47
48      //section 4
49      ~m17 = [84, 77.51, 69.69, 63.86, 53, 0];
50      ~m18 = [84, 78.05, 69.69, 63.86, 53, 0];
51      ~m19 = [84, 78.05, 69.69, 62.69, 53, 0];
52      ~m20 = [84, 78.05, 68.86, 62.69, 53, 0];
53
54      //section 5
55      ~m21 = [84,    78.05, 68.86, 59, 0, 0];
56      ~m22 = [84,    74.86, 68.86, 59, 0, 0];
57      ~m23 = [84,    74.86, 66.02, 59, 0, 0];
58      ~m24 = [80.69, 74.86, 66.02, 59, 0, 0];
59
60      //section 6
61      ~m25 = [80.69, 74.86, 64, 0, 0, 0];
62      ~m26 = [80.69, 73.69, 64, 0, 0, 0];
63      ~m27 = [79.86, 73.69, 64, 0, 0, 0];
64
65      // end
66      ~m28 = [0, 0, 0, 0, 0, 0];
```

Figure 35 SuperCollider score for *Harmonium 1*

Additional lines of code, required to create the synthesizers, graphical interface for performance, and run the scheduling of measures over time, brought the total length of this piece to 318 lines. While considerably longer than the code for *Until It Blazes*, this difference is largely related to the contrast between Sonic Pi and SuperCollider rather than the merits of using either environment for the adaptation of notated scores for coded environments.

4.2 OREAD: a New Language for Performers

Whirl up, sea-

whirl your pointed pines,

splash your great pines

on our rocks,

hurl your green over us,

cover us with your pools of fir.

-H.D., Oread[43]

Through the work done on this project, and other input from performers and collaborators, it became clear that a new language, suited for human interpretation, would be a useful way to translate algorithmic compositional ideas outside the confines of standard notation, graphic scores, or text-based instructions. Through several collaborations and revisions, I developed OREAD. OREAD borrows syntax from both SuperCollider and Ruby to convey algorithms, data structures, and performance techniques in a manner closer to the conception of the following pieces. The language has already undergone several modifications and a full code specification (including syntax, examples, and tutorials) is planned for future development.

[43] Hilda Doolittle, "Oread," Poetry Foundation, accessed December 20, 2023, https://www.poetryfoundation.org/poems/48186/oread.

4.2.1 *For Adam Marks*

Pianist and Composer Adam Marks commissioned a short solo piece in mid-2020 and had been instrumental in the workshopping of OREAD. This piece, *For Adam Marks*, is the first piece conceived and notated exclusively in OREAD for a performer. While the language has evolved since this piece, the fundamental structures and emphasis on vernacular programming have not.

```
with_sustainPedal{
     loop{
          in_octave.random{
               play [D,F,A,[C,C#].choose].choose
               rest random(10”)
          }
     }
}
```

Figure 36 ***For Adam Marks***

From eight lines of OREAD, Marks was able to generate endless unique performances of widely varied lengths (the shortest around 2 minutes and the longest over an hour). Marks' feedback on the development of OREAD lead to the inception of a new, longer piece for solo piano, which was in process when Marks passed away in 2021.

4.2.2 *There Is Nothing Else*

In the fall of 2020, SpacePants (Jennifer Beattie and Diana Wade) commissioned a work for electronics, voice, and viola to be performed and recorded at The Tank Center for Sonic Arts. The piece began as a text-based set of instructions, but the ensemble requested an OREAD based version to incorporate the language into their performance practice. Through several rounds of development, a very simple algorithm was generated to be used alongside a Sonic Pi script.

```
until_synchronized{
        voice_loop{
                with_note(harm[“G”,[8,9].choose]){
                        (1..4)times.choose_sing(“there”, “is”, “nothing”, “else”).choose
                        rest random(10”)
                }
        }

        viola_loop{
                with_ponticello{
                        play listen.for voice_loop.harm
                        rest listen.to voice_loop.rest
                }
        }
}
```

Figure 37 OREAD score for *There is Nothing Else*

Through the flexibility of both Ruby and Sonic Pi, the electronic component of the piece contains the OREAD text for the score, allowing for a single window to be used for all aspects of performance and recording.

```
#the background
live_loop :midi do
  use_synth :tb303
  play (hz_to_midi ((midi_to_hz 91)*[1,1.125].choose)), pan: rrand(-1,1), attack: 0, decay: 0.1, release: 0
  sleep rand(10.0)
end


#the score
#
#until_synchronized{
#   voice_loop{
#      with_note(harm["G",[8,9].choose]){
#         (1..4)times.choose_sing("there", "is", "nothing", "else").choose
#         rest random(10")
#      }
#   }
#
#   viola_loop{
#      with_ponticello{
#         play listen.for voice_loop.harm
#         rest listen.to voice_loop.rest
#      }
#   }
#}
```

Figure 38 *There is Nothing Else* within Sonic Pi

This level of integration between Ruby, Sonic Pi, and OREAD have proven to be a most effective way to share, save, and perform pieces written in all three languages concurrently.

4.2.3 A few examples from *sea garden.*

OREAD as a language was developed after the composition of *sea garden.*, yet proves useful in revision for a few key movements. In the score to follow, these movements exist in their original form, but are presented here as an alternative form of notation to be used by performers versed in OREAD. Several current limitations of OREAD have become clear through the translation of these movements, most notably the need for a more accurate way to represent rhythm in both strictly and loosely timed passages of music. These issues are well within the scope of future revisions of the language and highlight the need for flexibility in programming languages such as Ruby or Sonic Pi to accommodate new challenges.

4.2.3.1 *Book 1, Song 3: the shrine*

The first such movement from *sea garden.* to benefit from a translation to OREAD is Book 1, Song 3: *The Shrine.* The process of this movement is largely repetitive: the violinist follows along with the spoken text and alters the notes in their loop. An excerpt of the OREAD vs. standard notation versions demonstrates that both versions communicate the overall concept of the movement, allowing for the performer, should they choose, to reference either.

```
violin{

notes = [G4]

loop{
play notes.loop
	}

	while_loop{
		listen.for (“…in their trading ships?”
			then{
				notes = [Bb4, G4]
			}
		listen.for (“…perished on your cliffs”)
			then{
				notes = [D4, G4]
			}
		listen.for (“…fastened to the rocks.”)
			then{
				notes = [F#4, G4]
			}
		listen.for (“…of cliff from the wind-blast”)
			then{
				notes = [A4, G4]
			}
	}
}
```

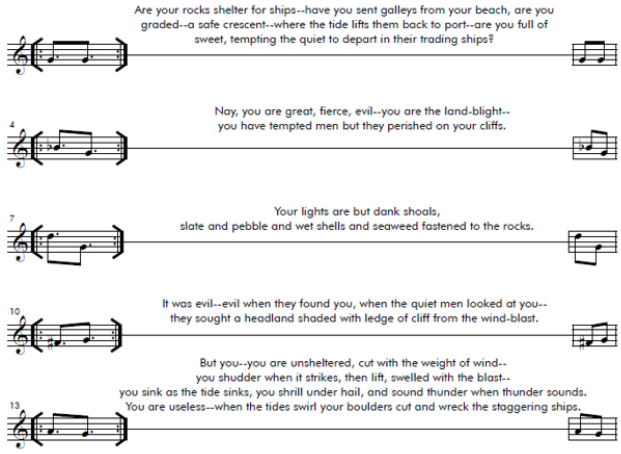


Figure 39 An excerpt from *the shrine* in OREAD and standard notation

While the OREAD version requires the performer to have a cursory understanding of the language, it conveys the process of the movement in a more compact version. Neither presentation is more correct than the other, but the text-based nature of OREAD allows for a simpler construction as compared to the issues posed by entering the standard notation version into a conventional notation program (Finale was used for this movement). OREAD is built for this kind of construction where standard notation programs simply are not.

4.2.3.2 Book 3, Song 3: *the cliff temple*

the cliff temple is a similar structure to *the shrine* in that performers are asked to follow along with the spoken text and modify how they manipulate a stack of rocks as the movement evolves.

each instrumentalist should have a pair of baseball sized rocks to use as percussion for this movement. the rocks will be dropped. a yoga mat or similar pad will be necessary for performances on nice floors.

rocks	soprano (spoken)
swirl rocks together. pause at will but the sound should be constant throughout this section	
	great, bright portal, shelf of rock, rocks fitted in long ledges, rocks fitted to dark, to silver granite, to lighter rock-- clean cut, white against white.
	high--high--and no hill-goat tramples--no mountain-sheep has set foot on your fine grass; you lift, you are the world-edge, pillar for the sky-arch.
	the world heaved-- we are next to the sky: over us, sea-hawks shout, gulls sweep past-- the terrible breakers are silent from this place.
	below us, on the rock-edge, where earth is caught in the fissures of the jagged cliff, a small tree stiffens in the gale, it bends--but its white flowers are fragrant at this height.
	and under and under, the wind booms: it whistles, it thunders, it growls--it presses the grass beneath its great feet.
continue rubbing rocks together, occasionally clicking them together.	
	i said: for ever and for ever, must i follow you through the stones? i catch at you--you lurch: you are quicker than my hand-grasp.

Figure 40 Text based excerpt from *the cliff temple*

This text-based approach has proven effective for this movement, but the OREAD version conveys the intention for the rock sounds more closely in line with the original intentions.

```
rocks{
	loop{
		rocks.swirl
		rest random
	}

	listen.for (“…the grass beneath its great feet.”
	then{
		loop{
			rocks.[swirl, click].choose
			rest random
		}
	}
	listen.for (“…with his evil and his vice”)
	then{
		loop{
			rocks.drop(on_mat)
			rest random
		}
	}
```

Figure 41 Excerpt in OREAD from *the cliff temple*

4.2.3.3 Book 4, Song 7: *the city is peopled*

The final song of *sea garden. – the city is peopled –* features coordinated dyads, not unlike *There Is Nothing Else,* which are easily represented in a loosely timed, stemless standard notation. However, to free performers from any attachment to rhythmic representation, an OREAD version conveys the pitch information without any temporal information. This approach, on the surface, appears to complicate a non-issue with the score, but highlights the usefulness of OREAD in communicating a score in a form of non-traditional musical literacy. Subsequent development of OREAD will include a focus on rhythmic expression and interpretation.

```
sing{
	sop{
		text (the ci - ty )
		note (D5  D5   D5 )
	}
	mez{
		text (the ci - ty )
		note (D5  D5   D#5)
	}

	rest random(1")

	sop{
		text (is peo - pled)
		note (A4 A4    G4  )
	}
	mez{
		text (is peo - pled)
		note (A4 A4    A4  )
	}

	rest random(1")

	sop{
		text (with spir - its)
		note (D5   D5     E5 )
	}
	mez{
		text (with spir - its)
		note (D5   D5     D5 )
	}

	rest random(1")

	sop{
		text (not ghosts)
		note (B4  B4    )
	}
	mez{
		text (not ghosts)
		note (B4  C#5   )
	}

	rest random(1")

	sop{
		text (O,  my  love)
		note (F#4 G#4 B4  )
	}
	mez{
		text (O,  my  love)
		note (D4  C#4 D4  )
	}
```

Figure 42 *the city is peopled* in OREAD

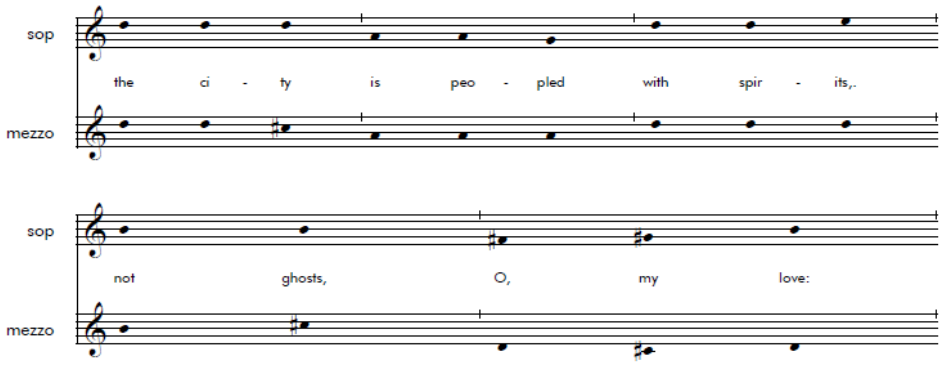


Figure 43 *the city is peopled* in standard notation

The standard notation example does clearly communicate the pitch-text relationship and approximate rhythmic pacing, but the OREAD version presents a cleaner, less cluttered approach.

OREAD cannot replace all the movements of *sea garden.*, especially those that are conceived and notated specifically with standard notation in mind, yet it represents a step forward in the adaptation of the algorithmically generated movements and promises to become a useful tool as the language develops through further collaborations.

5.0 Conclusions

As a snapshot of *Symphony No. 6 (Devil Choirs at the Gates of Heaven),* the analytical section of this project serves to draw out several key conclusions concerning Branca's process. First, Branca's ability to generate incredibly complex sonic results through algorithmic processes, such as the extraction of individual layers from the chart for the First Movement or the deceptively simple system behind the Second Movement. While simple listenings might give a sense of scope and over-arching form, the investigations above reveal that the power of these components is a direct result of his careful planning and adherence to a system. Each movement establishes a performance algorithm and the sonic output stems directly from Branca's input changing over time, whether a change in number of voices (the Fourth Movement), register (the Second Movement), or harmonic-rhythmic interdependence (the Third Movement). Secondly, each movement features, in its own way, the timbral and rhythmic tension created by activity in the lower voice held in constant tension against an upper voice. The first two movements feature the most accessible versions of this technique through either rhythmic complexity (POLYRHYTHMIA) in direct contrast to a steadfast drum beat or the drone/slide system of the Second Movement. The subsequent movements weave together demonstrably more complex relationships between upper and lower voices culminating in the "consonant-dissonance conflict"[44] of the Fifth Movement's unrelenting push towards ultimate levels of density and

[44] Holmes, liner notes.

intensity. Third, and perhaps most impressive, is Branca's ability to return to 12-tone equal temperament after five symphonies that explored ever deeper systems of tuning and proportion.

While this analysis began as an attempt to approach the music of Glenn Branca through an algorithmic lens, both to closely mimic his intention as composer and performer and to relate processes already in existence within algorithmically generated computer music, the ultimate outcome proved more nuanced and multi-faceted than anticipated. Through the incorporation of spectral, waveform, and graphical analyses, the algorithmic genesis of the music expanded to a more holistic understanding. The algorithms generated for the Second Movement may convey the specific system at work in the generation of the music, yet the hybrid approaches used in subsequent movements provides the most accurate picture of this monumental piece of music. Branca's approach to form (just ratio proportions in the Fifth Movement), collisions of harmonic concepts (tonal harmony vs chromatic clusters in the Fourth Movement), and use of timbral density vs rhythmic density (most clear in the Third Movement) all lend themselves well to both algorithmic expression and other forms of analysis.

If writing music in algorithmic forms (and specifically in Ruby via Sonic Pi) is a part of a composer's creative process, the above analysis is potential practice at understanding non-computer based algorithmic music and inspiration for future endeavors. This approach can continue to reveal Branca's elaborate schemes for structure, timbre, and rhythm in other works.

Without the insights gained by the algorithmic interpretation of Branca's music, most of the work of the fourth chapter would not be possible. Through the distillation of many of the processes set forth in *Symphony No. 6* came a depth of understanding for the need for clear, concise algorithms in both computer-generated and human-generated music. Moreover, the recreation of existing pieces within Ruby, Sonic Pi, and SuperCollider as a result of analytical translation opens

up the possibility to expand traditionally notated music to performers outside of conventional musical literacies and practices. Perhaps the ultimate expression of this knowledge, both of Branca's process for communicating with his performers and his reliance on algorithmic structures, comes in the form of OREAD, which continues to expand what is possible in terms of transmission and reception of algorithmically generated music for human interpretation.

Appendix A *sea garden.*

sea garden.

a song cycle in four books with poetry by H.D.

soprano | soprano | mezzo-soprano
chamber ensemble

R. McMASTERS

sea garden:

red sky (at night)

threnody 1 - antioch

book 1
- 1.1 sea rose
- 1.2 the helmsman
- 1.3 the shrine
- 1.4 mid-day
- 1.5 pursuit
- 1.6 the contest
- 1.7 sea lily

threnody 2 - cusseta

book 2
- 2.1 the wind sleepers
- 2.2 the gift
- 2.3 evening
- 2.4 sheltered garden
- 2.5 sea poppies
- 2.6 loss
- 2.7 huntress

threnody 3 - consecration

book 3
- 3.1 garden
- 3.2 sea violet
- 3.3 the cliff temple
- 3.4 orchard
- 3.5 sea gods
- 3.6 acon
- 3.7 night

threnody 4 - abbeville

book 4
- 4.1 prisoners
- 4.2 storm
- 4.3 sea iris
- 4.4 hermes of the ways
- 4.5 pear tree
- 4.6 cities
- 4.7 the city is peopled

threnody 5 - ortonville

red sky (at morning)

HILDA DOOLITTLE was born in 1886 in Bethlehem, Pennsylvania, and grew up in Upper Darby. Writing under the pen name H.D., her work as a writer spanned five decades of the 20th century (1911-1961), and incorporates work in a variety of genres. She is known primarily as a poet, but she also wrote novels, memoirs, and essays and did a number of translations from the Greek. Her work is consistently unique and original, both reflecting and contributing to the avant-garde milieu that dominated the arts in London and Paris until the end of World War II. Immersed for decades in the intellectual crosscurrents of modernism, psychoanalysis, syncretist mythologies, and feminism, H.D. created a unique voice and vision that sought to bring meaning to the fragmented shards of a war-torn culture. The development of H.D.'s increasingly complex and resonant texts is best understood when placed in the context of other important modernists, many of whom she knew intimately and all of whom she read avidly—especially poets such as Ezra Pound, T.S. Eliot, William Butler Yeats, William Carlos Williams, Marianne Moore, Wallace Stevens, and the Sitwells. Today she is read widely and admired for her innovative and experimental approaches to poetry.

-Poetryfoundation.org

'Sea Garden' was first published in 1916 by Constable and Company LTD. All texts used in this piece are from H.D. and are in the public domain.

vocal characters & types

THE ERINYE - high soprano

THE NERIED - soprano

THE HUNTRESS - mezzo-soprano

book 1

1.1 sea rose

rose, harsh rose, marred and with stint of petals, meagre flower, thin, sparse of leaf, more precious than a wet rose single on a stem -- you are caught in the drift. stunted, with small leaf, you are flung on the sand, you are lifted in the crisp sand that drives in the wind. can the spice-rose drip such acrid fragrance hardened in a leaf?

1.2 the helmsman

o be swift -- we have always known you wanted us. we fled inland with our flocks, we pastured them in hollows, cut off from the wind and the salt track of the marsh. we worshipped inland -- we stepped past wood-flowers, we forgot your tang, we brushed wood-grass. we wandered from pine-hills through oak and scrub-oak tangles, we broke hyssop and bramble, we caught flower and new bramble-fruit in our hair: we laughed as each branch whipped back, we tore our feet in half buried rocks and knotted roots and acorn-cups. we forgot--we worshipped, we parted green from green, we sought further thickets, we dipped our ankles through leaf-mould and earth, and wood and wood-bank enchanted us -- and the feel of the clefts in the bark, and the slope between tree and tree -- and a slender path strung field to field and wood to wood and hill to hill and the forest after it. we forgot--for a moment tree-resin, tree-bark, sweat of a torn branch were sweet to the taste. we were enchanted with the fields, the tufts of coarse grass in the shorter grass -- we loved all this. but now, our boat climbs -- hesitates -- drops -- climbs -- hesitates -- crawls back -- climbs--hesitates -- o be swift -- we have always known you wanted us.

1.3 the shrine

are your rocks shelter for ships-- have you sent galleys from your beach, are you graded--a safe crescent-- where the tide lifts them back to port-- are you full and sweet, tempting the quiet to depart in their trading ships? nay, you are great, fierce, evil-- you are the land-blight-- you have tempted men but they perished on your cliffs. your lights are but dank shoals, slate and pebble and wet shells and seaweed fastened to the rocks. it was evil--evil when they found you, when the quiet men looked at you-- they sought a headland shaded with ledge of cliff from the wind-blast. but you--you are unsheltered, cut with the weight of wind-- you shudder when it strikes, then lift, swelled with the blast-- you sink as the tide sinks, you shrill under hail, and sound thunder when thunder sounds. you are useless-- when the tides swirl your boulders cut and wreck the staggering ships. you are useless, o grave, o beautiful, the landsmen tell it--i have heard-- you are useless. and the wind sounds with this and the sea where rollers shot with blue cut under deeper blue. o but stay tender, enchanted where wave-lengths cut you apart from all the rest-- for we have found you, we watch the splendour of you, we thread throat on throat of freesia for your shelf. you are not forgot, o plunder of lilies, honey is not more sweet than the salt stretch of your beach. stay--stay-- but terror has caught us now, we passed the men in ships, we dared deeper than the fisher-folk and you strike us with terror o bright shaft. flame passes under us and sparks that unknot the flesh, sorrow, splitting bone from bone, splendour athwart our eyes and rifts in the splendour, sparks and scattered light. many warned of this, men said: there are wrecks on the fore-beach, wind will beat your ship, there is no shelter in that headland, it is useless waste, that edge, that front of rock-- sea-gulls clang beyond the breakers, none venture to that spot. but hail-- as the tide slackens, as the wind beats out, we hail this shore-- we sing to you, spirit between the headlands and the further rocks. though oak-beams split, though boats and sea-men flounder, and the strait grind sand with sand and cut boulders to sand and drift-- your eyes have pardoned our faults, your hands have touched us-- you have leaned forward a little and the waves can never thrust us back from the splendour of your ragged coast.

1.4 mid-day

the light beats upon me. i am startled-- a split leaf crackles on the paved floor-- i am anguished--defeated. a slight wind shakes the seed-pods-- my thoughts are spent as the black seeds. my thoughts tear me, i dread their fever. i am scattered in its whirl. i am scattered like the hot shrivelled seeds. the shrivelled seeds are spilt on the path-- the grass bends with dust, the grape slips under its crackled leaf: yet far beyond the spent seed-pods, and the blackened stalks of mint, the poplar is bright on the hill, the poplar spreads out, deep-rooted among trees. o poplar, you are great among the hill-stones, while i perish on the path among the crevices of the rocks.

1.5 pursuit

what do i care that the stream is trampled, the sand on the stream-bank still holds the print of your foot: the heel is cut deep. i see another mark on the grass ridge of the bank-- it points toward the wood-path. i have lost the third in the packed earth. but here a wild-hyacinth stalk is snapped: the purple buds--half ripe-- show deep purple where your heel pressed. a patch of flowering grass, low, trailing-- you brushed this: the green stems show yellow-green where you lifted--turned the earth-side to the light: this and a dead leaf-spine, split across, show where you passed. you were swift, swift! here the forest ledge slopes-- rain has furrowed the roots. your hand caught at this; the root snapped under your weight. i can almost follow the note where it touched this slender tree and the next answered-- and the next. and you climbed yet further! you stopped by the dwarf-cornel-- whirled on your heels, doubled on your track. this is clear-- you fell on the downward slope, you dragged a bruised thigh--you limped-- you clutched this larch. id your head, bent back, search further-- clear through the green leaf-moss of the larch branches? did you clutch, stammer with short breath and gasp: _wood-daemons grant life-- give life--i am almost lost._ for some wood-daemon has lightened your steps. i can find no trace of you in the larch-cones and the underbrush.

1.6 the contest

your stature is modelled with straight tool-edge: you are chiselled like rocks that are eaten into by the sea. with the turn and grasp of your wrist and the chords' stretch, there is a glint like worn brass. the ridge of your breast is taut, and under each the shadow is sharp, and between the clenched muscles of your slender hips. from the circle of your cropped hair there is light, and about your male torse and the foot-arch and the straight ankle. you stand rigid and mighty-- granite and the ore in rocks; a great band clasps your forehead and its heavy twists of gold. you are white--a limb of cypress bent under a weight of snow. you are splendid, your arms are fire; you have entered the hill-straits-- a sea treads upon the hill-slopes. myrtle is about your head, you have bent and caught the spray: each leaf is sharp against the lift and furrow of your bound hair. the narcissus has copied the arch of your slight breast: your feet are citron-flowers, your knees, cut from white-ash, your thighs are rock-cistus. your chin lifts straight from the hollow of your curved throat. your shoulders are level-- they have melted rare silver for their breadth.

1.7 sea lily

reed, slashed and torn but doubly rich-- such great heads as yours drift upon temple-steps, but you are shattered in the wind. myrtle-bark is flecked from you, scales are dashed from your stem, sand cuts your petal, furrows it with hard edge, like flint on a bright stone. yet though the whole wind slash at your bark, you are lifted up, aye--though it hiss to cover you with froth.

book 2

2.1 the wind sleepers

whiter than the crust left by the tide, we are stung by the hurled sand and the broken shells. we no longer sleep in the wind-- we awoke and fled through the city gate. tear-- tear us an altar, tug at the cliff-boulders, pile them with the rough stones-- we no longer sleep in the wind, propitiate us. chant in a wail that never halts, pace a circle and pay tribute with a song. when the roar of a dropped wave breaks into it, pour meted words of sea-hawks and gulls and sea-birds that cry discords.

2.2 the gift

instead of pearls--a wrought clasp-- a bracelet--will you accept this? you know the script-- you will start, wonder: what is left, what phrase after last night? this: the world is yet unspoiled for you, you wait, expectant-- you are like the children who haunt your own steps for chance bits--a comb that may have slipped, a gold tassel, unravelled, plucked from your scarf, twirled by your slight fingers into the street-- a flower dropped. do not think me unaware, i who have snatched at you as the street-child clutched at the seed-pearls you spilt that hot day when your necklace snapped. do not dream that i speak as one defrauded of delight, sick, shaken by each heart-beat or paralyzed, stretched at length, who gasps: these ripe pears are bitter to the taste, this spiced wine, poison, corrupt. i cannot walk-- who would walk? life is a scavenger's pit--i escape-- i only, rejecting it, lying here on this couch. your garden sloped to the beach, myrtle overran the paths, honey and amber flecked each leaf, the citron-lily head-- one among many-- weighed there, over-sweet. the myrrh-hyacinth spread across low slopes, violets streaked black ridges through the grass. the house, too, was like this, over painted, over lovely-- the world is like this. sleepless nights, i remember the initiates, their gesture, their calm glance. i have heard how in rapt thought, in vision, they speak with another race, more beautiful, more intense than this. i could laugh-- more beautiful, more intense? perhaps that other life is contrast always to this. i reason: i have lived as they in their inmost rites-- they endure the tense nerves through the moment of ritual. i endure from moment to moment-- days pass all alike, tortured, intense. this i forgot last night: you must not be blamed, it is not your fault; as a child, a flower--any flower tore my breast-- meadow-chicory, a common grass-tip, a leaf shadow, a flower tint unexpected on a winter-branch. i reason: another life holds what this lacks, a sea, unmoving, quiet-- not forcing our strength to rise to it, beat on beat-- stretch of sand, no garden beyond, strangling with its myrrh-lilies-- a hill, not set with black violets but stones, stones, bare rocks, dwarf-trees, twisted, no beauty to distract--to crowd madness upon madness. only a still place and perhaps some outer horror some hideousness to stamp beauty, a mark--no changing it now-- on our hearts. i send no string of pearls, no bracelet--accept this.

2.3 evening

the light passes from ridge to ridge, from flower to flower-- the hypaticas, wide-spread under the light grow faint--the petals reach inward, the blue tips bend toward the bluer heart and the flowers are lost. the cornel-buds are still white, but shadows dart from the cornel-roots-- black creeps from root to root, each leaf cuts another leaf on the grass, shadow seeks shadow, then both leaf and leaf-shadow are lost.

2.4 sheltered garden

i have had enough. i gasp for breath. every way ends, every road, every foot-path leads at last to the hill-crest-- then you retrace your steps, or find the same slope on the other side, precipitate. i have had enough-- border-pinks, clove-pinks, wax-lilies, herbs, sweet-cress. o for some sharp swish of a branch-- there is no scent of resin in this place, no taste of bark, of coarse weeds, aromatic, astringent-- only border on border of scented pinks. have you seen fruit under cover that wanted light-- pears wadded in cloth, protected from the frost, melons, almost ripe, smothered in straw? why not let the pears cling to the empty branch? all your coaxing will only make a bitter fruit-- let them cling, ripen of themselves, test their own worth, nipped, shrivelled by the frost, to fall at last but fair with a russet coat. or the melon-- let it bleach yellow in the winter light, even tart to the taste-- it is better to taste of frost-- the exquisite frost-- than of wadding and of dead grass. for this beauty, beauty without strength, chokes out life. i want wind to break, scatter these pink-stalks, snap off their spiced heads, fling them about with dead leaves-- spread the paths

with twigs, limbs broken off, trail great pine branches, hurled from some far wood right across the melon-patch, break pear and quince-- leave half-trees, torn, twisted but showing the fight was valiant. o to blot out this garden to forget, to find a new beauty in some terrible wind-tortured place.

2.5 sea poppies

amber husk fluted with gold, fruit on the sand marked with a rich grain, treasure spilled near the shrub-pines to bleach on the boulders: your stalk has caught root among wet pebbles and drift flung by the sea and grated shells and split conch-shells. beautiful, wide-spread, fire upon leaf, what meadow yields so fragrant a leaf as your bright leaf?

2.6 loss

the sea called-- you faced the estuary, you were drowned as the tide passed.-- i am glad of this-- at least you have escaped. the heavy sea-mist stifles me. i choke with each breath-- a curious peril, this-- the gods have invented curious torture for us. one of us, pierced in the flank, dragged himself across the marsh, he tore at the bay-roots, lost hold on the crumbling bank-- other crawled--too late-- for shelter under the cliffs. i am glad the tide swept you out, o beloved, you of all this ghastly host alone untouched, your white flesh covered with salt as with myrrh and burnt iris. we were hemmed in this place, so few of us, so few of us to fight their sure lances, the straight thrust--effortless with slight life of muscle and shoulder. so straight--only we were left, the four of us--somehow shut off. and the marsh dragged one back, and another perished under the cliff, and the tide swept you out. your feet cut steel on the paths, i followed for the strength of life and grasp. i have seen beautiful feet but never beauty welded with strength. i marvelled at your height. you stood almost level with the lance-bearers and so slight. and i wondered as you clasped your shoulder-strap at the strength of your wrist and the turn of your young fingers, and the lift of your shorn locks, and the bronze of your sun-burnt neck. all of this, and the curious knee-cap, fitted above the wrought greaves, and the sharp muscles of your back which the tunic could not cover-- the outline no garment could deface. i wonder if you knew how i watched, how i crowded before the spearsmen-- but the gods wanted you, the gods wanted you back.

2.7 huntress

come, blunt your spear with us, our pace is hot and our bare heels in the heel-prints-- we stand tense--do you see-- are you already beaten by the chase? we lead the pace for the wind on the hills, the low hill is spattered with loose earth-- our feet cut into the crust as with spears. we climbed the ploughed land, dragged the seed from the clefts, broke the clods with our heels, whirled with a parched cry into the woods: can you come, can you come, can you follow the hound trail, can you trample the hot froth?_ spring up--sway forward-- follow the quickest one, aye, though you leave the trail and drop exhausted at our feet.

book 3

3.1 garden

you are clear o rose, cut in rock, hard as the descent of hail. i could scrape the colour from the petals like spilt dye from a rock. if i could break you i could break a tree. if i could stir i could break a tree-- i could break you. o wind, rend open the heat, cut apart the heat, rend it to tatters. fruit cannot drop through this thick air-- fruit cannot fall into heat that presses up and blunts the points of pears and rounds the grapes. cut the heat-- plough through it, turning it on either side your path.

3.2 sea violet

the white violet is scented on its stalk, the sea-violet fragile as agate, lies fronting all the wind among the torn shells on the sand-bank. the greater blue violets flutter on the hill, but who would change for these who would change for these one root of the white sort? violet your grasp is frail on the edge of the sand-hill, but you catch the light-- frost, a star edges with its fire.

3.3 the cliff temple

great, bright portal, shelf of rock, rocks fitted in long ledges, rocks fitted to dark, to silver granite, to lighter rock--clean cut, white against white. high--high--and no hill-goat tramples--no mountain-sheep has set foot on your fine grass; you lift, you are the world-edge, pillar for the sky-arch. the world heaved-- we are next to the sky: over us, sea-hawks shout, gulls sweep past-- the terrible breakers are silent from this place. below us, on the rock-edge, where earth is caught in the fissures of the jagged cliff, a small tree stiffens in the gale, it bends--but its white flowers are fragrant at this height. and under and under, the wind booms: it whistles, it thunders, it growls--it presses the grass beneath its great feet. i said: for ever and for ever, must i follow you through the stones? i catch at you--you lurch: you are quicker than my hand-grasp. i wondered at you. i shouted--dear--mysterious--beautiful-- white myrtle-flesh. i was splintered and torn: the hill-path mounted swifter than my feet. could a daemon avenge this hurt, i would cry to him--could a ghost, i would shout--o evil, follow this god, taunt him with his evil and his vice. shall i hurl myself from here, shall i leap and be nearer you? shall i drop, beloved, beloved, ankle against ankle? would you pity me, o white breast? if i woke, would you pity me, would our eyes meet? have you heard, do you know how i climbed this rock? my breath caught, i lurched forward-- stumbled in the ground-myrtle. have you heard, o god seated on the cliff, how far toward the ledges of your house, how far i had to walk? over me the wind swirls. i have stood on your portal and i know-- you are further than this, still further on another cliff.

3.4 orchard

i saw the first pear as it fell-- the honey-seeking, golden-banded, the yellow swarm was not more fleet than i, (spare us from loveliness) and i fell prostrate crying: you have flayed us with your blossoms, spare us the beauty of fruit-trees. the honey-seeking paused not, the air thundered their song, and i alone was prostrate. o rough-hewn god of the orchard, i bring you an offering-- do you, alone unbeautiful, son of the god, spare us from loveliness: these fallen hazel-nuts, stripped late of their green sheaths, grapes, red-purple, their berries dripping with wine, pomegranates already broken, and shrunken figs and quinces untouched, i bring you as offering.

3.5 sea gods

they say there is no hope-- sand--drift--rocks--rubble of the sea-- the broken hulk of a ship, hung with shreds of rope, pallid under the cracked pitch. they say there is no hope to conjure you-- no whip of the tongue to anger you-- no hate of words you must rise to refute. they say you are twisted by the sea, you are cut apart by wave-break upon wave-break, that you are misshapen by the sharp rocks, broken by the rasp and after-rasp. that you are cut, torn, mangled, torn by the stress and beat, no stronger than the strips of sand along your ragged beach. but we bring violets, great masses--single, sweet, wood-violets, stream-violets, violets from a wet marsh. violets in clumps from hills, tufts with earth at the roots, violets tugged from rocks, blue violets, moss, cliff, river-violets. yellow violets' gold, burnt with a rare tint-- violets like red ash among tufts of grass. we bring deep-purple bird-foot violets. we bring the

hyacinth-violet, sweet, bare, chill to the touch-- and violets whiter than the in-rush of your own white surf. for you will come, you will yet haunt men in ships, you will trail across the fringe of strait and circle the jagged rocks. you will trail across the rocks and wash them with your salt, you will curl between sand-hills-- you will thunder along the cliff--break--retreat--get fresh strength-- gather and pour weight upon the beach. you will draw back, and the ripple on the sand-shelf will be witness of your track. o privet-white, you will paint the lintel of wet sand with froth. you will bring myrrh-bark and drift laurel-wood from hot coasts! when you hurl high--high-- we will answer with a shout. for you will come, you will come, you will answer our taut hearts, you will break the lie of men's thoughts, and cherish and shelter us.

3.6 acon

bear me to dictaeus, and to the steep slopes; to the river erymanthus. i choose spray of dittany, cyperum, frail of flower, buds of myrrh, all-healing herbs, close pressed in calathes. for she lies panting, drawing sharp breath, broken with harsh sobs, she, hyella, whom no god pities. dryads haunting the groves, nereids who dwell in wet caves, for all the white leaves of olive-branch, and early roses, and ivy wreaths, woven gold berries, which she once brought to your altars, bear now ripe fruits from arcadia, and assyrian wine to shatter her fever. the light of her face falls from its flower, as a hyacinth, hidden in a far valley, perishes upon burnt grass. pales, bring gifts, bring your phoenician stuffs, and do you, fleet-footed nymphs, bring offerings, illyrian iris, and a branch of shrub, and frail-headed poppies.

3.7 night

the night has cut each from each and curled the petals back from the stalk and under it in crisp rows; under at an unfaltering pace, under till the rinds break, back till each bent leaf is parted from its stalk; under at a grave pace, under till the leaves are bent back till they drop upon earth, back till they are all broken. o night, you take the petals of the roses in your hand, but leave the stark core of the rose to perish on the branch.

book 4

4.1 prisoners

it is strange that i should want this sight of your face-- we have had so much: at any moment now i may pass, stand near the gate, do not speak-- only reach if you can, your face half-fronting the passage toward the light. fate--god sends this as a mark, a last token that we are not forgot, lost in this turmoil, about to be crushed out, burned or stamped out at best with sudden death. the spearsman who brings this will ask for the gold clasp you wear under your coat. i gave all i had left. press close to the portal, my gate will soon clang and your fellow wretches will crowd to the entrance-- be first at the gate. ah beloved, do not speak. i write this in great haste-- do not speak, you may yet be released. i am glad enough to depart though i have never tasted life as in these last weeks. it is a strange life, patterned in fire and letters on the prison pavement. if i glance up it is written on the walls, it is cut on the floor, it is patterned across the slope of the roof. i am weak--weak-- last night if the guard had left the gate unlocked i could not have ventured to escape, but one thought serves me now with strength. as i pass down the corridor past desperate faces at each cell, your eyes and my eyes may meet. you will be dark, unkempt, but i pray for one glimpse of your face-- why do i want this? i who have seen you at the banquet each flower of your hyacinth-circlet white against your hair. why do i want this, when even last night you startled me from sleep? you stood against the dark rock, you grasped an elder staff. so many nights you have distracted me from terror. once you lifted a spear-flower. i remember how you stooped to gather it-- and it flamed, the leaf and shoot and the threads, yellow, yellow - sheer till they burnt to red-purple in the cup. as i pass your cell-door do not speak. i was first on the list-- they may forget you tried to shield me as the horsemen passed.

4.2 storm

you crash over the trees, you crack the live branch-- the branch is white, the green crushed, each leaf is rent like split wood. you burden the trees with black drops, you swirl and crash-- you have broken off a weighted leaf in the wind, it is hurled out, whirls up and sinks, a green stone.

4.3 sea iris

weed, moss-weed, root tangled in sand, sea-iris, brittle flower, one petal like a shell is broken, and you print a shadow like a thin twig. fortunate one, scented and stinging, rigid myrrh-bud, camphor-flower, sweet and salt--you are wind in our nostrils. do the murex-fishers drench you as they pass? do your roots drag up colour from the sand? have they slipped gold under you-- rivets of gold? band of iris-flowers above the waves, you are painted blue, painted like a fresh prow stained among the salt weeds.

4.4 hermes of the ways

the hard sand breaks, and the grains of it are clear as wine. far off over the leagues of it, the wind, playing on the wide shore, piles little ridges, and the great waves break over it. but more than the many-foamed ways of the sea, i know him of the triple path-ways, hermes, who awaits. dubious, facing three ways, welcoming wayfarers, he whom the sea-orchard shelters from the west, from the east weathers sea-wind; fronts the great dunes. wind rushes over the dunes, and the coarse, salt-crusted grass answers. heu, it whips round my ankles! small is this white stream, flowing below ground from the poplar-shaded hill, but the water is sweet. apples on the small trees are hard, too small, too late ripened by a desperate sun that struggles through sea-mist. the boughs of the trees are twisted by many bafflings; twisted are the small-leafed boughs. but the shadow of them is not the shadow of the mast head nor of the torn sails. hermes, hermes, the great sea foamed, gnashed its teeth about me; but you have waited, were sea-grass tangles with shore-grass.

4.5 pear tree

silver dust lifted from the earth, higher than my arms reach, you have mounted, o silver, higher than my arms reach you front us with great mass; flower ever opened so staunch a white leaf, no flower ever parted silver from such rare silver; o white pear, your flower-tufts thick on the branch bring summer and ripe fruits in their purple hearts.

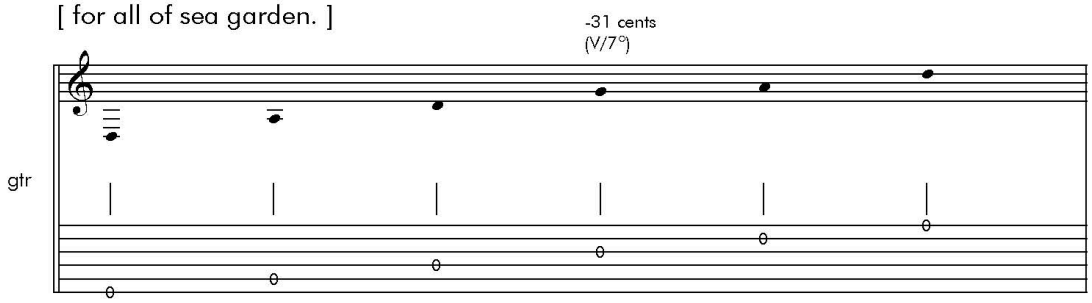
4.6 cities

can we believe--by an effort comfort our hearts: it is not waste all this, not placed here in disgust, street after street, each patterned alike, no grace to lighten a single house of the hundred crowded into one garden-space. crowded-- can we believe, not in utter disgust, in ironical play-- but the maker of cities grew faint with the beauty of temple and space before temple, arch upon perfect arch, of pillars and corridors that led out to strange court-yards and porches where sun-light stamped hyacinth-shadows black on the pavement. that the maker of cities grew faint with the splendour of palaces, paused while the incense-flowers from the incense-trees dropped on the marble-walk, thought anew, fashioned this-- street after street alike. for alas, he had crowded the city so full that men could not grasp beauty, beauty was over them, through them, about them, no crevice unpacked with the honey, rare, measureless. so he built a new city, ah can we believe, not ironically but for new splendor constructed new people to lift through slow growth to a beauty unrivalled yet-- and created new cells, hideous first, hideous now-- spread larve across them, not honey but seething life. and in these dark cells, packed street after street, souls live, hideous yet-- o disfigured, defaced, with no trace of the beauty men once held so light. can we think a few old cells were left--we are left-- grains of honey, old dust of stray pollen dull on our torn wings, we are left to recall the old streets? is our task the less sweet that the larve still sleep in their cells? or crawl out to attack our frail strength: you are useless. we live. we await great events. we are spread through this earth. we protect our strong race. you are useless. your cell takes the place of our young future strength. though they sleep or wake to torment and wish to displace our old cells-- thin rare gold-- that their larve grow fat-- is our task the less sweet? though we wander about, find no honey of flowers in this waste, is our task the less sweet-- who recall the old splendour, await the new beauty of cities?

4.7 the city is peopled

the city is peopled with spirits, not ghosts, o my love: though they crowded between and usurped the kiss of my mouth their breath was your gift, their beauty, your life.

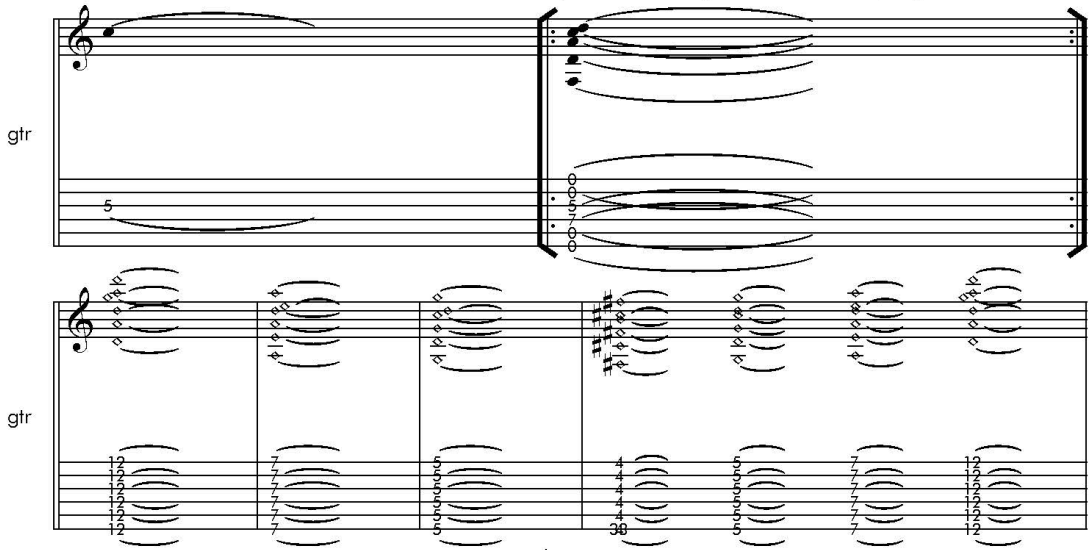
guitar tuning
[for all of sea garden.]



red sky (at night)

slow.
relatively coordinated between L/R guitars.
tone: fuzz with lots of bass

8x
[each time slowing down the rake of the pick]



3x

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with slide:

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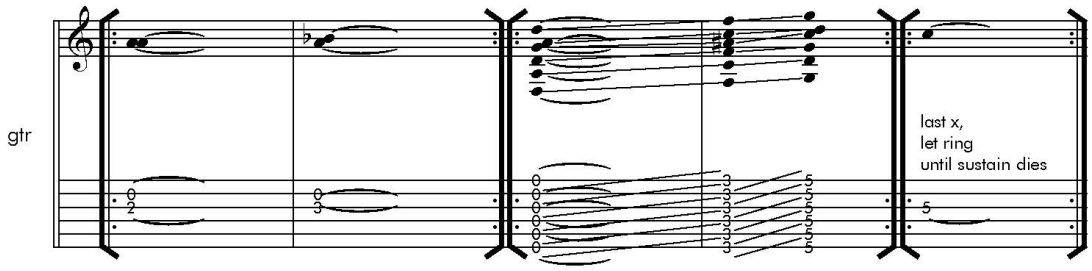

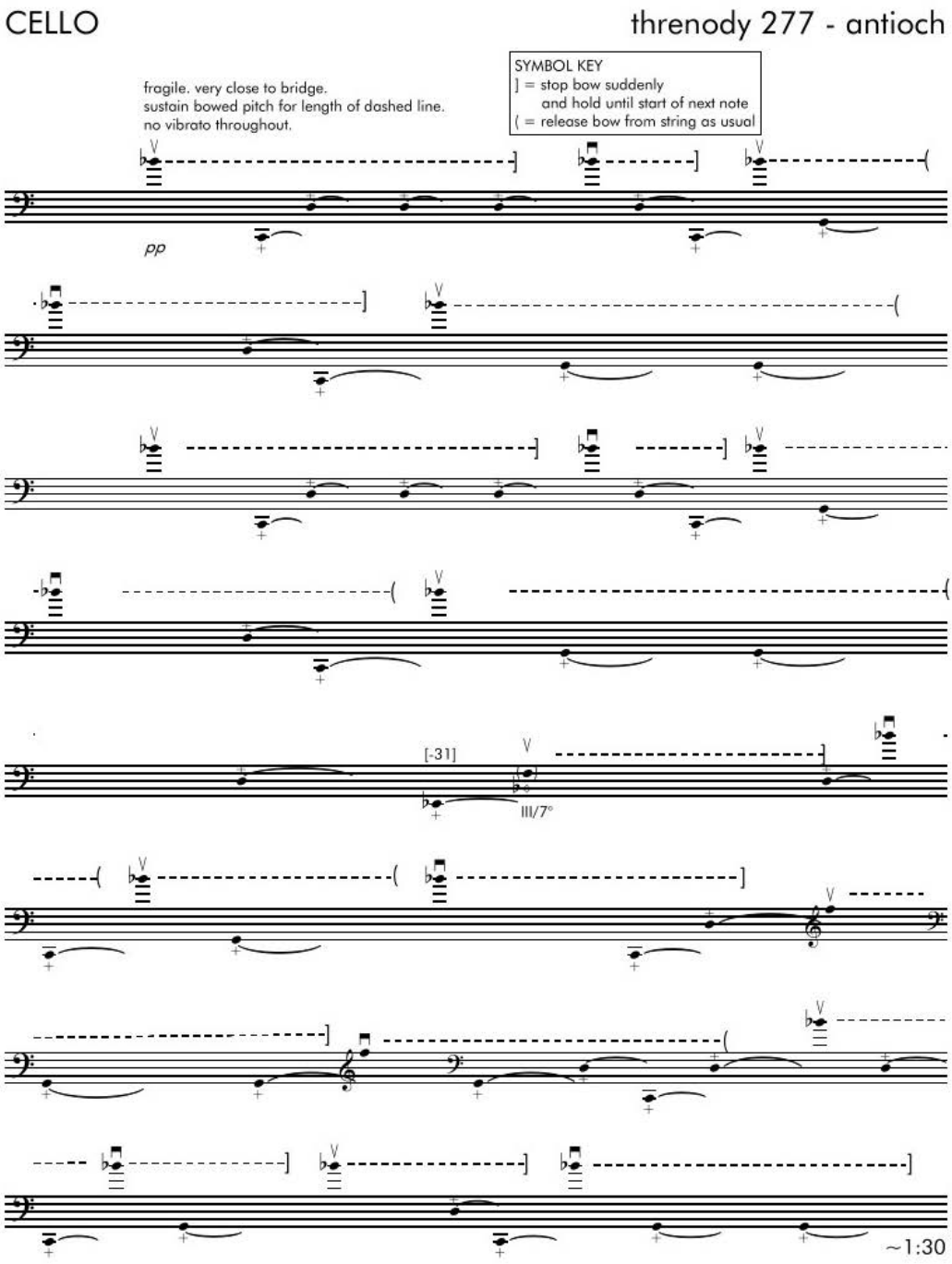
CELLO
threnody 277 - antioch
SYMBOL KEY
] = stop bow suddenly
and hold until start of next note
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fragile. very close to bridge.
sustain bowed pitch for length of dashed line.
no vibrato throughout.
pp
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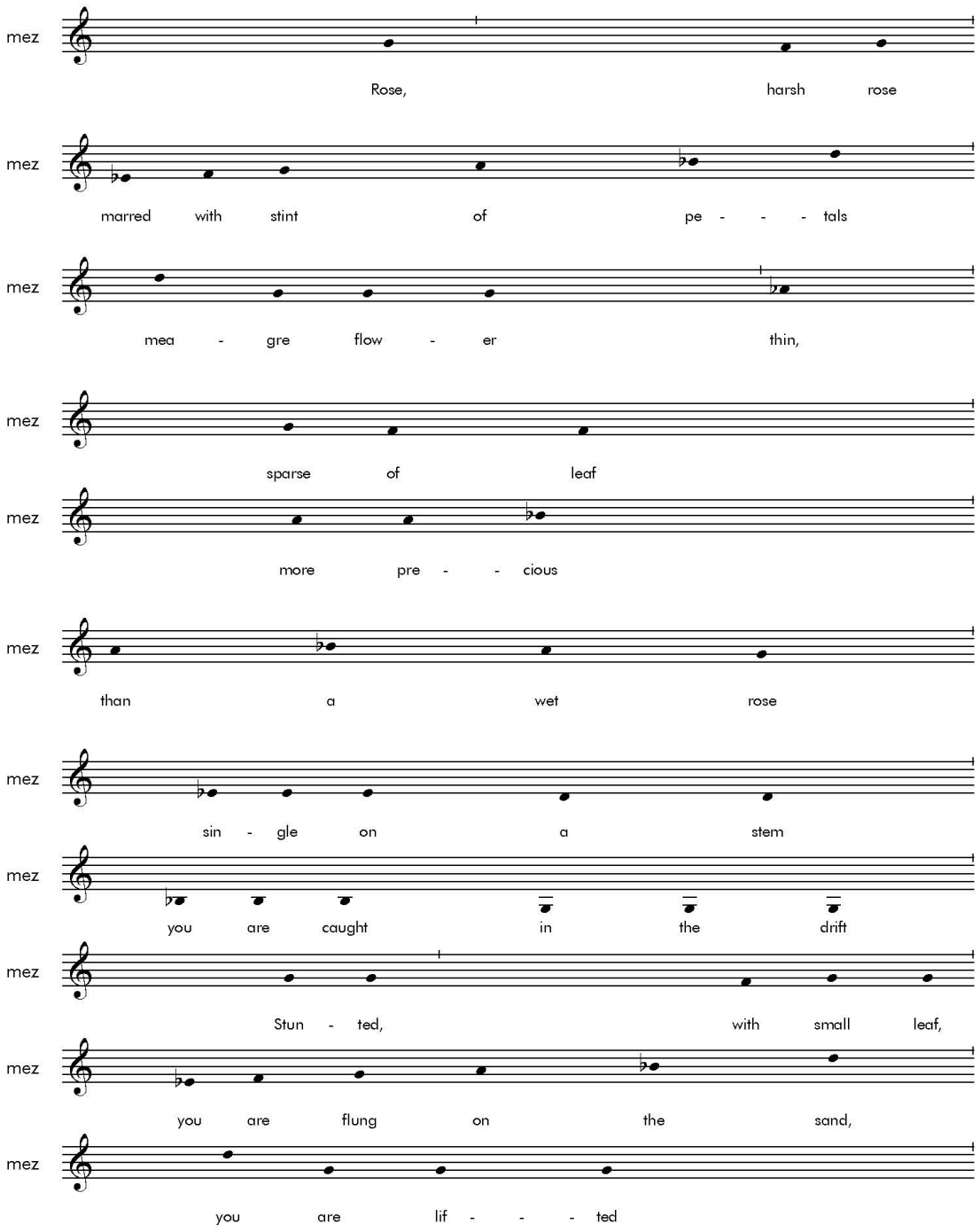
III/7°
~1:30

1.1 sea rose


mez
Rose, harsh rose
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more pre - - cious
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than a wet rose
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sin - gle on a stem
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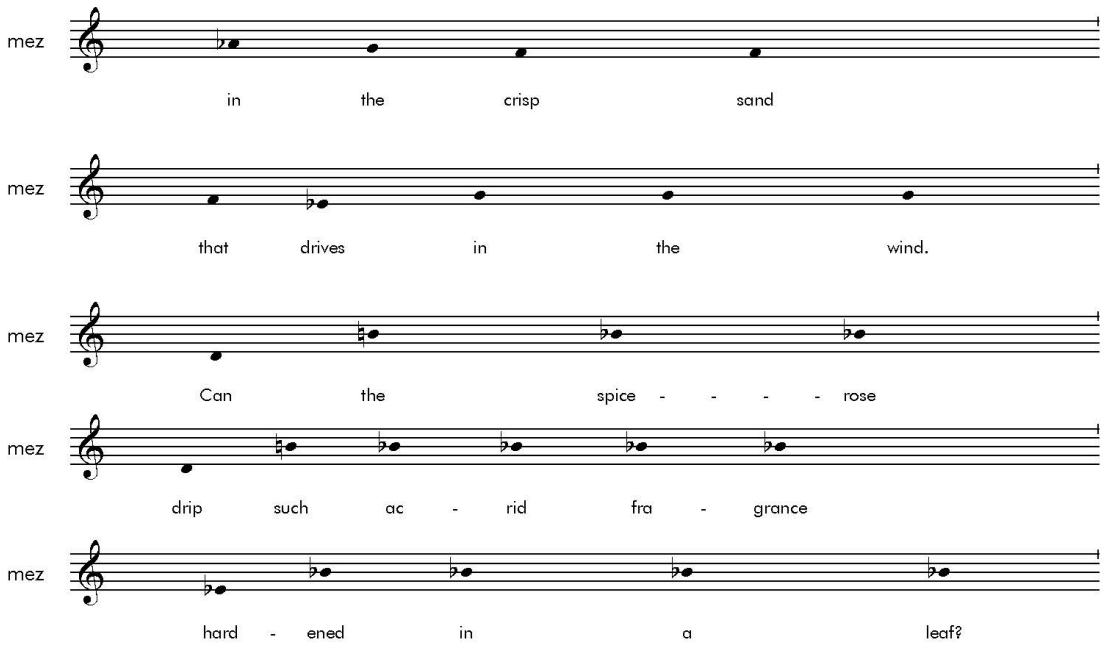
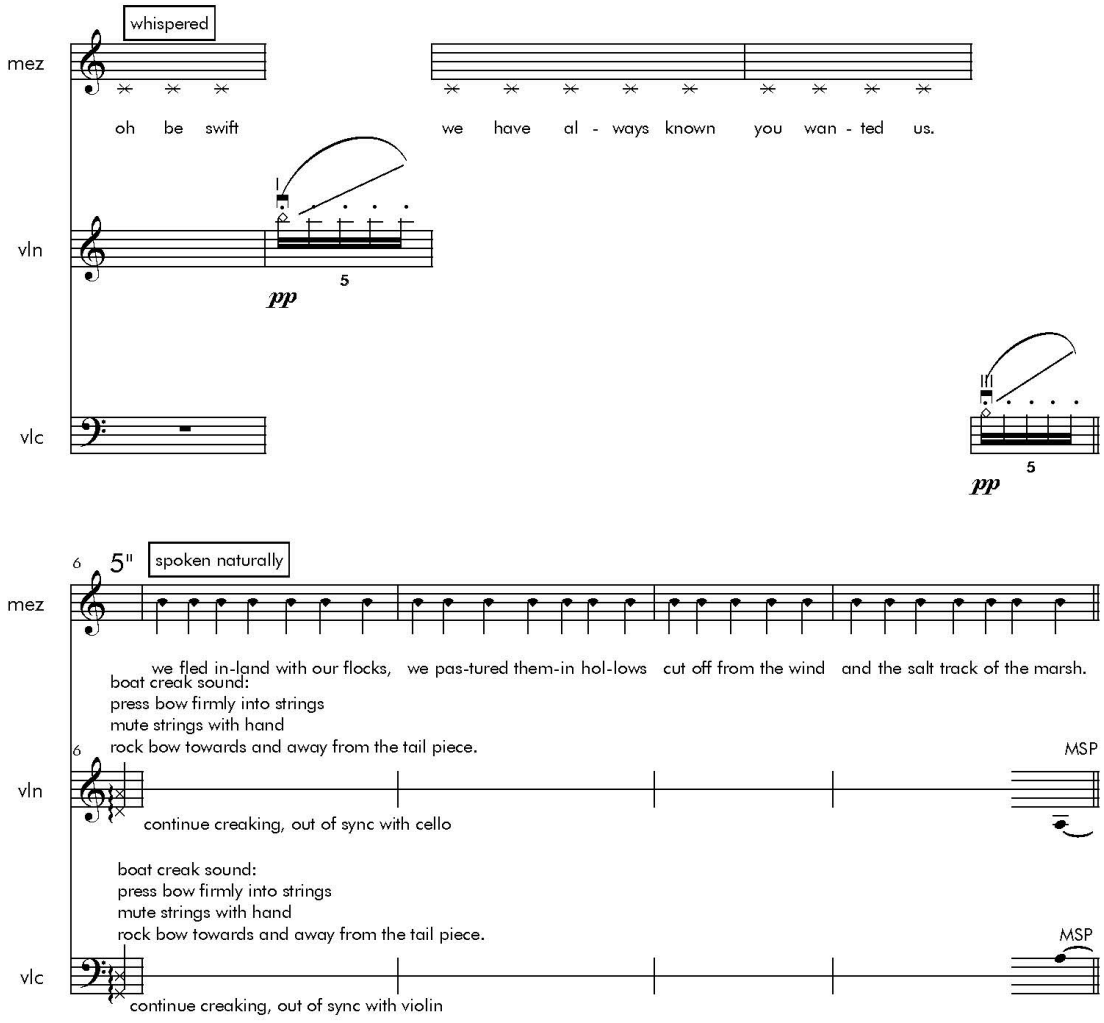
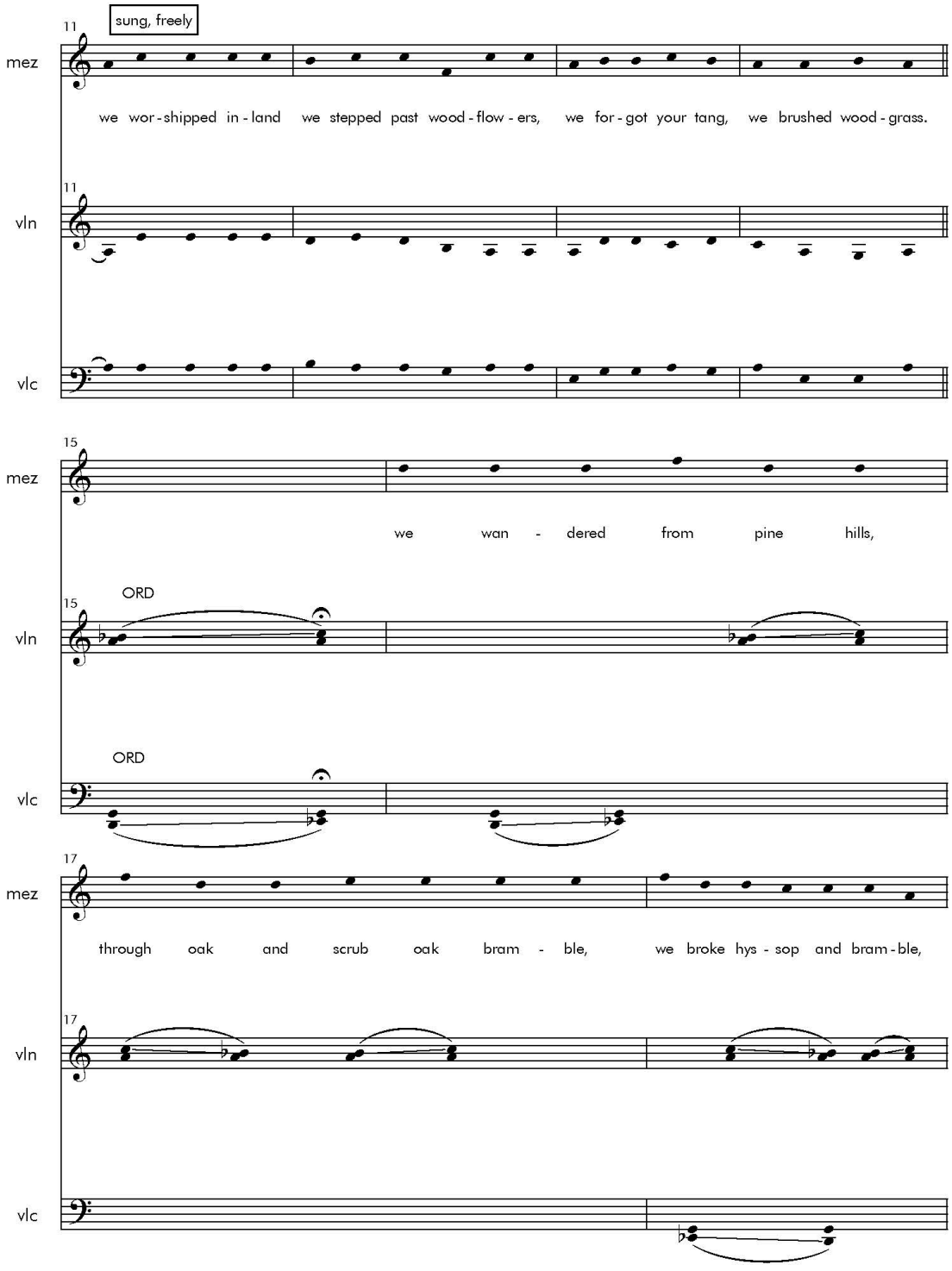
you are caught in the drift
mez
Stun - ted, with small leaf,
mez
you are flung on the sand,
mez
you are lif - - - ted

1.1 sea rose

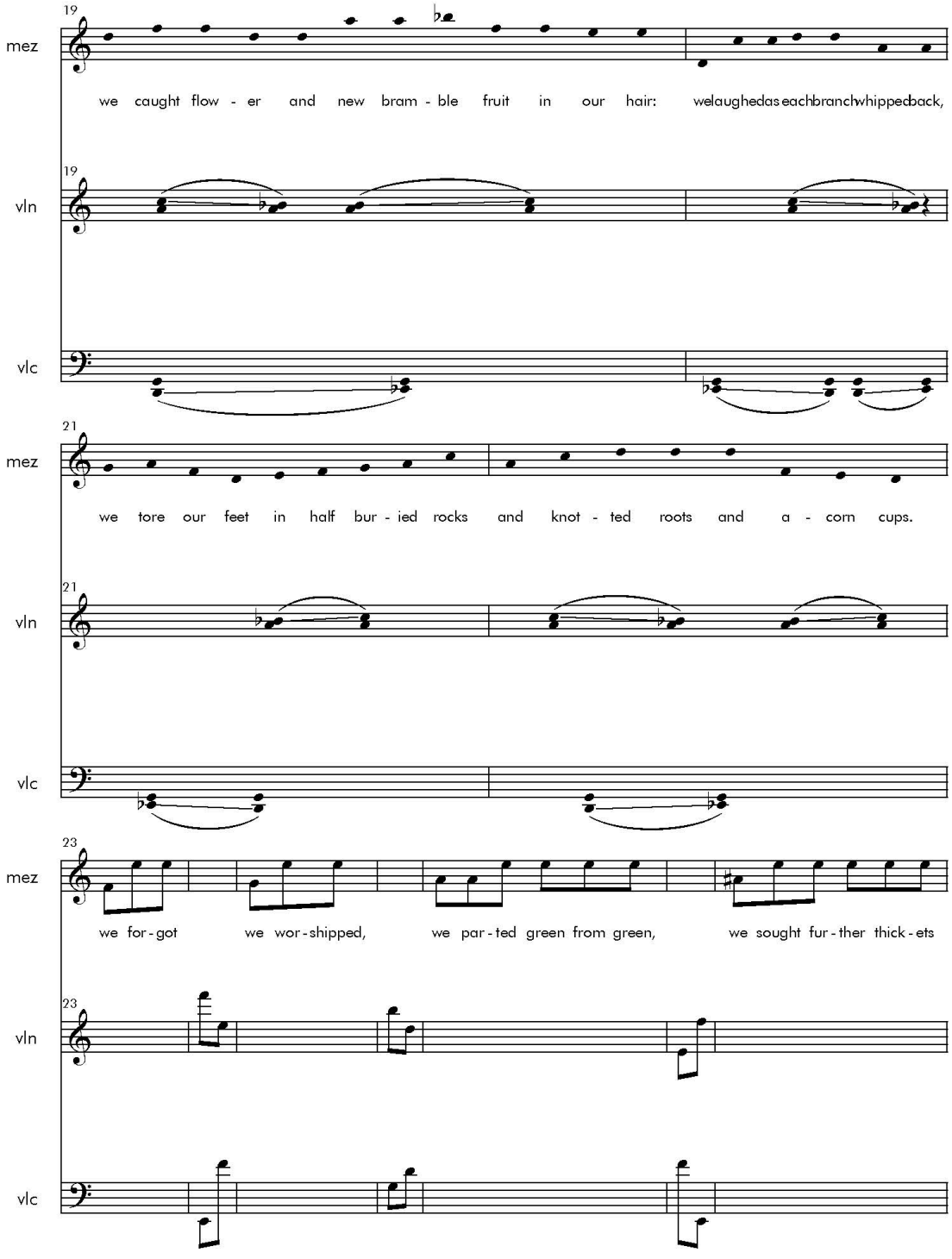

mez
in the crisp sand
mez
that drives in the wind.
mez
Can the spice - - - - rose
mez
drip such ac - rid fra - grance
mez
hard - ened in a leaf?


whispered
mez
oh be swift
we have al - ways known you wan - ted us.
vln
I
5
pp
vlc
III
5
pp
6
5"
spoken naturally
mez
we fled in-land with our flocks, we pas-tured them-in hol-lows cut off from the wind and the salt track of the marsh.
boat creak sound:
press bow firmly into strings
mute strings with hand
rock bow towards and away from the tail piece.
6
MSP
vln
continue creaking, out of sync with cello
boat creak sound:
press bow firmly into strings
mute strings with hand
rock bow towards and away from the tail piece.
MSP
vlc
continue creaking, out of sync with violin

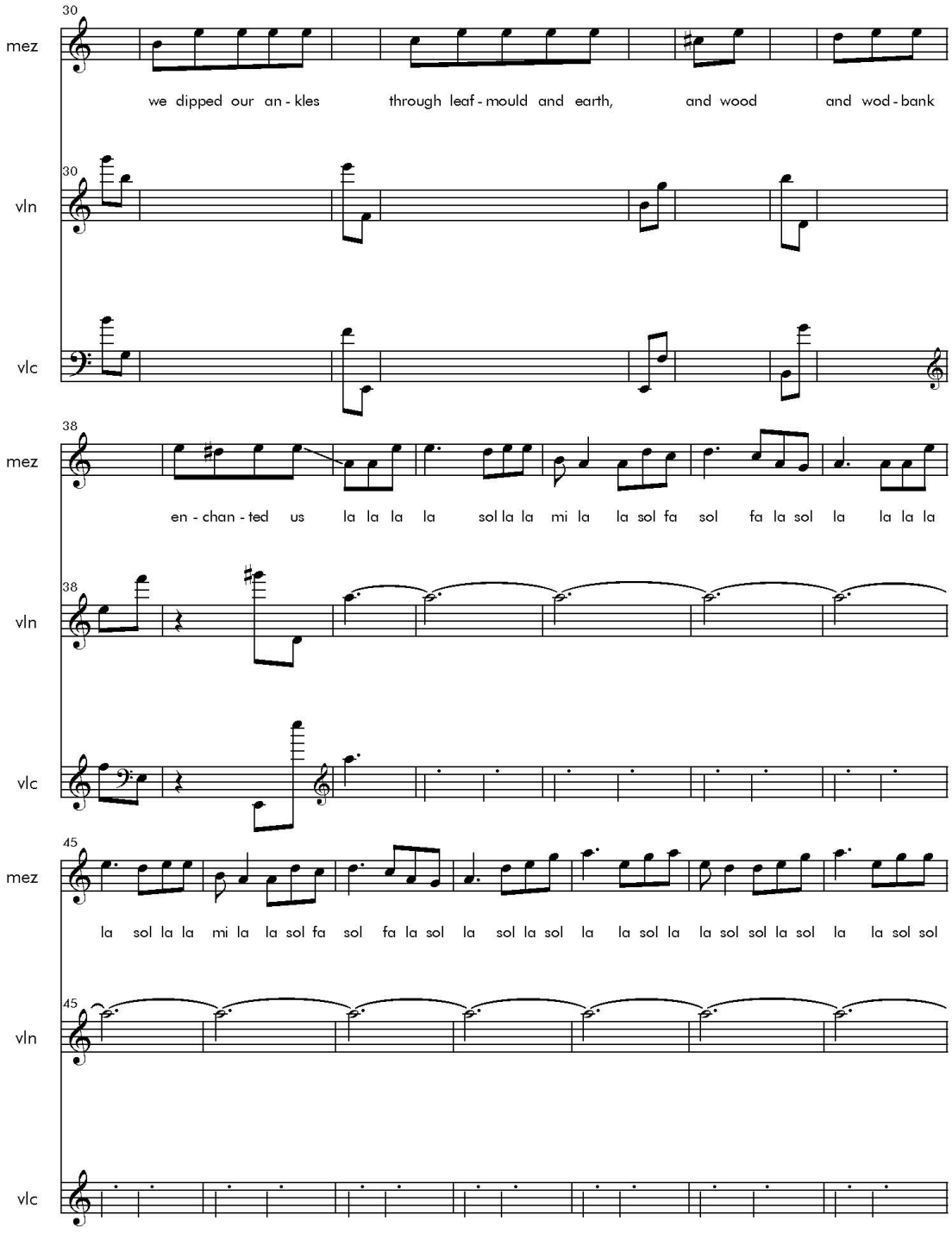
1.2 the helmsman

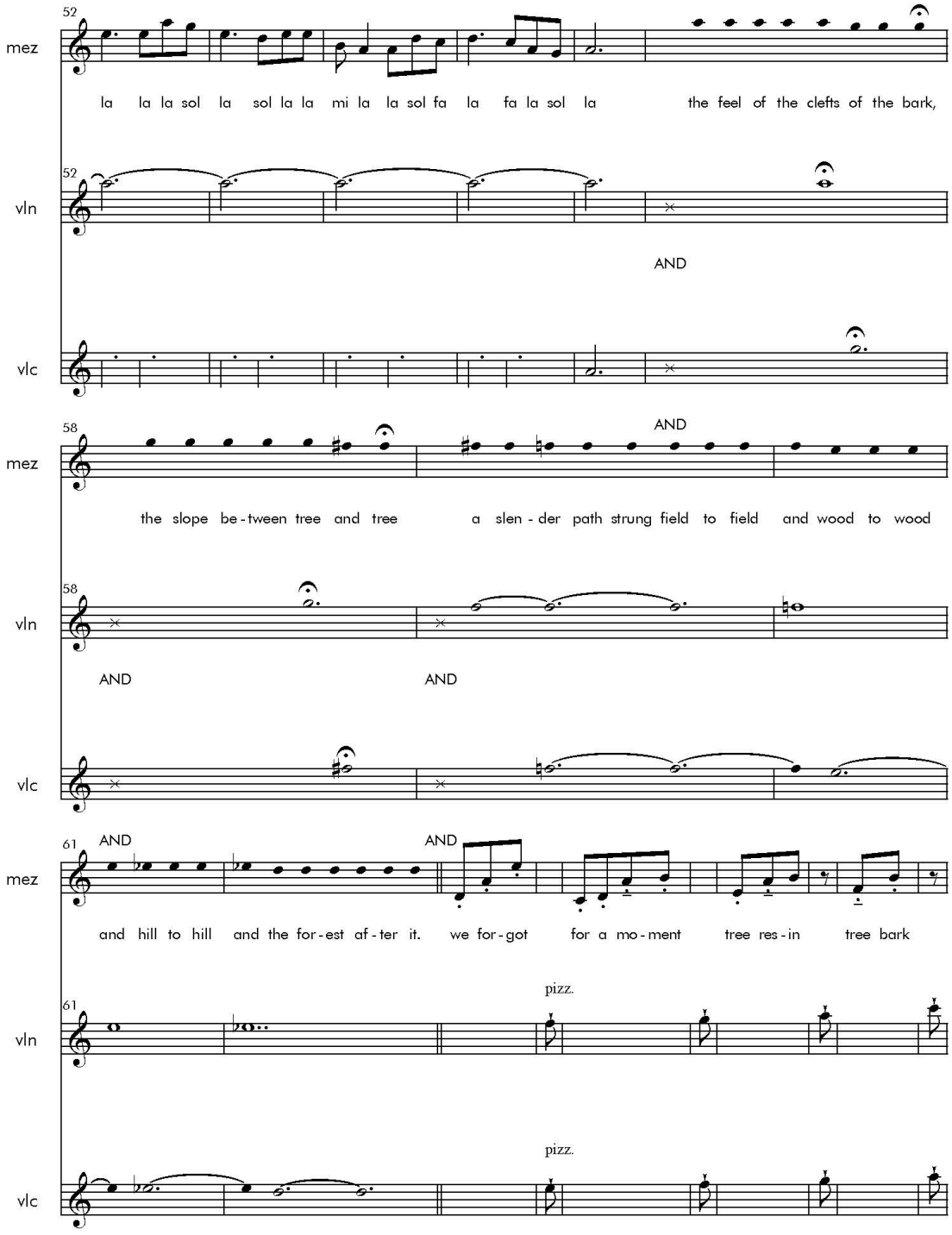


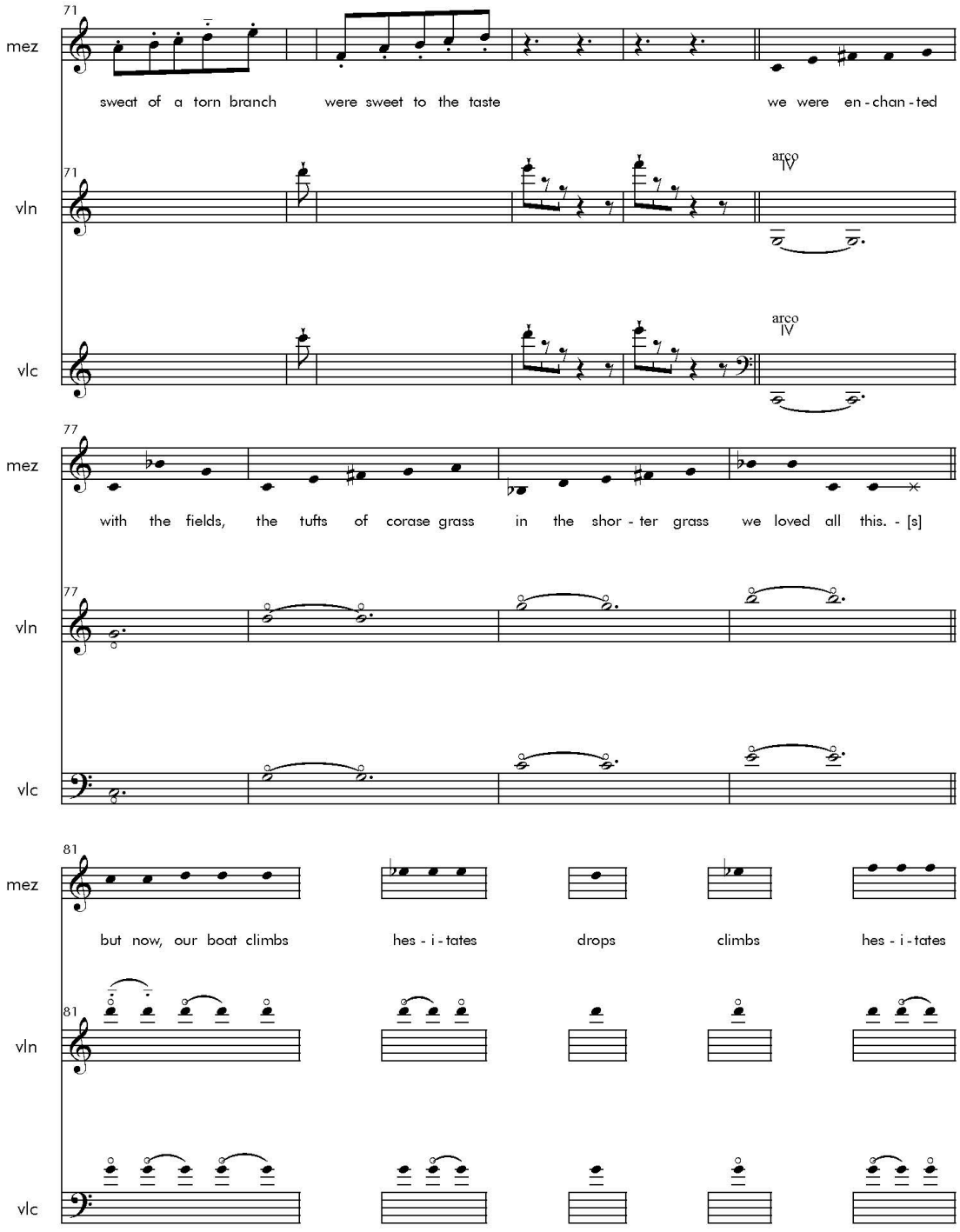
1.2 the helmsman



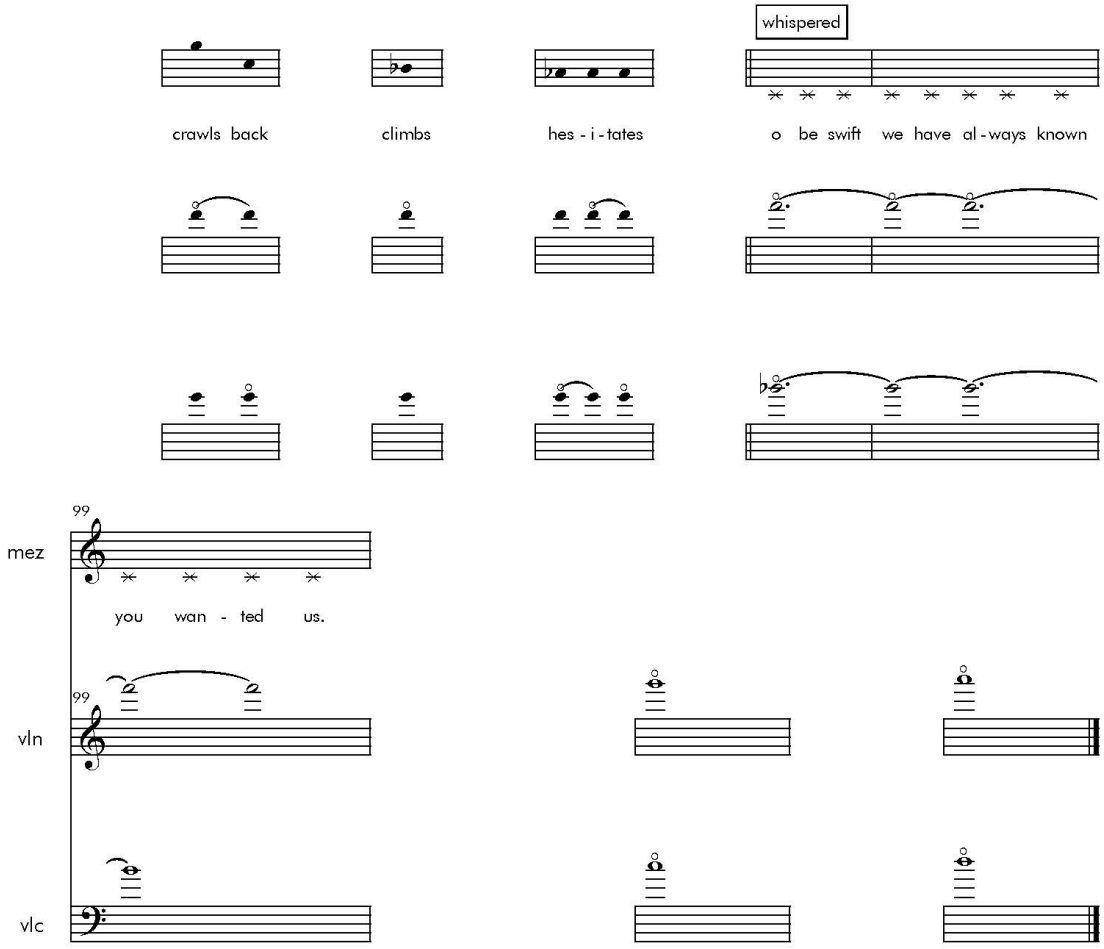
1.2 the helmsman



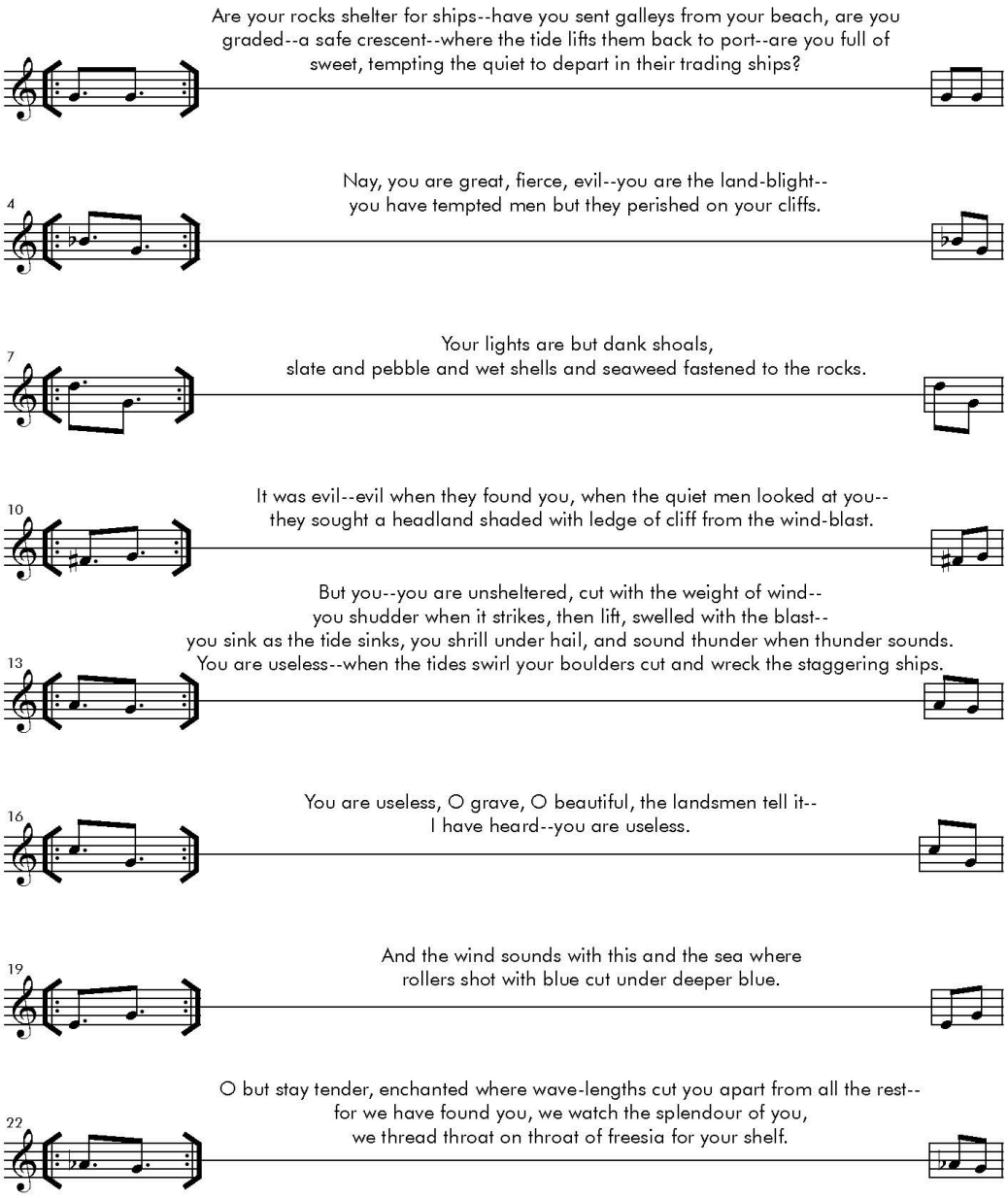

52
mez
la la la sol la sol la la mi la la sol fa la fa la sol la
the feel of the clefts of the bark,
52
vln
AND
vlc
58
AND
mez
the slope be-tween tree and tree
a slen-der path strung field to field and wood to wood
58
vln
AND
AND
vlc
61
AND
AND
mez
and hill to hill and the for-est af-ter it.
we for-got
for a mo-ment
tree res-in
tree bark
pizz.
61
vln
pizz.
vlc


71
mez
sweat of a torn branch
were sweet to the taste
we were en - chan - ted
71
vln
arco
IV
vlc
arco
IV
77
mez
with the fields, the tufts of corase grass
in the shor - ter grass
we loved all this. - [s]
77
vln
vlc
81
mez
but now, our boat climbs
hes - i - tates
drops
climbs
hes - i - tates
81
vln
vlc

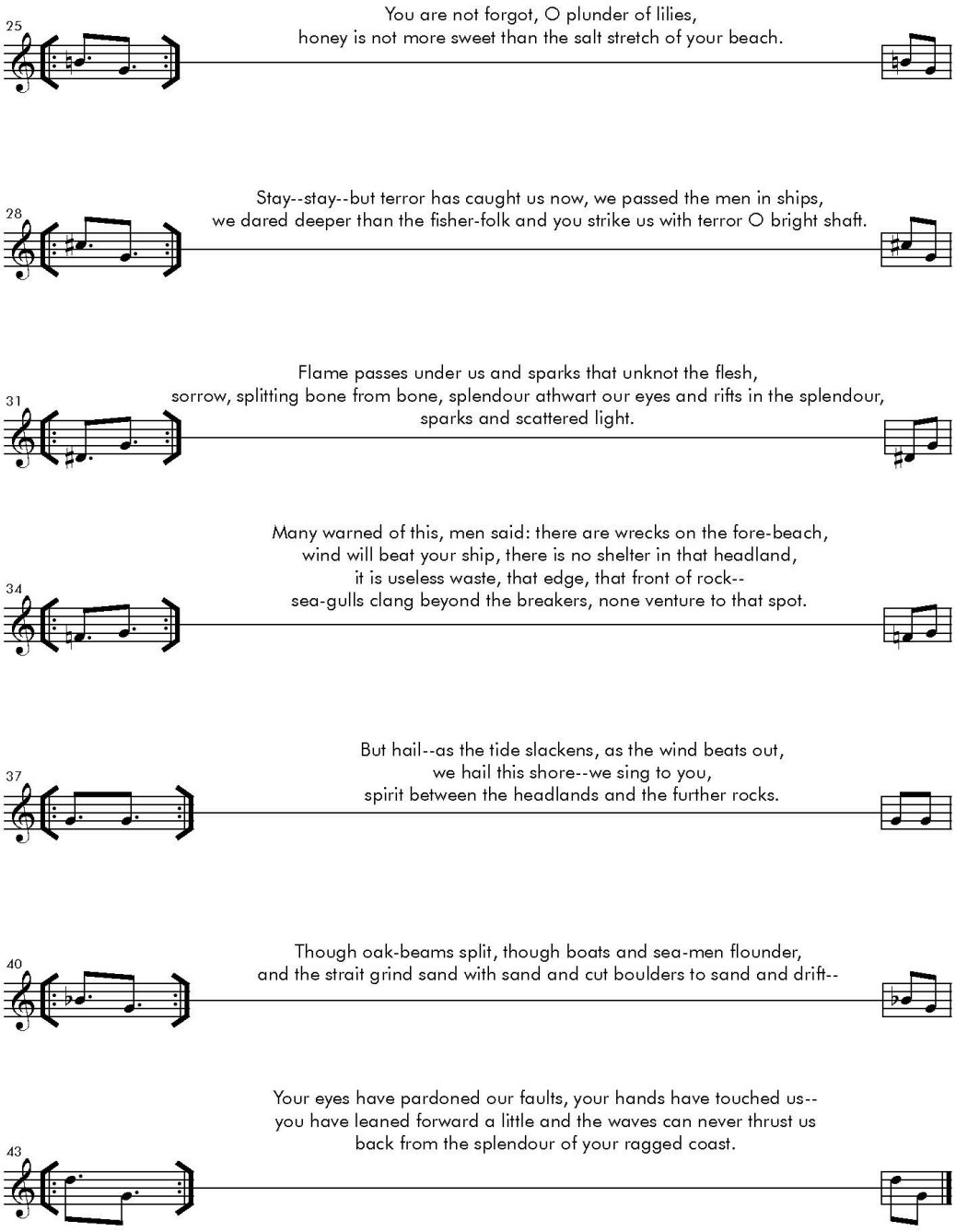
1.2 the helmsman



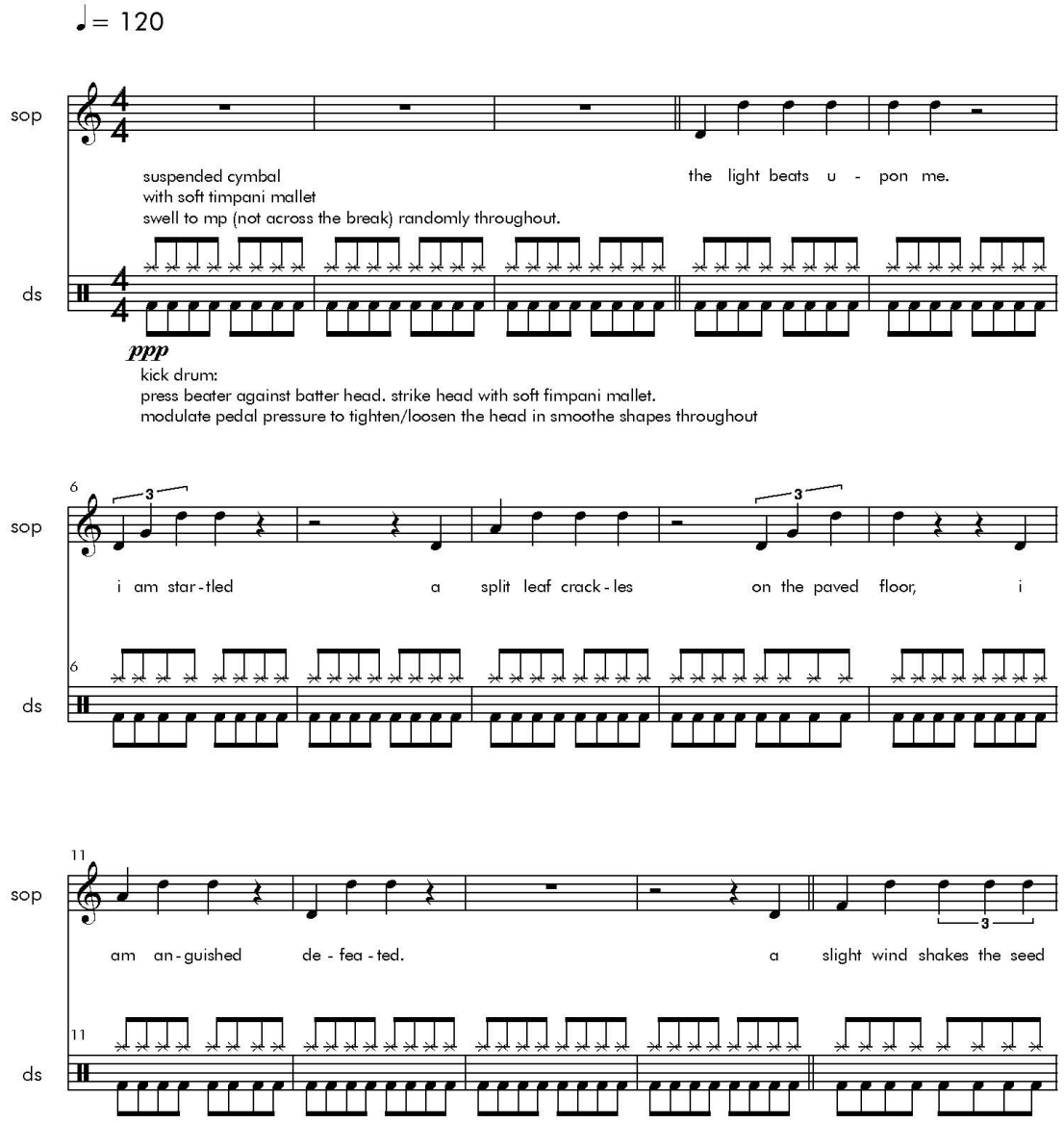
1.3 the shrine



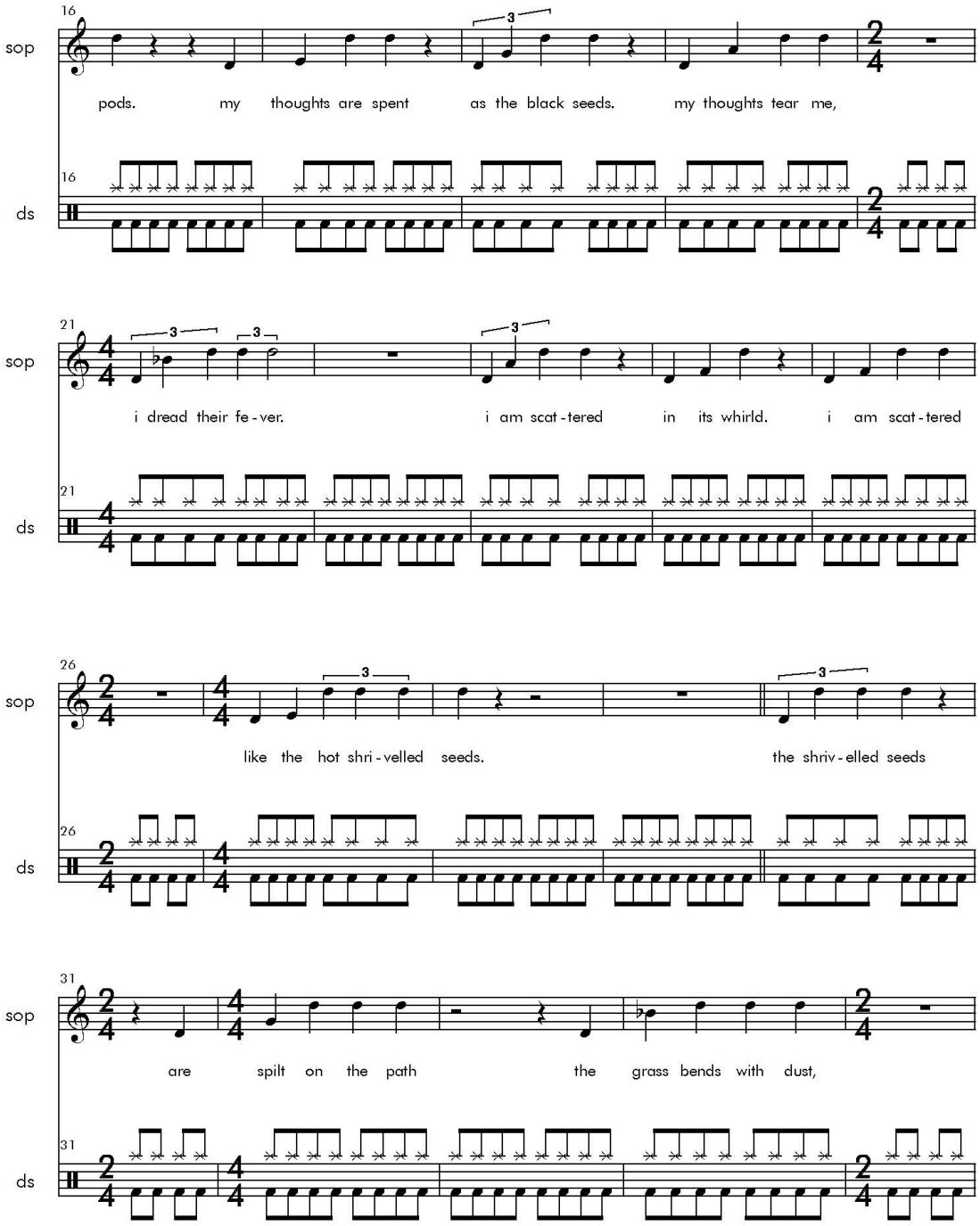
1.3 the shrine



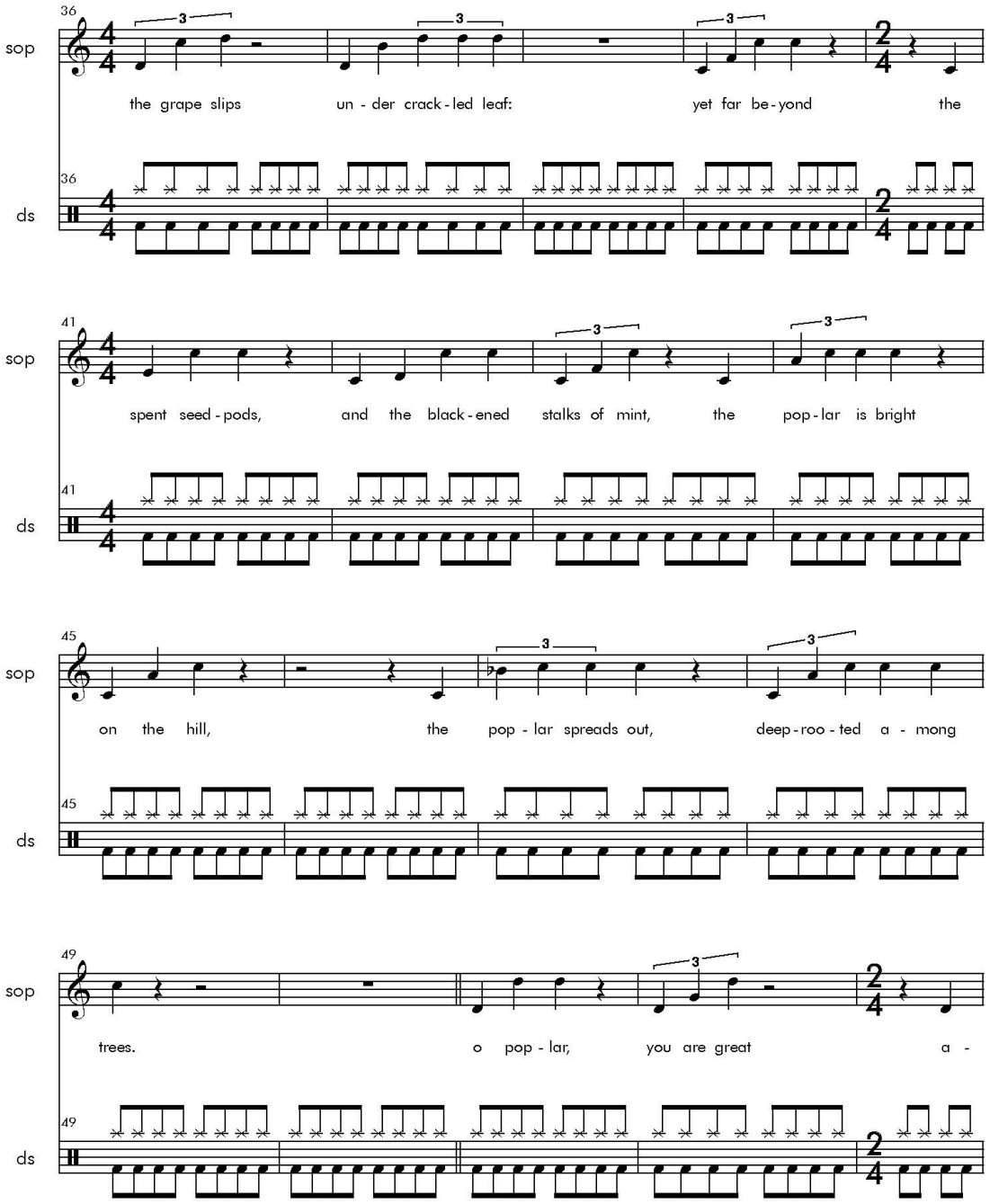
1.4 mid-day


♩= 120
sop
ds
suspended cymbal
with soft timpani mallet
swell to mp (not across the break) randomly throughout.
the light beats u - pon me.
ppp
kick drum:
press beater against batter head. strike head with soft timpani mallet.
modulate pedal pressure to tighten/loosen the head in smoothe shapes throughout
i am star-tled
a split leaf crack-les
on the paved floor,
i
am an-guished
de - fea - ted.
a slight wind shakes the seed

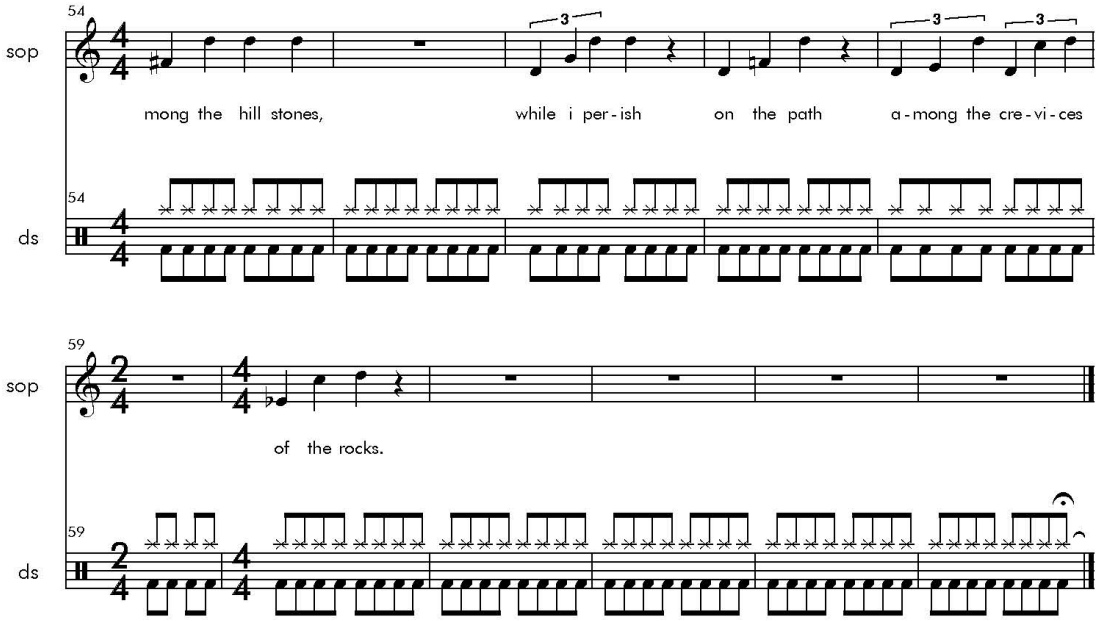
1.4 mid-day


16
sop
pods. my thoughts are spent as the black seeds. my thoughts tear me,
16
ds
21
sop
i dread their fe - ver. i am scat - tered in its whirld. i am scat - tered
21
ds
26
sop
like the hot shri - velled seeds. the shriv - elled seeds
26
ds
31
sop
are spilt on the path the grass bends with dust,
31
ds

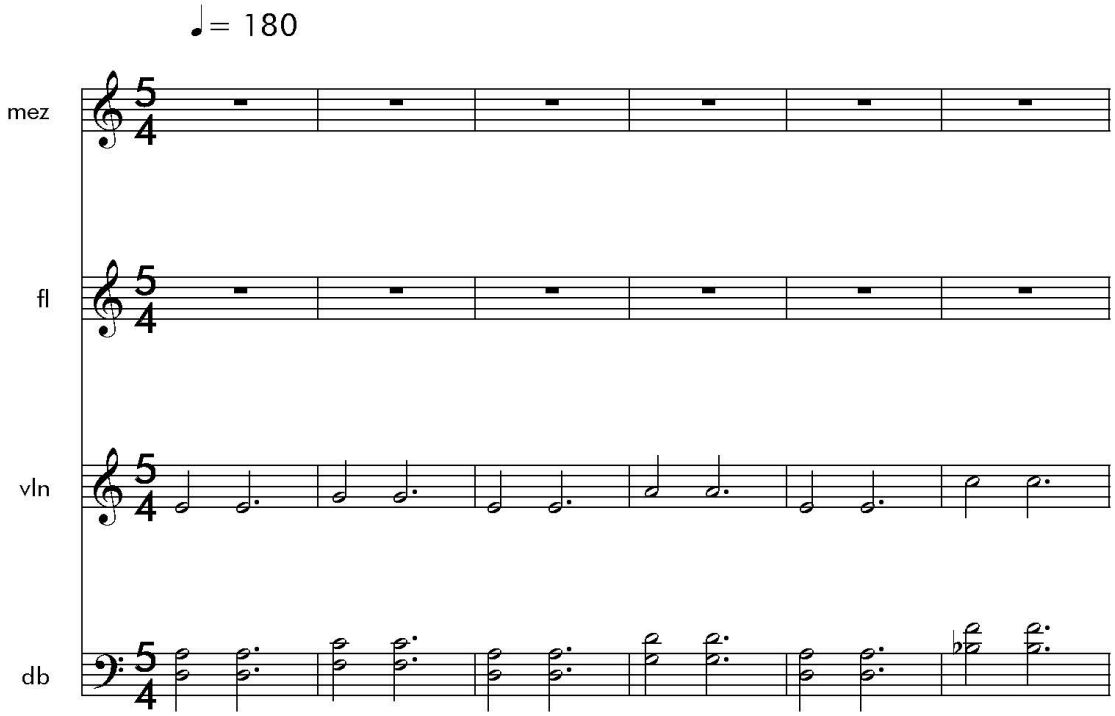
1.4 mid-day

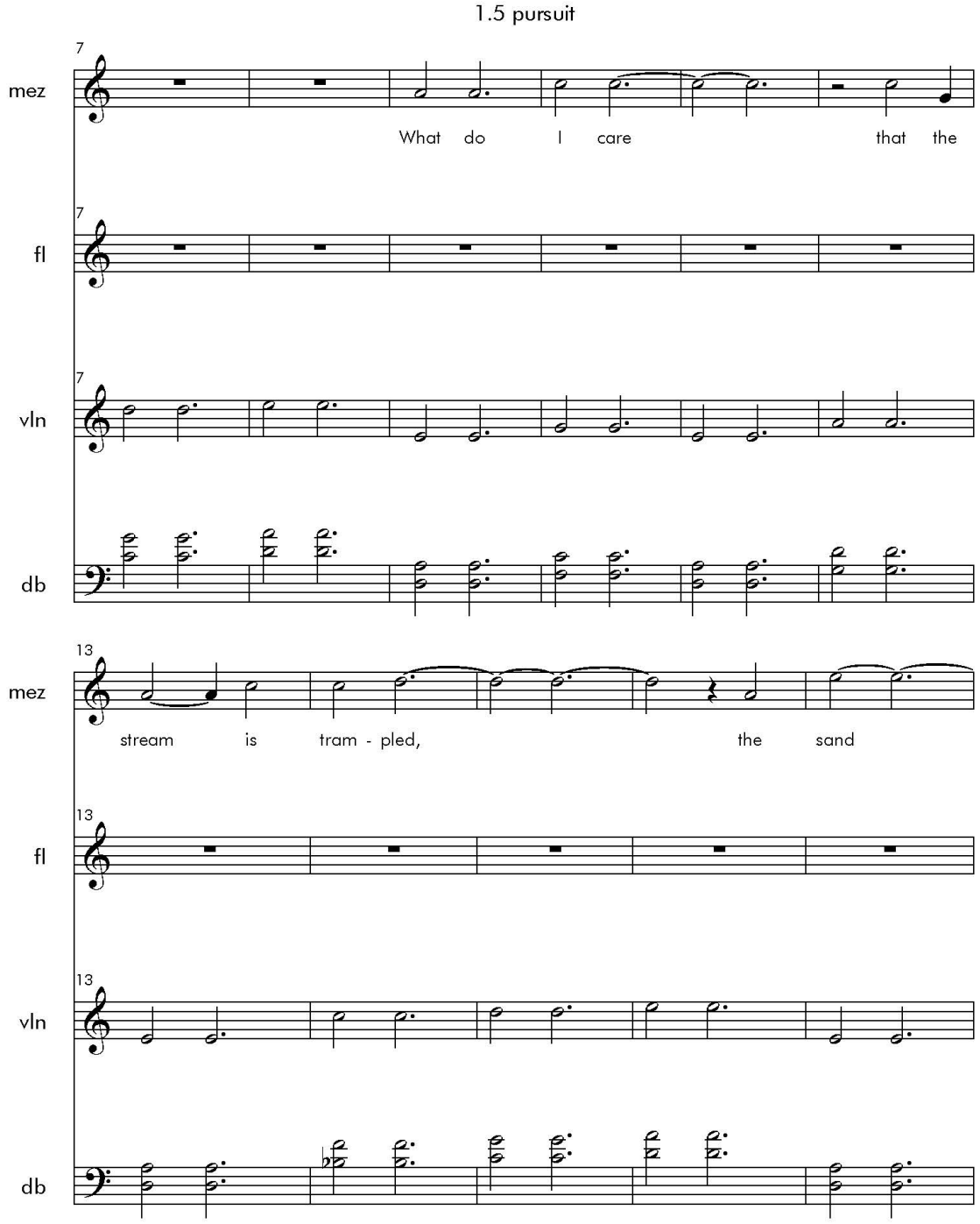

36
sop
the grape slips un - der crack - led leaf: yet far be - yond the
36
ds
41
sop
spent seed - pods, and the black - ened stalks of mint, the pop - lar is bright
41
ds
45
sop
on the hill, the pop - lar spreads out, deep - roo - ted a - mong
45
ds
49
sop
trees. o pop - lar, you are great a -
49
ds

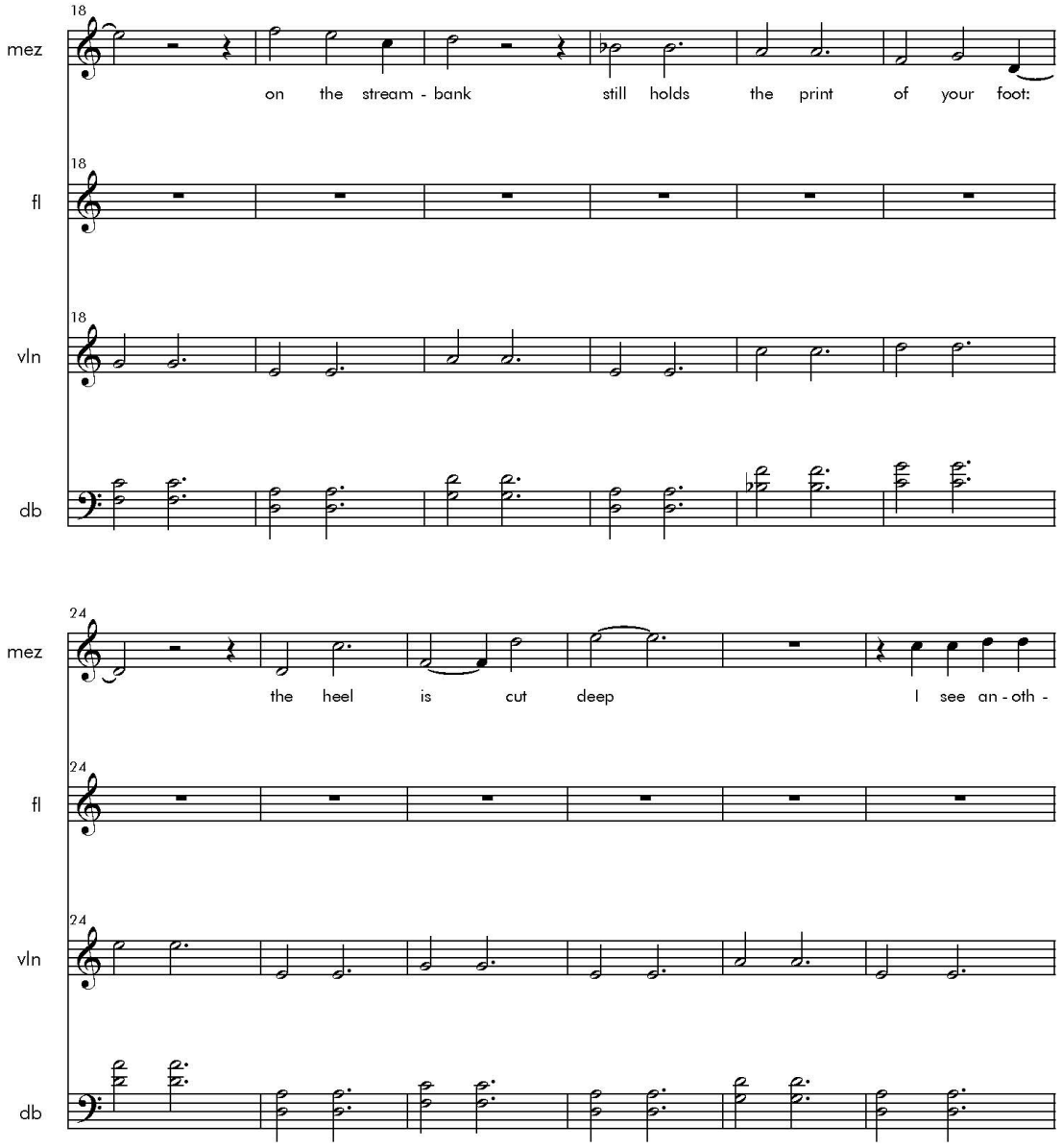
1.4 mid-day

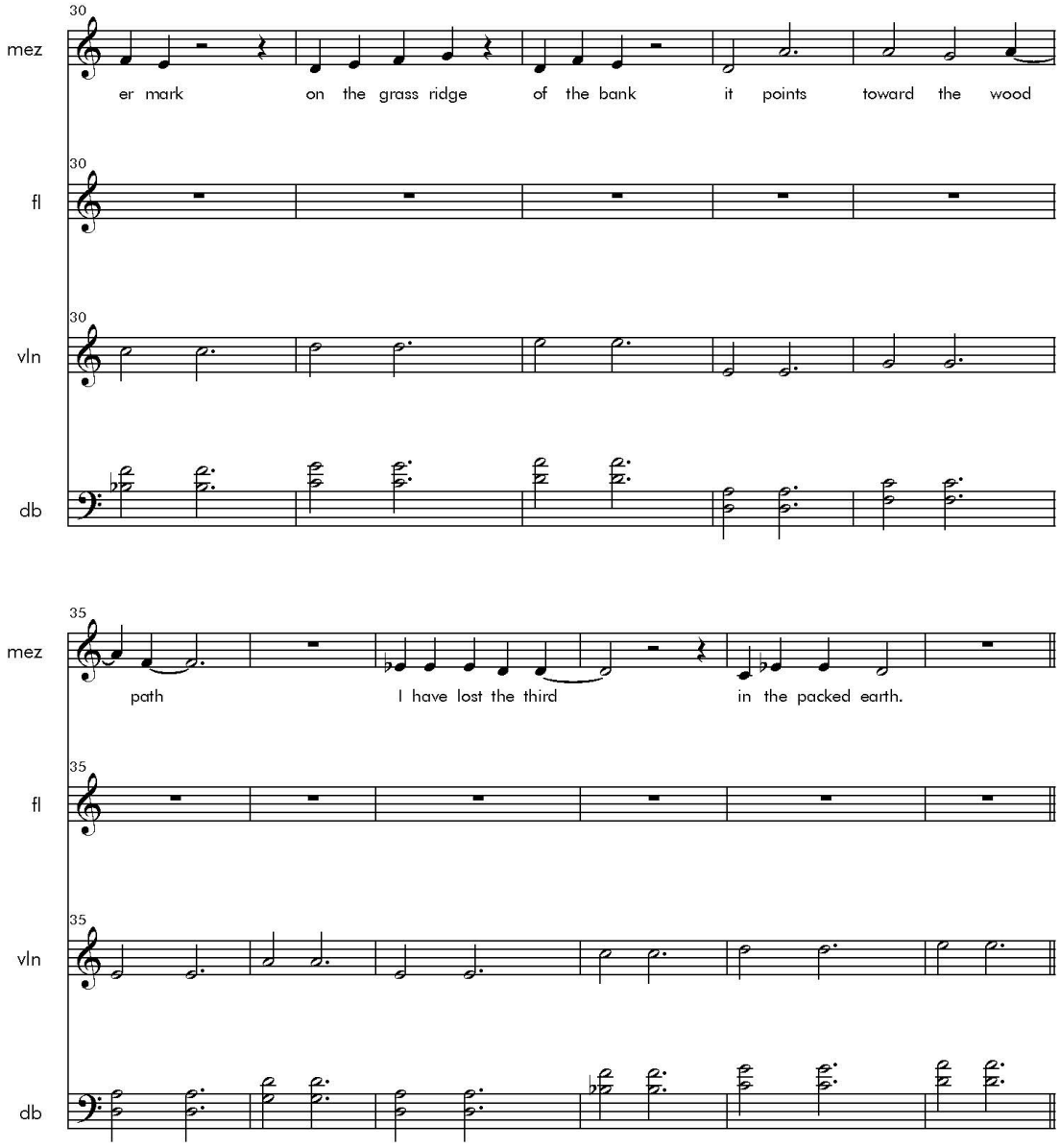

54
sop
mong the hill stones,
while i per-ish
on the path
a-mong the cre-vi-ces
54
ds
59
sop
of the rocks.
59
ds

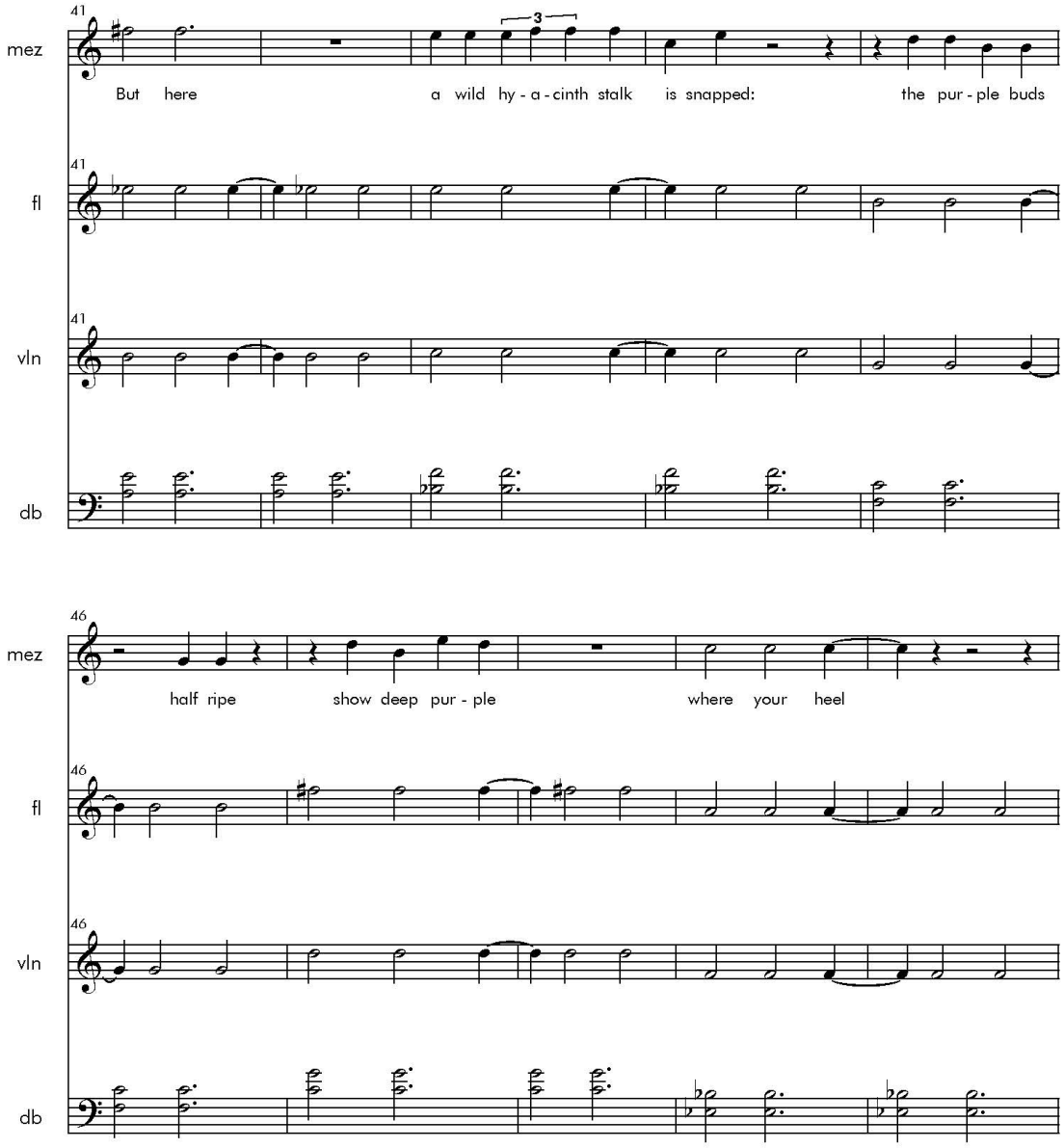
1.5 pursuit

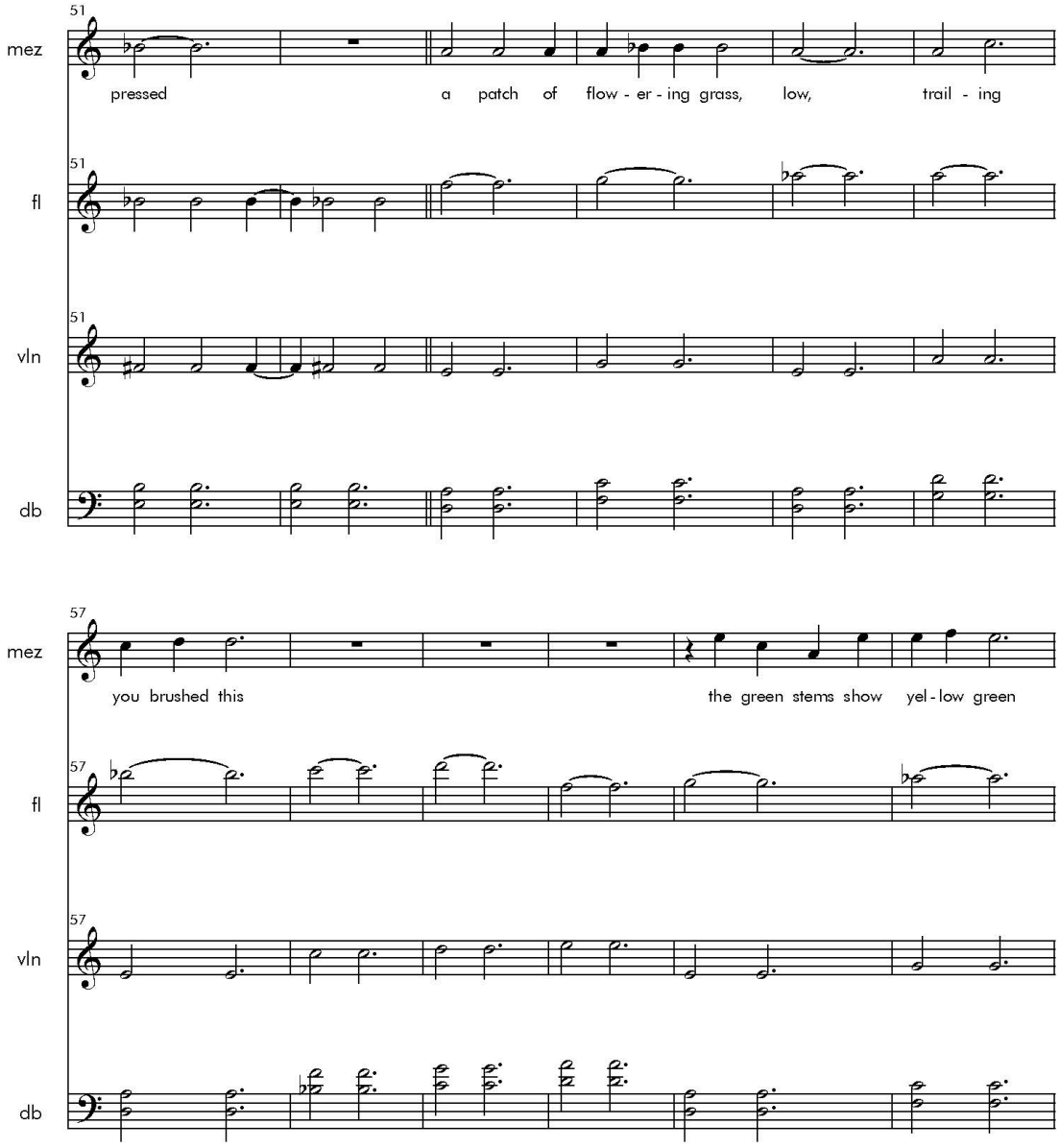


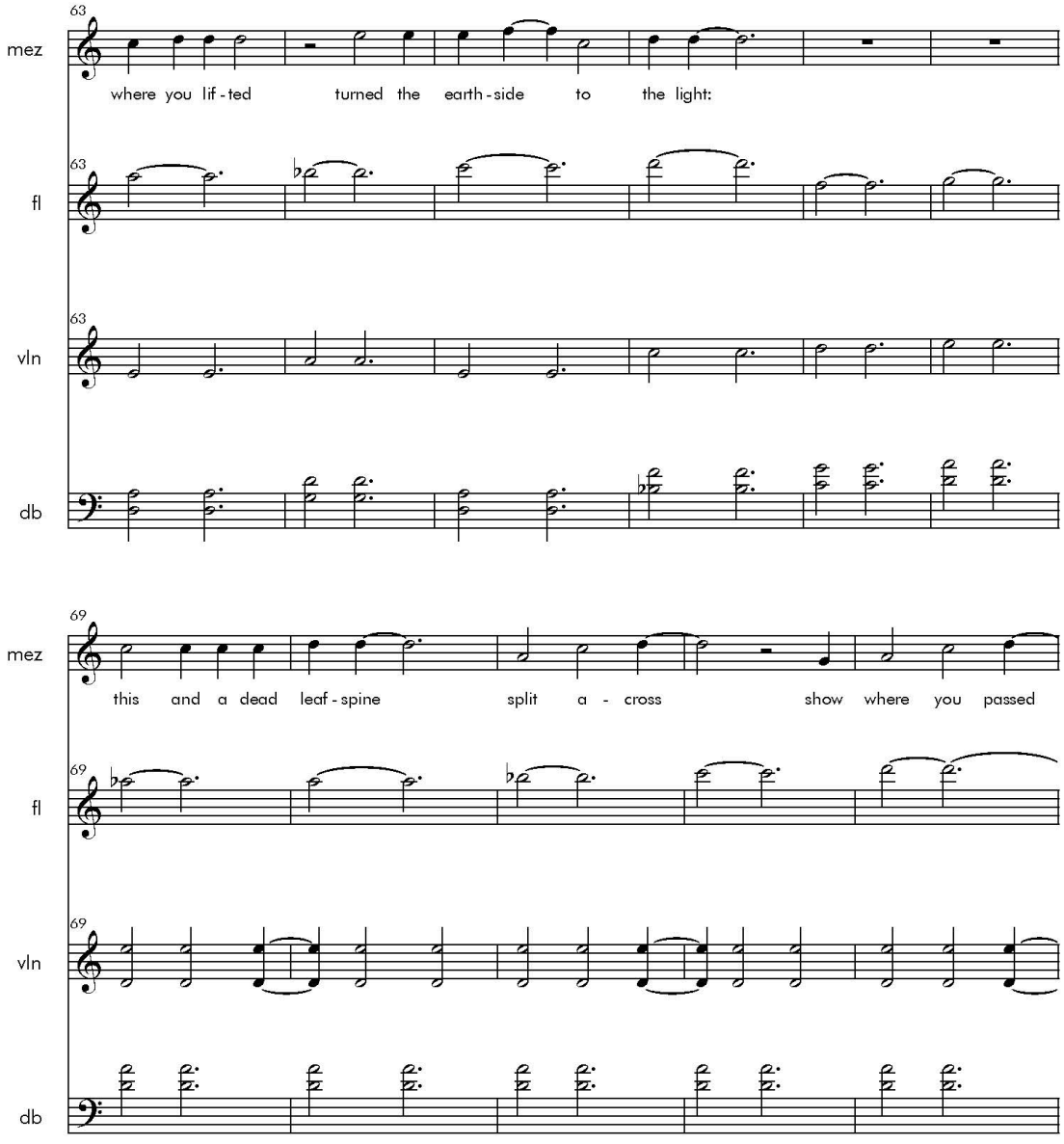

1.5 pursuit
7
mez
What do I care that the
7
fl
7
vln
db
13
mez
stream is tram - pled, the sand
13
fl
13
vln
db

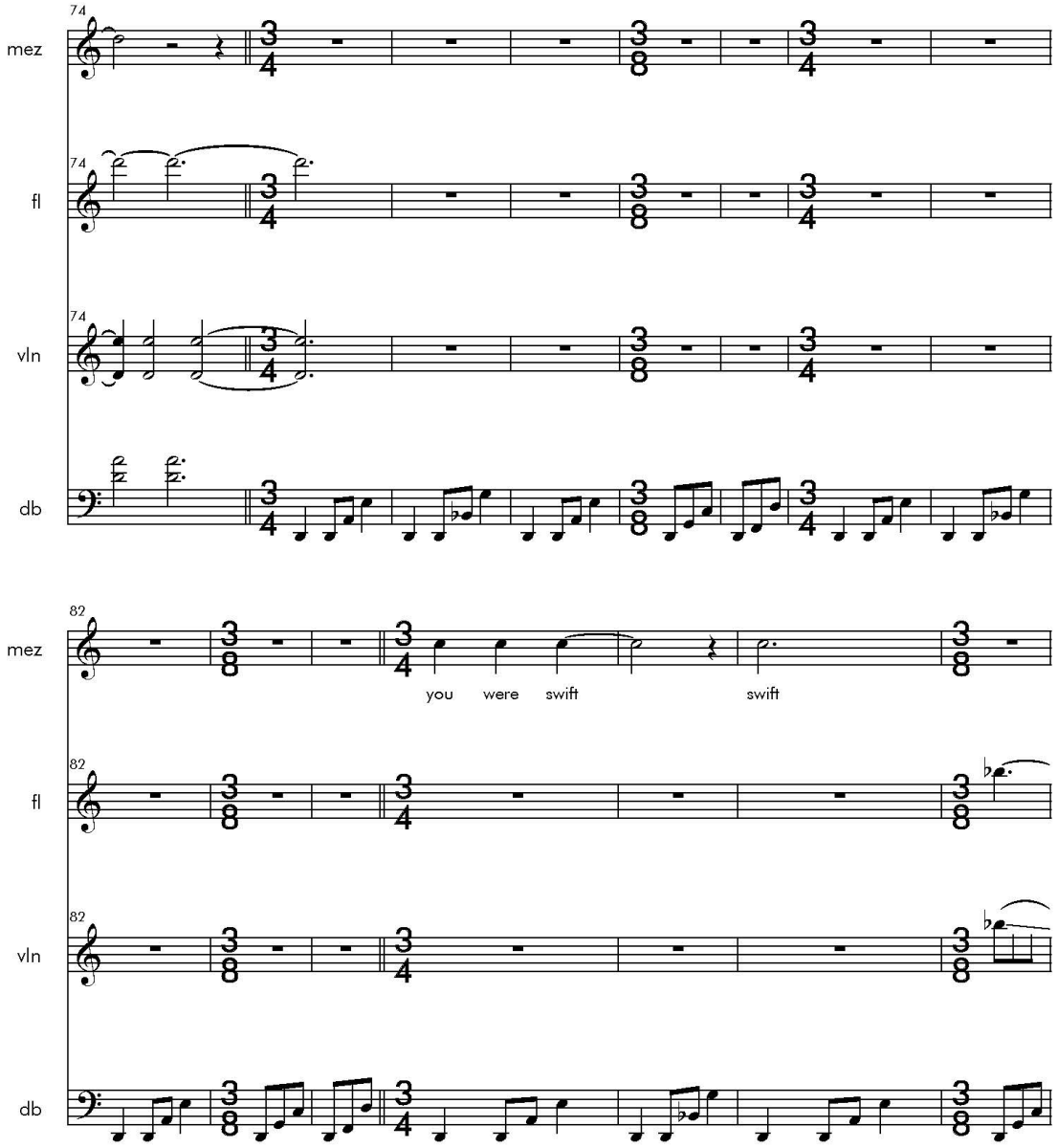

18
mez
on the stream - bank still holds the print of your foot:
18
fl
18
vln
db
24
mez
the heel is cut deep I see an - oth -
24
fl
24
vln
db

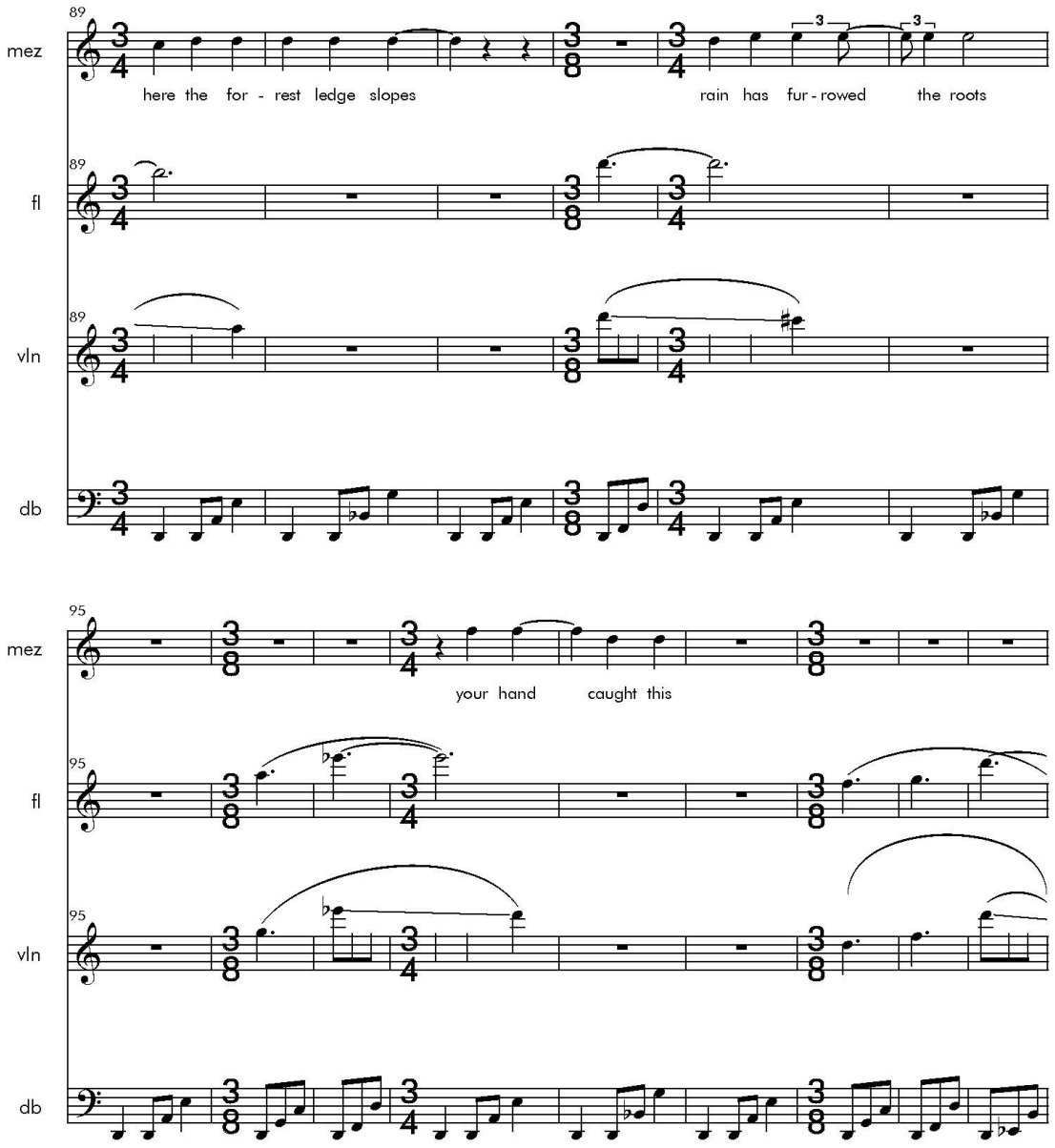

30
mez
er mark on the grass ridge of the bank it points toward the wood
30
fl
30
vln
db
35
mez
path I have lost the third in the packed earth.
35
fl
35
vln
db

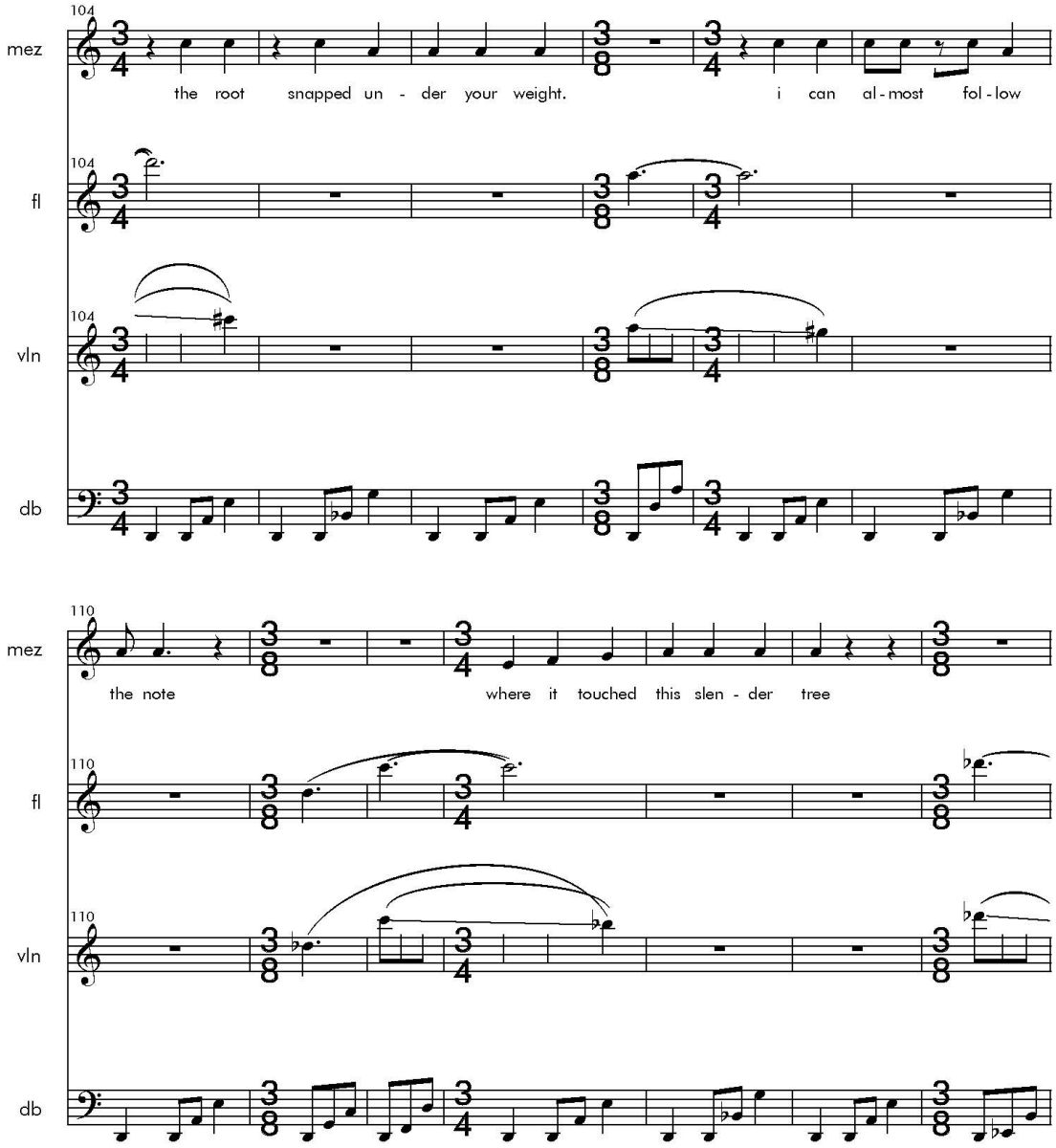

41
mez
But here a wild hy - a - cinth stalk is snapped: the pur - ple buds
3
41
fl
41
vln
db
46
mez
half ripe show deep pur - ple where your heel
46
fl
46
vln
db

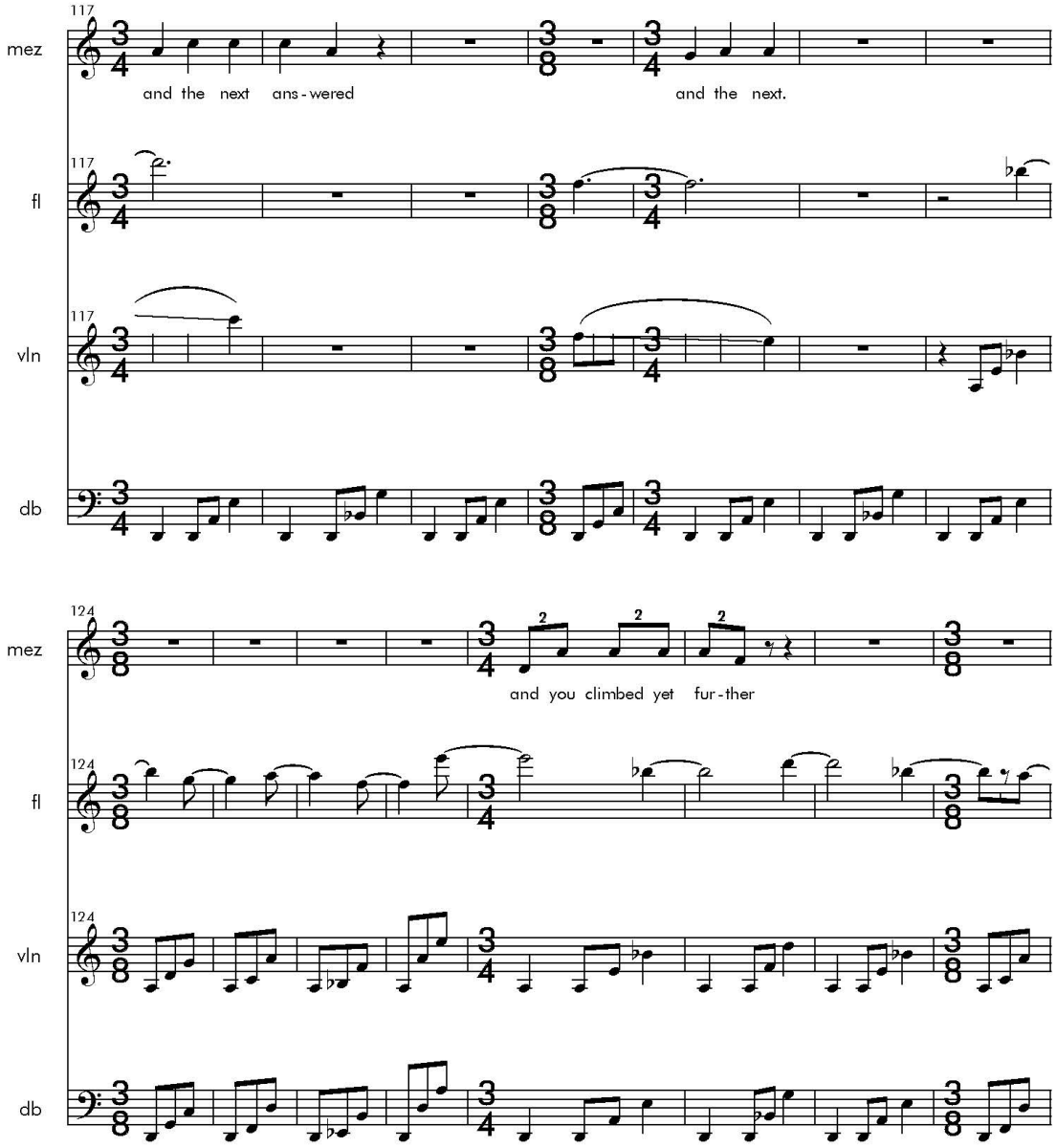

51
mez
pressed
a patch of flow - er - ing grass, low, trail - ing
fl
vln
db
57
mez
you brushed this
the green stems show yel - low green
fl
vln
db

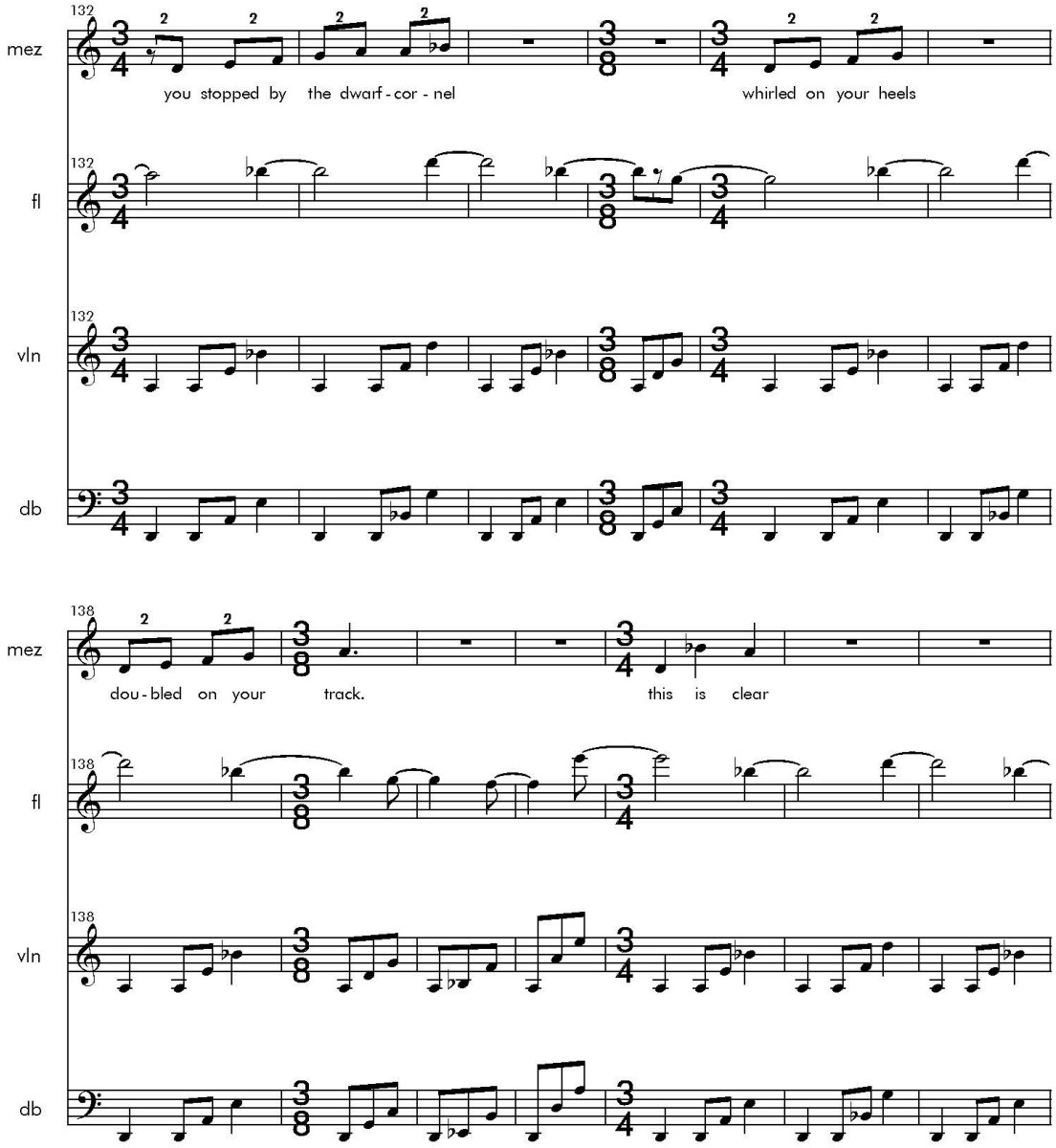

63
mez
where you lif - ted turned the earth - side to the light:
63
fl
63
vln
db
69
mez
this and a dead leaf - spine split a - cross show where you passed
69
fl
69
vln
db

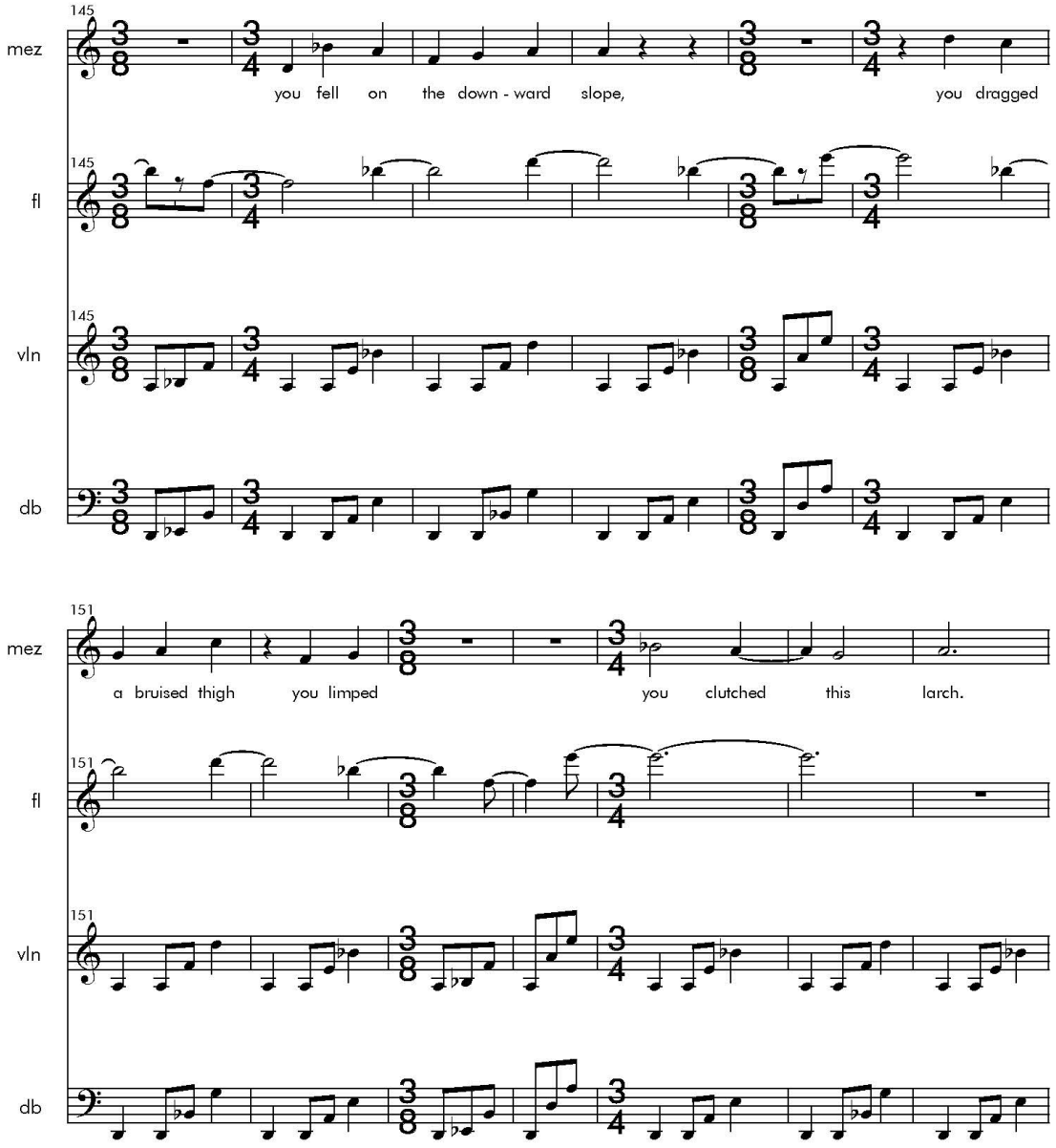

74
mez
74
fl
74
vln
db
82
mez
you were swift swift
82
fl
82
vln
db

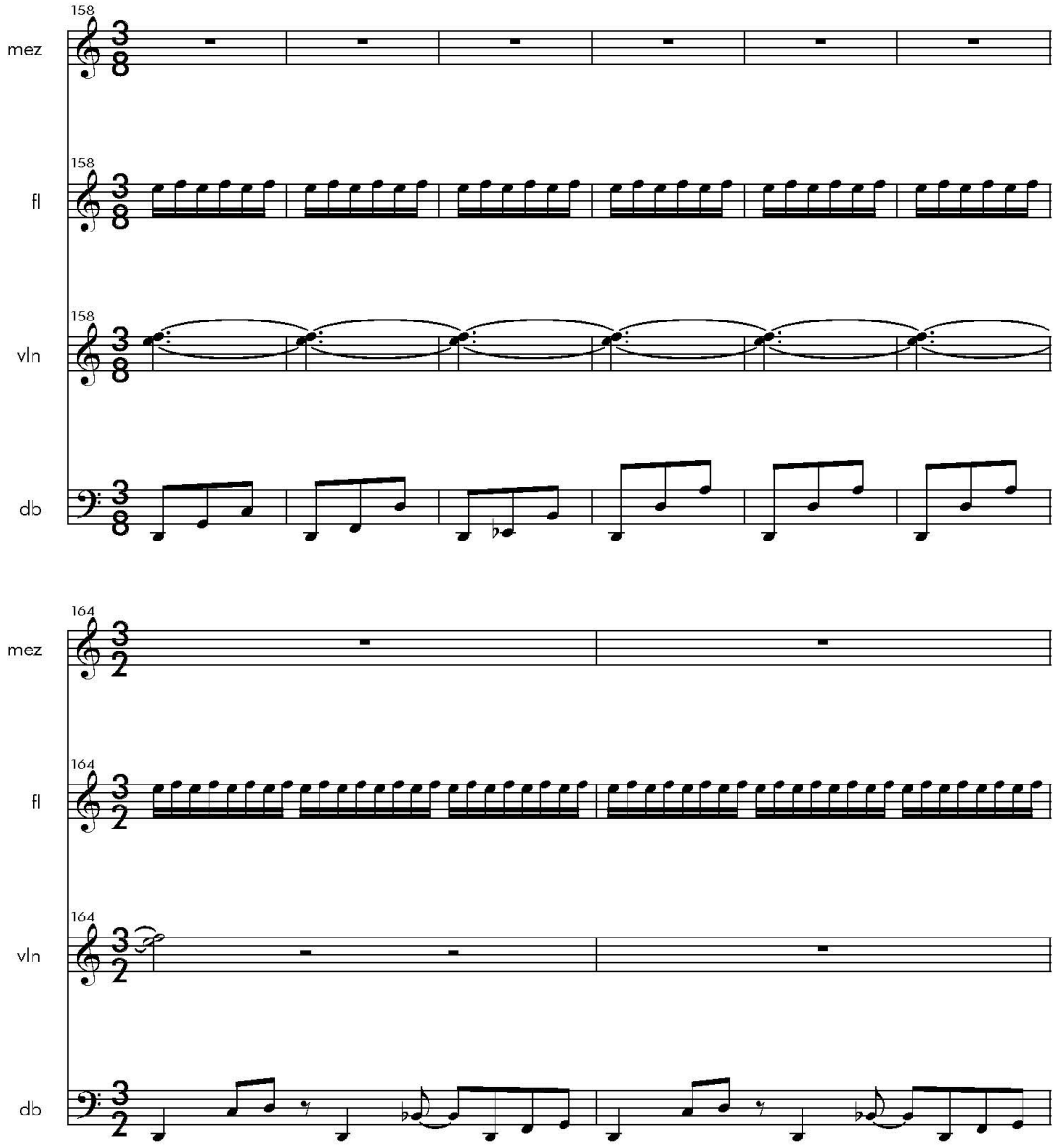

89
mez
here the for - rest ledge slopes
rain has fur - rowed the roots
fl
vln
db
95
your hand caught this

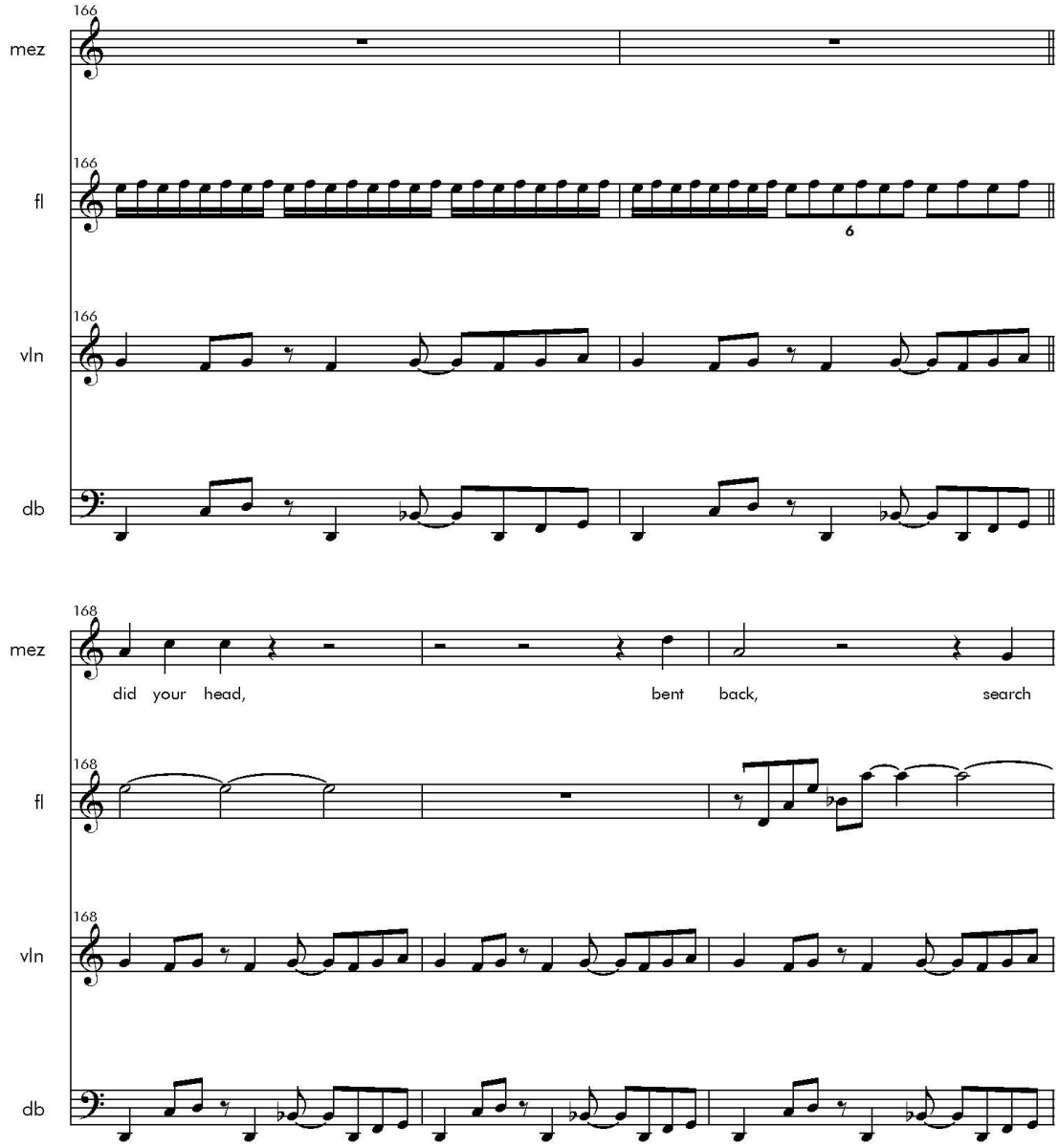

104
mez
the root snapped un - der your weight. i can al - most fol - low
fl
vln
db
110
mez
the note where it touched this slen - der tree
fl
vln
db

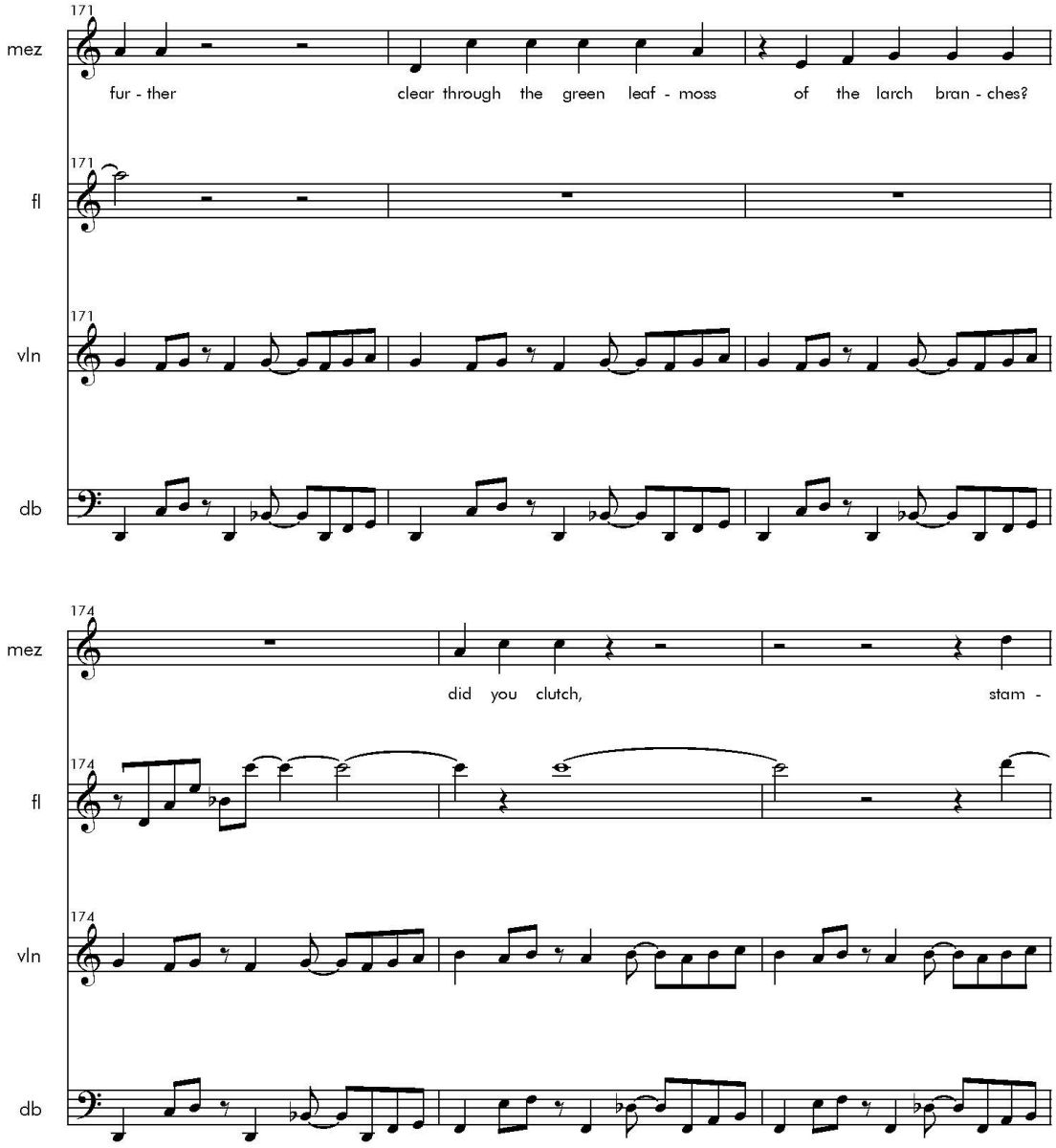

117
mez
and the next ans-wered
and the next.
fl
vln
db
124
mez
and you climbed yet fur-ther
fl
vln
db

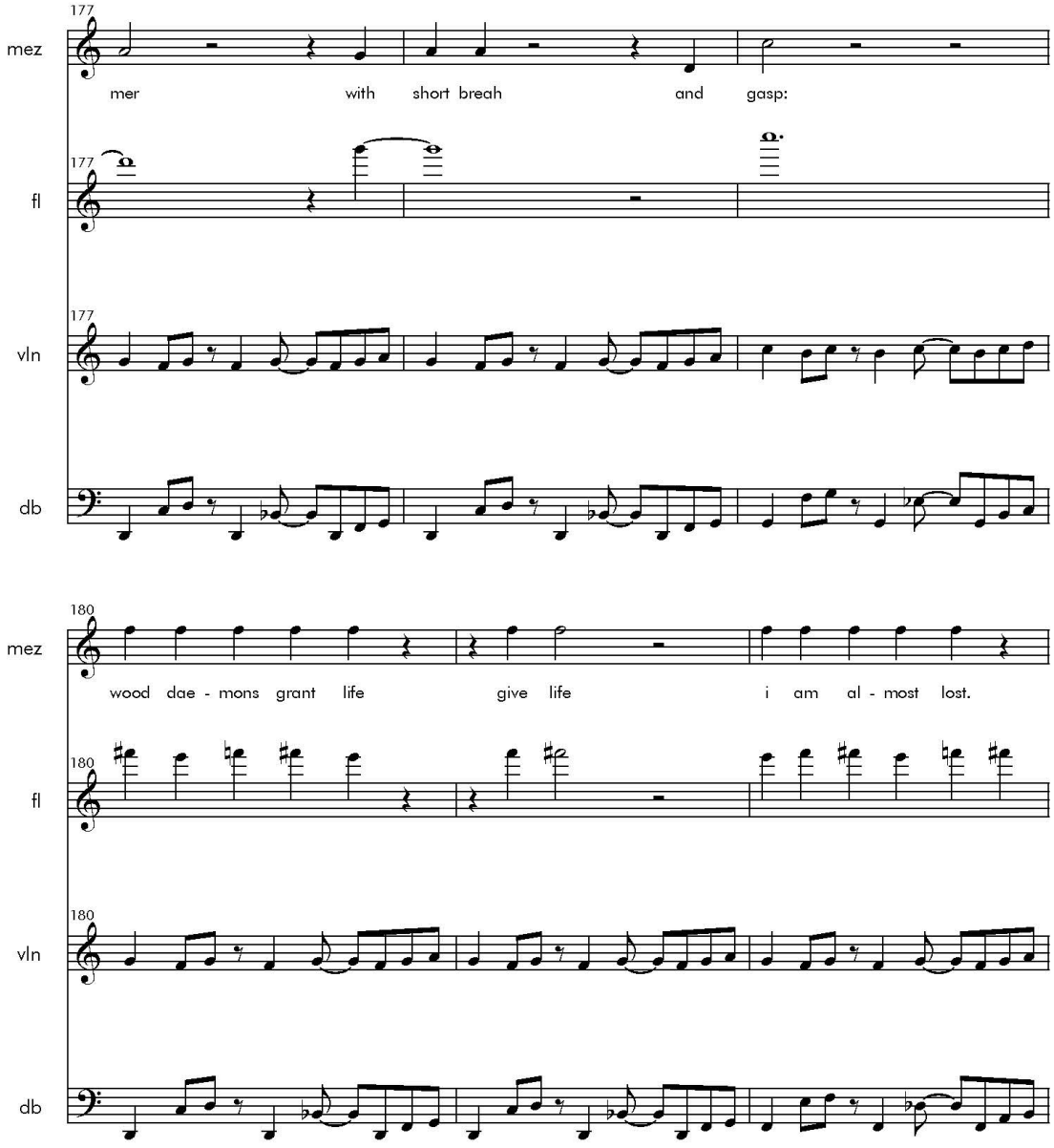

132
mez
you stopped by the dwarf - cor - nel
whirled on your heels
fl
vln
db
138
mez
dou - bled on your track.
this is clear
fl
vln
db

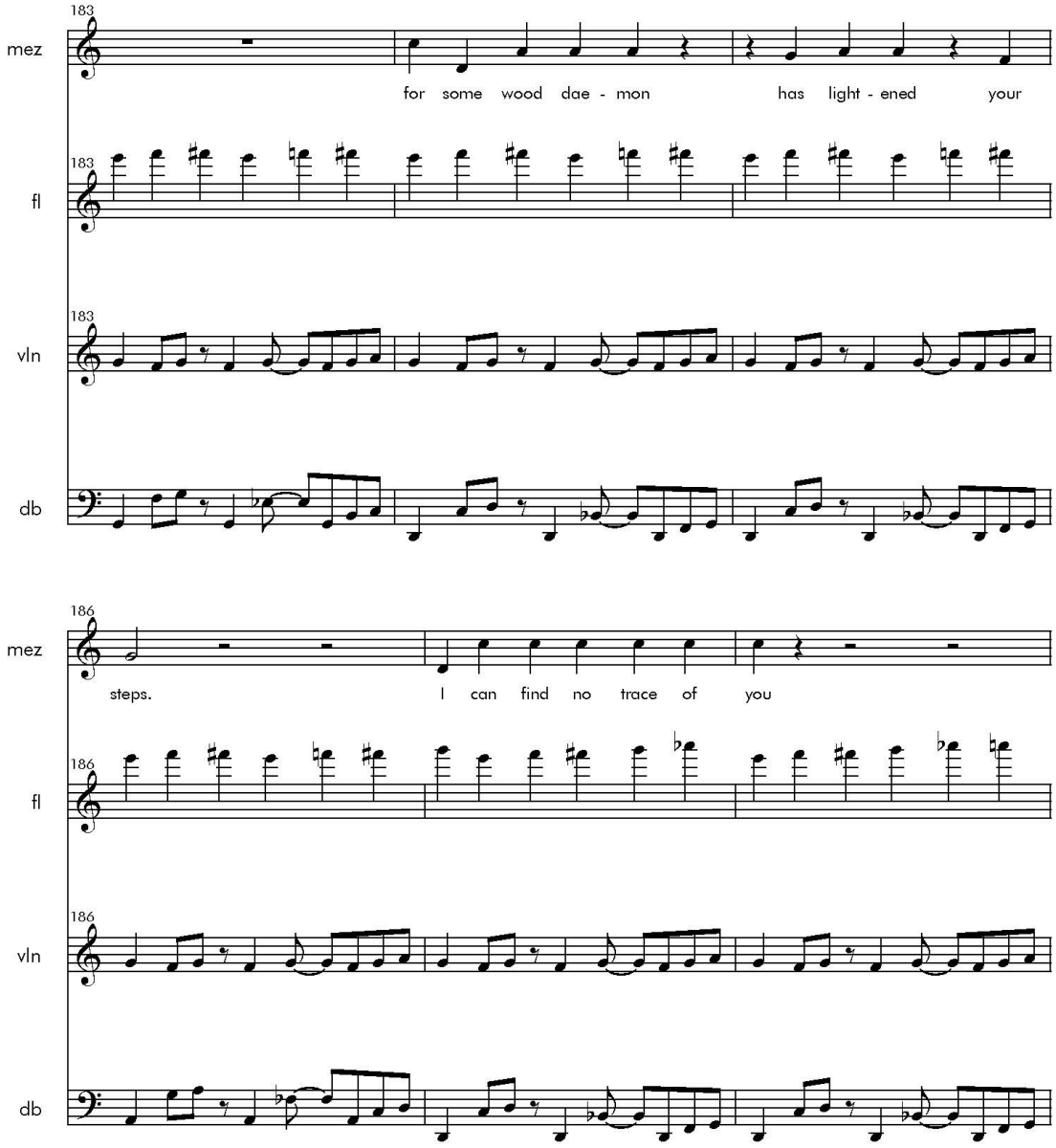

145
mez
you fell on the down - ward slope, you dragged
fl
vln
db
151
mez
a bruised thigh you limped you clutched this larch.
fl
vln
db

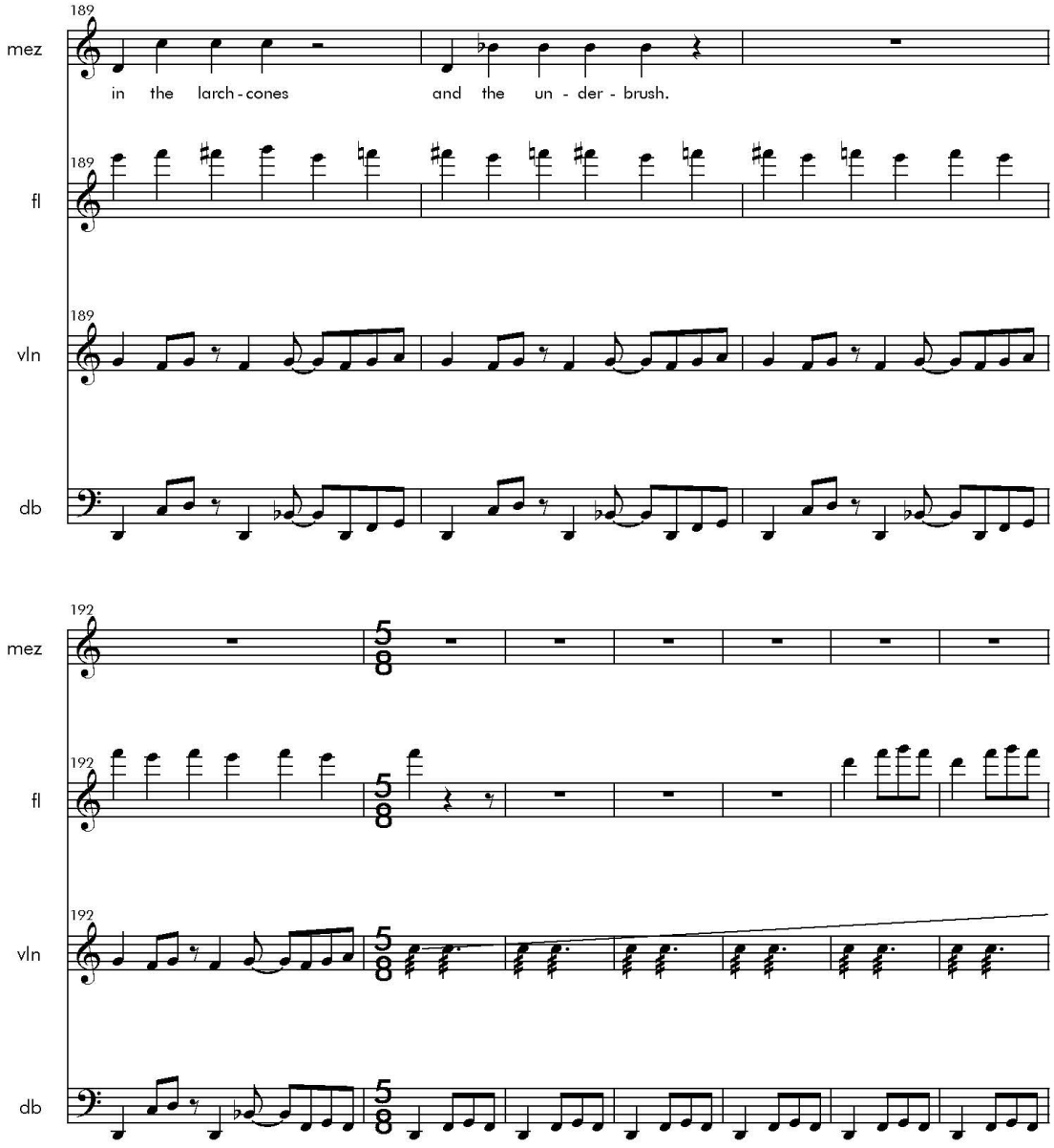

158
mez
158
fl
158
vln
db
164
mez
164
fl
164
vln
db


166
mez
166
fl
6
166
vln
db
168
mez
did your head, bent back, search
168
fl
168
vln
db

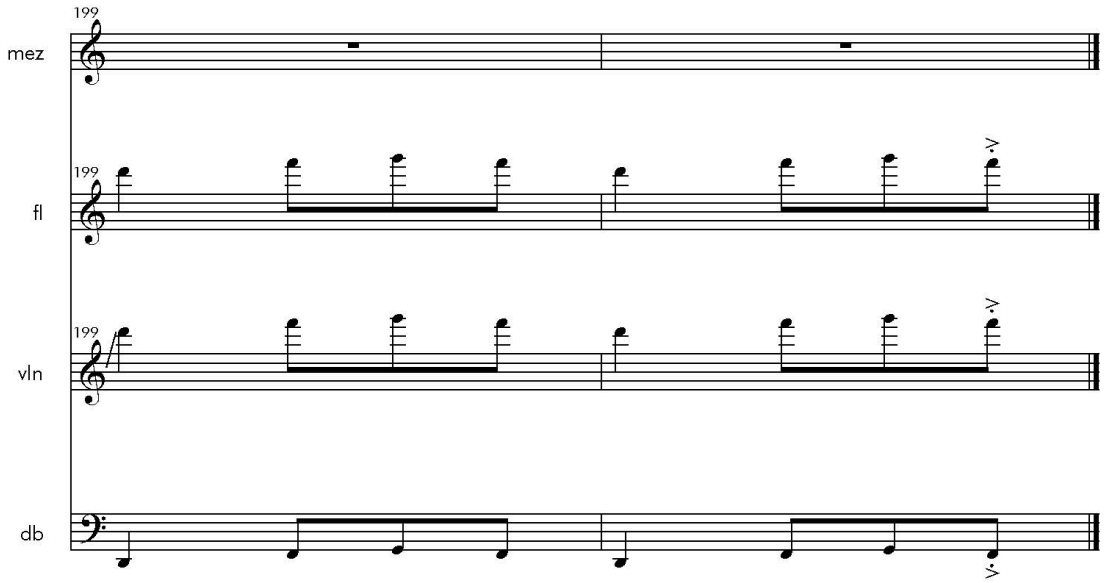

171
mez
fur - ther
clear through the green leaf - moss
of the larch bran - ches?
171
fl
171
vln
db
174
mez
did you clutch,
stam -
174
fl
174
vln
db

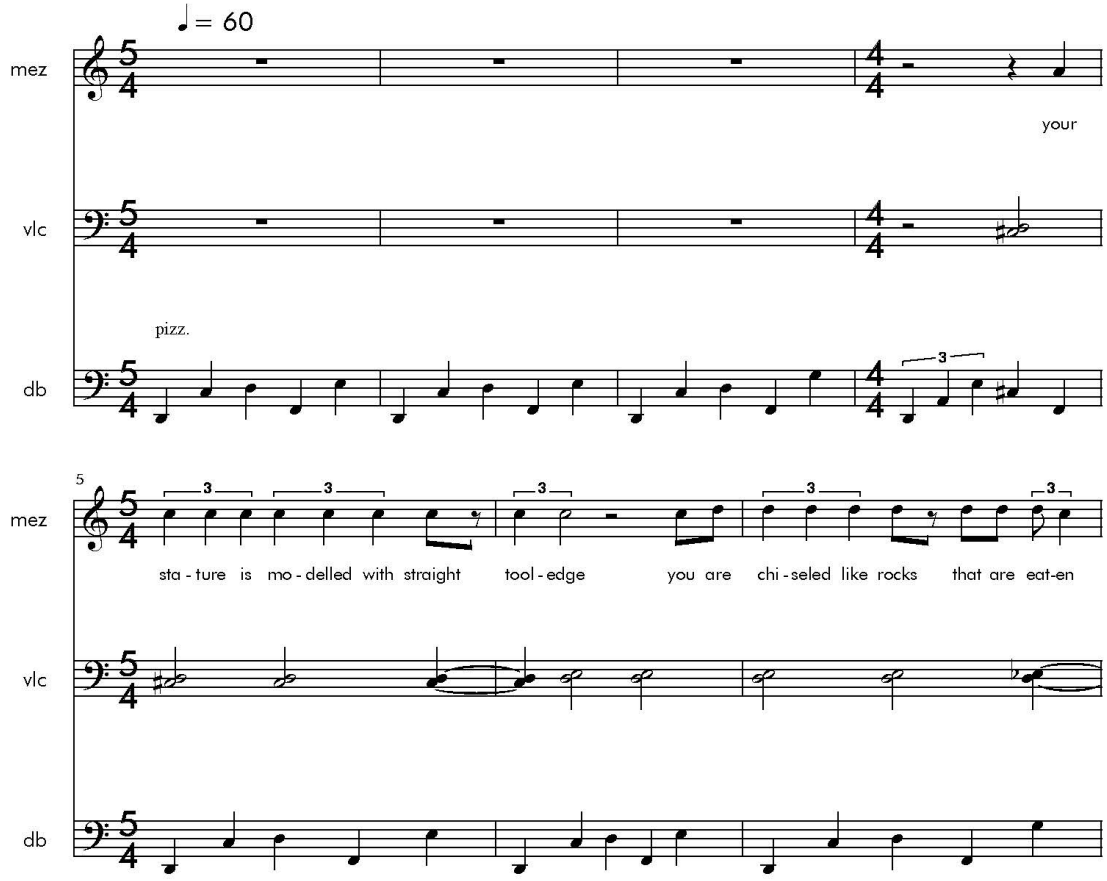

177
mez
mer with short breah and gasp:
177
fl
177
vln
db
180
mez
wood dae - mons grant life give life i am al - most lost.
180
fl
180
vln
db

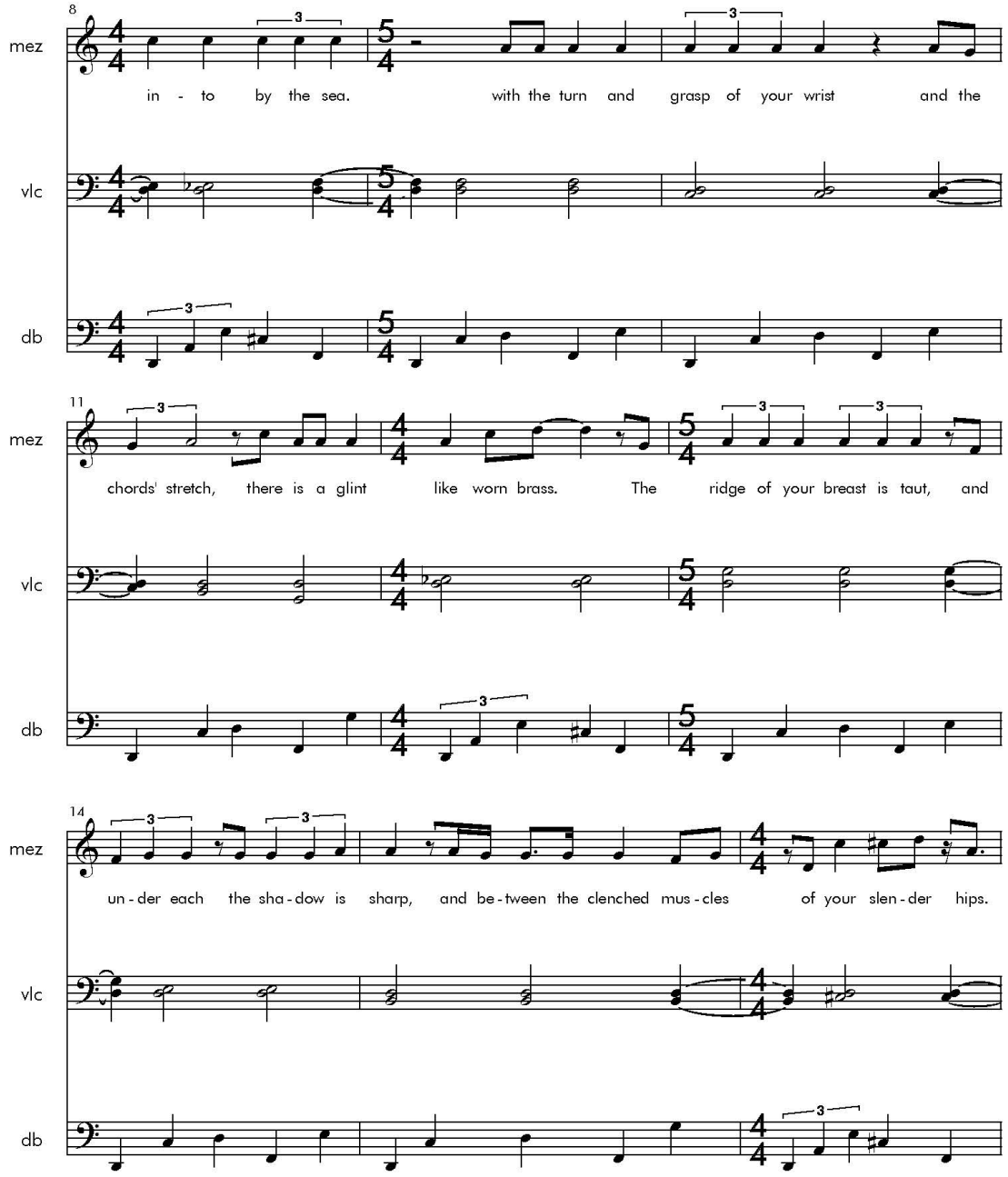

183
mez
for some wood dae - mon has light - ened your
183
fl
183
vln
183
db
186
mez
steps. I can find no trace of you
186
fl
186
vln
db


189
mez
in the larch-cones and the un - der - brush.
189
fl
189
vln
db
192
mez
5/8
192
fl
5/8
192
vln
5/8
db
5/8

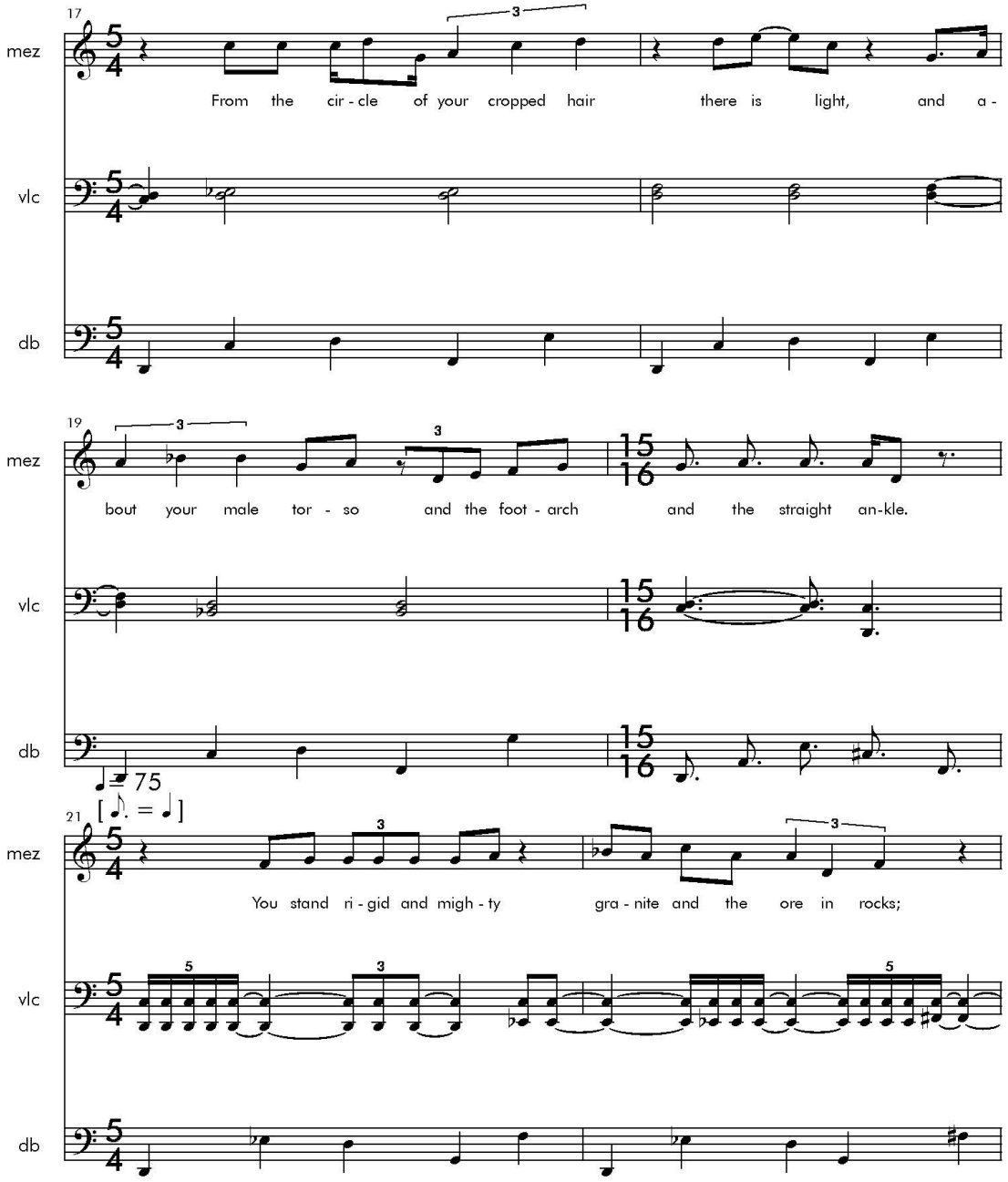
1.5 pursuit

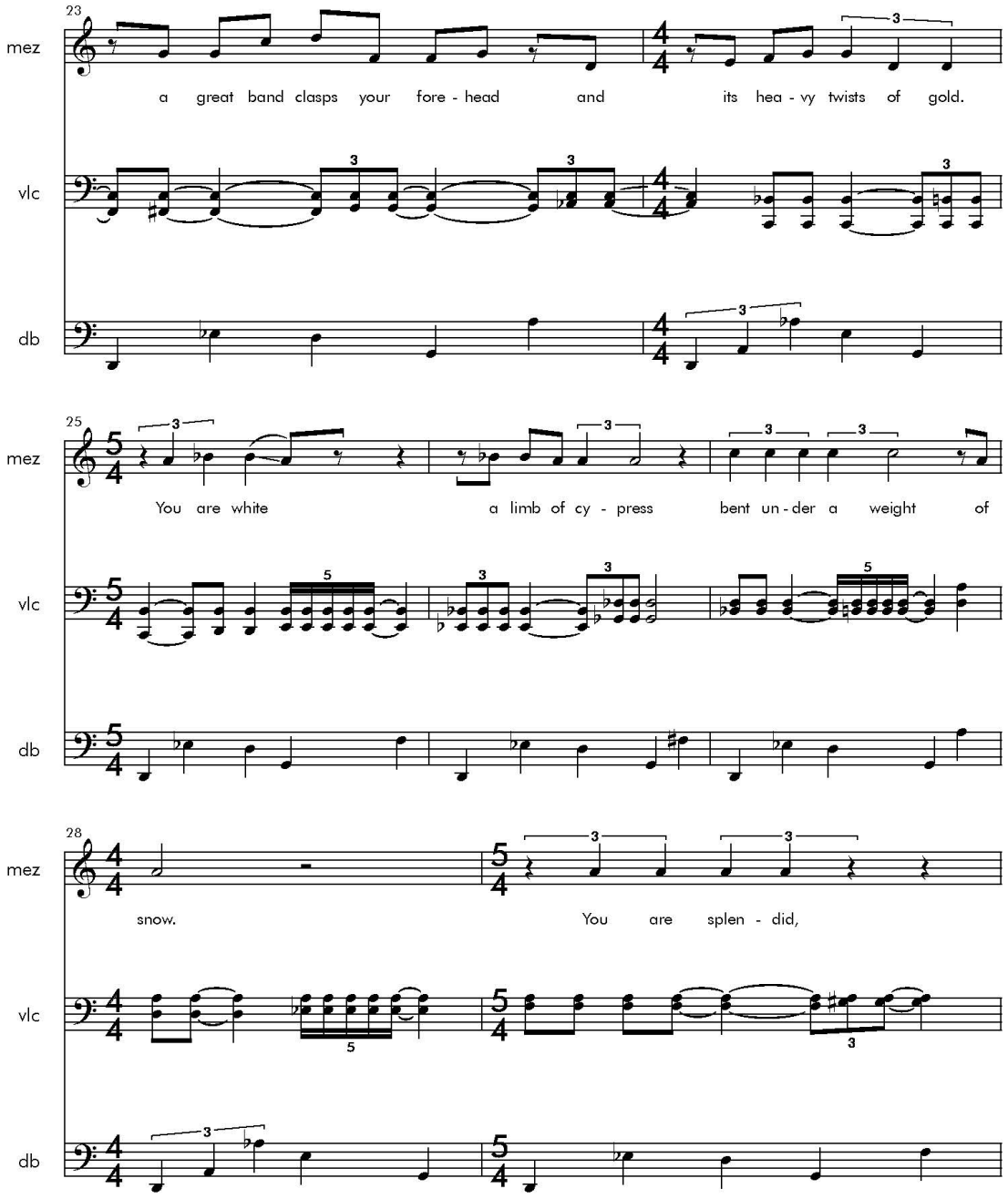



♩= 60
mez
vlc
db
pizz.
your
5
sta - ture is mo - delled with straight tool - edge you are chi - seled like rocks that are eat-en

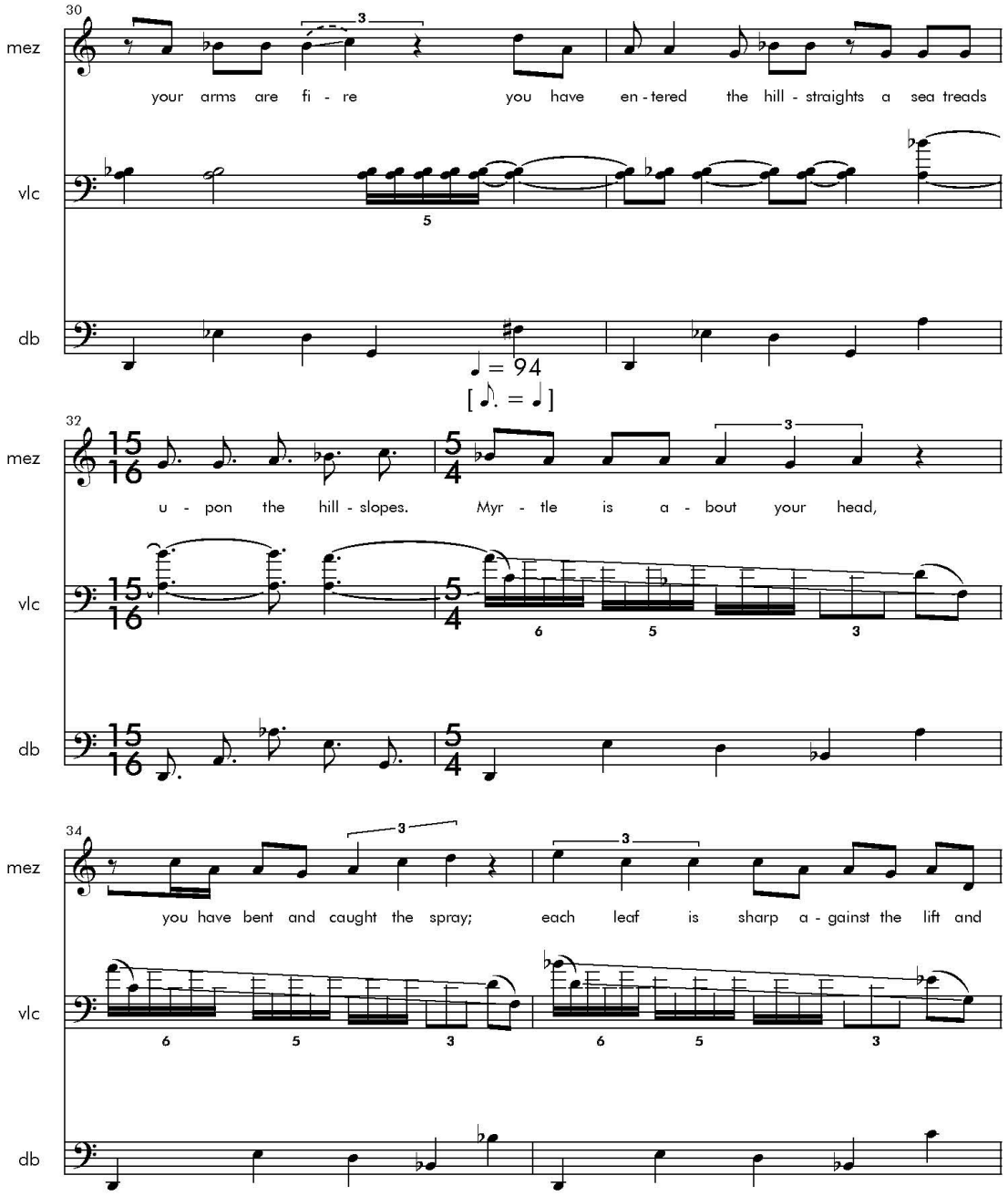

8
mez
in - to by the sea. with the turn and grasp of your wrist and the
vlc
db
11
mez
chords' stretch, there is a glint like worn brass. The ridge of your breast is taut, and
vlc
db
14
mez
un - der each the sha - dow is sharp, and be - tween the clenched mus - cles of your slen - der hips.
vlc
db

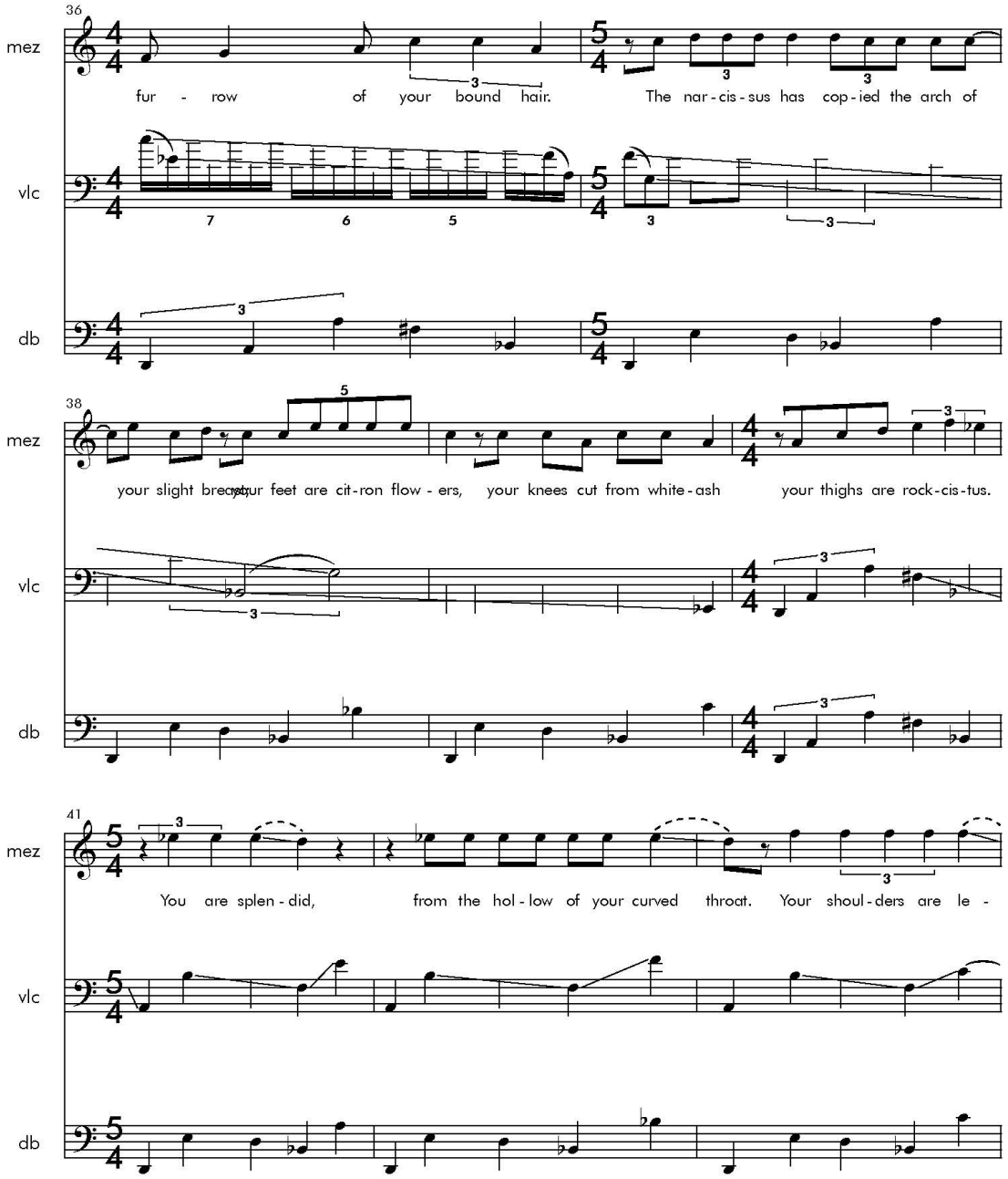
1.6 the contest




23
mez
a great band clasps your fore - head and its hea - vy twists of gold.
vlc
db
25
mez
You are white a limb of cy - press bent un - der a weight of
vlc
db
28
mez
snow. You are splen - did,
vlc
db

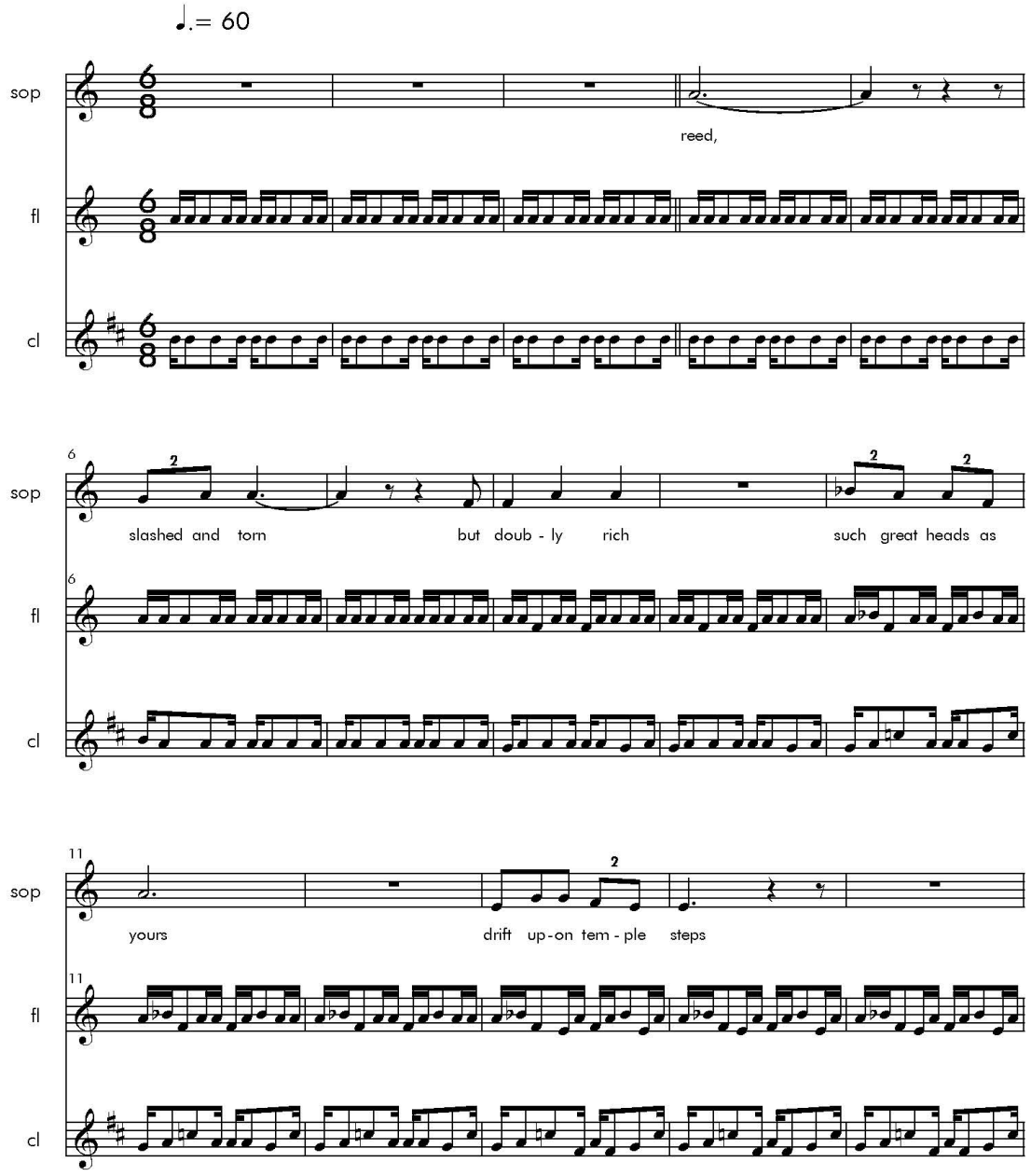
1.6 the contest



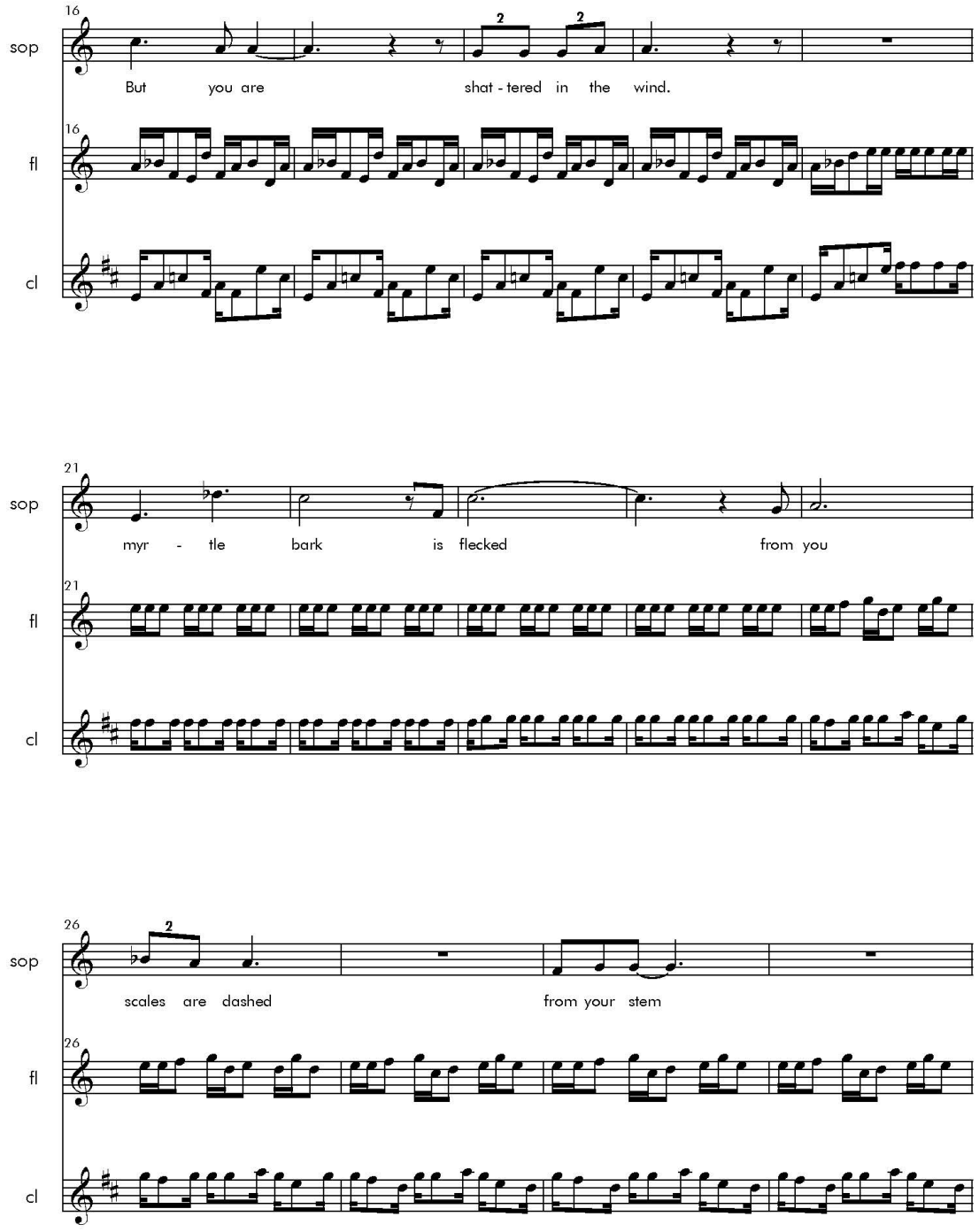

36
mez
fur - row of your bound hair. The nar-cis-sus has cop-ied the arch of
vlc
db
38
mez
your slight breasts, your feet are cit-ron flow - ers, your knees cut from white-ash your thighs are rock-cis-tus.
vlc
db
41
mez
You are splen - did, from the hol - low of your curved throat. Your shoul-ders are le -
vlc
db


44
mez
vel they have mel-ted rare sil-ver for their breadth.
ORD
MST
vlc
db
49
mez
ON BRIDGE
vlc
db

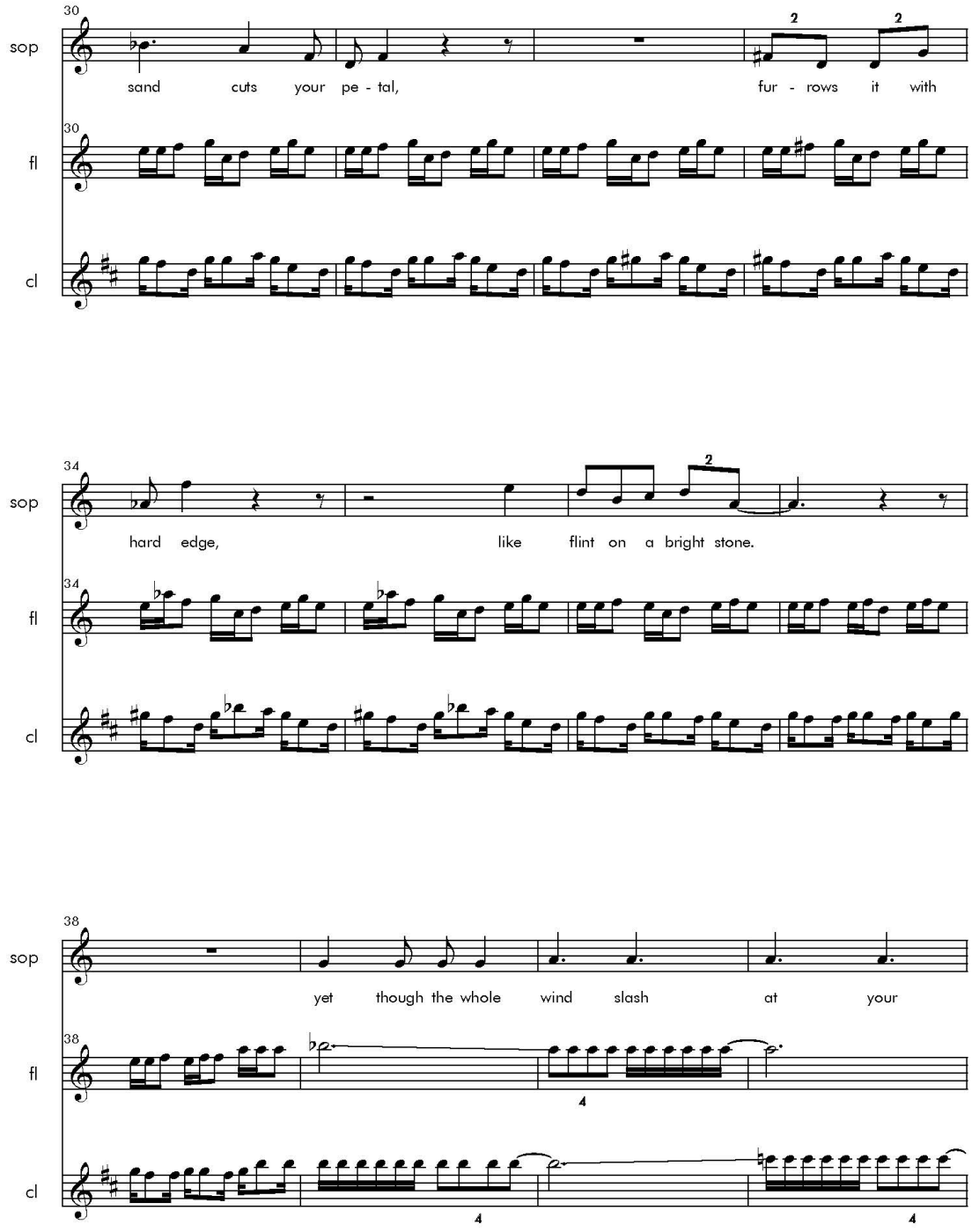
1.7 sea lily


♩.= 60
sop
fl
cl
reed,
6
slashed and torn
but doub - ly rich
such great heads as
11
yours
drift up-on tem - ple steps

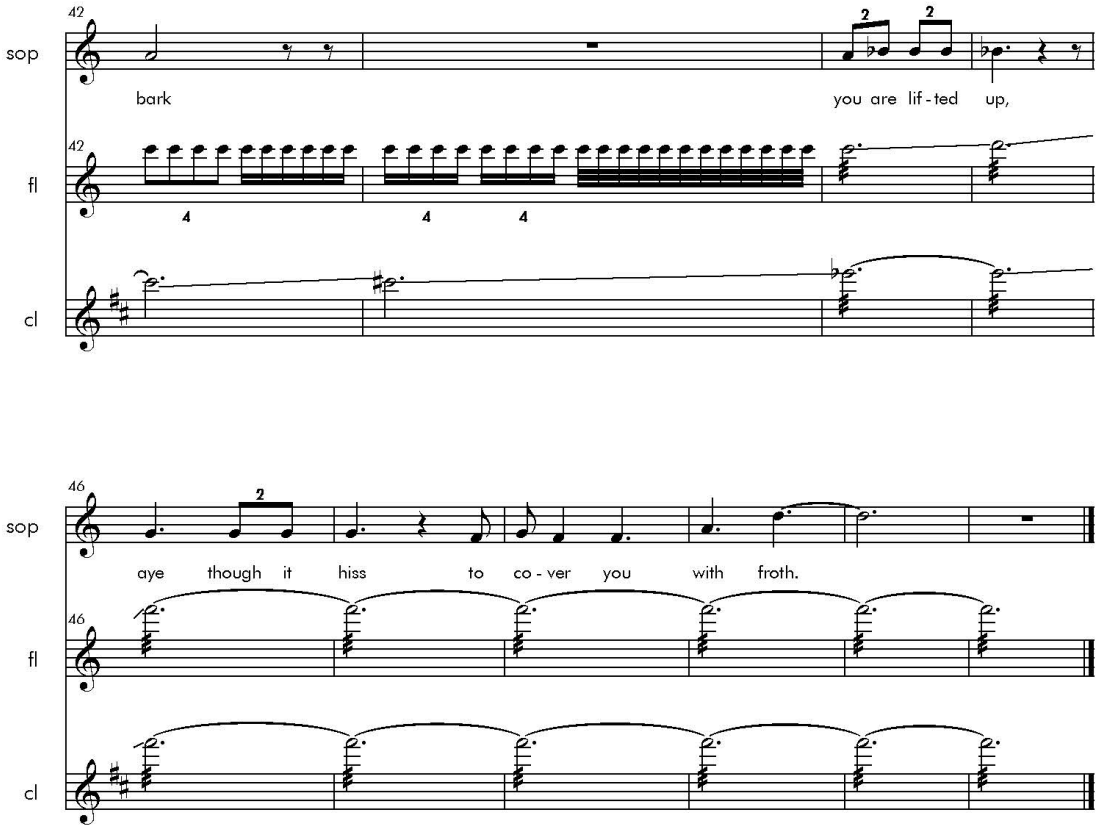
1.7 sea lily


16
sop
But you are shat - tered in the wind.
16
fl
cl
21
sop
myr - tle bark is flecked from you
21
fl
cl
26
sop
scales are dashed from your stem
26
fl
cl

1.7 sea lily


30
sop
sand cuts your pe - tal, fur - rows it with
fl
cl
34
hard edge, like flint on a bright stone.
38
yet though the whole wind slash at your

1.7 sea lily

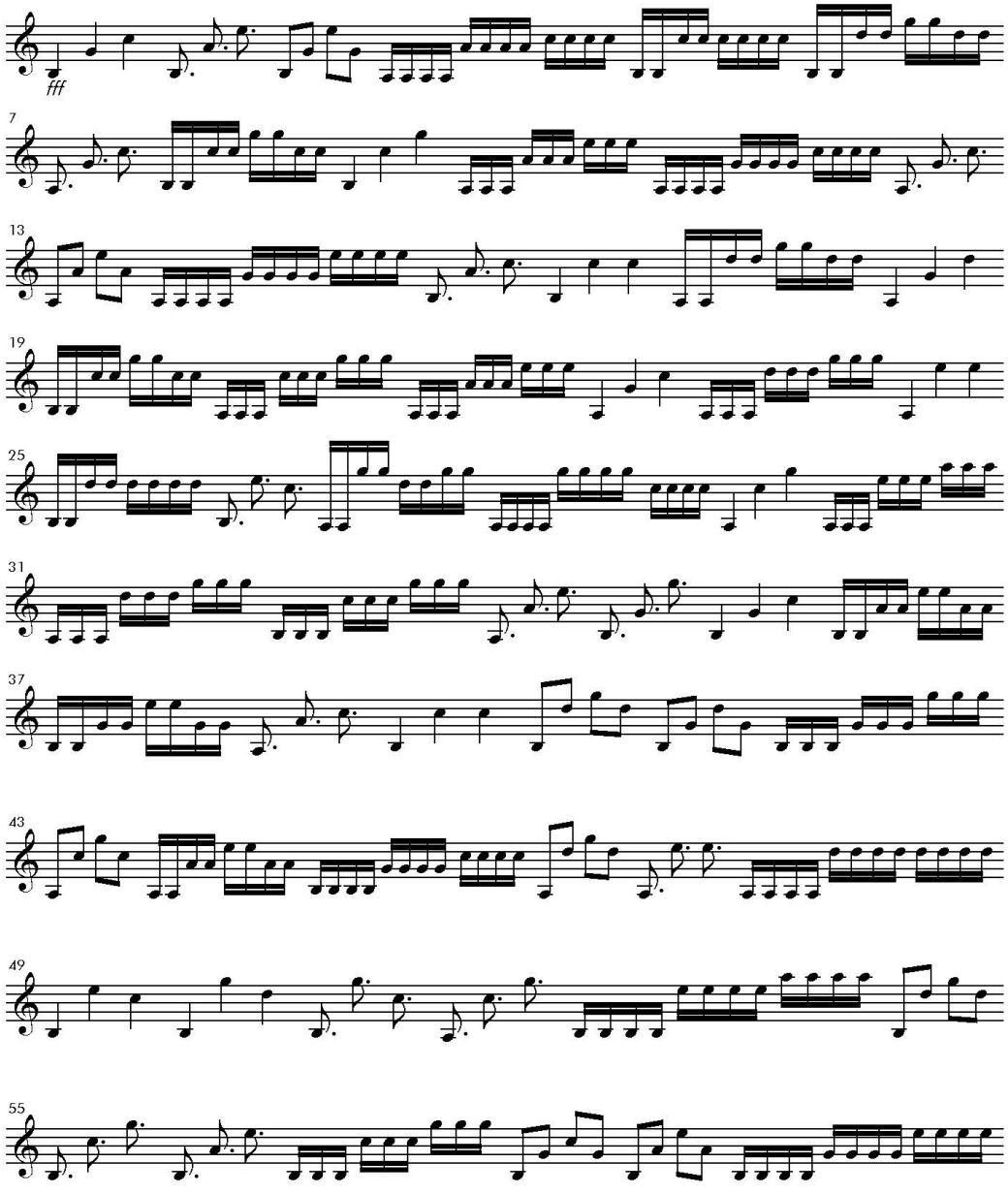

42
sop
bark
you are lif - ted up,
fl
cl
46
aye though it hiss to co - ver you with froth.

BASS CLARINET

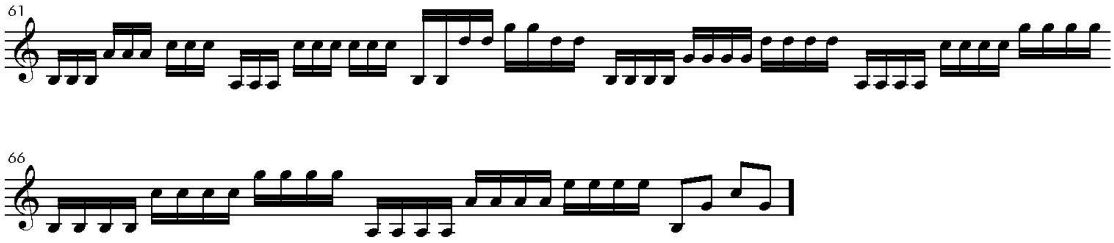
threnody 73t - cusseta

♩= 132

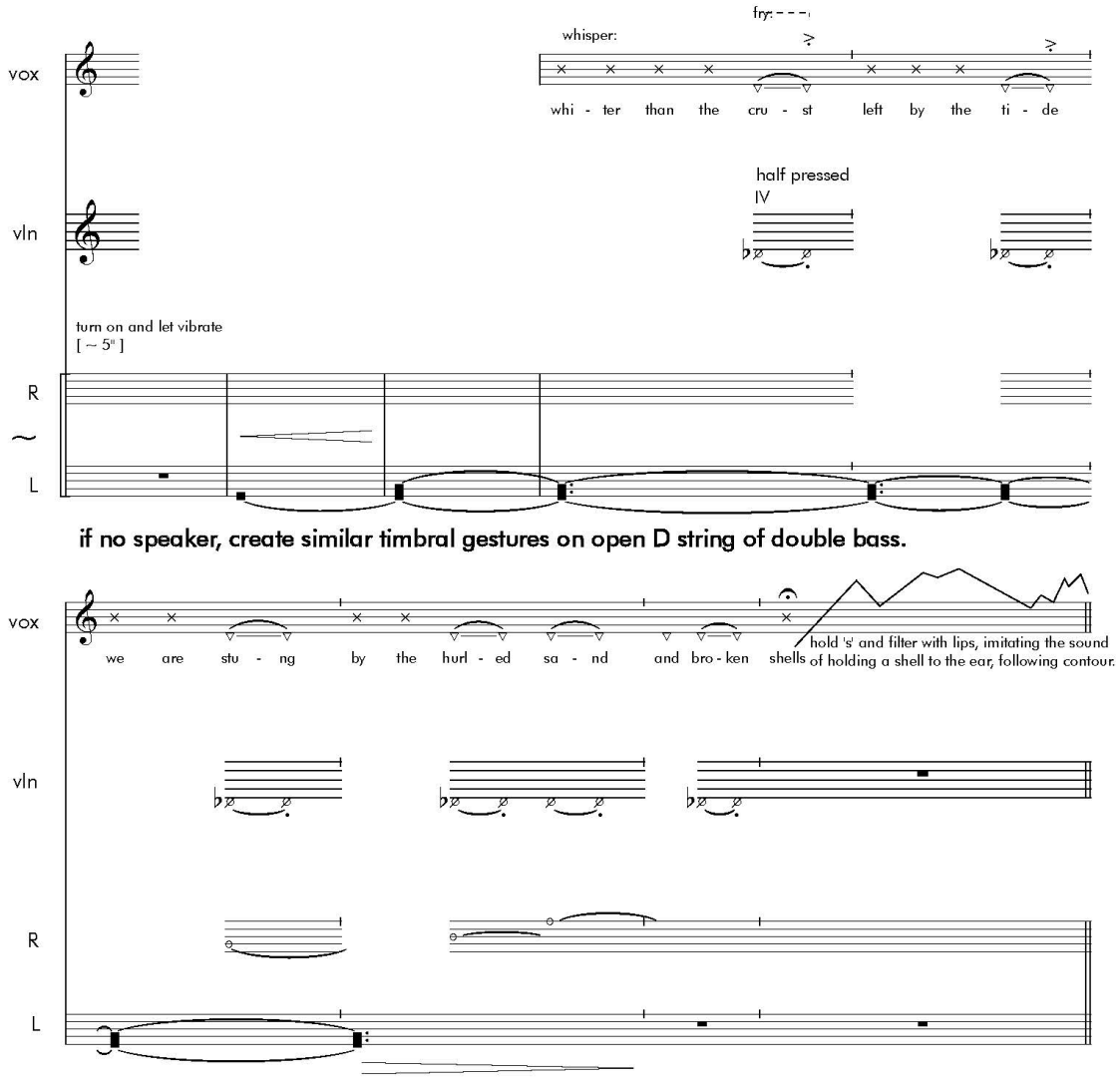
as connected as possible



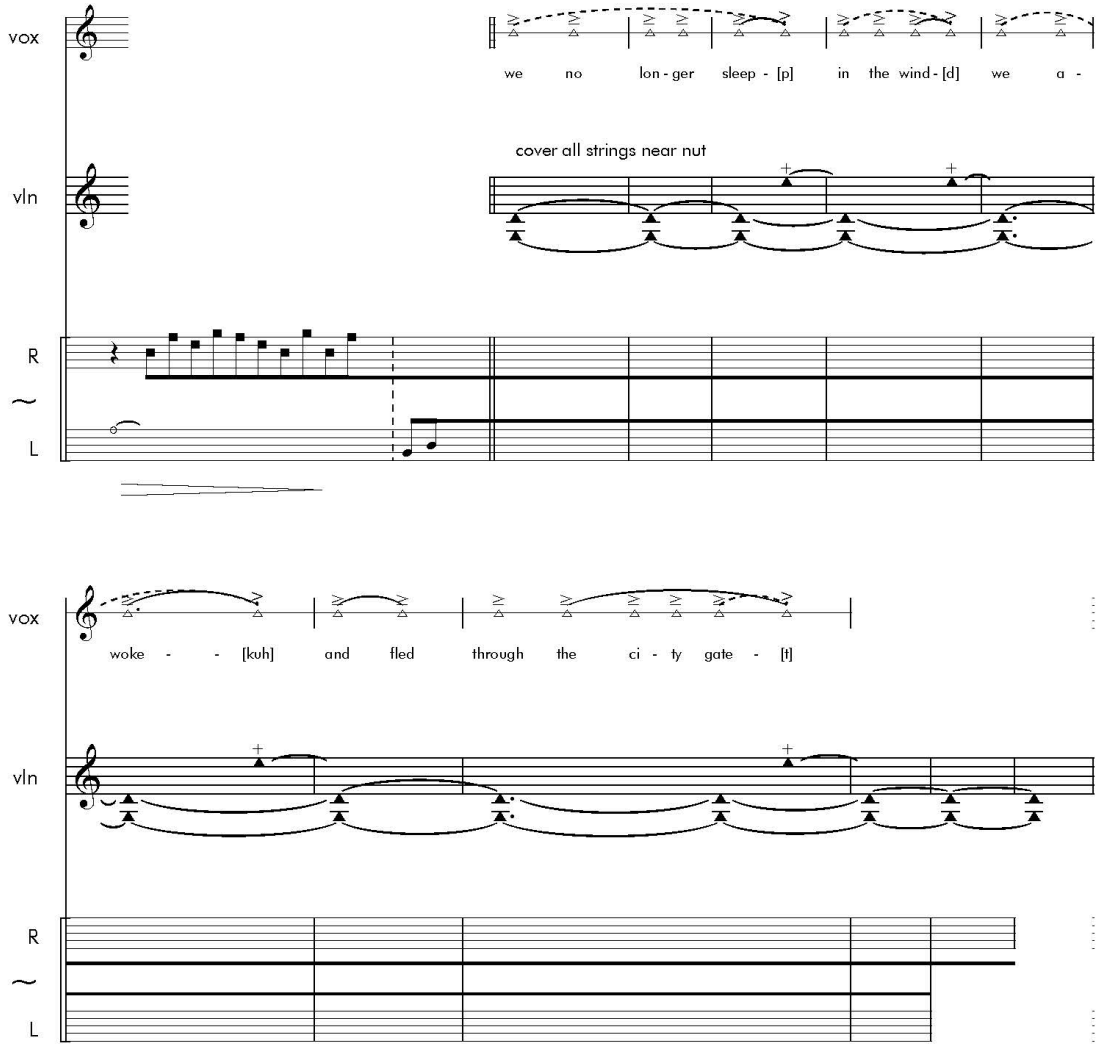
threnody 43t - cusseta



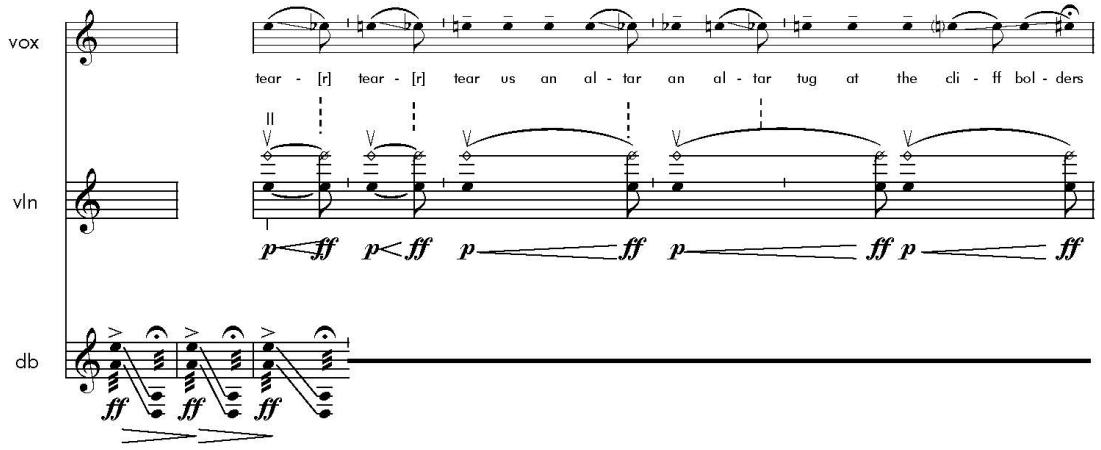
2.1 the wind sleepers.

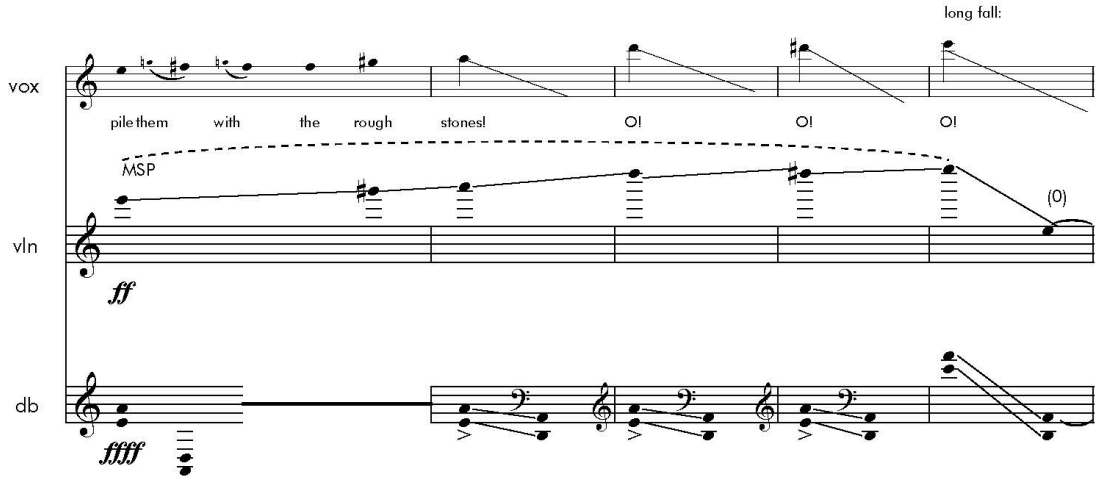


2.1 the wind sleepers

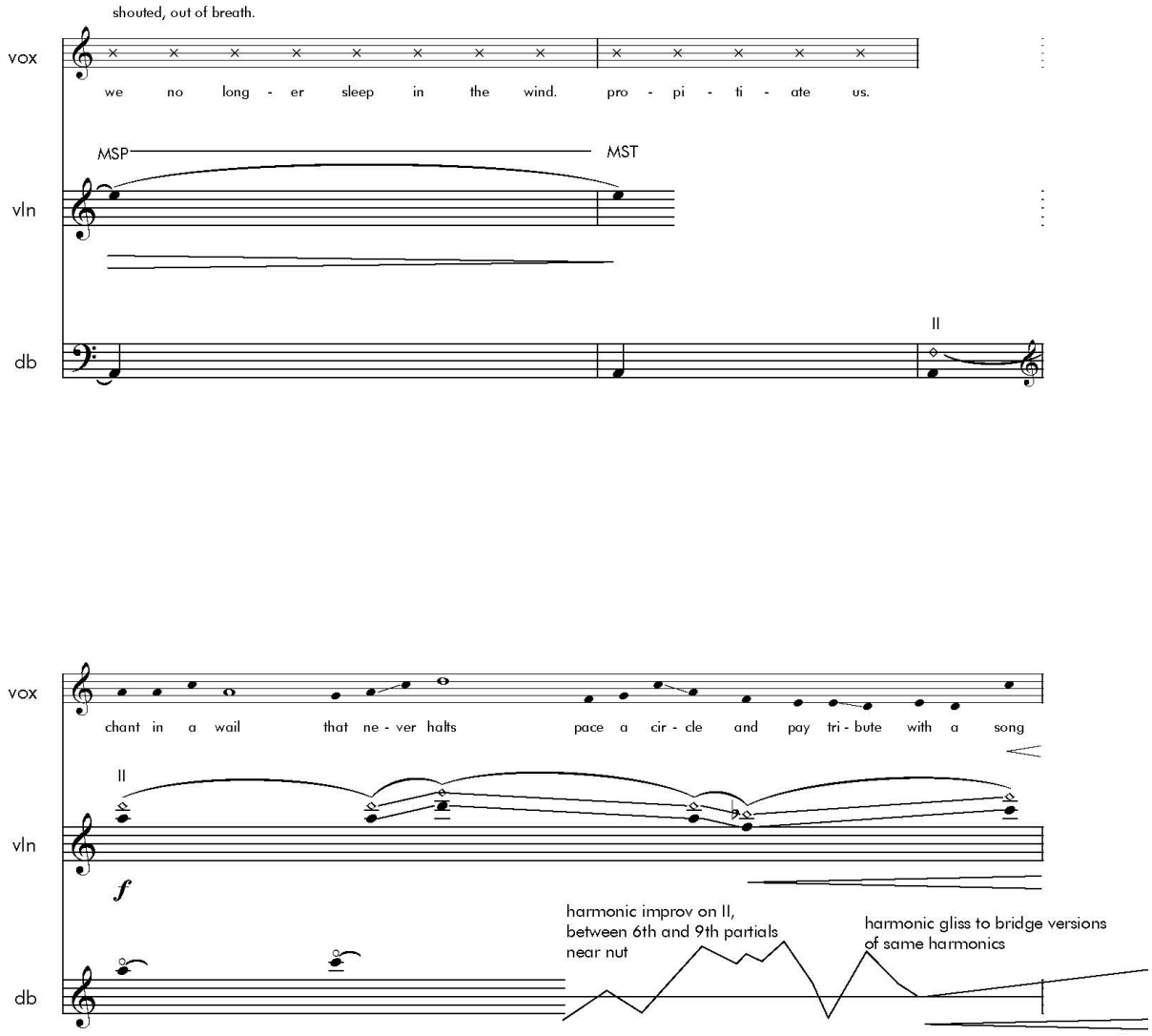


2.1 the wind sleepers

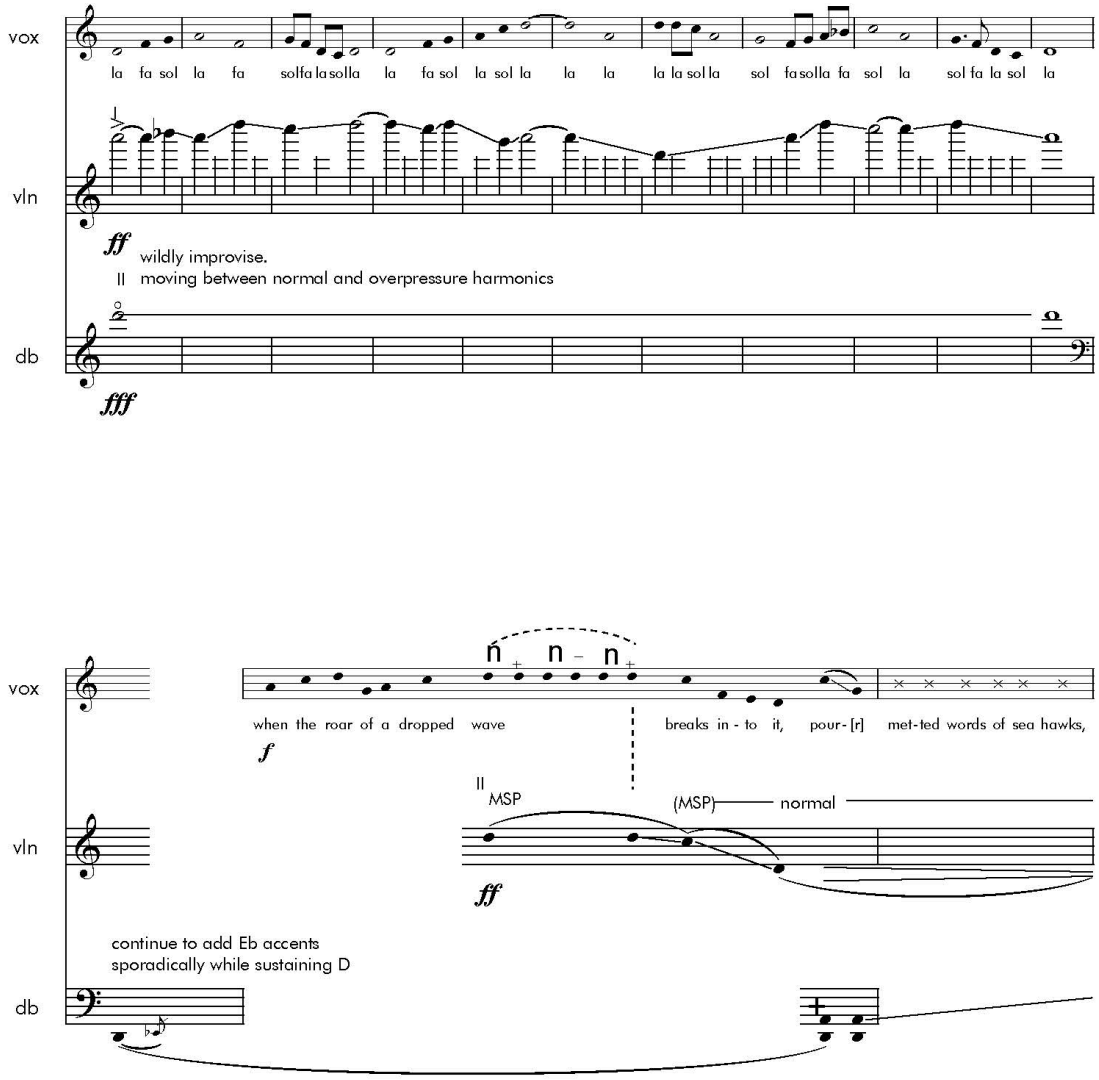




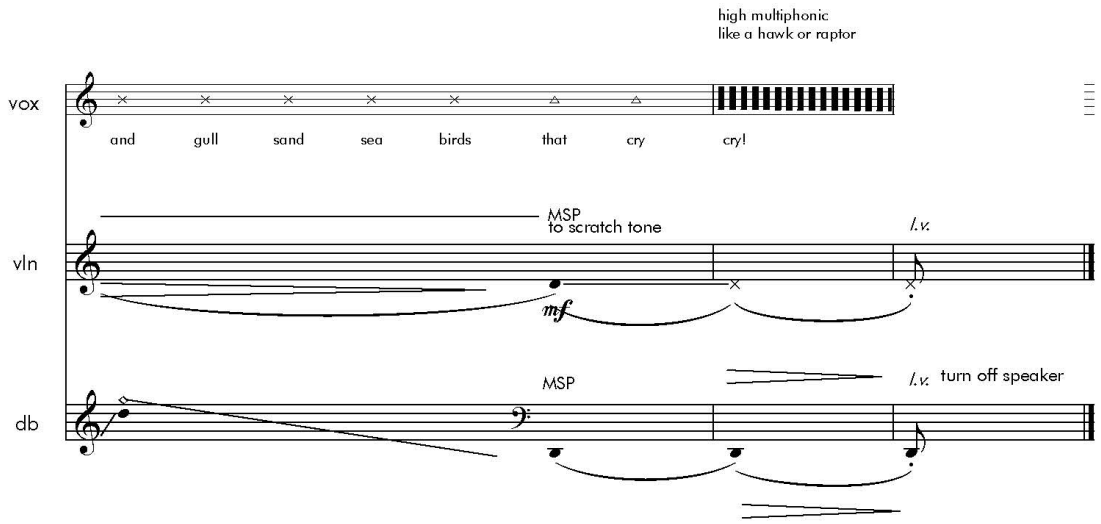
2.1 the wind sleepers

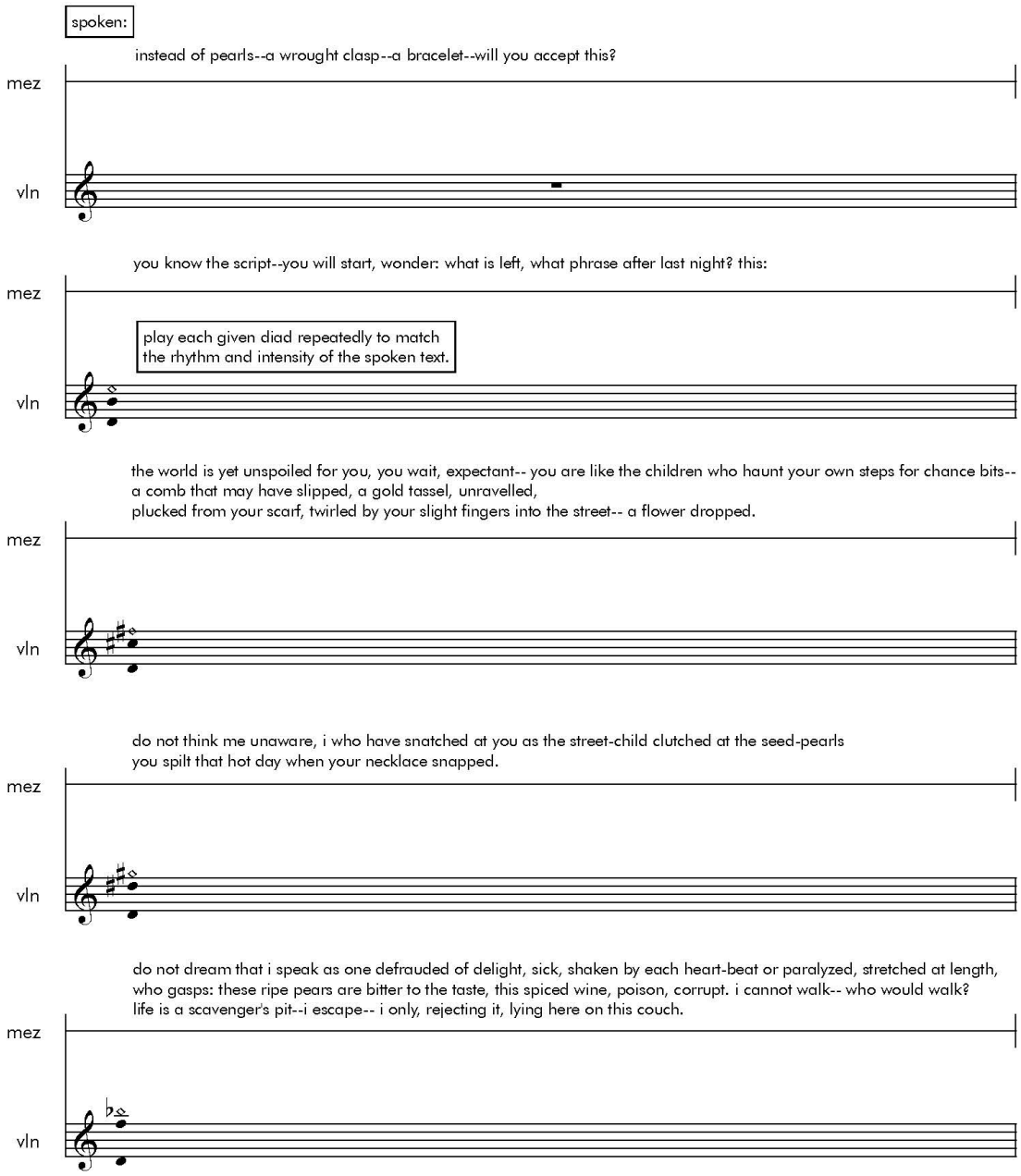


2.1 the wind sleepers



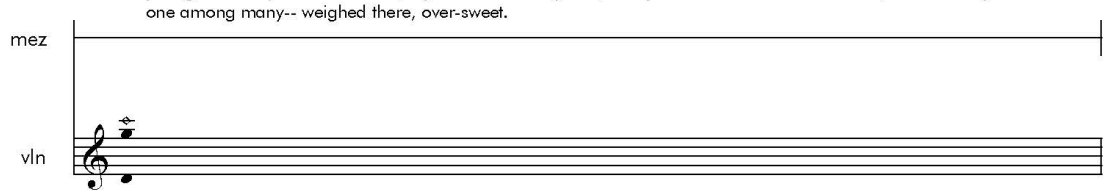
2.1 the wind sleepers



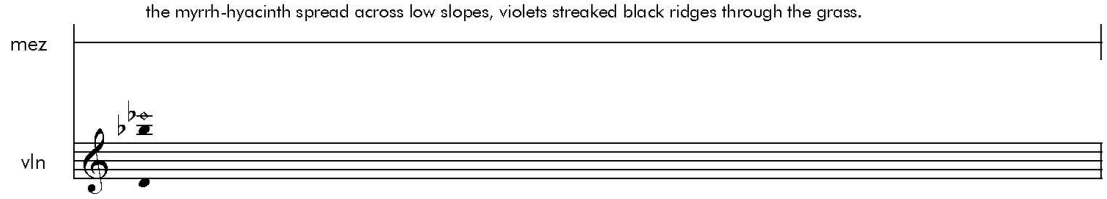

spoken:
instead of pearls--a wrought clasp--a bracelet--will you accept this?
mez
vln
you know the script--you will start, wonder: what is left, what phrase after last night? this:
play each given diad repeatedly to match
the rhythm and intensity of the spoken text.
the world is yet unspoiled for you, you wait, expectant-- you are like the children who haunt your own steps for chance bits--
a comb that may have slipped, a gold tassel, unravelled,
plucked from your scarf, twirled by your slight fingers into the street-- a flower dropped.
do not think me unaware, i who have snatched at you as the street-child clutched at the seed-pearls
you spilt that hot day when your necklace snapped.
do not dream that i speak as one defrauded of delight, sick, shaken by each heart-beat or paralyzed, stretched at length,
who gasps: these ripe pears are bitter to the taste, this spiced wine, poison, corrupt. i cannot walk-- who would walk?
life is a scavenger's pit--i escape-- i only, rejecting it, lying here on this couch.

2.2 the gift

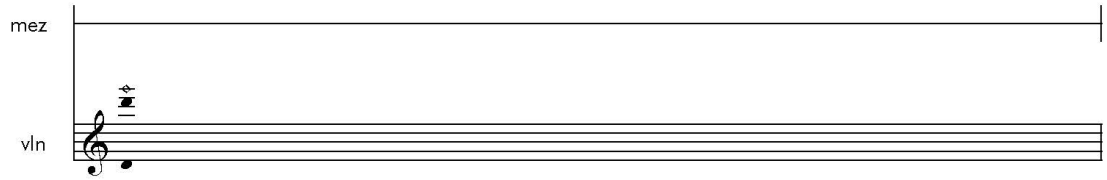
your garden sloped to the beach, myrtle overran the paths, honey and amber flecked each leaf, the citron-lily head--
one among many-- weighed there, over-sweet.



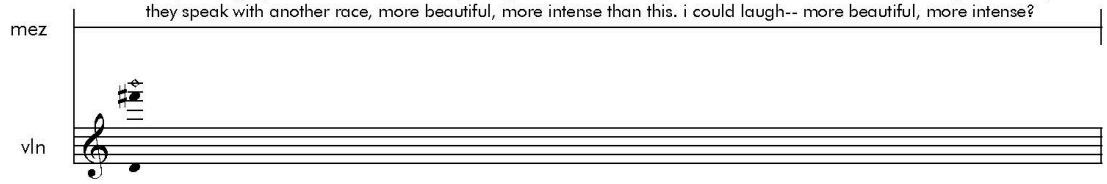
the myrrh-hyacinth spread across low slopes, violets streaked black ridges through the grass.



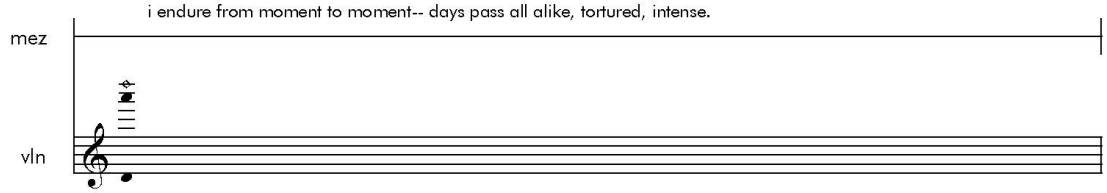
the house, too, was like this, over painted, over lovely-- the world is like this.



sleepless nights, i remember the initiates, their gesture, their calm glance. i have heard how in rapt thought, in vision,
they speak with another race, more beautiful, more intense than this. i could laugh-- more beautiful, more intense?

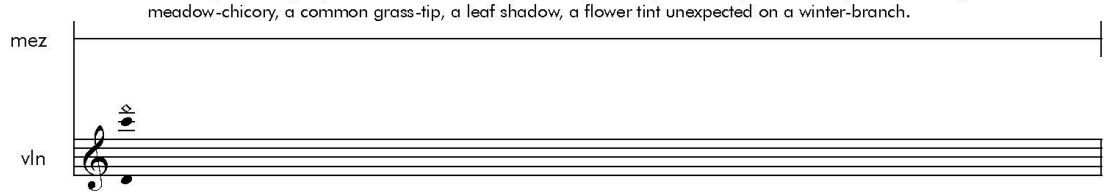


perhaps that other life is contrast always to this. i reason: i have lived as they in their inmost rites--
they endure the tense nerves through the moment of ritual.
i endure from moment to moment-- days pass all alike, tortured, intense.

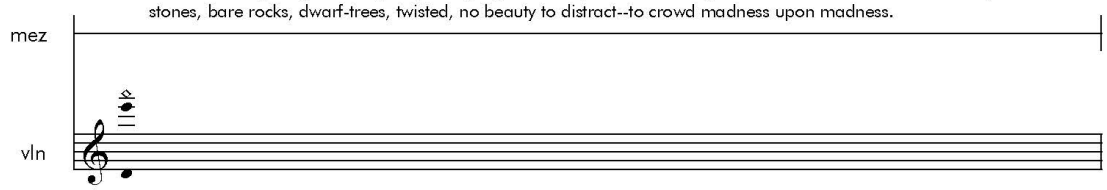


2.2 the gift

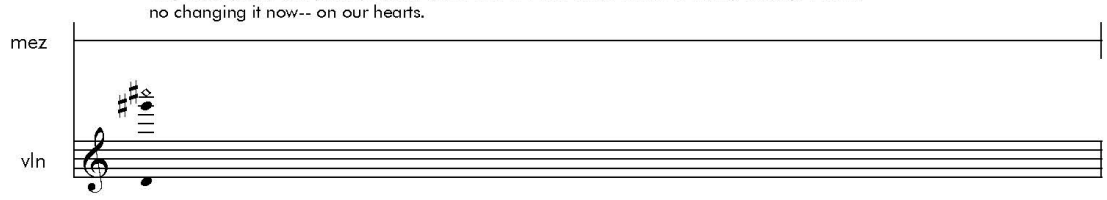
this i forgot last night: you must not be blamed, it is not your fault; as a child, a flower--any flower tore my breast--
meadow-chicory, a common grass-tip, a leaf shadow, a flower tint unexpected on a winter-branch.



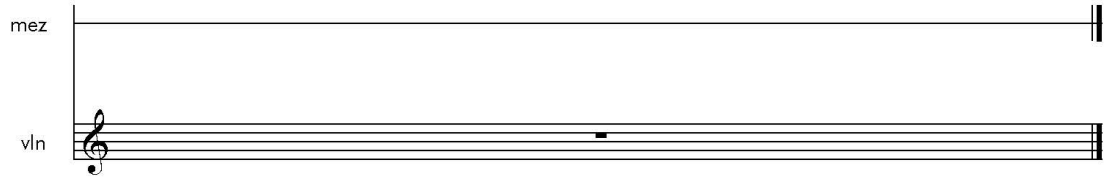
i reason: another life holds what this lacks, a sea, unmoving, quiet-- not forcing our strength to rise to it, beat on beat--
stretch of sand, no garden beyond, strangling with its myrrh-lilies-- a hill, not set with black violets but stones,
stones, bare rocks, dwarf-trees, twisted, no beauty to distract--to crowd madness upon madness.



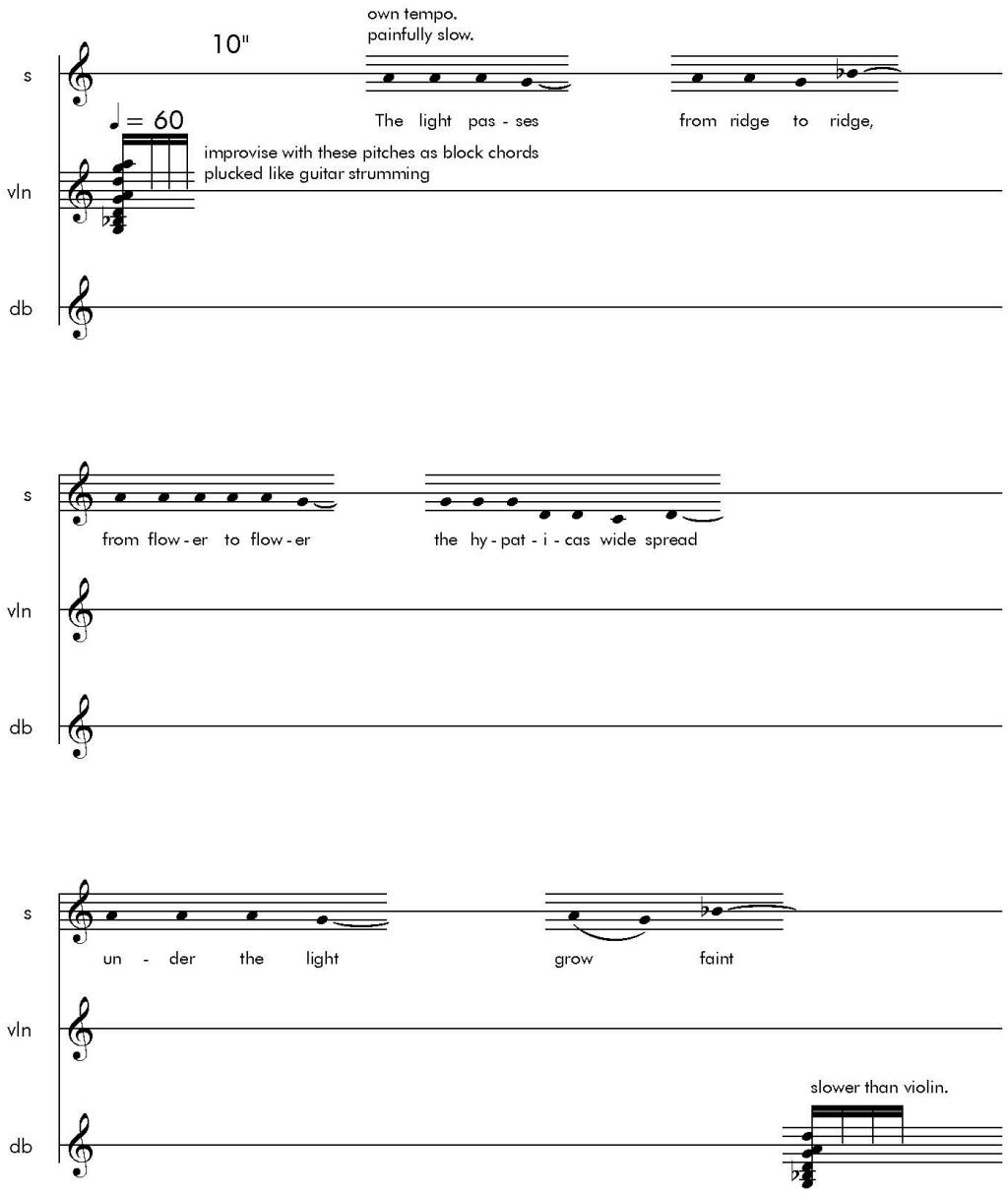
only a still place and perhaps some outer horror some hideousness to stamp beauty, a mark--
no changing it now-- on our hearts.



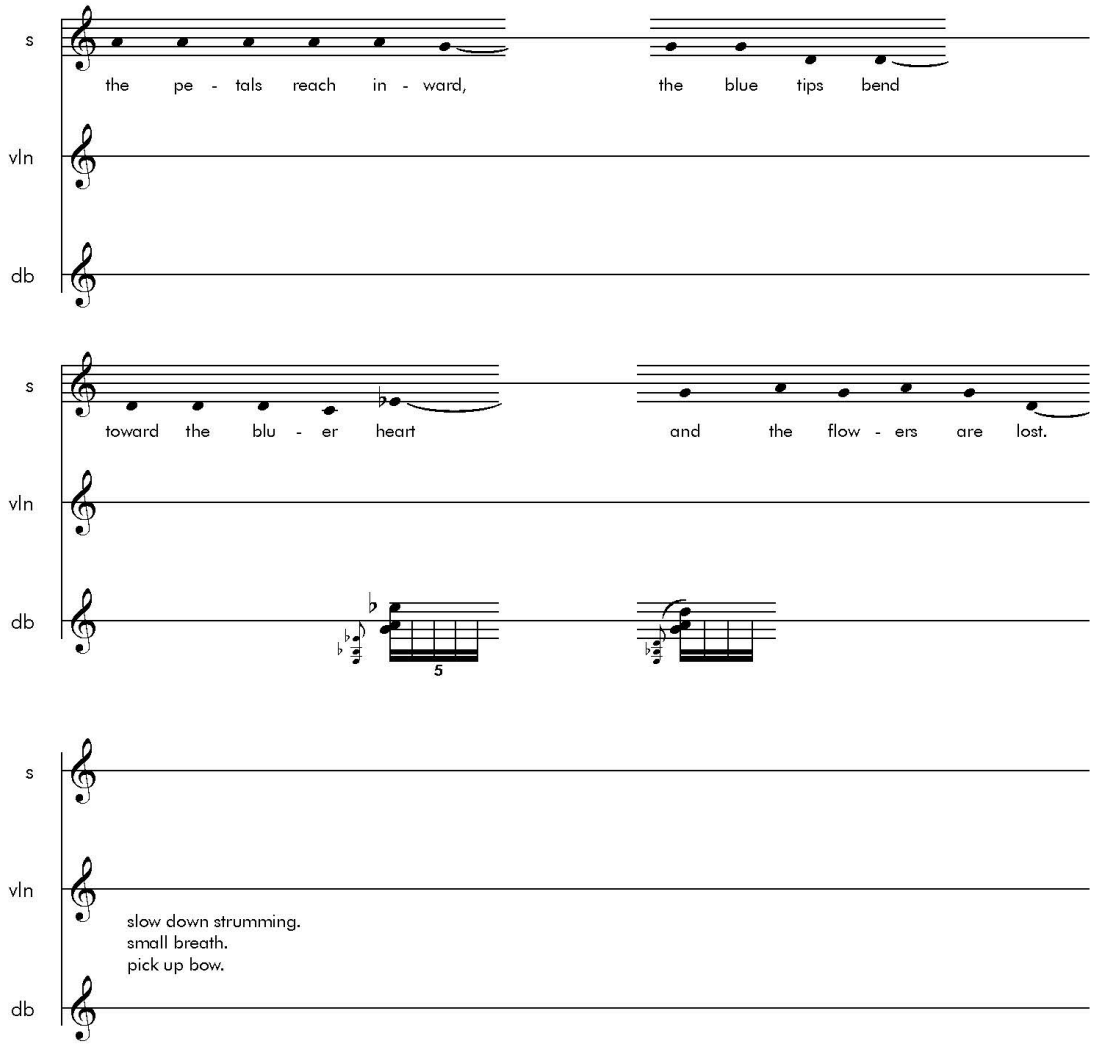
i send no string of pearls, no bracelet--accept this.



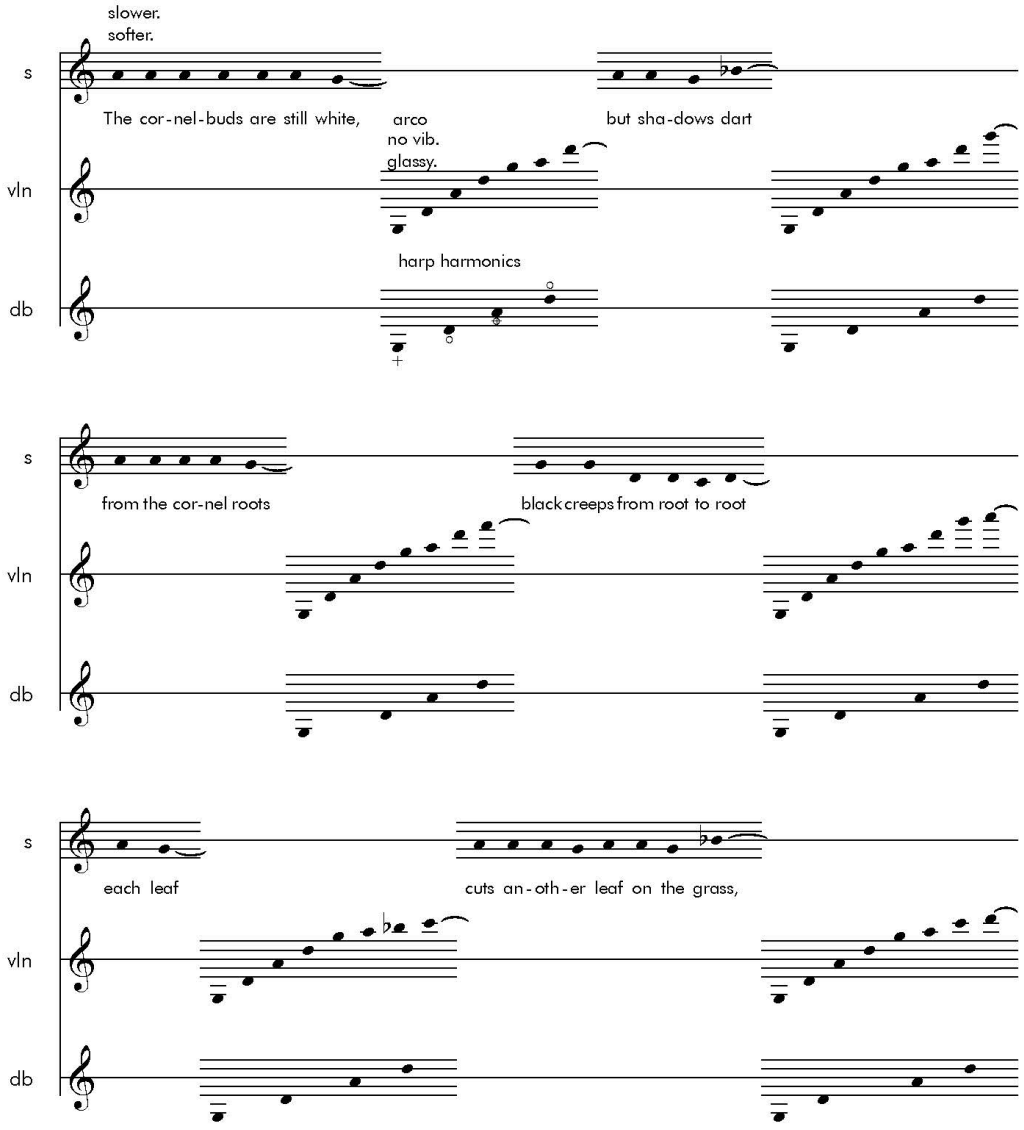
2.3 evening


10"
own tempo.
painfully slow.
s
♩ = 60
The light pas - ses
from ridge to ridge,
improvise with these pitches as block chords
plucked like guitar strumming
vln
db
s
from flow - er to flow - er
the hy - pat - i - cas wide spread
vln
db
s
un - der the light
grow faint
vln
slower than violin.
db

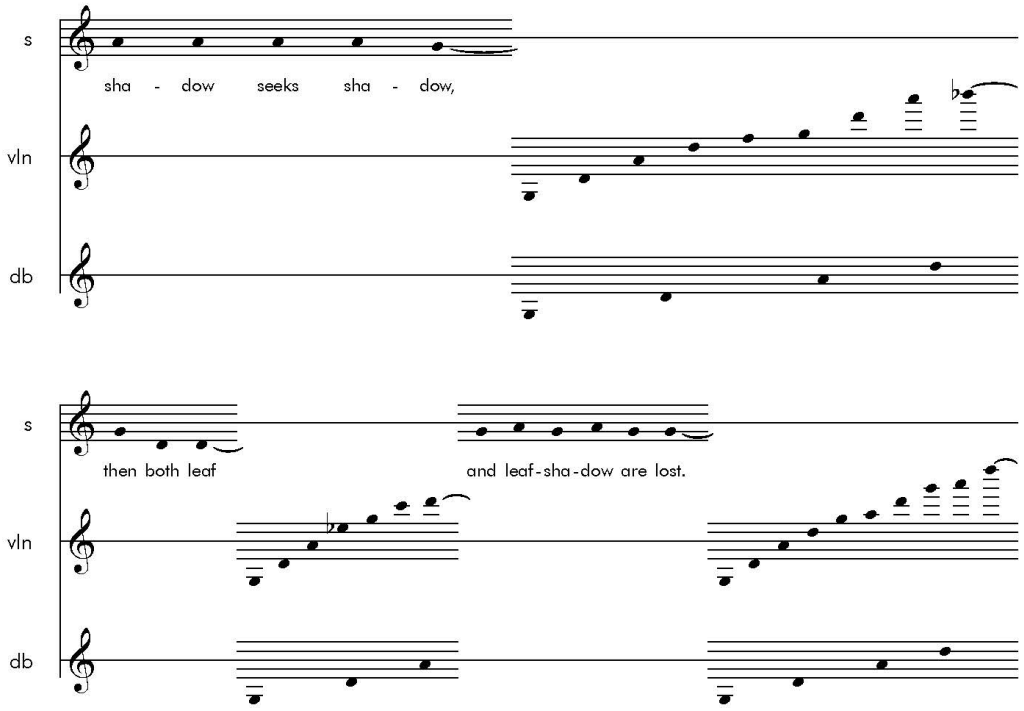
2.3 evening


s
the pe - tals reach in - ward, the blue tips bend
vln
db
s
toward the blu - er heart and the flow - ers are lost.
vln
db
5
s
vln
slow down strumming.
small breath.
pick up bow.
db

2.3 evening


slower.
softer.
s
The cor-nel-buds are still white,
arco
no vib.
glassy.
but sha-dows dart
vln
harp harmonics
db
s
from the cor-nel roots
black creeps from root to root
vln
db
s
each leaf
cuts an-oth-er leaf on the grass,
vln
db

2.3 evening


s
sha - dow seeks sha - dow,
vln
db
s
then both leaf
and leaf-sha-dow are lost.
vln
db

```
{SinOsc.ar(3000,mul:AudioIn.ar(1))!2}.play
```

I have had enough.
I gasp for breath.

Every way ends, every road,
every foot-path leads at last
to the hill-crest--
then you retrace your steps,
or find the same slope on the other side,
precipitate.

I have had enough--
border-pinks, clove-pinks, wax-lilies,
herbs, sweet-cress.

O for some sharp swish of a branch--
there is no scent of resin
in this place,
no taste of bark, of coarse weeds,
aromatic, astringent--
only border on border of scented pinks.

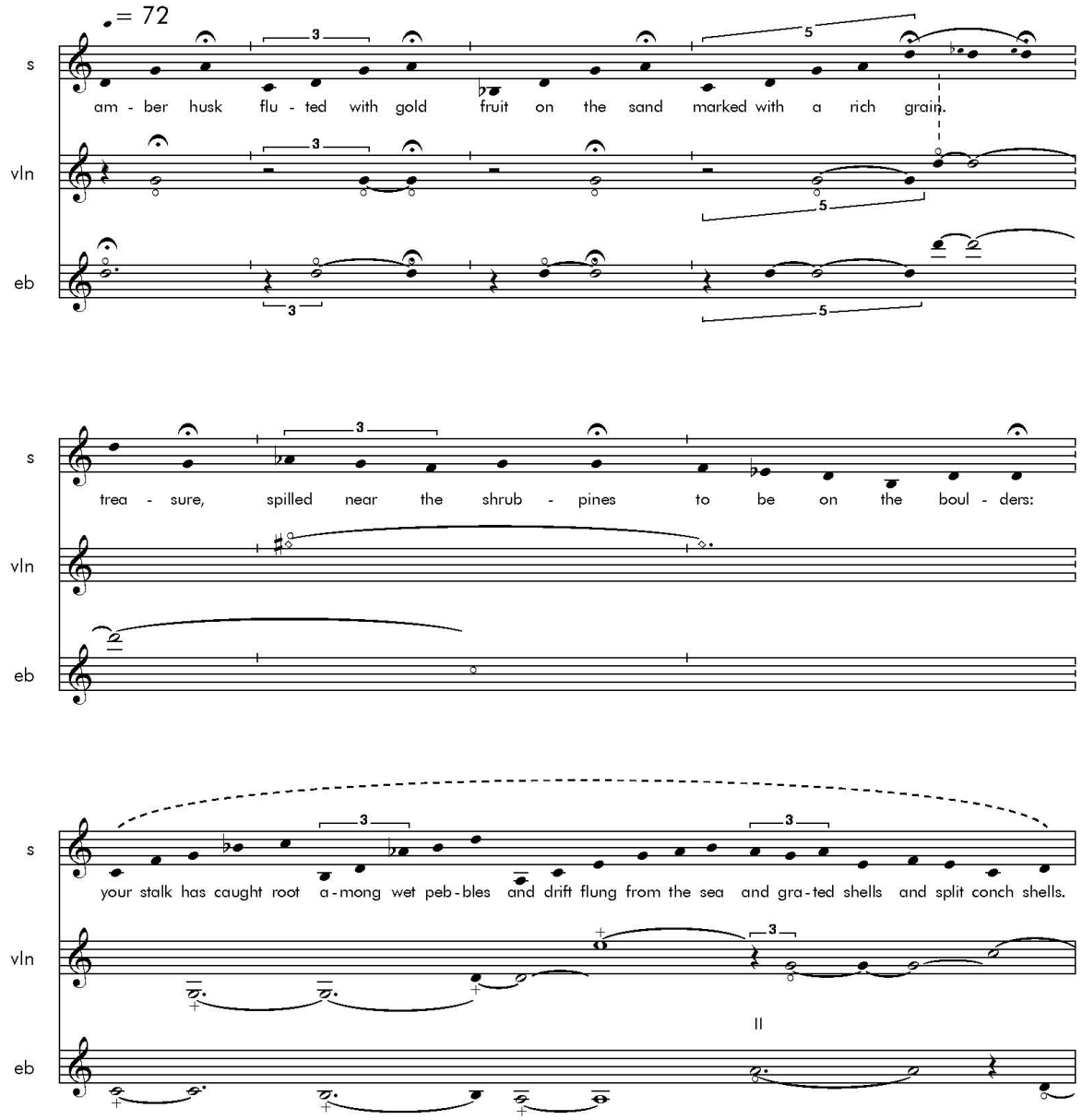
Have you seen fruit under cover
that wanted light--
pears wadded in cloth,
protected from the frost,
melons, almost ripe,
smothered in straw?

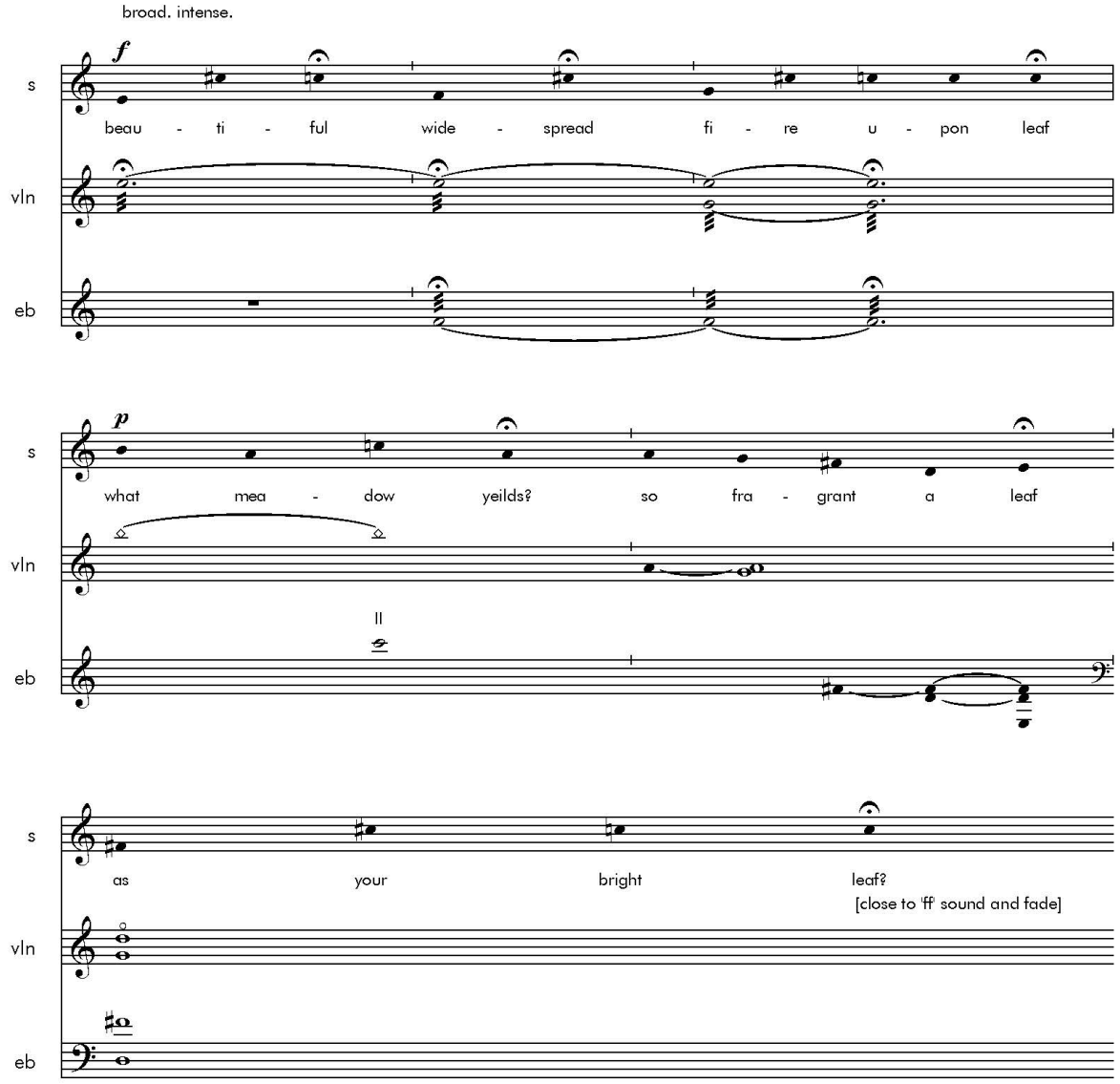
Why not let the pears cling
to the empty branch?
All your coaxing will only make
a bitter fruit--
let them cling, ripen of themselves,
test their own worth,
nipped, shrivelled by the frost,
to fall at last but fair
with a russet coat.

Or the melon--
let it bleach yellow
in the winter light,
even tart to the taste--
it is better to taste of frost--
the exquisite frost--
than of wadding and of dead grass.

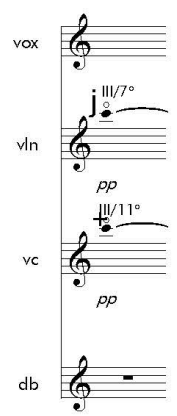
For this beauty,
beauty without strength,
chokes out life.
I want wind to break,
scatter these pink-stalks,
snap off their spiced heads,
fling them about with dead leaves--
spread the paths with twigs,
limbs broken off,
trail great pine branches,
hurled from some far wood
right across the melon-patch,
break pear and quince--
leave half-trees, torn, twisted
but showing the fight was valiant.

O to blot out this garden
to forget, to find a new beauty
in some terrible
wind-tortured place.


♩ = 72
s
vln
eb
am - ber husk flu - ted with gold fruit on the sand marked with a rich grain.
trea - sure, spilled near the shrub - pines to be on the boul - ders:
your stalk has caught root a-mong wet peb-bles and drift flung from the sea and gra-ted shells and split conch shells.
II


broad. intense.
f
s
beau - ti - ful wide - spread fi - re u - pon leaf
vln
eb
p
s
what mea - dow yeilds? so fra - grant a leaf
vln
II
eb
s
as your bright leaf?
[close to 'ff' sound and fade]
vln
eb

2.6 loss

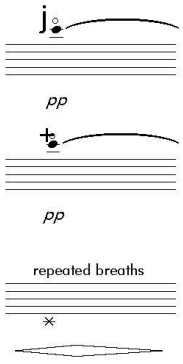


The sea called--
you faced the estuary,
you were drowned as the tide passed.--
I am glad of this--
at least you have escaped.

The heavy sea-mist stifles me.
I choke with each breath--
a curious peril, this--
the gods have invented
curious torture for us.

One of us, pierced in the flank,
dragged himself across the marsh,
he tore at the bay-roots,
lost hold on the crumbling bank--

Another crawled--too late--
for shelter under the cliffs.

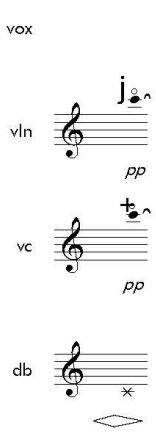


I am glad the tide swept you out,
O beloved,
you of all this ghastly host
alone untouched,
your white flesh covered with salt
as with myrrh and burnt iris.

We were hemmed in this place,
so few of us, so few of us to fight
their sure lances,
the straight thrust--effortless
with slight life of muscle and shoulder.

So straight--only we were left,
the four of us--somehow shut off.

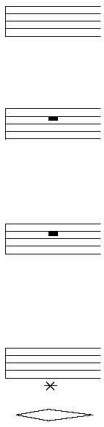
And the marsh dragged one back,
and another perished under the cliff,
and the tide swept you out.



Your feet cut steel on the paths,
I followed for the strength
of life and grasp.
I have seen beautiful feet
but never beauty welded with strength.
I marvelled at your height.

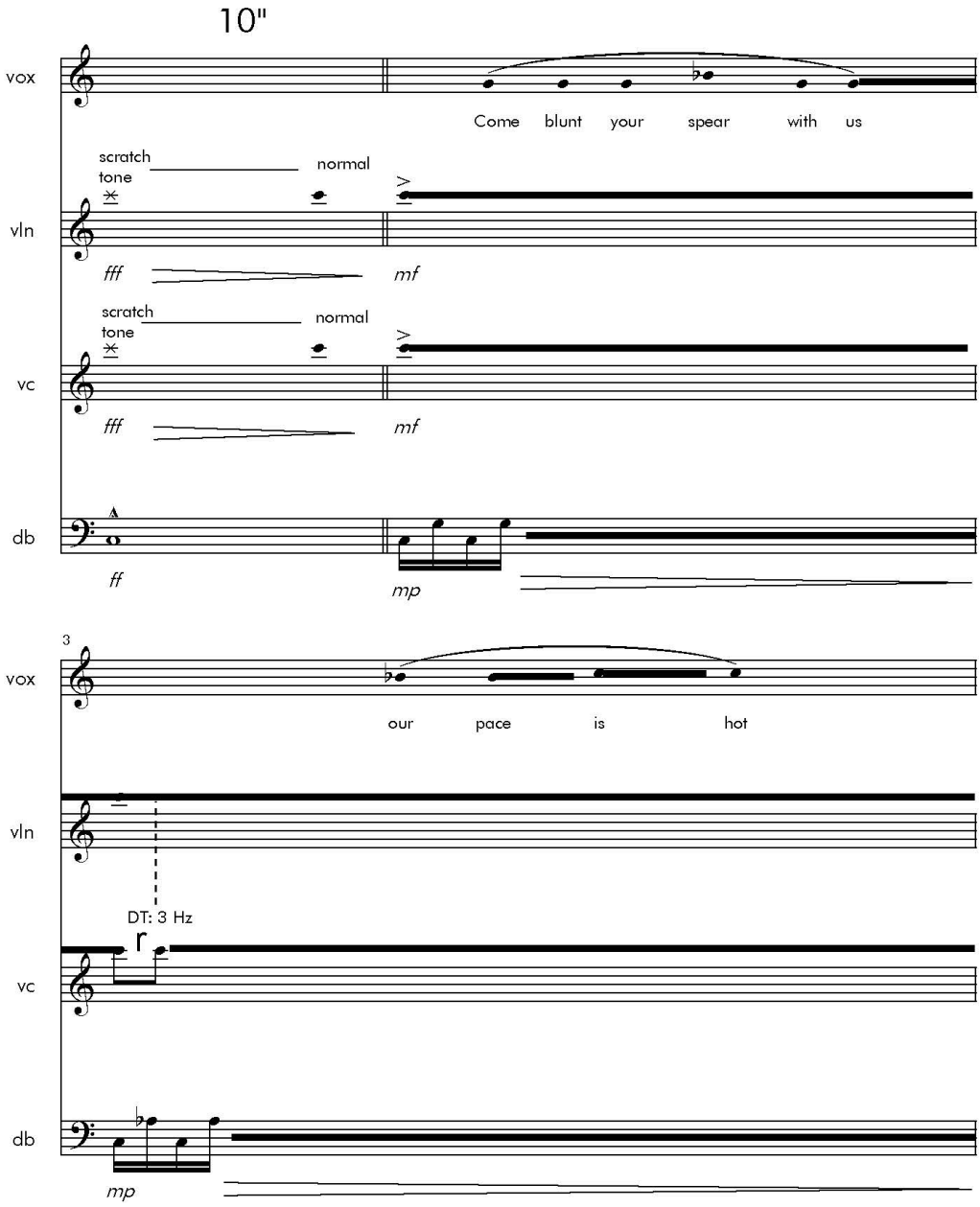
You stood almost level
with the lance-bearers
and so slight.

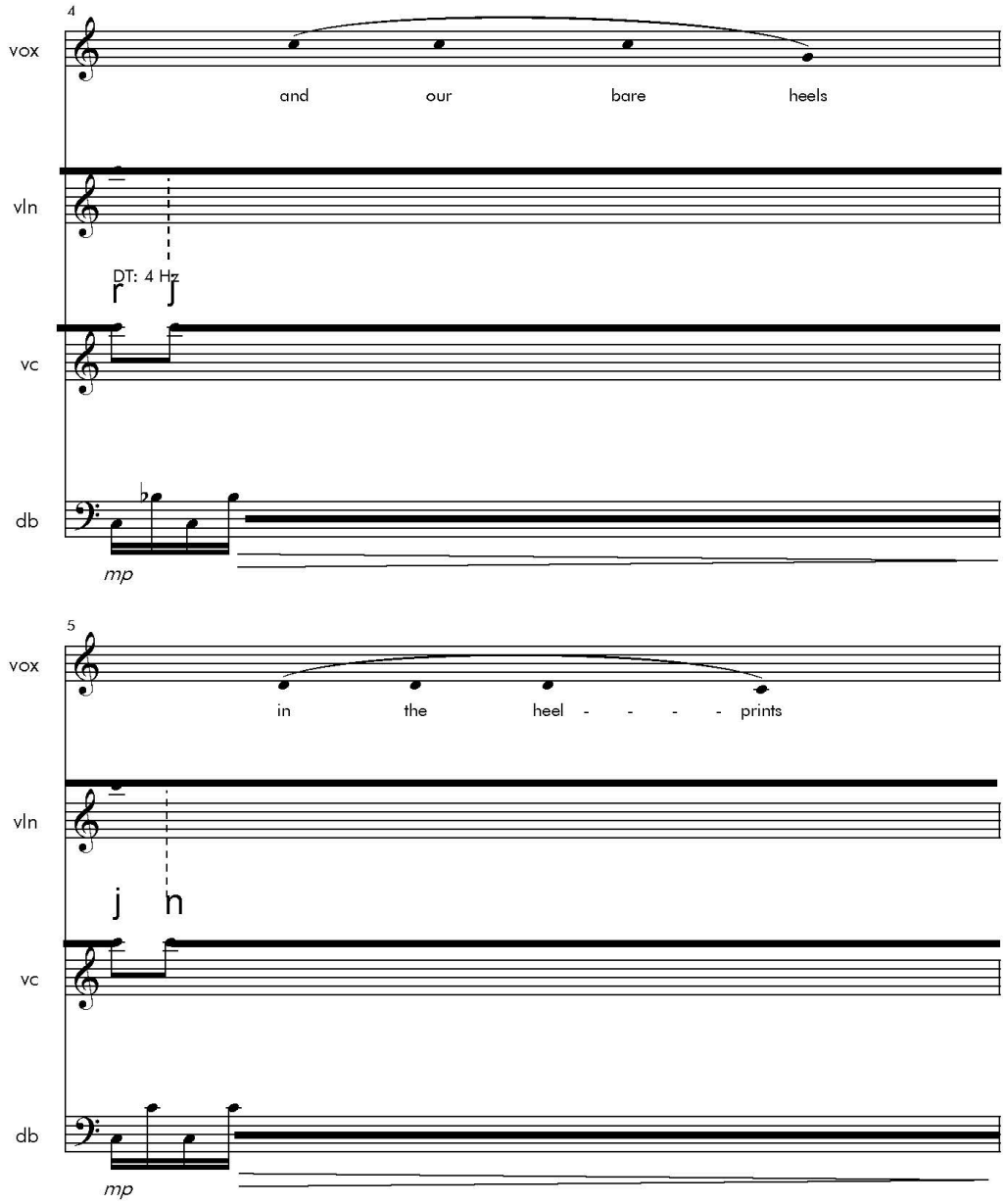
And I wondered as you clasped
your shoulder-strap
at the strength of your wrist
and the turn of your young fingers,
and the lift of your shorn locks,
and the bronze
of your sun-burnt neck.

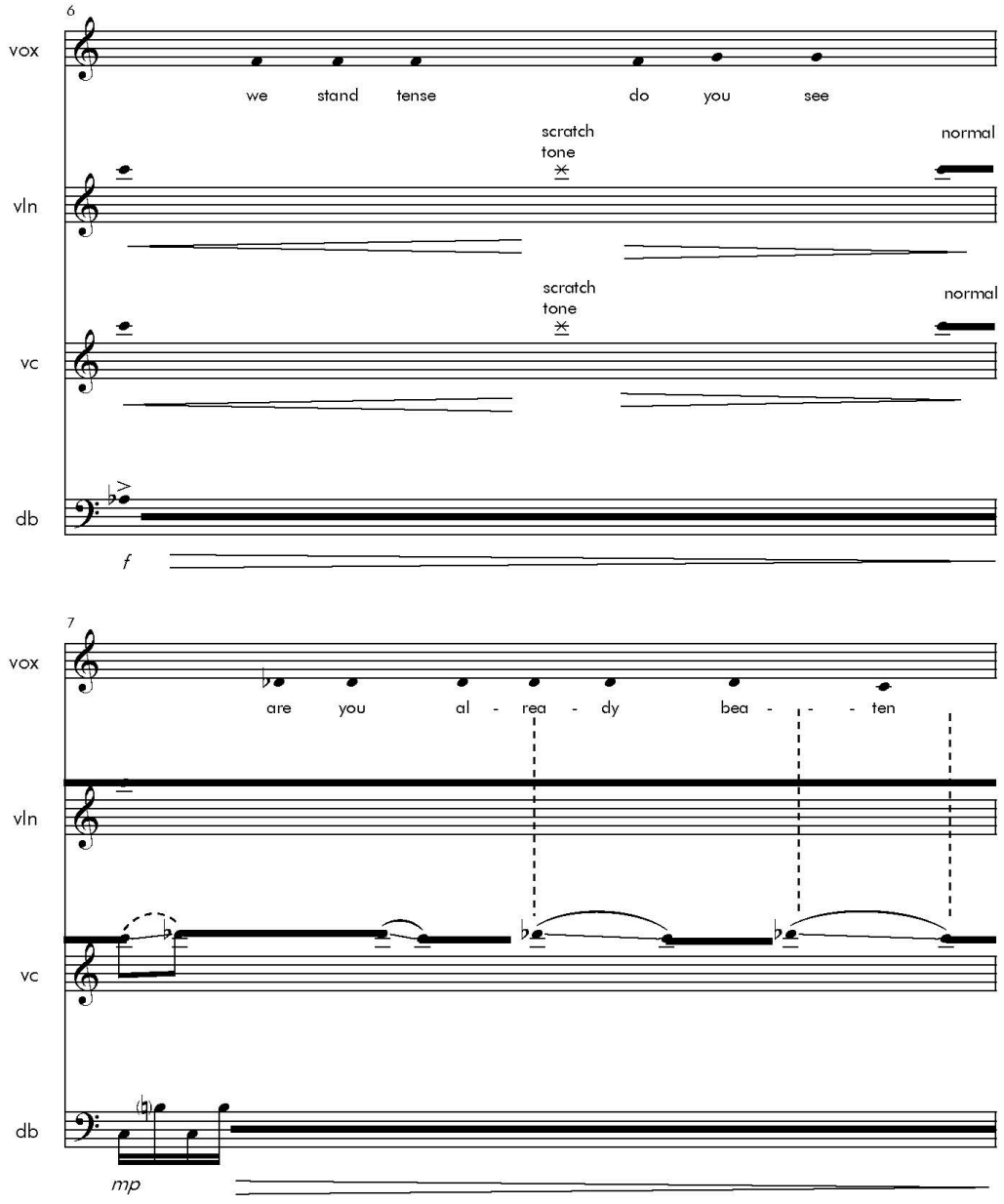


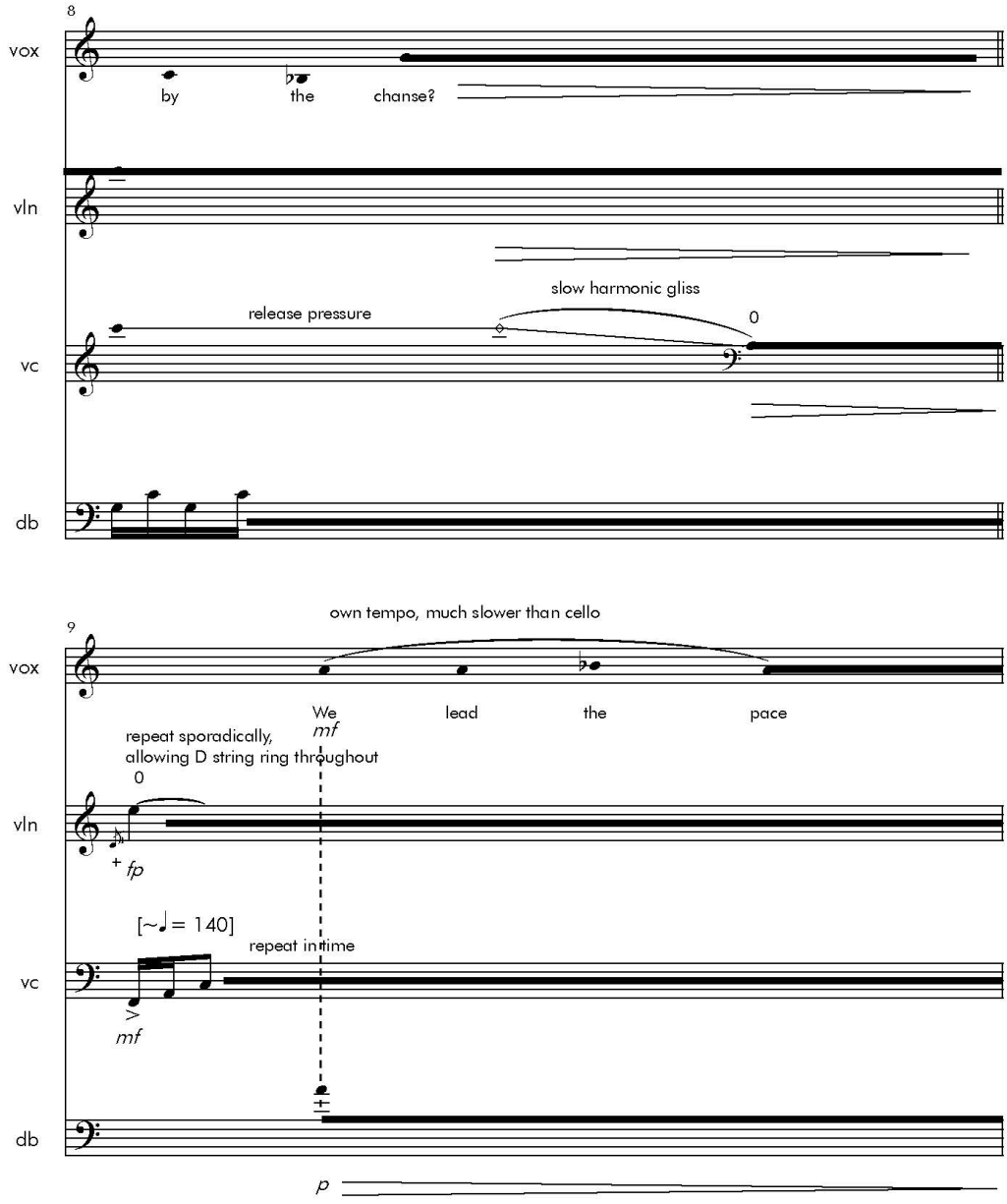
All of this,
and the curious knee-cap,
fitted above the wrought greaves,
and the sharp muscles of your back
which the tunic could not cover--
the outline
no garment could deface.

I wonder if you knew how
I watched,
how I crowded
before the spearsmen--
but the gods wanted you,
the gods wanted you back.

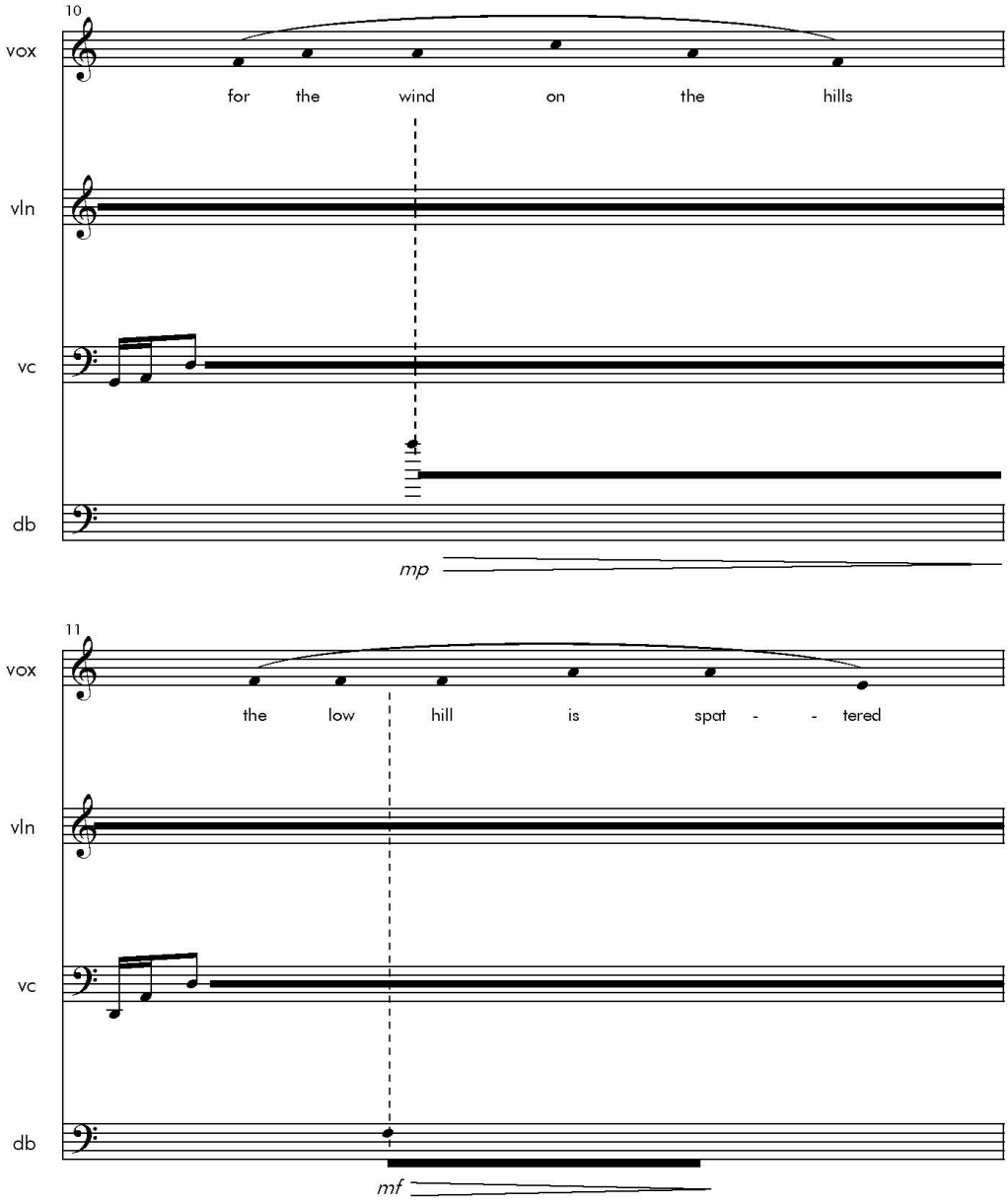

10"
vox
Come blunt your spear with us
scratch tone
normal
vln
fff
mf
scratch tone
normal
vc
fff
mf
db
ff
mp
3
vox
our pace is hot
vln
DT: 3 Hz
vc
db
mp


4
vox
and our bare heels
vln
DT: 4 Hz
r j
vc
db
mp
5
vox
in the heel - - - - prints
vln
j h
vc
db
mp

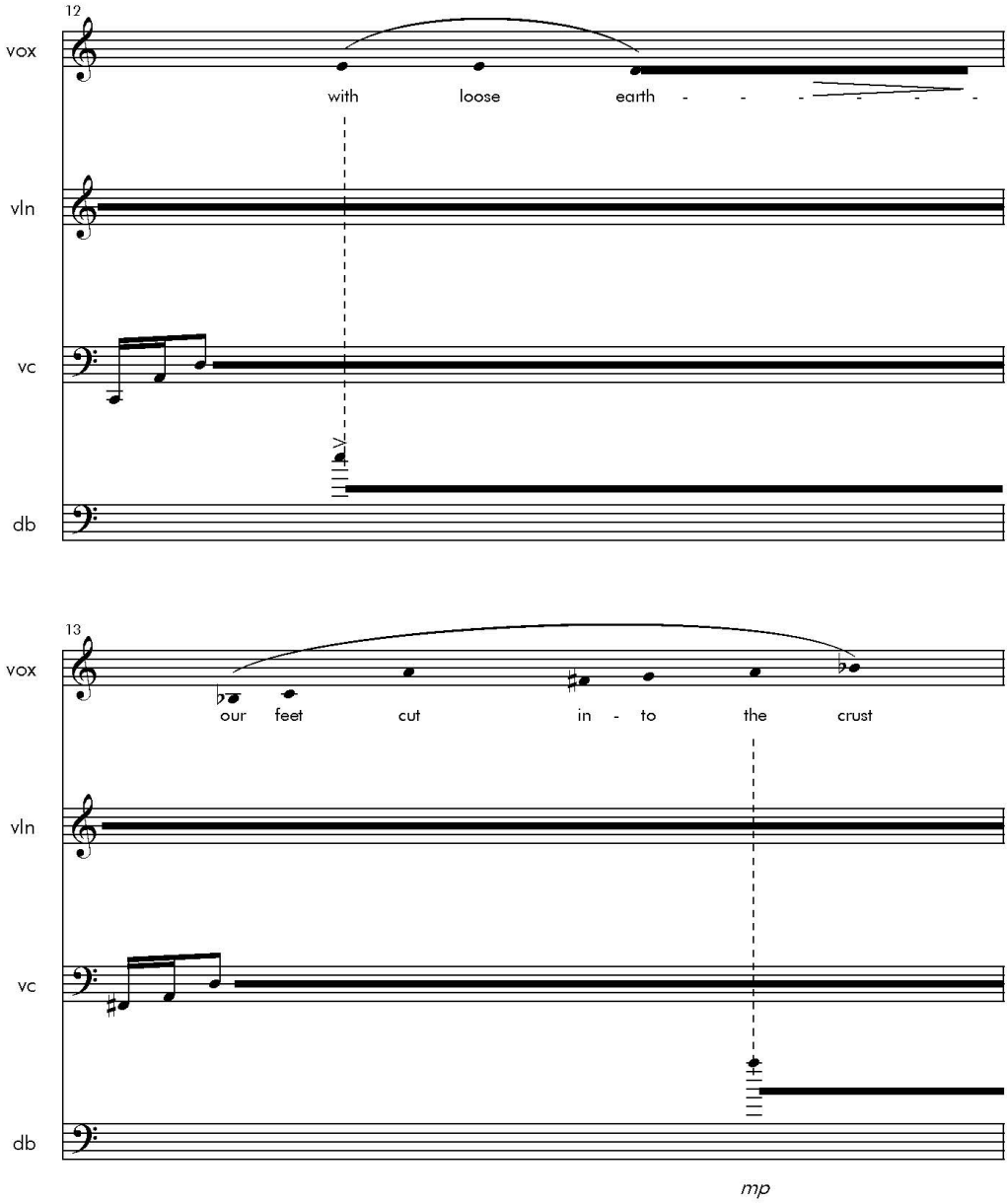

6
vox
we stand tense do you see
scratch tone
normal
vln
scratch tone
normal
vc
db
f
7
vox
are you al - rea - dy bea - - - ten
vln
vc
db
mp


8
vox
by
the
chanse?
vln
release pressure
slow harmonic gliss
0
vc
db
own tempo, much slower than cello
9
vox
We
lead
the
pace
mf
repeat sporadically,
allowing D string ring throughout
0
vln
+ fp
[~♩= 140]
repeat in time
vc
mf
db
p

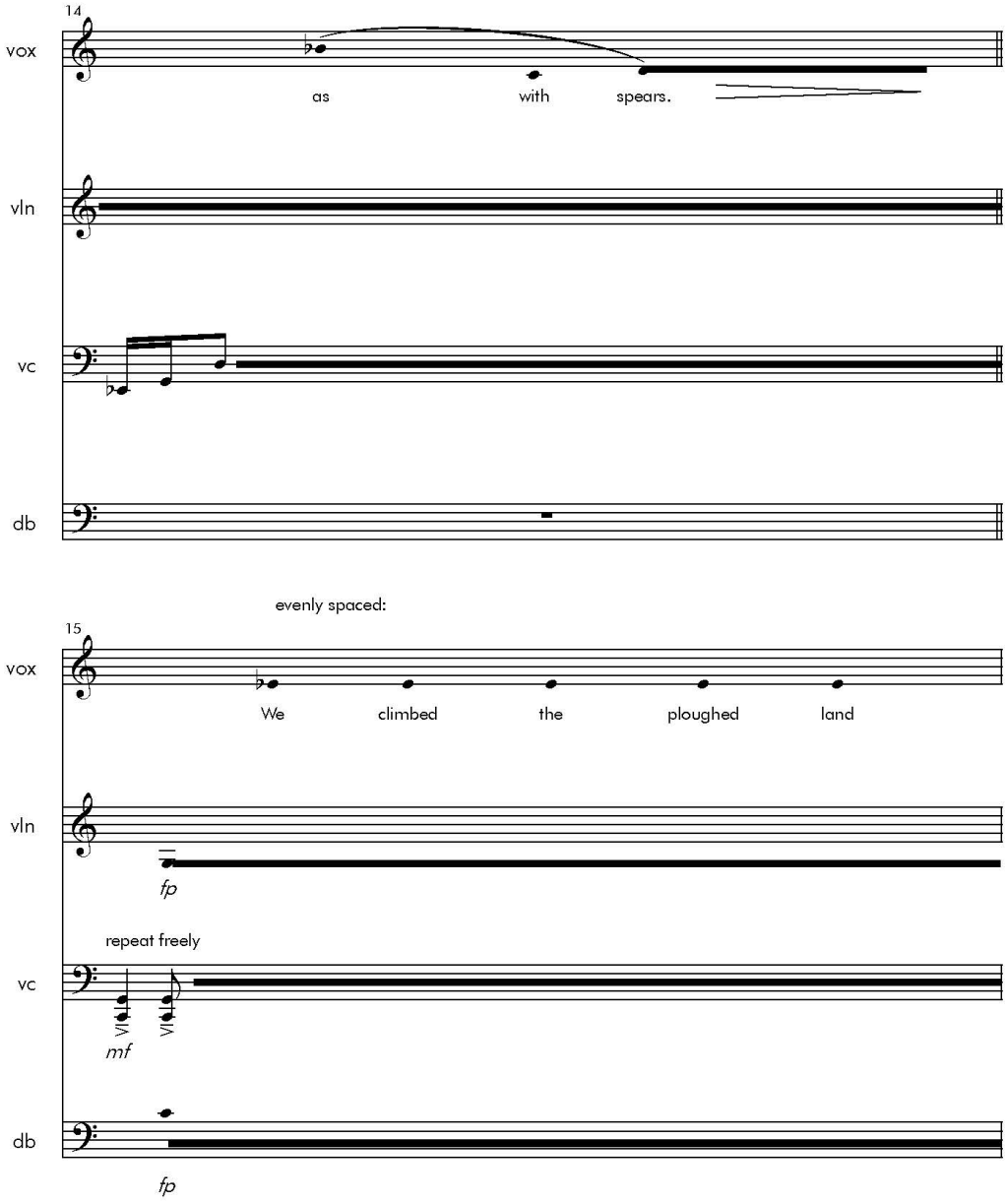
2.7 huntress


10
vox
for the wind on the hills
vln
vc
db
mp
11
vox
the low hill is spat - - tered
vln
vc
db
mf

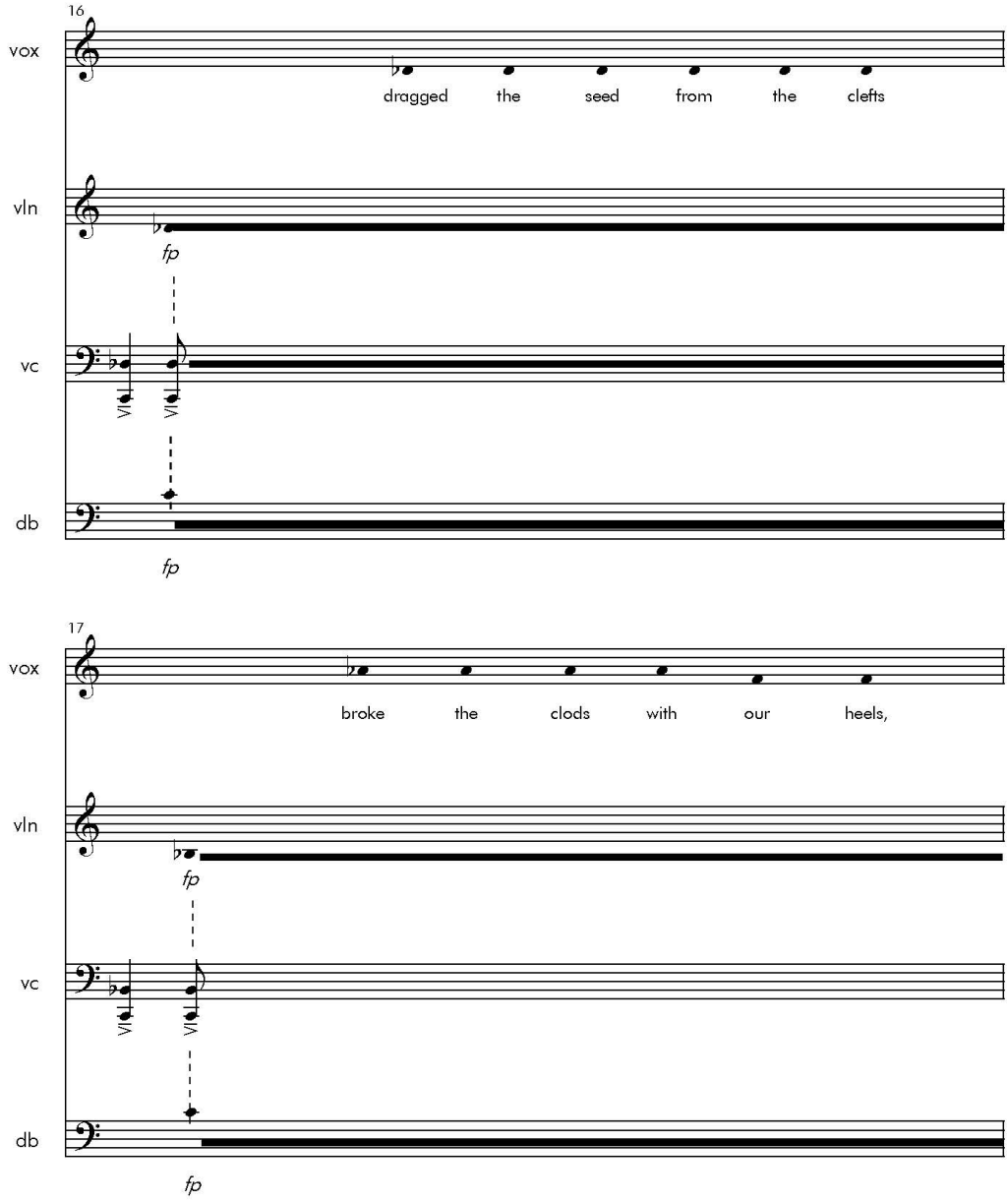
2.7 huntress


12
vox
with
loose
earth
vln
vc
db
13
vox
our
feet
cut
in
to
the
crust
vln
vc
db
mp

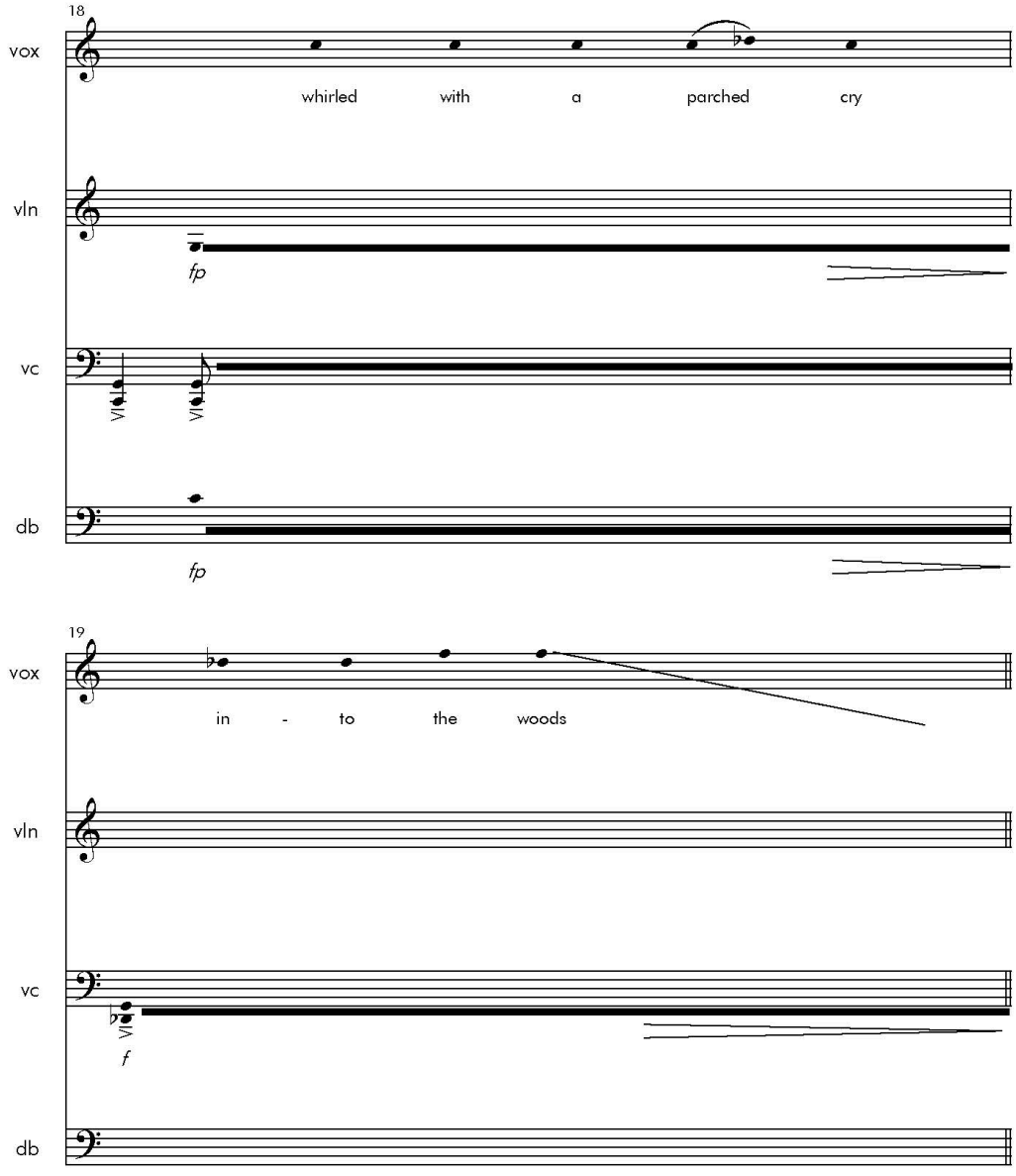
2.7 huntress


14
vox
as
with
spears.
vln
vc
db
evenly spaced:
15
vox
We
climbed
the
ploughed
land
vln
fp
repeat freely
vc
VI
VI
mf
db
fp

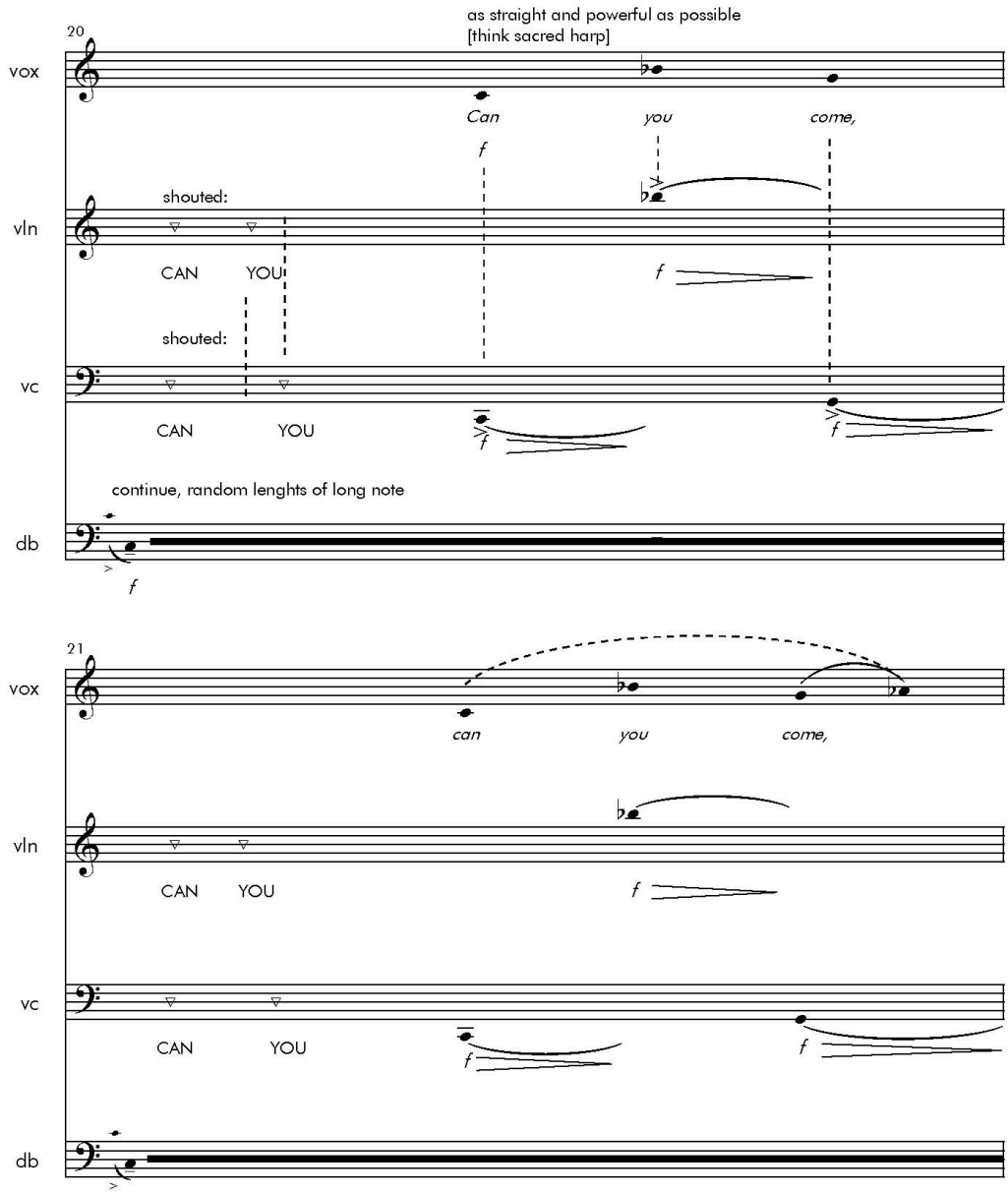
2.7 huntress

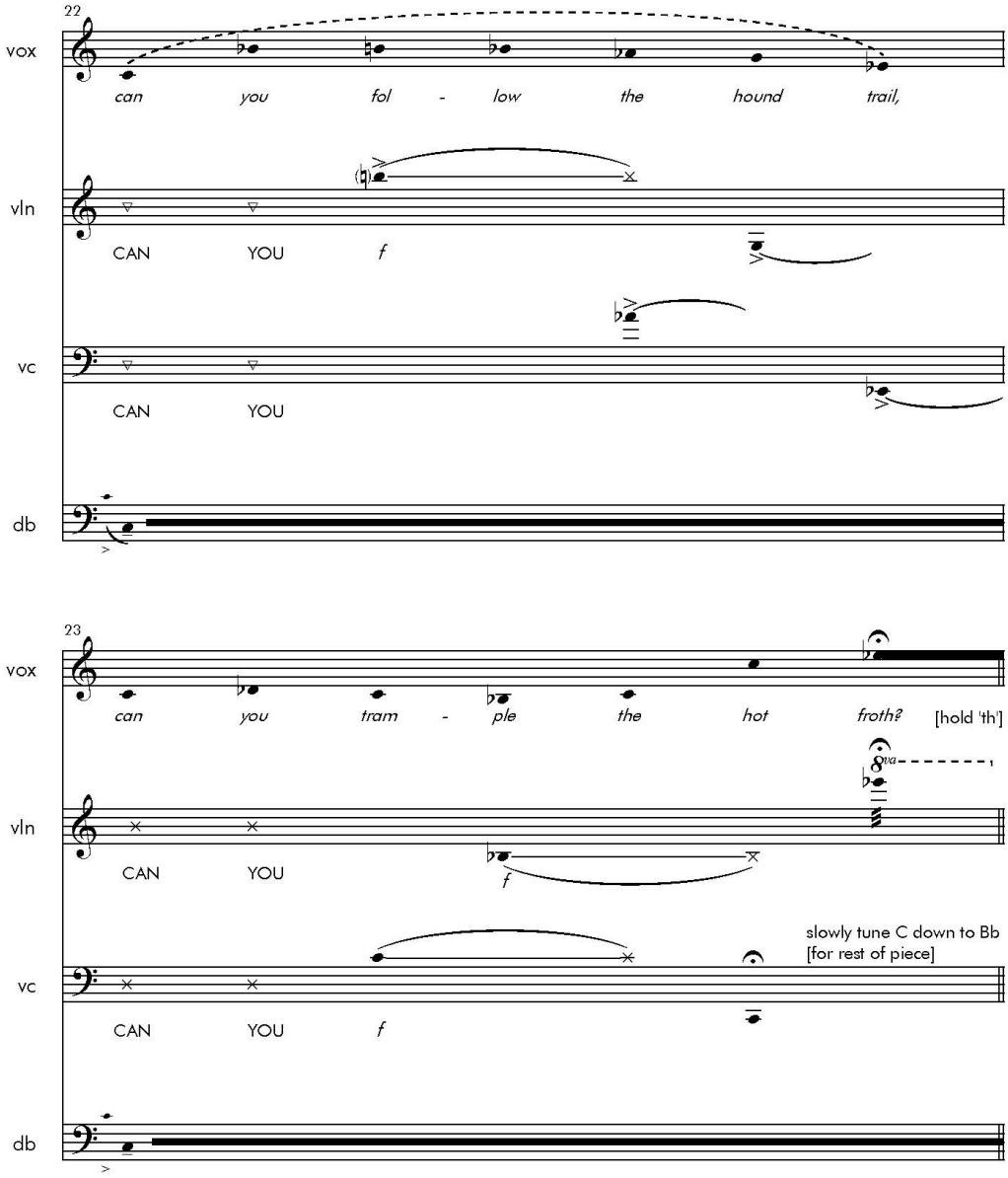

16
vox
dragged the seed from the clefts
vln
fp
vc
Vl
Vl
db
fp
17
vox
broke the clods with our heels,
vln
fp
vc
Vl
Vl
db
fp

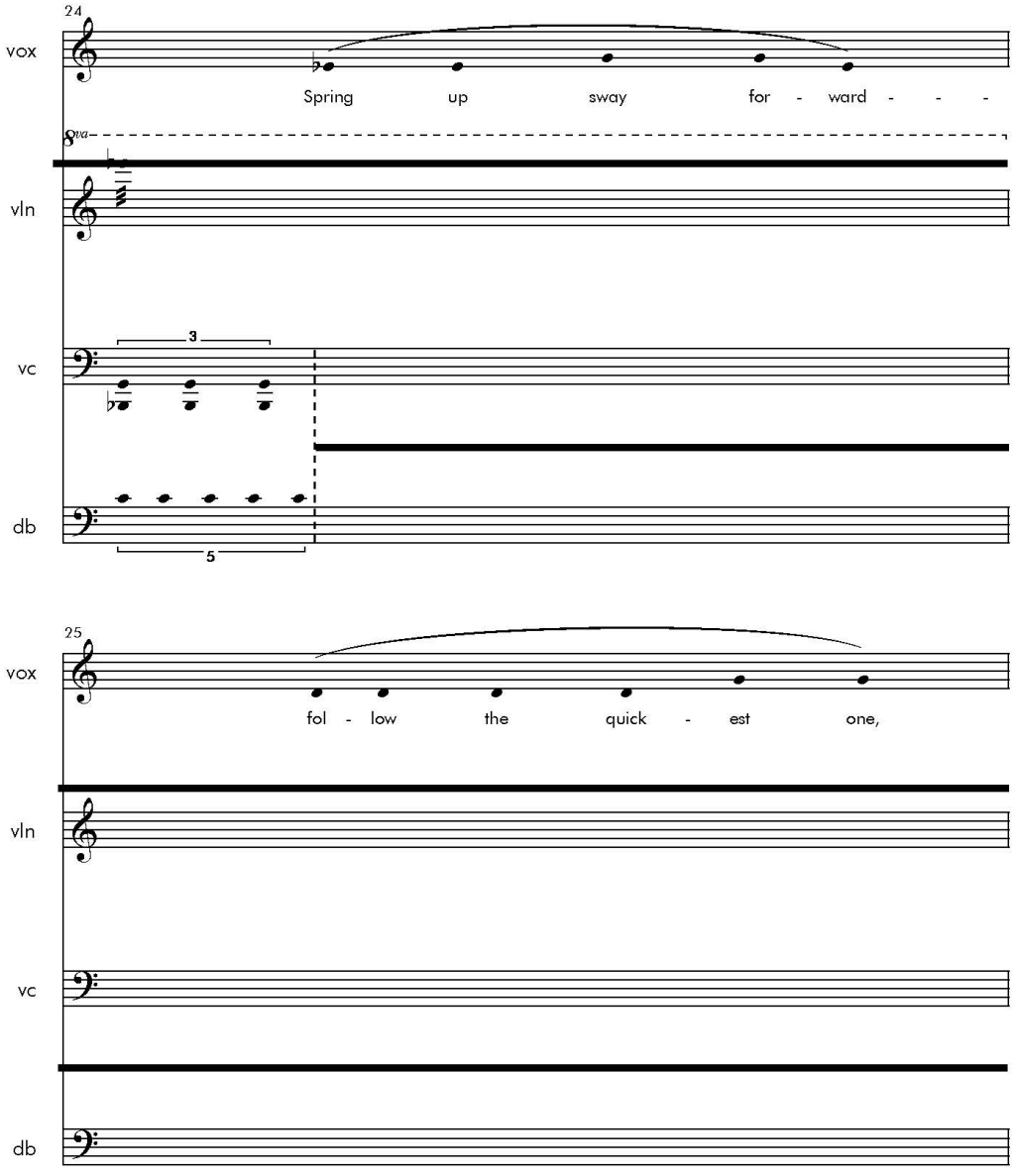
2.7 huntress


18
vox
whirled with a parched cry
vln
fp
vc
VI
VI
db
fp
19
vox
in - to the woods
vln
vc
VI
f
db

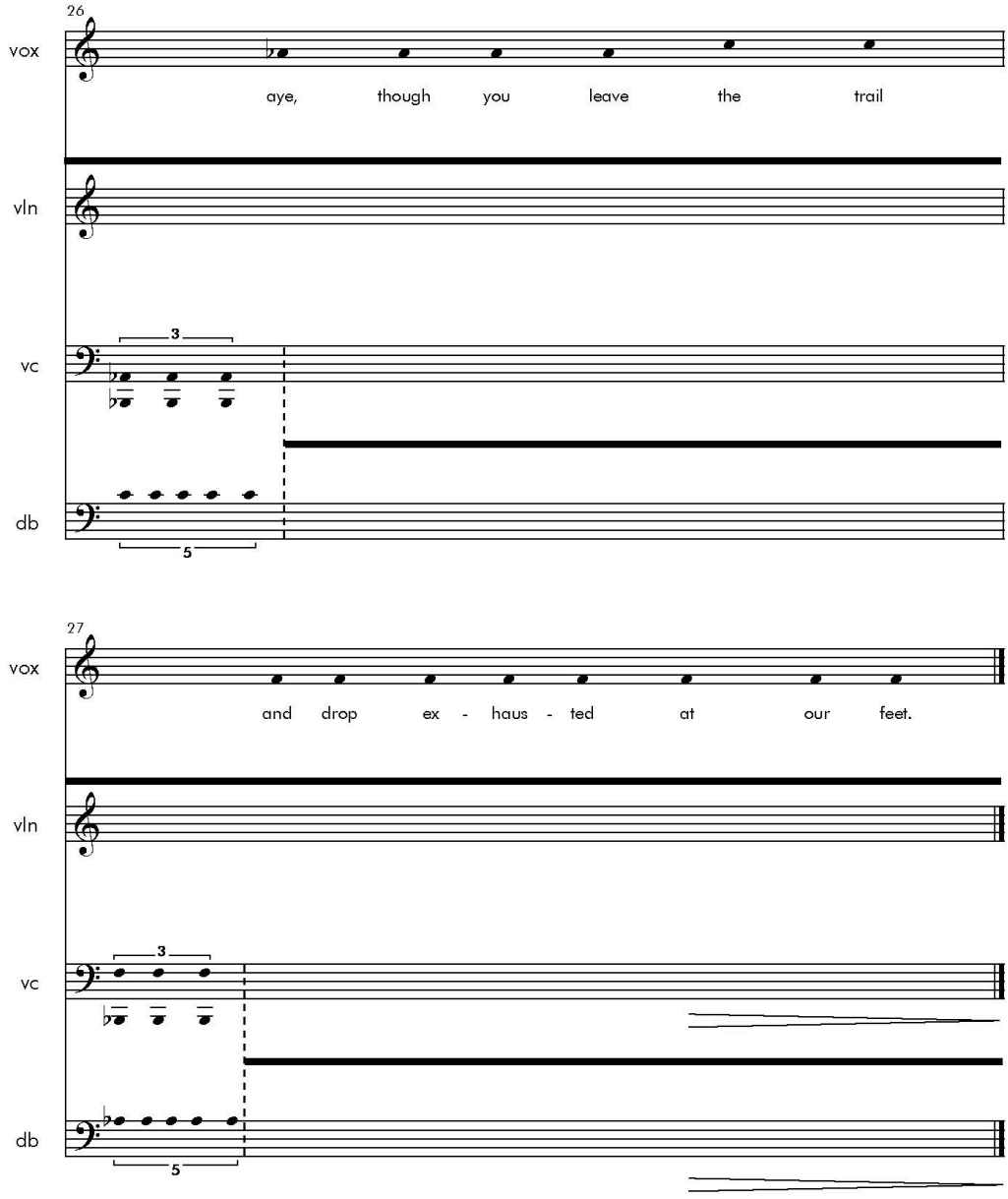
2.7 huntress


as straight and powerful as possible
[think sacred harp]
20
vox
Can
you
come,
f
shouted:
vln
CAN
YOU
f
shouted:
vc
CAN
YOU
f
f
continue, random lenghts of long note
db
f
21
vox
can
you
come,
vln
CAN
YOU
f
vc
CAN
YOU
f
f
db


22
vox
can you fol - low the hound trail,
vln
CAN YOU f
vc
CAN YOU
db
23
vox
can you tram - ple the hot froth? [hold 'th']
vln
CAN YOU f
8va
vc
CAN YOU f
slowly tune C down to Bb
[for rest of piece]
db

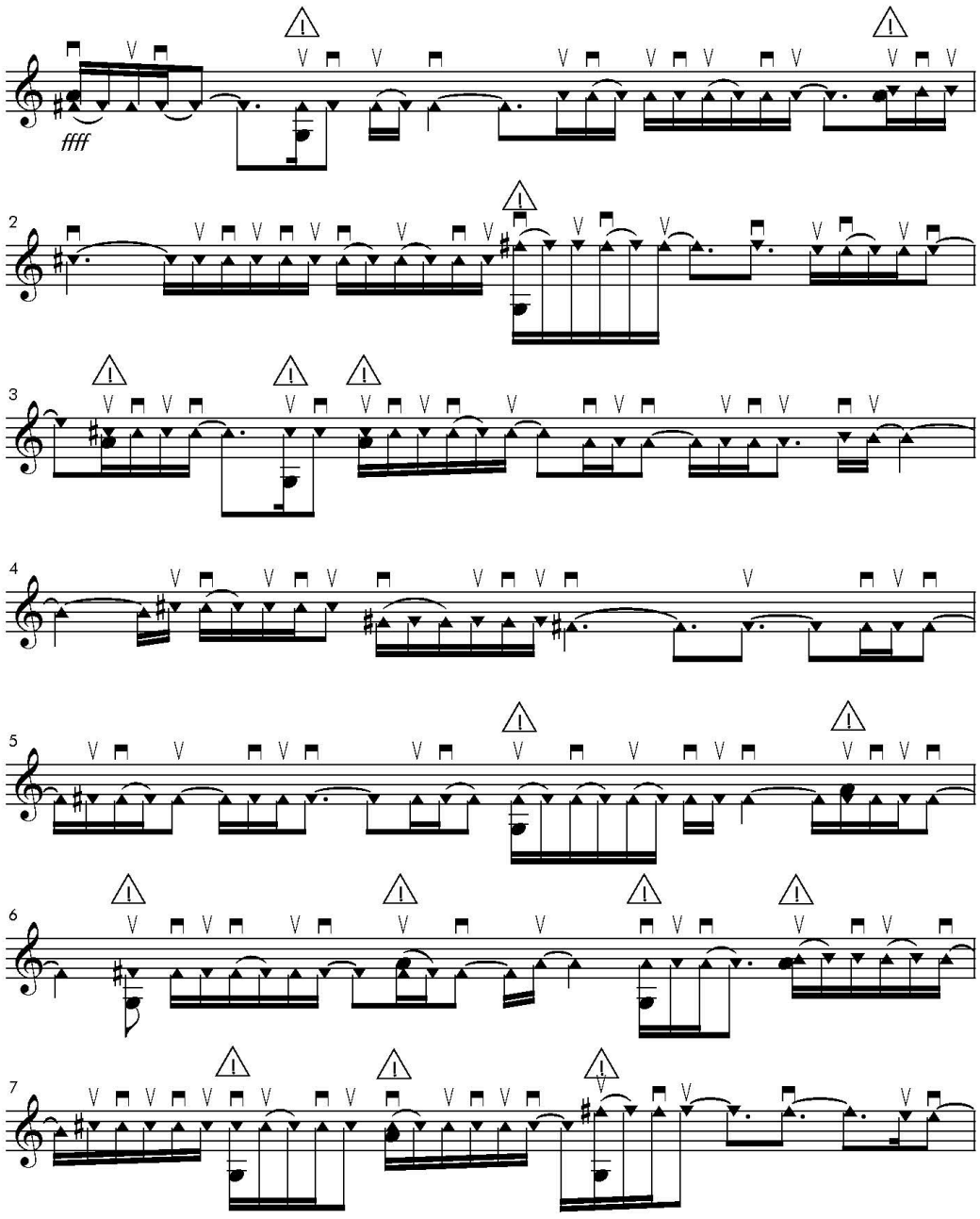

24
vox
Spring up sway for - ward - - -
8va
vln
3
vc
db
5
25
vox
fol - low the quick - est one,
vln
vc
db

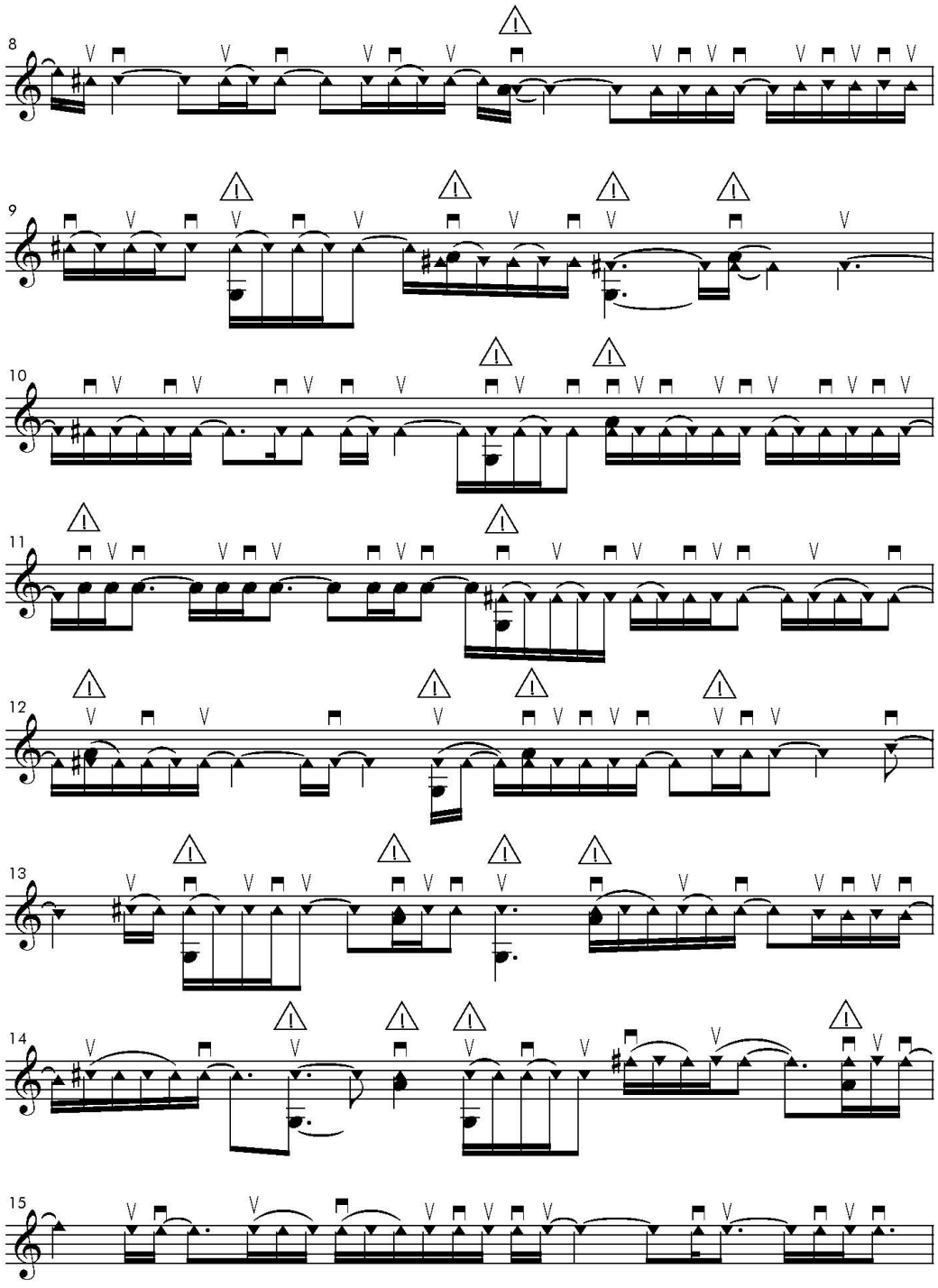
2.7 huntress

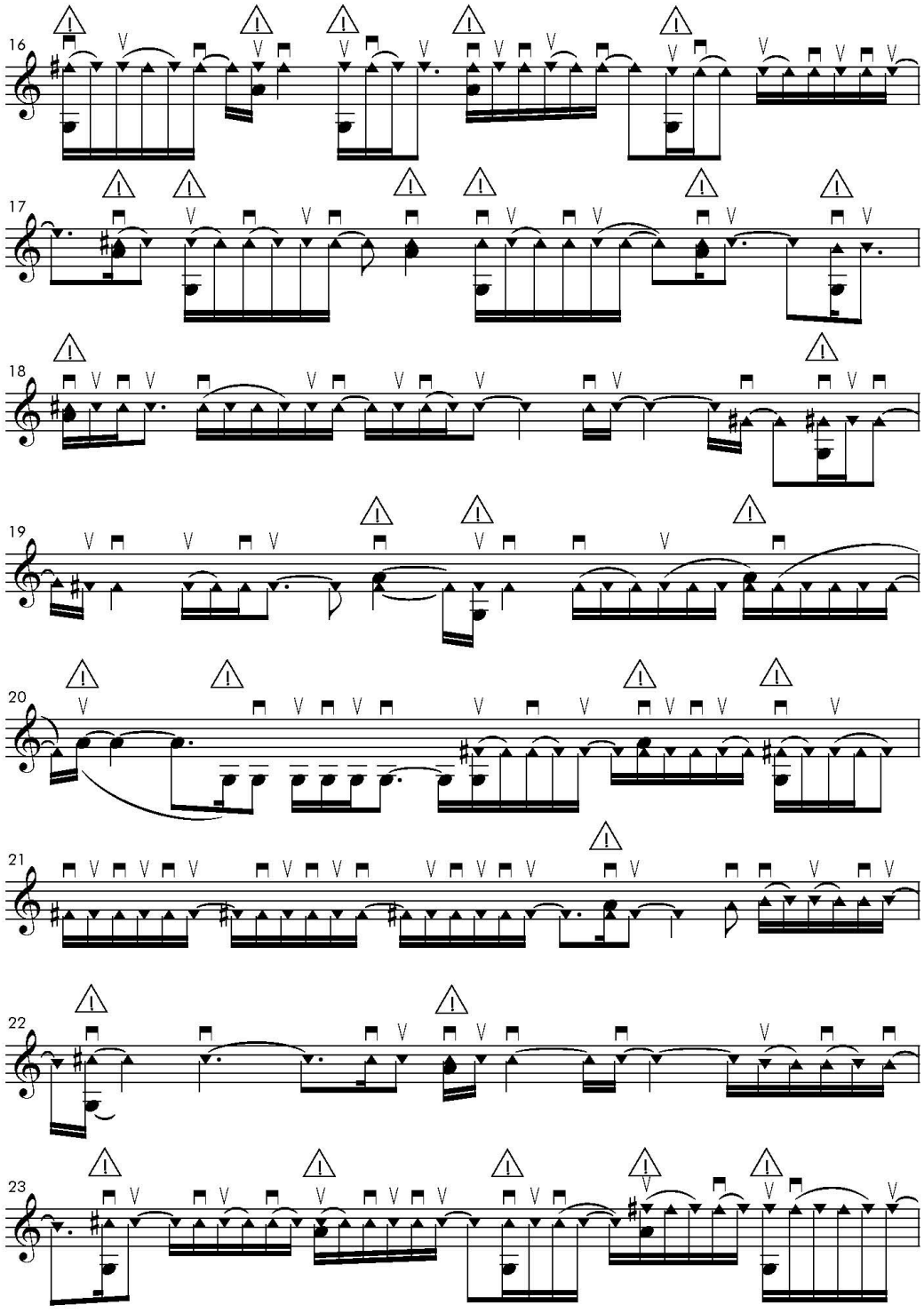

26
vox
aye, though you leave the trail
vln
3
vc
db
5
27
vox
and drop ex - haus - ted at our feet.
vln
3
vc
db
5

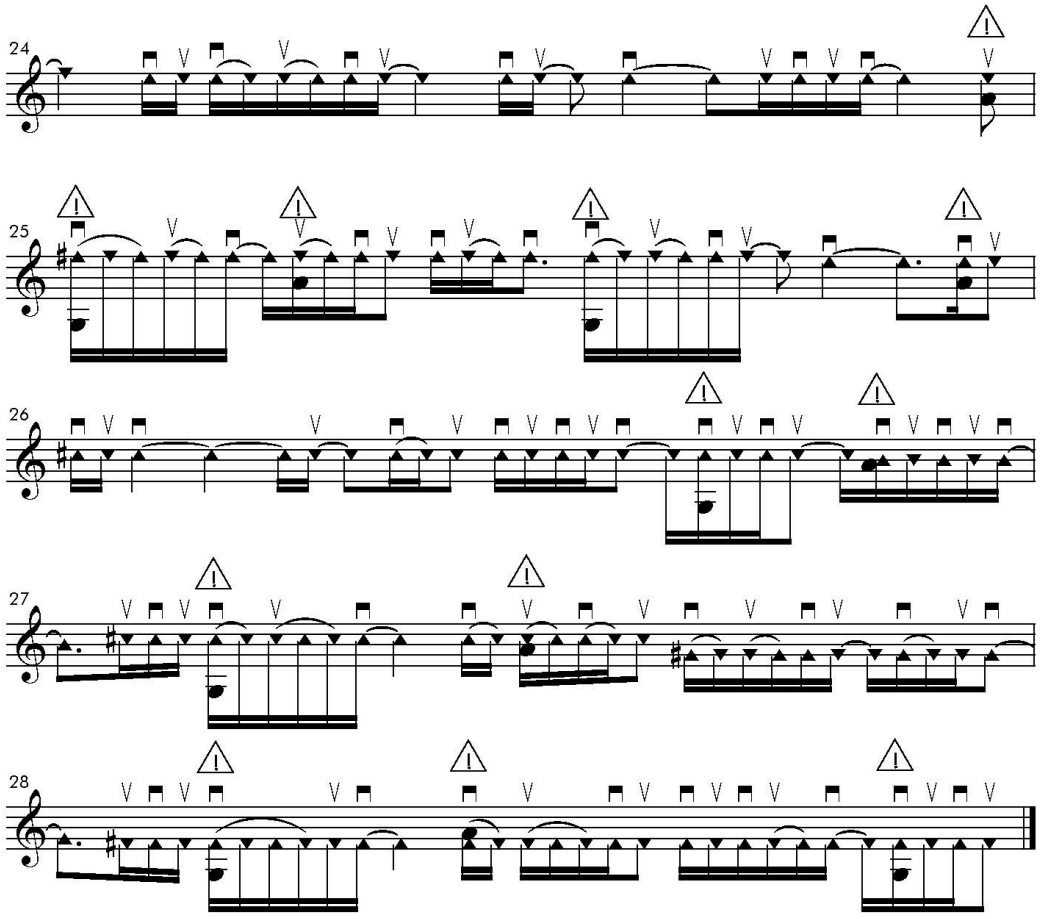
VIOLIN

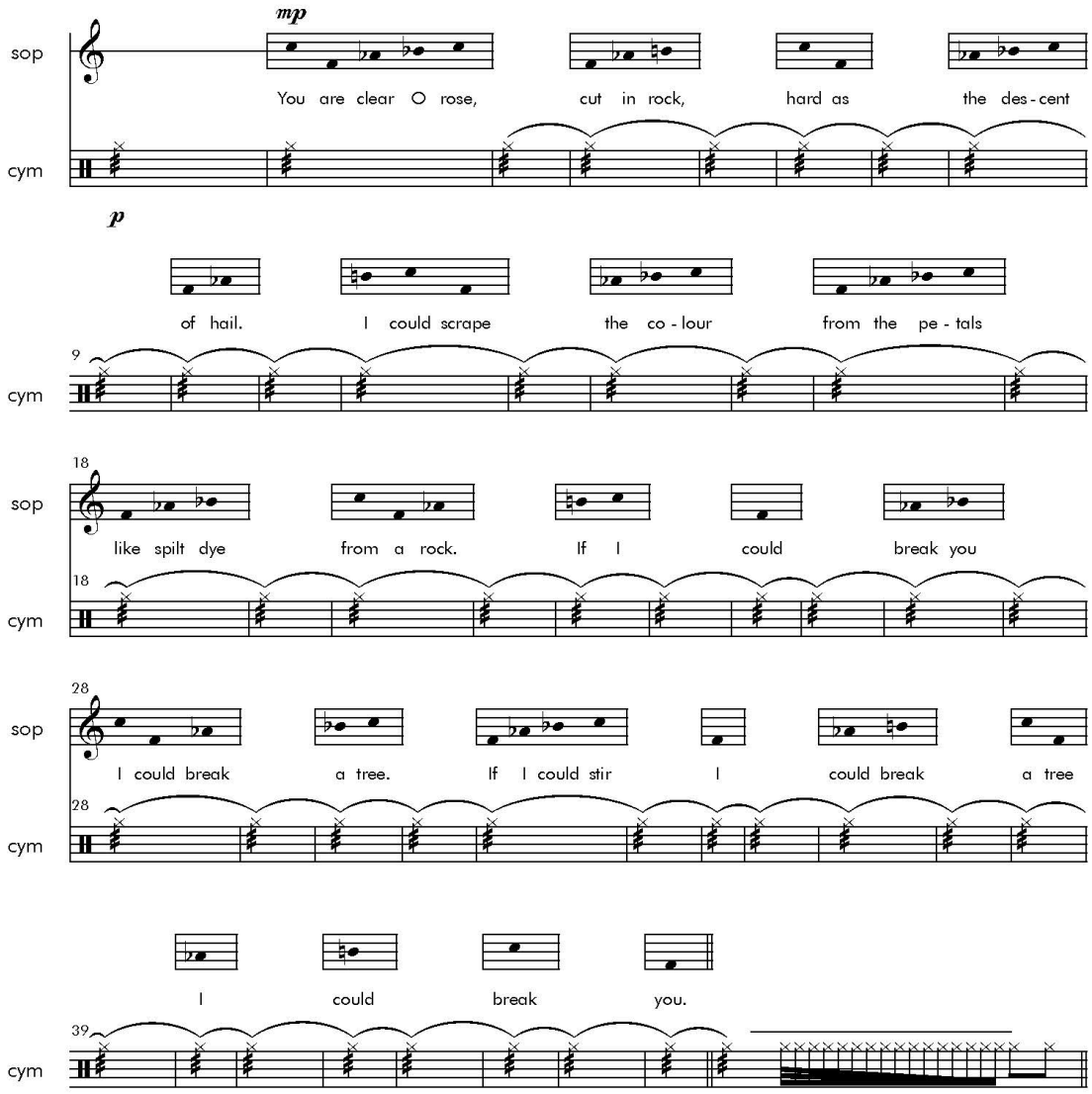
♩. = 82

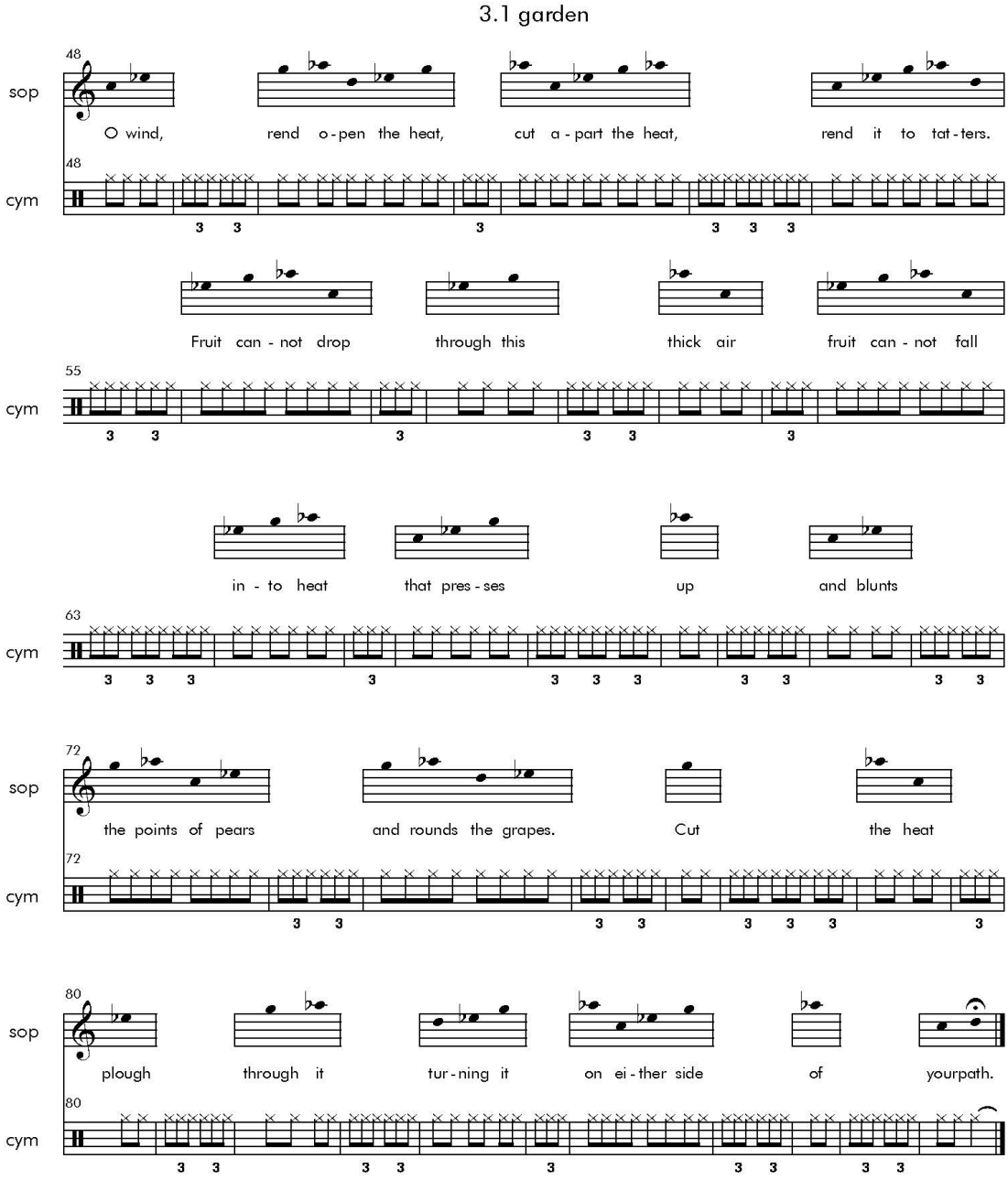


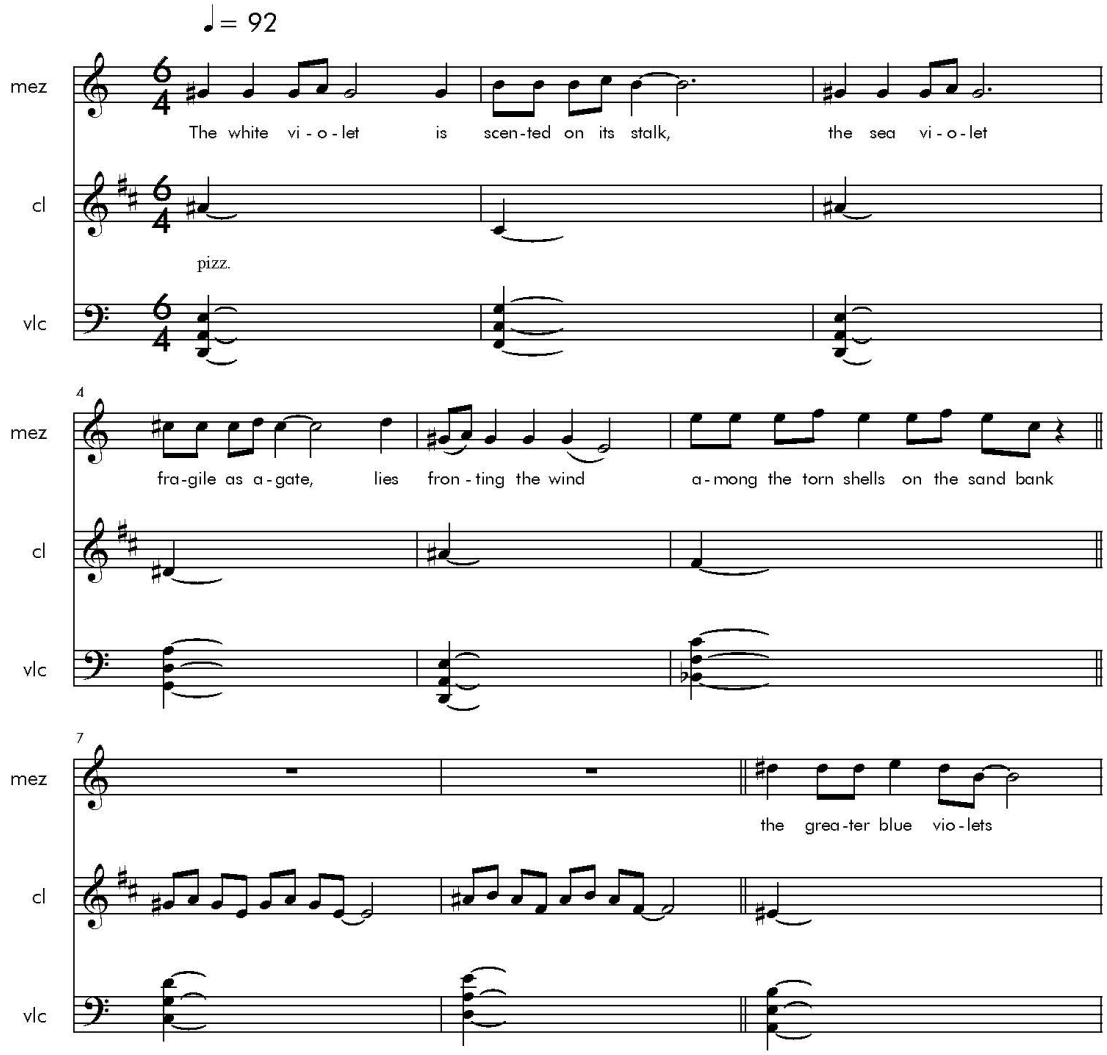


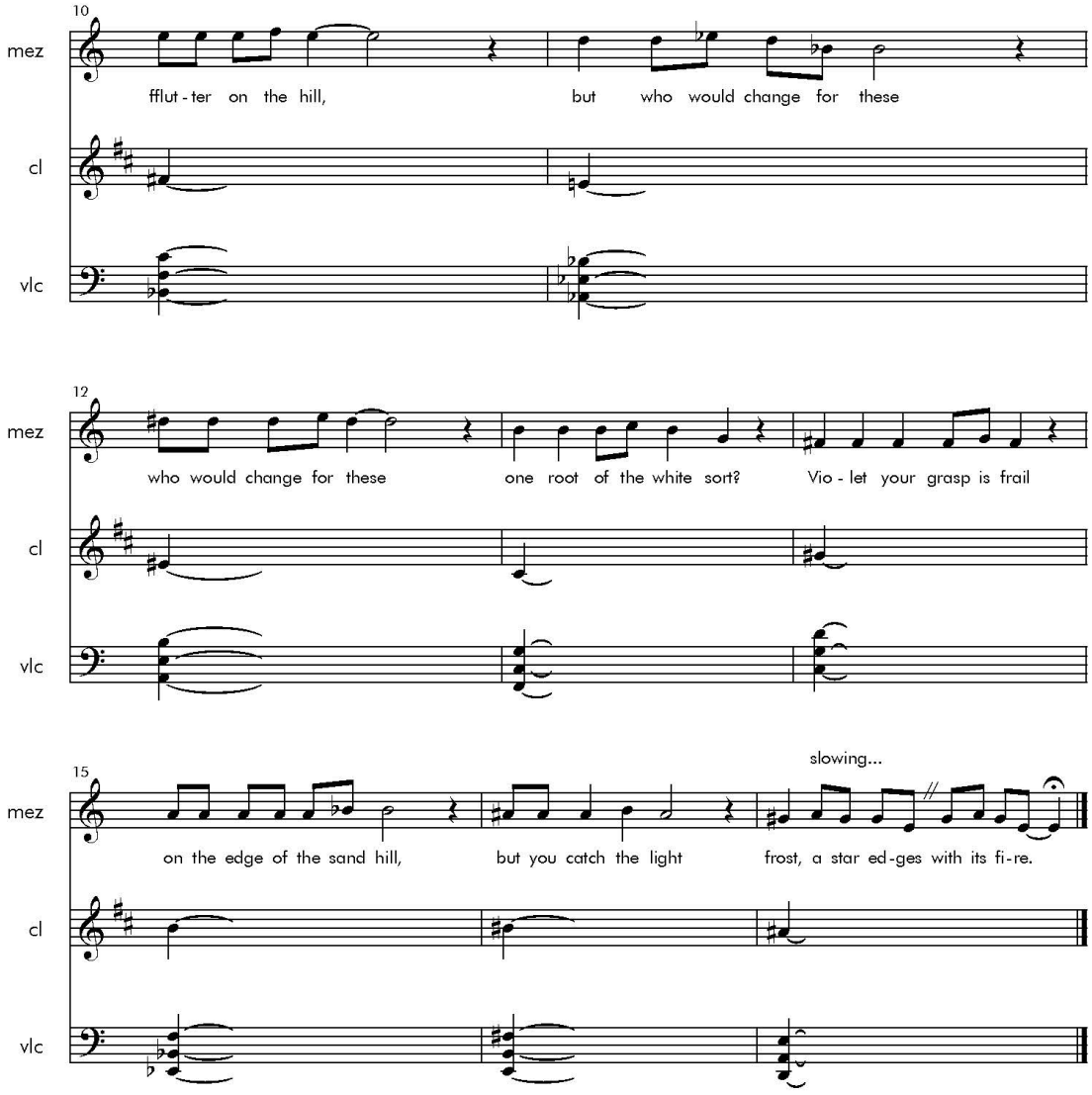

16
17
18
19
20
21
22
23


24
25
26
27
28


mp
sop
You are clear O rose, cut in rock, hard as the des - cent
cym
p
of hail. I could scrape the co - lour from the pe - tals
9
cym
18
sop
like spilt dye from a rock. If I could break you
18
cym
28
sop
I could break a tree. If I could stir I could break a tree
28
cym
I could break you.
39
cym


3.1 garden
sop
cym
48
O wind, rend o-pen the heat, cut a-part the heat, rend it to tat-ters.
Fruit can-not drop through this thick air fruit can-not fall
55
in-to heat that pres-ses up and blunts
63
72
the points of pears and rounds the grapes. Cut the heat
80
plough through it tur-ning it on ei-ther side of yourpath.


♩= 92
mez
The white vi - o - let is scen-ted on its stalk, the sea vi - o - let
cl
pizz.
vlc
4
mez
fra-gile as a - gate, lies fron - ting the wind a - mong the torn shells on the sand bank
cl
vlc
7
mez
the grea-ter blue vio - lets
cl
vlc


10
mez
fflut - ter on the hill, but who would change for these
cl
vlc
12
mez
who would change for these one root of the white sort? Vio - let your grasp is frail
cl
vlc
15
slowing...
mez
on the edge of the sand hill, but you catch the light frost, a star ed - ges with its fi - re.
cl
vlc

3.3 the cliff temple

each instrumentalist should have a pair of baseball sized rocks to use as percussion for this movement. the rocks will be dropped. a yoga mat or similar pad will be necessary for performances on nice floors.

rocks

swirl rocks together. pause at will but the sound should be constant throughout this section

soprano (spoken)

great, bright portal, shelf of rock, rocks fitted in long ledges, rocks fitted to dark, to silver granite, to lighter rock-- clean cut, white against white.

high--high--and no hill-goat tramples--no mountain-sheep has set foot on your fine grass; you lift, you are the world-edge, pillar for the sky-arch.

the world heaved-- we are next to the sky: over us, sea-hawks shout, gulls sweep past-- the terrible breakers are silent from this place.

below us, on the rock-edge, where earth is caught in the fissures of the jagged cliff, a small tree stiffens in the gale, it bends--but its white flowers are fragrant at this height.

and under and under, the wind booms: it whistles, it thunders, it growls--it presses the grass beneath its great feet.

continue rubbing rocks together, occasionally clicking them together.

i said: for ever and for ever, must i follow you through the stones? i catch at you--you lurch: you are quicker than my hand-grasp.

i wondered at you. i shouted--dear--mysterious--beautiful-- white myrtle-flesh.

i was splintered and torn: the hill-path mounted swifter than my feet.

could a daemon avenge this hurt, i would cry to him--could a ghost, i would shout--o evil, follow this god, taunt him with his evil and his vice.

drop rocks on to ground (or a soft mat placed on stage), then pick up and repeat

shall i hurl myself from here, shall i leap and be nearer you?

shall i drop, beloved, beloved, ankle against ankle? would you pity me, o white breast?

if i woke, would you pity me, would our eyes meet?

have you heard, do you know how i climbed this rock? my breath caught, i lurched forward-- stumbled in the ground-myrtle.

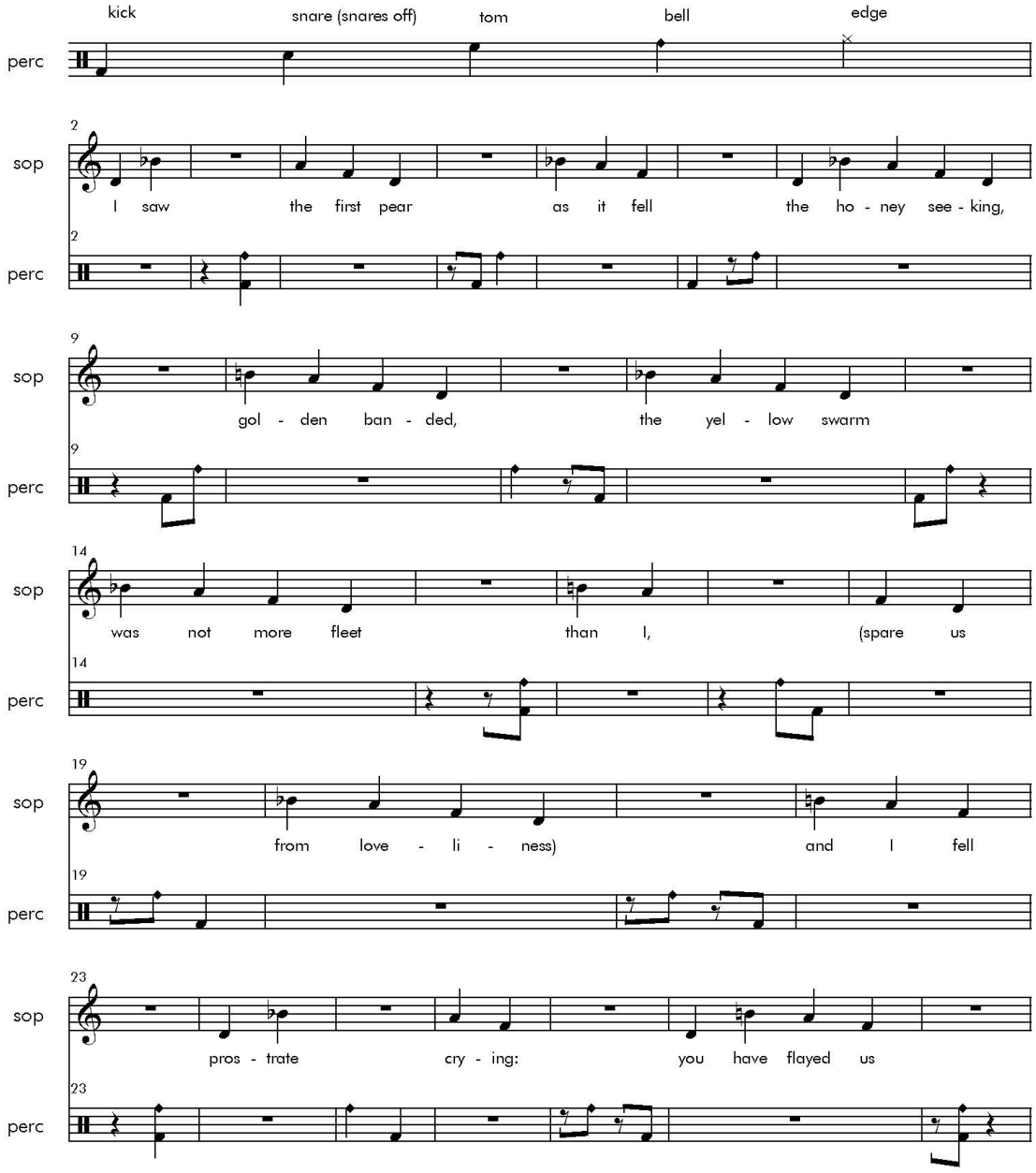
have you heard, o god seated on the cliff, how far toward the ledges of your house, how far i had to walk?

pick up rocks and resume swirling

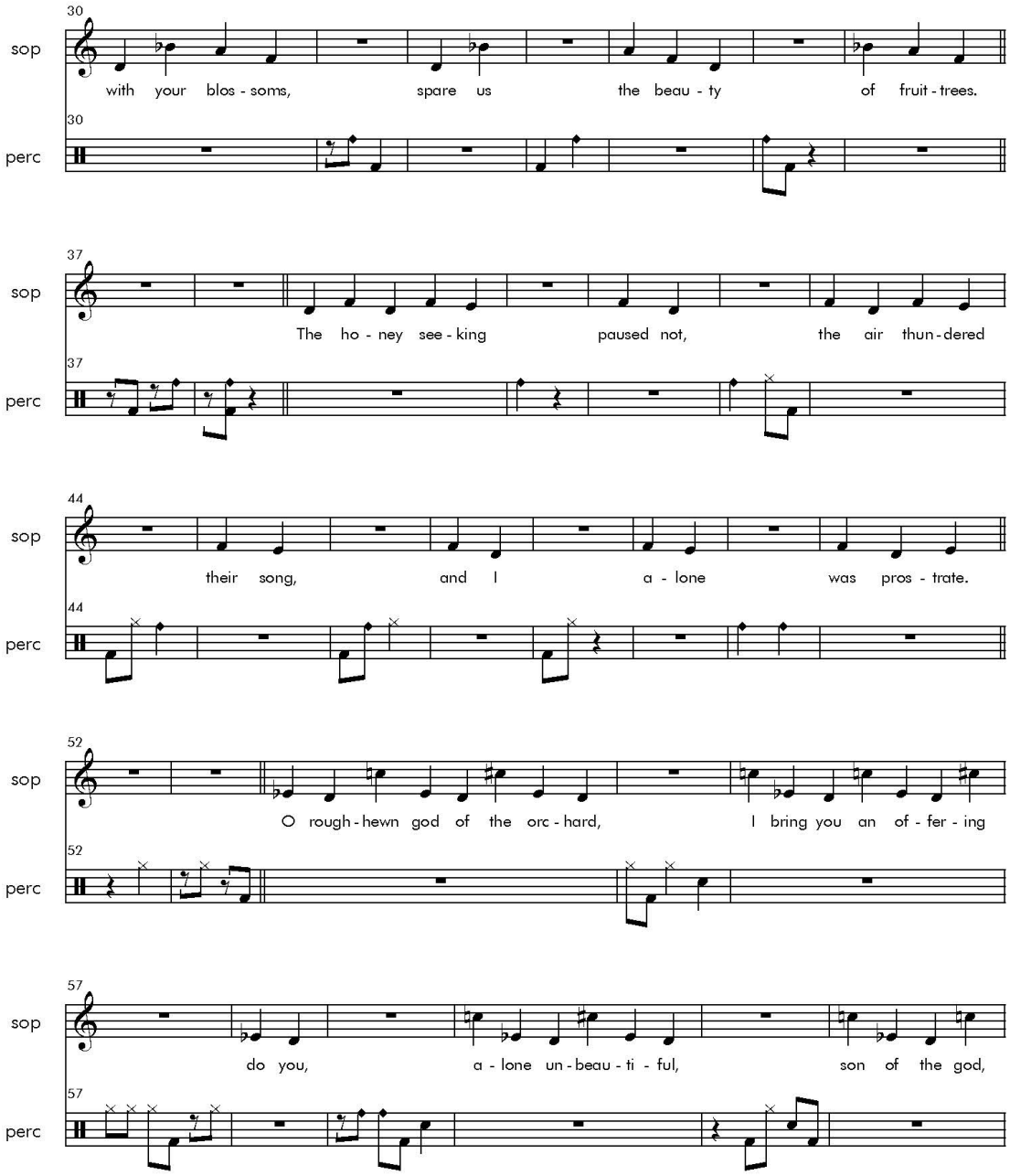
over me the wind swirls. i have stood on your portal and i know-- you are further than this, still further on another cliff.

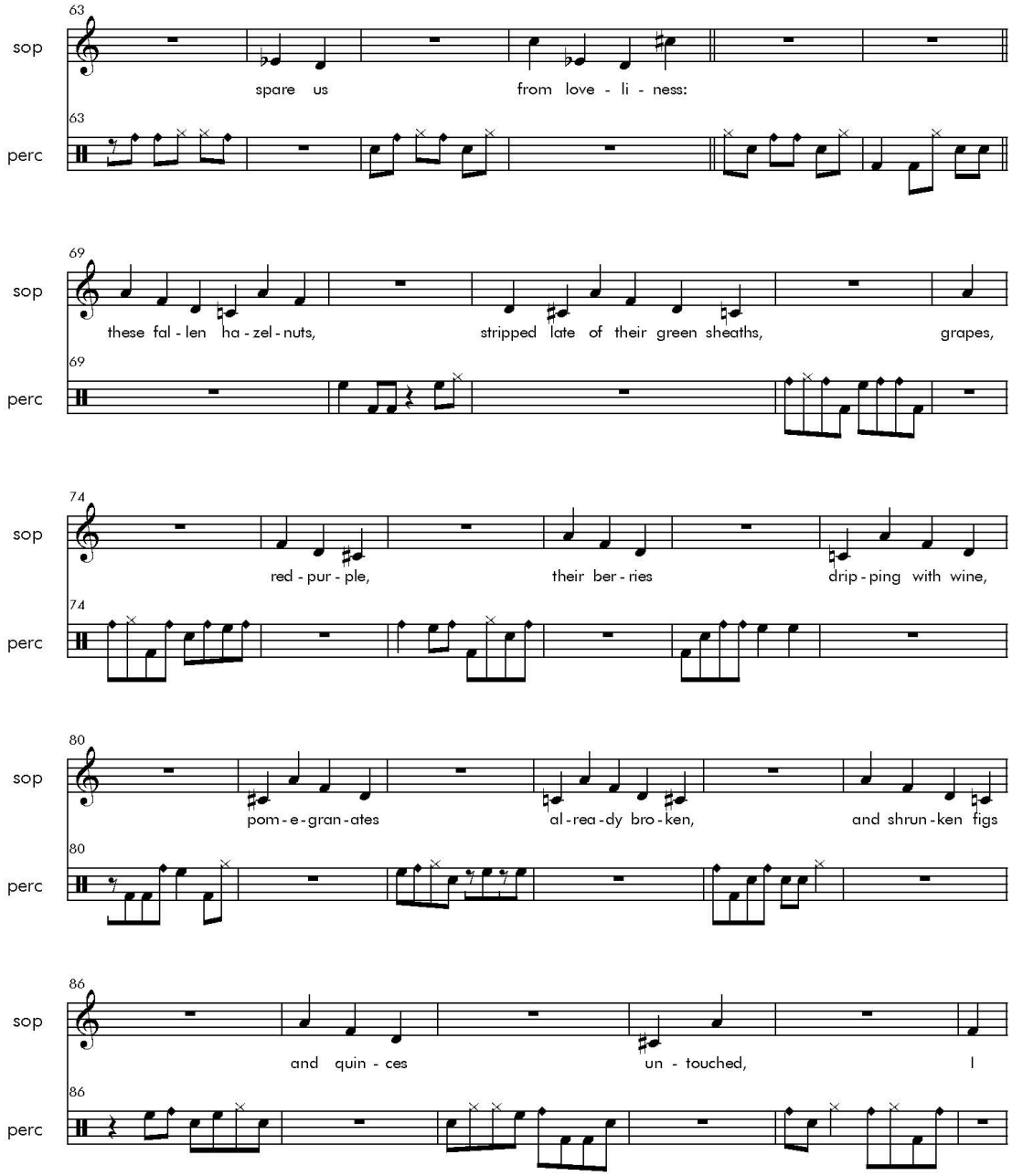
continue swirling 20-30", each player dropping their rocks every 5 seconds or so.

3.4 orchard

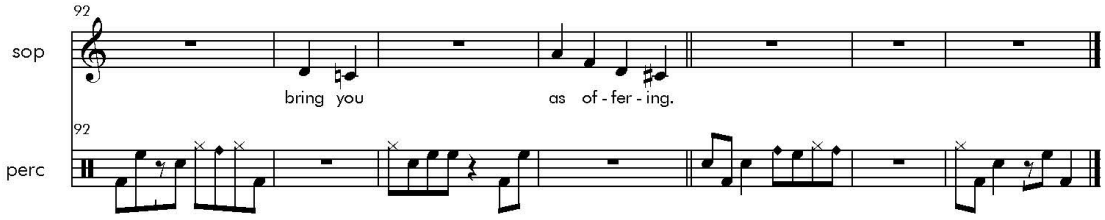

kick
snare (snares off)
tom
bell
edge
perc
2
sop
I saw the first pear as it fell the ho - ney see - king,
2
perc
9
sop
gol - den ban - ded, the yel - low swarm
9
perc
14
sop
was not more fleet than I, (spare us
14
perc
19
sop
from love - li - ness) and I fell
19
perc
23
sop
pros - trate cry - ing: you have flayed us
23
perc

3.4 orchard


30
sop
with your blos - soms, spare us the beau - ty of fruit - trees.
30
perc
37
sop
The ho - ney see - king paused not, the air thun - dered
37
perc
44
sop
their song, and I a - lone was pros - trate.
44
perc
52
sop
O rough - hewn god of the orc - hard, I bring you an of - fer - ing
52
perc
57
sop
do you, a - lone un - beau - ti - ful, son of the god,
57
perc


63
sop
spare us from love - li - ness:
63
perc
69
sop
these fal - len ha - zel - nuts, stripped late of their green sheaths, grapes,
69
perc
74
sop
red - pur - ple, their ber - ries drip - ping with wine,
74
perc
80
sop
pom - e - gran - ates al - rea - dy bro - ken, and shrun - ken figs
80
perc
86
sop
and quin - ces un - touched, I
86
perc

3.4 orchard



ALECTO

whispered:

they say there is no hope--sand--drift--rocks--rubble of the sea-- the broken hulk of a ship, hung with shreds of rope, pallid under the cracked pitch. they say there is no hope to conjure you-- no whip of the tongue to anger you-- no hate of words you must rise to refute. they say you are twisted by the sea, you are cut apart by wave-break upon wave-break, that you are misshapen by the sharp rocks, broken by the rasp and after-rasp. that you are cut, torn, mangled, torn by the stress and beat, no stronger than the strips of sand along your ragged beach.

cave whisper, using hand as a filter

THE NERIED

loudly wringing hands

whispered:

but we bring violets, great masses--single, sweet, wood-violets, stream-violets, violets from a wet marsh. violets in clumps from hills, tufts with earth at the roots, violets tugged from rocks, blue violets, moss, cliff, river-violets. yellow violets' gold, burnt with a rare tint-- violets like red ash among tufts of grass. we bring deep-purple bird-foot violets. we bring the hyacinth-violet, sweet, bare, chill to the touch-- and violets whiter than the in-rush of your own white surf.

DIANA

loudly wringing hands

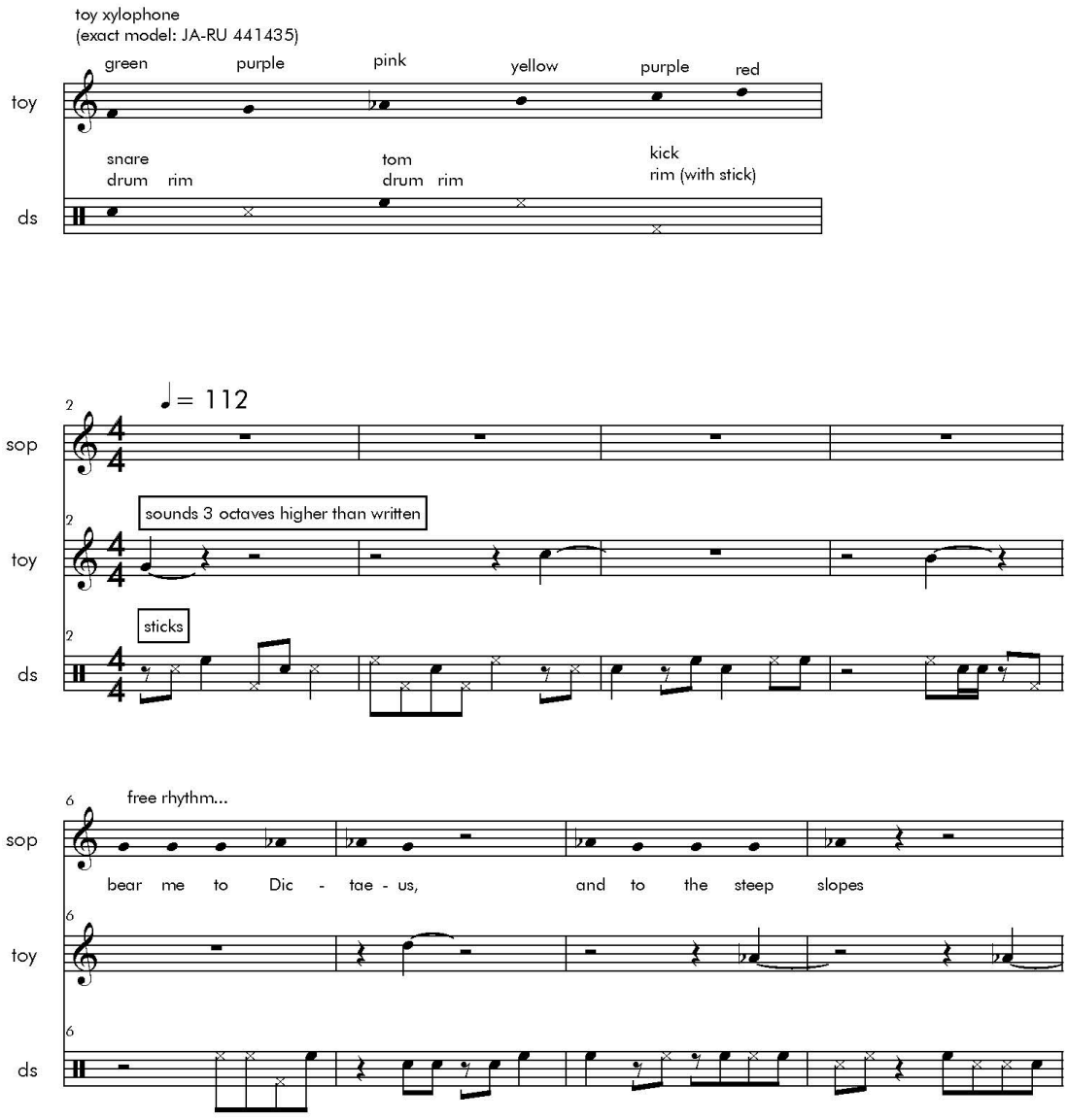
cave whisper, using hand as a filter

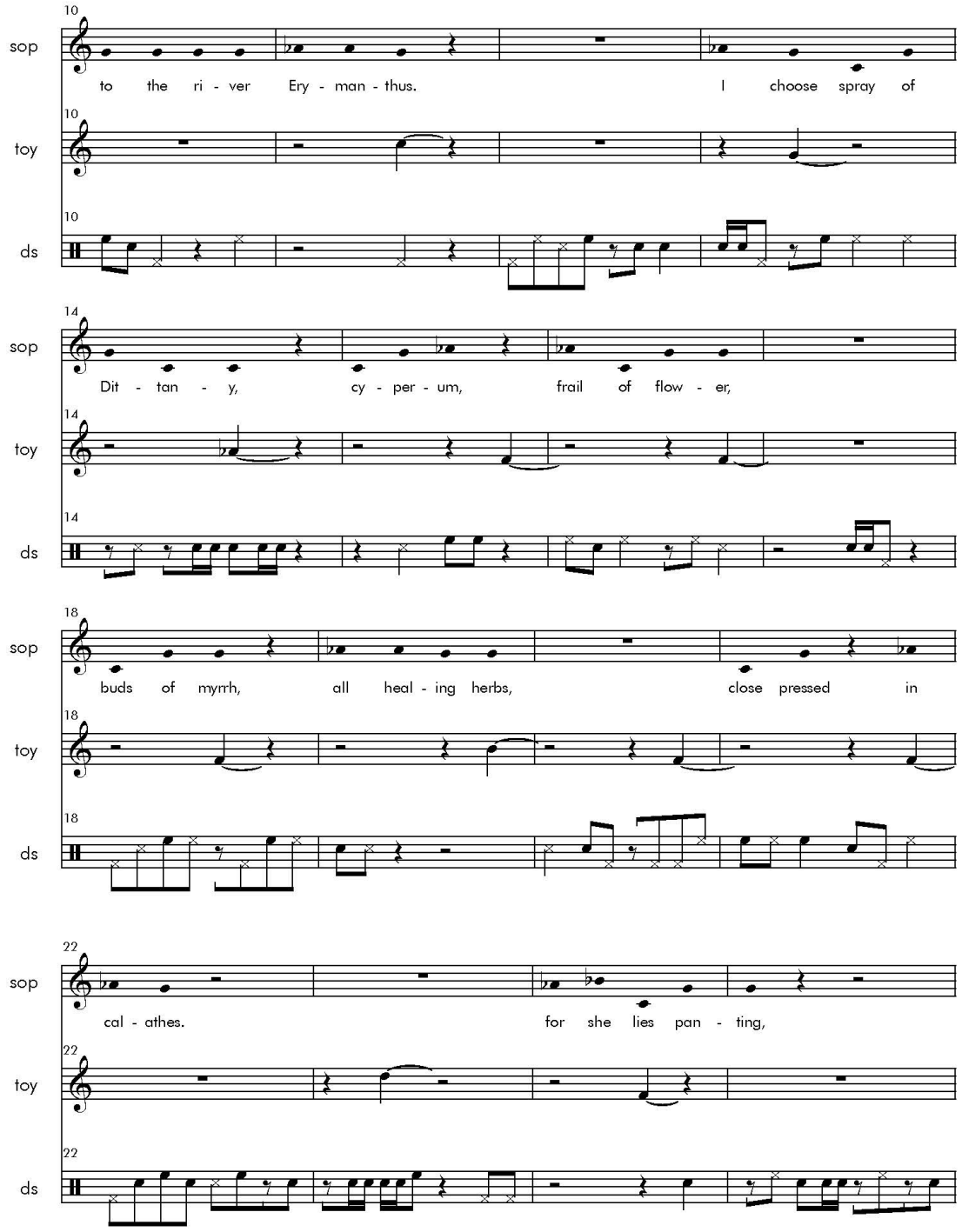
picking up and dropping rocks, as in 3.3 the cliff temple

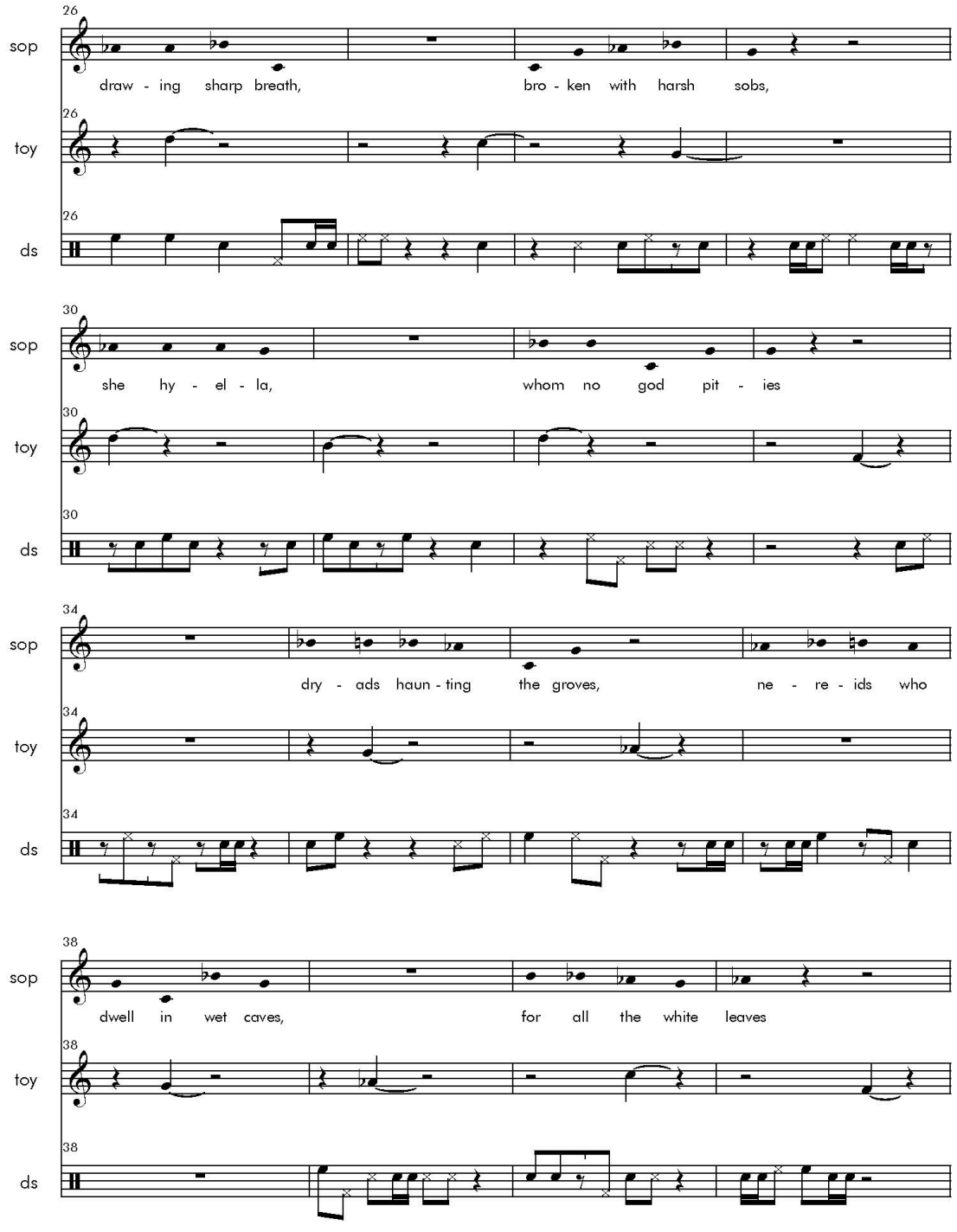
picking up and dropping rocks, as in 3.3 the cliff temple

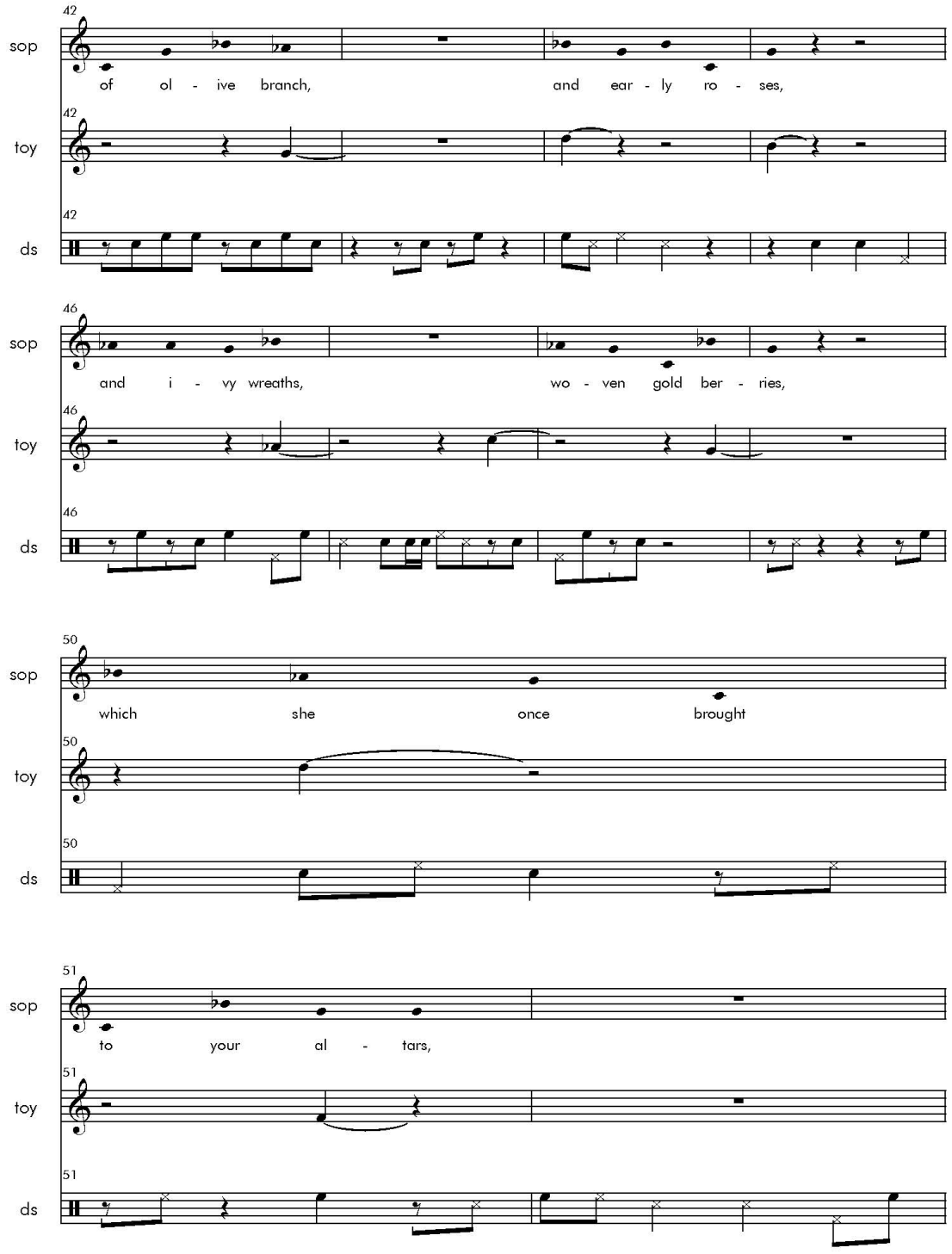
loud whisper (unvoiced):

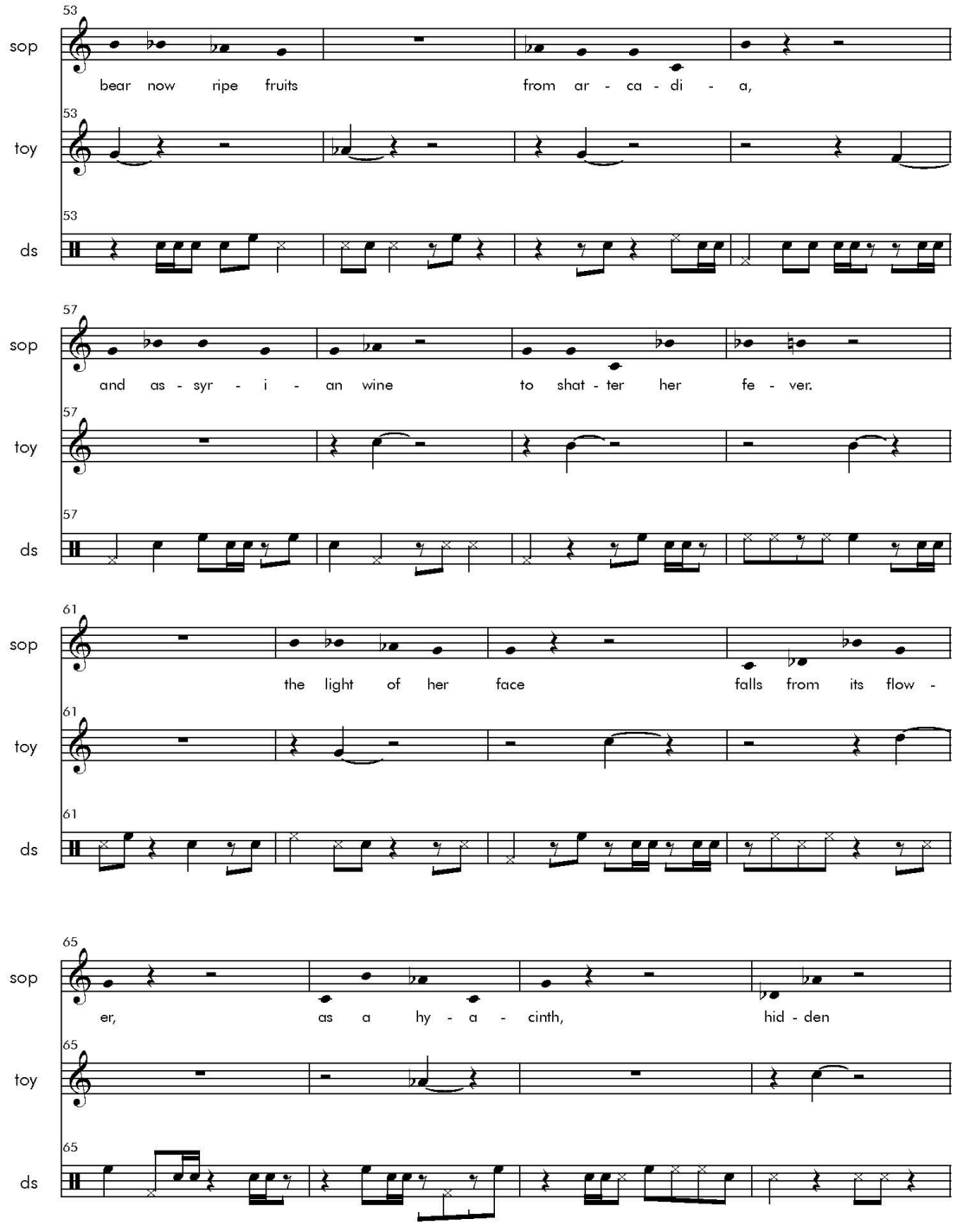
for you will come, you will yet haunt men in ships, you will trail across the fringe of strait and circle the jagged rocks. you will trail across the rocks and wash them with your salt, you will curl between sand-hills-- you will thunder along the cliff-- break--retreat--get fresh strength-- gather and pour weight upon the beach. you will draw back, and the ripple on the sand-shelf will be witness of your track. o privet-white, you will paint the lintel of wet sand with froth. you will bring myrrh-bark and drift laurel-wood from hot coasts! when you hurl high--high-- we will answer with a shout. for you will come, you will come, you will answer our taut hearts, you will break the lie of men's thoughts, and cherish and shelter us.

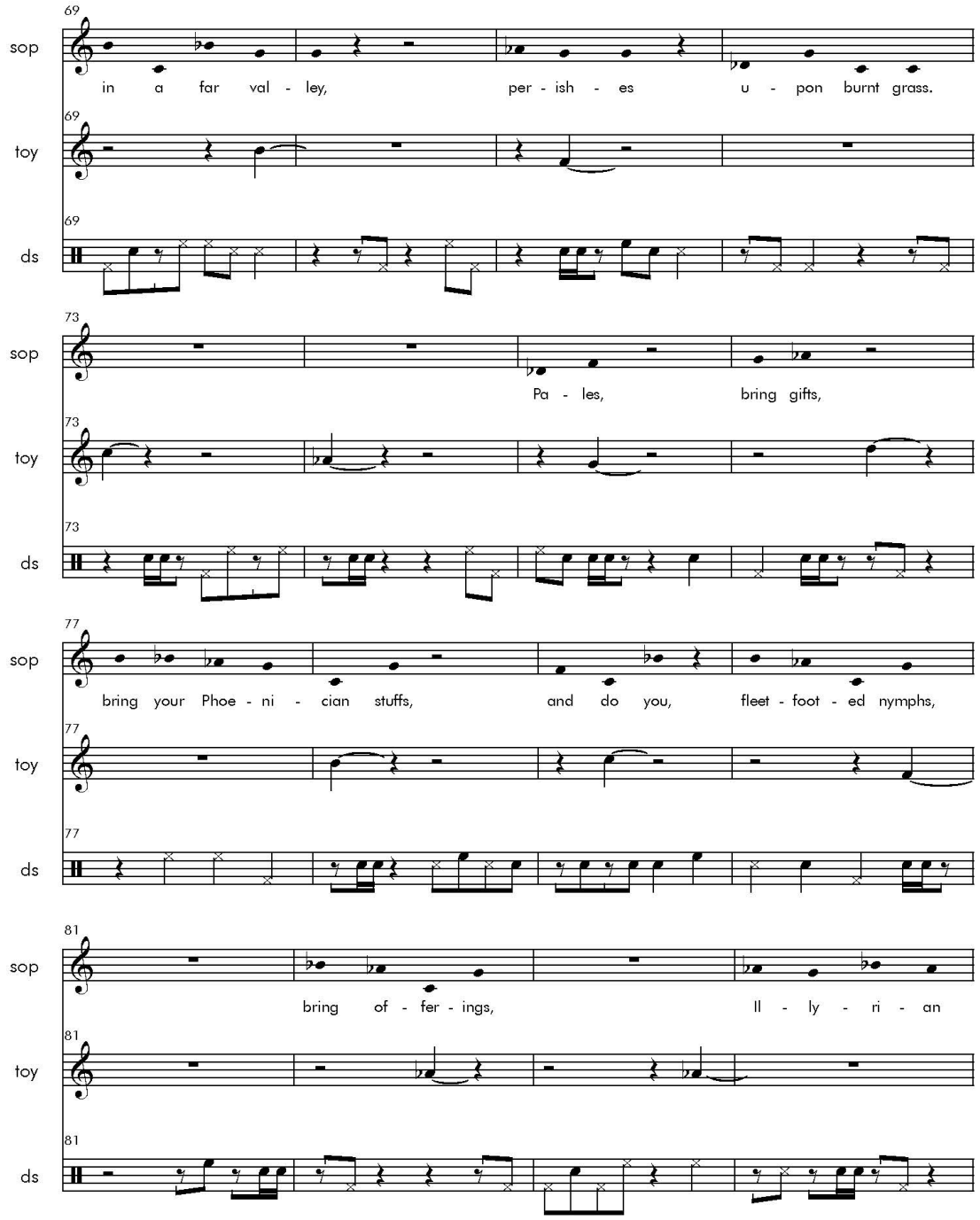

toy xylophone
(exact model: JA-RU 441435)
toy
green
purple
pink
yellow
purple
red
ds
snare
drum rim
tom
drum rim
kick
rim (with stick)
2
♩= 112
sop
toy
ds
sounds 3 octaves higher than written
sticks
6
free rhythm...
bear me to Dic - tae - us,
and to the steep slopes

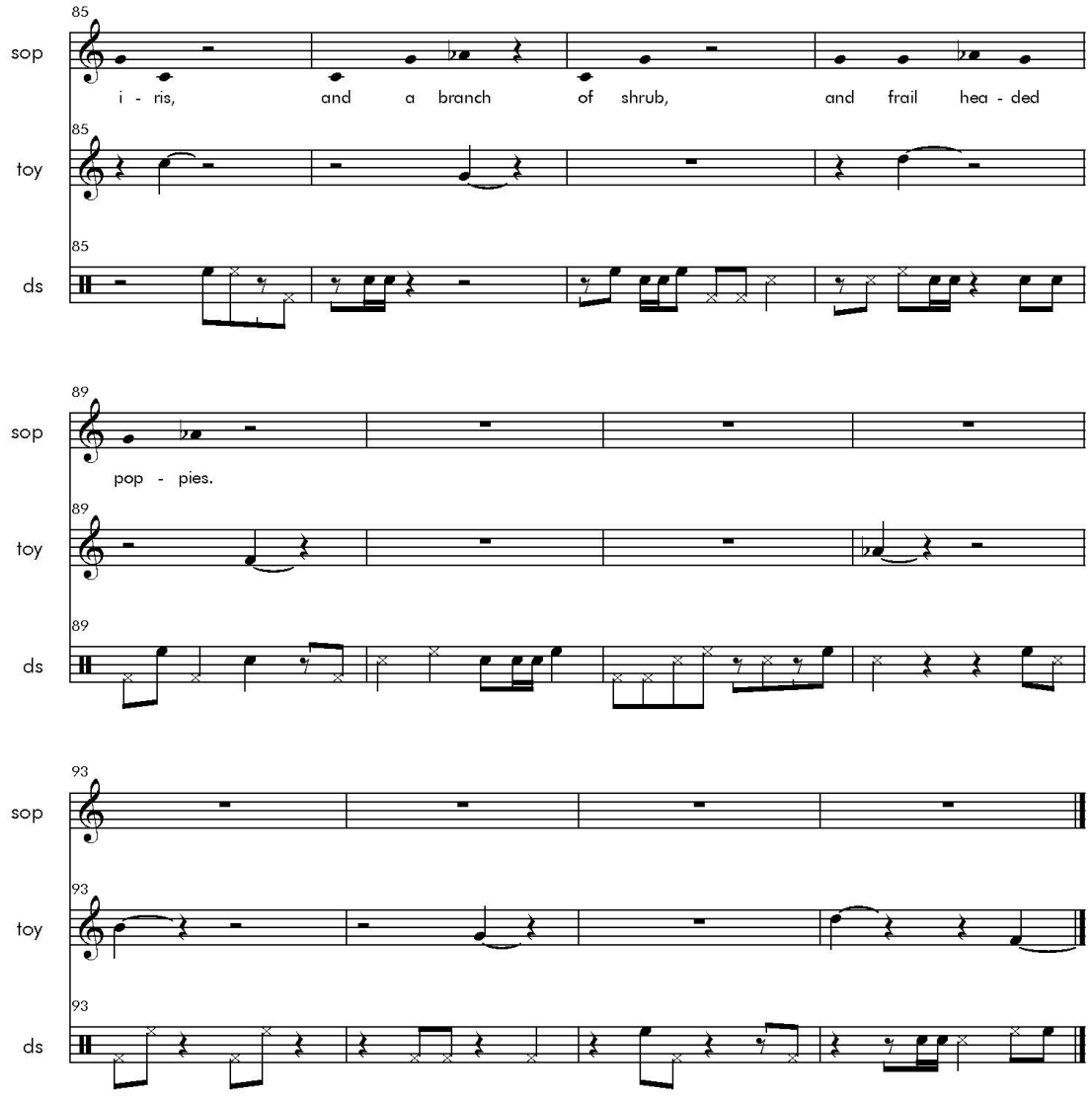

sop
toy
ds
10
to the ri - ver Ery - man - thus. I choose spray of
14
Dit - tan - y, cy - per - um, frail of flow - er,
18
buds of myrrh, all heal - ing herbs, close pressed in
22
cal - athes. for she lies pan - ting,

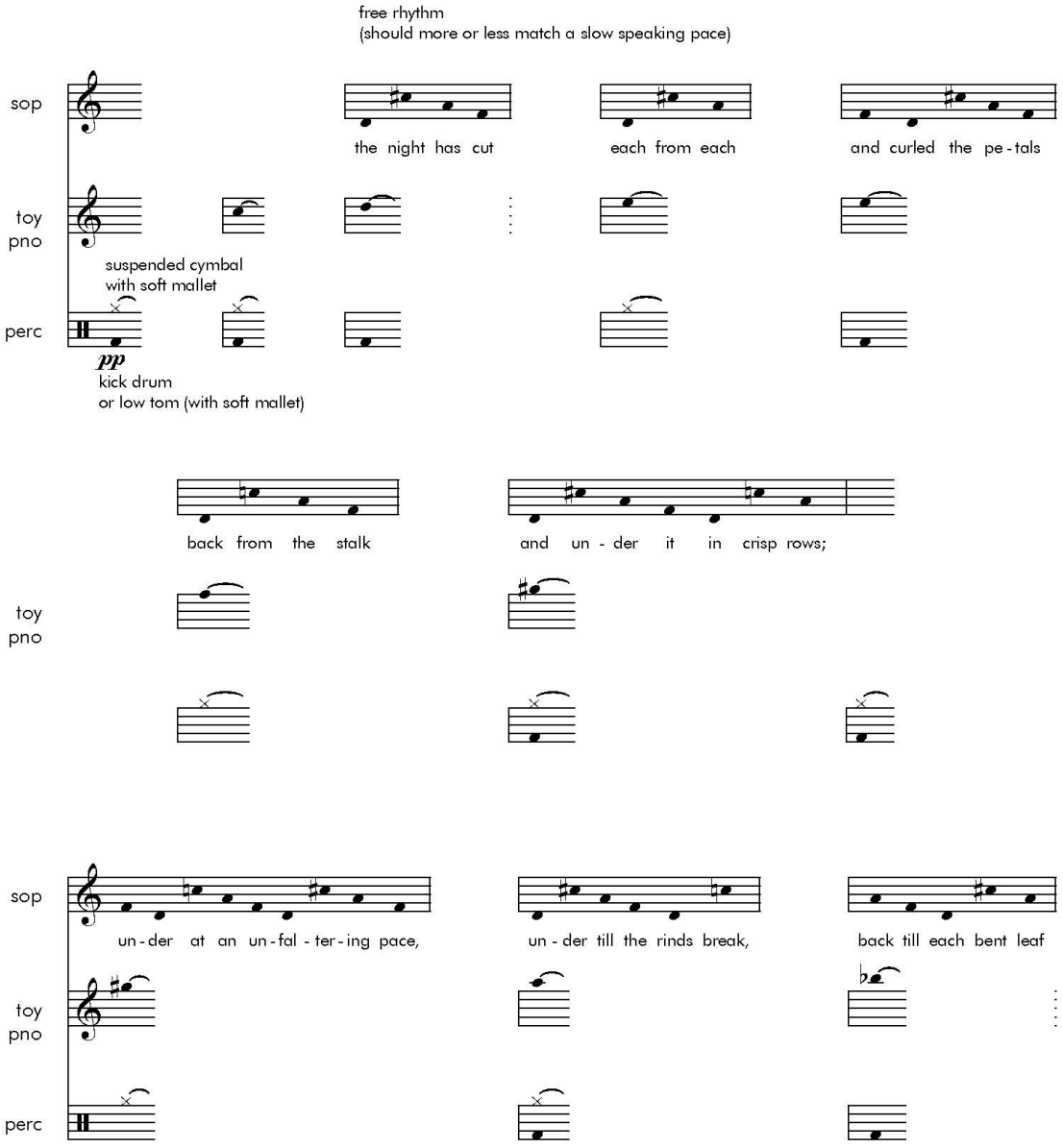

26
sop
draw - ing sharp breath,
bro - ken with harsh sobs,
toy
ds
30
she hy - el - la,
whom no god pit - ies
34
dry - ads haun - ting the groves,
ne - re - ids who
38
dwell in wet caves,
for all the white leaves

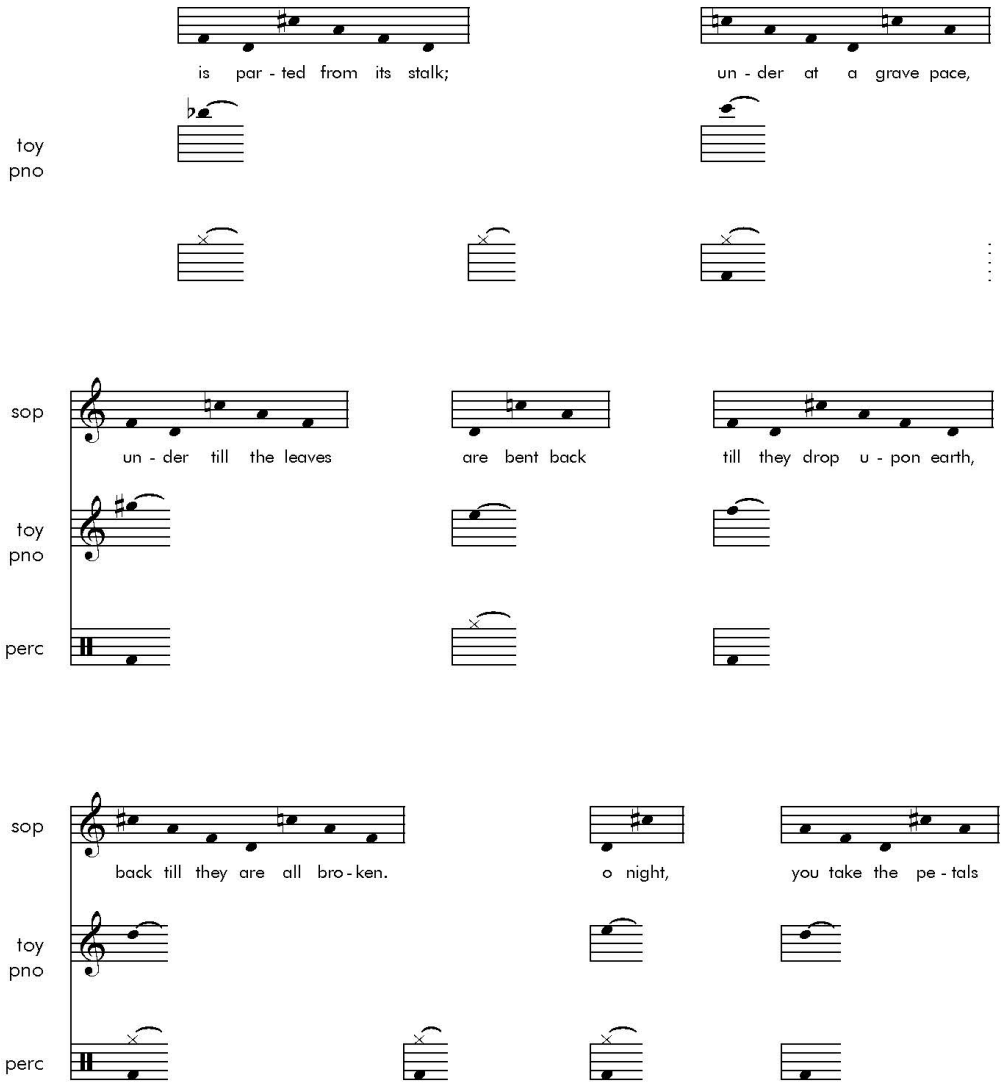

42
sop
of ol - ive branch, and ear - ly ro - ses,
toy
ds
46
sop
and i - vy wreaths, wo - ven gold ber - ries,
toy
ds
50
sop
which she once brought
toy
ds
51
sop
to your al - tars,
toy
ds

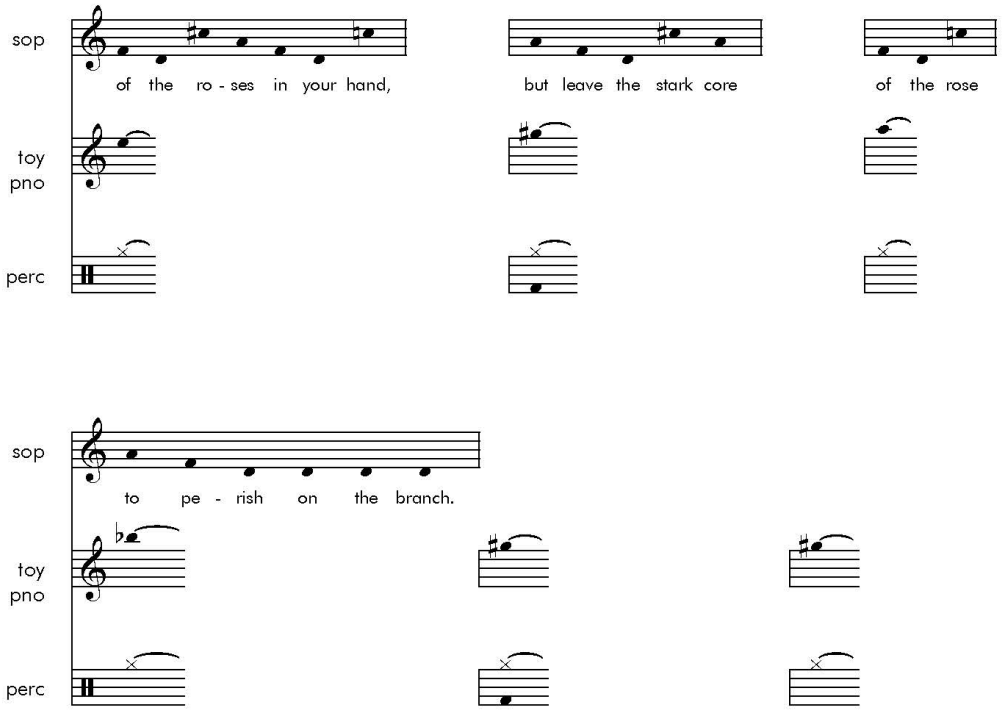

53
sop
bear now ripe fruits from ar - ca - di - a,
toy
ds
57
sop
and as - syr - i - an wine to shat - ter her fe - ver.
toy
ds
61
sop
the light of her face falls from its flow -
toy
ds
65
sop
er, as a hy - a - cinth, hid - den
toy
ds


69
sop
in a far val - ley,
per - ish - es
u - pon burnt grass.
69
toy
69
ds
73
sop
Pa - les,
bring gifts,
73
toy
73
ds
77
sop
bring your Phoe - ni - cian stuffs,
and do you,
fleet - foot - ed nymphs,
77
toy
77
ds
81
sop
bring of - fer - ings,
ll - ly - ri - an
81
toy
81
ds


85
sop
i - ris, and a branch of shrub, and frail hea - ded
85
toy
85
ds
89
sop
pop - pies.
89
toy
89
ds
93
sop
93
toy
93
ds

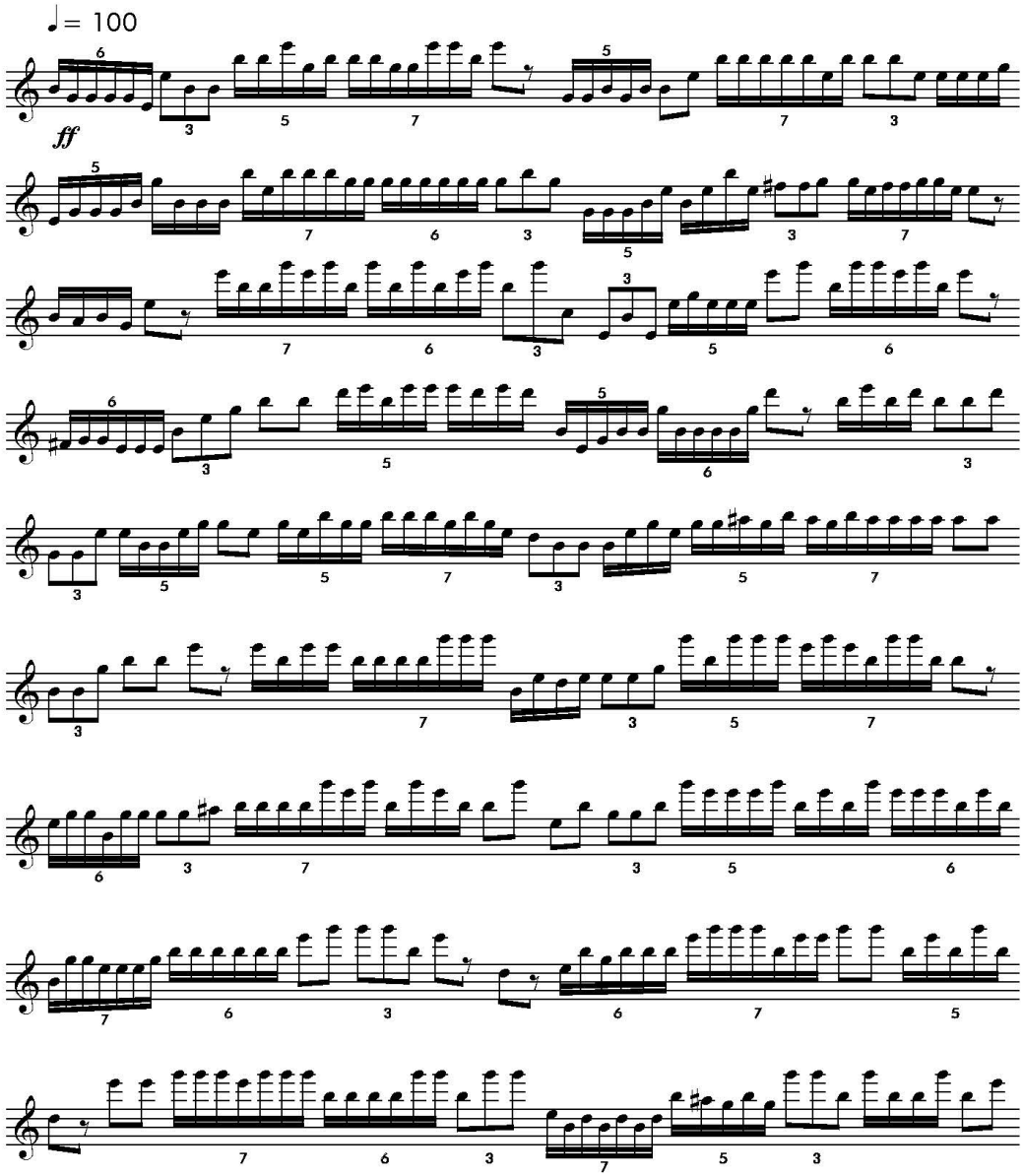

free rhythm
(should more or less match a slow speaking pace)
sop
toy pno
perc
the night has cut
each from each
and curled the pe-tals
suspended cymbal
with soft mallet
pp
kick drum
or low tom (with soft mallet)
back from the stalk
and un-der it in crisp rows;
toy pno
sop
toy pno
perc
un-der at an un-fal-ter-ing pace,
un-der till the rinds break,
back till each bent leaf

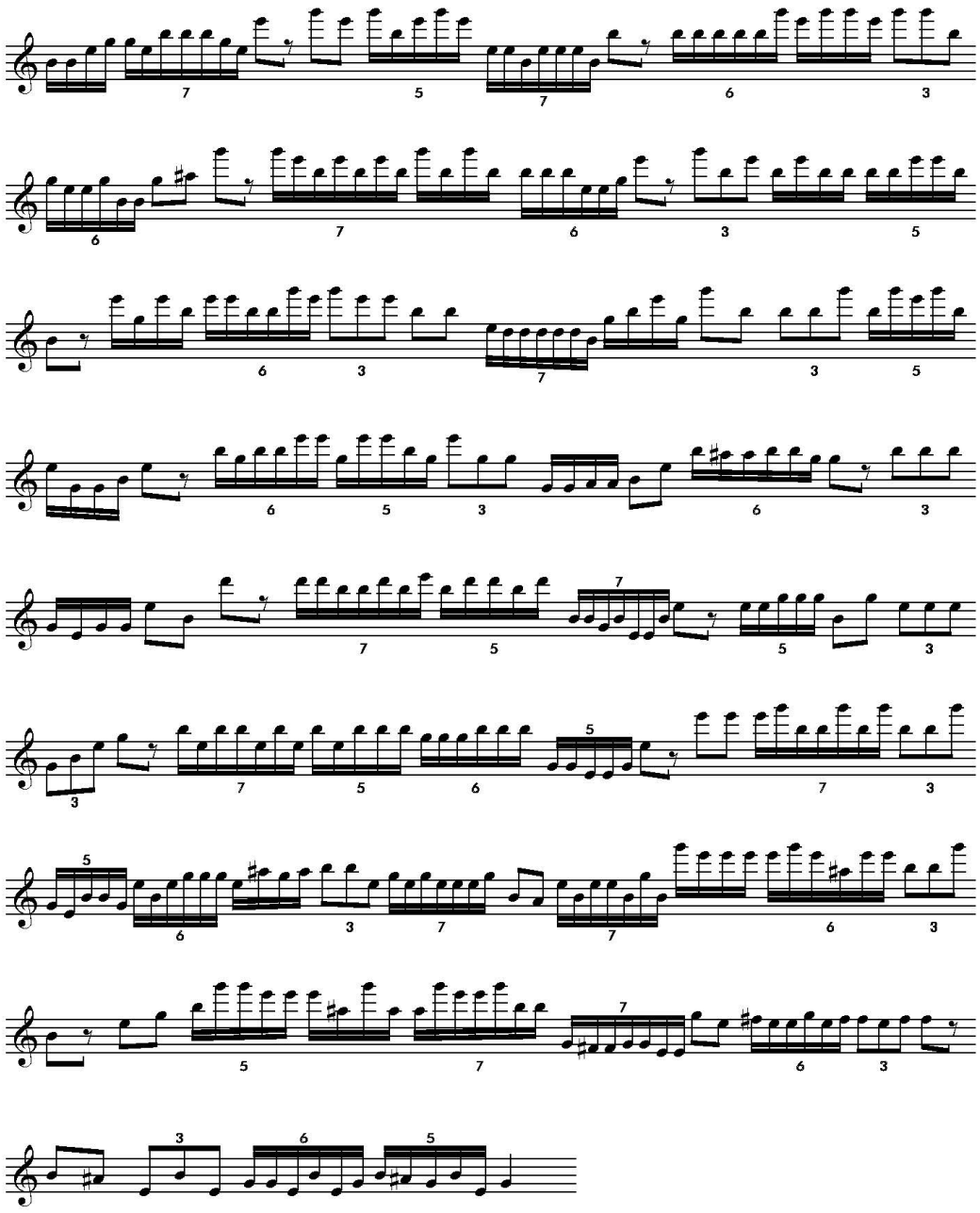

is par - ted from its stalk;
un - der at a grave pace,
toy pno
sop
un - der till the leaves
are bent back
till they drop u - pon earth,
toy pno
perc
sop
back till they are all bro - ken.
o night,
you take the pe - tals
toy pno
perc

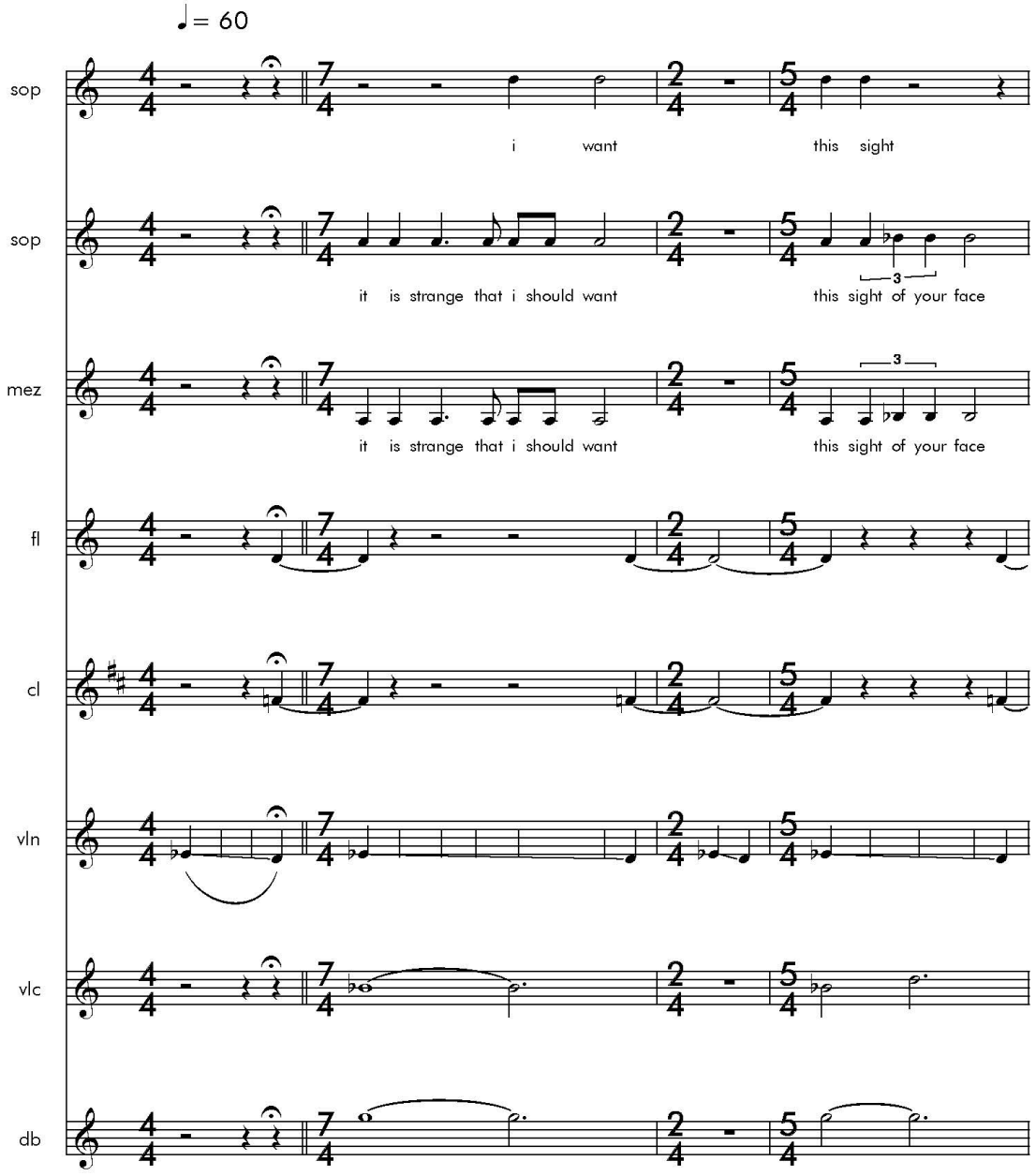

sop
of the ro - ses in your hand,
but leave the stark core
of the rose
toy
pno
perc
sop
to pe - rish on the branch.
toy
pno
perc

threnody 33b - abbeville

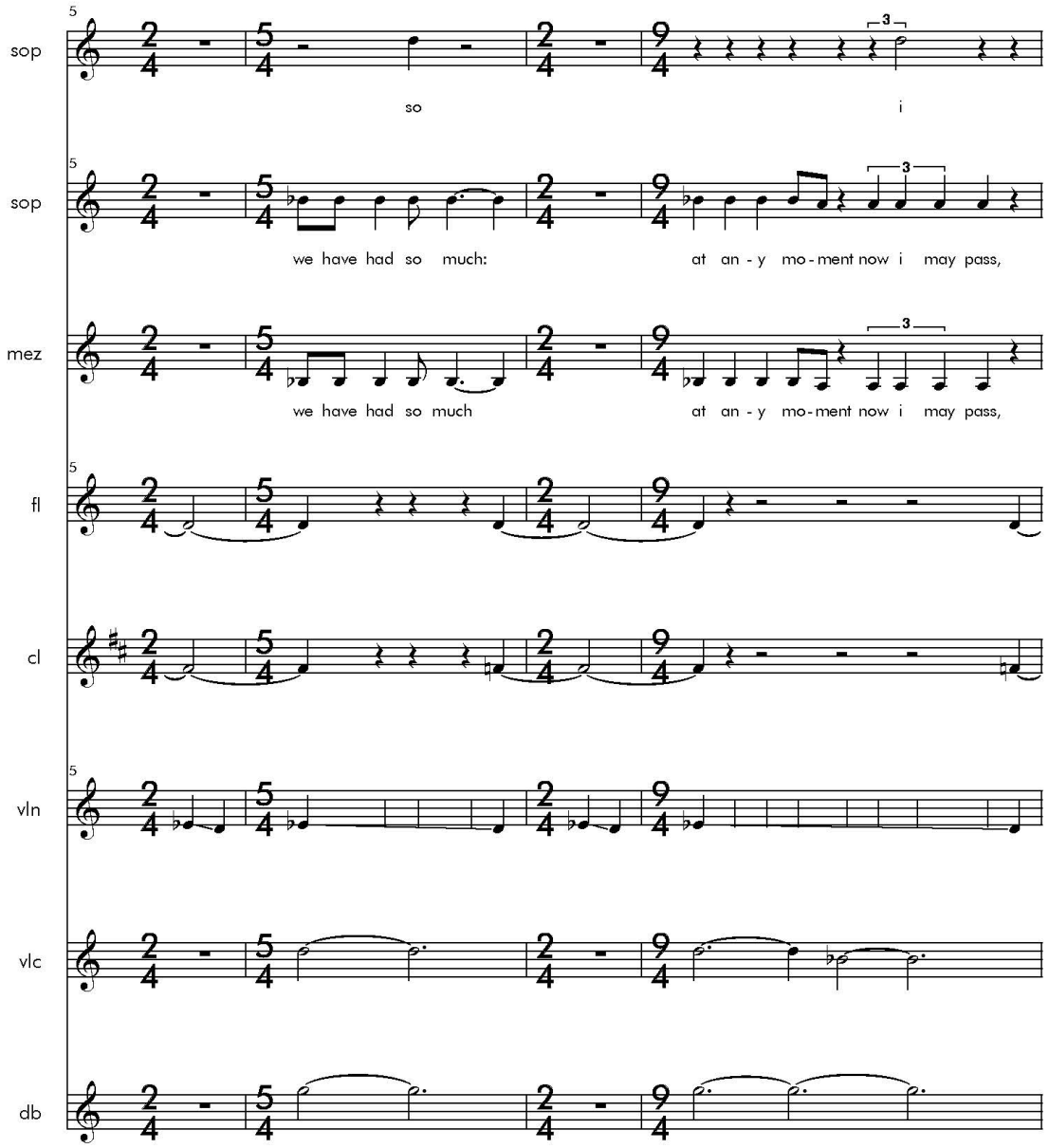
articulation, phrasing, and breathing are up to you.
it should be violent and ferocious.



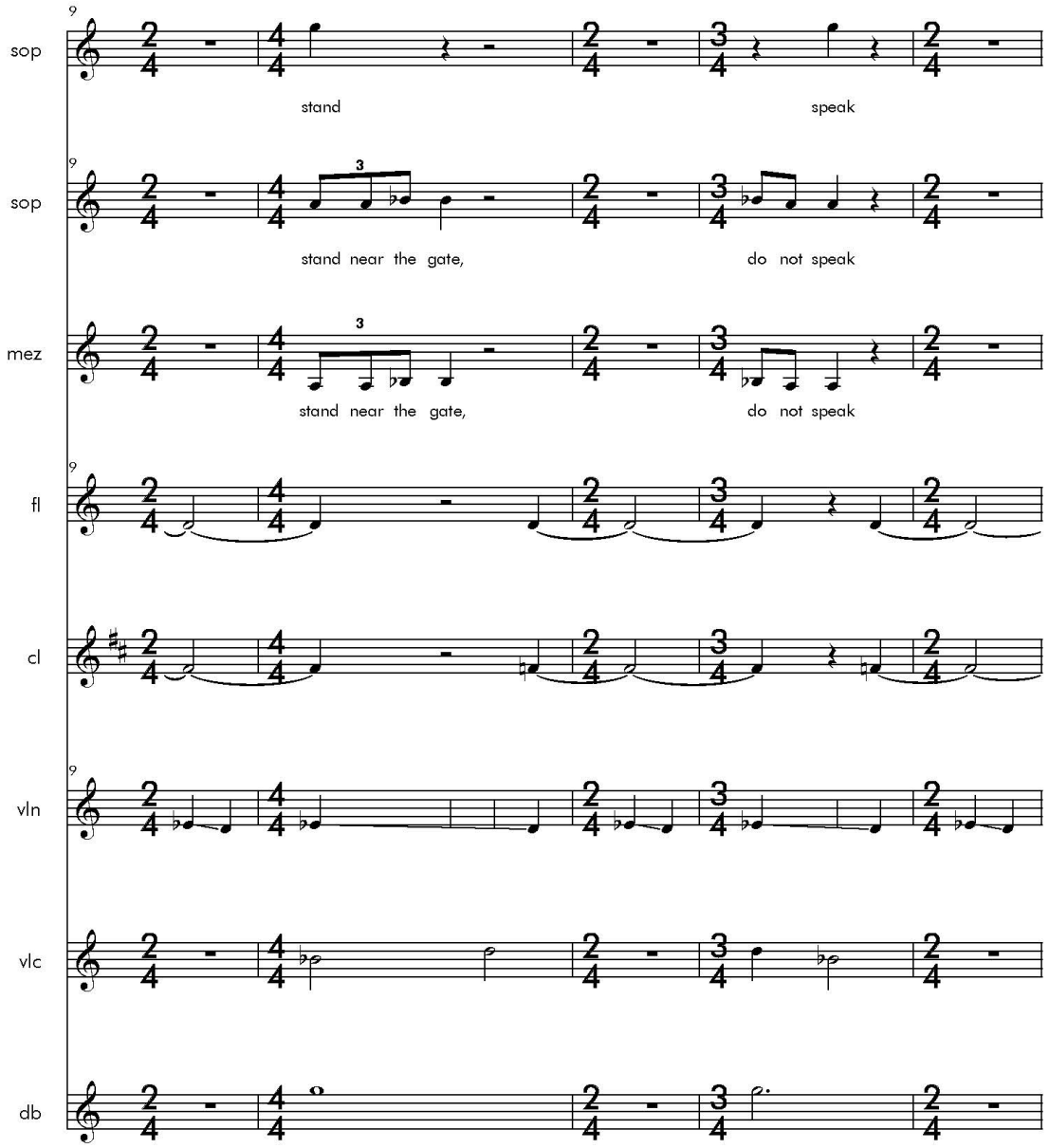


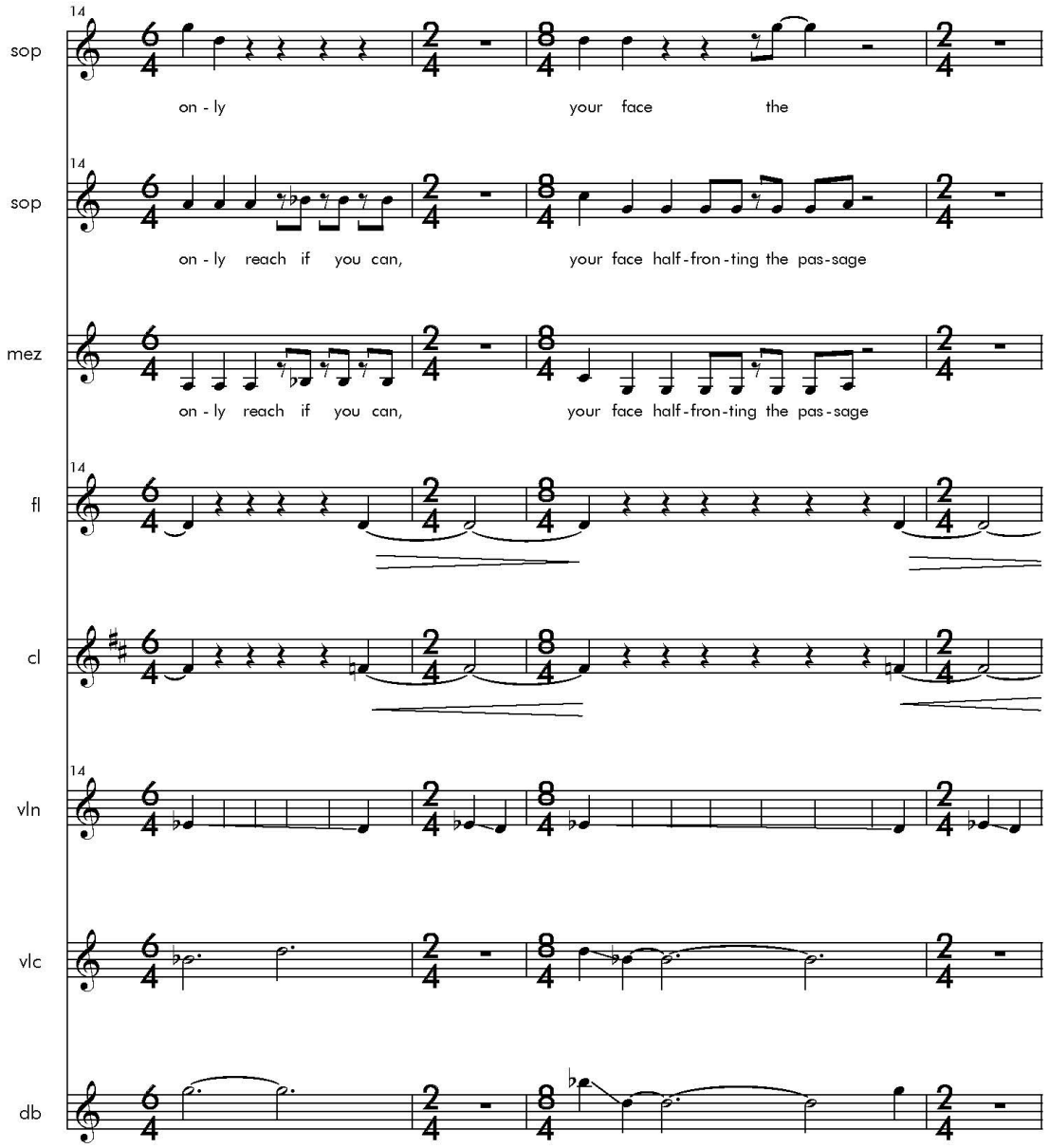

♩= 60
sop
i want this sight
sop
it is strange that i should want this sight of your face
mez
it is strange that i should want this sight of your face
fl
cl
vln
vlc
db

4.1 prisoners

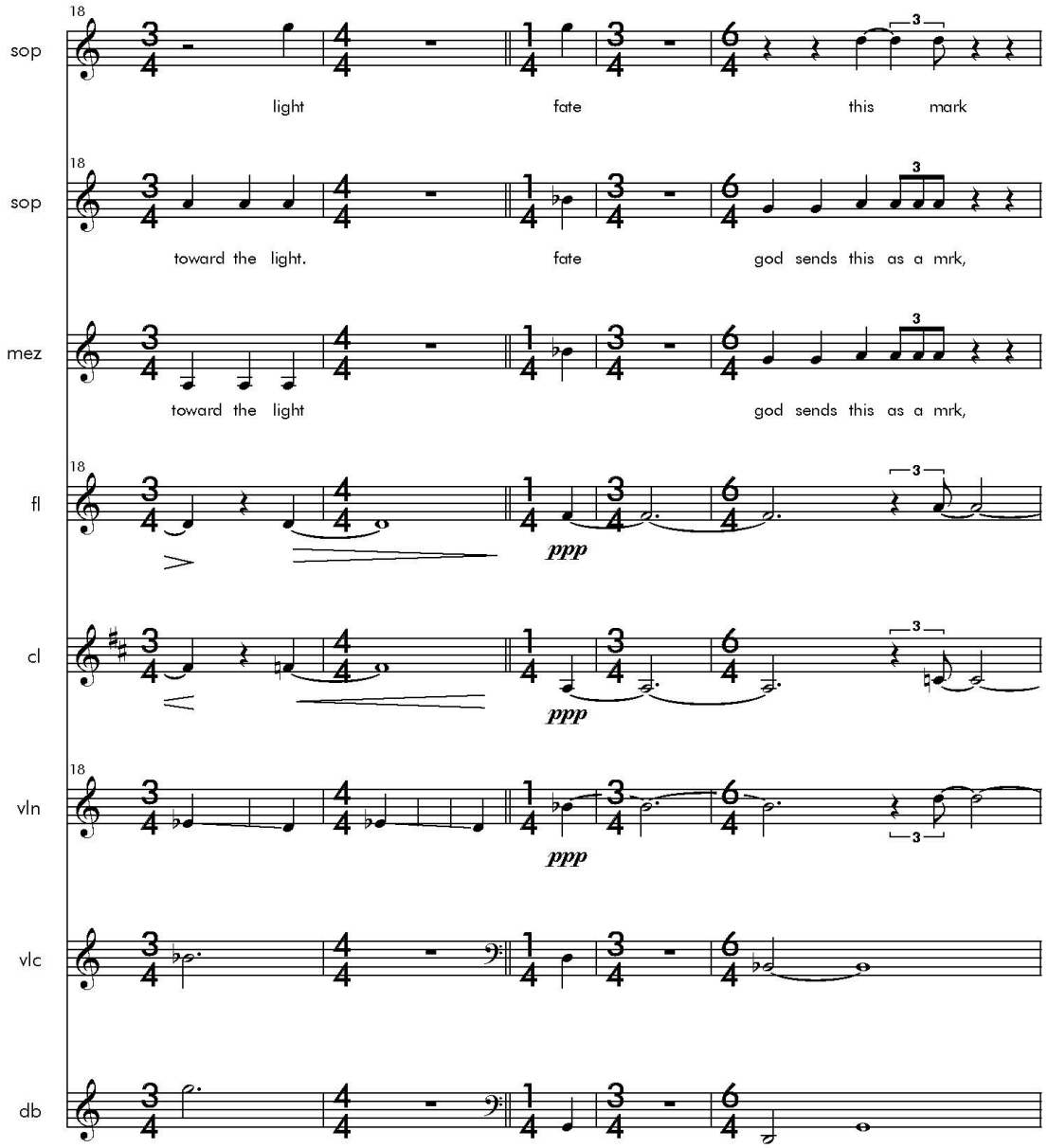


4.1 prisoners

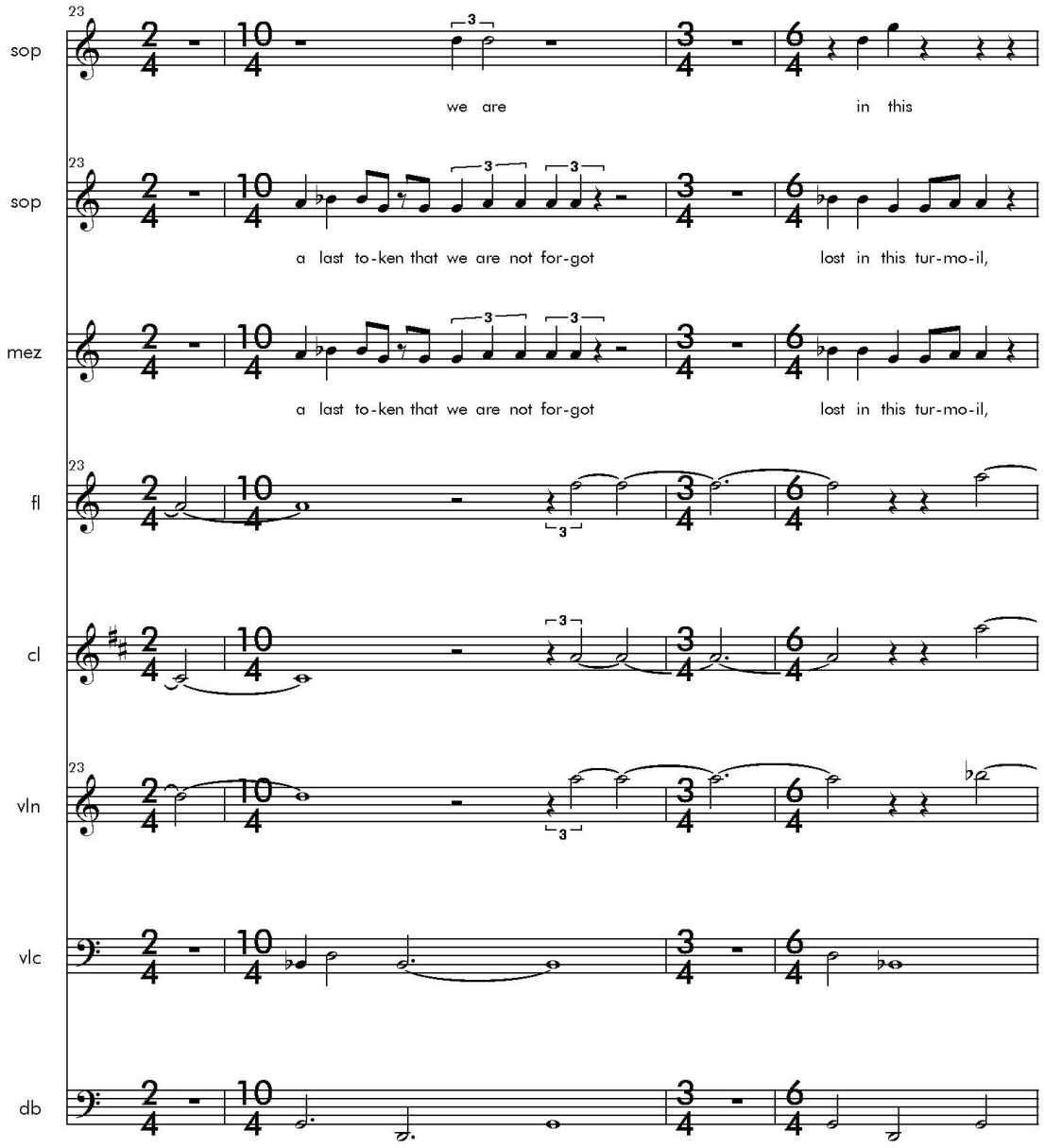


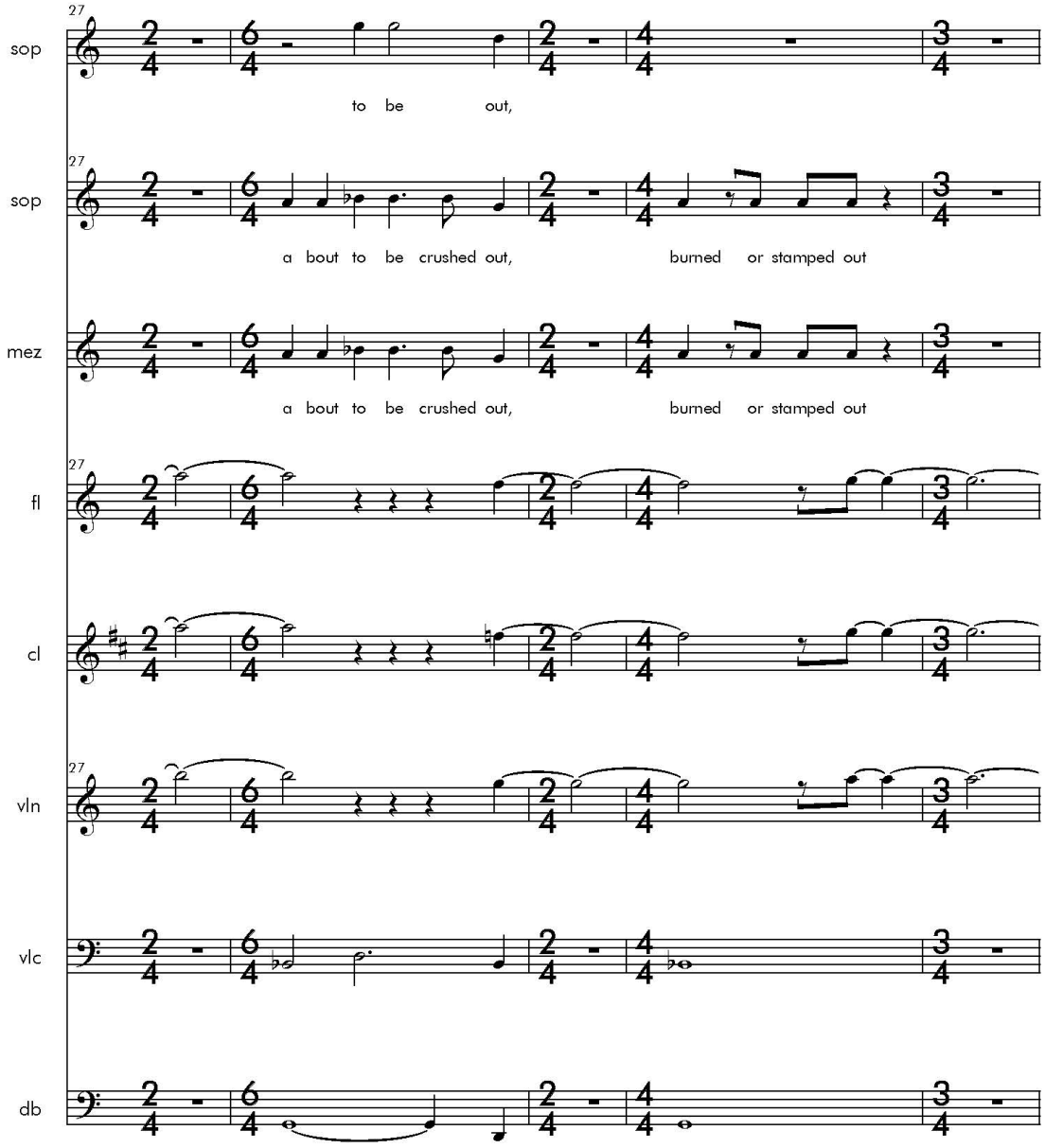

14
sop
on - ly
your face
the
14
sop
on - ly reach if you can,
your face half-fron-ting the pas-sage
mez
on - ly reach if you can,
your face half-fron-ting the pas-sage
14
fl
cl
14
vln
vlc
db

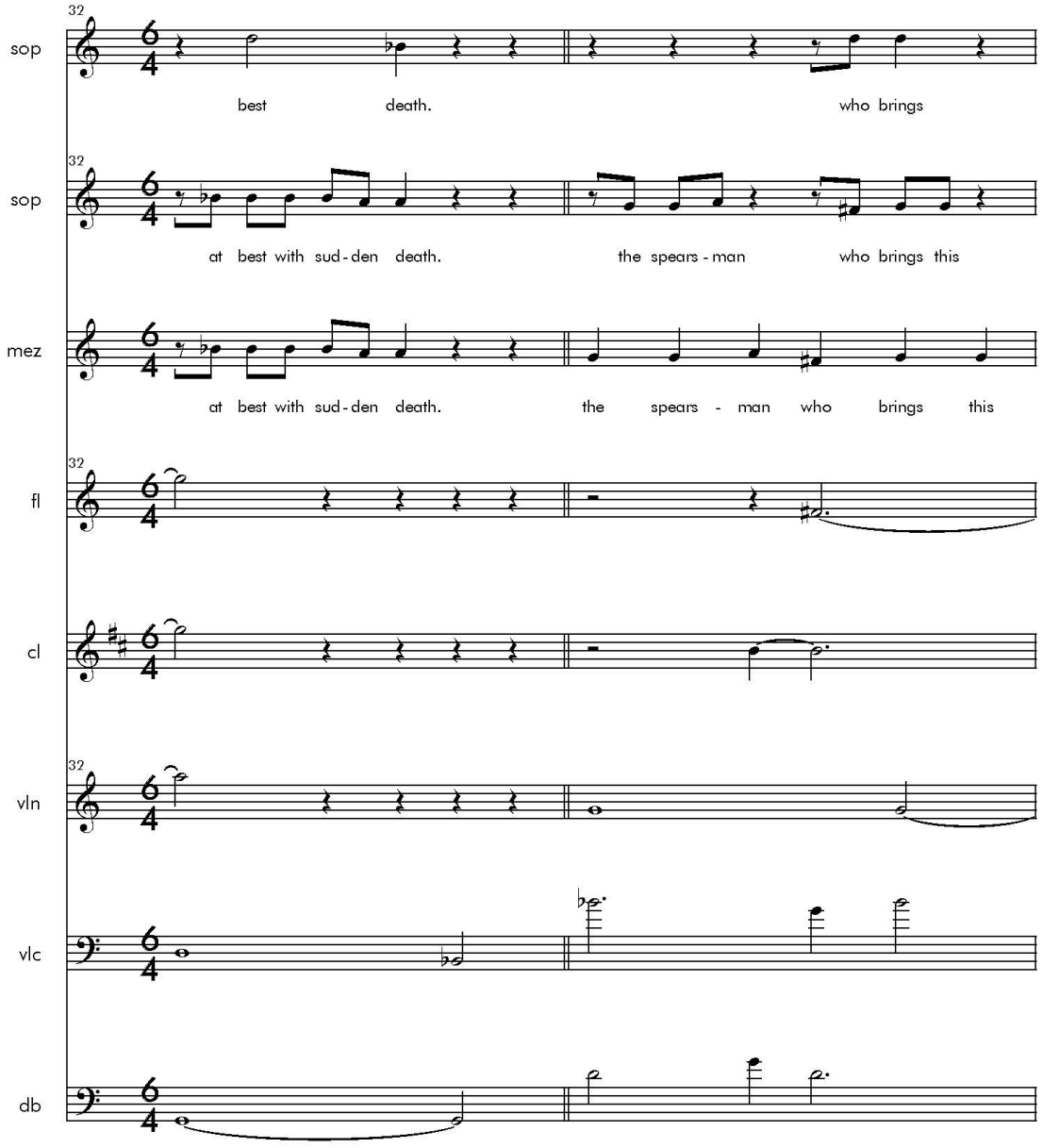
4.1 prisoners

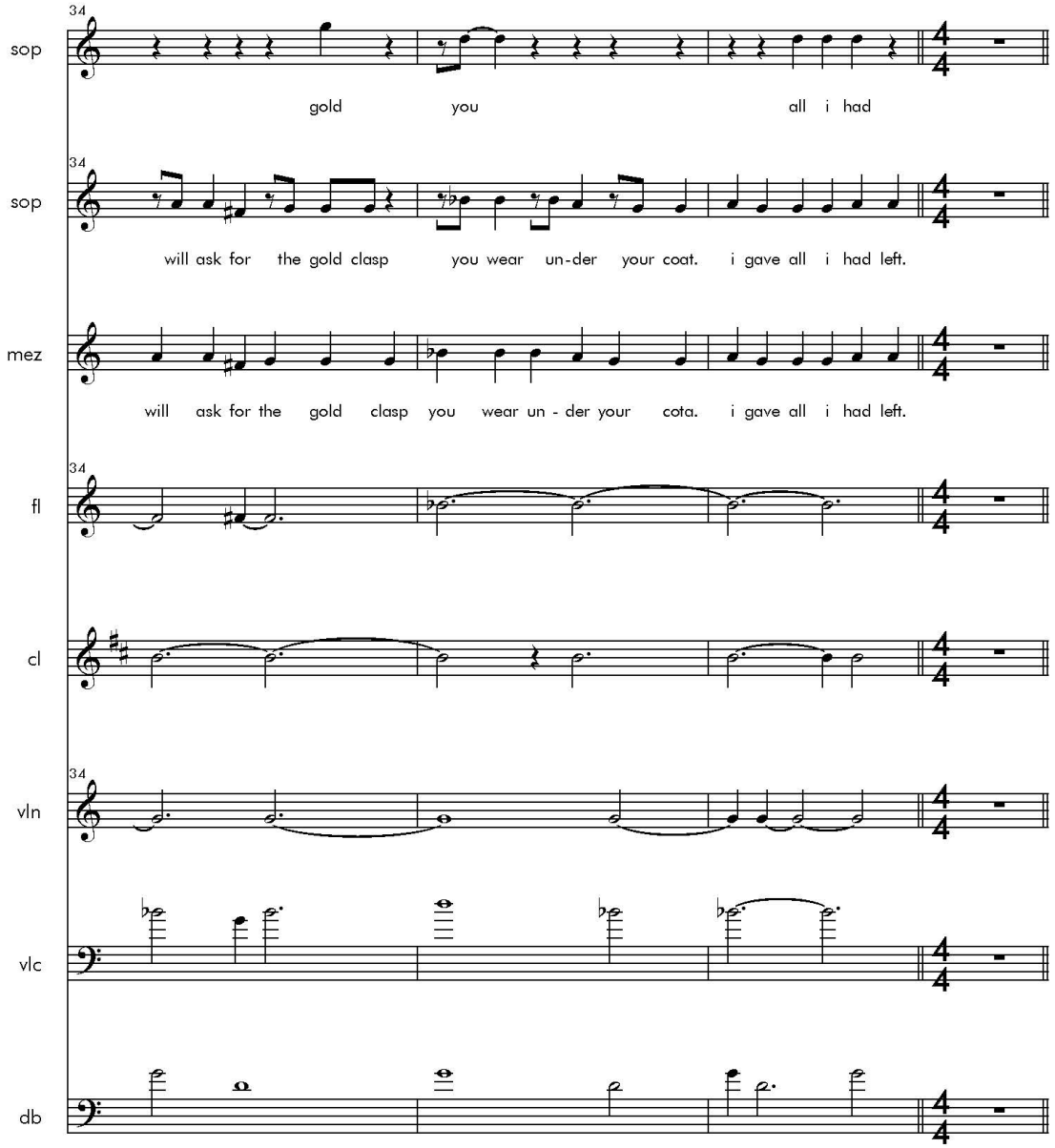


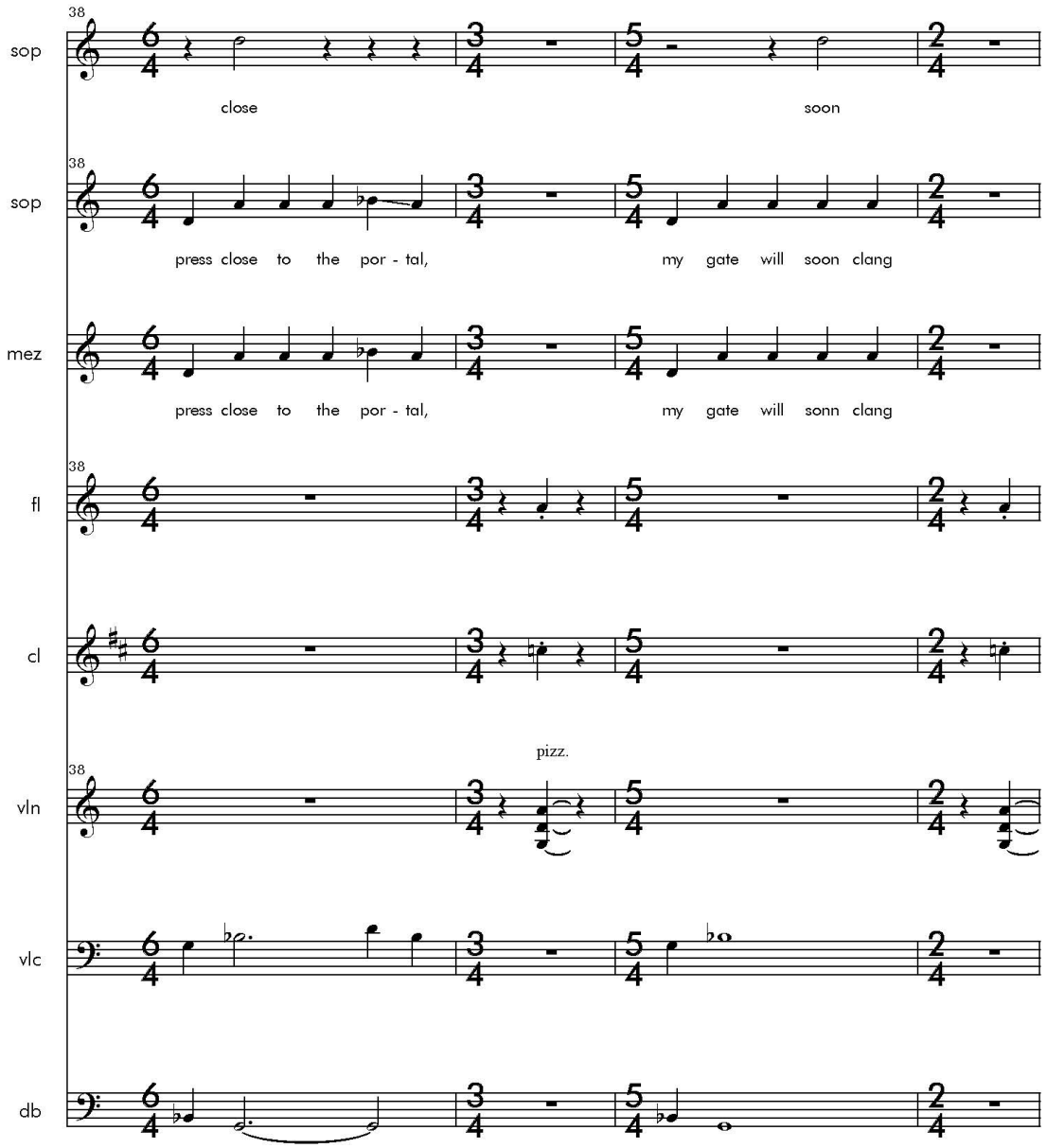
4.1 prisoners

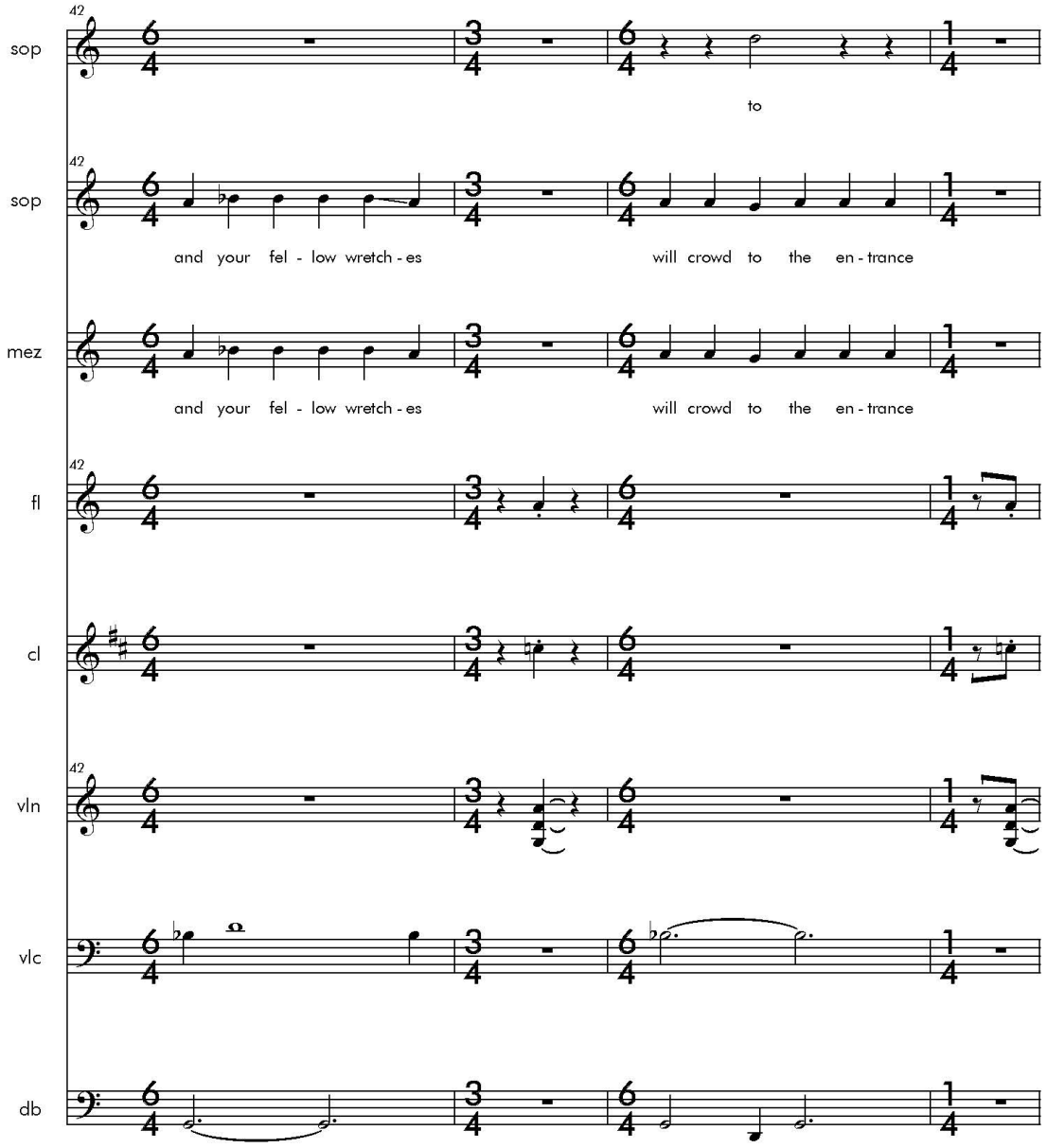


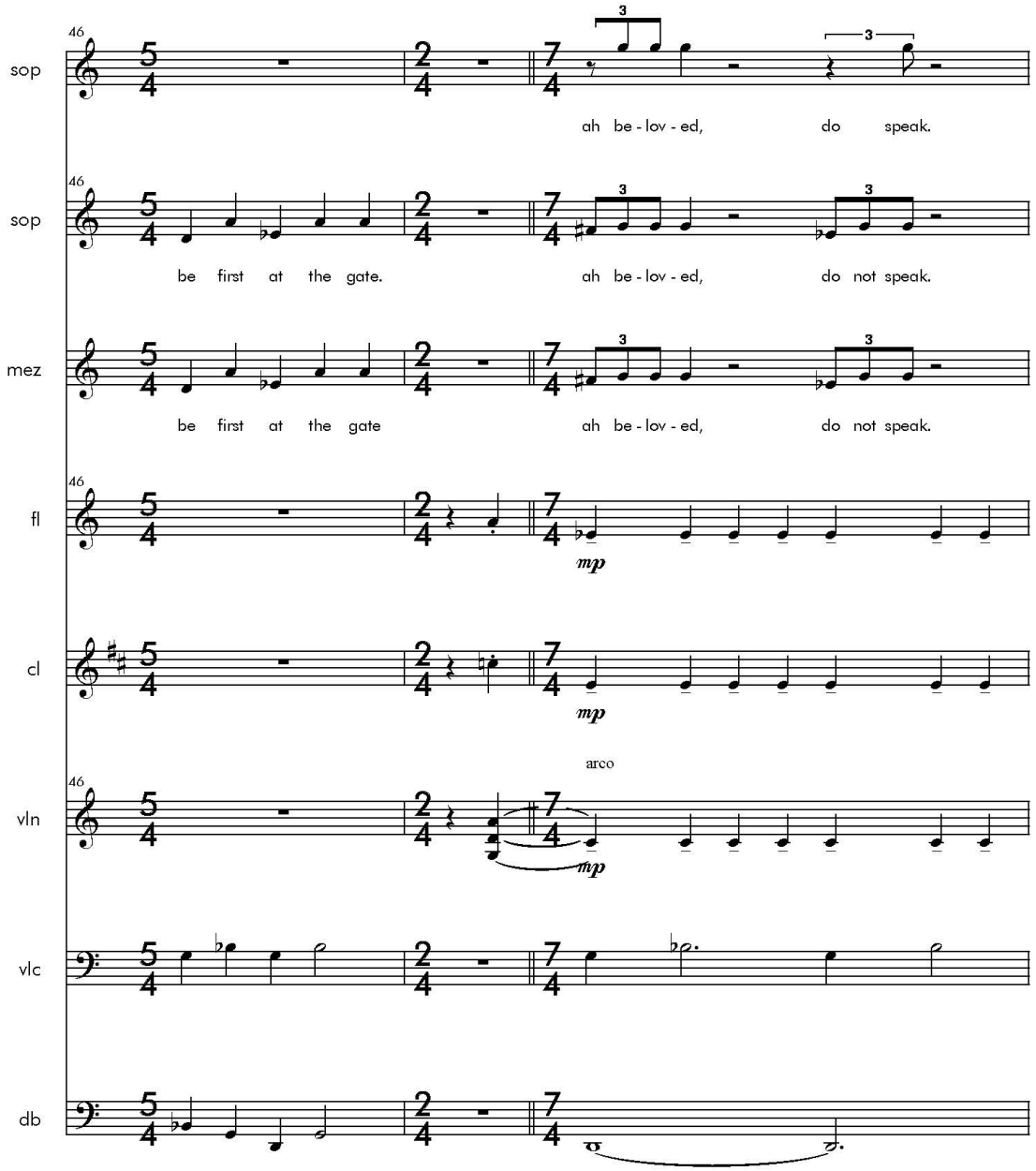

27
sop
to be out,
sop
a bout to be crushed out, burned or stamped out
mez
a bout to be crushed out, burned or stamped out
fl
cl
vln
vlc
db


32
sop
best death. who brings
32
sop
at best with sud-den death. the spears-man who brings this
mez
at best with sud-den death. the spears - man who brings this
32
fl
cl
32
vln
vlc
db

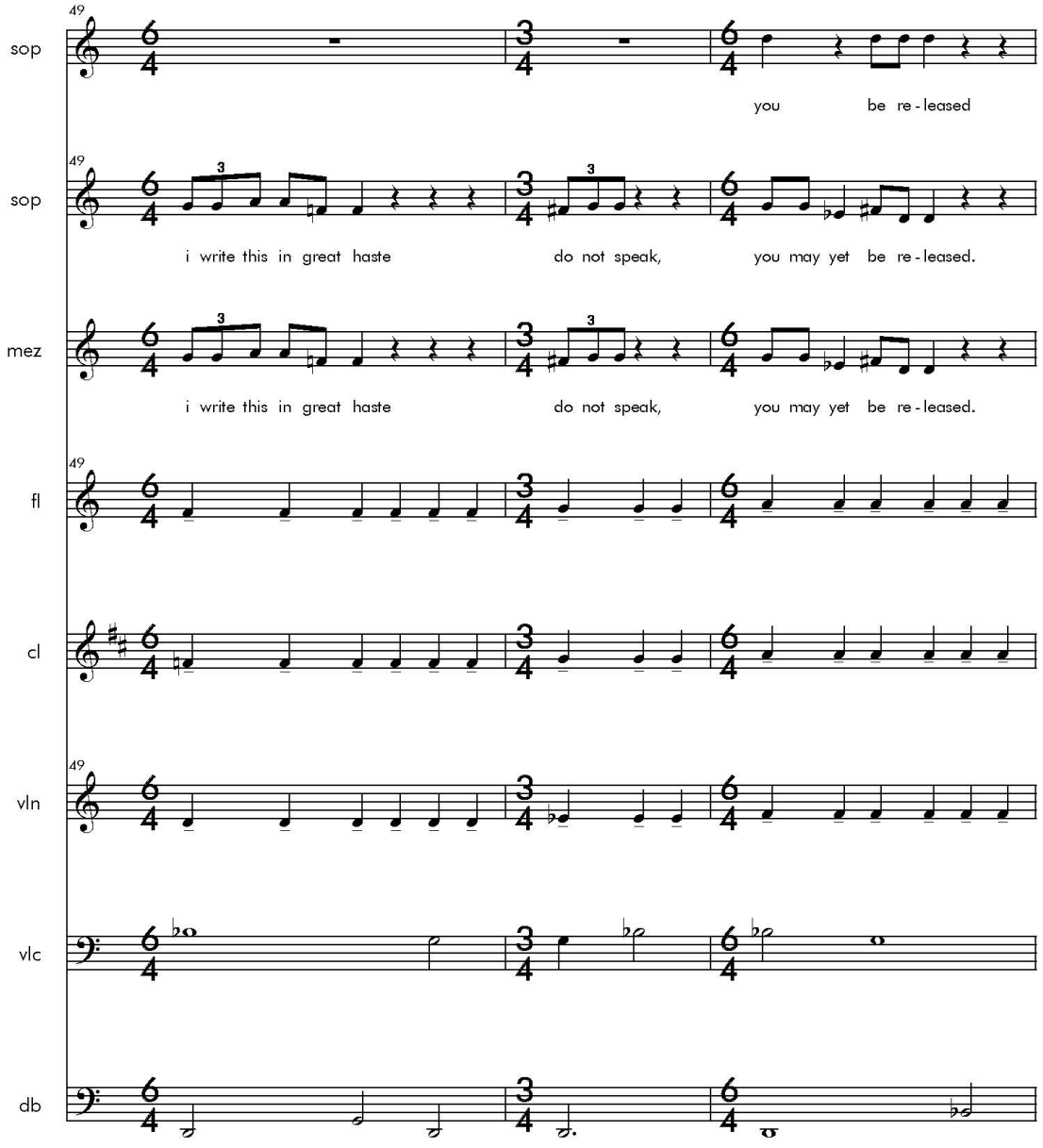

34
sop
gold you all i had
34
sop
will ask for the gold clasp you wear un-der your coat. i gave all i had left.
mez
will ask for the gold clasp you wear un - der your cota. i gave all i had left.
34
fl
cl
34
vln
vlc
db

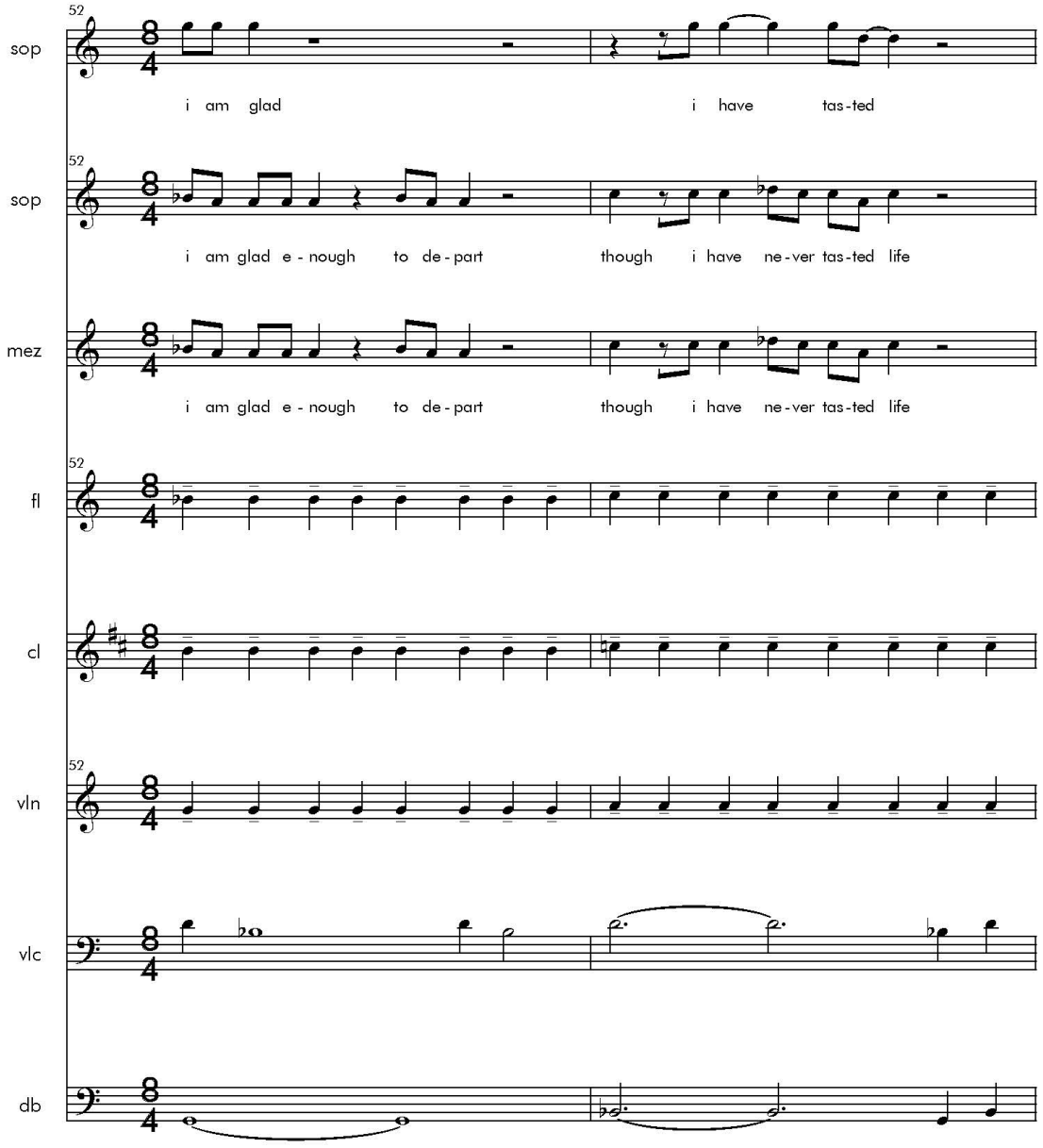

38
sop
close
soon
38
sop
press close to the por - tal,
my gate will soon clang
mez
press close to the por - tal,
my gate will sonn clang
38
fl
cl
pizz.
38
vln
vlc
db

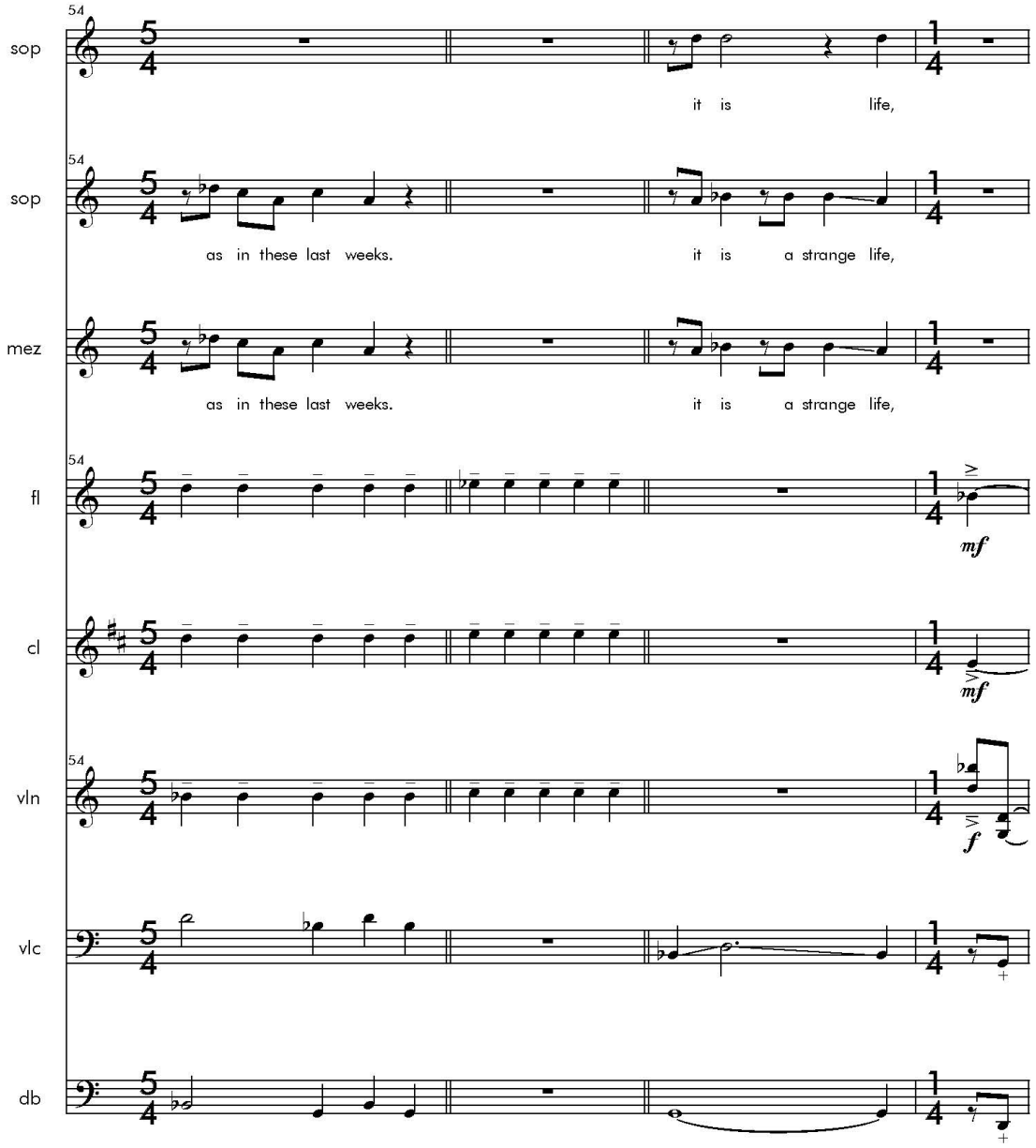

42
sop
to
42
sop
and your fel - low wretch - es
will crowd to the en - trance
mez
and your fel - low wretch - es
will crowd to the en - trance
42
fl
cl
42
vln
vlc
db

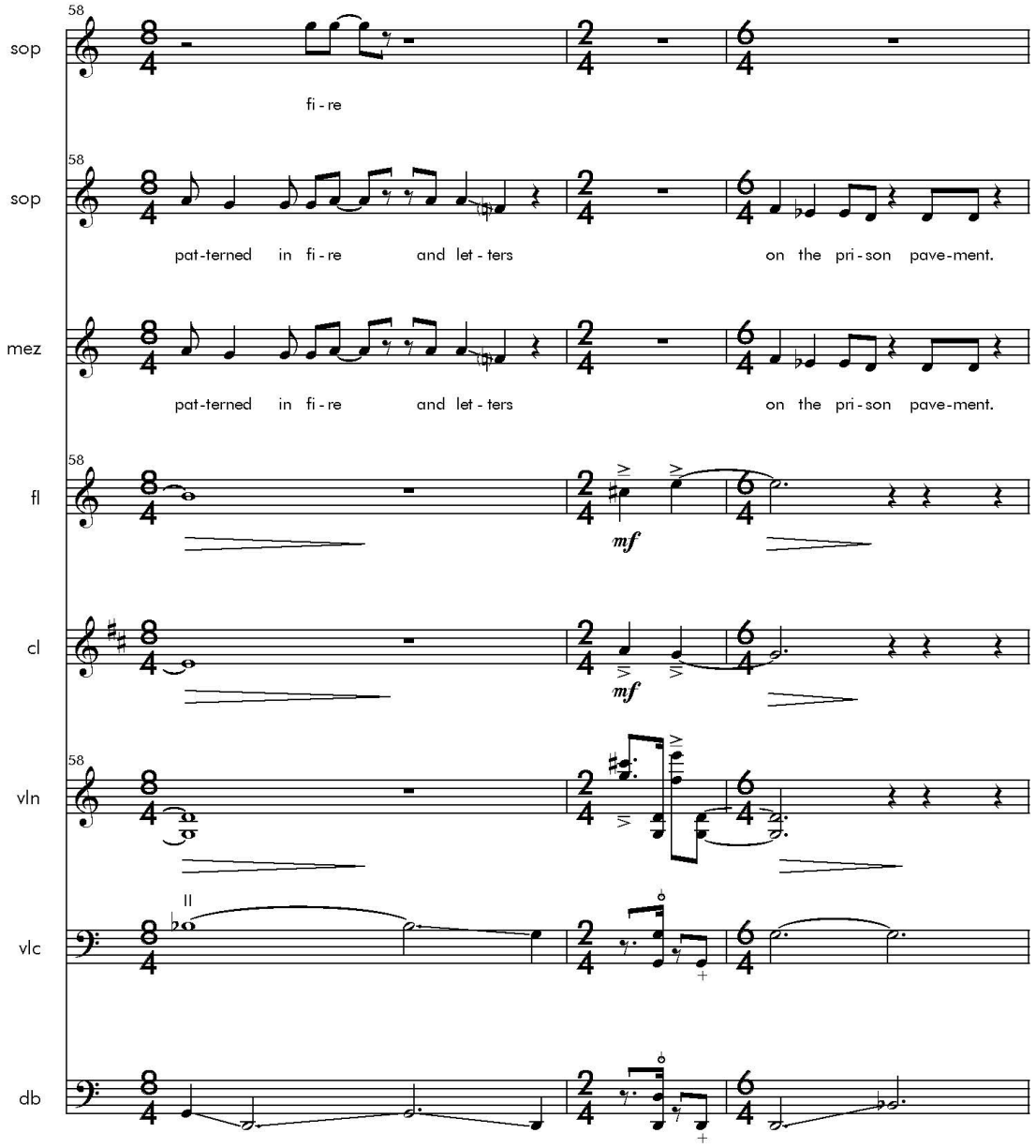

sop
ah be - lov - ed, do speak.
sop
be first at the gate. ah be - lov - ed, do not speak.
mez
be first at the gate ah be - lov - ed, do not speak.
fl
mp
cl
mp
arco
vln
mp
vlc
db

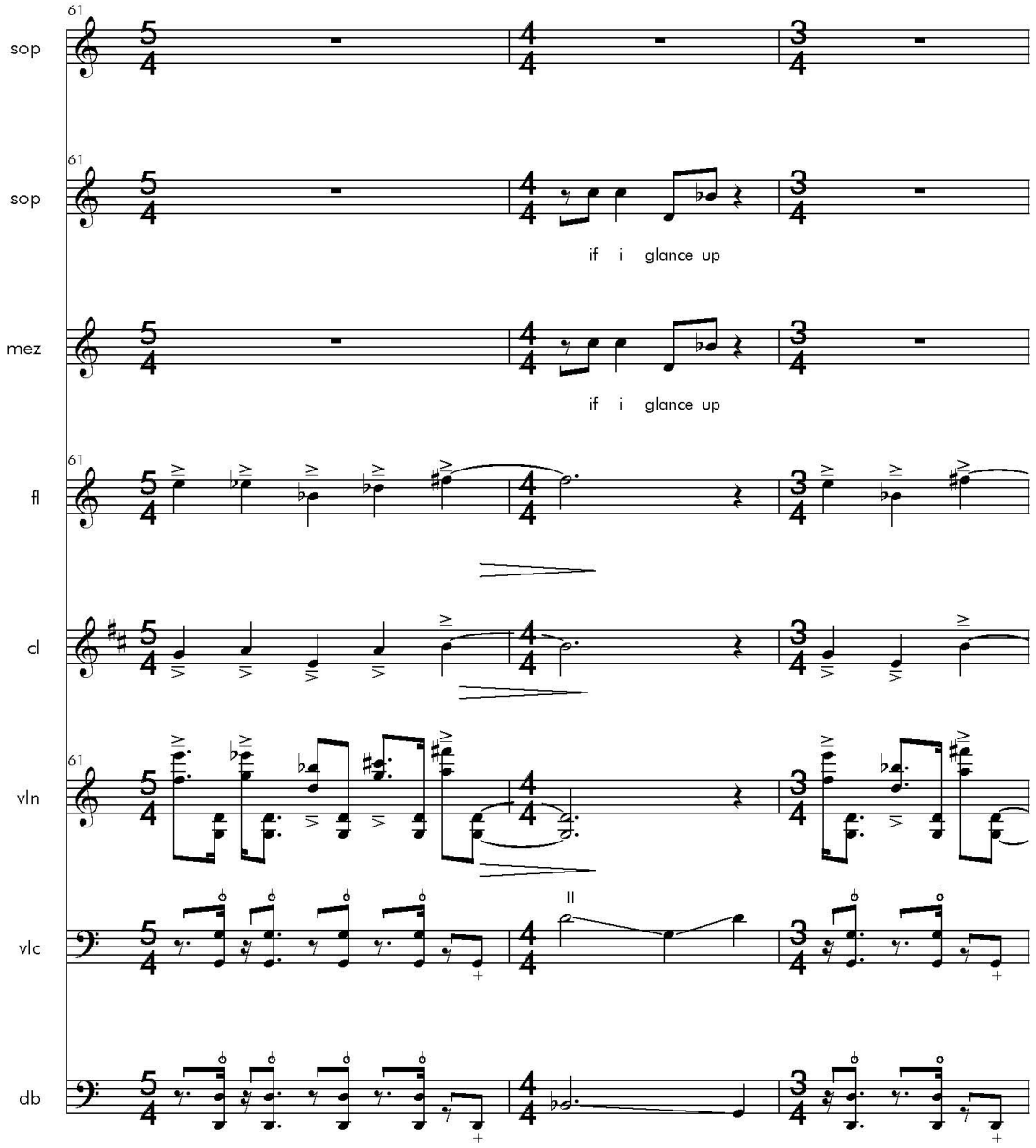
4.1 prisoners

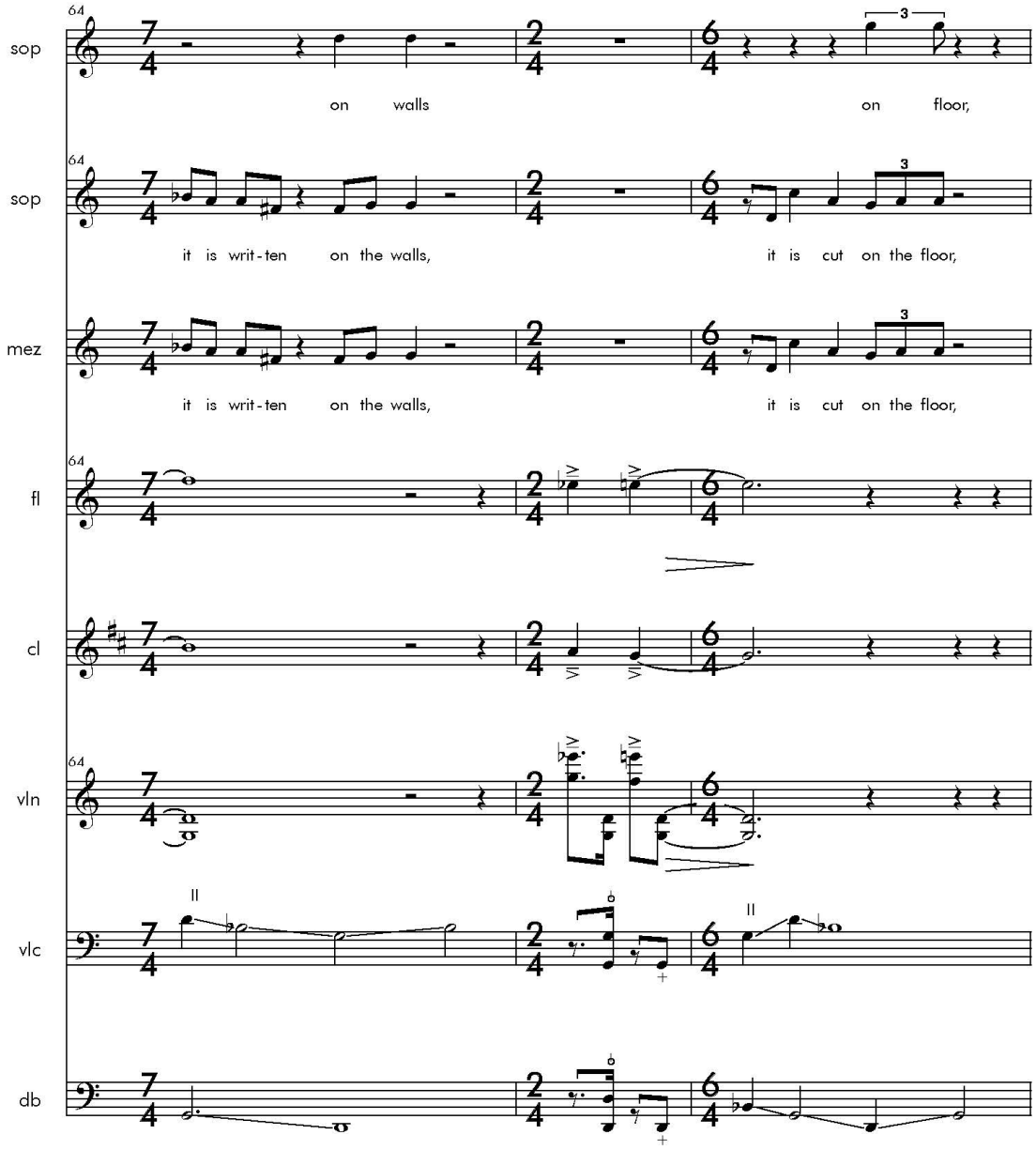


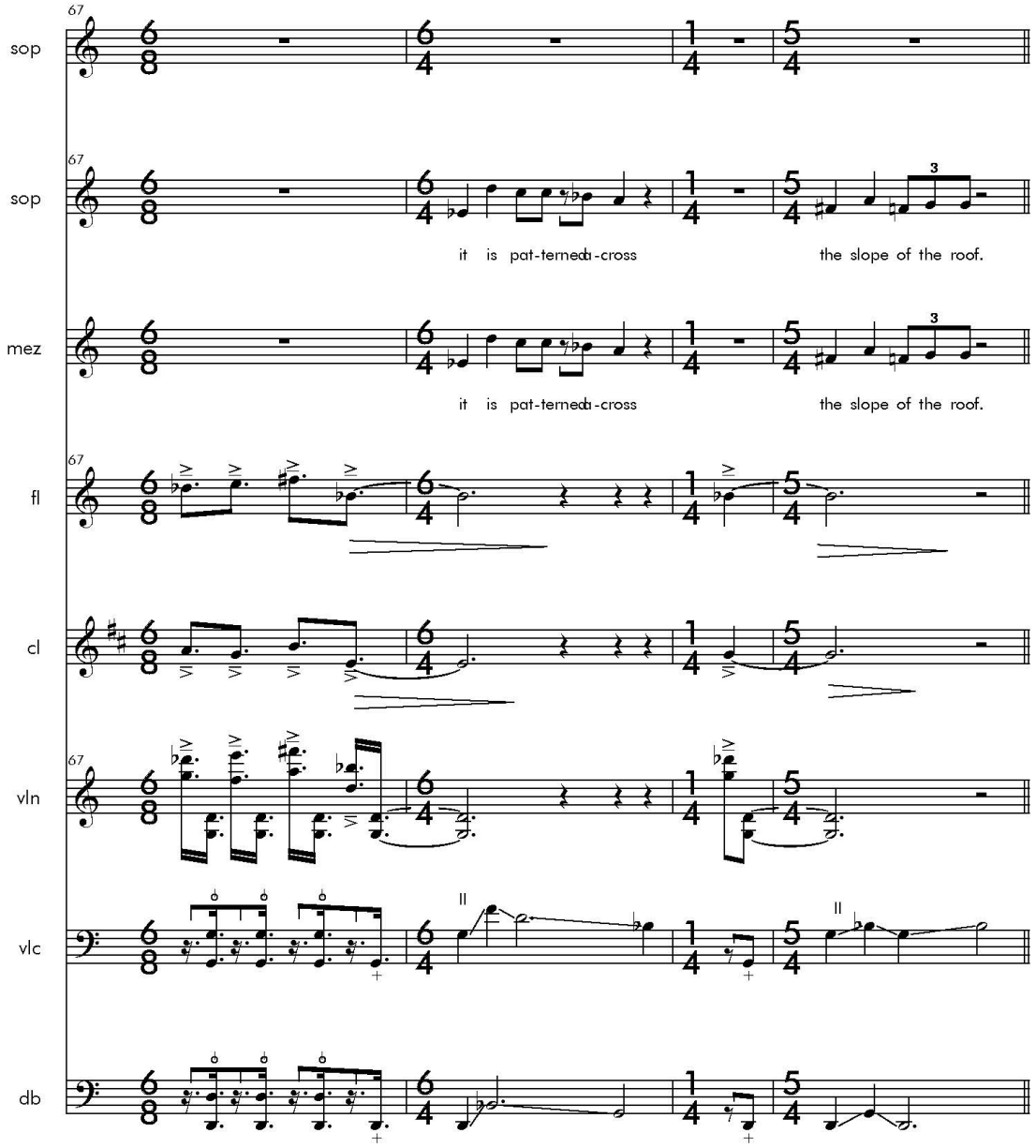

52
sop
i am glad
i have tas-ted
52
sop
i am glad e-nough to de-part
though i have ne-ver tas-ted life
mez
i am glad e-nough to de-part
though i have ne-ver tas-ted life
52
fl
52
cl
52
vln
vlc
db

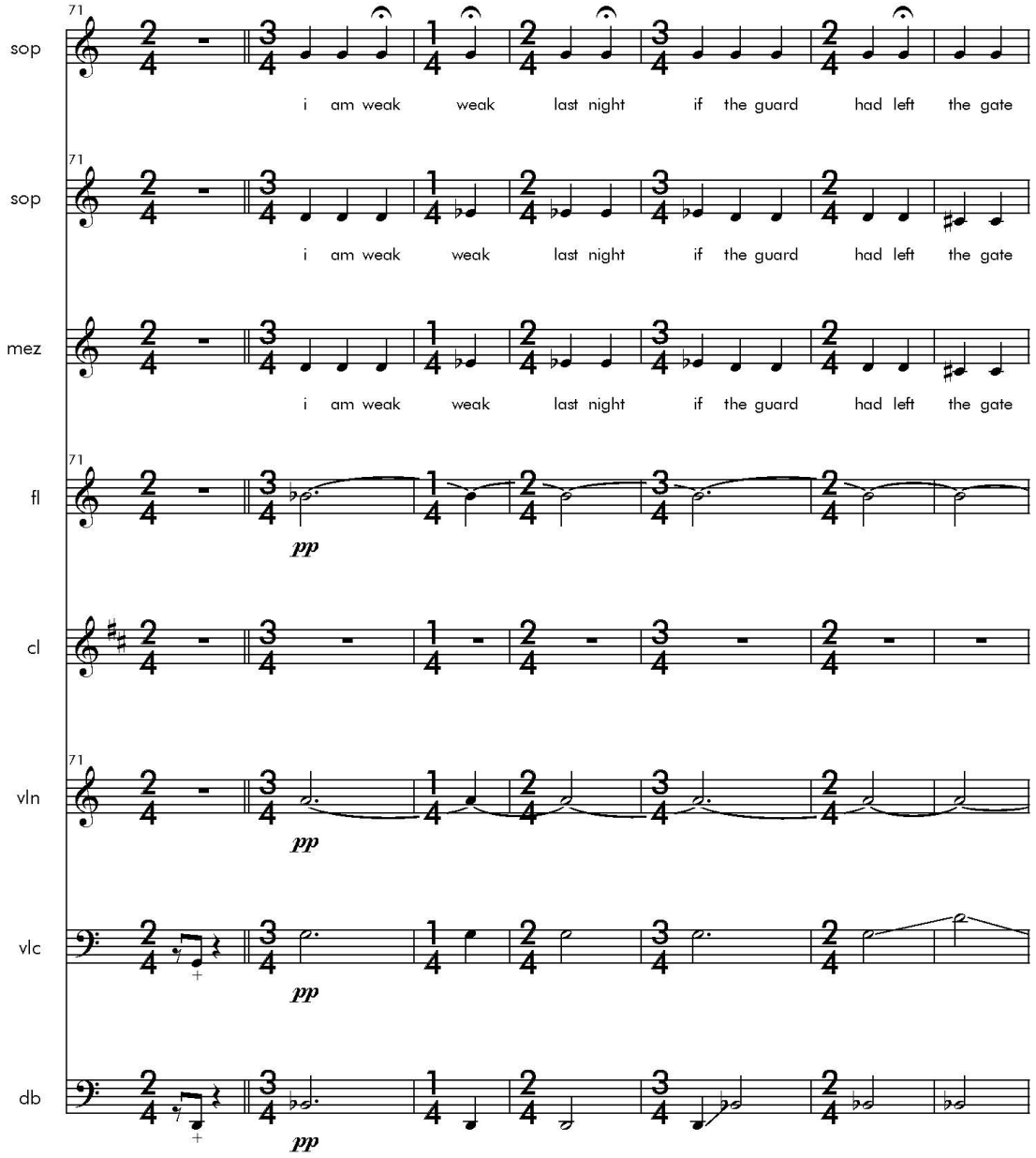

54
sop
it is life,
54
sop
as in these last weeks.
it is a strange life,
mez
as in these last weeks.
it is a strange life,
54
fl
mf
cl
mf
54
vln
f
vlc
db

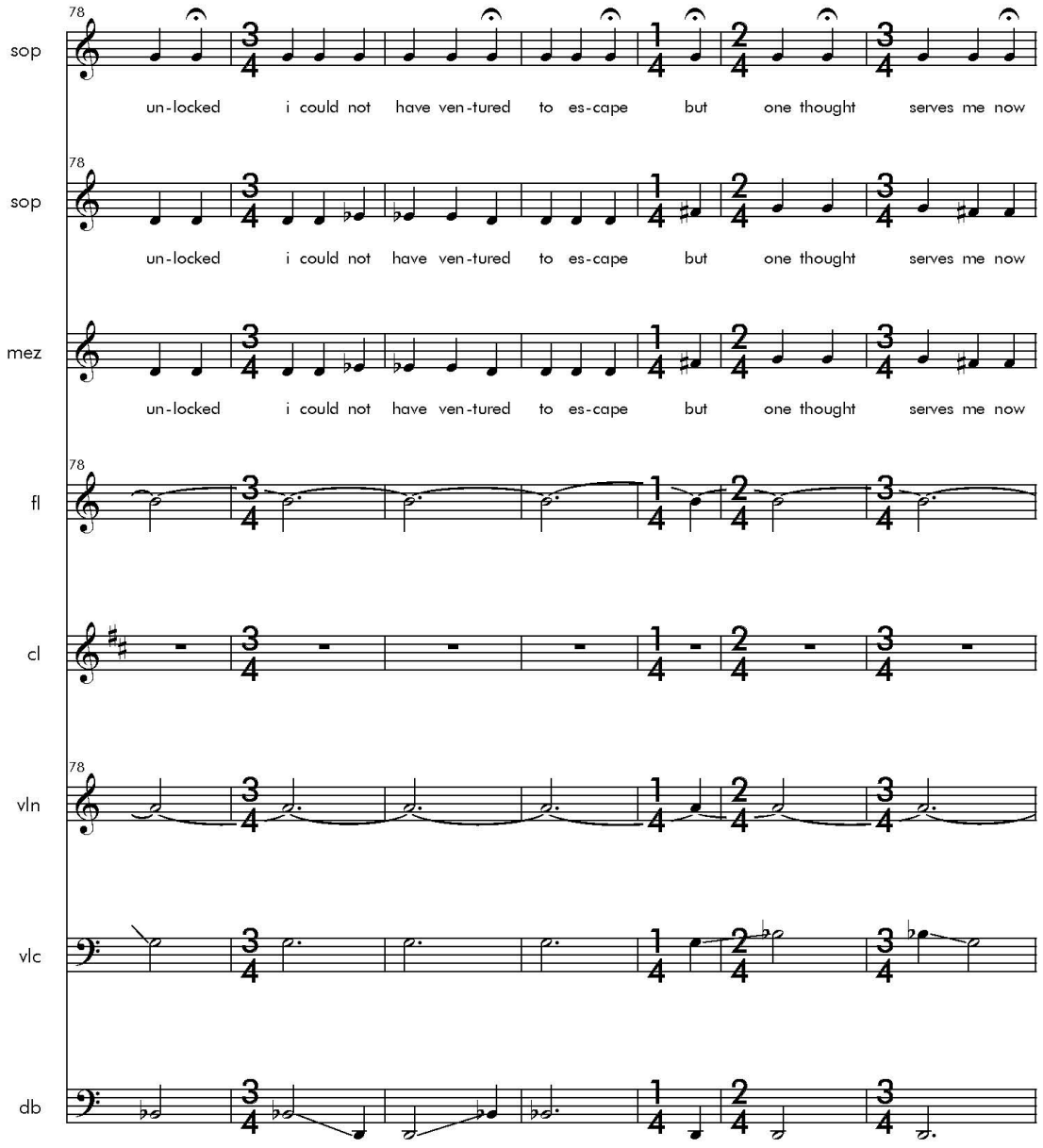

58
sop
fi - re
58
sop
pat-terned in fi - re and let - ters on the pri - son pave-ment.
mez
pat-terned in fi - re and let - ters on the pri - son pave-ment.
58
fl
mf
cl
mf
58
vln
II
vlc
db

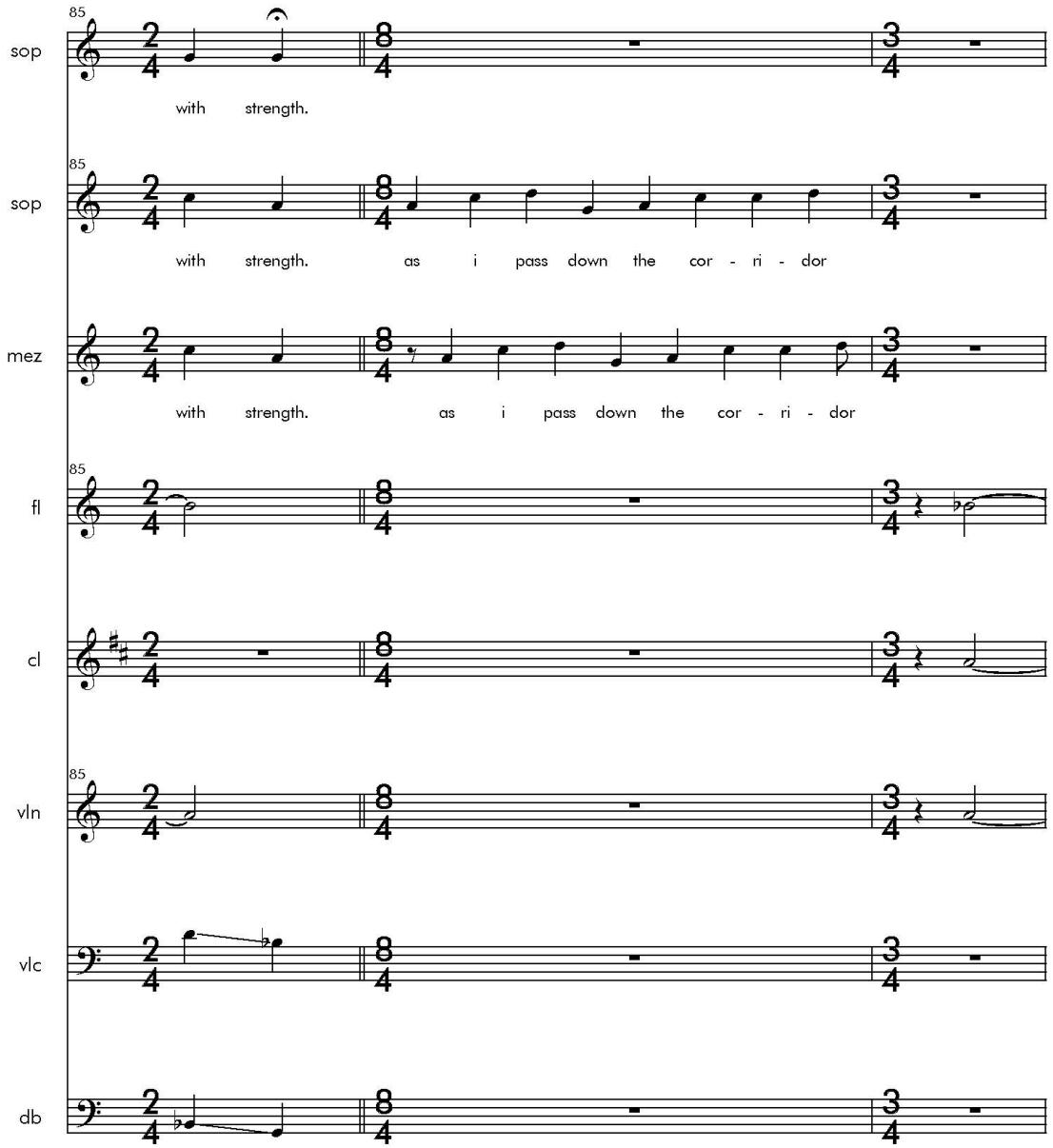

61
sop
sop
if i glance up
mez
if i glance up
fl
cl
vln
vlc
db

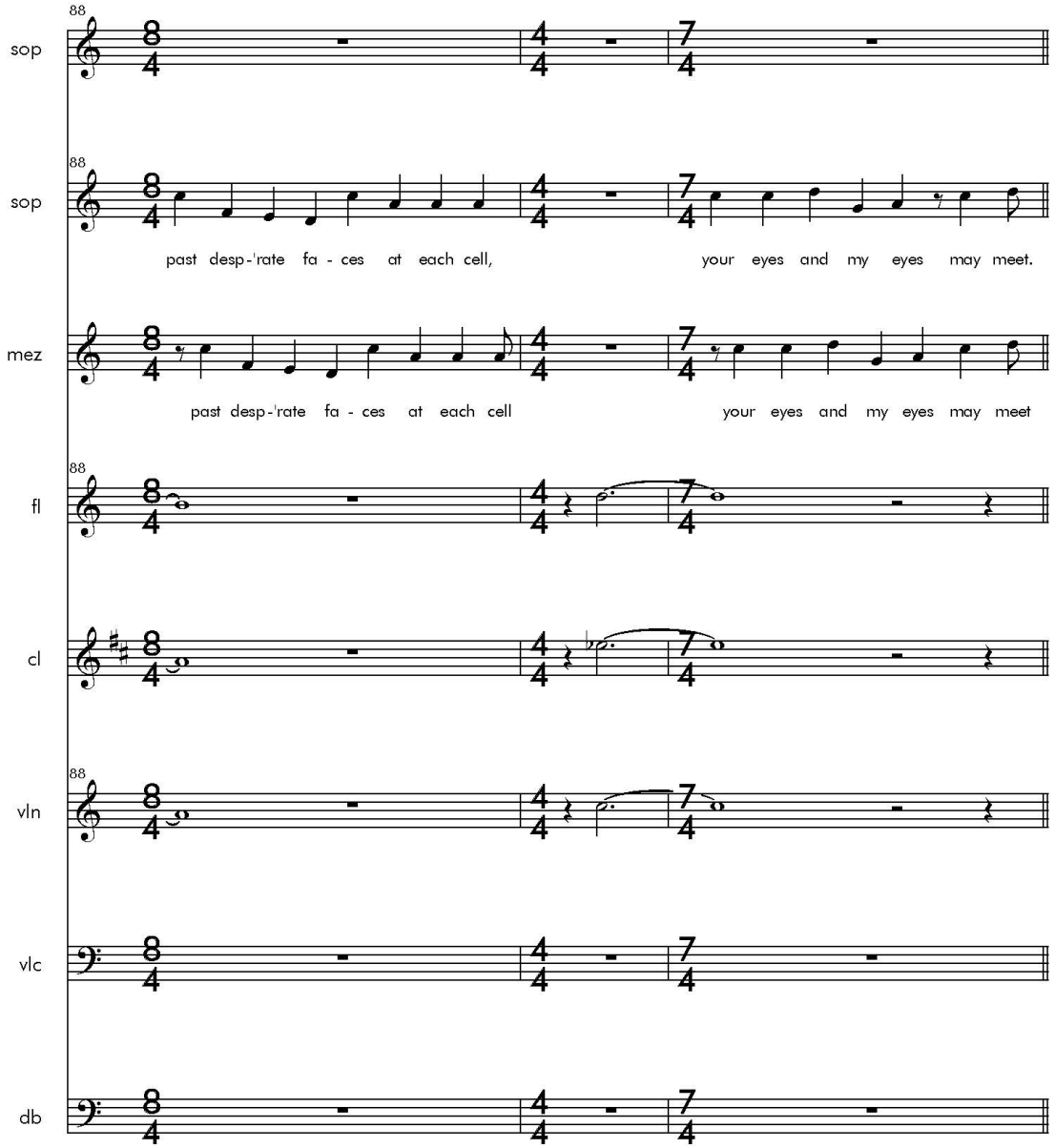

sop
on walls
on floor,
sop
it is writ-ten on the walls,
it is cut on the floor,
mez
it is writ-ten on the walls,
it is cut on the floor,
fl
cl
vln
vlc
db

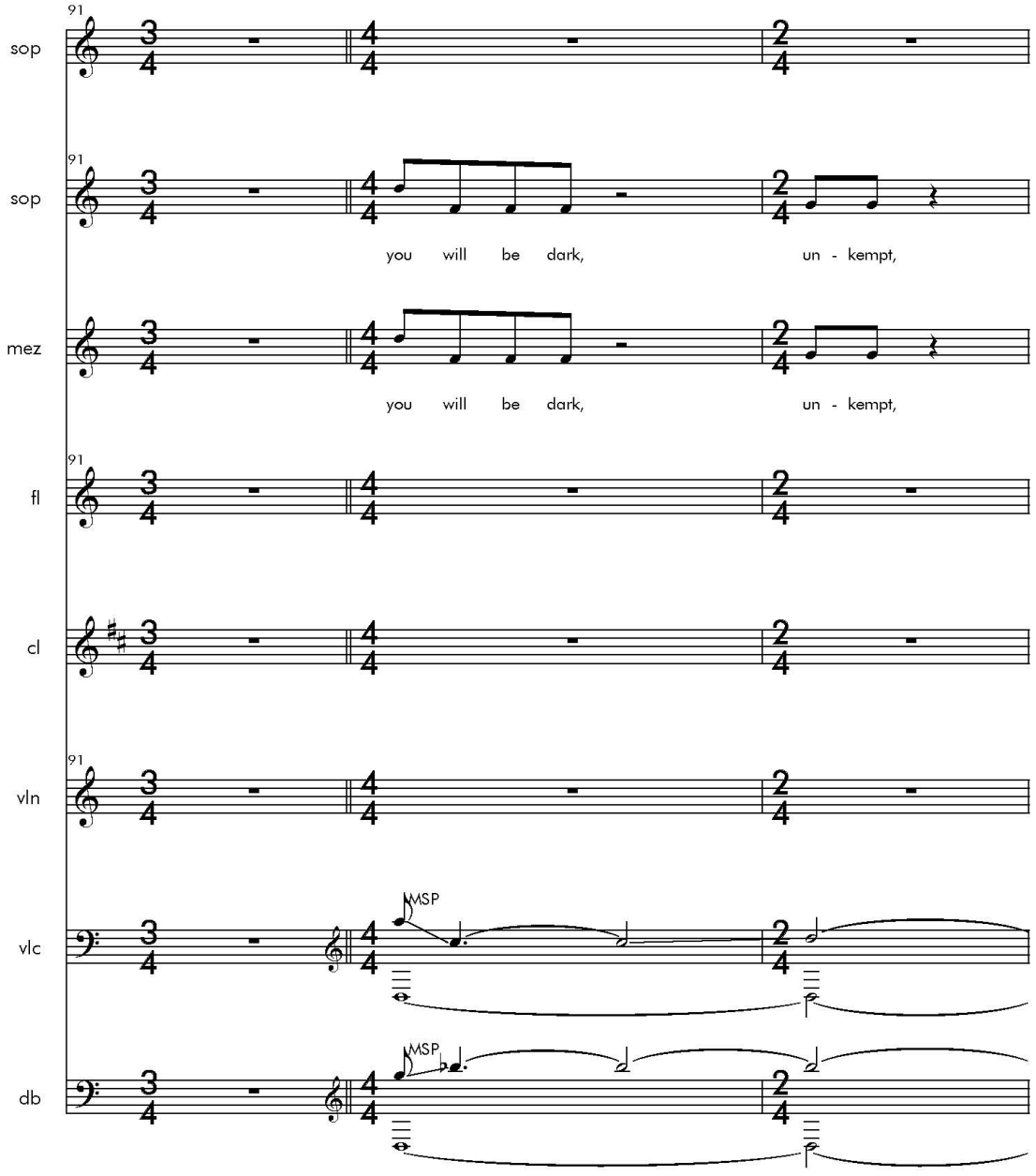

67
sop
sop
it is pat-terned a-cross the slope of the roof.
mez
it is pat-terned a-cross the slope of the roof.
fl
cl
vln
vlc
db

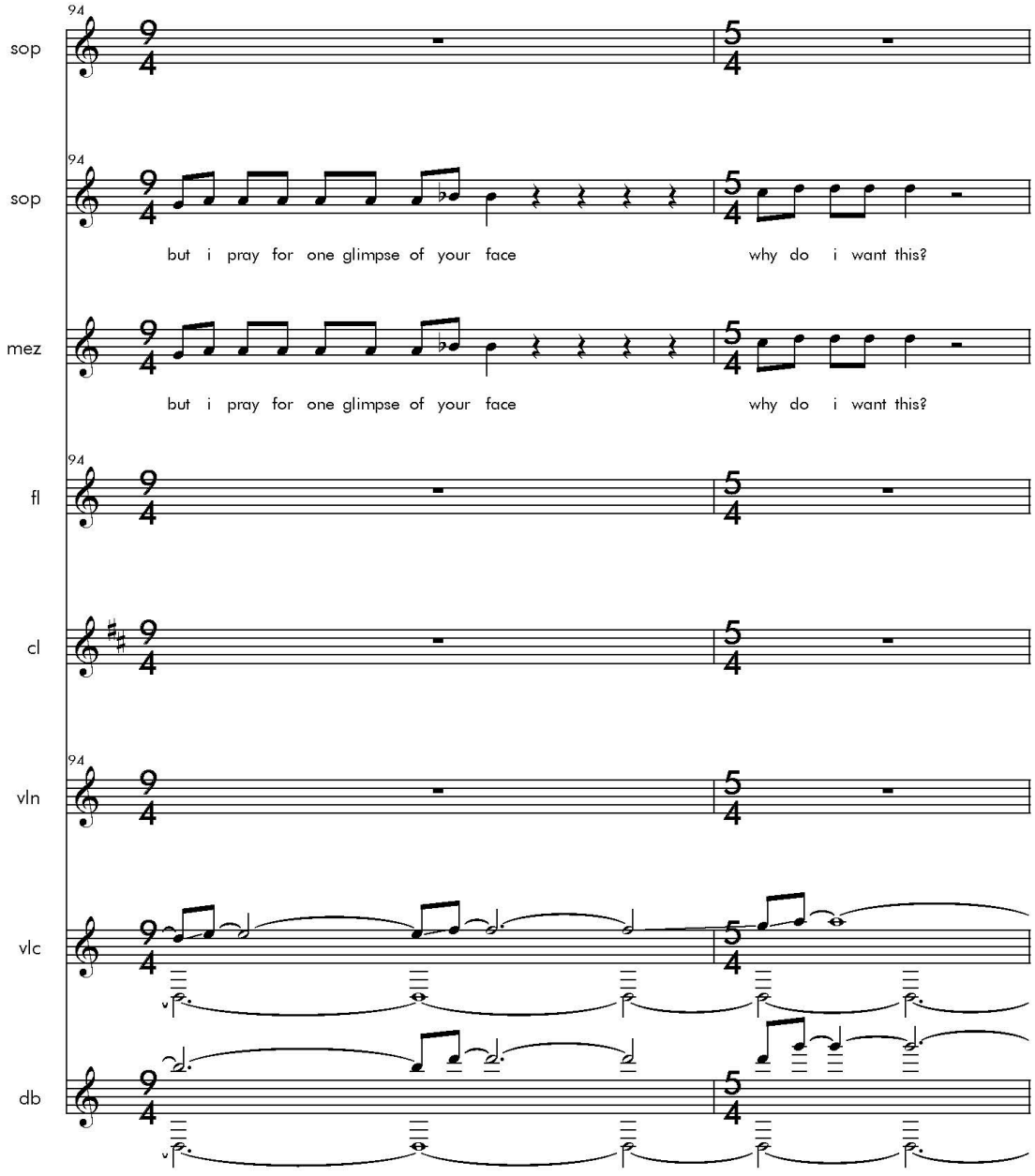

71
sop
i am weak weak last night if the guard had left the gate
71
sop
i am weak weak last night if the guard had left the gate
mez
i am weak weak last night if the guard had left the gate
71
fl
pp
cl
71
vln
pp
vlc
pp
db
pp

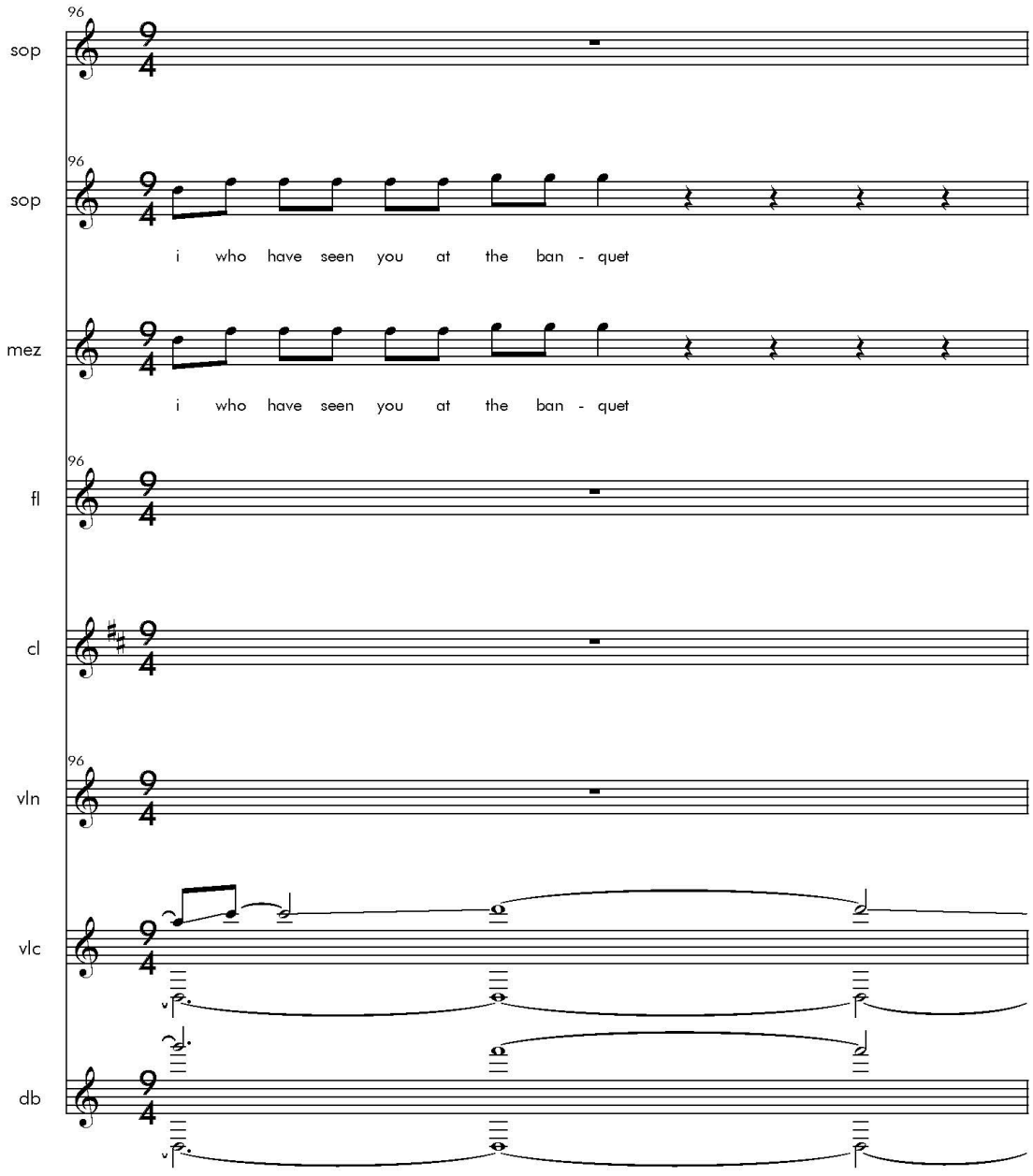

78
sop
un-locked i could not have ven-tured to es-cape but one thought serves me now
78
sop
un-locked i could not have ven-tured to es-cape but one thought serves me now
mez
un-locked i could not have ven-tured to es-cape but one thought serves me now
78
fl
cl
78
vln
vlc
db

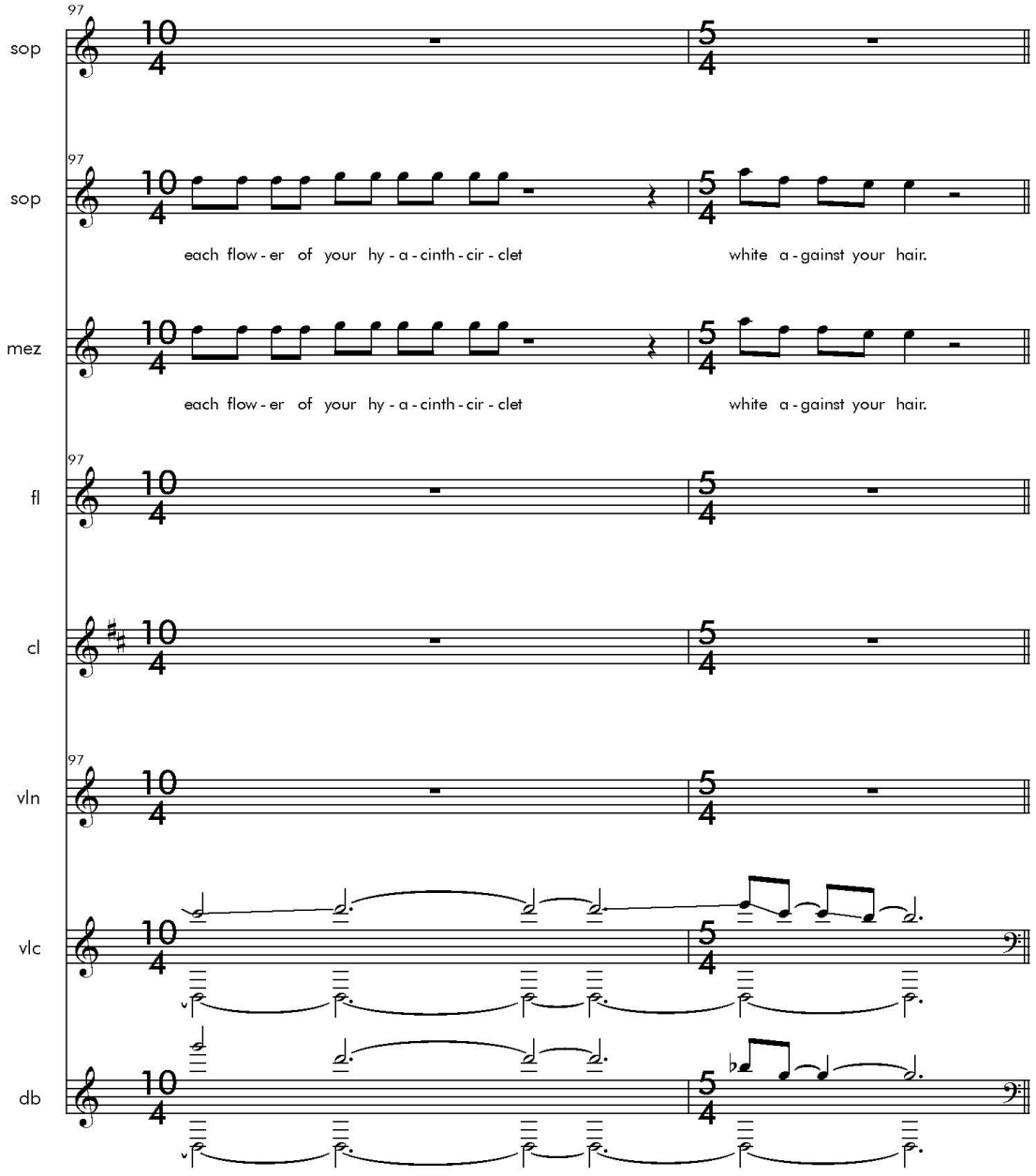

85
sop
with strength.
85
sop
with strength. as i pass down the cor - ri - dor
mez
with strength. as i pass down the cor - ri - dor
85
fl
cl
85
vln
vlc
db

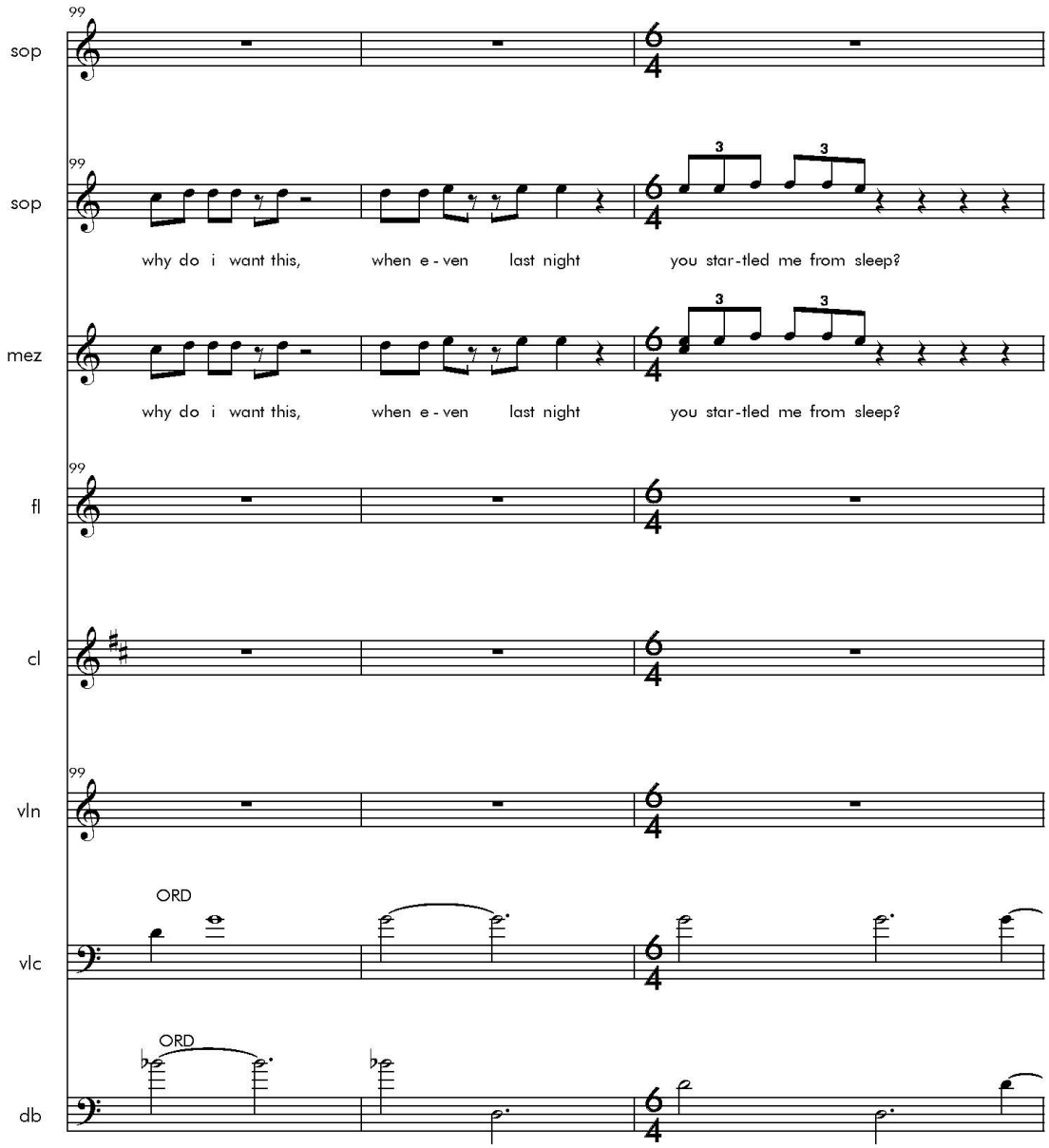

88
sop
sop
past desp-'rate fa - ces at each cell,
your eyes and my eyes may meet.
mez
past desp-'rate fa - ces at each cell
your eyes and my eyes may meet
fl
cl
vln
vlc
db

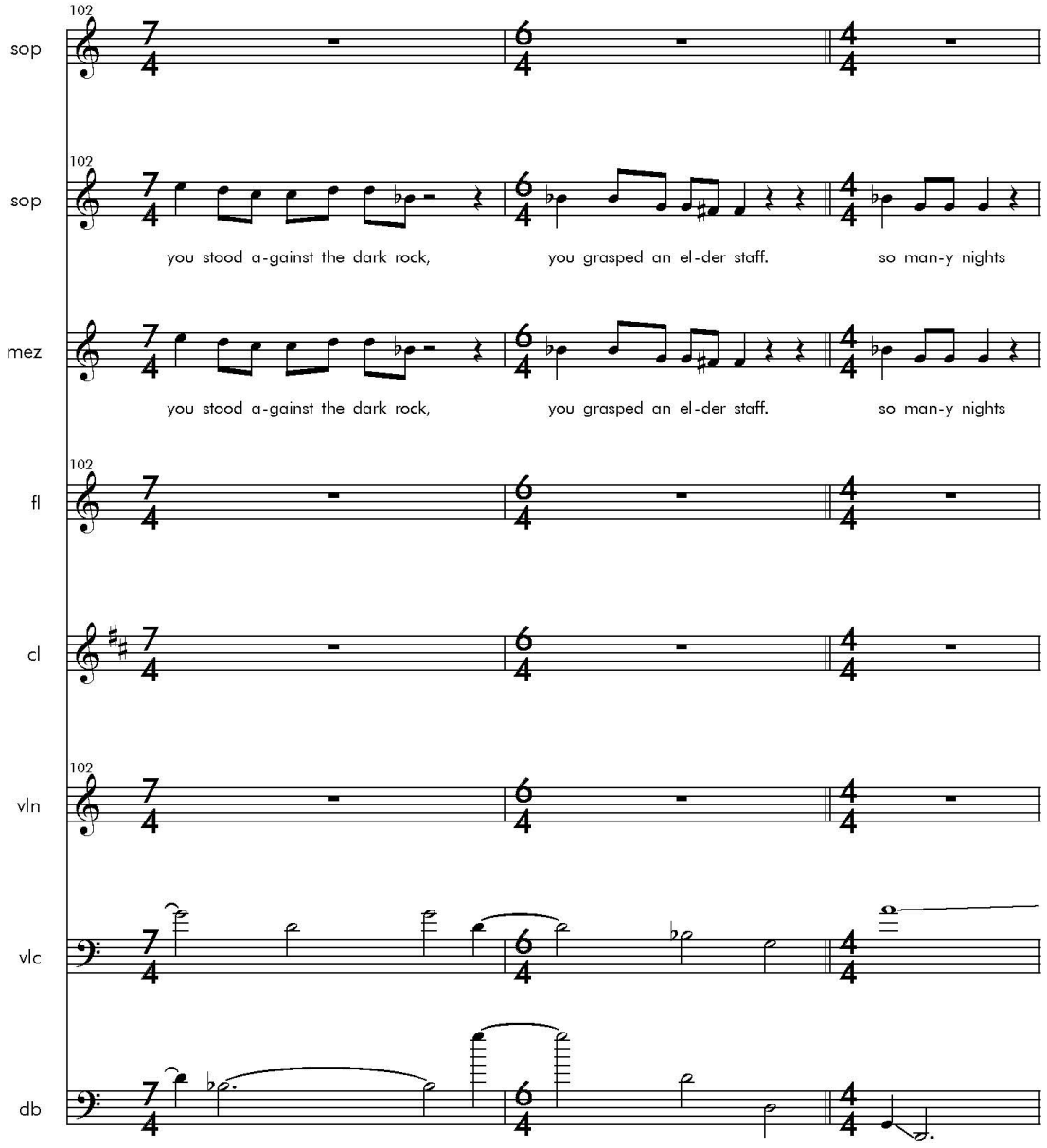

91
sop
sop
you will be dark, un - kempt,
mez
you will be dark, un - kempt,
fl
cl
vln
vlc
MSP
db
MSP

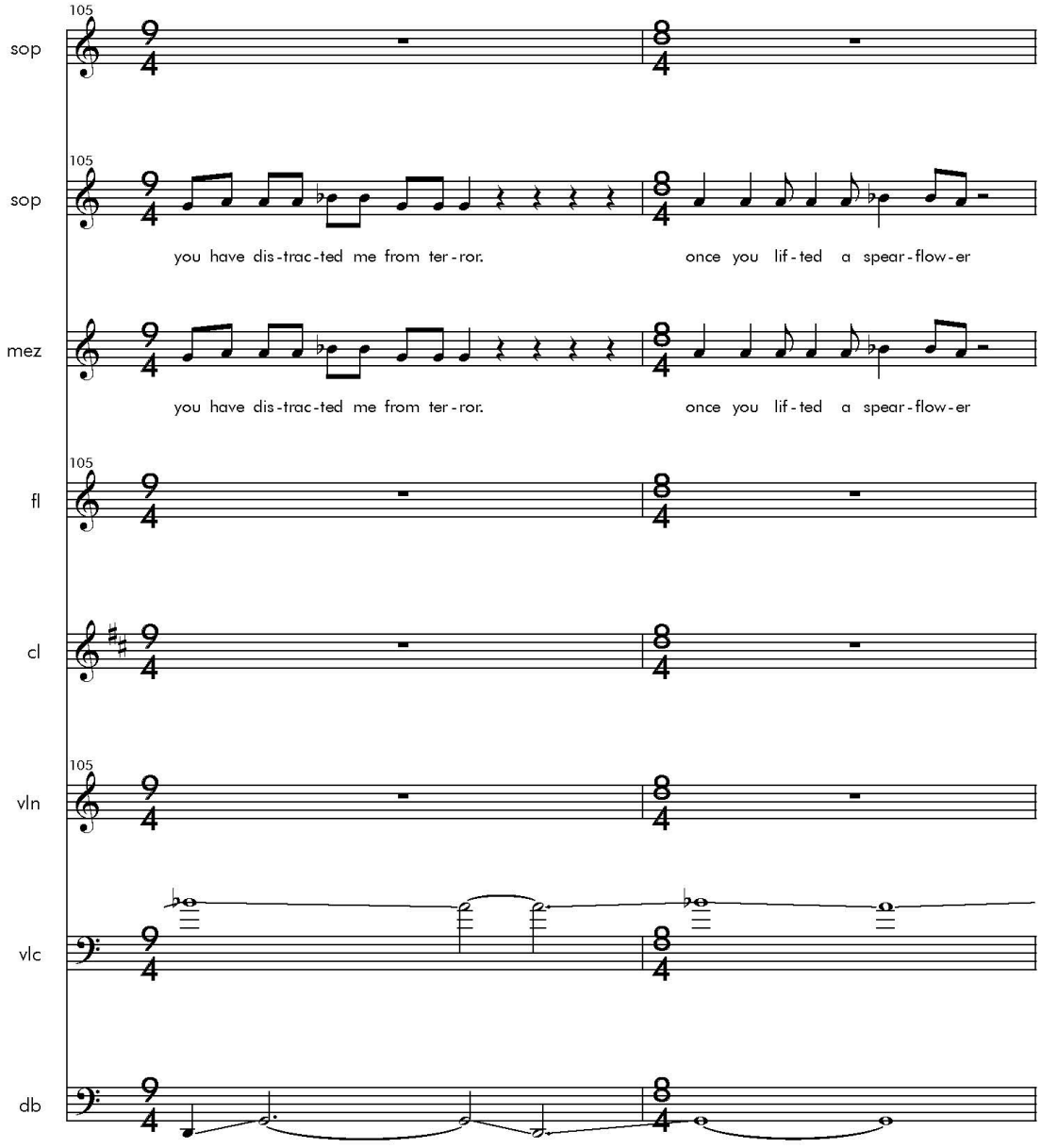

94
sop
sop
but i pray for one glimpse of your face
why do i want this?
mez
but i pray for one glimpse of your face
why do i want this?
fl
cl
vln
vlc
db

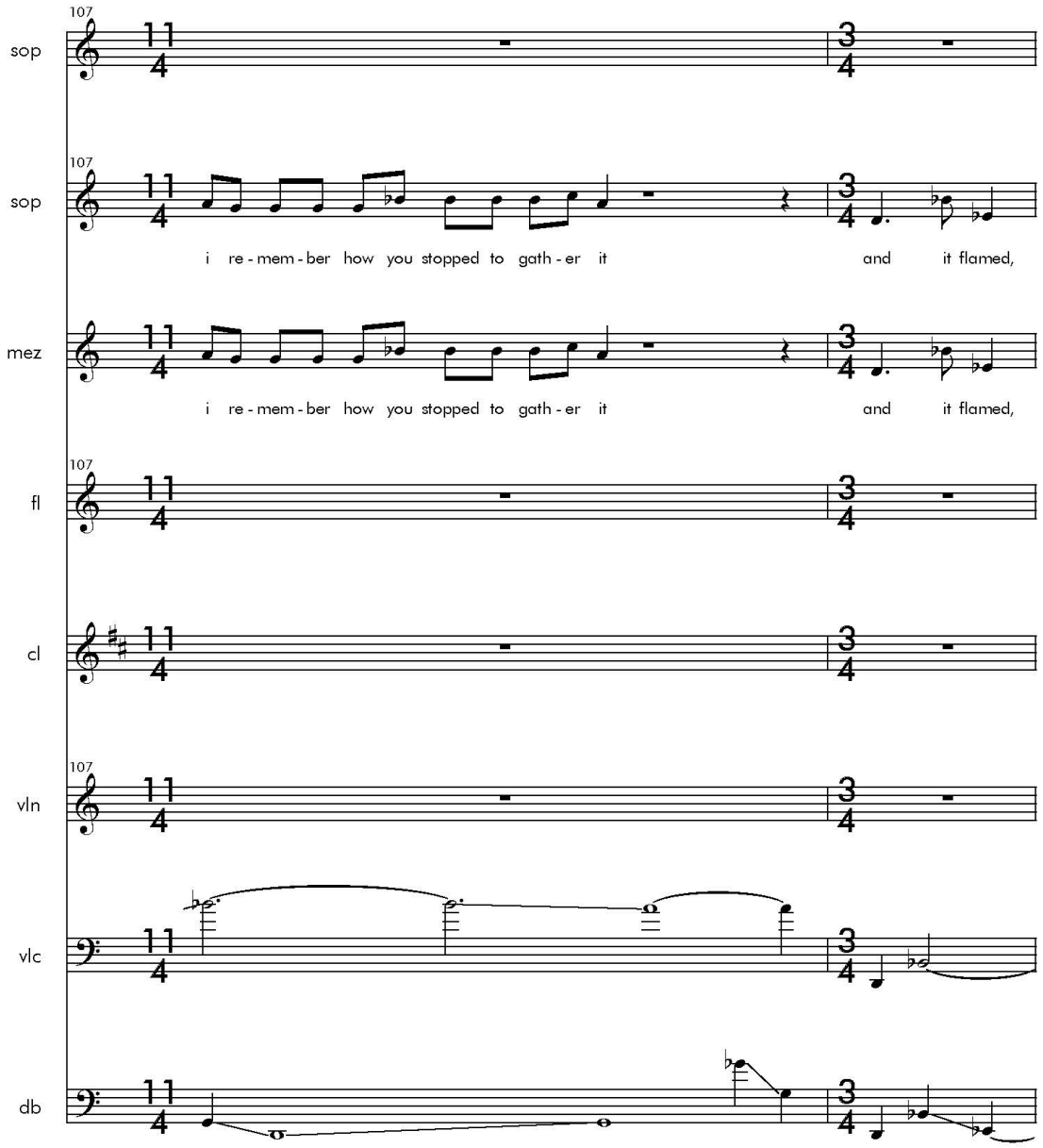

96
sop
96
sop
i who have seen you at the ban - quet
mez
i who have seen you at the ban - quet
96
fl
cl
96
vln
vlc
db

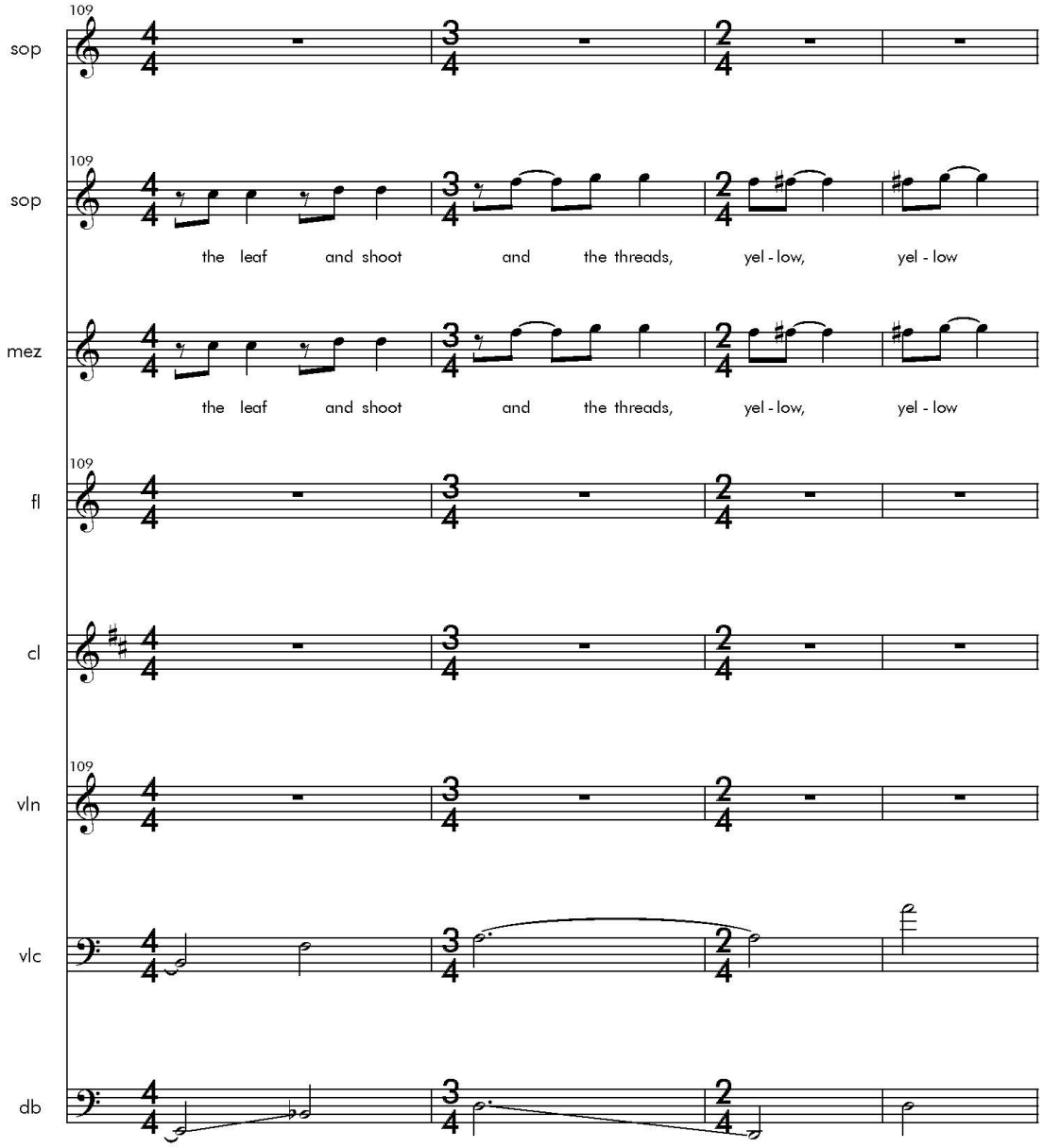

97
sop
sop
each flow - er of your hy - a - cinth - cir - clet
white a - gainst your hair.
mez
each flow - er of your hy - a - cinth - cir - clet
white a - gainst your hair.
fl
cl
vln
vlc
db

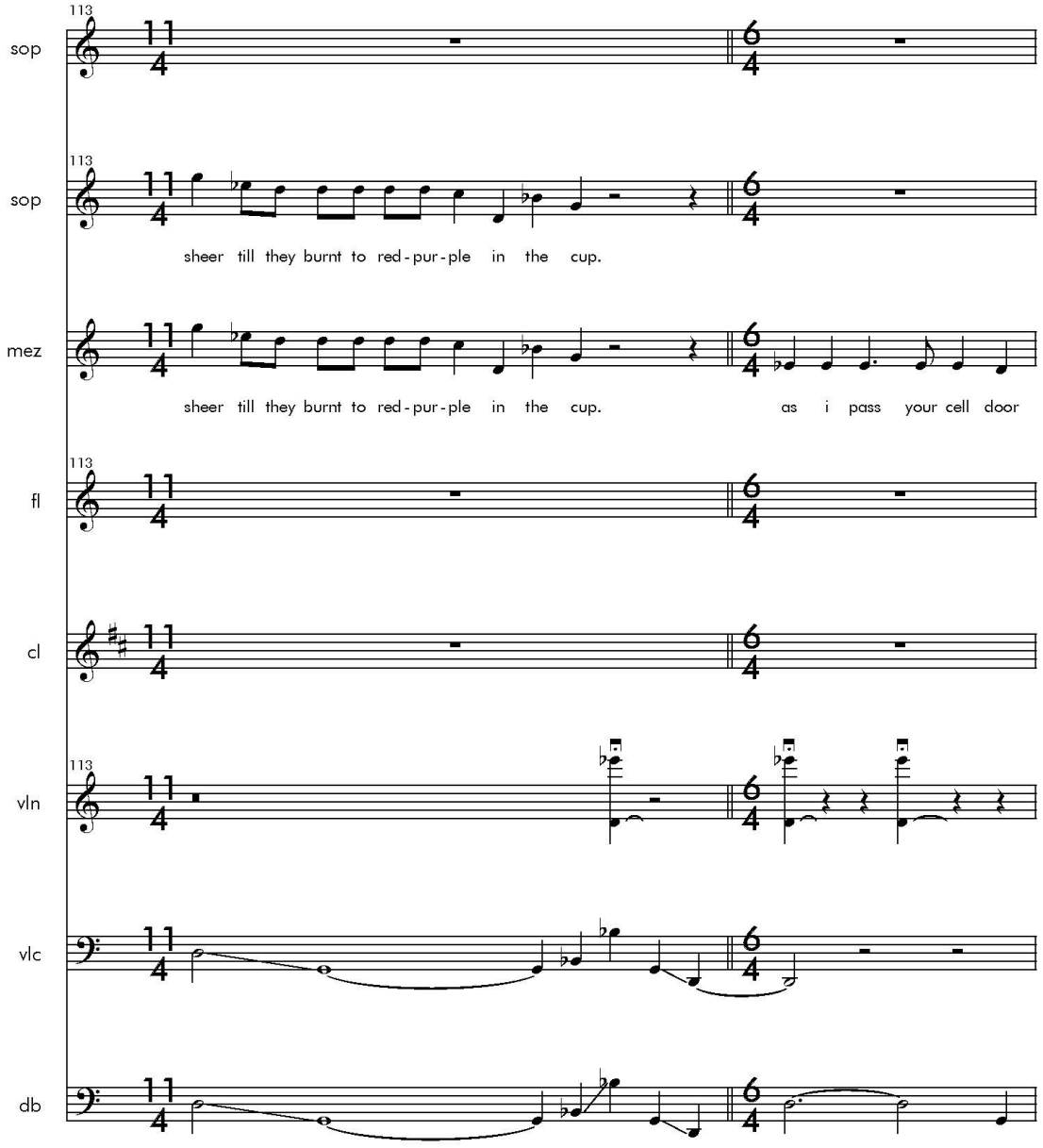

sop
sop
why do i want this, when e - ven last night you star - tled me from sleep?
mez
why do i want this, when e - ven last night you star - tled me from sleep?
fl
cl
vln
ORD
vlc
ORD
db

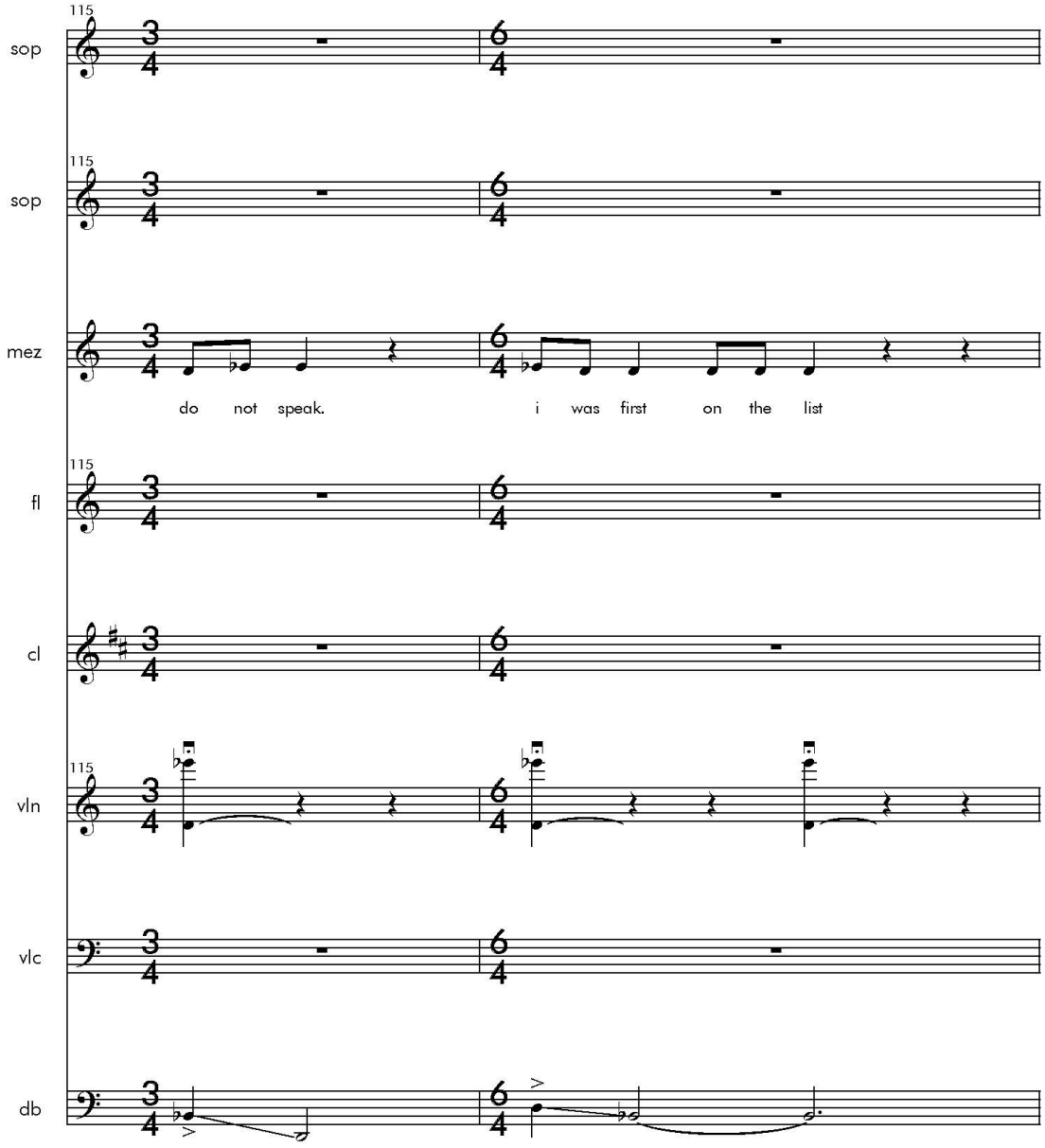

102
sop
sop
you stood a-gainst the dark rock,
you grasped an el-der staff.
so man-y nights
mez
you stood a-gainst the dark rock,
you grasped an el-der staff.
so man-y nights
fl
cl
vln
vlc
db

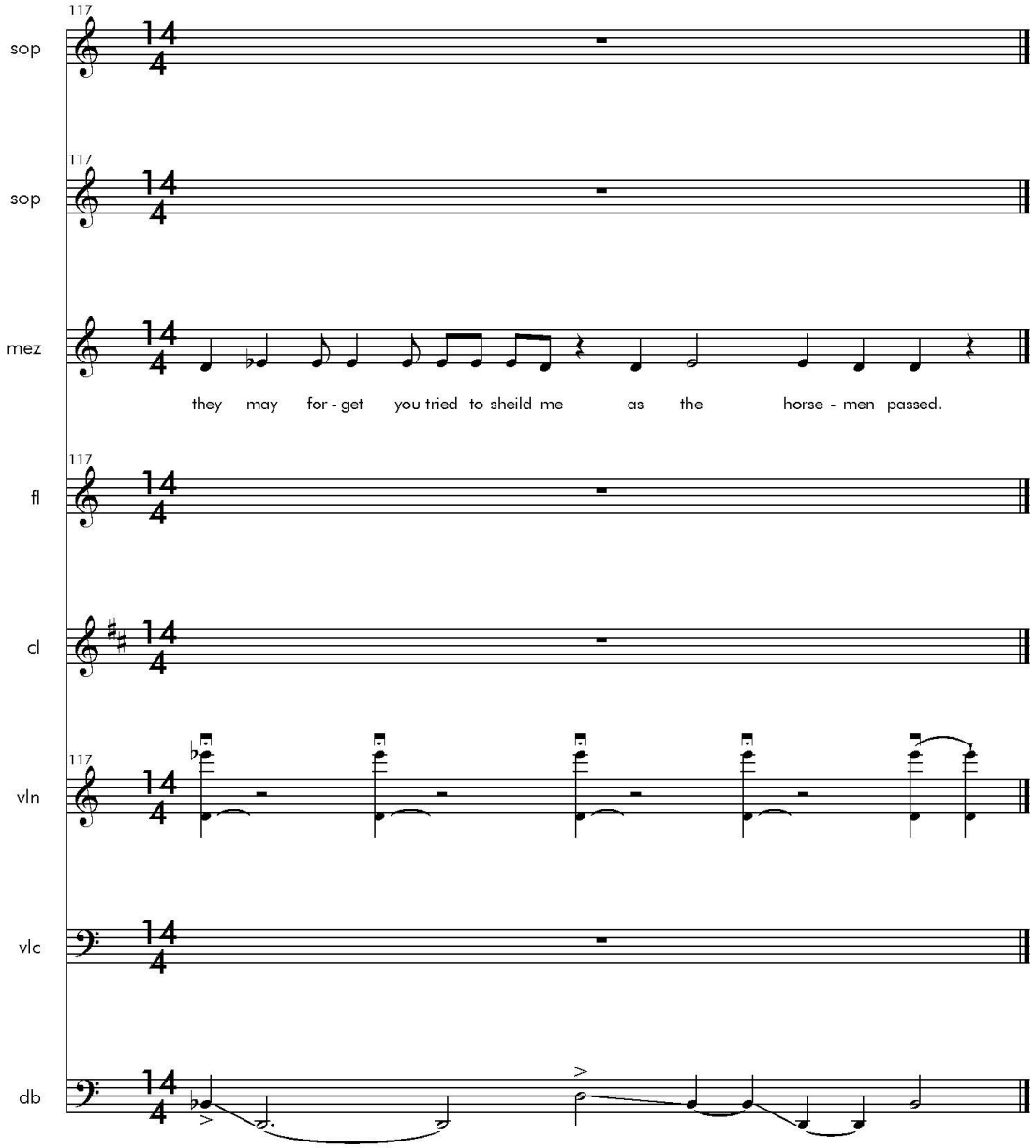

105
sop
sop
you have dis-trac-ted me from ter-ror.
once you lif-ted a spear-flow-er
mez
you have dis-trac-ted me from ter-ror.
once you lif-ted a spear-flow-er
fl
cl
vln
vlc
db

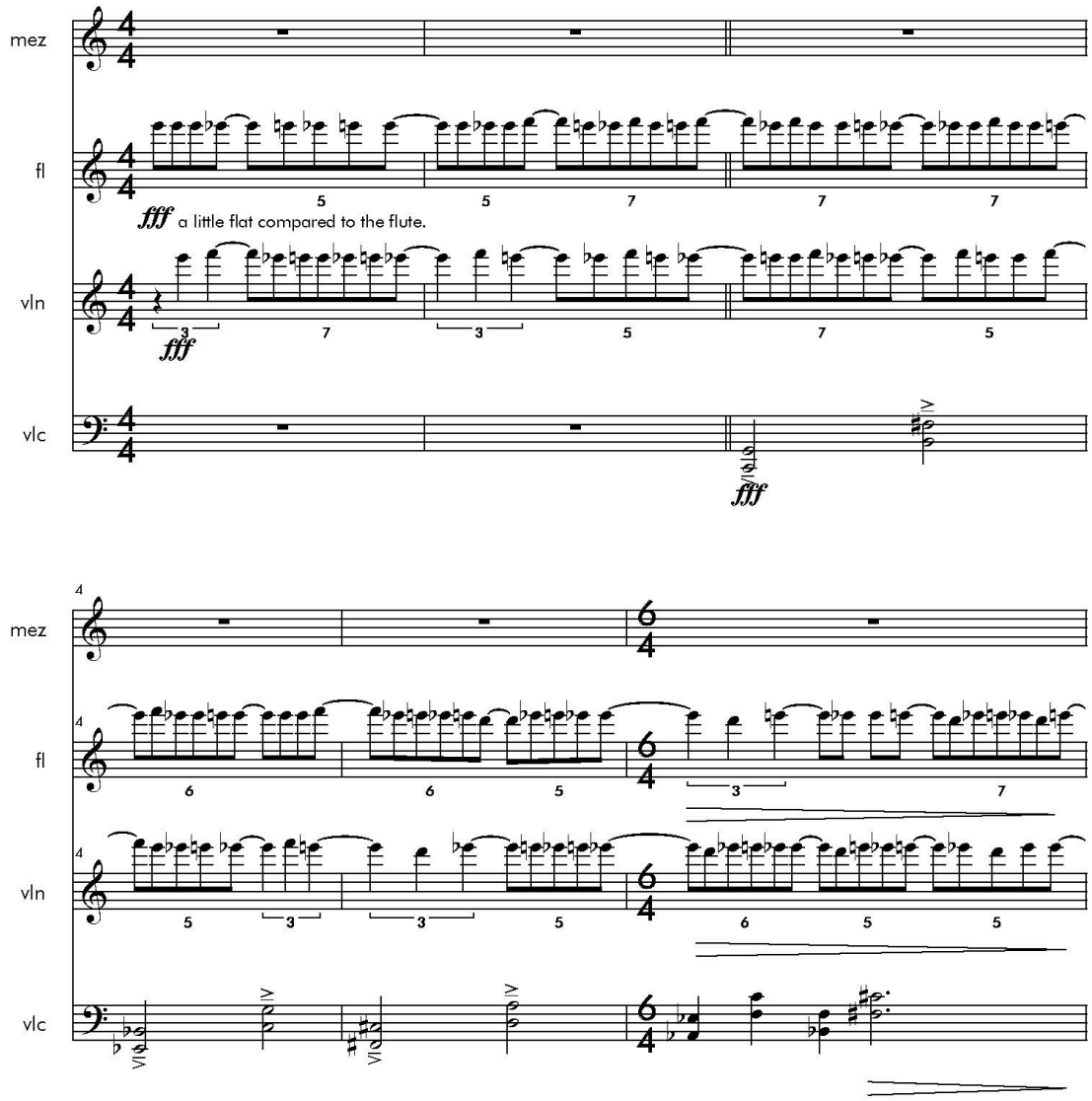

107
sop
sop
i re - mem - ber how you stopped to gath - er it and it flamed,
mez
i re - mem - ber how you stopped to gath - er it and it flamed,
fl
cl
vln
vlc
db


109
sop
sop
the leaf and shoot and the threads, yel - low, yel - low
mez
the leaf and shoot and the threads, yel - low, yel - low
fl
cl
vln
vlc
db

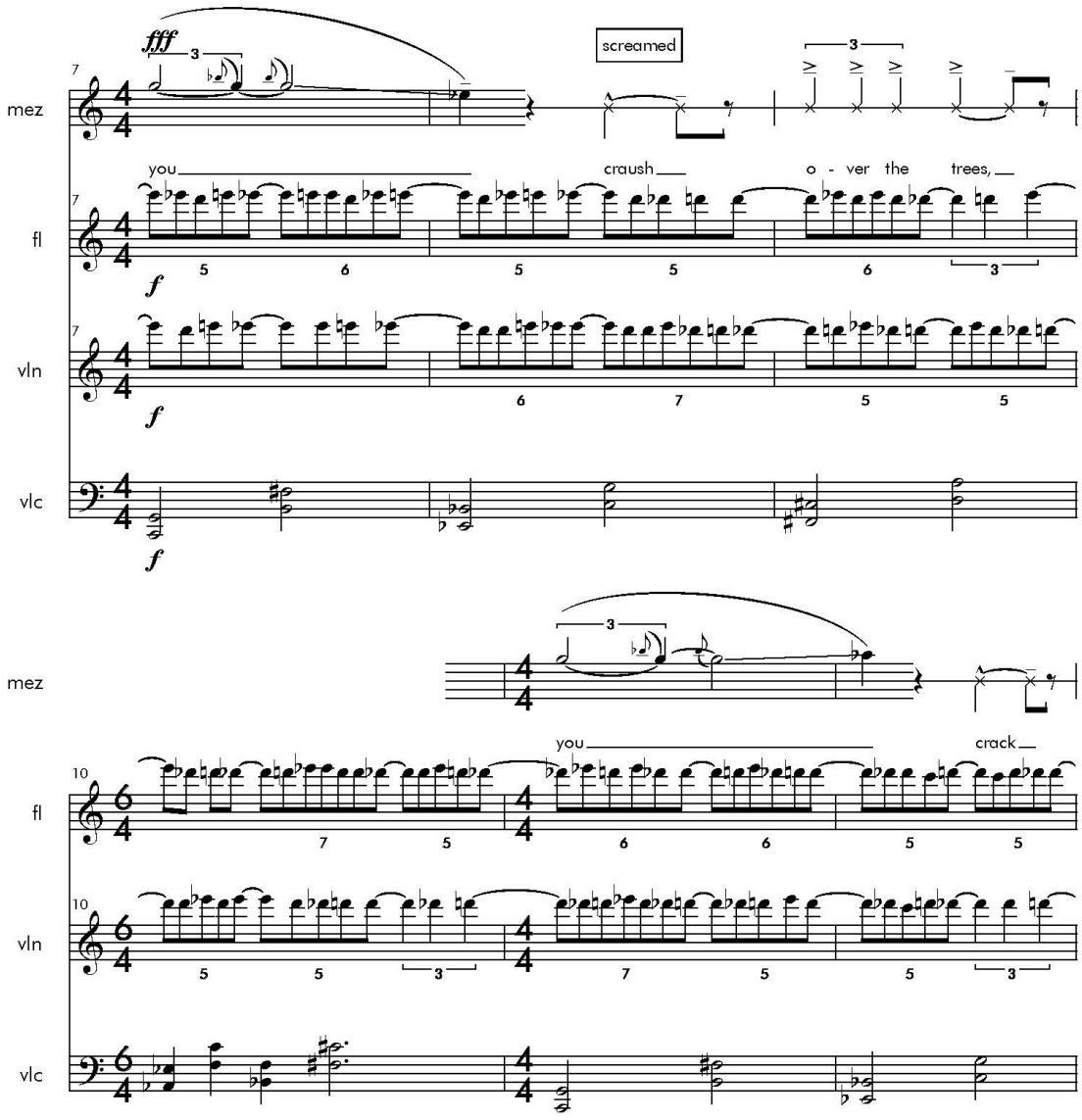

113
sop
sop
sheer till they burnt to red-pur-ple in the cup.
mez
sheer till they burnt to red-pur-ple in the cup.
as i pass your cell door
fl
cl
vln
vlc
db


115
sop
115
sop
mez
do not speak.
i was first on the list
115
fl
cl
115
vln
vlc
db

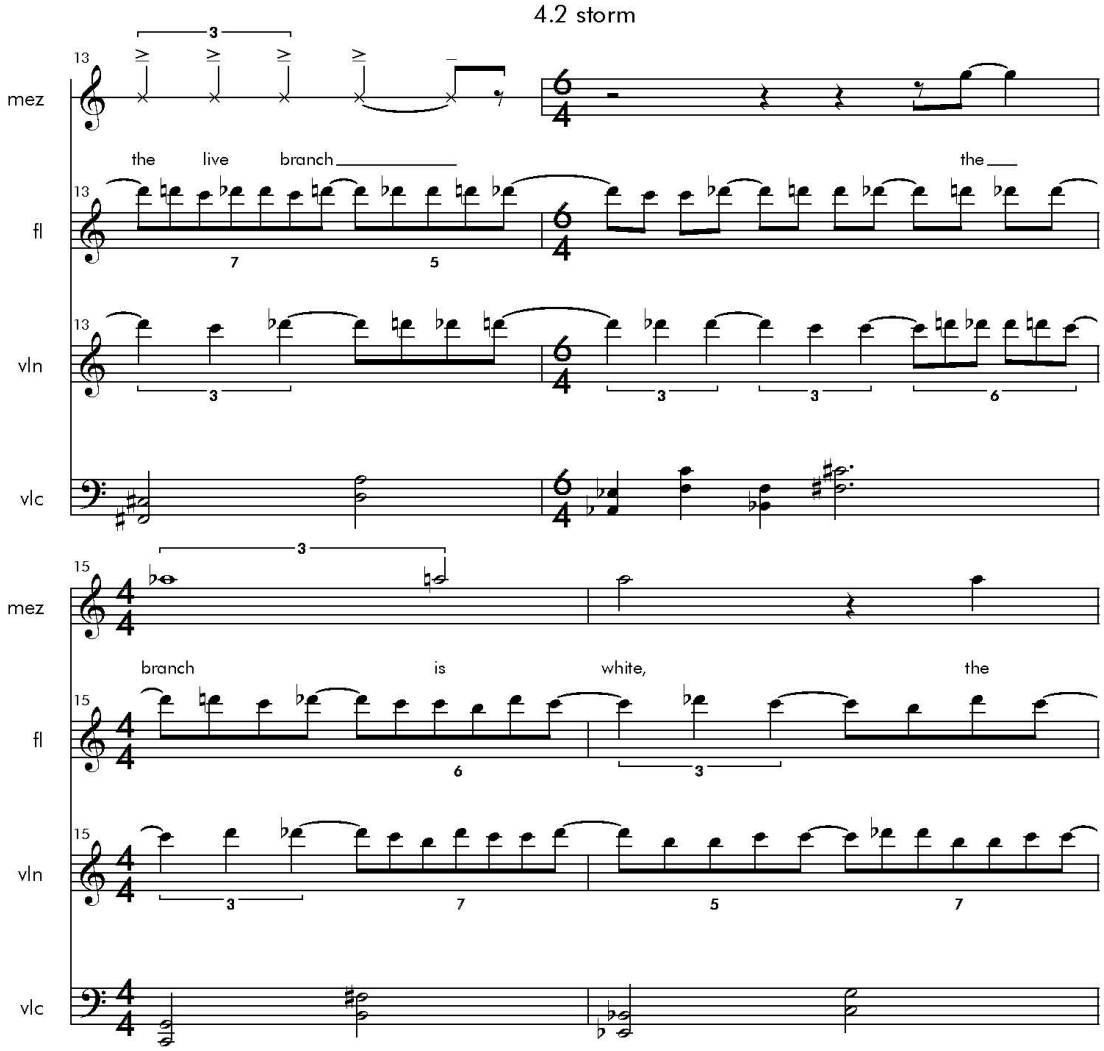

117
sop
117
sop
mez
they may for - get you tried to sheild me as the horse - men passed.
117
fl
cl
117
vln
vlc
db


mez
fl
vln
vlc
fff a little flat compared to the flute.
fff
fff
4
mez
fl
vln
vlc

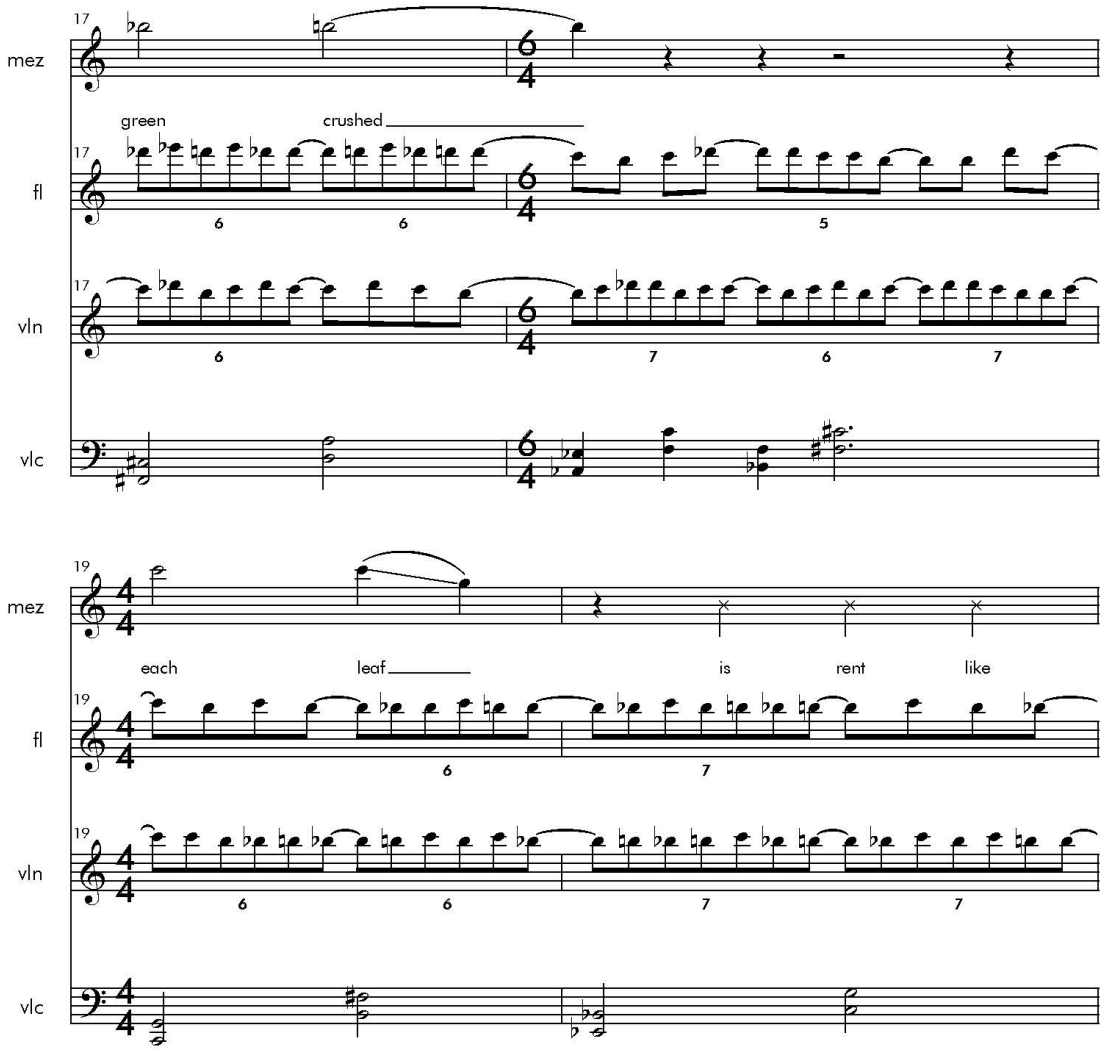
4.2 storm

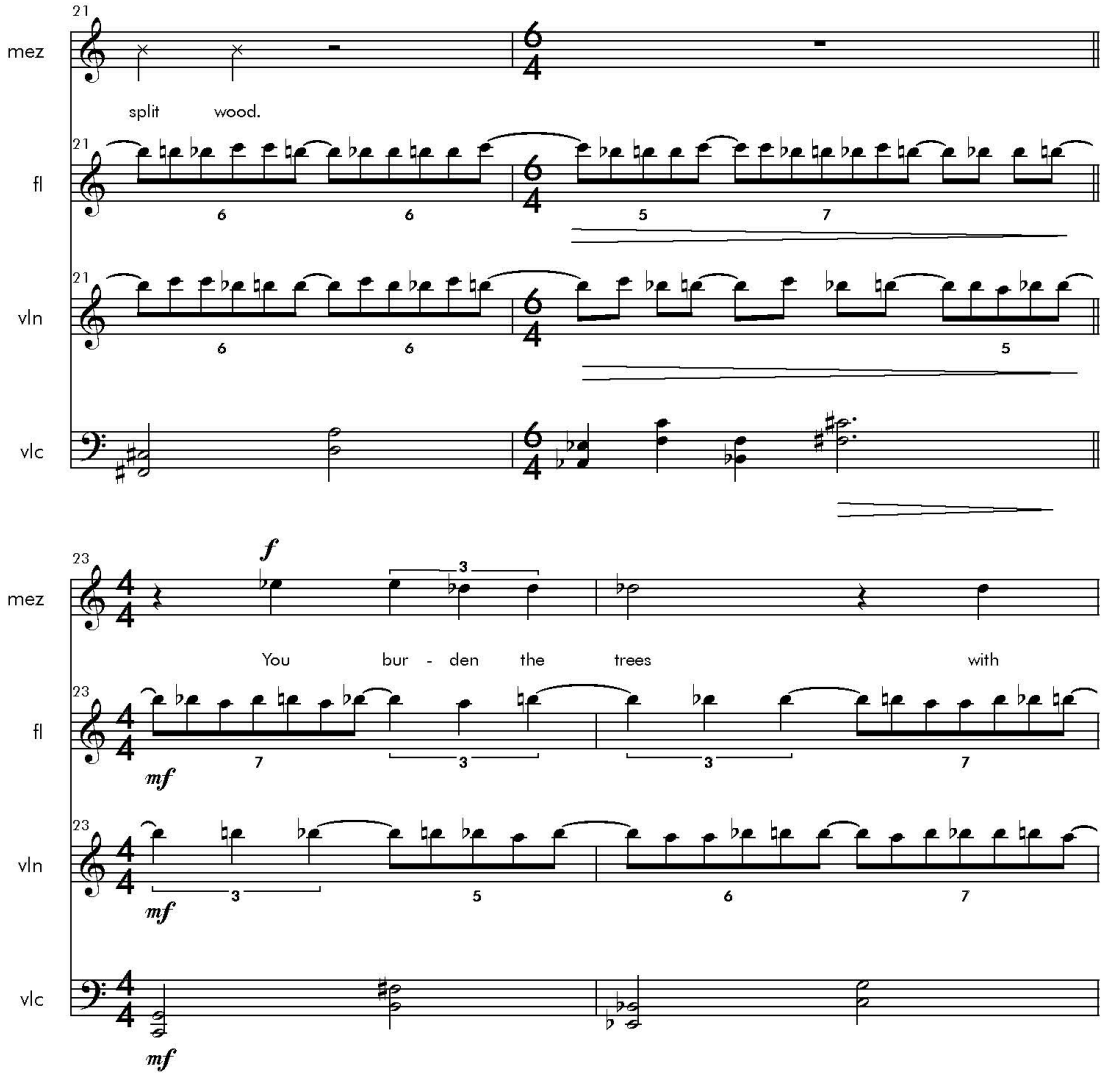

mez
fl
vln
vlc
fff
screamed
you
craush
o - ver the trees,
you
crack

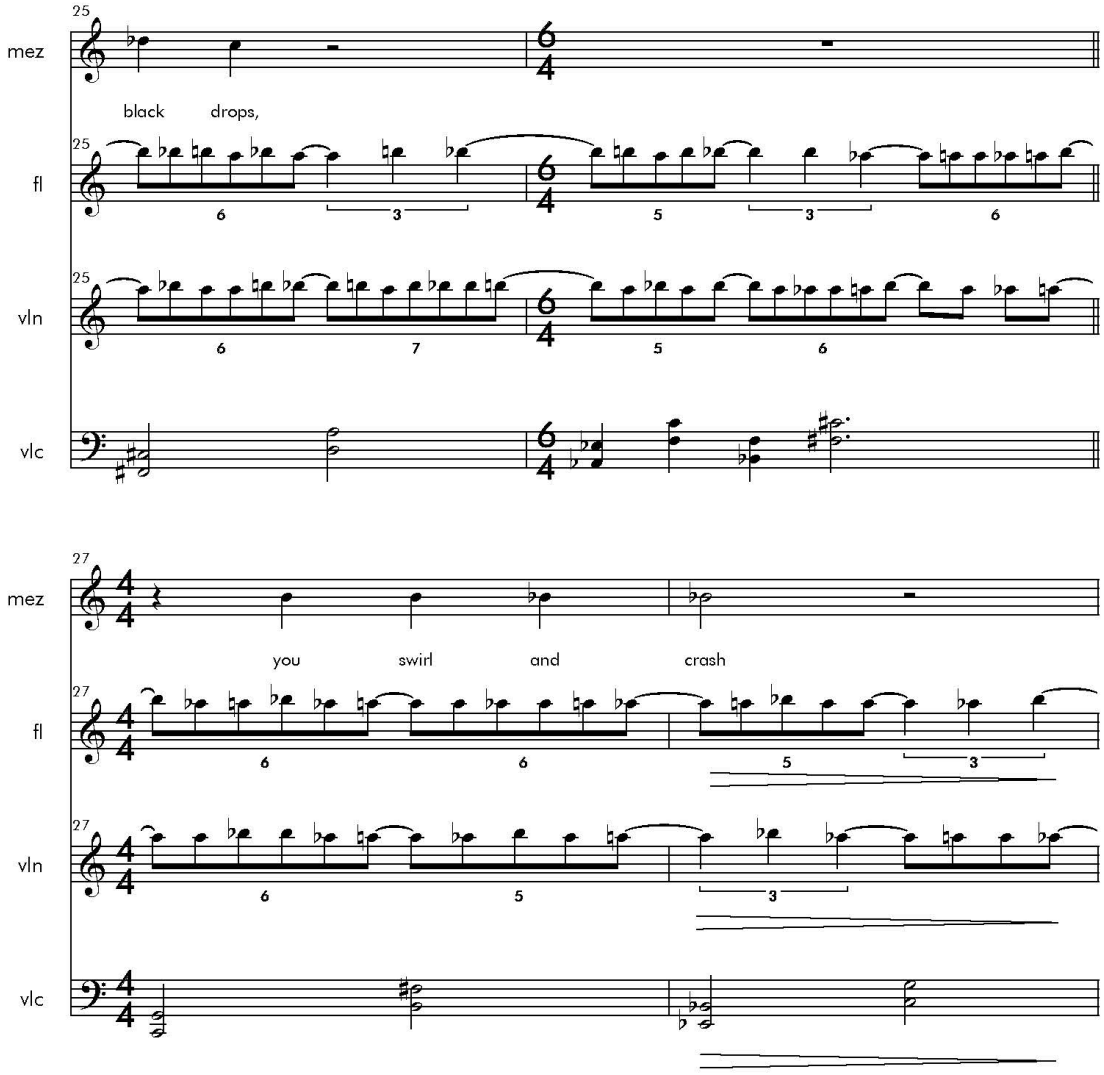
4.2 storm

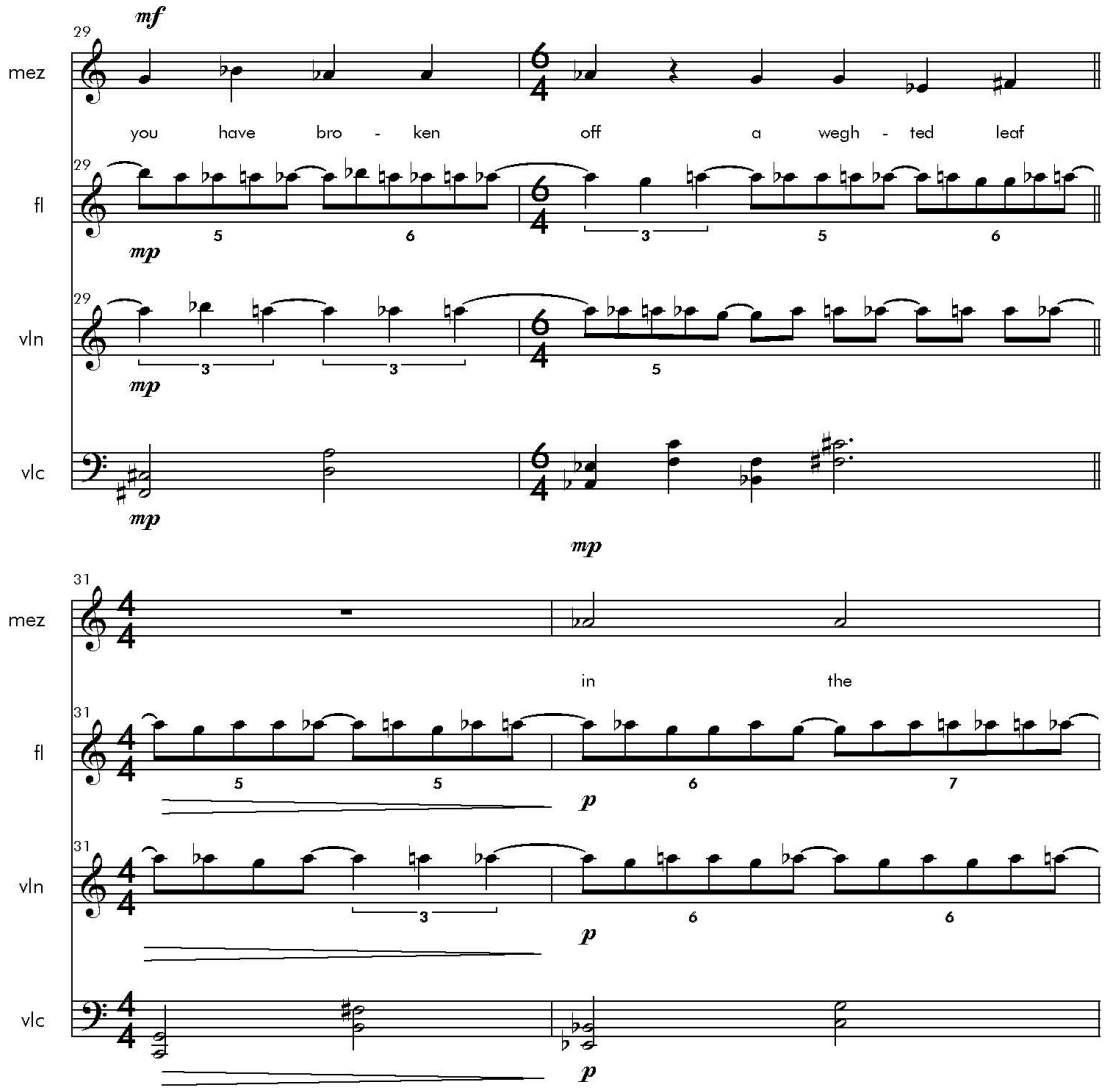


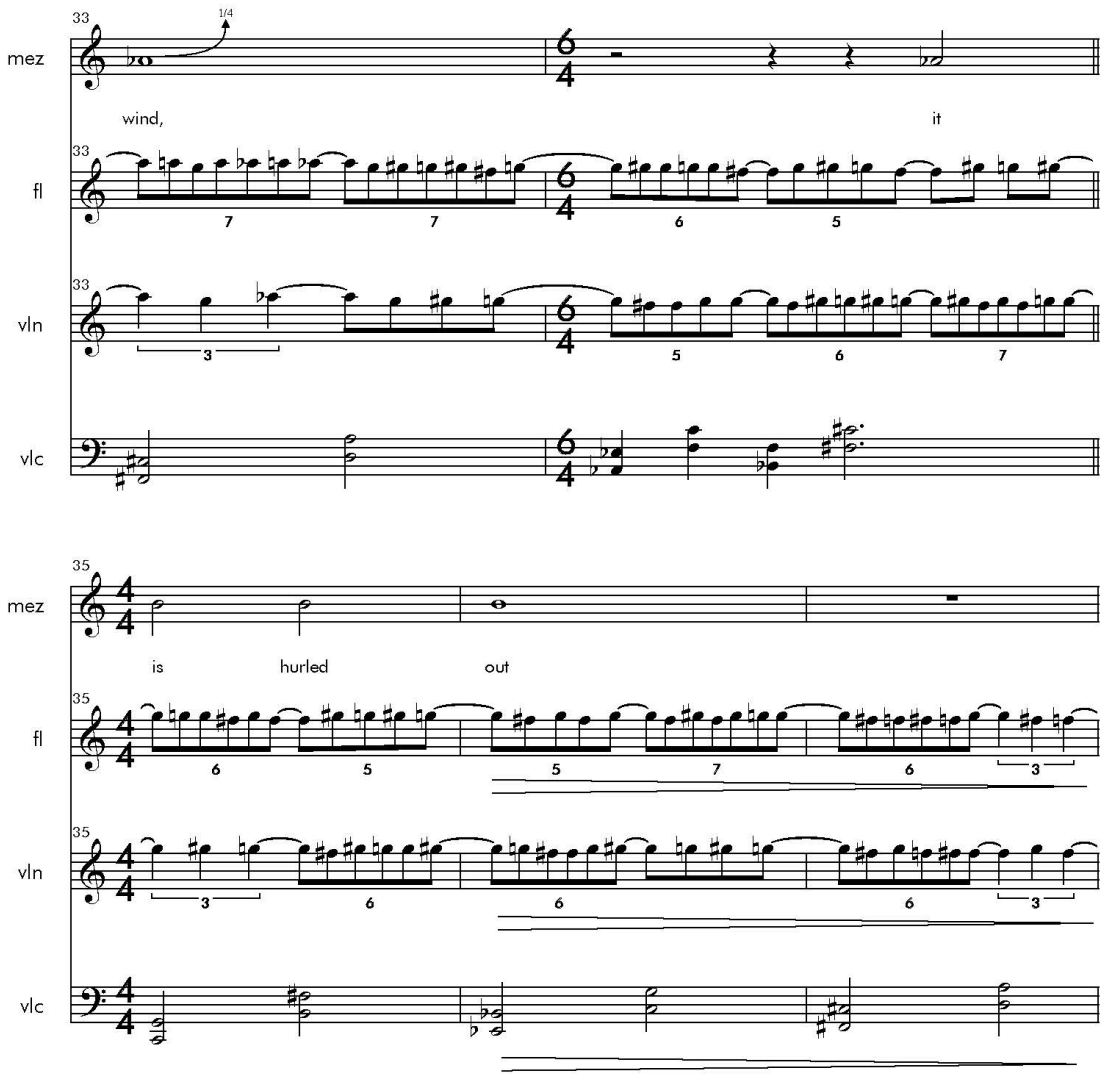
4.2 storm

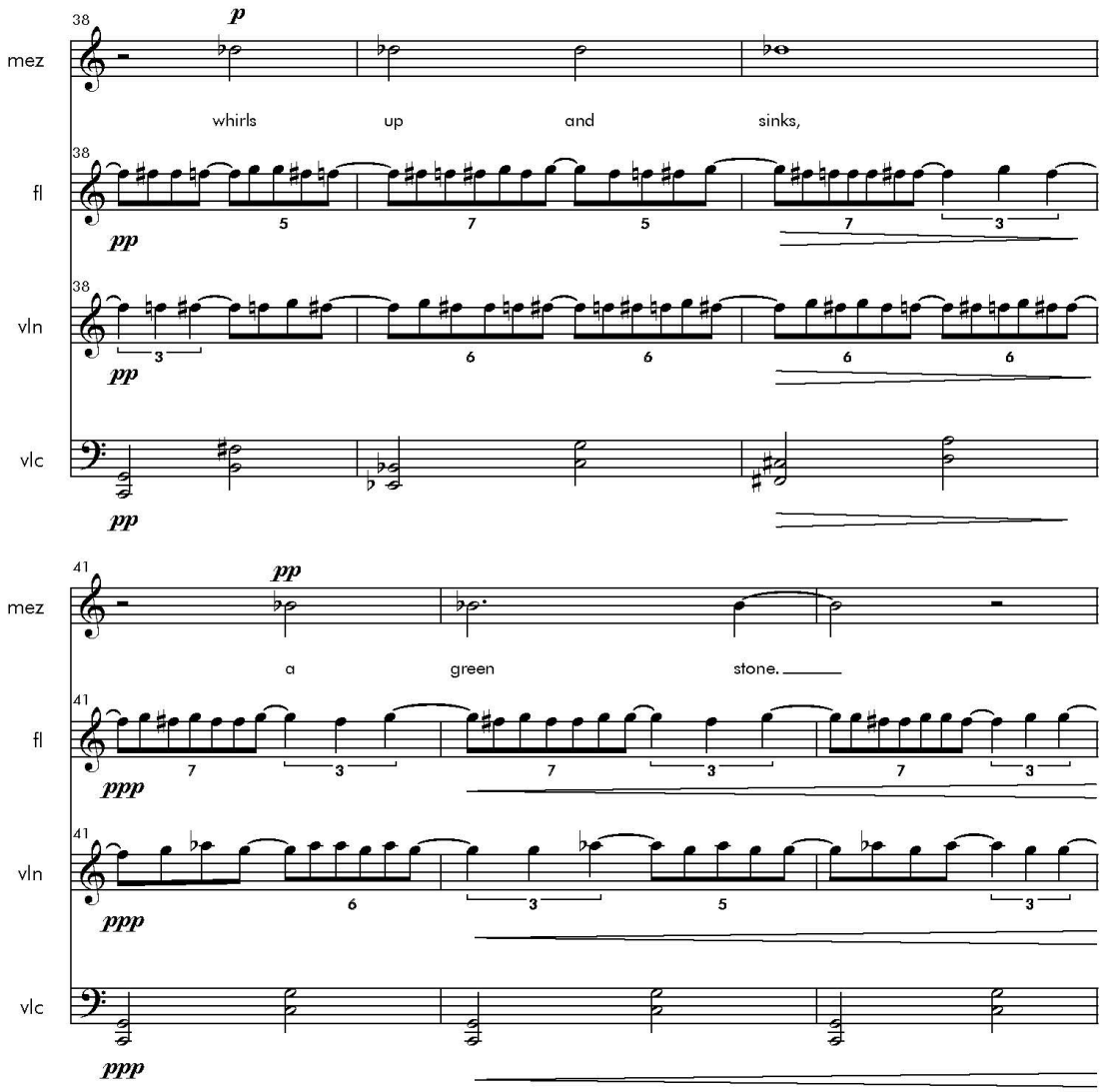


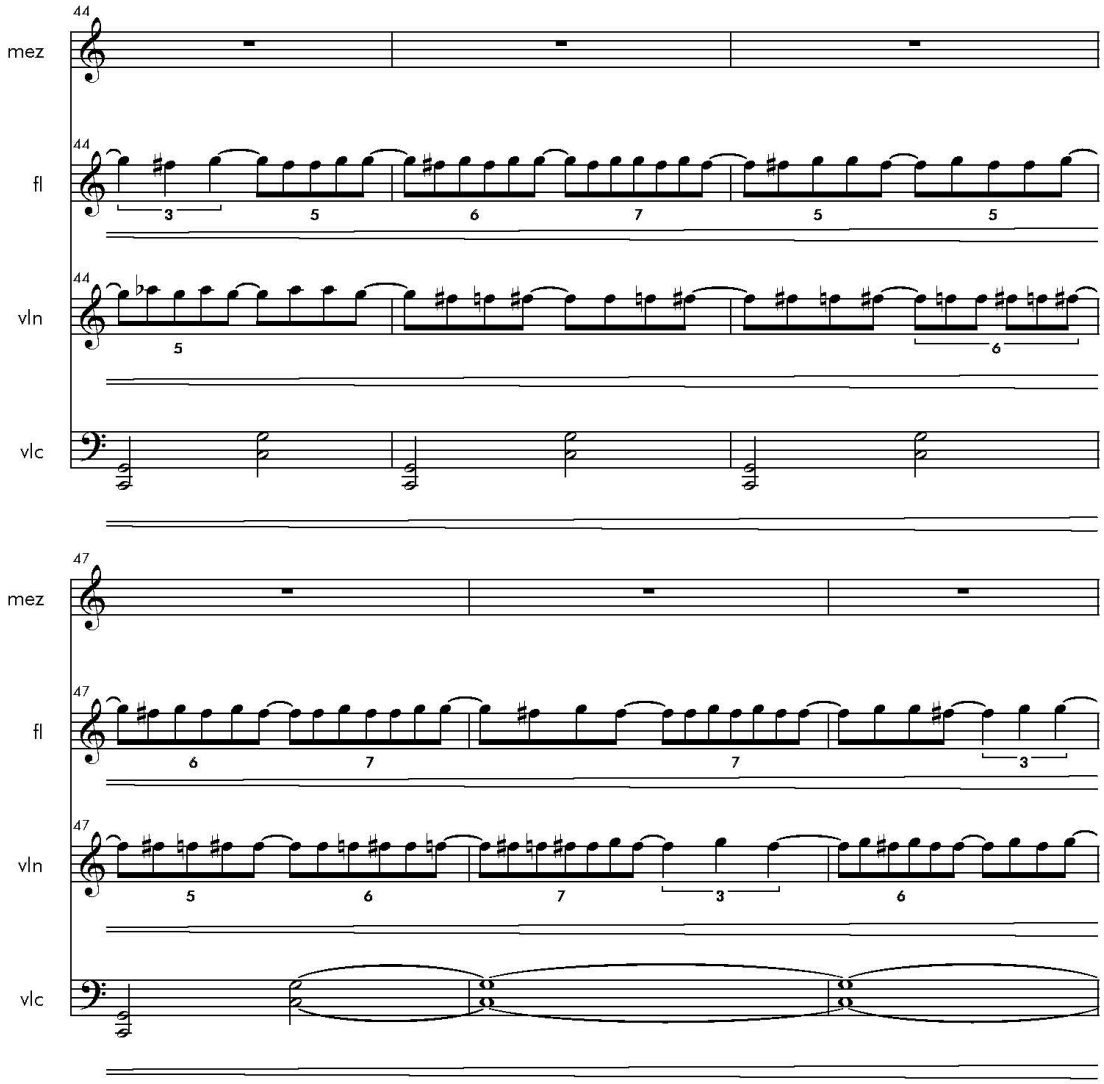

21
mez
split wood.
fl
vln
vlc
23
f
mez
You bur - den the trees with
fl
mf
vln
mf
vlc
mf


25
mez
black drops,
fl
vln
vlc
27
you swirl and crash

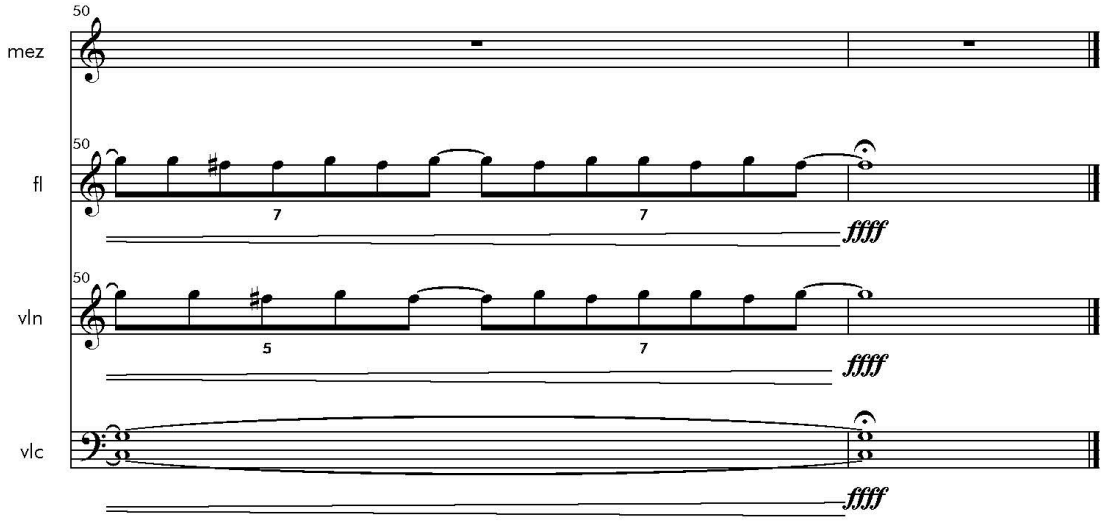

29
mf
mez
you have bro - ken off a wegh - ted leaf
fl
mp
vln
mp
vlc
mp
mp
31
mez
in the
fl
p
vln
p
vlc
p

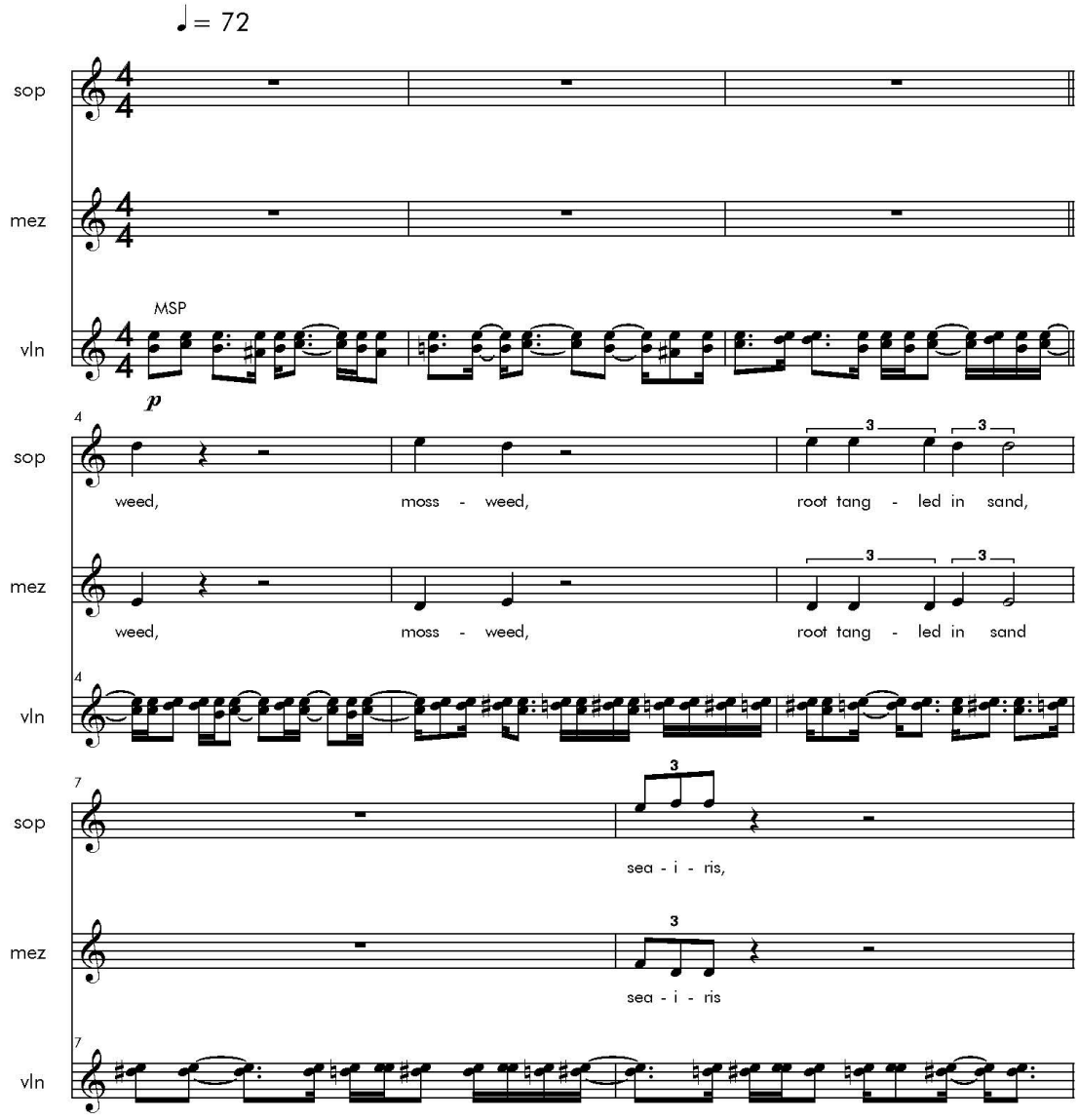

33
1/4
mez
wind,
it
fl
vln
vlc
35
is
hurled
out


38
p
mez
whirls
up
and
sinks,
38
fl
pp
38
vln
pp
vlc
pp
41
pp
mez
a
green
stone.
41
fl
ppp
41
vln
ppp
vlc
ppp

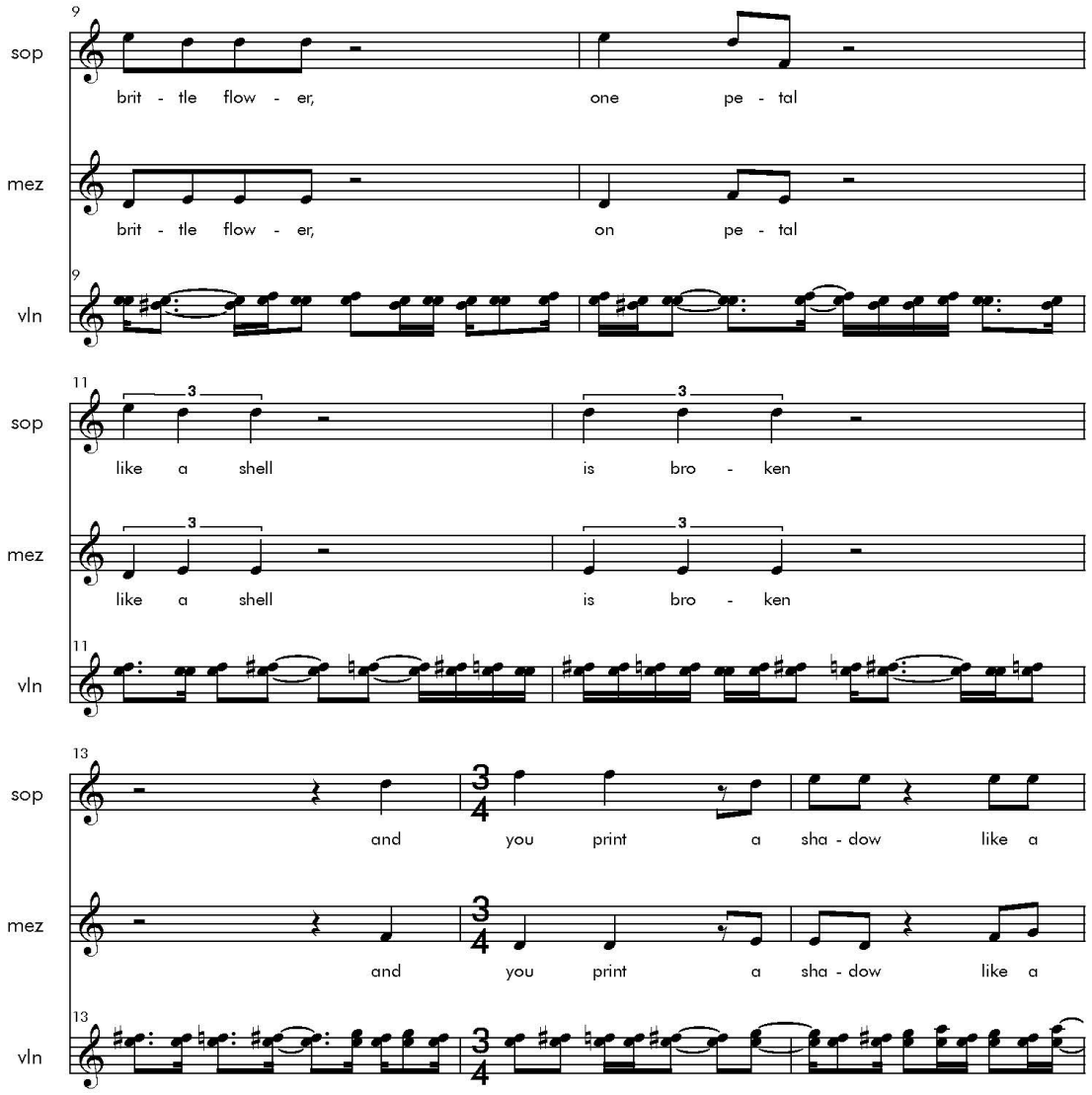

44
mez
fl
vln
vlc
47
mez
fl
vln
vlc

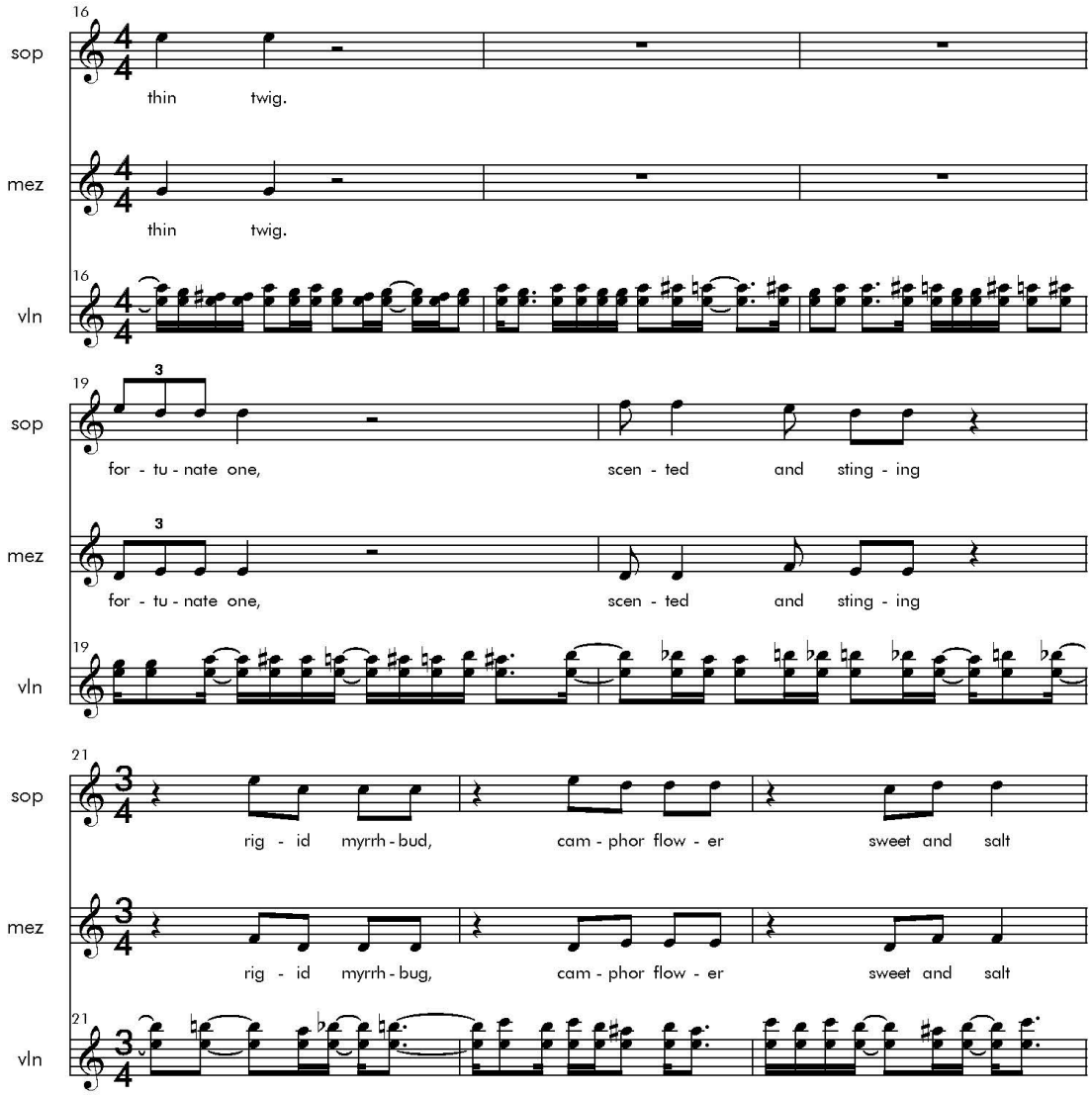
4.2 storm



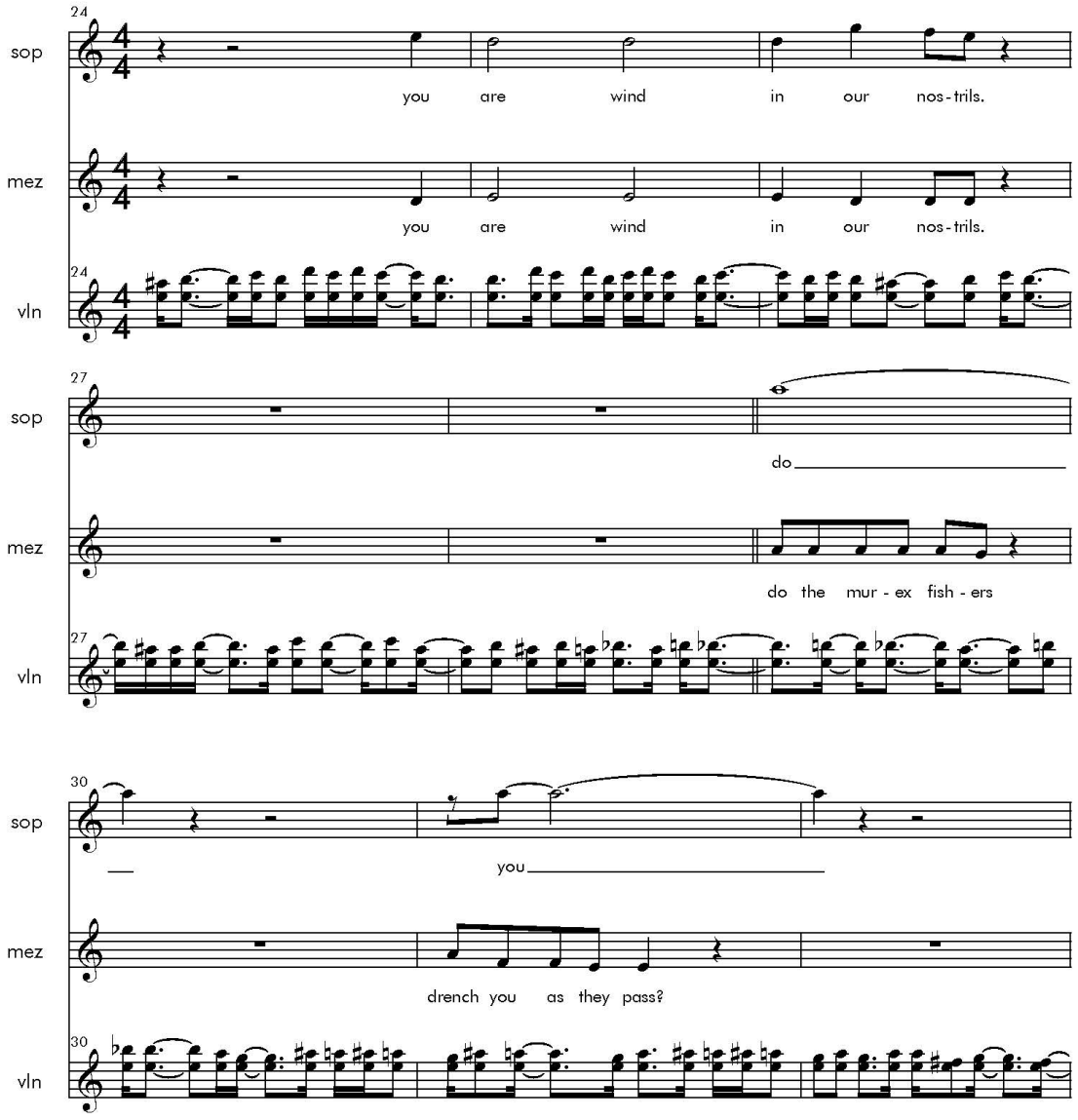

♩= 72
sop
mez
vln
MSP
p
4
weed, moss - weed, root tang - led in sand,
weed, moss - weed, root tang - led in sand
7
sea - i - ris,
sea - i - ris

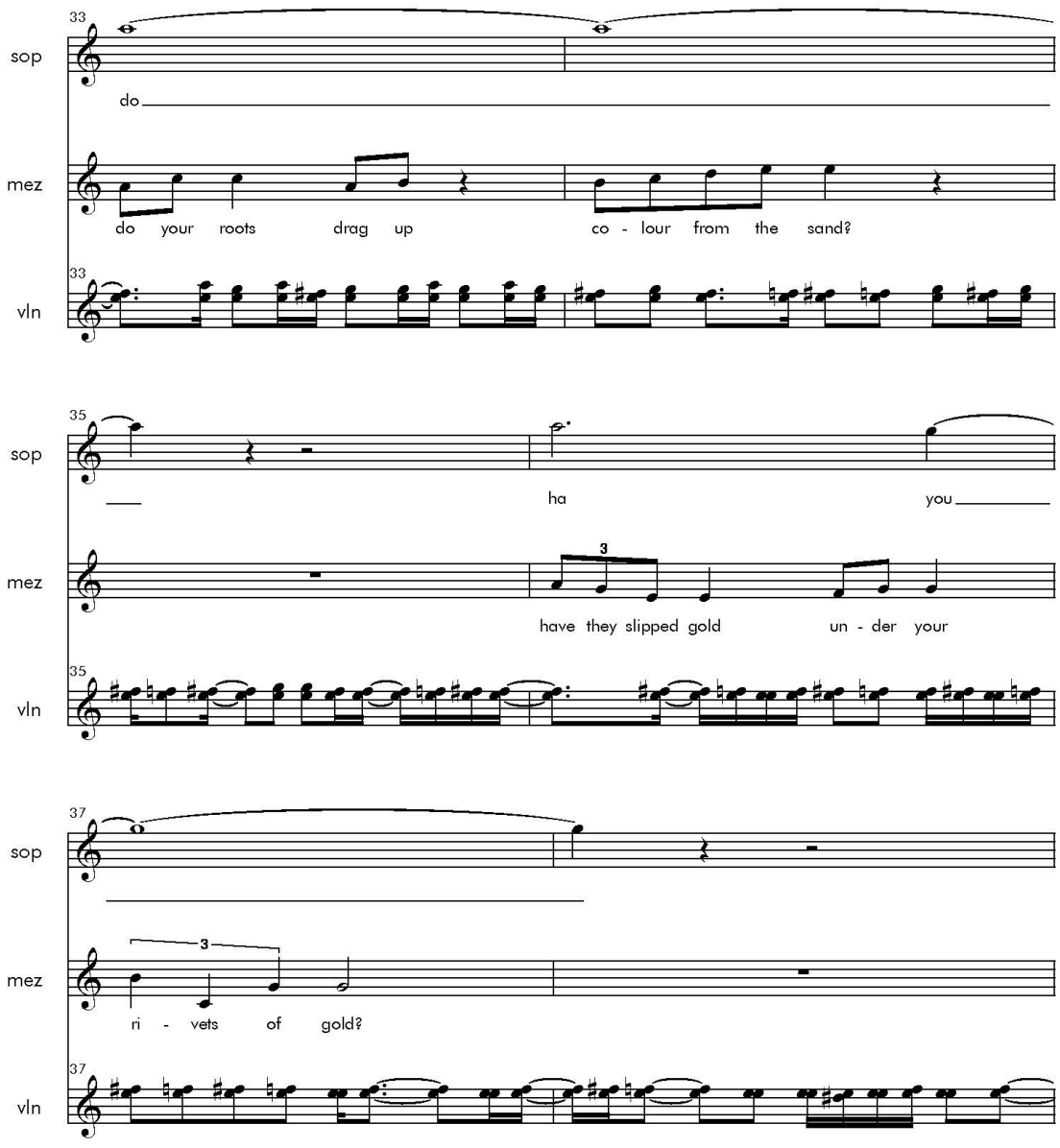
4.3 sea iris

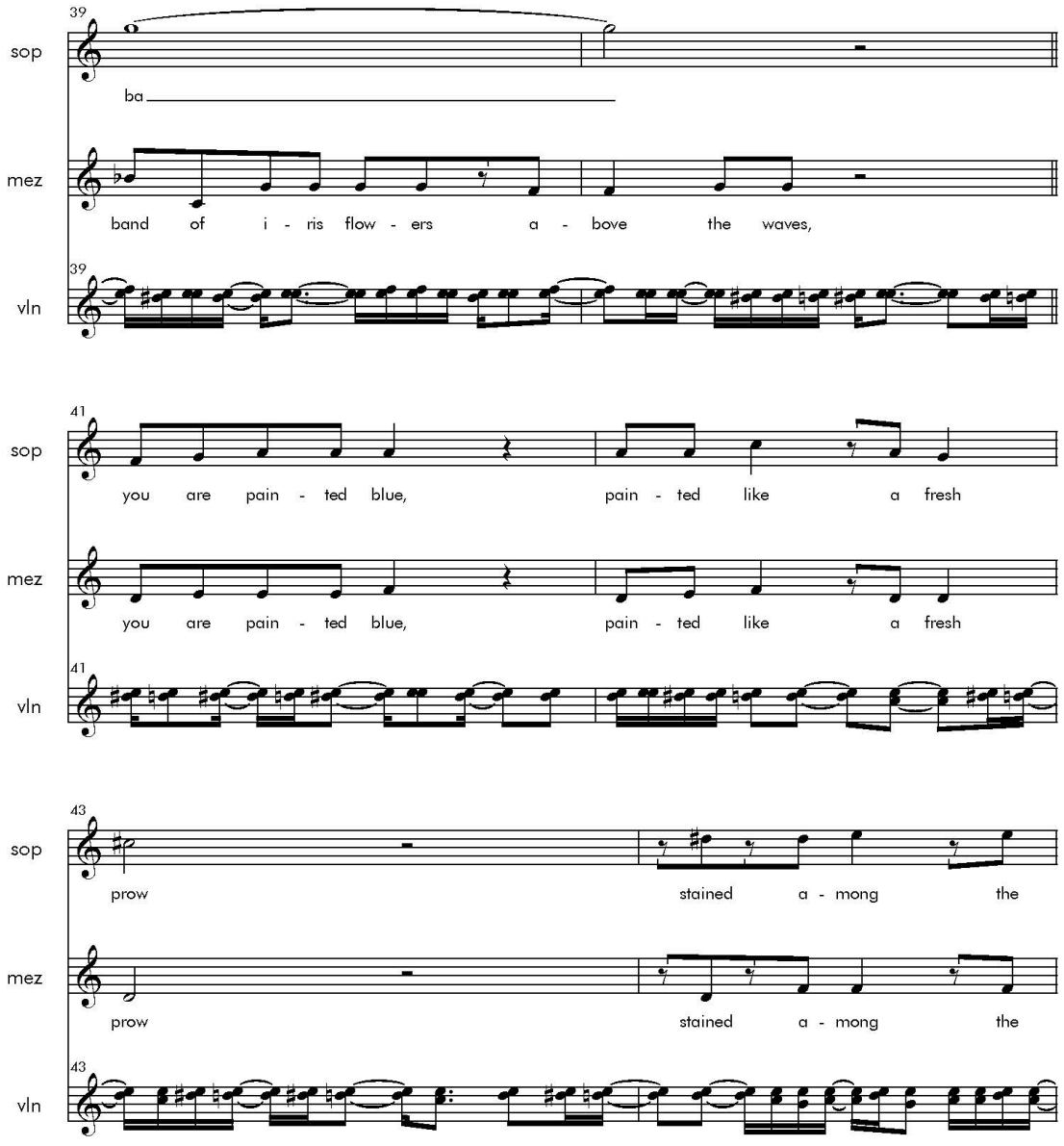

9
sop
brit - tle flow - er, one pe - tal
mez
brit - tle flow - er, on pe - tal
9
vln
11
sop
3
like a shell
3
is bro - ken
mez
3
like a shell
3
is bro - ken
11
vln
13
sop
and you print a sha - dow like a
mez
and you print a sha - dow like a
13
vln


16
sop
thin twig.
mez
thin twig.
16
vln
19
3
sop
for - tu - nate one, scen - ted and sting - ing
3
mez
for - tu - nate one, scen - ted and sting - ing
19
vln
21
sop
rig - id myrrh - bud, cam - phor flow - er sweet and salt
mez
rig - id myrrh - bug, cam - phor flow - er sweet and salt
21
vln

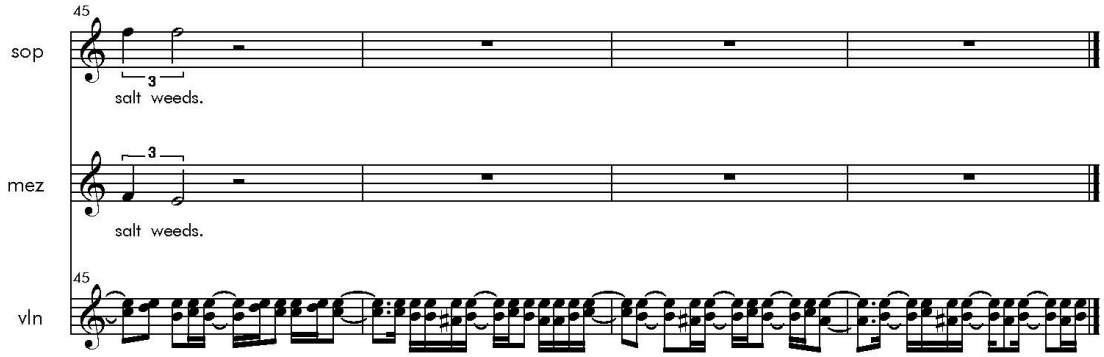
4.3 sea iris


24
sop
you are wind in our nos - trils.
mez
you are wind in our nos - trils.
24
vln
27
sop
do
mez
do the mur - ex fish - ers
27
vln
30
sop
you
mez
drench you as they pass?
30
vln


33
sop
do
mez
do your roots drag up
co - lour from the sand?
33
vln
35
sop
ha
you
mez
3
have they slipped gold
un - der your
35
vln
37
sop
mez
3
ri - vets of gold?
37
vln


39
sop
ba
mez
band of i - ris flow - ers a - bove the waves,
39
vln
41
sop
you are pain - ted blue, pain - ted like a fresh
mez
you are pain - ted blue, pain - ted like a fresh
41
vln
43
sop
prow stained a - mong the
mez
prow stained a - mong the
43
vln

4.3 sea iris



4.4 hermes of the ways

five pieces of cord or rope, approximately four feet in length are to be obtained. each instrumentalist should, for the duration of 4.4, swing the cord above their head to create a sound in the air. given that this is a strenuous activity, performers may speed up and slow down the rate of their cord to allow for rest.

15-20" of cord-wind

spoken:

"the hard sand breaks, and the grains of it are clear as wine.

far off over the leagues of it, the wind, playing on the wide shore, piles little ridges, and the great waves break over it.

but more than the many-foamed ways of the sea, i know him of the triple path-ways, hermes, who awaits.

dubious, facing three ways, welcoming wayfarers, he whom the sea-orchard shelters from the west, from the east weathers sea-wind; fronts the great dunes.

wind rushes over the dunes, and the coarse, salt-crusted grass answers.

heu, it whips round my ankles!"

10" of wind

"small is this white stream, flowing below ground from the poplar-shaded hill, but the water is sweet.

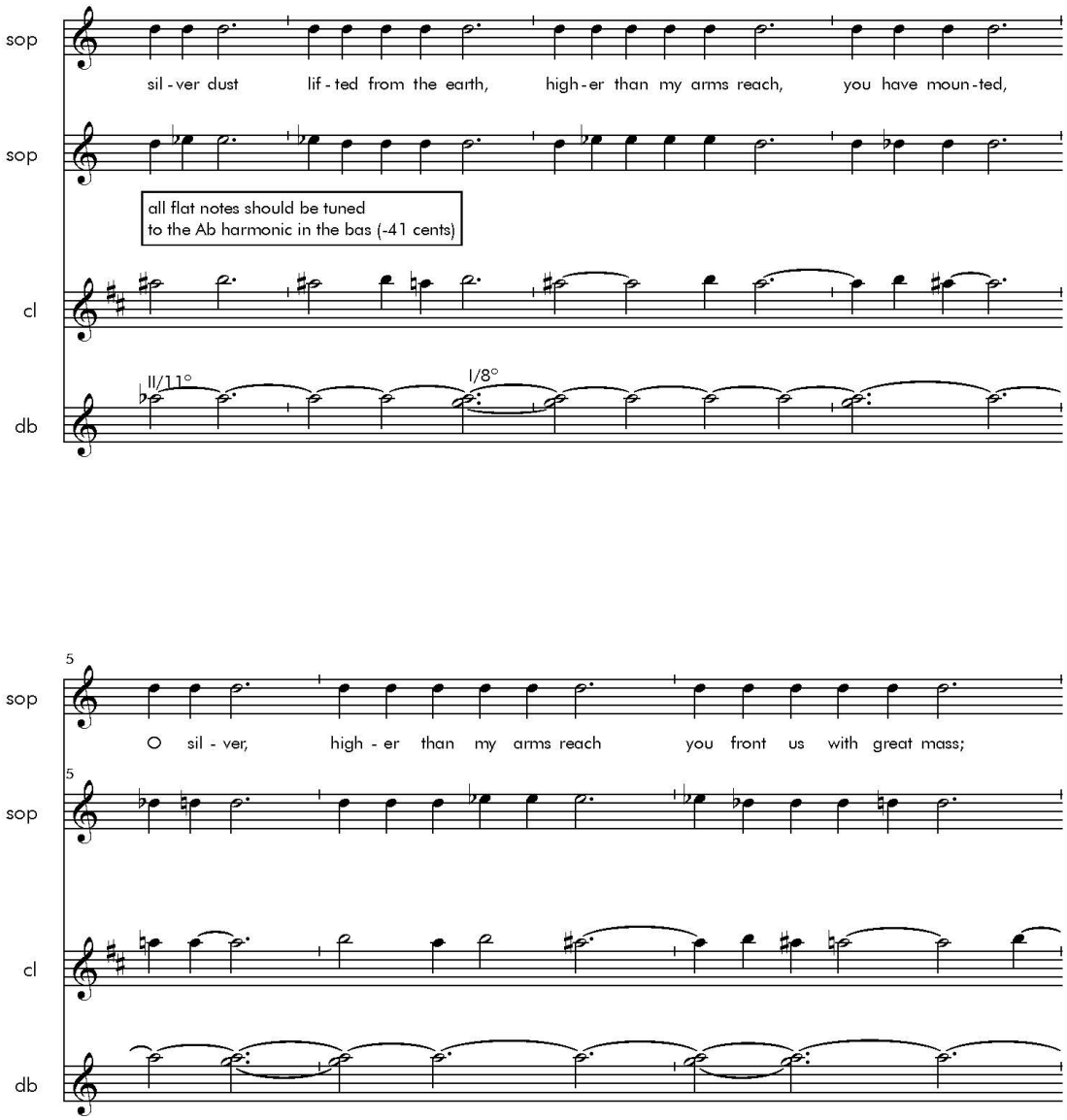
apples on the small trees are hard, too small, too late ripened by a desperate sun that struggles through sea-mist.

the boughs of the trees are twisted by many bafflings; twisted are the small-leafed boughs.

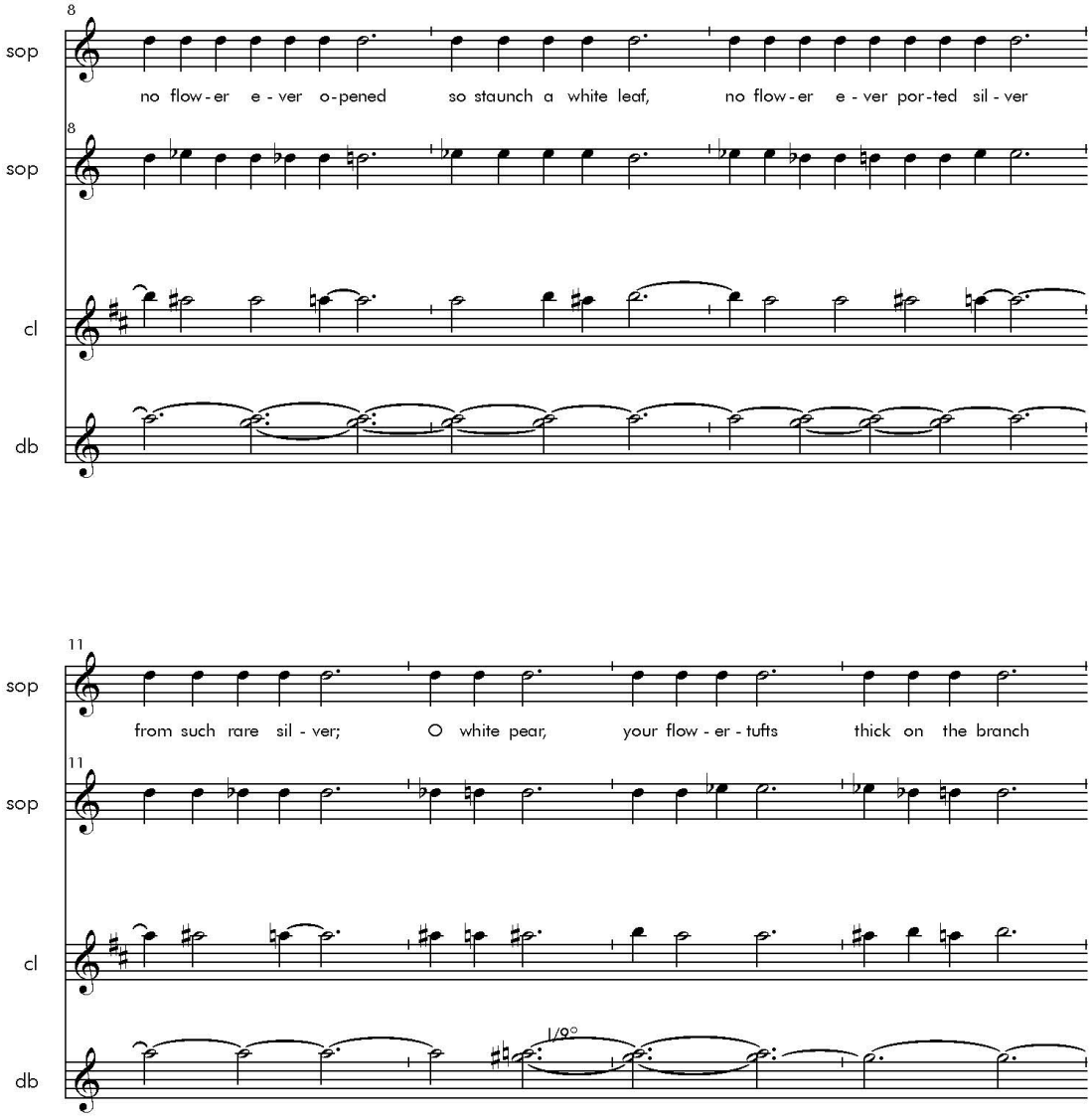
but the shadow of them is not the shadow of the mast head nor of the torn sails.

hermes, hermes, the great sea foamed, gnashed its teeth about me; but you have waited, were sea-grass tangles with shore-grass."

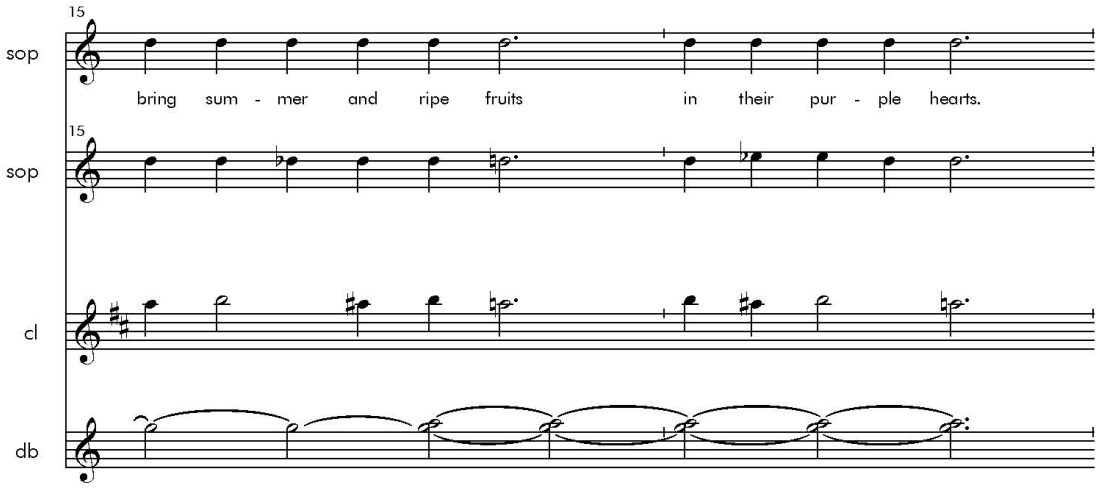
20" more of cord wind, fading as a group.


sop
sil - ver dust lif - ted from the earth, high - er than my arms reach, you have moun - ted,
sop
all flat notes should be tuned
to the Ab harmonic in the bas (-41 cents)
cl
II/11°
I/8°
db
5
sop
O sil - ver, high - er than my arms reach you front us with great mass;
5
sop
cl
db

4.5 pear tree


8
sop
no flow - er e - ver o - pened so staunch a white leaf, no flow - er e - ver por - ted sil - ver
8
sop
cl
db
11
sop
from such rare sil - ver; O white pear, your flow - er - tufts thick on the branch
11
sop
cl
db

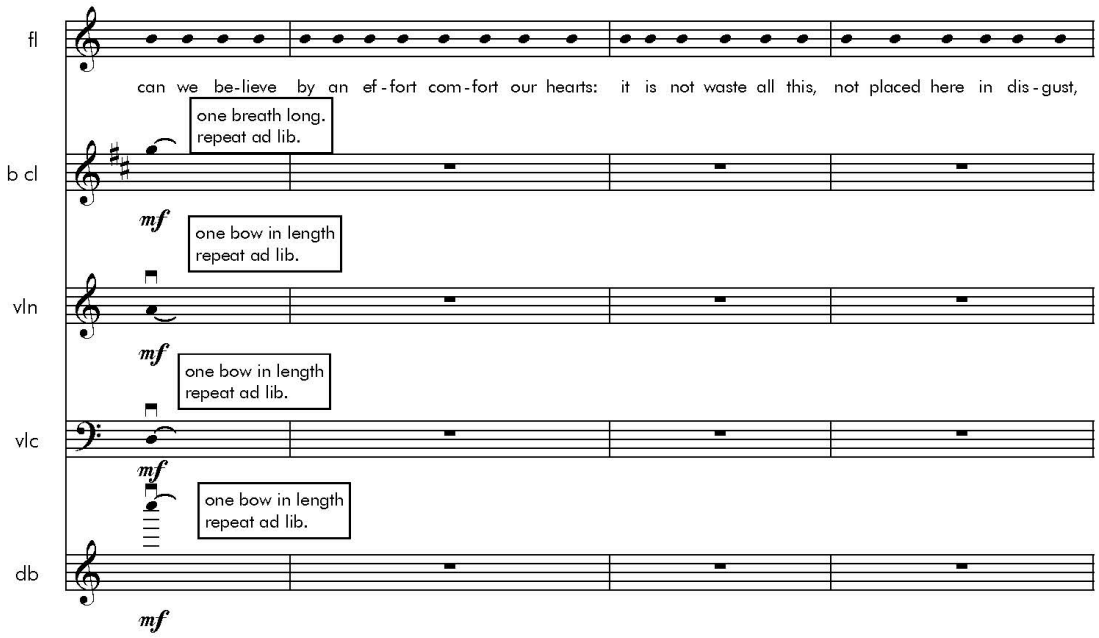
4.5 pear tree

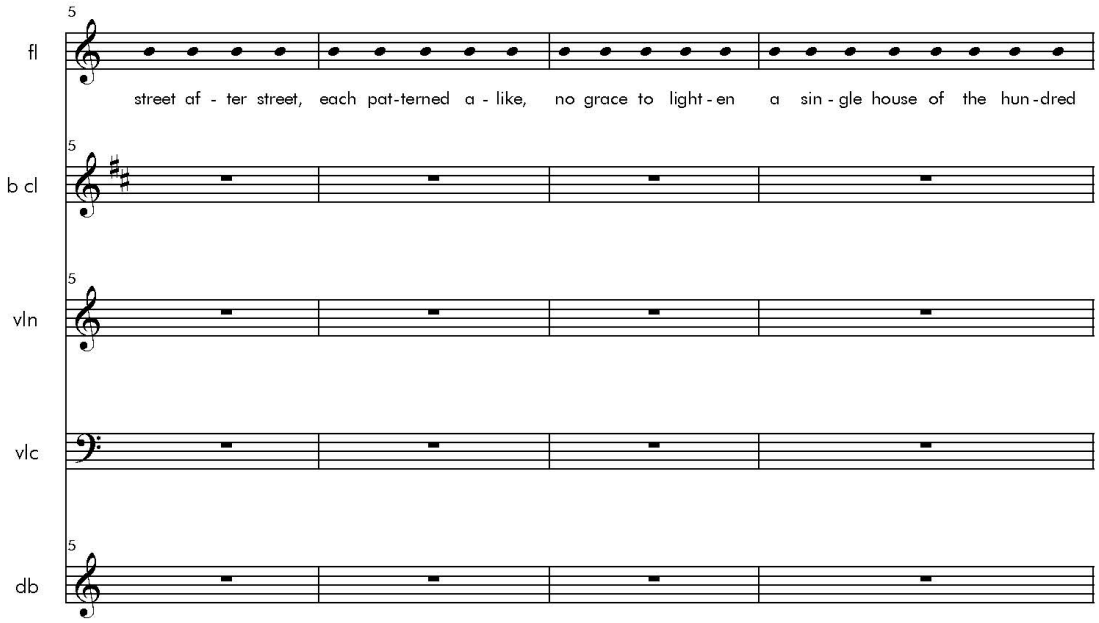

15
sop
bring sum - mer and ripe fruits in their pur - ple hearts.
15
sop
cl
db

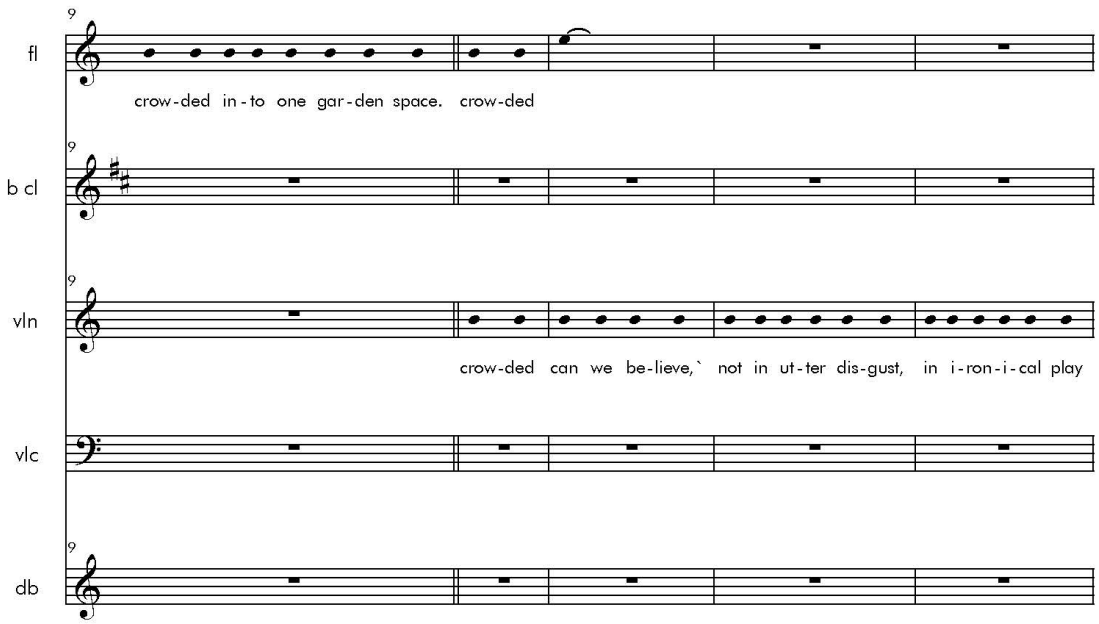
text spoken at a reading pace.

if two or more performers are speaking at the same time, strict coordination is not required.

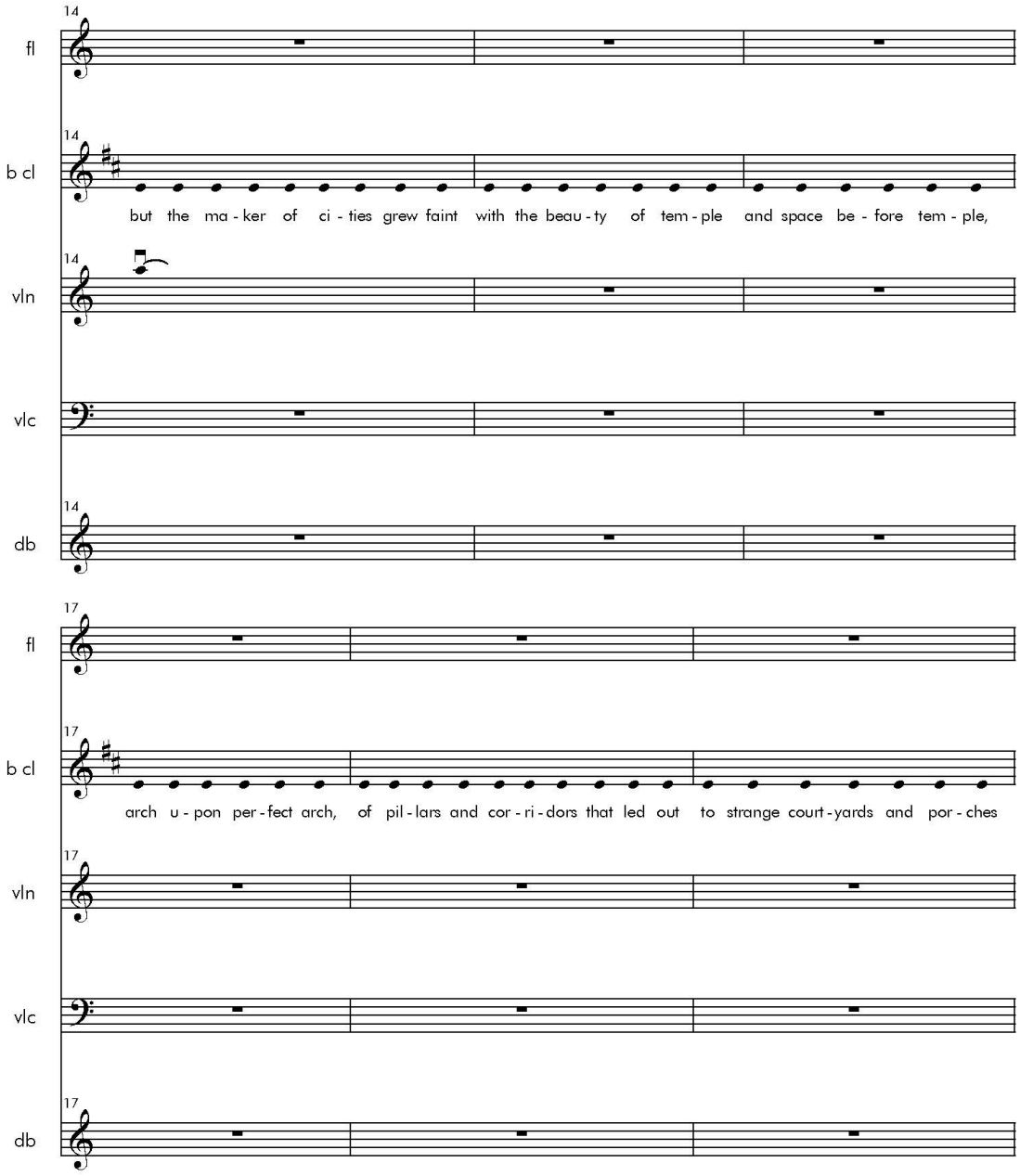
while not speaking, performers should play the given note repeatedly ad libitum,
lasting on breath or one bow.

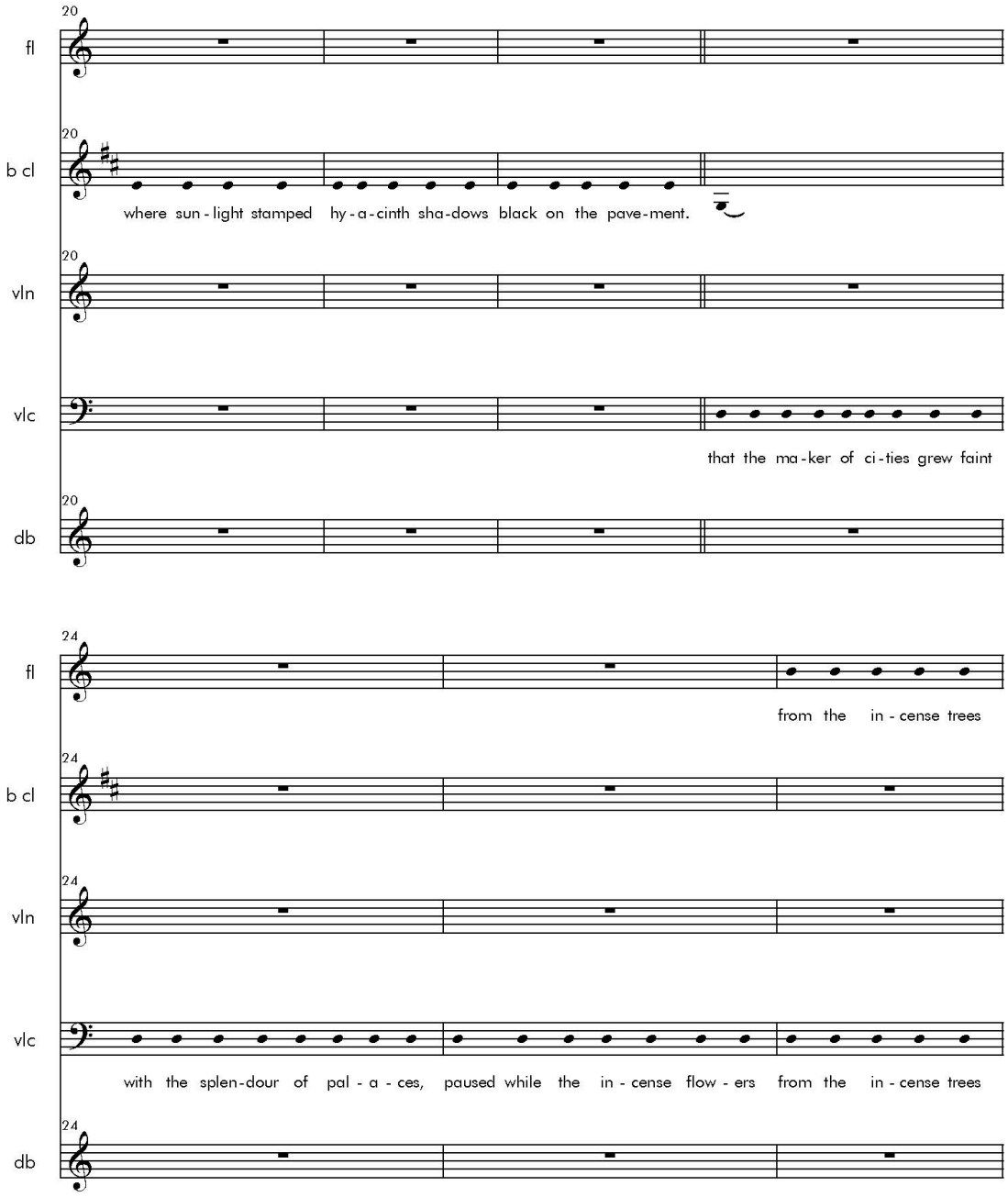


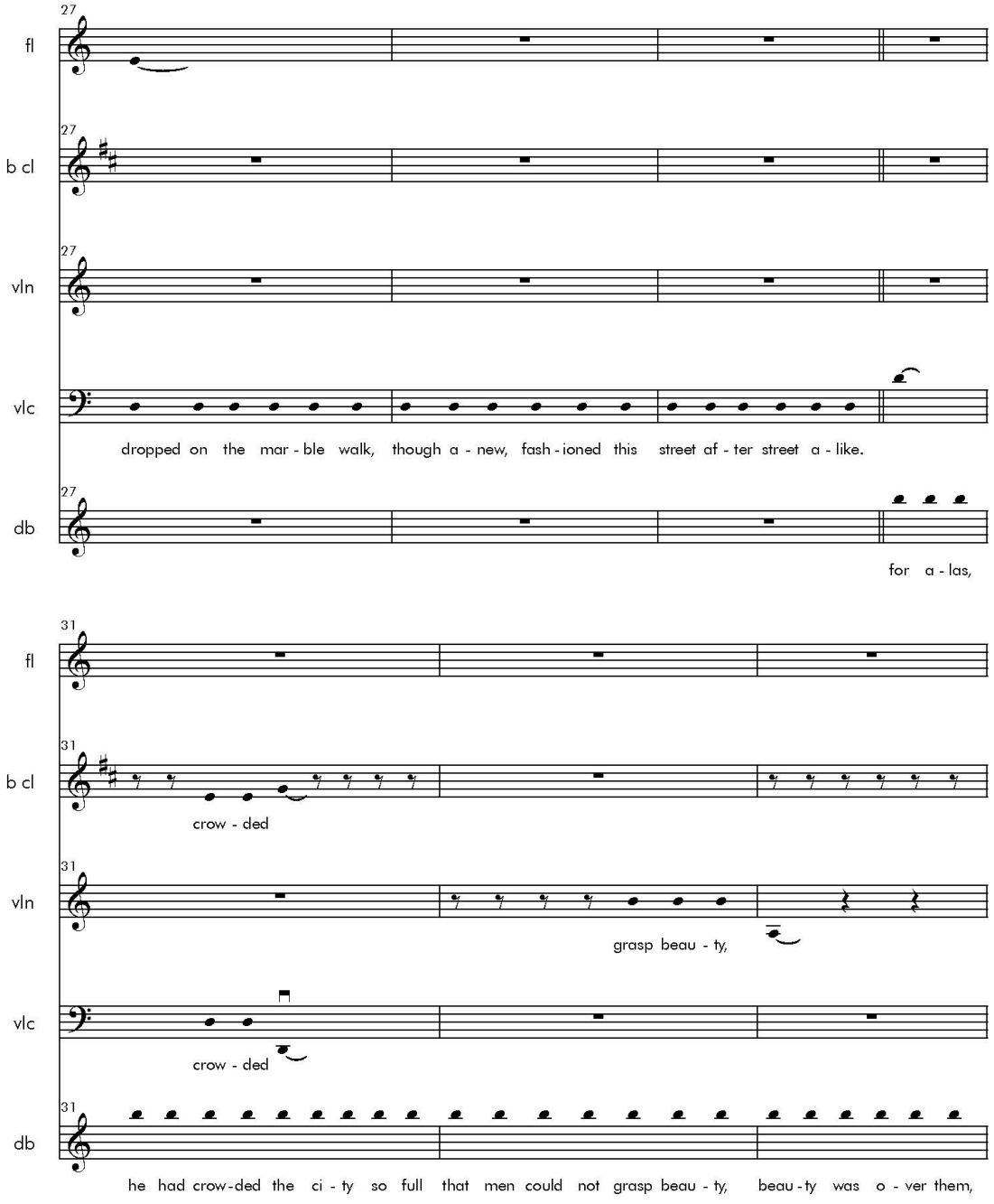

5
fl
street af - ter street, each pat-terned a - like, no grace to light - en a sin - gle house of the hun - dred
5
b cl
5
vln
vlc
5
db

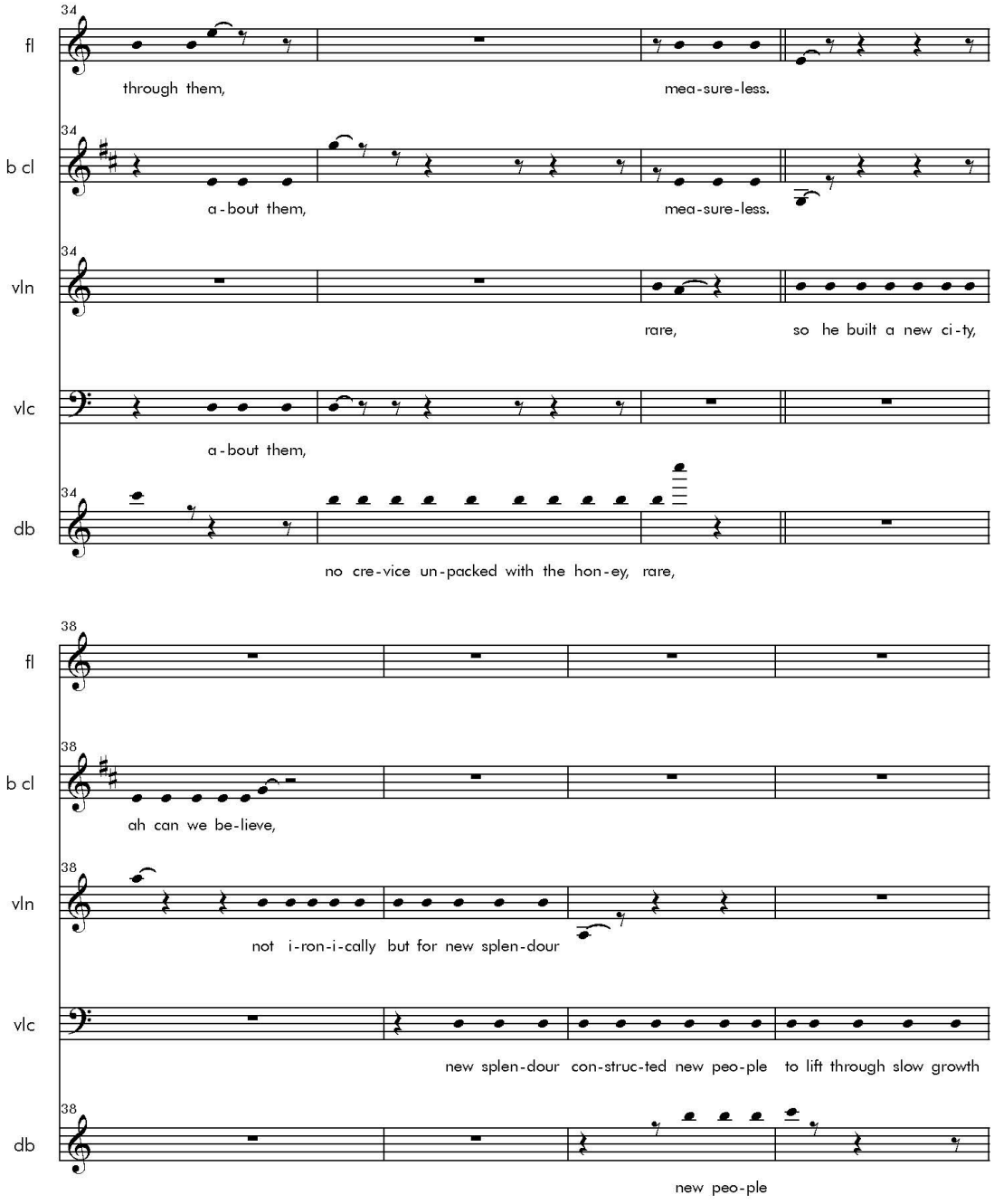

9
fl
crow-ded in - to one gar - den space. crow-ded
9
b cl
9
vln
crow-ded can we be-lieve,` not in ut - ter dis-gust, in i - ron - i - cal play
vlc
9
db

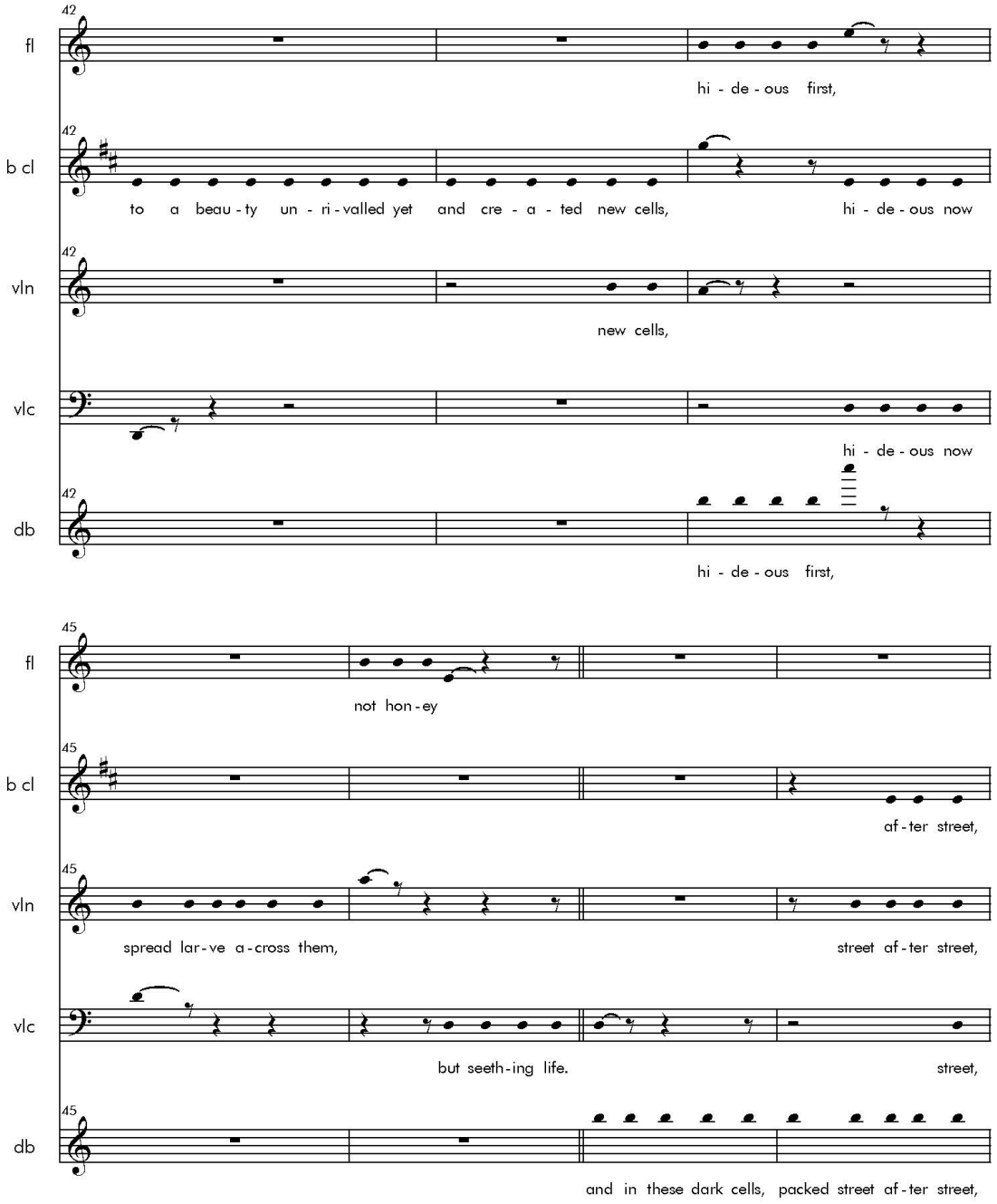
4.6 cities

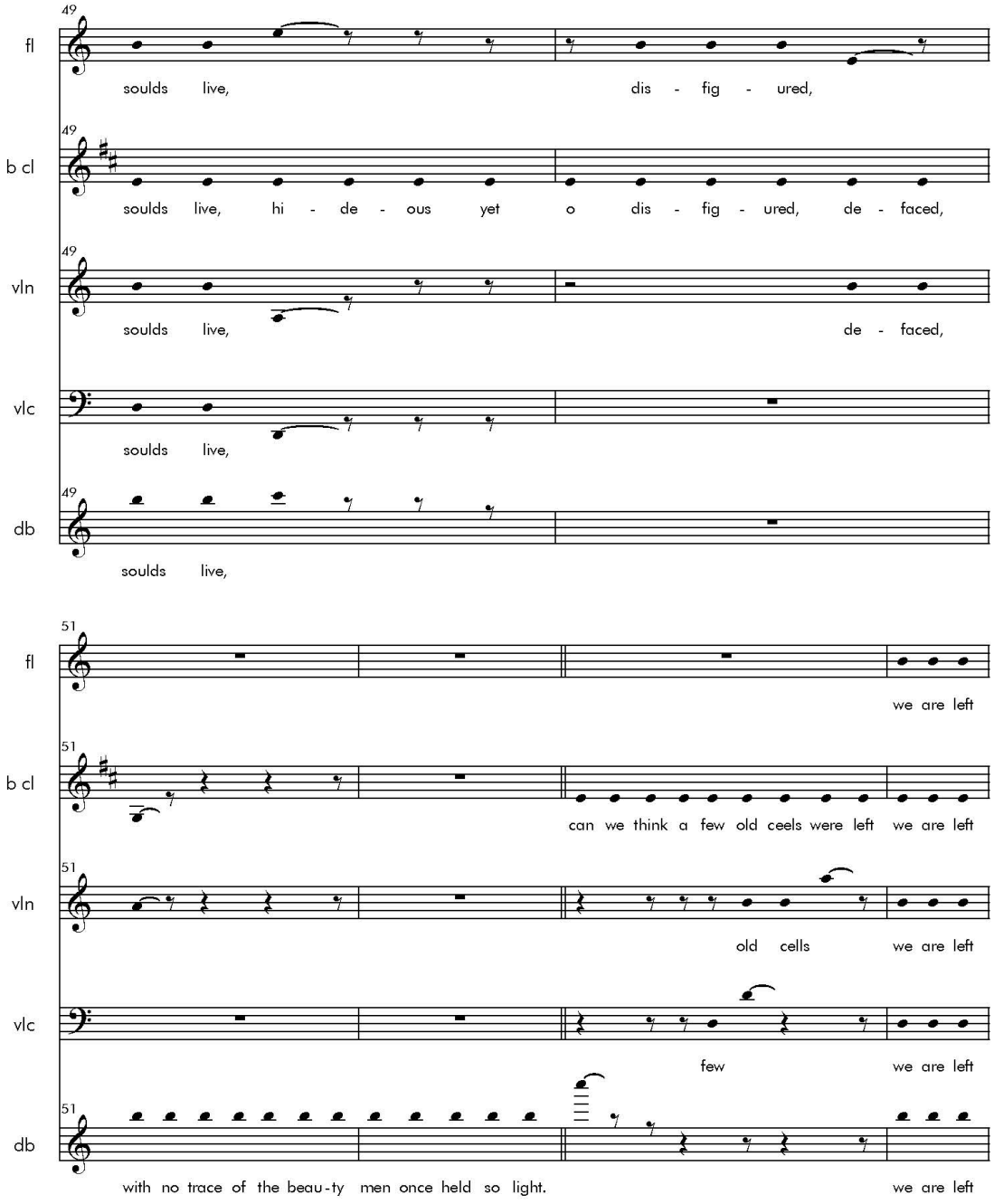

14
fl
b cl
but the ma - ker of ci - ties grew faint with the beau - ty of tem - ple and space be - fore tem - ple,
vln
vlc
db
17
fl
b cl
arch u - pon per - fect arch, of pil - lars and cor - ri - dors that led out to strange court - yards and por - ches
vln
vlc
db

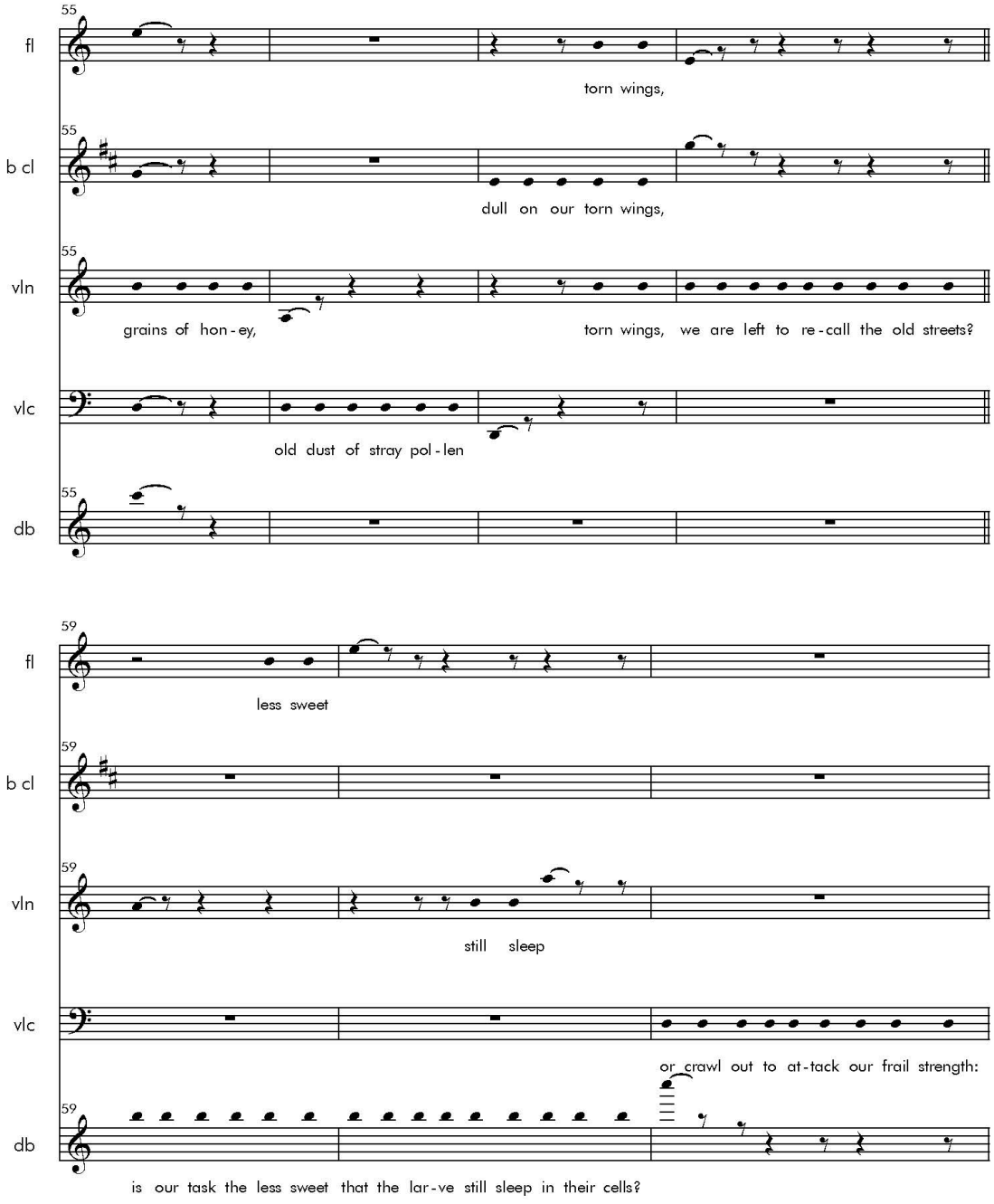

20
fl
20
b cl
where sun - light stamped hy - a - cinth sha - dows black on the pave - ment.
20
vln
20
vlc
that the ma - ker of ci - ties grew faint
20
db
24
fl
from the in - cense trees
24
b cl
24
vln
24
vlc
with the splen - dour of pal - a - ces, paused while the in - cense flow - ers from the in - cense trees
24
db

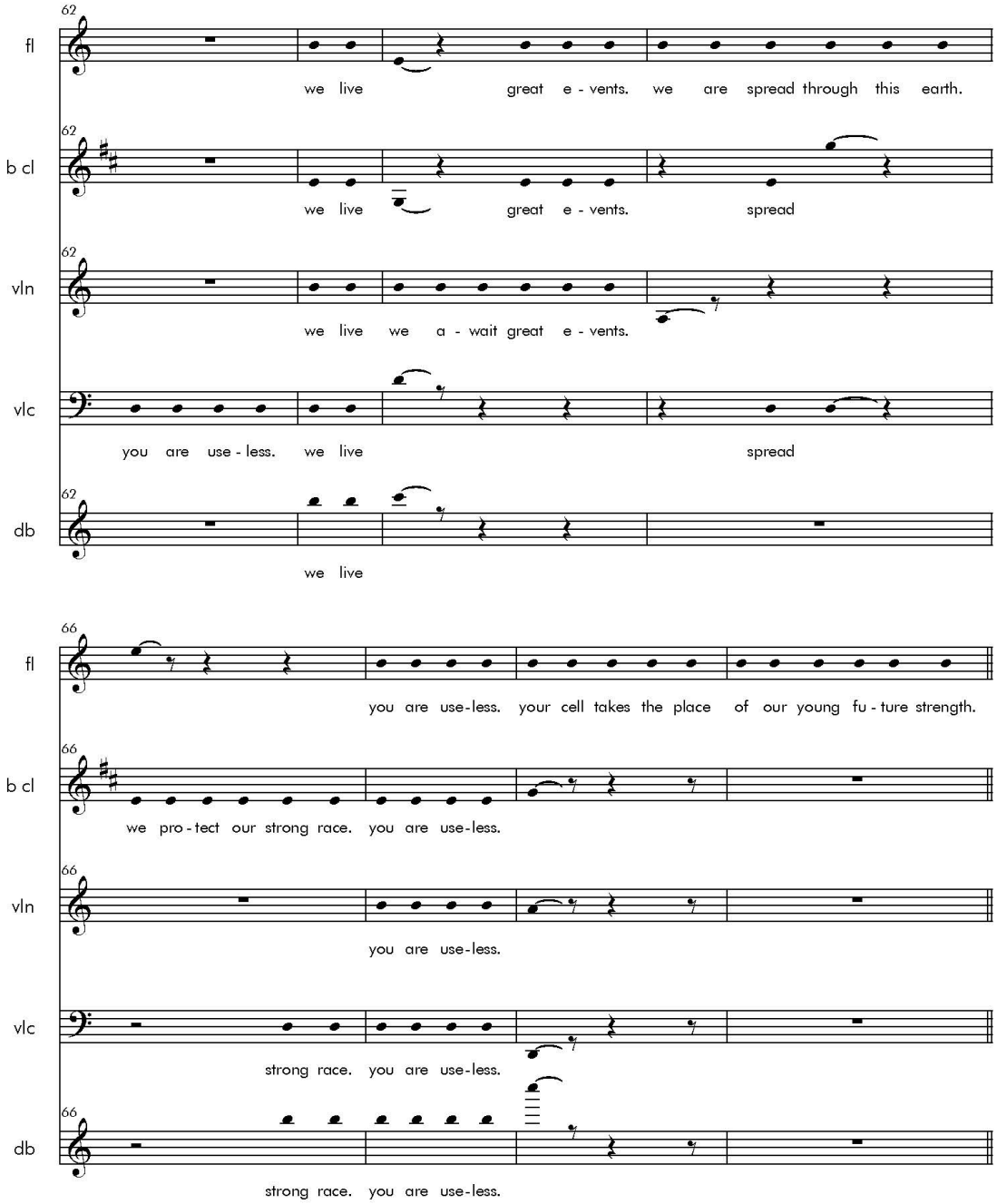

27
fl
b cl
vln
vlc
dropped on the mar - ble walk, though a - new, fash - ioned this street af - ter street a - like.
db
for a - las,
31
fl
b cl
crow - ded
vln
grasp beau - ty,
vlc
crow - ded
db
he had crow - ded the ci - ty so full that men could not grasp beau - ty, beau - ty was o - ver them,

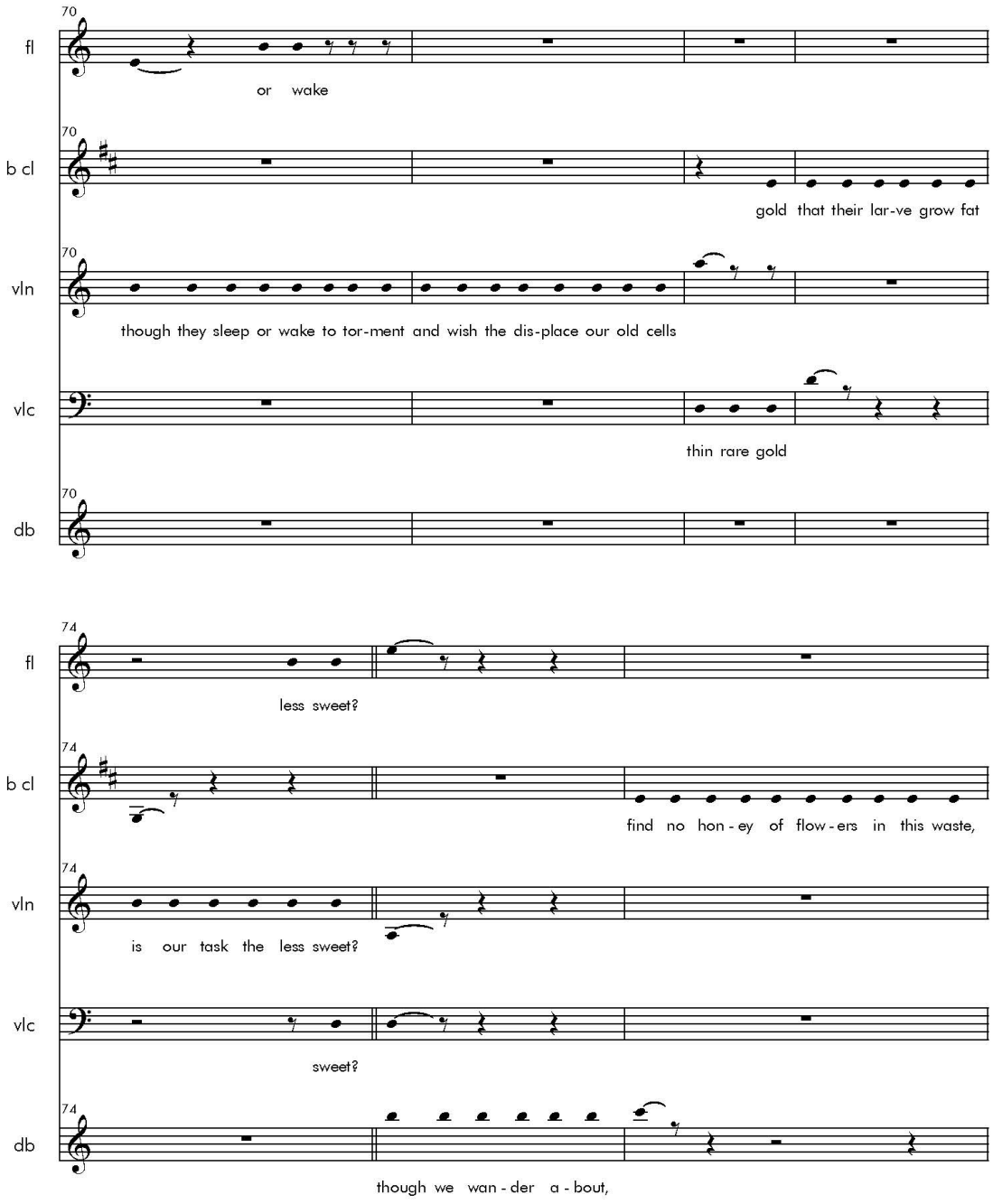

34
fl
through them,
mea-sure-less.
34
b cl
a-bout them,
mea-sure-less.
34
vln
rare,
so he built a new ci-ty,
vlc
a-bout them,
34
db
no cre-vice un-packed with the hon-ey, rare,
38
fl
38
b cl
ah can we be-lieve,
38
vln
not i-ron-i-cally but for new splen-dour
vlc
new splen-dour con-struc-ted new peo-ple to lift through slow growth
38
db
new peo-ple

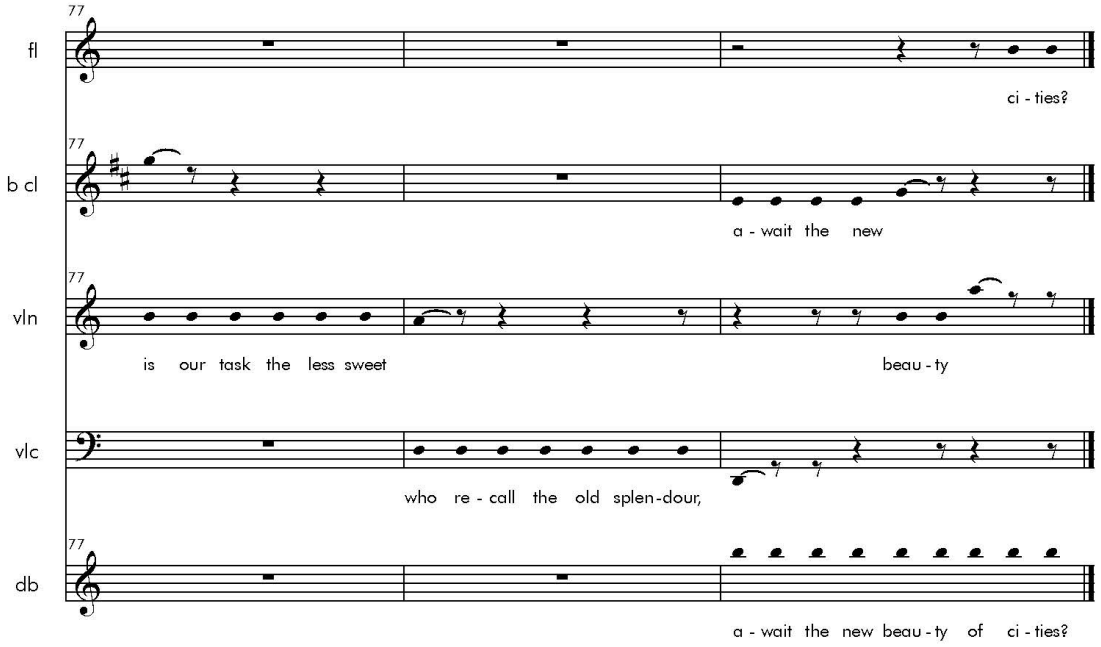

42
fl
hi - de - ous first,
42
b cl
to a beau - ty un - ri - valled yet and cre - a - ted new cells, hi - de - ous now
42
vln
new cells,
vlc
hi - de - ous now
42
db
hi - de - ous first,
45
fl
not hon - ey
45
b cl
af - ter street,
45
vln
spread lar - ve a - cross them, street af - ter street,
vlc
but seeth - ing life. street,
45
db
and in these dark cells, packed street af - ter street,


49
fl
soulds live, dis - fig - ured,
49
b cl
soulds live, hi - de - ous yet o dis - fig - ured, de - faced,
49
vln
soulds live, de - faced,
vlc
soulds live,
49
db
soulds live,
51
fl
we are left
51
b cl
can we think a few old ceels were left we are left
51
vln
old cells we are left
vlc
few we are left
51
db
with no trace of the beau-ty men once held so light. we are left

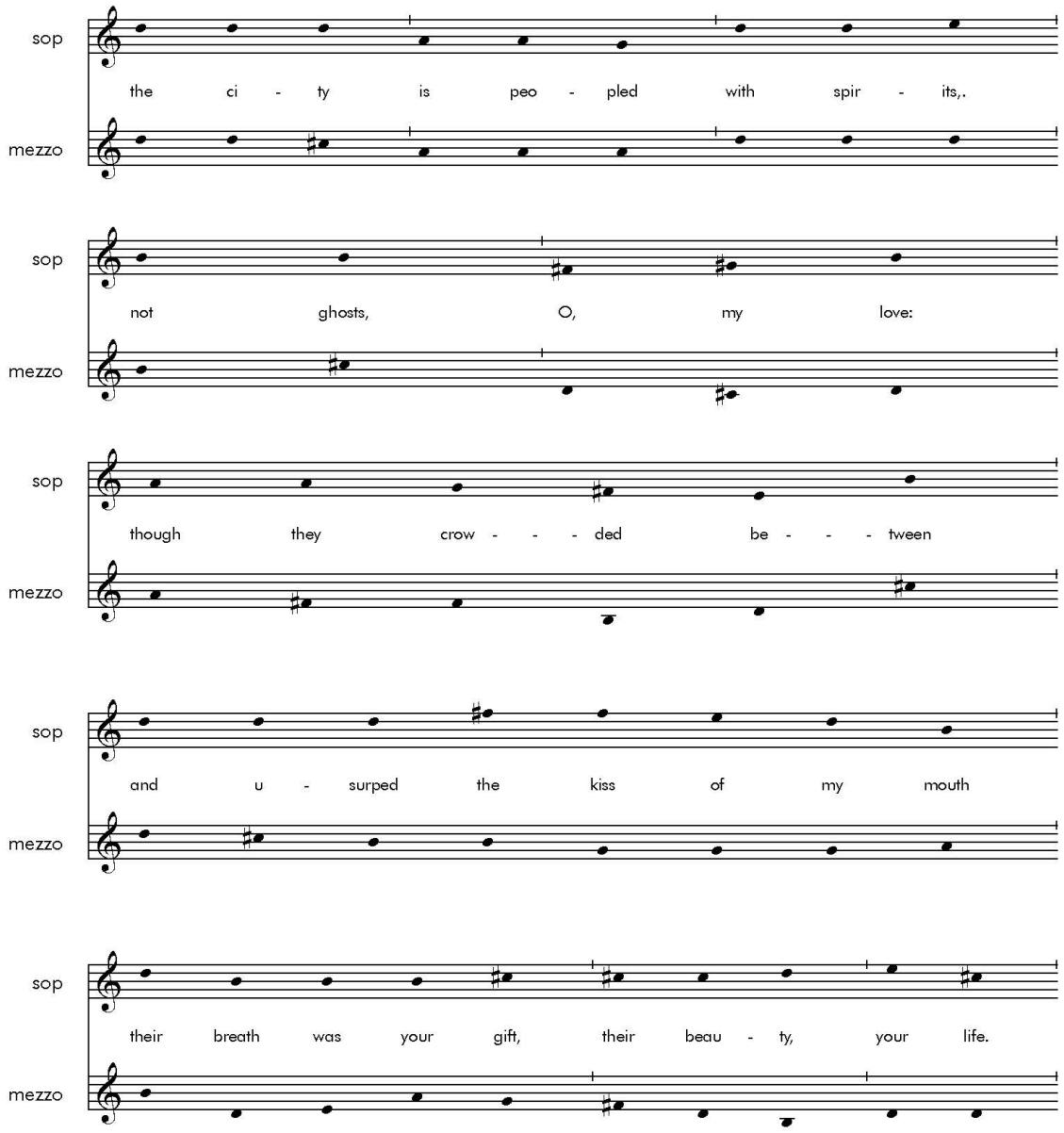

55
fl
torn wings,
55
b cl
dull on our torn wings,
55
vln
grains of hon-ey,
torn wings, we are left to re-call the old streets?
vlc
old dust of stray pol-len
55
db
59
fl
less sweet
59
b cl
59
vln
still sleep
vlc
or crawl out to at-tack our frail strength:
59
db
is our task the less sweet that the lar-ve still sleep in their cells?

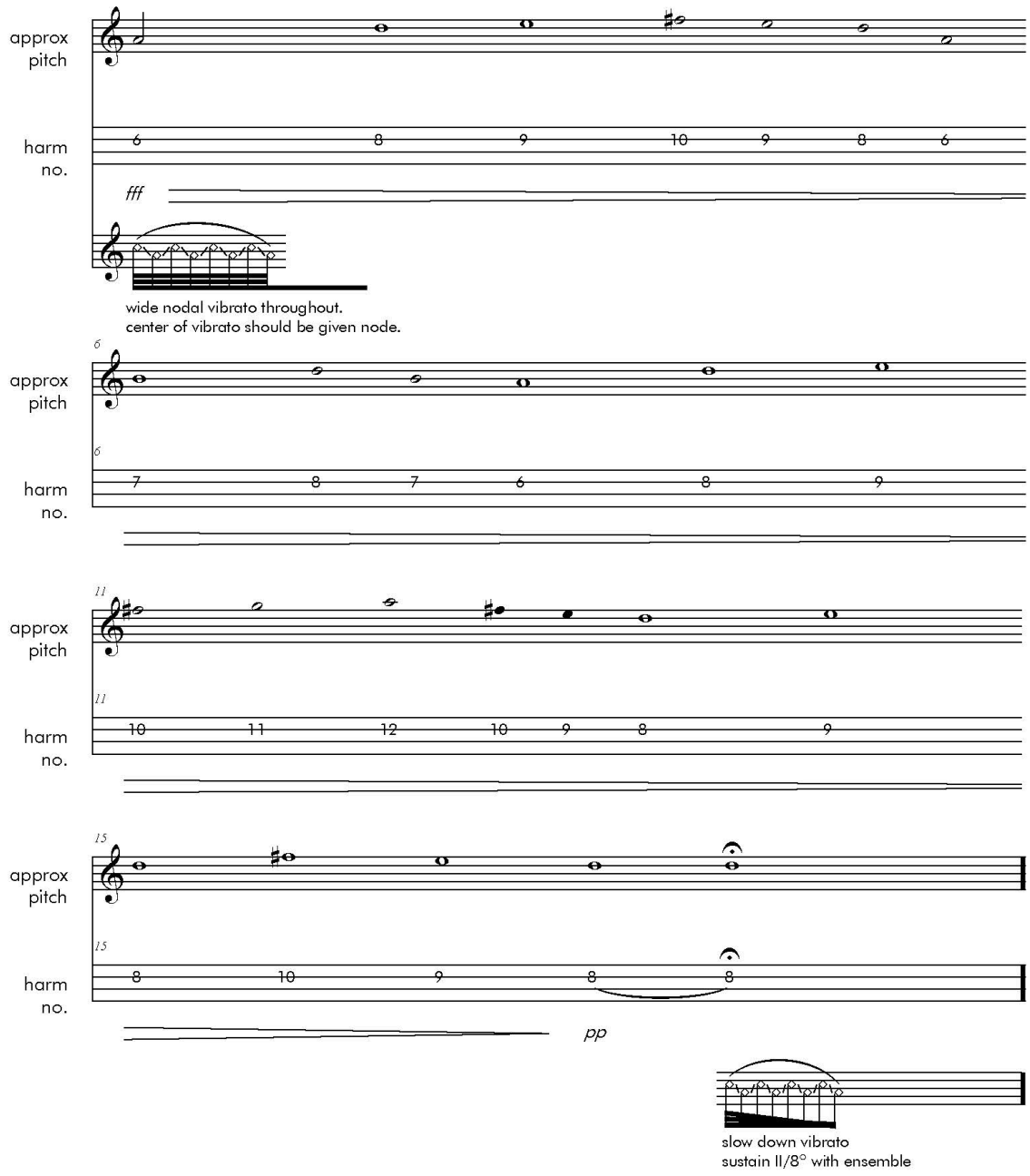

62
fl
we live great e - vents. we are spread through this earth.
62
b cl
we live great e - vents. spread
62
vln
we live we a - wait great e - vents.
vlc
you are use - less. we live spread
62
db
we live
66
fl
you are use-less. your cell takes the place of our young fu - ture strength.
66
b cl
we pro - tect our strong race. you are use-less.
66
vln
you are use-less.
vlc
strong race. you are use-less.
66
db
strong race. you are use-less.


70
fl
or wake
70
b cl
gold that their lar-ve grow fat
70
vln
though they sleep or wake to tor-ment and wish the dis-place our old cells
vlc
thin rare gold
70
db
74
fl
less sweet?
74
b cl
find no hon - ey of flow - ers in this waste,
74
vln
is our task the less sweet?
vlc
sweet?
74
db
though we wan - der a - bout,

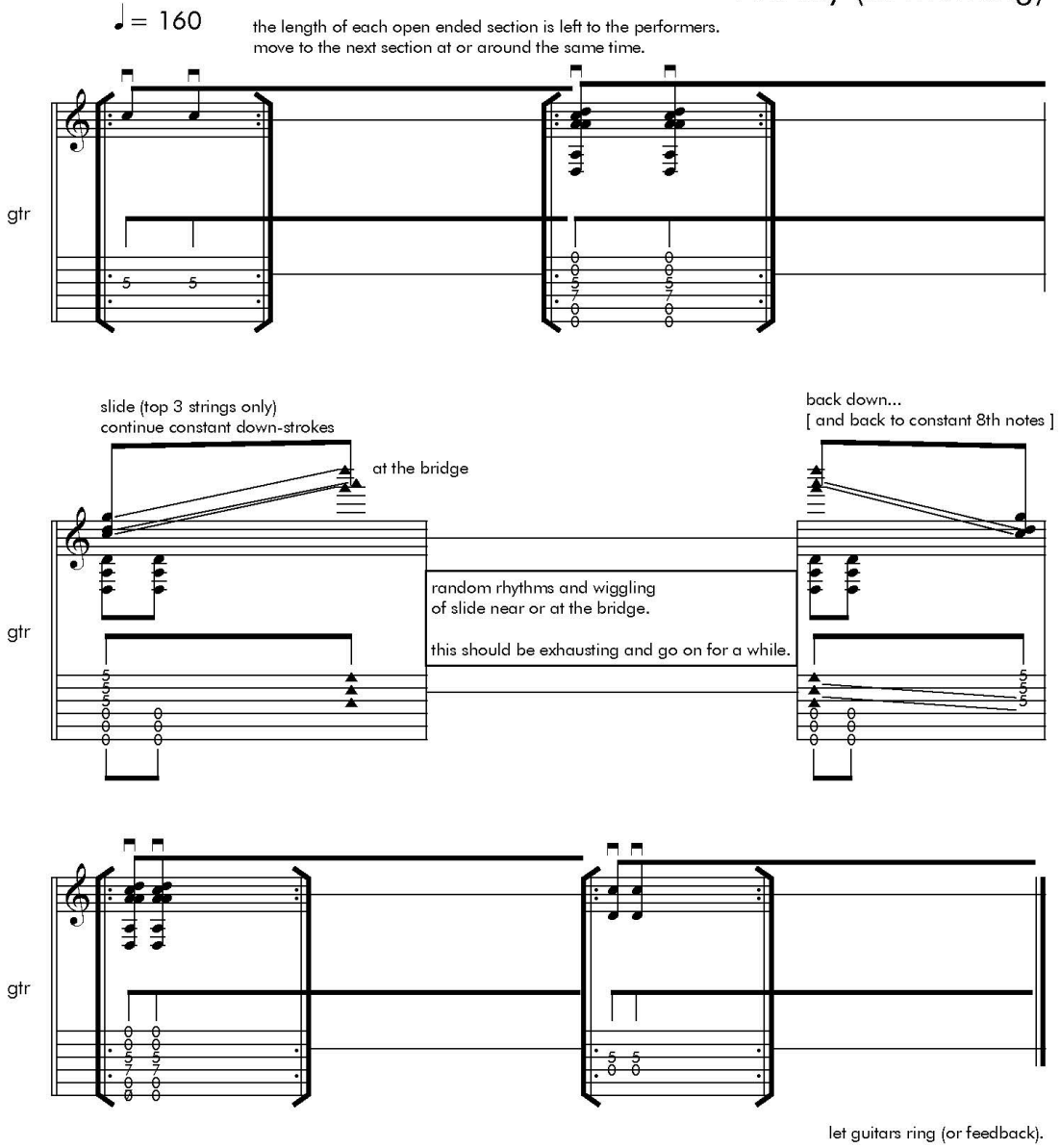

77
fl
ci - ties?
77
b cl
a - wait the new
77
vln
is our task the less sweet
beau - ty
vlc
who re - call the old splen-dour,
77
db
a - wait the new beau - ty of ci - ties?

4.7 the city is peopled




approx pitch
harm no.
6 8 9 10 9 8 6
fff
wide nodal vibrato throughout.
center of vibrato should be given node.
6
approx pitch
6
harm no.
7 8 7 6 8 9
11
approx pitch
11
harm no.
10 11 12 10 9 8 9
15
approx pitch
15
harm no.
8 10 9 8 8
pp
slow down vibrato
sustain II/8° with ensemble

red sky (at morning)



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