COMPOSITION AS THE CREATION OF A PERFORMANCE, MUSIC AS A VEHICLE FOR NON-MUSICAL THOUGHT: SIX NEW WORKS

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Composition as the creation of a performance, music as a vehicle for non-musical thought: six new works.

By THOMAS BUTLER

A thesis submitted for the degree of
Doctor of Philosophy of the University of St Andrews.

2016

Declaration

I, Thomas Butler, hereby confirm that I am solely responsible for the production of this submission which consists of:

A portfolio of six new compositions
Audio-visual documentation of performances of these six new works
A commentary of 17,449 words
Appendices and bibliography of 3,196 words

and that it has not been submitted in any previous application for a higher degree.

Date..... Signature of candidate.....

I was admitted as a part-time research student in October 2008 and as a candidate for the degree of PhD in 2010; the higher study for which this is the outcome was carried out at the Royal Conservatoire of Scotland between 2008 and 2015.

Date..... Signature of candidate.....

I hereby certify that the candidate has fulfilled the conditions of the Resolution and Regulations appropriate for the degree of PhD at the University of St Andrews and any additional requirements for the regulations of the Royal Conservatoire of Scotland as approved by the University and that the candidate is qualified to make this submission in application for that degree.

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Abstract

This thesis comprises six new musical works composed between 2008 and 2015: *Struction (how I attempted to get the thoughts in my head into your head using only five instruments, five instrumentalists, metronome sound and MIDI)* for amplified ensemble and pre-recorded soundtrack (2011); *My Life in Ventriloquism* for solo clarinet and pre-recorded soundtrack (2012); *Nightmusic* for solo violin (2012); *Replaceable Parts for the Irreplaceable You* for ensemble, pre-recorded soundtrack and video (2013); *Espial*, a video work featuring string quartet (2014); and *Elbow Room* for amplified ensemble, pre-recorded soundtrack and video (2014).

The works are presented in this thesis as musical scores (and other performance materials), accompanied by audio-visual documentation of performances. As a whole, these compositions reflect a period of practice-as-research into the role of metapraxis in musical performance and how it can be used to help convey non-musical thought through instrumental music. A commentary on this portfolio of new compositions begins by discussing two influential works — Mauricio Kagel's *Match* (1964) and *Failing: A Difficult Piece for Solo String Bass* (1975) by Tom Johnson — before examining each new work in detail in order to explicate the research and creative processes that led to their composition, to exteriorize a personal working practice and to document the reflection-on-practice which has furthered this research. The commentary details how I was able to write music on a variety of topics, including authority, technology and place, and concludes with some ideas for

further research.

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Commentary

1.1 – Overview

This thesis is the product of a seven-year part-time practice-as-research project in musical composition undertaken at the Royal Conservatoire of Scotland in Glasgow, UK. It comprises six new musical works composed between 2008 and 2014 and a critical commentary. The six musical works are:

1. ***Struction (how I attempted to get the thoughts in my head into your head using only five instruments, five instrumentalists, metronome sound and MIDI)*** (2011) for amplified ensemble and pre-recorded soundtrack.

2. ***My Life in Ventriloquism*** (2012) for solo clarinet and pre-recorded soundtrack.

3. ***Nightmusic*** (2012) for solo violin.

4. ***Replaceable Parts for the Irreplaceable You*** (2013) for ensemble, pre-recorded soundtrack and video.

5. ***Espial*** (2014), a video work featuring string quartet.

6. ***Elbow Room*** (2014) for amplified ensemble, video and pre-recorded soundtrack.

These works are presented here in the form of performance materials (including scores, pre-recorded soundtracks, a Max/MSP patch and videos) and audio/video documentation of performances. Details of these performance materials, details of documentation, and a full list of performances of the six musical works to date, are to be found in the appendices.

1.2 – Introduction

In 2008, I began this period of research with the following questions:

1. What is the role of metapraxis[1] in the performance of music and how can this be exploited to heighten/interfere with/comment upon the musical content of a work?

2. How does the interaction between audience and finished composition alter if the traditional parameters of performance are removed?

3. How can metapraxis create extra-musical discourse through musical performance?

4. How can musical performance be a vehicle for non-musical conceptual thought?

[1] *Metapraxis* is a slippery and contested term. In this research it is used to denote the going beyond (*meta*) of the praxis —the habitual action, accepted practice and custom - of the concert hall.

As “research initiated in practice and carried out through practice” (Gray, 1996, p.1), it was important not to begin this practice-as-research with a set of questions that would constrict the compositional work undertaken for this project and stifle any emergent ideas that could be incorporated into my practice. Therefore, rather than identifying a narrow, specific “problem” to be investigated, the purpose in writing these questions was to delineate a general research territory and serve as self-provocation and call-to-practice. Consequently, as with many practice-as-research projects, these research questions outline a looser set of objectives than might be expected in a more traditional qualitative study (see Haseman, 2006).

These initial research questions were very broad and quite naive in their formulation. For example, Question 2, concerning interaction between listener and performance, fails to acknowledge that this study is primarily concerned with the creation of —rather than the reception of —practice: the composition of new musical works. However, despite their shortcomings, these questions clearly identify the two main themes of this research: an interest in conveying non-musical ideas through music and the use of metapraxis in musical performance.

This first theme stems from my desire to create a socially-engaged and socially-informed practice that is able to ruminate on topics originating from outwith the concert hall where the subject matter is explicitly contemplated in the composition rather than simply providing an impulse for musical reflection. In my compositional work I have never been interested in formalism or creating music which, in the words of Morton Feldman, is “indistinguishable from its [compositional] process”

(Feldman, 2000, p.109). Instead, the works presented here all had their genesis in non-musical ideas which, after a period of research into these ideas, were expressed through musical composition. This (non-musical) research, as documented in this exegesis, was therefore integral to the creation of these pieces, which include themes of authority, technology and place.

This research has been carried out in the context of my artistic practice, the composition of traditional Western music, using traditional music notation, for traditional concert hall performance. All the works in this research portfolio were conceived for the concert hall, or similar space, where performances are demarcated from ordinary life and maintain a strict distinction between performers and audience. However, whereas the conventional Western concert hall tradition expects composers to provide only notated music for other musicians to interpret in performance, the assumption behind this research project is that the role of the composer can be expanded to encompass the inclusion of non-musical elements as an integral part of an otherwise musical work. Such additions may include, but are not limited to, video, still images and theatrical elements. It could also be possible for the composer to control the manner of the work's presentation to the audience if required through prescribing performance parameters traditionally not included in a musical score. For example, the works in this portfolio go so far as to detail lighting effects, staging and the physical gestures of performers where appropriate. Thus, the act of composition becomes the creation of a performance in its entirety rather than an adherence to performing a musical text within a pre-existing performance grammar.

This contrasts with the separation of text and act, music and its performance, which pervades common accounts of the creation of meaning in music (“like some conductors, many analysts are unable to get their heads out of the score” (Monelle, 2000, p.10)). Christopher Small has explored how a musical performance

> is a much richer and more complex affair than is allowed by those who concentrate their attention exclusively on the musical work and on its effects on an individual listener. If we widen the circle of our attention to take in the entire set of relationships that constitute a performance, we shall see that music's primary meanings are not individual at all but social (Small, 1998, p.8).

After disputing the widely-held belief that the concert hall is a neutral space in which the “true” meaning of a musical text can be experienced, Small goes on to suggest that the pragmatics of musical performance, such as the concert hall and other trappings of the music industry, are equally as responsible for the creation of meaning, value and prestige as a musical text. Put simply, meaning is created not only by a text but also through context. Noola Griffiths (2010) has demonstrated empirically that perception of musical performance is contingent on context: in one study, performances of classical music were deemed less proficient by audiences when the female performer was dressed in casual or body-focussed clothing compared to when she wore formal attire. A further example of the power of context in the performance of music is violinist Joshua Bell's unannounced and anonymous recital of music by J.S. Bach, Schubert, Ponce and Massenet on the Washington D.C.

subway in January 2007. Largely ignored by the passing commuters, Bell was, “in short, art without a frame” according to the journalist who had arranged the stunt (Weingarten, 2007, n.p.).

Consequently, the music written as part of this research was conceived with an awareness of the context in which it would be performed and is recognised to be part of a concert hall tradition. However, it engages with this tradition in a critical manner through the use of metapraxis. As Christou notes, “metapraxis is meaningful only by virtue of its opposite: praxis” (1971, n.p.):

> An instrumentalist playing his instrument during the course of a concert performance is a praxis, but if he is also required to walk about, speak, shout, scream, gesticulate, or perform any other action uncharacteristic of the current logic of his category, that could be a metapraxis (*ibid*).

Likewise, a composer shuffling on stage to take a self-conscious bow after a première may be considered praxis but her constantly shouting at the performers as part of this première performance would be metapraxis. Concert metapraxis uses gestures outwith the syntax of concert hall performance but is therefore dependant upon this very syntax and the customs of the concert hall to which the actions of our instrumentalist and composer must be compared. The customs of the concert hall evolve over time and are subject to trends (for example, the fashion for conductors addressing their audience from the podium seems to wax and wane across

orchestral seasons) and variation, both between different performing groups and a single group performing in different contexts (compare proceedings at an afternoon orchestral concert for children and the same ensemble giving its evening performance later in the day, for example). The term *praxis* therefore refers to a range of possible, expected behaviours in the performance and presentation of concert music; metapraxis is a deliberate subversion of these norms which can be prescribed by a composer and/or enacted (potentially spontaneously) by a performer. Although numerous composers have created work that utilizes metapraxis[2,] two works in particular were influential in the early stages of this research: Mauricio Kagel's *Match* (1964) and *Failing: A Difficult Piece for Solo String Bass* (1975) by Tom Johnson.

In *Match*, described by Giffiths as "a tennis game for cellists with a percussionist as umpire" (1978, p.188), Kagel uses minimal stage directions (the cellists must face each other, perpendicular to the audience, with the percussionist upstage centre) to create a music-theatre piece that exhibits both an overall musical logic and an overall theatrical logic. These logics are largely sustained by creating musical material which, through its physical manifestation in performance, contributes to both the sonic and theatrical strands of the work. As if to confirm the equality between these musical and theatrical elements, the composer suggests that "*Match*

[2] For example, Ligeti *Aventures* (1962) and *Nouvelles Aventures* (1966), Christou *Anaparastasis I* (1968) and *Anaparastasis III* (1968), Davies *Eight Songs for a Mad King* (1969), and Prins *Generation Kill* (2012). Metapraxical works in this context are distinct from musical works which use physical gestures in other contexts. For example, it is arguable that the multimodal *Schwarz auf Weiss* (1996) by Heiner Goebbels, which places instrumentalists in a theatrical scenario complete with stage sets, properties and lighting effects, would not be construed as concert metapraxis although the piece may refer to other praxes. Similarly, *Every Good Boy Deserves Favour* (1977) by Tom Stoppard and André Previn straddles concert and theatre praxes.

should ideally be performed twice in the same concert. Experience has shown that the listening audience will react the first time more to [*sic*] as spectators" (Kagel. 1967, n.p.). Beginning with the back-and-forth, over-the-net rhythms of a tennis match, Kagel constructs a work which, by borrowing gestures from the world of sport, emphasises the ritual nature of musical performance by comparison and possibly says something about the athleticism and precision of solo concert hall performers as the cellists tackle increasingly virtuosic material.

Johnson also sees a similarity between musical performance and sports fixtures: "if it is going to be clear to the audience whether the performer has succeeded or failed, then a performance takes on a special fascination, a little like athletic events" (Johnson, 1975, n.p.). In his work *Failing,* Johnson problematizes this perception of success or failure by requiring his solo double bassist to play difficult music and simultaneously recite a text about the difficulties of this music and the difficulties of speaking and playing at the same time. The monologue, which concludes with an improvised section, includes the following meditation on failure:

> If I *tried* to fail, and then failed, that would be a kind of success and not a failure at all. So I must try to succeed. That way, when I fail to succeed, I will succeed in communicating the essence of the piece, even though I will fail to accomplish the task as it is set up. In other words, I will not be able to fail unless I am trying to succeed, and I won't succeed in interpreting the piece sensitively unless my performance turns out to be a failure. Or, putting it another way, I

> will probably succeed in failing to succeed, not only because the music is so difficult, but also because, if I fail to succeed in failing to succeed, I will fail to fail and will miss the point, since *Failing* is obviously about failing, and since any successful performance must be a qualified failure (Johnson, 1975, pp.9–10).

This text "stands outside the performance, as a set of instructions for it, and a theoretical reflection on it, and yet is also at the heart of the performance" (Connor, 1996, p.122) and, like *Match*, to perform *Failing* is therefore to give a performance about performance itself. Because the piece is performed within the context of the traditional, flawless solo recital, the explication of the challenges undertaken by the performer lend the piece a performative[3] quality.

In both these pieces, the physical gestures of the musicians—including the lateral movement of the bowing arm and the hammering of fingers upon a string—are primarily the consequence of the musician realizing the composer's notated intentions in raw sound (although Kagel also prescribes additional physical gestures, particularly for the percussionist). However, by emphasising and framing the physicality and virtuosity that arises when interpreting the traditionally-notated score, both composers situate the meaning of their work in its performance rather than being something that can be gleamed from reading the score alone. The scores

[3] Notions of performativity can be traced back to J.L. Austin's observation that certain speech utterances do more than simply describe reality. If spoken by an appropriate person in an appropriate context, phrases such as "I take this woman to be my lawful wedded wife" and "I'll bet you five pounds", for example, affect rather than describe social reality and are thus, in Austin's terminology, "performative utterances" (Austin, 1962).

themselves are thus blueprints for a performance and both *Match* and *Failing* engender both musical and social meaning.

These two works were particularly influential when composing the earliest pieces in this portfolio, *Struction* and *My Life in Ventriloquism*. Like the performative nature of the Kagel and Johnson pieces, the outputs of this research period are also essentially performative (see Haseman, 2006): it is the portfolio of compositions, rather than any written text, which performs the research. However, this exegesis has been written in order to explicate the research and creative processes that led to the composition of these works, to exteriorize a personal working practice and to document the reflection-on-practice which has furthered the research. This text is "structured reflection to make the 'tacit knowledge' explicit" (Nelson, 2006, p.112) and, in order to better explain the cycles of research-composition-reflection, it examines the compositions by theme rather than in strict chronological order.

2.1 – Struction (how I got the thoughts in my head into your head using only five instruments, five instrumentalists, metronome sound and MIDI)

> *So, this is my piece* Struction*. Let's take this at one hundred and eight crotchets per minute. I'll set the tempo and then we'll go. So… three, four, go!*

So begins the first piece to be written as part of this research project, *Struction (how I attempted to get the thoughts in my head into your head using only five instruments, five instrumentalists, metronome sound and MIDI).* In performance, this first-person parenthetical sub-title serves as the only programme note or introductory text to the piece, the first-person-ness of which is mirrored in the initial sounds heard by the audience: the recorded, spoken-word introduction quoted above, given in the composer's voice.

What follows is twenty-five minutes of five performers — an amplified quintet of violin, viola, cello and two e-flat clarinets — seemingly responding directly to the pre-recorded voice of the composer. Although the composer does not describe every note played, his constant interjections manifest themselves in altered musical material as the performance seemingly shifts to suit his desires. The pace is often frenetic with a constant metronome click — audible to both performers and audience — keeping the tempo of the performance in check.

The composer speaks both to the performers and to himself, composing the piece as it goes along, changing his mind and pondering over possible courses of action. In addition to the instructions relayed directly to the performers, there are moments in which the composer reflects upon his piece and process: “That cello harmonics thing... that's a dead-end, it doesn't work. Let's just stop that. OK, so that viola part needs a bit more independence as well... it's a bit boring” (bb. 261–267). Through being privy to the composer's inner monologue, the piece is apparently a witness to its own creation (the ultimate authoritative edition, perhaps).

However, the compositional process presented here is of course a fiction. The work is actually fully notated and the performers are obviously reading from sheet music, evidenced by many a frantic page turn. There is no improvisation at all and, to reinforce the pre-constructed nature of the piece, at times the composer's vocal interjections become musical material in their own right as the commands “stop!”, “go!” and “hold!” become part of the overall rhythmic texture.

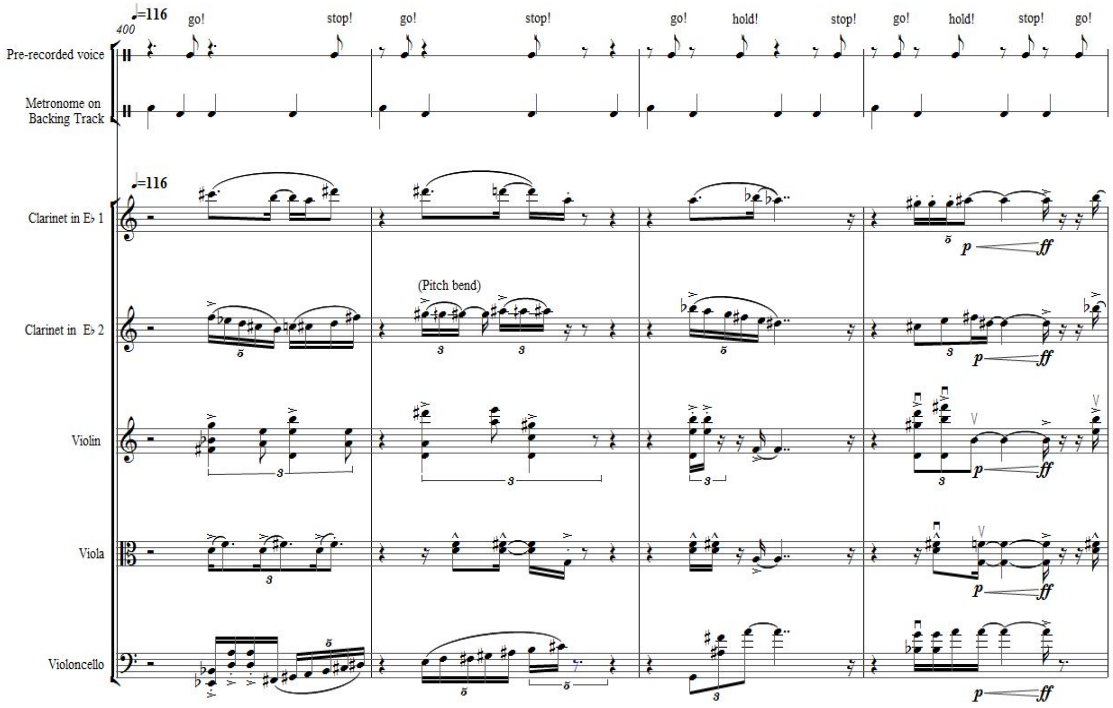


Figure 1: Struction bb.400–403 (transposing score)

The title, *Struction*, is a reference to the mimicked composition process: it is a made-up word, a truncation of c*onstruction*, *reconstruction, deconstruction* and *instruction(s)*, and/or possibly a verb meaning the action of making a structure. The word also sounds a lot like *striction*, which could describe the condition imposed upon the performers by the all-powerful composer and relentless metronome click. *Struction* is a performance of authorship, the writing of a piece of music, but it's also a performance of authority. It was this relationship, between authorship and authority, that informed the creation of *Struction.*

A short story: many years ago, when I was a Master's student, I was selected to take part in a composition workshop with members of the Scottish Chamber Orchestra. At

the end of my piece, written especially for the occasion, was an elongated melody played in unison. I had intended the wind players of the ensemble to breathe whenever necessary during this passage, even if it meant individually breaking the long phrase in order to do so. However, I had forgotten to indicate this in the instrumental parts and, when the end of the piece arrived, a couple of woodwind players theatrically collapsed as the action of performing this long (and apparently dangerous) phrase slowly asphyxiated them. I thought this behaviour was a bit odd for two reasons: firstly, these professionals felt so dis-empowered in the workshop that they had to resort to theatrics to get their point across (the session was being run by the conductor with opinions occasionally sought only from the senior guest composer and star soloist) and, secondly, it felt strange that something I wrote in different place at a different time was causing another human being physical discomfort in the here and now.

Although I appreciated that these performers were most likely acting-up to prove a point, their reactions to my piece got me thinking about the relationship between composers and performers, between performers and audiences, and between composers and audiences. Their behaviour exemplified the hierarchical structure of the performance industry, a structure which influences how we compose, perform, consume and think about music. The theorist and composer Paul Lansky describes the hierarchy, and how it affects the way we experience music, thus:

> Let's think of the classical epistemology of our composer-performer-listener paradigm in the following terms: The composer

> utters brilliant thoughts with great clarity and skill. They are ideally delivered to the listener by the performer in a manner which assures that the listener will have the best shot at understanding them. Clarity and precision are axiomatic virtues in classical models of explanation. This view rigidly reinforces the social structure of the composer-performer-listener network (Lansky, 1990, p.105).

The model described by Lansky is instantly recognisable to those involved in the concert hall tradition, and it is this concert hall tradition itself that I parody in *Struction*. This model of meaning is not without its faults, however; its simplicity may not bear scrutiny and, as discussed in Chapter 3, I would later attempt to avoid basing my work on simple models of meaning. Lansky's model is also not universal, its focus on traditional concert hall performance evades contemporary questioning of what constitutes a concert space and ignores alternative methods of collaboration between composers and performers. Despite Lanksy's focus on traditional means of musical performance and organization, his model should not be considered antiquated as the social and musical hierarchies he describes are enacted every day in evening performances of the orchestral canon in concert halls around the world. As *Struction* was to be written and performed at the Royal Conservatoire of Scotland, an institution that trains musicians for employment in this orchestral realm, Lanksy's model felt fitting for parody. The simplicity of Lansky's model was also appealing and interesting to me due to it not ascribing agency to either the performers or audience. Performance is seen as simply the content delivery system of a fixed meaning integral to a specific score, and the

listener its passive consumer. This template also does not consider how meaning can be created by the act of performance in its own right.

Although I would later create works that explore the agency of performance and audience (particularly *My Life in Ventriloquism*), my intention for *Struction* was to parody this simple model of musical meaning and discourse, as described by Lansky, in order to explore notions of authority and the social relationships between the different parties (composer, performers, listeners) either created or reinforced by this view of musical performance. I posited the score as a kind of pact that forces musicians into symbiotic, sometimes dysfunctional and often transitory relationships which are policed by a rigid, hierarchical, social structure.

Underpinning this idea was my discomfort not with being an *author,* with the act of creative practice, but with the position of *authority* that is sometimes seen as central to the role of composer in the classical model, the social consequence of this artistic pursuit. Aside from some electroacoustic and composer-performer solo work, the production of new music is rarely a solitary endeavour: the writing of notes on a page may be done alone but soon the individual composer will need to co-opt the skills and time of many professionals, from performers to concert hall ushers, in order to realize his supposedly immutable score. In some ways, egotism is integral to the act of composition: as composers in the classical model we are taught uncritically to appoint ourselves to the very top of a power structure simply through writing a few dots on a page and expecting others to bring these notations to fruition. The reward for this well-written whimsy is authority, an authority I

exaggerated and satirised through the omnipresent, yet physically distant, composer of *Struction*.

This physical distance between composer and ensemble, as expressed through the use of a recorded, rather than live, performance of the composer's narration, was just one outcome of a creative process which distilled the conceptual framework of the piece into a set of musical possibilities. In the classical paradigm outlined by Lansky, we can assume that the composer's “brilliant thoughts” are transmitted to the performers by means of a written score, meaning a composer's authority (in both senses of the word) is not contingent on his physical location, or even on whether he is dead or alive (the canon ensures authority, for some, from beyond the grave). For this reason, the composer of *Struction* remains physically absent for the duration of the performance.

In my method of composition, in the words of Sol Lewitt, “[t]he idea becomes a machine that makes the art” (1967, n.p.). This “distillation” of subject matter establishes a set of constraints and/or requirements for the musical material which also considers its performative function. In *Struction* for example, keen to map the whimsical imaginings of the composer to the physical actions required to forge them in sound, I considered the choreographic qualities of standard music notation and how the writing of even a single note sets in motion a series of finely-tuned bodily actions within the performer to generate the prescribed tone. I felt this link between thought and action was best conveyed with stringed instruments, as articulation with a bow or finger is more easily observed by an audience than the tonguing and

embouchure techniques required by wind and brass instruments. To further elucidate this idea, the string writing in *Struction* is dominated by physically demanding double-, triple- and quadruple-stops which have performative, gestural, harmonic and contrapuntal qualities.

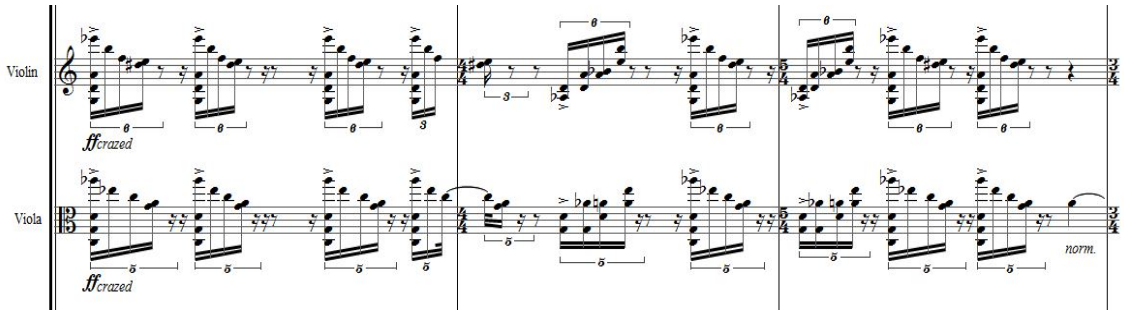


Figure 2: A passage from Struction (bb.146–148) featuring multiple-stops in the violin and viola parts.

Further compositional parameters were used to frustrate and reduce the agency of the performers in order to assert the omnipotence of the composer character by comparison. Whereas a chamber ensemble would normally seek to balance and blend each voice within a texture, here the use of amplification defers that responsibility to a sound engineer. In addition to creating a distinct sonic palette, the amplification equipment also delivers a MIDI realization of sections of the score, overlaid on the live performance. Based upon Bernhard Lang's use of a pre-recorded tape part as “an exacting and demanding virtual conductor” (Lang, 2004, p.10) in his work *DW 15* (2003), the presence of this tinny, electronic “ensemble” serves as an expression of the composer's unrealisable musical aims and the composition process which established them (the MIDI track was created with the popular Sibelius notation software). For example, only the MIDI-violinist can accurately play

the quick successions of triple-stops wanted by the composer in the opening passage, and the electronic clarinettists can exhale indefinitely. Page turns are never an issue for the computer.

Alongside this “virtual conductor” and the repressive metronome click, the composer's voice sometimes offers advice more akin to that found in the rehearsal room than the writing studio. The pre-recorded elements of *Struction* therefore represent the highest authorities in musical performance: the composer and the conductor. As Canetti reminds us:

> There is no more obvious expression of power than the performance of a conductor... The code of laws, in the form of the score, is in his hands. There are others who have it too and can check the way it is carried out, but the conductor alone decides what the law is and summarily punishes any breach of it (Canetti 1960, pp.394–395).

In these ways the music of *Struction* outlines and problematizes a series of dualities that are central to the classical paradigm: thought / action; the ideal / the attainable; the absence of writing / the presence of performance; the manager / the worker. Furthermore, it contests other aspects of musical thought essential to the classical paradigm as defined by Lansky, including the listeners' expectation to...

> engage the music as a document whose manner of presentation is

> one-sided... A composition takes on the trappings of reasoned discourse. We begin at the beginning, proceed to the middle, and finish up at the end, and at each point our sense of time and place has to be stable (Lansky, 1990, p.105).

In writing *Struction* I attempted to disrupt these classical sensibilities by including passages which deliberately go on for too long (for example, bars 303–357), the (staged) breakdown of the performance (from bar 36), elongated pauses where nothing happens (bars 596 and 602) and the lack of clarity during the initial minutes of the work as a rush of nascent ideas all compete for dominance. This passage was influenced by a second piece of Bernhard Lang's, *Differenz / Wiederholung 2* (1999), the opening of which throws the listener “into the 'midst of things' struggling immediately to find mooring onto anything that will give the completion of a predictable sentence of the sung voice... or the welcome relief of following a melodious passage to its completion” (Jagodzinski, 2000, p.5).

Thus, the extra-musical concepts behind *Struction* are performed. The piece requires no acting by the ensemble but nevertheless takes on a theatrical quality as a sense of drama is built around the musicians, who simply play on stage as they ordinarily would. The composer's voice acts as a Brechtian alienation-effect which turns the concert situation “from something ordinary, familiar, immediately accessible, into something peculiar, striking and unexpected” so that the incomprehensible “may then be made all the easier to comprehend” (Brecht, 1964, pp.143–144). This effect accentuates the gestural language of the work, granting the performance of the

musical material (for example, the multiple-stops described above) a theatrical quality, in addition to its sonic quality.

The presence of a composer's voice within a work has several precedents: Alvin Lucier (1970) telling us that "I am sitting in a room, different from the one you are in now". Hildegard Westerkamp's *Kits Beach Soundwalk* (1989) is an electroacoustic work in which the composer tells us of the audio manipulations she has used to create the track we are listening to. David Lang's *Are You Experienced?* (1988) starts with a spoken introduction, "Hello, I'm David Lang. I know you were looking forward to hearing this piece, but something terrible has just happened" before contributing further episodes of narration throughout the six movement work. In each of these cases, the inclusion of the composer's voice cannot help but foreground the role of the composer and alert the listener to the constructed nature of the situation.

Interestingly, the narration in *Are You Experienced?* is performed live and Lang's score calls for the speaker to "identify himself or herself as David Lang, even if he or she is not, in real life, David Lang" (Lang, 1988, n.p.). Likewise, it would be acceptable for someone other than myself to voice the role of Composer in *Struction* as the voice we hear throughout the work is of a fictional character (hence my referring to "the composer" in this appraisal, rather than using "me/I"). The decision to voice the part myself was contingent on the work's première at the Royal Conservatoire of Scotland: as the audience for this performance was likely to contain many of my colleagues and peers, I felt the presence of my own voice, rather than that of an actor, would authenticate the composer character.

Originally, the composer character was conceived as a vindictive, humourless and cantankerous maestro with a sharp tongue and weary disdain for his performers. However, these characteristics were untenable: not only would the composer's persona quickly become tiresome to an audience, but his bloody-mindedness would have prohibited the musical development of the work. In my experience, those with similar personality traits rarely admit to being wrong, but the form of *Struction* relies on the composer changing his mind and trying different ideas. Consequently, I created a second, slightly hesitant and questioning persona for my composer. This also allowed a sense of humour to seep into the score, hopefully indicating that my genuine concerns over notions of power and limited agency are channelled through a mocking send-up of the role of the self-indulgent composer: me. My self-importance is finally undermined in bars 609–610 as the late introduction of a second, questioning voice forces the composer to admit to an even higher authority: a commissioner armed with a deadline and time-limit.

The composition of *Struction* gave rise to several ideas that were further explored in later pieces written for this research. These themes include the importance of place and location (*Struction* is about the concert hall, for the concert hall), the practice of building theatre around performing musicians, and the relationship between technology and people. The telescoping of the composer's place in time (is he writing at his desk, in the rehearsal room or directing the performance?) was arguably my first (unconscious) use of *slippage*, the evading of a single interpretation or meaning, something explored in the next work, *My Life in Ventriloquism*.

2.2 – My Life in Ventriloquism

> No hay banda! *There is no band!* Il n'est pas de orquestra! *This is all a tape recording.* No hay banda! *And yet we hear a band. If we want to hear a clarinet, listen! ...It's all recorded... It is all a tape... It is an illusion.*
>
> —From the film *Mulholland Drive* (2001).

The image of the ventriloquist is central to many of the pieces presented in this research portfolio. A key theme of *Struction*, that composers who do not perform their own music are forced to speak through others and require instruments or singing voices to sound on their behalf, is essentially ventriloquial, a throwing of the authorial voice (a position based on the belief that music is contingent on its performance —the musical score is not by itself music). Ventriloquism has performed many social functions since antiquity (see Connor, 2000) but the form in which it is popularly known today, Vaudeville-style comedic entertainment, also provided many of the ideas found within the second piece to be completed for this research, *My Life in Ventriloquism,* particularly in regard to balancing my role of composer with the desire to grant agency to the audience.

Traditionally the relationship between composer and audience is based upon the simple model of meaning explored in *Struction* (see Lansky, 1990; Small, 1998): the composer is placed at the head of a chain of Chinese Whisperers, his original

utterances are finally handed-down to listeners via a cohort of performers who do their best to realize the composer's intentions with studious exactitude. This model implies that musical performance is a form of pedagogy: the audience remains passive at all times as it receives a prescribed meaning from the concert platform.

There are numerous superficial similarities between a concert and a ventriloquist's stage routine: both types of performance often take place in specially-designed or designated spaces which usually include a demarcated stage area with the audience looking on from one side. The performers display great technical skill, and the performance itself can be pre-scripted and rehearsed, and is played to an audience which generally remains passive throughout proceedings. One of the main differences between concert and ventriloquial presentations, the difference which I explored when writing *My Life in Ventriloquism*, is in the way in which ventriloquism creates meaning through performance.

Picture the scene: an English woman in her early thirties stands centre-stage in front of a large theatre audience. She is carrying a square wicker bag from which she coaxes a small brown monkey.

> “Do they know it's ventriloquism?” asks the monkey.
>
> “They do now,” replies the woman.
>
> “It's a dead art,” the primate retorts.

This is the British ventriloquist Nina Conti and her simian puppet, Monk. Despite being under one foot tall with a rubber face, Monk enthrals the audience with his caustic wit and cynicism. His low, rasping voice is a contrast to Conti's clear Received Pronunciation. His outbursts earn a concerned but affectionate gaze from Conti, who often laughs at the things said by her animal companion:

> “Where's my microphone?” asks Monk.
>
> “You don't have a microphone.”
>
> “Well, that's ruined the illusion.”

In this routine, from 2006[4], Conti plays with the two ways of perceiving a ventriloquial exchange. As outlined by philosopher David Goldblatt (2006), the ventriloquial exchange can be viewed either as Conti talking to the monkey, or as Conti talking to herself. Crucially, both modes remain identifiable during proceedings even when one is foregrounded over the other (such as when Monk comments on there being only one microphone). The act continuously slips between privileging one way of perceiving proceedings and the other: much of the routine's humour derives from the jolt we feel when the gear suddenly shifts and we remember that the monkey's words are in fact spoken by a ventriloquist.

Despite appearing like a right-on deconstruction of the art form, Conti's routine is only an exaggerated form of the traditional Vaudeville ventriloquist skit in which the

[4] This routine is taken from *Just for Laughs,* broadcast by CBS on 12th March 2006.

dummy, or “figure” as they're known, acknowledges its true, inanimate nature. Seemingly, comedic ventriloquy has always been incredulous towards its own believability. The American ventriloquist Edgar Bergen was often chastised by his acerbic dummy, Charlie McCarthy, in this way:

> “You don't know what you're saying,” says Bergen, the ventriloquist.
>
> “Yes I do, I can read your lips,” replies McCarthy, the dummy[5].

Bergen, like many comic ventriloquists, regularly undermined his own routine to force an interplay between the two ways of perceiving the act.

For Goldblatt, these dual modes of perception indicate the uniqueness of ventriloquism as entertainment. Unlike magic shows or special effects in films, ventriloquism is “illusion without deception” (2006, p.37): we may not be able to replicate the act ourselves but we at least understand how the effect is achieved. If we were truly deceived by a ventriloquist, if we believed that the fibreglass humanoid held by the entertainer was really alive and capable of independent thought and speech, the logic of the act, along with some of the humour, would be compromised.

Crucially, the ventriloquist act only comes alive in performance: if we were to examine the script of Conti's routine (the script being equivalent to our musical

[5] Variations on this joke were common throughout Bergen's career, including in the 1939 film *Letter of Introduction* and during his appearance on *The Muppet Show* in 1977.

score) without knowledge of the author's ventriloquial intentions, it would just read like two people having an amusing argument. It lacks the nuances encoded in the act's binary perception, the humour that arises when you realize the two personalities flow from one mind, their voices emanating from a single mouth.

These two modes of perception enable a complex, fluctuating relationship, or slippage, between the dramatic narrative and the meta-ventriloquial narrative that explores the logic of the act. Furthermore, because these two modes persist at all times, the final *meaning* of the routine is constructed entirely in the minds of the audience who are free to prioritize a reading of one mode above the other, or both simultaneously (Goldblatt, 2006). Like music in our tradition, this ventriloquist sketch uses a pre-scripted text but the meaning gleaned through performance is not limited to just that text. The ventriloquist's script is not ventriloquy in the same way that our musical score is not by itself music. By its very nature, the ventriloquist's act is essentially performative.

To translate, as it were, this model of meaning into musical performance, I conceived *My Life in Ventriloquism* with two distinct narratives: the musical narrative and a theatrical narrative that concerns the dislocation of sound and instrument. Ostensibly an eleven minute piece for solo clarinet[6], at times it seems that the performer is playing things that are simply impossible on their instrument. Despite appearing to be played normally, the sounds emitted by the clarinet are sometimes too high, too low, too numerous (polyphonic), or too fast to be believable. Following

[6] The piece was written in consultation with clarinettist Jenny Stephenson who gave the first performances.

Struction's commitment to deviate from the tradition of "reasoned discourse" (Lansky, 1990, p.105) in concert music, *My Life in Ventriloquism* deals in confusion and disbelief by provoking the audience into questioning the reality of what they are witnessing —the (prescribed) programme note does not suggest this work is anything more than a solo instrumental piece: "*My Life in Ventriloquism* is a virtuosic piece for solo clarinet in three continuous movements. It lasts about eleven minutes".

The disbelief and confusion experienced by the audience is provoked with a simple illusion[7]: the high/low/polyphonic and speed effects are all reproduced live simply by occasionally playing pre-recorded samples of (manipulated) real- and MIDI-clarinet music through a hidden speaker to which the performer mimes. The pre-recorded material was conceived in a way that allows the clarinettist to be quite free with their performance. Each recorded extract is cued individually at the correct time by a second, hidden musician who is operating a laptop. This dispenses with the need for a clicktrack, which would not only encumber the instrumentalist's musical performance but also wreck the illusion of a purely solo piece. Through repeat performances, I discovered that the miming effect works a lot better in larger performance spaces as their acoustics seem to smooth-out some of the audible differences between live and pre-recorded material.

[7] The final illusion may be simple, but the creative process by which I arrived at this piece was not. Although I knew from the off that I wanted to embrace the possibility of confusing an audience by separating what they heard from what they saw, the earliest ideas for this work involved a live string quartet and video projection. I even developed some musical material with a quartet before abandoning that expression of the concept and adopting the approach described here. Some of the string quartet / video ideas, but not the musical material, were later revived for *Espial*.

It was the theatrical narrative of the piece that was written first. On a timeline, I assigned when the audience would be exposed to the illusion and how striking the illusion would be at that point. I planned for times in which the audience may not notice the illusion (for example, bars 36–37), times when it was very obvious (bars 79–85) and times when it was difficult to tell. Thus, the musical and theatrical elements made demands of, and imposed conditions upon, each other during the composition process but both were granted equal status. For example, the end of the first movement (bars 79–85) was designated as the moment at which it should become clear, without doubt, that there is more to this performance than meets the eye. Consequently, I created musical material for this section that would simply highlight the impossible nature of the performance by using notes which are far too low for a standard clarinet to play. However, as with all the pre-recorded sections, this material needed to integrate neatly into the overall musical flow of the work.

The secrecy surrounding the presence of the pre-recorded material leaves the audience to discover the theatrical narrative by themselves. In keeping with my desire to grant agency to the audience, rather than have them receive a handed-down pre-determined meaning, there is no obvious indication as to where the first "throwing of the musical voice" takes place or as to how much of the performance is "real" and how much "fake". After many performances of this piece I have been approached by audience members inquiring as to exactly that: how much was real? Was it all mimed? Was the performer really playing those stratosphonic notes? By creating a musical performance which is capable of multiple modes of perception, I hoped to invite the audience-spectators to partake in the construction of the

meaning of the work.

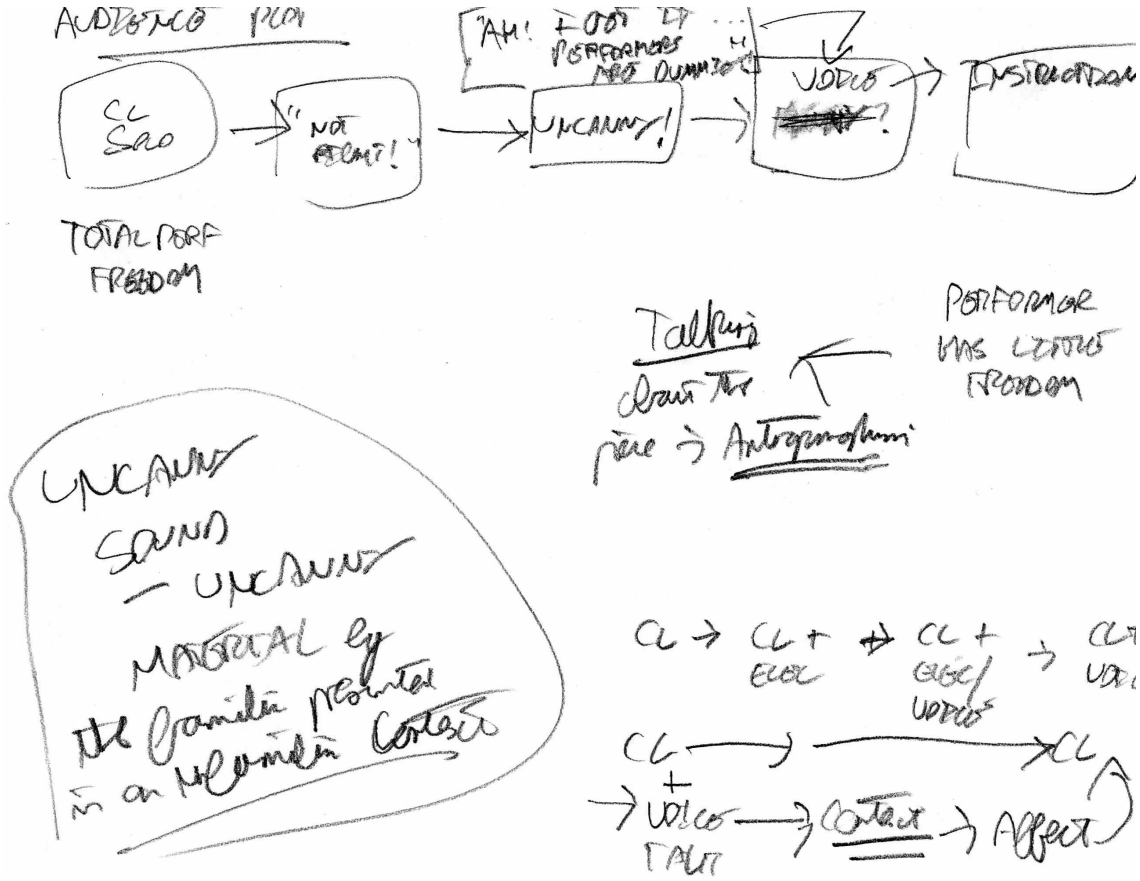


Figure 3: The original, scribbled plan for the theatrical narrative of My Life in Ventriloquism. *The references to "Talking about the piece" and "Performer has little freedom" etc. were hangovers from* Struction *and would be excised from the new work during the composition process.*

However, there is one important way in which I have deviated from the pure ventriloquial model: when attending a ventriloquist show, you are complicit with the act by already understanding the technique that propels the one-performer double act[8] (Goldblatt, 2006). By contrast, I chose not to create a similar context of collusion for *My Life in Ventriloquism,* something which could have been achieved easily with a

[8] At the very least, the etymology of *ventriloquism* would suggest how the act works: the word derives from the Latin for *to speak from the stomach*, i.e. *venter* (belly) and *loqui* (speak).

simple programme note that disclosed the use of pre-recorded sounds (although the title offers a clue as to what is to come). A sense of mischief, in conjunction with the adoption/adaptation of the ventriloquist's model of meaning, encouraged me to utilize far more interesting (to me) qualities: confusion and disbelief. *My Life in Ventriloquism* was composed for the specific context of the concert hall—the social context and the acoustic context—and uses an unexpected theatrical narrative to disrupt the appreciation of the well-behaved musical narrative. This in turn forces a non-traditional relationship between audience and performance. From the final bars of the first movement (the point at which the true deception of the audience ends as the illusion is clearly revealed to those who hadn't already worked it out) the connection between performance and audience is more akin to that found at a ventriloquist's show.

It is thus from the second movement onwards that the slippage between the two layers of the piece, the "pure" musical content and the metapraxical element of the mimed illusion, comes alive. The performative element here is specific to a live concert hall performance due to both the expectations of the audience and the visual cues provided by the (miming) clarinettist on stage. Although it is certainly possible to capture the drama inherent in the relationship between live sound production and a manipulated recording of that sound without recourse to visuals (for example, Joseph Anderson's *Mpingo* (2003), a fixed media work which, coincidentally, is also based on real and processed clarinet sounds (see: Bithell 2004)), in *My Life in Ventriloquism* the clarinet acts as a "trap for the gaze" (Goldblatt 2006, p.37), the point at which the disjunction between what the audience sees and

what it hears takes place, a separation of appearance and reality.

In this way, *My Life in Ventriloquism* continues in the vein of *Struction* in its use of fictitious elements. Although my use of computer-generated sound to augment a human performance has been interpreted by others as a comment on recent developments in embodied technology and the relationship between man and machine (Molleson, 2014), these ideas were never part of my concept for *My Life in Ventriloquism*. However, after completing the piece in 2012, I did begin to consider the use of ventriloquism as a metaphor for the way we use various information technologies to communicate, express and present ourselves. I also contemplated the relationship between the real, the unreal, and the uncanny (a word which is scrawled upon my plan for *My Live in Ventriloquism,* above). Coupled with concerns over power hierarchies, as explored in *Struction*, these ideas formed the basis of two further works written for this research: *Replaceable Parts for the Irreplaceable You* and *Espial*. The concept of slippage was also later explored in the final work to be written for this portfolio, *Elbow Room*.

3.1 – Replaceable Parts for the Irreplaceable You

I like to think

(it has to be!)

of a cybernetic ecology

where we are free of our labors [*sic.*]

and joined back to nature,

returned to our mammal

brothers and sisters,

and all watched over

by machines of loving grace.

—Richard Brautigan (1967)

After the compositional activity that saw the creation of the first two pieces of this portfolio, a period of reflection on my practice made me disillusioned with the premise of *Struction*. Although the conception of the concert hall, and the interpersonal relationships therein, explored in that piece lent themselves to inspiring a unity of concept-appropriate musical/gestural material (including the quadruple stops, etc., discussed in the previous chapter), I felt the overall work lacked nuance and was somewhat disingenuous. Paul Lanksy describes his own interpretation of the classical paradigm, on which *Struction* was based, as "exaggerated" (1990, p.105) and the constantly-reinforced image of the all-powerful composer toying with subjugated musicians created a dogmatic work incapable of

exploring the subtleties of human relationships. I felt that *Struction* was too often a demonstration of power rather than a discussion of power and that its presentation of social dynamics was a caricature that did not reflect my real life experiences as a composer (I enjoy close working relationships with numerous performers and ensembles). Whilst caricature can be a useful tool, particularly for satire, this period of reflection compelled me to be more sincere in my writing and to facilitate a greater degree of nuance in the concepts that drive the composition process.

As mentioned in the previous chapter, reflection on *My Life in Ventriloquism* and particularly on its use of computer technology to transform the "voice" of the clarinet, led me to consider how our relationship with new technologies is essentially ventriloquial. We regularly "throw our voices" (literally and metaphorically) through communication technologies, for example. As more and more of our social interactions and presentations of self are mediated by computer technologies, in addition to the proliferation of wearable technologies and medical devices (including prosthetics, pacemakers and dental fillings) that interact with or are housed within the human body, we see a convergence of man and machine which calls to mind the cyborg (cybernetic organism), a human/machine hybrid. Like a ventriloquist's dummy which, as part of the ventriloquist's routine, verbally and animatedly reminds us of its true, mute and inanimate nature, the cyborg appears somewhat uncanny[9]—neither completely human not completely mechanical, it is an ideal site to explore the tension between humanity and its technology.

[9] Freud describes humanesque automaton as "uncanny" (literally "unhomely" - *unheimlich*) as early as 1919 and in 1970 Masahiro Mori coined the term "the uncanny valley" to describe how "[u]p to a point, we respond positively to robots with a human appearance and motion... but when they get too close to lifelike without obtaining it, what was endearing becomes repellent, fast" (Carroll, 2011, p.76).

Auner (2003) has argued that some recent Western popular music exhibits cyborgian tendencies which are "linked to broader cultural changes associated with the digital technologies that are transforming our sense of reality, subjectivity and the human" (p.101). He cites the work of Radiohead (particularly the albums *OK Computer* (1997) and *Kid A* (2000)) and Moby (*Play*, 1999) as a context which "foregrounds the merging of human and mechanical" (Auner, 2003, p.118) through the use of cut-and-paste repetition, digitally-processed human voices and computer-generated voices. I would argue that in more recent popular music the digitally retuned voice, which was considered a notable special effect when employed on Cher's *Believe* in 1998, has become so commonplace that the distinction between the natural human voice and its computer-generated/augmented counterpart has become blurred to the point of disintegration: a truly cyborg music.

Although the use of "autotune" is, at present, unusual in my own musical sphere[10], it is common to see laptops and hear computer manipulation of live sound at concert performances. My own practice requires the use of technologies at each stage of the composition process, from the exploration of harmony at the piano (an eighteenth- and nineteenth-century technology in design and temperament, see Duffin, 2007) to the creation of score, parts and soundtracks on a computer (one could also include in this list the arranging of rehearsals and performances via email). In the next piece to be written for this research portfolio I wanted to explore both the positive and negative impacts of technology through musical performance, incorporating the tension between my own technophilia and technophobia, a duality founded on an

[10] A notable exception being Yannis Kyriakides' *The World Feels Pressure* (2012) for bass clarinet and three voices augmented with commercial pitch-correction software.

excitement for the possibilities afforded to us by new technology and a wariness of its (often unintended) social consequences, as explored by Postman (1993), Lanier (2010) and Zuboff (1988)[11].

My first attempts at creating a work about our relationship with new technology were sketches for an uncompleted piece provisionally titled *Gross Luddite Concerto*. Named for the Luddites, the nineteenth century English industrial saboteurs who opposed labour-saving technologies, the piece was to explore the impact of new industrial developments through the microcosm of the invention of the "talkies" and the cessation of live music in cinemas. The piece was to incorporate quotations from photoplay music (published albums of stock piano accompaniments for silent movies), in particular Zamecnik 1913a, 1913b and 1914. However, I was unable to satisfactorily integrate these quotations into my original material and the project was abandoned in favour of *Replaceable Parts for the Irreplaceable You.*

Replaceable Parts for the Irreplaceable You itself has had two incarnations. It was originally written as a work for a conducted ensemble with mezzo-soprano soloist

[11] Lanier cites the invention of MIDI as a particularly relevant example of how technological development creates unintended consequences: because MIDI was designed to represent the workings of a keyboard...

> "it could not describe the curvy, transient expressions a singer or a saxophone player can produce. It could only describe the mosaic world of the keyboardist, not the watercolor [*sic*] world of the violin. But there was no reason for MIDI to be concerned with the whole of musical expression, since Dave [Smith, inventor of MIDI] only wanted to connect some synthesizers together (2010, p.7)."

Lanier notes that the universal adoption of MIDI protocol to represent music in software changed the perception of a musical note from something that "transcended absolute definition" to something that possessed a "rigid, mandatory structure" (*ibid.*, p.9): "The process of lock-in is like a wave gradually washing over the rulebook of life, culling the ambiguities of flexible thoughts as more and more of thought structures are solidified into permanent reality" (*ibid.*, p. 9).

and pre-recorded soundtrack, and was performed by Red Note Ensemble with MusicLab, conducted by Jessica Cottis, in May 2012. Although happy with the musical material, I felt this first version of the work suffered from not including many performative elements: its five movements about our multi-faceted relationships with loosely-defined "technology" felt more like reportage than a performance of these relationships. Consequently, I re-wrote the work for Ensemble Thing (an ensemble of violin, clarinet/bass clarinet, accordion and cello) who performed this new version in 2014. It is this second version of the work, which also includes a pre-recorded soundtrack and projected still images, which is presented in this research portfolio.

This second version of *Replaceable Parts* has only four movements: *Circuit Breakers*, a short introductory movement which sees instrumentalists attempting to blend with computer-generated tones; *Karaoke Cello Sonata*, essentially a work for solo cello with an extremely dense computer-realized "piano" accompaniment which suffers a mid-movement breakdown; *Comparability Issues*, a piece exploring the frustrations of interfacing with machines; and *Instructions for Curing the Human Heart*, a setting of a text cut from a medical manual on installing Medtronic brand pacemakers (Medtronic Inc., 2010). This second iteration of the work uses the following to perform our relationship with new technologies:

- The conductor of the first version was replaced by a click-track, which was left to "bleed" from the performers' headsets. Audible to the audience during quieter passages, it served to illustrate the mechanical heartbeat guiding the

performance.

- Like the music cited by Auner, the piece uses both computer-generated and digitally-altered voices. Whilst the original version of *Replaceable Parts* featured a mezzo-soprano soloist, the second version uses a pre-recorded solo vocal part (voiced by soprano Claire Thompson) which has been savagely autotuned and rendered somewhat uncanny.

- The reduction of the quantity of instruments on stage, without a corresponding reduction in musical parts, necessitated an increased number of virtual instruments on the pre-recorded soundtrack. Ranging from a MIDI electric guitar sound to virtual full orchestra[12], their inclusion greatly expands the sonic possibilities of the ensemble but also raises the (Luddite) issue of redundancy through technological progress, particularly in the final movement.

- Whereas the final, fifth, movement of the first version included an original setting of a Luddite song text (drawn from Binfield, 2004), for the revised version I used an extended *Instructions for Curing the Human Heart* (originally the third of five movements) to conclude the piece. The rewritten movement closes with a passage in which the musicians on stage have been fully replaced by the computer-generated pre-recorded soundtrack—a Luddite variant of the gestural antics found in the final movement of Haydn's Symphony No.45 (“Farewell”, 1772).

[12] Additional programming to create the virtual orchestral sound was undertaken by Matthew Whiteside.

Aside from the adoption of a wider subject area, *Replaceable Parts for the Irreplaceable You* also saw the use of pastiche—specifically the near-quotation of *Take On Me* in *Compatibility Issues*– glitch and visual imagery in my practice for the first time. Each of these elements would be further developed in later work for this thesis and contribute significantly to both *Espial* and *Elbow Room*.

Described by Cascone as a "post-digital" aesthetic that privileges the sounds of technological failure (including the use by composers of "bugs, application errors, system crashes, clipping, aliasing, distortion, quantization noise, and even the noise floor of computer sound cards" (Cascone, 2000, p.13) as musical material), the use of glitch "remind[s] us that our control of technology is an illusion, and revealing digital tools to be only as perfect, precise, and efficient as the humans who build them" (*ibid.*). Aside from possessing interesting and arresting sonic qualities in its own right, glitch is used in *Replaceable Parts* to both imitate a full-scale system breakdown in *Karaoke Cello Sonata* and create a larger distinction between live and electronic sounds. Two principal techniques were used to create these glitch sounds: the comprehensive scratching of compact discs[13] to create a stuttered playback effect (as used by Yasunao Tone on *Solo for Wounded CD* (1997)) and bit crushing, where the resoultion of recorded audio is reduced in order to create low-fidelity sounds.

With its references to glitch, digital sound reproduction and medical technologies, and its use of pastiche, *Replaceable Parts* is saturated with sonic signifiers indicative

[13] "Clean" version of the piece's electronic soundtracks were burnt to CD before being scratched.

of the ways technology has become fundamentally embedded in human life. It should be noted, however, that despite the centrality of these subjects to the research process that created *Reaplaceble Parts*, these signifiers appear in the piece in order to create a tapestry of references which carry the conceptual basis of the work: it was never the intention for *Replaceable Parts*, a single work, to offer detailed examination of each of these sonic references.

Replaceable Parts also features visual references to these subjects, particularly glitch, as its projected still images were subjected to distortions by deliberately corrupting the Joint Photographic Experts Group (.JPEG) files in which they were encoded. The high-key pictures, which depict clinical computer-generated and -altered figurative objects, imply the clinical application of new technologies and the possibility of the “posthuman”, defined by Bostrom as a person whose capacity “greatly exceed[s] the maximum attainable by any current human being without recourse to new technological means” in terms of healthspan, cognition and emotion (Bostrom, 2008, pp.1-2).

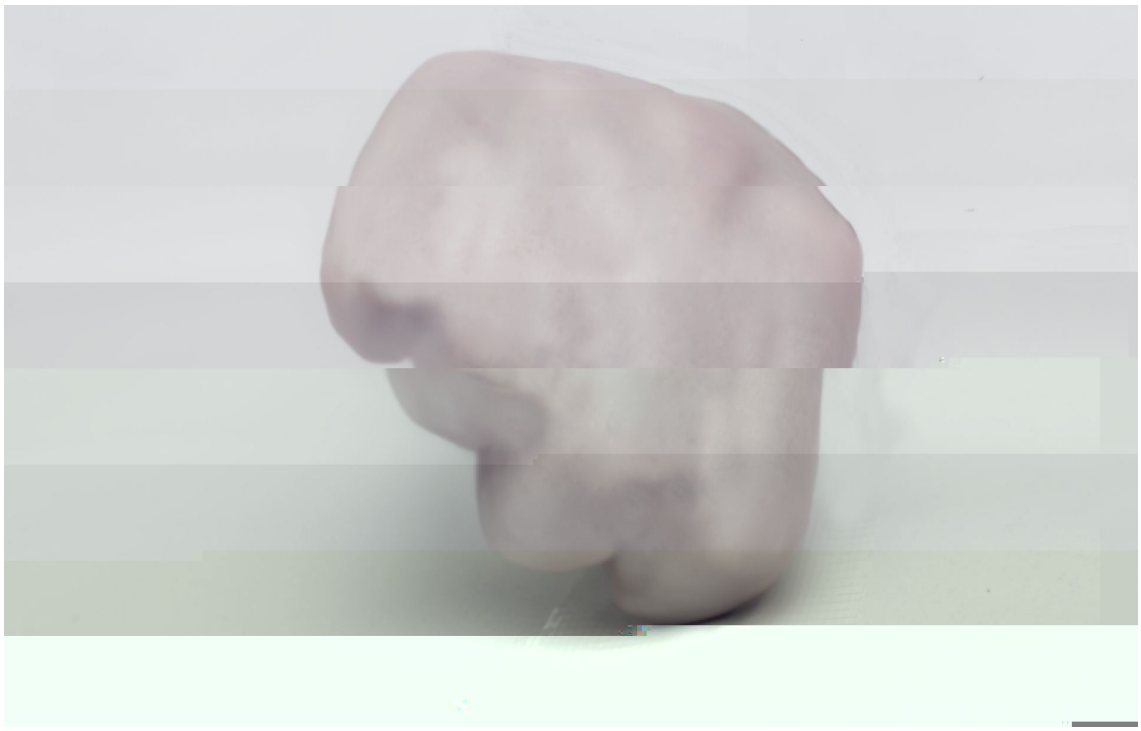


Figure 4: A still image from the second movement of Replaceable Parts for the Irreplaceable You.

The images were thus pictorial representations of replaceable body parts whilst the musicians on stage could be considered parts of a musical machine, easily interchangeable with the audio output of a computer.

3.2 – Espial

My second piece about techno-anxiety, *Espial*, took a decidedly narrower subject matter: the timely, contemporary issue of the widespread use of surveillance (through closed-circuit television and other means) and the implicit consequential threat to privacy. As mentioned in Chapter 2.2, I began working on ideas for what

would become *Espial* as early as 2010 and during the four years the project took to complete, new ideas and concerns about surveillance and privacy entered popular consciousness, particularly after Edward Snowdon's revelation in 2013 of mass governmental surveillance schemes. The development of *Espial* was influenced by both contemporary debate around privacy and the writing of Jeremy Bentham.

Unlike in *Replaceable Parts*, I had originally wanted to tackle this subject matter through a single focus, the pejorative, metaphorical use of Jeremy Bentham's Panopticon. Described by Bentham as a “new mode of obtaining power of mind over mind” (1843, p.39), the Panopticon is a circular prison where every inmate remains at all times visible to a single, unseen watchman. Although a prison has never been built to Bentham's exact specifications, the design of the Panopticon prefigures many of the traits of today's technology-enhanced surveillance, particularly CCTV. As described by Foucault:

> The panoptic mechanism arranges spacial unities that make it possible to see constantly and to recognize immediately. In short, it reverses the principle of the dungeon; or rather of its three functions —to enclose, to deprive of light and to hide —it preserves only the first and eliminates the other two. Full lighting and the eye of a supervisor capture better than darkness, which ultimately protected. Visibility is a trap (Foucault, 1975, p.200).

Consequently, “the Panopticon must not be understood as a dream building: it is the

diagram of a mechanism of power reduced to its ideal form" (*ibid.*, p.205) as inmates, workers, school pupils or whoever is being watched must self-regulate their behaviour to bring it in line with institutional mores. Never knowing exactly when they are being observed directly, the surveyed must enact appropriate behaviour at all times, thus power is rendered invisible.

Technology-assisted panopticism has been explored in film (particularly *My Little Eye* (2002), *Red Road* (2006) and *The Lives of Others* (2006)[14]) and literature (particularly Orwell's *Nineteen Eighty-Four* (1949) which has afforded anti-surveillance campaigners a vocabulary of terms that have become shorthand for expressing ill-ease with this technology). Each of these examples trace the changing relationship between the watcher and the watched, and explore the murky, ill-defined boundaries between surveillance and voyeurism. Although closely linked to surveillance in these example works, the concept of voyeurism became less important to the creation of *Espial* due to emerging information about contemporary, widespread surveillance techniques.

Bentham's watchman —like CCTV — is only powerful because his subjects know they could fall under his gaze at any time. In 2013, the revelation by Edward Snowden of secret mass governmental surveillance schemes subtly altered my concept of surveillance from something that is achieved by observation —looking —to something that operates through a different kind of observation: the examination and interpretation of data and metadata trails, the digital footprints left by

[14] Technically, *The Lives of Others* does not deal with true pan*optic*ism as the plot involves surveillance through auditory means. However, it falls within the general spirit of panopticon-as-metaphor.

individuals at their every interaction with the World Wide Web, mobile communication devices and digital technologies. The role of the watchman is not totally eliminated from contemporary surveillance —British Government Communications Headquarters (GCHQ) can indeed watch your apparently private Internet video call (see Davies, 2013) —but everyday mass surveillance is now primarily driven by longitudinal data acquisition and storage, and information is collected to benefit both security agencies and commerce. Particularly in the commercial sector, the collection of data about individuals (their web browsing history, location and search engine queries, for example) is facilitated by an artificial, algorithmic eye, and not a watchman with natural human curiosity and potentially voyeuristic tendencies. In May 2011, responding to widespread concerns about the amount of personal information automatically collected by commercial websites, the UK government passed The Privacy and Electronic Communications (EC Directive) (Amendment) Regulations (the so-called “Cookie Law”) which requires websites to obtain consent from users before storing or accessing tracking files (cookies) on users' computers (Information Commissioner's Office, 2012). The apparatus of the contemporary panopticon is this computer technology that mediates an increasing number of our social interactions and business transactions. It operates through continuous, automatic data collection: knowledge, and therefore power, is secured through the interpretation of this data rather than personal observation in the manner described by Bentham.

In *Espial* therefore, rather than focussing on the relationship between the surveyor and the surveyed as in Bentham's panopticon, I wanted to explore a musical

interpretation of how we unwittingly feed the contemporary panopticon by leaving revealing data trails whilst going about our daily lives. The musical data in *Espial* is captured by CCTV recording, a method which is not only able to provide sonic material suitable for creating a musical work, but also utilizes a visual language thematically linked to popular depictions of surveillance and threats to privacy, thus focussing the conceptual basis of the work. In *Espial*, musical data is played by members of a string quartet, captured by CCTV, and then edited to make the final composition. Although neither seen nor heard by the viewer, the presence of a composer figure is implied throughout the work as we see them fast-forward, rewind and cut the video footage, searching for musical material. In keeping with the panoptic data-collection techniques employed by commercial entities, the composer is only interested in useful data —that is, musical material which is serviceable in achieving a set end-goal: the completion of a musical composition. Consequently, we never hear members of the quartet play out of tune, for example, as this would be unserviceable in the context of creating a musical work. Although imbued with human agency rather than machine programming, the unseen composer is apparently far more interested in writing a string quartet than observing a string quartet.

The new CCTV footage shot for *Espial* was captured over two days in 2014 by myself alongside Laurie Irvine and Daniel Gil Fresneda from Edinburgh-based film production company Dotbot. We rigged several practice rooms at the Royal Conservatoire of Scotland with small cameras and sound recording equipment, and members of the Astrid String Quartet were filmed therein. In order to recreate the

visual tropes widely found in film and television depictions of real and fictional CCTV images we used cameras with a familiar, wide field of view and heavily desaturated the picture in post-production. Having shot in a widescreen format, we also cropped the image to a common 4:3 aspect ratio. The superimposed, black information bars which display date, time and camera identification were based upon the RCS's real CCTV system. A plan to depict a bank of (computer-generated) CCTV monitors (see Figure 5 below), on which we would see the video feed from the practice rooms, was ultimately deemed unnecessary and abandoned. However, we instead added several digital glitch effects to the video which, in addition to suggesting a surveillance system beginning to malfunction (revisiting an idea first used in *Replaceable Parts*), complimented an increasingly granular editing of the sound recordings captured in the practice rooms.

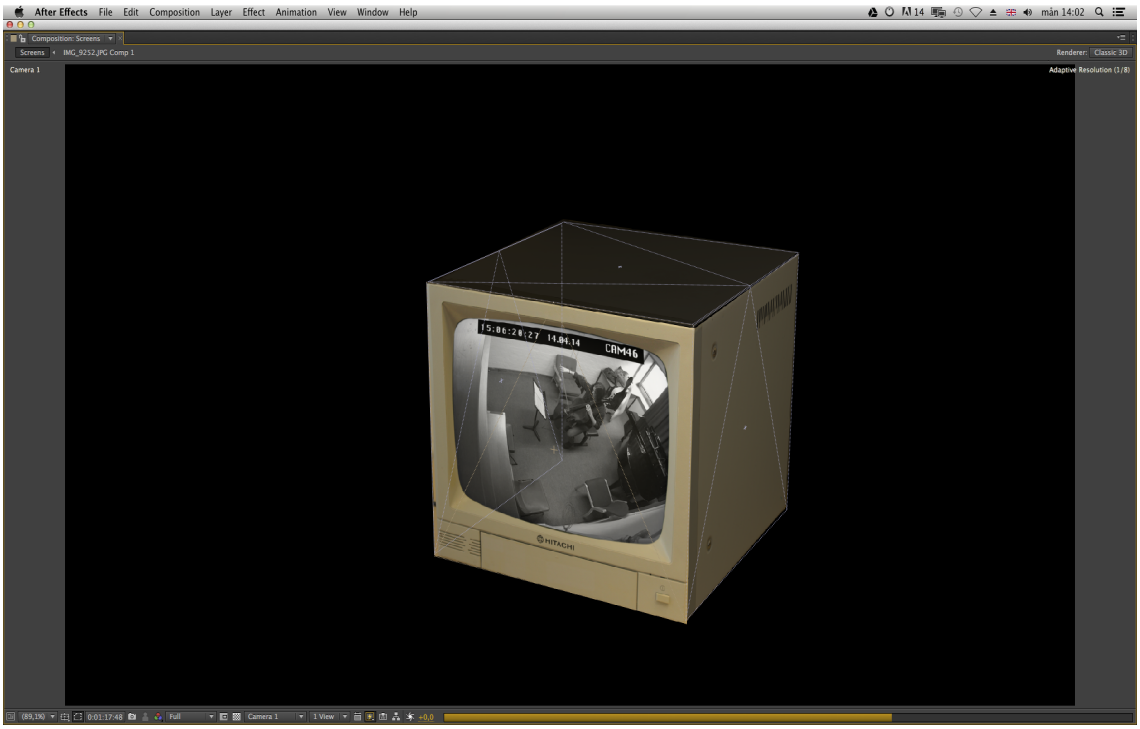


Figure 5: the unused, 3D modelled CCTV monitor for Espial. *This model was created by photographing a real, second-hand, analogue Hitachi monitor which was then reconstructed by Dotbot within Adobe After Effects software. Here the 3D model is shown incomplete and unlit.*

Although members of the quartet knew they were being filmed, they had no control over how their data —their sound —would be used in the final edit of *Espial*. On filming days the musicians were given very little direction and, for at least forty minutes each, were simply left alone to practise music provided by me, some of which they had been sent in advance[15], some of which was genuine sight-reading. This process generated a curious, hard-to-define mode of performance which, when

[15] Although not wholly in keeping with ill-preparedness required by the concept behind the piece, the main reason for sending some music in advance was to engender trust between the quartet and myself. After *Espial* was completed a member of the quartet admitted to me that she had been quite apprehensive about the project and that she had worried about the potential damage to the quartet's professional reputation if recordings of them playing “badly” (even whilst practising) were ever made public. Whilst I am indebted to these musicians for trusting me throughout the creation of *Espial*, I also recognise that the piece is reliant upon the power dynamics explored in *Struction*.

viewed on video, seems inherently theatrical, particularly as the quartet engage in numerous activities usually extrinsic to concert performances (including physical warm-ups, eating, drinking and procrastination tactics) which are often fast-forwarded by the implied composer character as he searches for usable musical material. Like in *Struction*, the theatrics of the piece are generated by highlighting the normal, ingrained and often unexamined behaviours of the musician. However, *Espial* extends this notion of performance by straddling two ends of a performance spectrum: the framing of performances in the concert hall at one end and the framing of performances in everyday life at the other.

The capturing of everyday performances — the practice routines — was facilitated by *Espial*'s composition process. The three pieces examined so far in this commentary have all relied upon pre-conceived, constructed and rehearsed fictional devices and/or scenarios: *Struction* has its semi-fictitious composer character and the impression of live composition, *My Life in Ventriloquism* contains rehearsed miming and *Replaceable Parts For the Irreplaceable You* features a staged technical breakdown. Whilst *Espial* also contains many fanciful elements, and I consider it a semi-fictional work, its basic premise — the capturing of surveillance footage which was then arranged to make a musical work — was genuinely played-out in real life as part of the work's creation, thus form and subject matter were closely aligned. There were neither rehearsals nor retakes during filming, for example, and no complete score of *Espial* was ever compiled. Instead, for the first and last movements, fragments of an incomplete score were given to the string quartet and then recomposed in post-production. The music for the second movement was also

constructed during editing from slivers of sight-read material, some of which was written overnight between shooting days as, having heard how the musicians tackled the sight-reading exercises on the first day, ideas for how the movement could eventually sound began to take shape in my mind. The third movement was "found" in offcuts of footage and assembled after filming had been completed in a mode of composition more akin to that often found in the electroacoustic studio. Although the complexity of this multi-camera project made editing the piece arduous, the composition of *Espial* was an enjoyably spontaneous, reactive and flexible process whilst remaining in keeping with the work's subject matter.

At the other end of the performance spectrum, *Espial* also refers to concert hall performance. It was created to be shown as part of a live programme of string quartet music, the video standing in lieu of a performance by the Astrid String Quartet. Despite containing no live content, the piece is steeped in the tradition of the concert hall as the videoed practice rooms (a private musical domain) become a proxy for the concert hall (a public musical domain) through the panoptical transformation of the CCTV cameras. The string quartet, a quintessential form of chamber ensemble, enters this space before giving their performance and then leaving at the end of it. Italian tempo markings (*Moderato*, *Ritmico e ripetitivo*, *Largo sostenuto*, *Finale: Vivace con brio– largo*) — a tongue-in-cheek reference to classical convention — are announced between movements on intertitles in a perfunctory typeface, mimicking a concert programme. Following Small and Griffiths (as discussed in Chapter 1), the video presentation of the piece also emphasises the role of *looking* in a concert situation and its contribution to the creation of meaning

through musical performance.

4.1 – Nightmusic

> *The people of every generation perceive the state of the ecosystem they encountered in their childhood as normal… But they often appear to be unaware that what they considered normal when they were children was in fact a state of extreme depletion.*
>
> — George Monbiot (2013, p.69)

The works discussed in this exegesis so far have in different ways each utilized a performative physical language to create metapraxis in musical performances. Although the reasons behind using this language were derived from non-musical concepts (including authority, illusion, Luddism, etc.), because these metapraxical performance gestures must by definition refer to concert hall praxis, the four works discussed so far are implicitly concerned with the locus of their performance: the concert hall itself or its proxy. I was keen to broaden this notion of place beyond the confines of the performance space: *Nightmusic* (2012) and *Elbow Room* (2014) both take as their subject specific locations and their psychogeographic qualities. Defined by Guy Debord as "the study of the precise laws and specific effects of the geographical environment, whether consciously organized or not, on the emotions and behavior [*sic*] of individuals" (1955, n.p.), the concept of psychogeography was a central tenet in the literature of the Situationist International who characterized modern capitalist society as "an organization of spectacles: a frozen moment in history in which it is impossible to experience real life or actively participate in the

construction of the lived world" (Plant, 1992, p.1), to whom Debord was co-founder and de facto leader[16]. Although the writings of the S.I. contributed to the conceptual basis of *Elbow Room* in ways which will be outlined below, my first psychogeographic work, *Nightmusic*, was developed without recourse to such theories.

Nightmusic was originally conceived as a response to RCS Head of Composition Gordon McPherson's request of the student body to write a series of short pieces for the 2012 Plug Festival of new music that somehow responded to a work premièred at the festival in a previous year. These new works were to be conceived as postludes to the previously performed pieces although their first performances would not be programmed with the music that inspired them. My postlude was based upon Oliver Searle's *Nightfishing* (2010), and consequently originally titled *Postlude to Nightfishing*. Scored for solo violin, it was performed at Plug by Darragh Morgan and later revised (and renamed) before being recorded in a definitive version by Kay Stephen in 2014. Musically, the work is characterized by extensive use of natural harmonics, including double-stops where one note is fully pressed and the other played as a harmonic, which owes something to the murky, microtonal soundworld of the opening to Searle's piece. However, whilst the opening of *Nightfishing* is based on microtonal inflections of a single pitch (a C), the opening gesture of my piece is based around a single chord derived mainly from the open strings and natural harmonics of the violin.

Moreover, the structural premise of *Nightfishing*—sustained, repetitive material

[16] For some of the criticisms levelled at the SI see Bookchin (1993) and Kaplan (2012).

which slowly builds over many minutes and then transforms—is reproduced several times in miniature throughout the 10 minute duration of *Nightmusic*. Also, like Searle's *Nightfishing*, *Nightmusic* is prone to occasional violent outbursts, comprising running tuplets and daggered triple-stops. Written immediately after *My Life in Ventriloquism*, where I focussed on interweaving two distinct elements (the musical narrative and the theatrical narrative), *Nightmusic* is based on the gradual intertwining and untangling of two musical ideas: the use of natural harmonics and material derived from an arpeggiated opening figure.

Despite its title, which is latently pictorial and evocative of many a potential narrative, the programme note that accompanies *Nightfishing* is, according to its composer, "deliberately ambiguous and open for interpretation" (Searle, 2015):

> *Trawling through night.*
> *Awake.*
> *Sitting and waiting.* (Searle, 2010)

These seven words could be interpreted in numerous ways. Taking the theme of *night* and the assumption that Searle's piece was something quite personal, I modelled *Nightmusic* on an enduring memory of a night shared with a few close friends on the banks of Loch Ossian in the Scottish Highlands: a clear night and a still loch saw an uncountable number of stars reflected in the water, the darkness creating pure symmetry between Earth and sky. Earlier in the evening, just after dusk and before the clouds had dispersed to reveal the night's sky, I took the

following photograph which served as an aide-memoir during the composition of *Nightmusic*:

Figure 6: Looking south-west over Loch Ossian just after dusk. Photograph by the author.

Nightmusic is therefore a personal piece as well as being connected to a particular geographic space. The title also aligns the work with an existing repertoire of night-inspired pieces, including the nocturnes of Alkan and Field, the *Nachtstücke* (op.23, 1839) of Schumann, the night music of Bartók, and the *Night Music I* (1963) and *Four Nocturnes* (*Night Music II)* (1964) of George Crumb, amongst others[17]. Musically *Nightmusic* also owes something to my personal history as a musician. Before I

[17] Encompassing a wide variety of styles and musical material, and written by a great number of composers across several centuries, night music is difficult to define satisfactorily. However, the stillness of night, its psychological effects, and/or darkness as metaphor are all common themes in this type of music. It should therefore be differentiated from music that was simply intended to be performed after dusk, for example Mozart's Serenade No.13 in G major, *Eine kleine Nachtmusik* (k.525, 1787).

began composing I was a cellist and the string-crossings that make-up the opening gesture in the Prelude to J.S. Bach's first unaccompanied suite for solo cello (BWV 1007, c.1717) directly inspired the opening gesture of my piece.

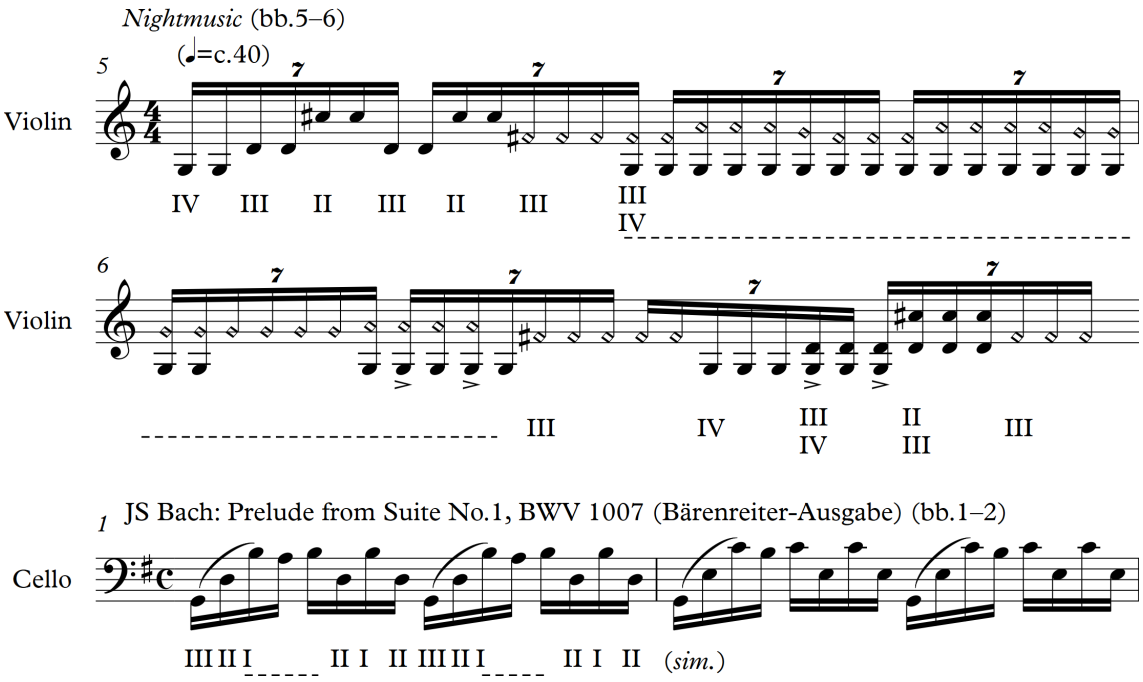


Figure 7: Bars 5–6 of Nightmusic *and the opening bars of Bach's Prelude to BWV 1007. In both works the bow begins on the G string (string III on the cello, IV on the violin) before alternating between the D and A strings. String markings have been added by the author and represent the most common way of performing the Bach.*

However, it is perhaps ironic that I used a specific landscape during the composition of *Nightmusic* as the *placeness* of the piece does not, I believe, come across in the finished work. Although I was pleased with the piece overall, my unhappiness with the geographic connotations of *Nightmusic* saw me expunge references to Loch Ossian and the personal narrative from the programme note and promotional

material. Not simply a pre-emptive defence against potential accusations of sentimental pastoralism (a Highland cow looking over a gate, perhaps?[18]), or embarrassment at conforming to the clichéd, Romantic notion of the loner artist conversing with the sublime (one thinks of Wordsworth's daffodils), my reasons for not acknowledging the psychogeographic element of the piece was a tacit admission of the limitations of a solo instrumental work for conveying the complexities of place. There is a difference between a piece being *inspired by x* and being *about x*, and *Nightmusic* conformed only to the former when, as mentioned in Chapter 1, I would prefer my work to exemplify the latter. Ultimately, the canvas for *Nightmusic* was far too small for what I wanted to achieve but the pictorial nature of the piece was also problematic.

To take a snapshot (either photographic or musical) of an environment is to cast it as something to be observed — consumed — and easily re-represented as a pithy touristic postcard. These holiday pictures privilege the relationship between the eye of the beholder and the landscape's form, remaining ignorant of the indigenous eco-system, native social structures and local politics which all help to shape the very landscape being observed. I say this not to diminish the sense of awe that one may feel when visiting a place such as Loch Ossian, but, like Christopher Small's assessment of the concert hall as a "much richer and more complex affair than is allowed by those who concentrate their attention exclusively on the musical work and on its effects on an individual listener" (1998, p.8), landscapes and cityscapes are

[18] "You know I've only got one thing to say against this composer's music: it is all just a little too much like a cow looking over a gate. None the less he is a very great composer" was Peter Warlock's assessment of Vaughan-Williams' Pastoral Symphony (Grey, 1934, in Smith, 1994, p.115).

relational spaces far more complex and fascinating (to me) than a spectacular panorama. If I was to create a work *about* a place, rather than *inspired* by a place, I felt it necessary to go beyond personal reactions to the beauty (or otherwise) of a place, examine these relationships more closely and somehow account for them in my work.

For example, Loch Ossian is no wilderness. The landscape may have be forged by ancient forces of nature but now, as part of the Carrour estate, the loch and its environs are a managed site. A second glance at the abundant Scots Pine and Sitka Spruce reveals the presence of human enterprise, a testament to the work of John Stirling-Maxwell, one-time Chairman of the Forestry Commission and previous owner of the estate. Far from being the simple and unblemished Arcadia which we revere in postcard form, the ownership structure of the estate has recently "effectively vanished into thin air in an entirely legal transaction that avoids UK tax liabilities" (Crichton and Wightman, 2003, n.p.).

I felt that by exploring these types of relationships my psychogeographical work could be richer. However, as *Nightmusic* had demonstrated, I would need a piece of considerable scope in order to envelop many of these concepts. Fortunately, in 2013 I was given an opportunity[19] to create a work of suitable scale and the next year I completed *Elbow Room*, a 40-minute work for amplified ensemble and video about the city of Glasgow.

[19] I was appointed Sound and Music Embedded Composer in Residence, Red Note Ensemble for 2013—14. Sound and Music is the UK national charity for new music, their Embedded scheme is a composer development programme which pairs emerging composers with ensembles and institutions for residencies of at least one year duration.

4.2 – Elbow Room

I moved to Glasgow in 2007 in order to study composition at the then-Royal Scottish Academy of Music and Drama. It's a city I hold in high affection but it is not without its problems: the legacies of the decline of traditional industries (including ship-building and steel-making) in the second-half of the twentieth century and slum housing, amongst other problems, have created a complex city of massive social and health inequalities (Reid, 2011). The fabric of the city is a testament to cycles of prosperity, decline and regeneration: rows of century-old sandstone tenements are overlooked by 70's brutalist high-rises; well-kept public parks full of dog-walkers and joggers are bordered by an un-traversable noisy motorway, the M8. This is the expressway that runs through the heart of Glasgow, cleaving the city in two before heading to Edinburgh around 40 miles away. Its construction in 1968–1972 saw the destruction of many prosperous districts of Glasgow.

For someone who doesn't drive, I have a surprisingly close relationship with this motorway. For several years I lived in a flat built in the shadow of the Kingston Bridge which carries the motorway over the River Clyde. Nestled between the bridge and an exit ramp, the swoosh of traffic was omnipresent in my life at that time, the last thing I heard before I fell asleep at night and the first thing I heard as I awoke each morning. I often thought about that road, about the communities lost during its construction, about today's commuters enduring a way of life facilitated by (or perhaps *determined by*) infrastructure built decades ago. Primarily, I wondered who was responsible for bringing a motorway into the midst of a city.

Robert Bruce was the originator of this idea. As City Engineer to the Corporation of Glasgow, his 1945 report to the Planning Committee of the Glasgow Corporation called for not only road building on an unprecedented scale[20] but also the total demolition and rebuilding of the Victorian city centre (Bruce, 1947). His *tabula rasa* approach to solving Glasgow's predicted post-war, post-industrial problems are illustrated in the 1949 film *Glasgow Today and Tomorrow* (directed by Erica Masters) which features prominently in the first of *Elbow Room*'s three movements. As a propaganda piece by the Planning Department of the Corporation of Glasgow to laud the virtues of the proposed rebuilding work (known colloquially as "The Bruce Plan"), a received pronunciation voice-over castigates then-contemporary Glasgow as "a city of congested buildings and narrow roads… a great population living under outmoded conditions which give rise to much confusion as well as discomfort" (*Glasgow Today and Tomorrow*, 1949). Over images of the architectural model of the proposed new Glasgow—comprising rows of uniform concrete high-rises standing like upended dominoes above the Clyde—the film promises "a completely new town planning scheme, one which would prescribe for improved living conditions with more elbow room, greater convenience, with what folks need close by their homes and amenity of primary consideration" (*ibid.*).

From the perspective of the twenty-first century, Bruce's plan, although well-intentioned, seems like overkill and our contemporary notions of sustainability and heritage-preservation go unmentioned in his report. His plan to completely replace

[20] Bruce's proposed new roads were to be built at ground level and were largely conceived as upgrades to existing highways. However, before building began they were upgraded to motorway status by the Abercrombie Report of 1949 (Glasgow, Planning and Highways Committee, 1965).

the city centre with uniform, regularly spaced high-rises never came to fruition. However, Bruce changed the trajectory of urban planning for Glasgow, especially through his proposed Outer and Inner Ring-Roads which would encircle the city: the Inner Ring Road would later become the section of M8 which interrupted my sleep six decades after Bruce's report was published.

Elbow Room was my exploration of how our environment and lives are shaped by the attitudes of previous generations and how once-radical plans become quotidian — the new normal. The piece conforms to a simple narrative structure: the first movement provides the exposition to the story of Glasgow's twentieth century transformation. The second movement — the development — draws heavily on the film *Glasgow 1980* (1971, directed by Oscar Marzaroli): with a similar aim to *Glasgow Today and Tomorrow*, *Glasgow 1980* was sponsored by the Glasgow Corporation to illustrate how the massive upheaval caused by many years of rebuilding during the 1970s would lead to "new life in the city" and "a planned and integrated community" (*Glasgow 1980*, 1971). The film shows the demolition of parts of the old city, including Townhead and Charing Cross, and the building of the M8, the now-infamous flats at Red Road and Sir Basil Spence's high-rises in Hutchesontown, Gorbals[21] [22].

[21] As with many of the buildings featured in *Glasgow 1980*, both these housing developments have now been demolished, or are in the process of being demolished, as they became unfit for habitation within three decades of completion.

[22] Although not used in the final version of *Elbow Room*, the closing remarks spoken by *Glasgow 1980*'s voice-over touch on one of my key motivations for writing this piece: the voice fawningly praises a Glaswegian "energy, which is today expressing itself, rediscovering itself through the dynamism of change, difficult but necessary change towards *planned freedom*" (*Glasgow 1980*, my emphasis). The extent to which true freedom can be planned (or, in other words, granted) is a subject far beyond the scope of this piece of music. However, in his 1984 book *Elbow Room: The Varieties of Free Will Worth Wanting*, Daniel Dennett explores this very topic, prefaced by a discussion of the "Invisible Jailer" problem:

Elbow Room's third, concluding movement provides a counterpoint to the optimism expressed in the two period films. The audience is presented with how some of the city's developments are today: monolithic, often noisy, an uncompleted dream.

Figure 8: The last image of the second movement (left) shows the same scene as an early image in the third (right): the "Bridge to Nowhere" remains incomplete over 40 years after Glasgow 1980 *was filmed. The aspect ratio and colour palette of each image is indicative of the era in which it was shot.*

This final movement uses some of the dozens of video and audio recordings I made in 2013 and 2014 whilst taking extended, aimless walks around the city, an activity

> In the State of Maine, I am told, deer almost never travel more than five miles from their birthplace during their lives. If an enclosure were located outside the normal unimpeded limits of a deer's lifetime wanderings would the deer enclosed be imprisoned? Perhaps, but note that it makes a difference to our intuitions whether some*one* installs the enclosure. Do you feel imprisoned on Planet Earth the way Napoleon was stuck on Elba? (Dennett, 1984, p.8)

Despite me borrowing its title, Dennett's work goes unmentioned in the publicity material and programme note for my *Elbow Room* in order to not overload the audience with intertextual references. However, the link between the theme of my work and the theme of Dennett's book is there for those who wish to find it.

similar to the central Situationist strategy for psychogeographic observation of urban landscapes through wandering: the *dérive.* Although originally defined as "a technique of rapid passage through varied ambiences... [for] awareness of psychogeographical effects" (Debord, 1958, n.p.) the concept of the *dérive* was expanded by Debord to encompass what is now commonly referred to as Urban Exploration[23], a desire to experience the hidden, forgotten facets of a city:

> Our rather anarchic lifestyle and even certain amusements considered dubious that have always been enjoyed among our entourage — slipping by night into houses undergoing demolition, hitchhiking nonstop and without destination through Paris during a transportation strike in the name of adding to the confusion, wandering in subterranean catacombs forbidden to the public, etc. — are expressions of a more general sensibility which is no different from that of the dérive (Debord, 1958, n.p.).

This sensibility is evident today in web-forums such as *Hidden Glasgow* and *Urban Glasgow*[24]: half photographic documentation of recent urban explorations similar in vein to those of Debord's associates and half a sharing of vintage photographs and personal reminiscences, these websites encapsulate the contemporary symbiosis of urban exploration and nostalgia. For today's urban explorer, it would seem, the discovery of remnants of a bygone era — a now-standalone stairway orphaned in a gapsite, or old shop signage temporarily revealed by building work — can lead

[23] Also abbreviated to *Urbex* or *UE*.
[24] Available at http://www.hiddenglasgow.com and http://urbanglasgow.co.uk respectively [accessed 6 May 2015].

effortlessly to nostalgic feelings accentuated by absence: “[n]ostalgia, in fact, may depend precisely on the irrecoverable nature of the past for its emotional impact and appeal. It is the very pastness of the past, its inaccessibility, that likely accounts for a large part of nostalgia's power” (Hutcheon, 1998, n.p.).

Glasgow in particular, with its legacy of extensive rebuilding projects, can prove fertile for the wistful imagination. It is a good example of Ivan Chtcheglov's “geological” city, a palimpsest of the changing use of space where “we move within a closed landscape whose landmarks constantly draw us toward the past... Everyone wavers between the emotionally still-alive past and the already dead future” (Chtcheglov, 1953, n.p.).

This is the crossroads at which I wanted to situate *Elbow Room*: to create a flux between nostalgia — “the past as imagined, as idealized through memory and desire” (Hutcheon, 1998, n.p.) — and the future as imagined by those mid-twentieth century town planners who designed the unrealized Glaswegian concrete utopia. This is why the pairing of *Glasgow Today and Tomorrow* and *Glasgow 1980* was so appealing to me: both films coolly exhibit a desire for an unrealized Le Corbusier-esque future whilst simultaneously depicting yesteryear and being historical artefacts in their own right. In these films we see a city that is at once strange and familiar, distanciated in numerous ways[25]. Crucially, both nostalgia for the unobtainable past-as-imagined and excitement for the unrealized future-as-

[25] Even the attitudes and behaviours of the citizens of Glasgow in these films seem slightly alien to today’s viewer: in one scene in *Glasgow 1980*, Queen Elizabeth The Queen Mother is seen officially opening the newly-completed Kingston Bridge to a sea of waving Union flags. In 2014, the year of an independence referendum in Scotland, the ubiquity of those Union flags (not a Saltire in sight!) was most surprising.

imagined are elicited mainly through visual imagery, reminiscent of the Situationist maxim that sees society as a spectacle, a "social relation among people, mediated by images" (Debord, 1967, n.p.) — "everything that was directly lived has moved away into a representation" (*ibid.*).

In *Elbow Room*, these 2D images are projected onto a 3D, real-world performance of a musical score which includes several sonic images, representations of genre and/or soundworlds external to the composed work. Following François Sahran (see Butler, 2013), the ensemble (comprising clarinet doubling bass clarinet, electric guitar, synthesizer, percussion, violin and cello) is amplified throughout, creating a projected, flat sound-image[26] to complement the projected, flat visual images in the video. Sonic representations heard in *Elbow Room* can be divided into two categories: verbatim location recordings made in Glasgow in 2013 and 2014 (which are heard at the beginning of the work and throughout the third movement) and allusions to other musical genres, including BBC Radiophonic Workshop-style electronica (mvt. i, bb.108–114), late Romanticism (mvt. ii, bb.260–294) and 1980s synth pop music (throughout the 2nd movement). These allusions to other genres blend near-quotation with parody and form a more refined use of pastiche than that found in *Replaceable Parts for the Irreplaceable You*. In *Elbow Room* I searched for sound images which, when overlaid on the two period films, could make possible multiple readings of the work, a revisiting of the concept of *slippage* first used in *My Life in Ventriloquism*.

[26] Whilst it is true that amplified sonic images can be given a sense of depth through the use of artificial reverberation, gain adjustment, equalization and panning, these techniques are used sparing in performances of *Elbow Room*.

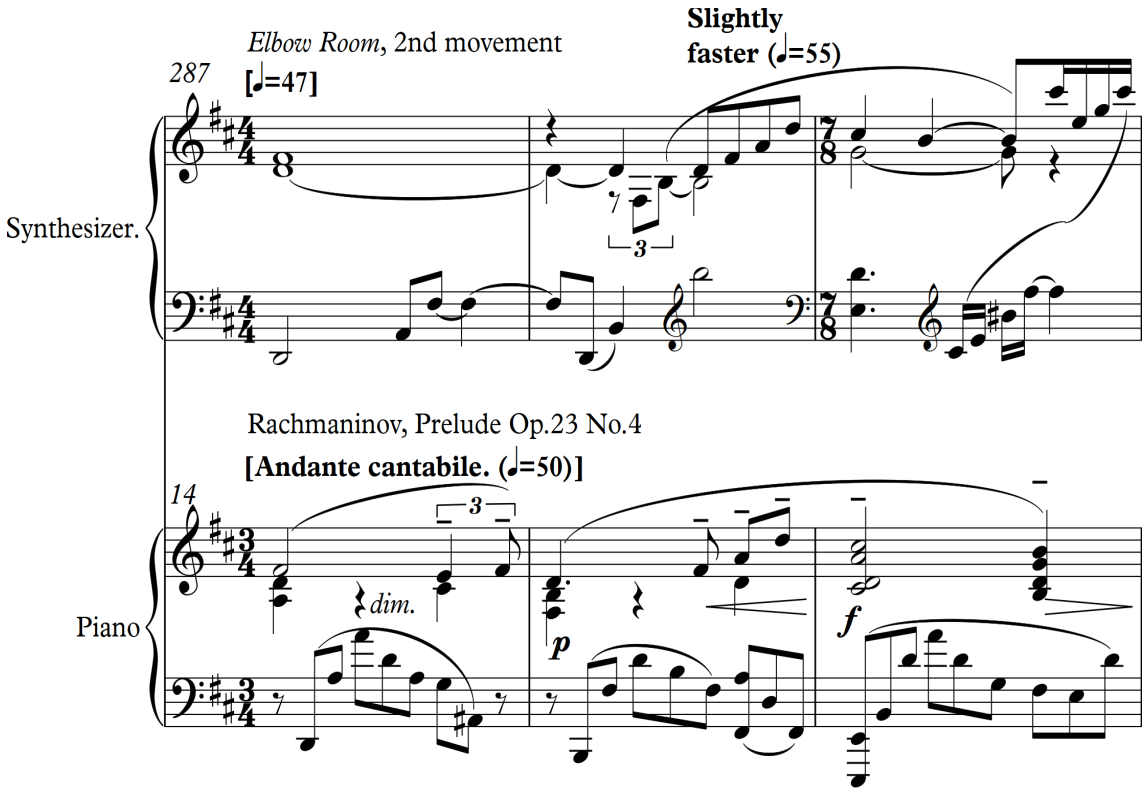
For example, the use of synthesizer sounds in the second movement, inspired by the likes of Kraftwerk and more obscure acts such as The Normal, seems befitting of accompanying video footage depicting the construction of a modern expressway: Cunningham (2011) has discussed Kraftwerk's repetitive music exhibiting “Motorik” qualities reminiscent of driving on a motorway, and David Miller (a.k.a. The Normal) has acknowledged the influence of J.G. Ballard's urban, dystopian literature on his work, which he describes as being “visual, like driving along a highway with big buildings either side and going into a tunnel” (Miller, 2009, n.p.). However, my use of these synth sounds is subtly anachronistic. An amalgam of late-'70s and '80s tropes, including gated-reverb snare drums, “orch. hit” shots and driving sawtooth bass lines, these are sounds that, due to their popularity at different times of the era, are unlikely to be heard together on a single recording of that time. Consequently, in this movement both video and score conjure a somewhat fictional take on the 1980s: the video looking forward from the 1970s, the score looking back from the 2010s. My soundworld is just as imaginary as the nostalgic and futuristic worlds evoked by the films. Furthermore, the fabricated, inauthentic nature of the sonic image is reinforced by its performance: although it would have been easy to program the synthesizer to automatically play the quantized rhythms found in electronic pop music, I chose instead to have them realized by human performers — their inevitably not-quite-metronomic playing (compared to that of a machine) a reminder that this is a recreation and representation of the genre, not the genuine article. Woven into the movement are idealized impressions[27] of 1980s synth music imagined by

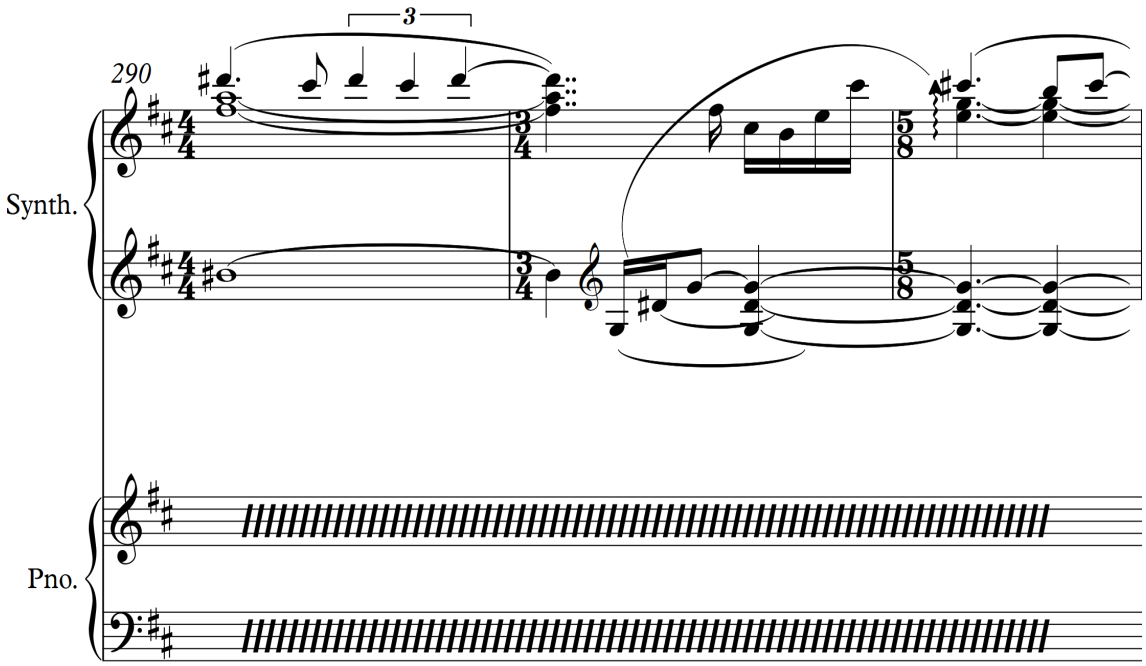
[27] As an illustration of how inauthentic these idealized impressions are, consider the following detail from bar 143 of the second movement: knowing that Red Note's synth player, Simon Smith, is about the same age as me, I requested a “science for schools” synthesizer tone for this passage, a sound fondly remembered from the educational television programmes widely shown in schools during the 1980s and early '90s. Simon

someone who is too young to have experienced the genre at the time of its inception.

These synth pop impressions, and also the allusions to the BBC Radiophonic Workshop in the first movement, were mainly constructed through soundscape, although some passages also utilize familiar rhythms (for example, the bass and drums riff at mvt. ii, bb.47–75) and common structures (for example, the four-bar phrases in the Gary Numan-esque passage at mvt. ii, bb.343–353). In these sections, pitch (and therefore also harmony) was the one area in which I could compose freely. Conversely, the allusions to late Romanticism (mvt. ii, bb.260–294) were characterized through the specific harmony and melodic gestures found in Rachmaninov's Prelude Op.23, No.4 (1904). These near-quotations were augmented with original tone colours, including heavily distorted electric guitar and vibraphone.

interpreted this instruction perfectly and his first choice of synth tone was exactly what I had envisioned. However, months after the performances of *Elbow Room* I found several episodes of this vintage schools programming on YouTube: although other qualities of the broadcast were familiar, the soundtracks were nothing at all like what Simon and myself had recalled — a collective misremembering!


Elbow Room, 2nd movement
[♩=47]
Slightly
faster (♩=55)
287
Synthesizer.
Rachmaninov, Prelude Op.23 No.4
[Andante cantabile. (♩=50)]
14
Piano
dim.
p
f


290
Synth.
Pno.

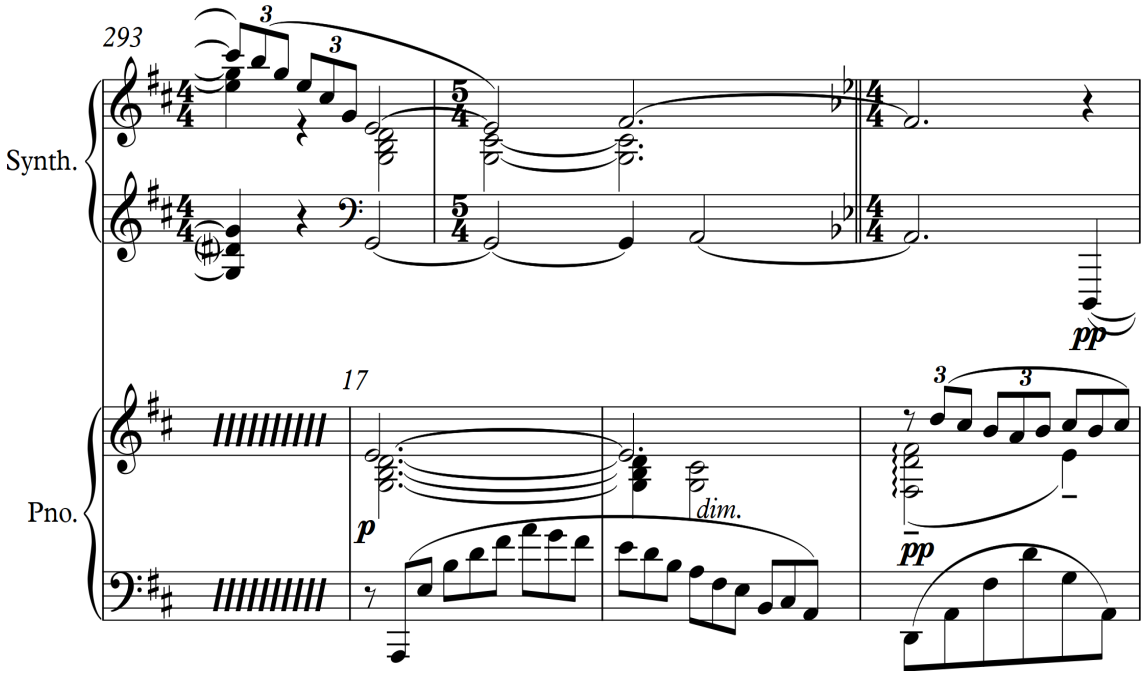


Figure 9: A comparison of the synthesizer part from Elbow Room and Rachmaninov Prelude Op.23, No.4. Similarities include harmonic progression, melody and arpeggiated piano gestures. The vertical dashes indicate "extra" bars in Elbow Room *that do not directly correlated to the Rachmaninov.*

This overt Romanticism was included to be deliberately problematic and provocative. It accompanies a section of *Glasgow 1980* that illustrates the convenience (and implied luxury) of a modern shopping precinct, where parking areas ensure "cars can serve and not confound the housewife and her family" (*Glasgow 1980*, 1971), by showing a young woman pushing a trolley around a supermarket with a toddler in the child seat. As a deliberate use of slippage, where it is possible to read a multitude of potential meanings in a single performance (inspired by Goldblatt's interpretation of the ventriloquial exchange), the audience is left to decide whether the music here conveys the intentions of the voice-over or mocks them for their idealism. Although both period films were re-edited and re-ordered to suit the piece, this is the one section of *Elbow Room* where I significantly modified the picture: the moving image is slowed and gradually brightened,

becoming more and more dream-like throughout the pseudo-Romantic interlude.

This whitening of the film coincides with a gradual illumination of the stage area leading to a short time in which we focus on the players in the ensemble, our view unobstructed by video projection. This coming-and-going of the film image is a consequence of extending the notion of slippage to define the relationships between all elements of the work (including its performance), not simply the relationship between score and performance as explored in *My Life in Ventriloquism*. In earlier works such as *Struction,* musical material was created to serve a set of fixed relationships —the recurrence of physically demanding double- triple- and quadruple-stops in the string parts, as discussed in Chapter Two, exemplifies *Struction*'s rigid relationship between composer character and performer, for example. Likewise, in *Espial* the relationship between performer, camera and final musical assemblage never alters. However, *Elbow Room* entertains a variety of relationships in both performance and score. The combination of front-projected video and lighting allowed me to vary the mode of performance and change the relationship between ensemble and film throughout proceedings: a cinematic experience at one end of the spectrum (the ensemble hidden in darkness, their playing subservient to the film), a concert situation at the other (no video, musicians illuminated and the focus of attention) and every graduation in-between. Musically, the score alternates between concert music, music that somehow comments on the video, and a televisual soundtrack to the video. This blending of different elements extends to the conjoining of location recordings and live instrumental performance: I filtered the location recordings by either boosting or attenuating certain

frequencies in order to create harmonies which are then inherited by the ensemble (mvt i, bb.1-5). These techniques enable the work to slip smoothly between several contrary notions, including: evocation of the past / evocation of the future; location recordings / live instrumental performance; cinematic experience / concert experience; irony / sincerity; fantasy / reality; prioritising the sonic / prioritising the visual, for example.

In this way, the work refrains from presenting a unified viewpoint on the changes to Glasgow in the twentieth century. The adoption and adaptation of *slippage*, as defined in Goldblatt's analysis of the ventriloquial exchange, in both score and performance allowed me to solve the uncomfortable dogmatism of *Struction* whilst still writing on a particular subject. I used this strategy not to relinquish responsibility towards creating potential meaning but to make a work that was more discursive for the audience and more flexible for the composer, a set of ambiguities befitting of our complicated emotional ties to the past. The deprivation exposed in *Glasgow Today and Tomorrow* is indeed appalling and the Utopianism of the Bruce Report is appealing. However, for a local audience[28] the dramatic irony of seeing the heralded completion of buildings which we know are now being torn down due to their uninhabitability[29] grants a critical distance that complicates the excitement of building Glasgow's brave new world as seen in the period films, a position I attempted to reflect in *Elbow Room*.

[28] For non-local audiences who may not have already heard of Glasgow's regeneration projects, the third movement provides this necessary counterpoint.

[29] As I write this paragraph, I witness from my window the ongoing storey-by-storey deconstruction of the Whitevale and Bluevale tower blocks in Glasgow's East End (see BBC, 2014).

5 - Possibilities for further research

The development of *slippage* as a compositional tool has allowed me to create works that attempt to move between different modes of potential experience for an audience. It is a technique that is relevant to both a composed score and its performance and can facilitate the inclusion in a work of a multitude of different media and compositional approaches, including historical artefacts, pastiche, irony and a wide variety of performance modes (both live and mediated), as found in *Elbow Room*. Through creating the works presented in this research portfolio I have discovered that this use of slippage can enrich the discursive potential of a musical performance.

However, this research has also engendered several ideas and touched upon several topics which would benefit from further research. The music presented in this portfolio has been limited to that which is performed within a concert hall or its proxy. As discussed by Schechner (2002), performance exists on a spectrum that includes theatrical and concert presentations, ritual, sporting fixtures and the presentation of self in addition to numerous other modes. Consequently, there are potentially many types of performance outside the concert hall that could be explored by a composer. In keeping with notions of slippage, it is the liminality found within and between these other performance modes which may be of considerable interest to me.

With regards to musical development, the use of explicit narrative structures was

new to my practice at the time of writing *Elbow Room*. There is consequently much room for development in this area, possibly through a comparative study with literature, theatre, cinema and/or other story-telling art forms. Likewise, the use of amplification, popular tropes and pastiche in my practice are ongoing concerns.

Over the course of this research the non-musical subject matters that have formed the basis of my composition have solidified to focus on what is often termed *sustainability*. A broad term, sustainability is often defined as the confluence between ecology, economics and society and incorporates such diverse, but ultimately related, subjects as poverty, agriculture, inclusivity, energy production and consumption, infrastructure and urban planning, and climate change (United Nations, 2014). Within each of these topics is potential for related artistic work that, I feel, would befit my artistic practice.

Finally, despite the first-person prose of this commentary and the discussions of authority that accompany *Struction*, the works presented in this portfolio have greatly benefited from the input of a network of individuals, ensembles and institutions, including performers, composers, artists working in other disciplines, academics, film-makers, sound engineers and producers. With the impetus for my practice ordinarily originating from non-musical ideas, collaboration between myself and experts in relevant fields would be beneficial in order to gain further insights into subject areas that are hitherto outwith my experience and expertise.

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Appendices

Appendix 1: Contents of documentation and data DVDs

Documentation DVD 1

- **Struction (how I attempted to get the thoughts in my head into your head using only five instruments, five instrumentalists, metronome sound and MIDI)**
  Video recording of performance given by Red Note Ensemble with Timothy Cooper (live sound) at the Royal Conservatoire of Scotland, Glasgow, on 6th April 2011.

- **My Life in Ventriloquism**
  Video recording of performance given by Jenny Stephenson (clarinet) and the composer (laptop operator) at the Royal Conservatoire of Scotland, Glasgow, on 27th April 2012. Please note that some of the pre-recorded sounds used in this performance are slightly different from the definitive versions presented in this thesis.

- **Nightmusic**
  Audio recording of a performance by Kay Stephen made on 15th March 2014 at Sherbrooke St. Gilbert's Church, Glasgow. Recorded and edited by Timothy Cooper. Recording supported by Sound and Music.

- **Espial**
  Video of the complete work, featuring the Astrid String Quartet. Filmed by Laurie Irvine and Daniel Gil Fresneda.

Documentation DVD 2

- **Replaceable Parts for the Irreplaceable You**
  Video recording of a performance given by Ensemble Thing at Summerhall, Edinburgh, on 16th August 2014.

- **Elbow Room**
  Video recording amalgamated from two performances given by Red Note Ensemble with Michal Jankowski (live sound) and Pete Searle (lighting) at Summerhall, Edinburgh, on 21st May 2014 and at The Arches, Glasgow, on 22nd May 2014.

Data DVD

The Data DVD contains all the files required for performances of four of the works in this thesis. Details of how these files are used are to be found in the scores.

🗀 ELBOW_ROOM

↳ 🗀 Drum_samples

↳

	Drum list.pdf
Elbow-Room_Movement-1_Click.wav	ER_1_D.wav
Elbow-Room_Movement-1_Video-Audio.mp4	ER_1_E.wav
Elbow-Room_Movement-2_Click.wav	ER_1_F.wav
Elbow-Room_Movement-2_Video-Audio.mp4	ER_1_G.wav
Elbow-Room_Movement-3_Click.wav	ER_2_B.wav
Elbow-Room_Movement-3_Video-Audio.mp4	ER_2_D.wav
	ER_2_E.wav
	ER_2_F.wav
	ER_2_G.wav
	ER_3_B.wav
	ER_3_C.wav
	ER_3_D.wav
	ER_3_E.wav
	ER_3_G.wav
	ER_4_B.wav
	ER_4_C.wav
	ER_4_D.wav
	ER_4_E.wav
	ER_4_F.wav
	ER_5_G.wav
	ER_5_B.wav

🗀 MY_LIFE_IN_VENTRILOQUISM

↳ *71 .wav files (named 1Q.wav ... 71Q.wav)*
MLIV_Performance-maxpatch.maxpat

🗀 REPLACEABLE_PARTS_FOR_THE_IRREPLACEABLE_YOU

↳ RPFTIY_Intro.wav
RPFTIY_Mov-1_Audio.wav
RPFTIY_Mov-1_Click.wav
RPFTIY_Mov-2_Audio.wav
RPFTIY_Mov-2_Click.wav
RPFTIY_Mov-2_Video.mp4
RPFTIY_Mov-3_Audio_1.wav
RPFTIY_Mov-3_Audio_2.wav
RPFTIY_Mov-3_Click.wav
RPFTIY_Mov-4_Audio_1.wav
RPFTIY_Mov-4_Audio_2.wav
RPFTIY_Mov-4_Click.wav
RPFTIY_Mov-4_Video.mp4

🗀 STRUCTION

↳ Struction_Click.wav
Struction_Composer-voice.wav
Struction_MIDI-ensemble.wav
Struction_Piano-sounds.wav
Struction_Synth-sounds.wav

Appendix 2: List of performances to date

Struction (how I attempted to get the thoughts in my head into your head using only five instruments, five instrumentalists, metronome sound and MIDI)

- 6th April 2011, RCS, Glasgow; Red Note Ensemble, Timothy Cooper (live sound).
- 5th May 2014, Recital Room, City Halls, Glasgow; Red Note Ensemble, Laurie Irvine (live sound).

My Life in Ventriloquism

- 27th April 2012, RCS, Glasgow; Jenny Stephenson.
- 15th June 2012, Recital Room, City Halls, Glasgow; Jenny Stephenson.
- 23rd January 2013, The Old Hairdresser's, Glasgow; Jenny Stephenson.
- 5th June 2013, Sloan's, Glasgow; Pete Furniss.
- 5th May 2014, Recital Room, City Halls, Glasgow; Yann Ghiro.
- 21st May 2014, Summerhall, Edinburgh; Yann Ghiro.
- 22nd May 2014, The Arches, Glasgow; Yann Ghiro.
- 23rd October 2015, ACT, Aberdeen; Jenny Stephenson.

Replaceable Parts for the Irreplaceable You

- 3rd May 2013, RCS, Glasgow; Red Note Ensemble with MusicLab, Jessica Cottis (conductor) (original version).
- 15th August 2014, Summerhall, Edinburgh; Ensemble Thing.
- 16th August 2014, Summerhall, Edinburgh; Ensemble Thing.
- 17th August 2014, Summerhall, Edinburgh; Ensemble Thing.

Nightmusic

- 27th April 2012, RCS, Glasgow; Darragh Morgan.
- 5th May 2014, Recital Room, City Halls, Glasgow; Roland Roberts.

Espial

- 30th April 2014, RCS, Glasgow.

Elbow Room

- 21st May 2014, Summerhall, Edinburgh; Red Note Ensemble, Michal Jankowski (live sound), Pete Searle (lighting).

- 22nd May 2014, The Arches, Glasgow; Red Note Ensemble, Michal Jankowski (live sound), Pete Searle (lighting).

Thomas Butler

Struction

(how I attempted to get the thoughts in my head into your head using only five instruments, five instrumentalists, metronome sound and MIDI)

For amplified ensemble and pre-recorded sound.

Struction (how I attempted to get the thoughts in my head into your head using only five instruments, five instrumentalists, metronome sound and MIDI) (2011)

By Thomas Butler

For unconducted, amplified ensemble and pre-recorded sound.

Transposing score.

Duration: 25 minutes

The first performance of this work was given by Red Note Ensemble with Timothy Cooper (live sound) on 6th April 2011 at the Royal Conservatoire of Scotland, Glasgow.

Instrumentation

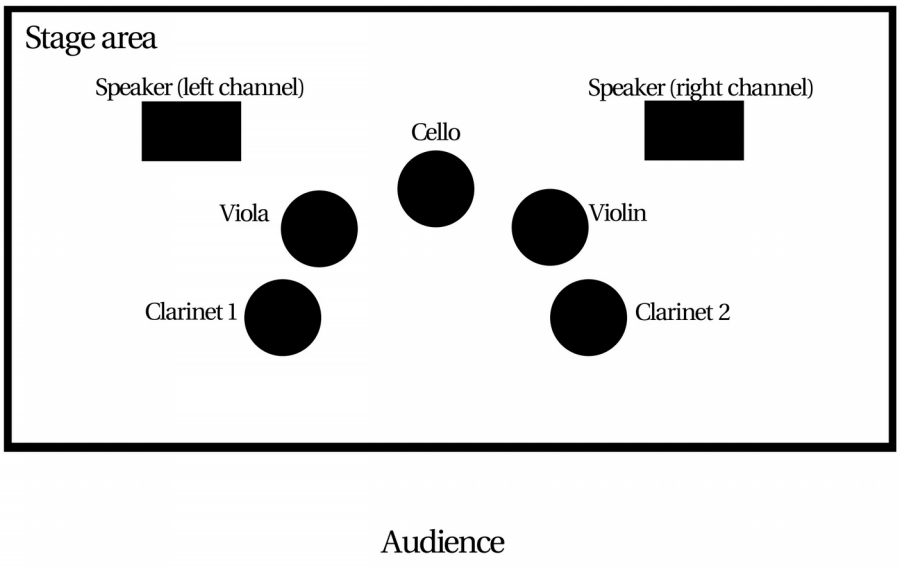
2 Clarinets in E-flat
Violin
Viola
Cello

Programme note

Programmes should only contain basic information regarding the performance, such as the title of the piece and its duration, composer's name and names of performers etc.

Stage plan

In order to correspond to the stereo image of the backing track, the ensemble should be seated as follows:



Backing track

The backing track consists of a metronome sound (which should be used by the instrumentalists to keep in time with the track), the composer's speaking voice and occasional MIDI realizations of the score and other electronic embellishments. All sounds are heard by the audience. The live ensemble is amplified and should be louder than the MIDI realizations. The composer's voice and metronome sound, however, should always be heard very clearly. Each element of the backing track is notated in the score and cues are provided in the instrumental parts for orientation.

Throughout the piece the pre-recorded composer's voice supposedly speaks to the ensemble and makes

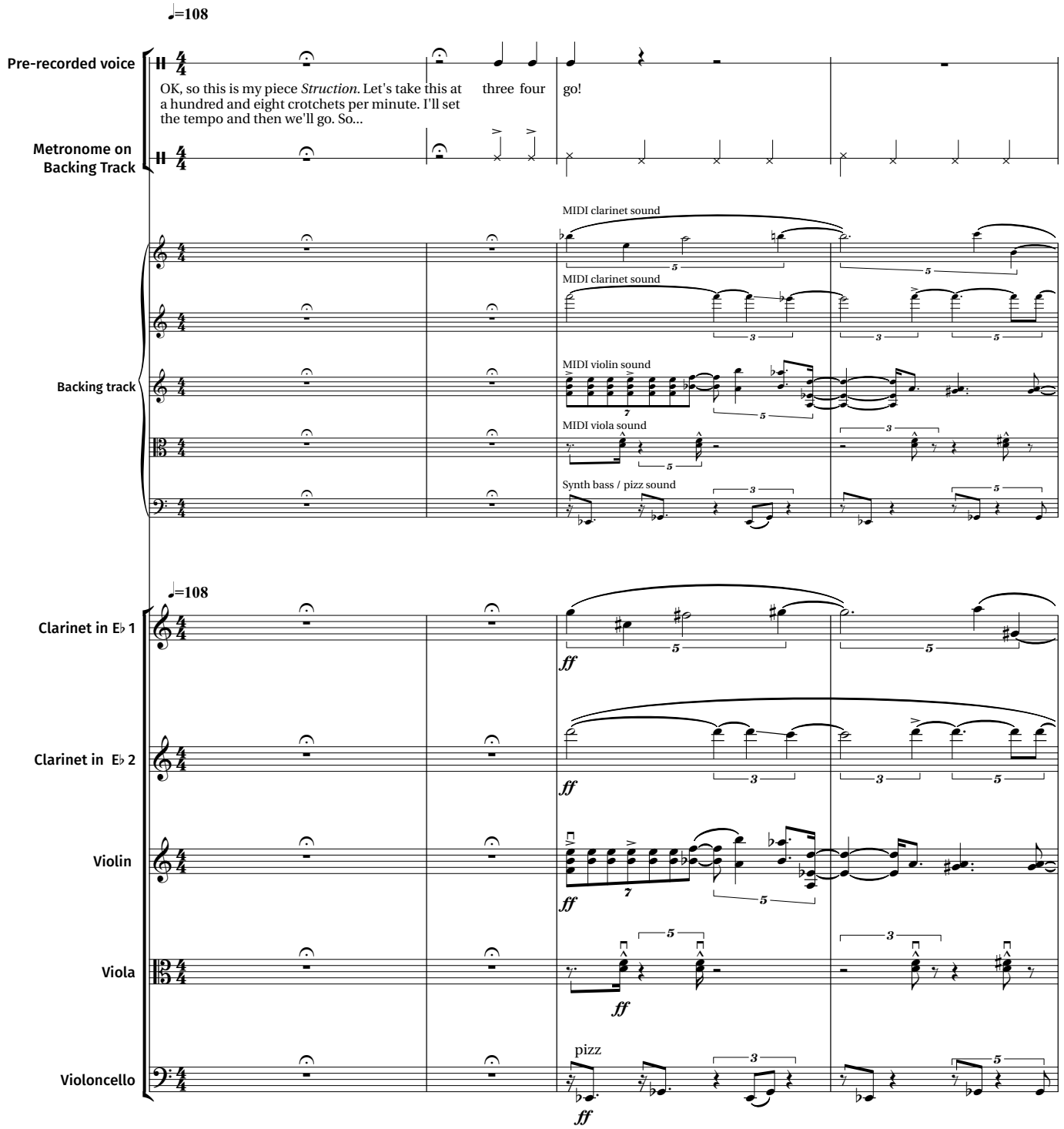
certain requests of them. The performers need not react to these instructions, however, as all “responses” are already written into the score. No acting is required. For example, if the voice says “play louder” there will be a corresponding change of dynamic marking at the appropriate place in the score. The request “let’s go back to beginning” (from Bar 38) corresponds to a page turn in each instrumental part (see parts for details).

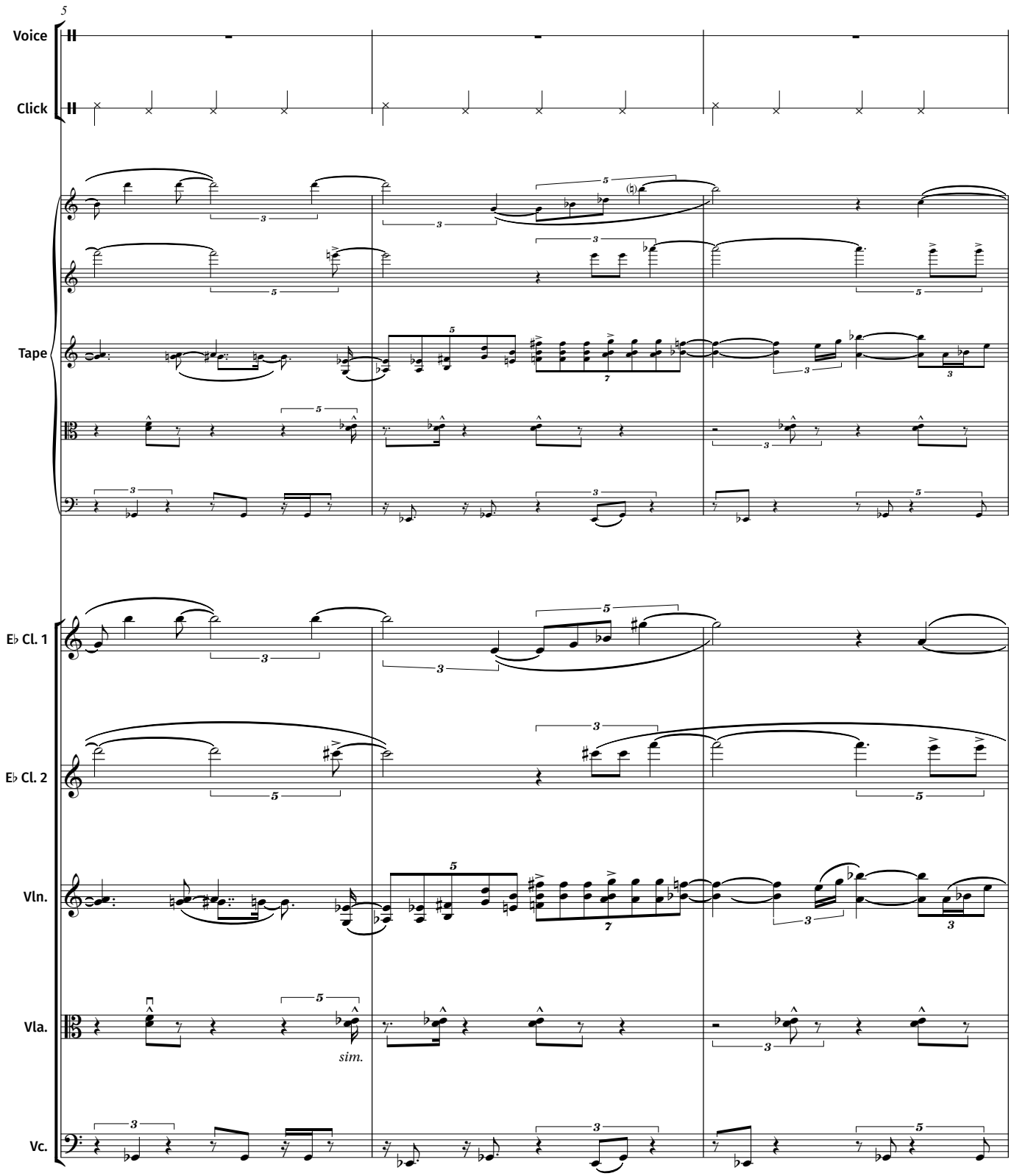
The individual elements of the backing track (composer's voice, metronome sound, MIDI-ensemble, other synthesized sounds, and piano sounds) have been provided in separate .wav files.

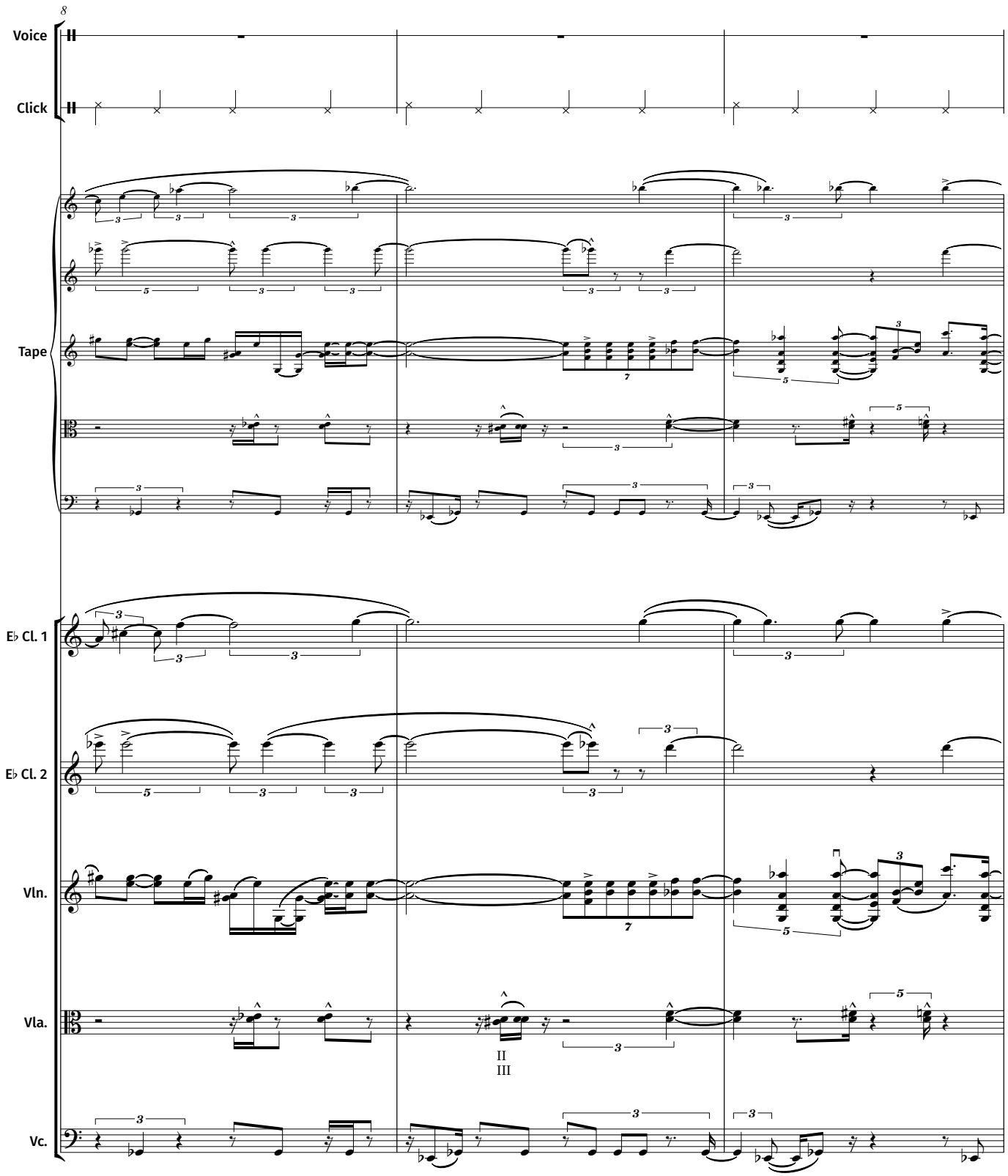
Struction

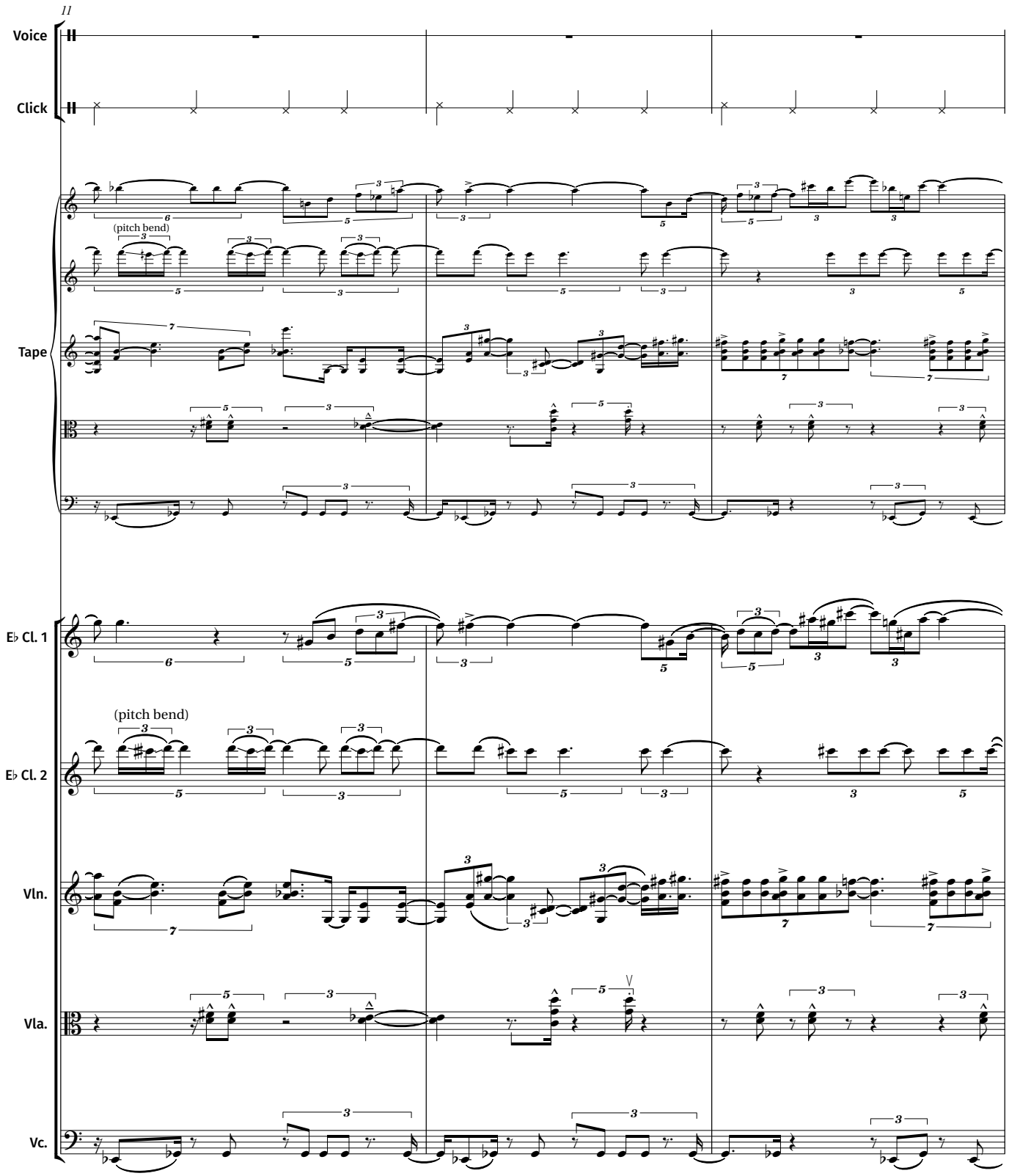
(how I attempted to get the thoughts in my head into your head using only five instruments, five instrumentalists, metronome sound and MIDI)

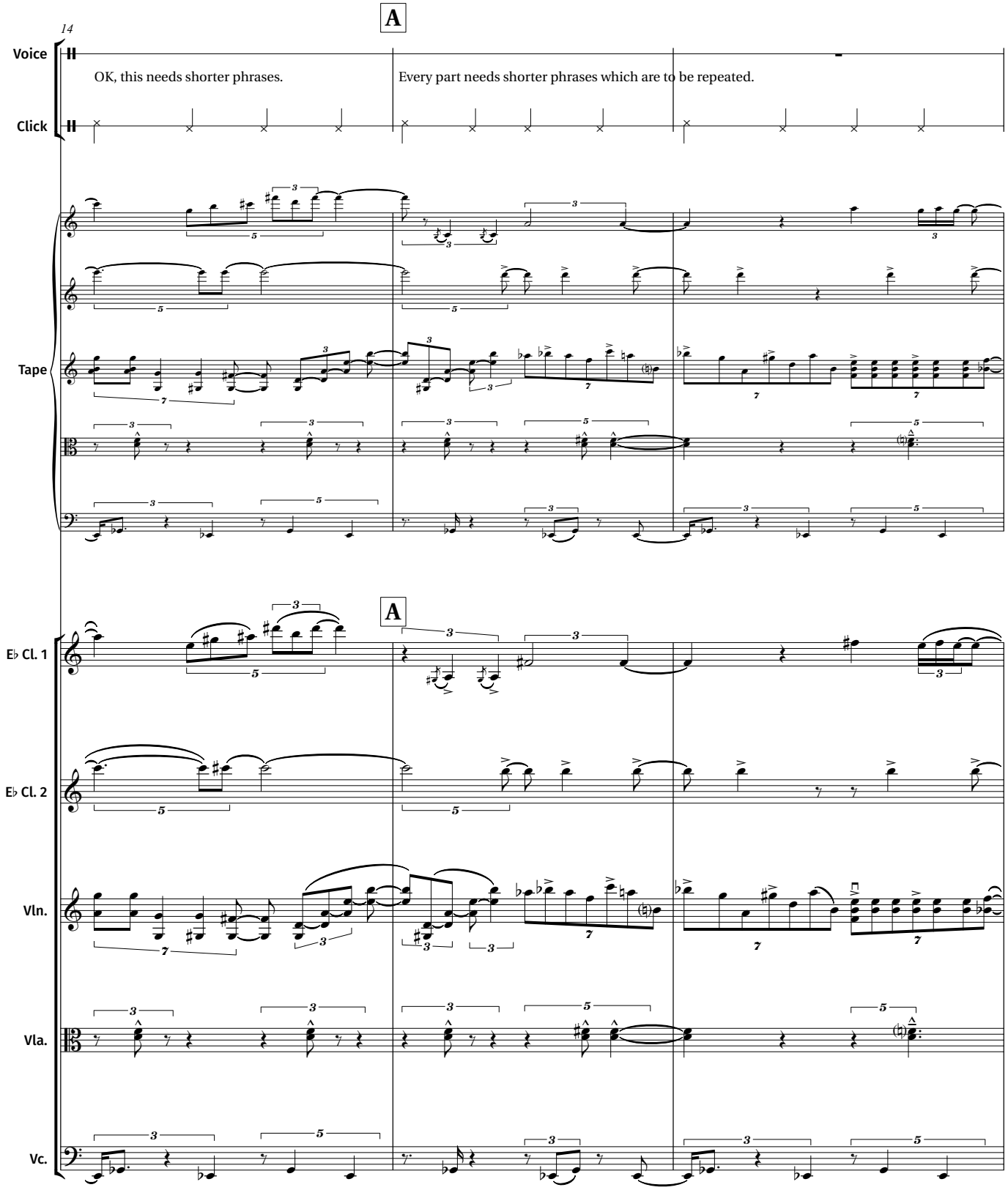
Thomas Butler

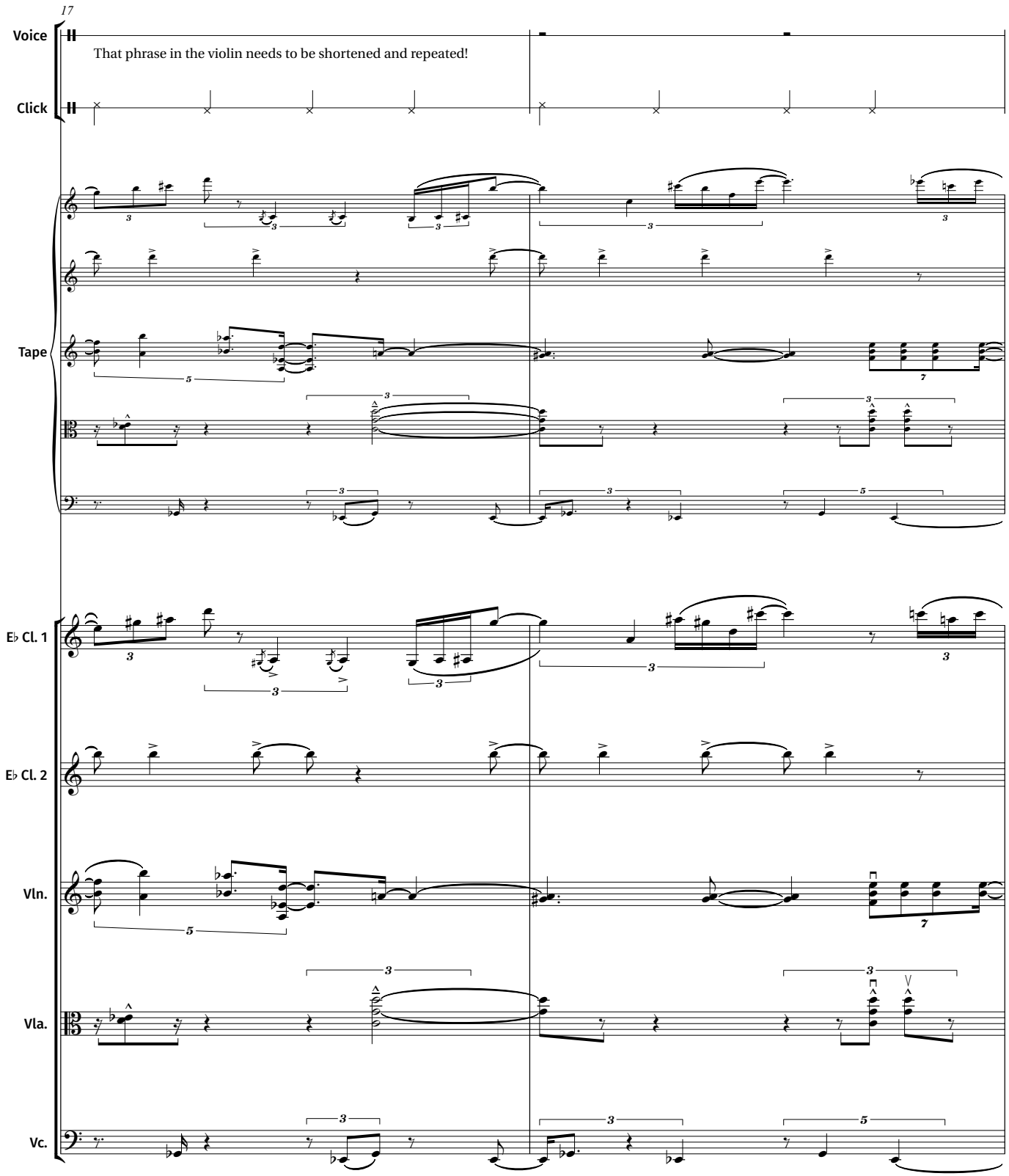


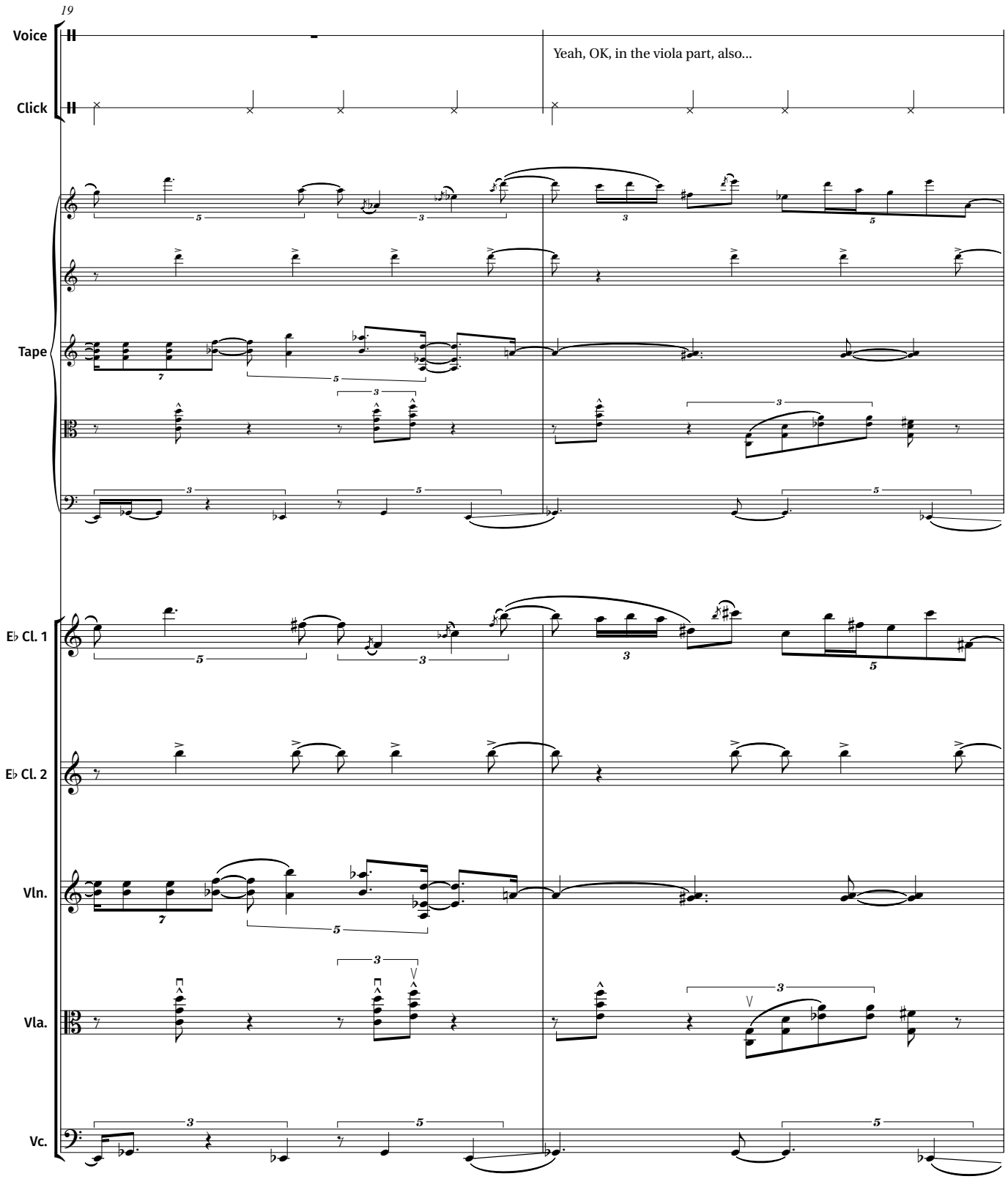

5
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
sim.
Vc.

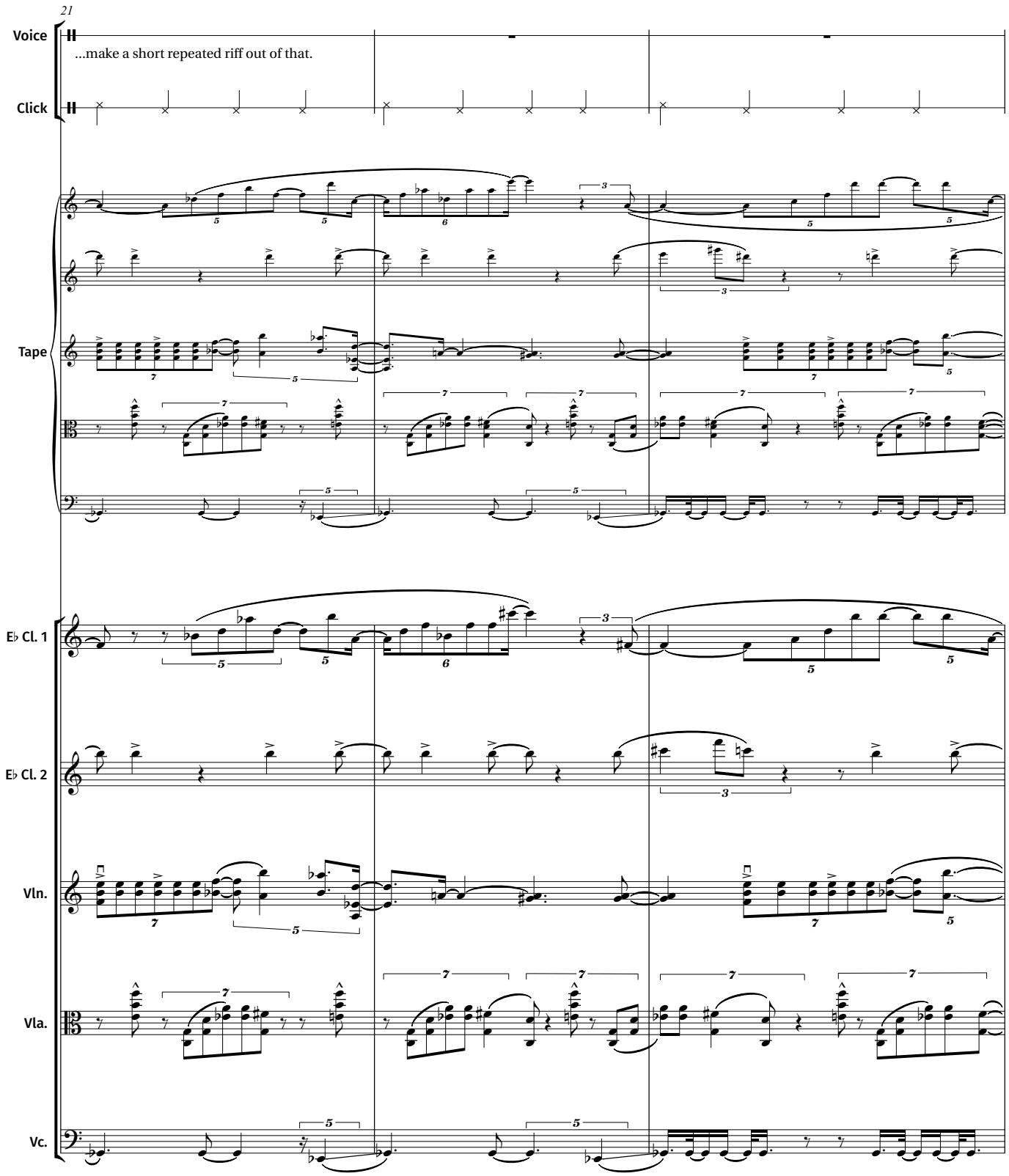

8
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
II
III
Vc.

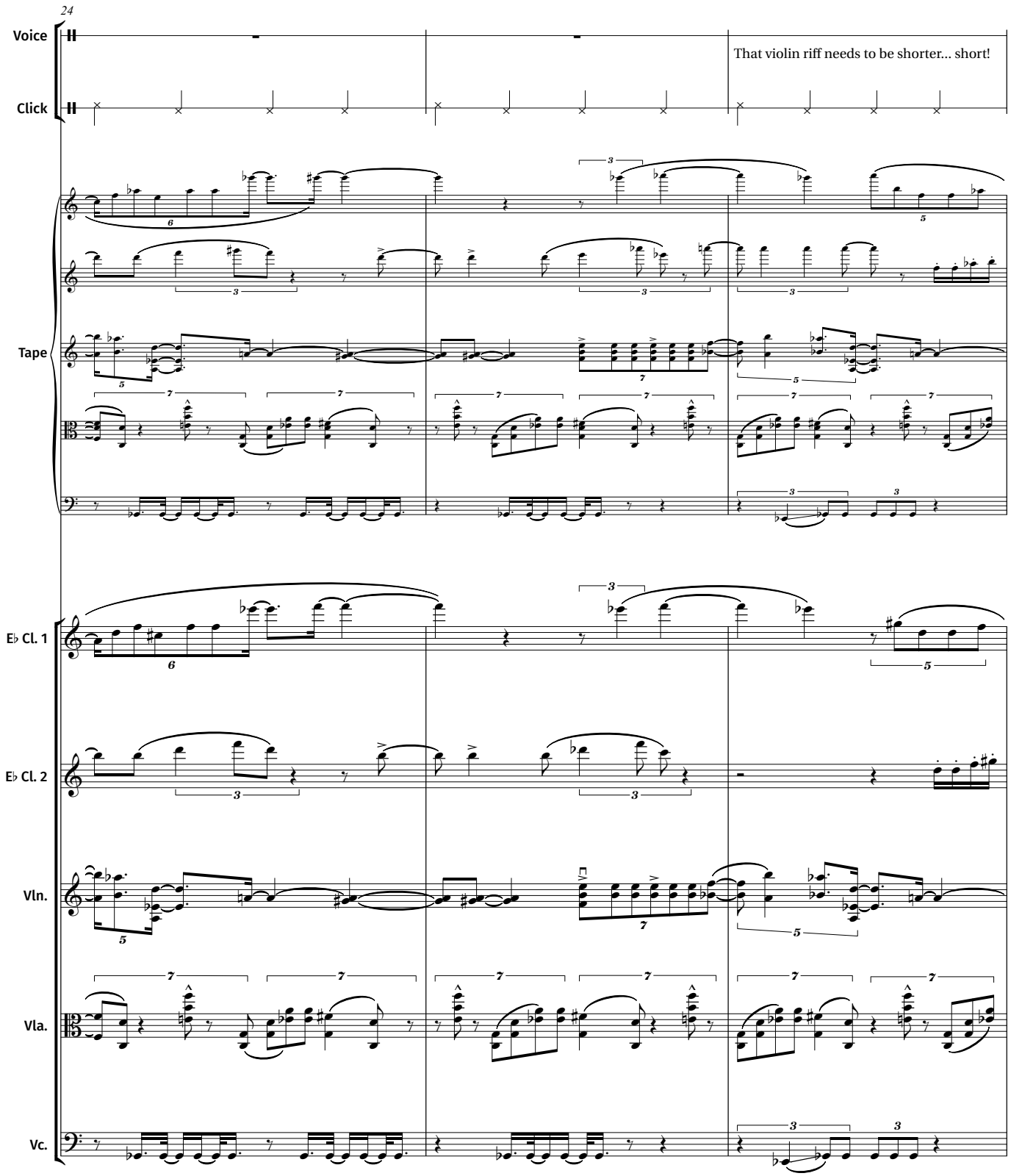

11
Voice
Click
(pitch bend)
Tape
E♭ Cl. 1
(pitch bend)
E♭ Cl. 2
Vln.
Vla.
Vc.

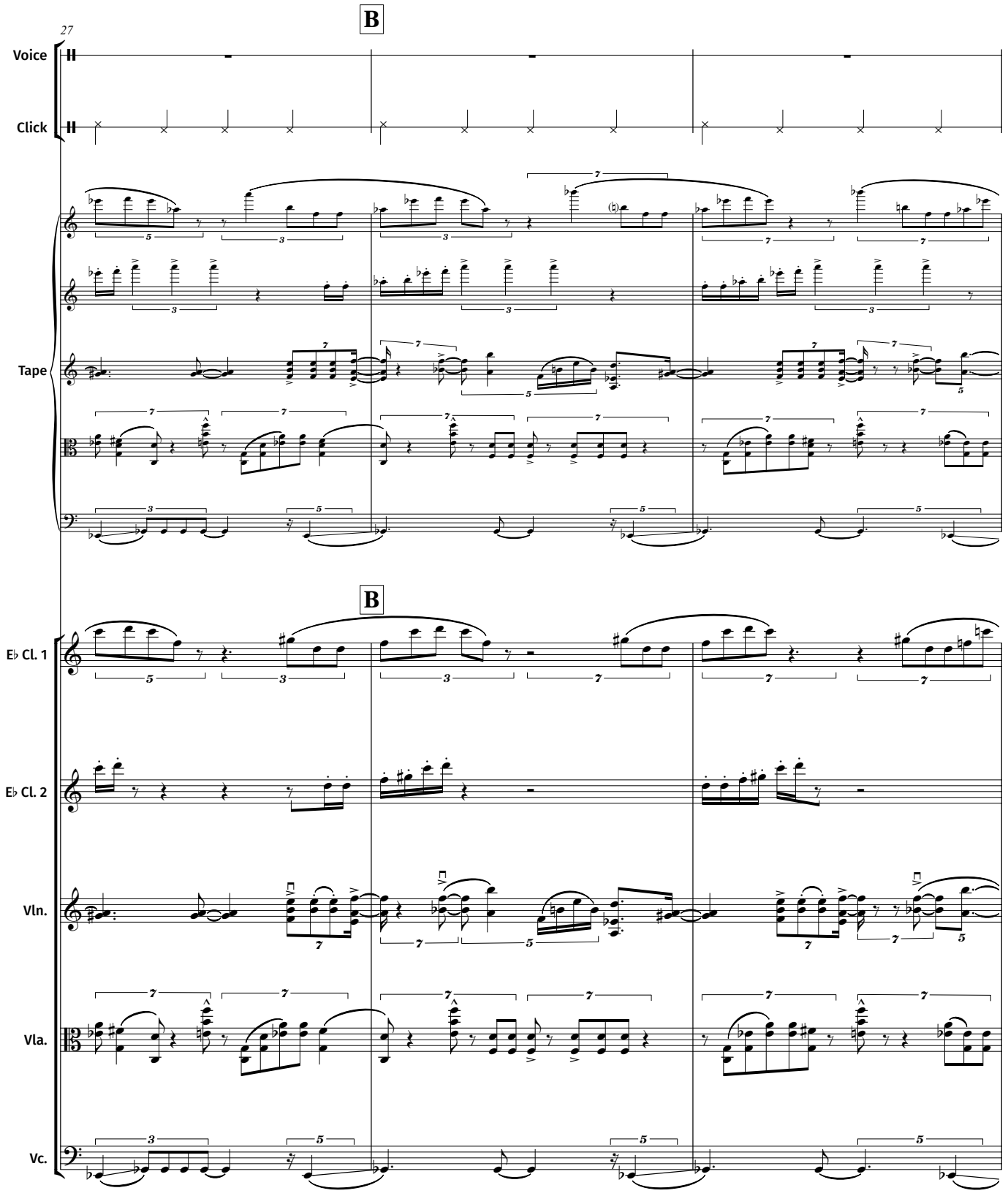

14
A
Voice
OK, this needs shorter phrases.
Every part needs shorter phrases which are to be repeated.
Click
Tape
A
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

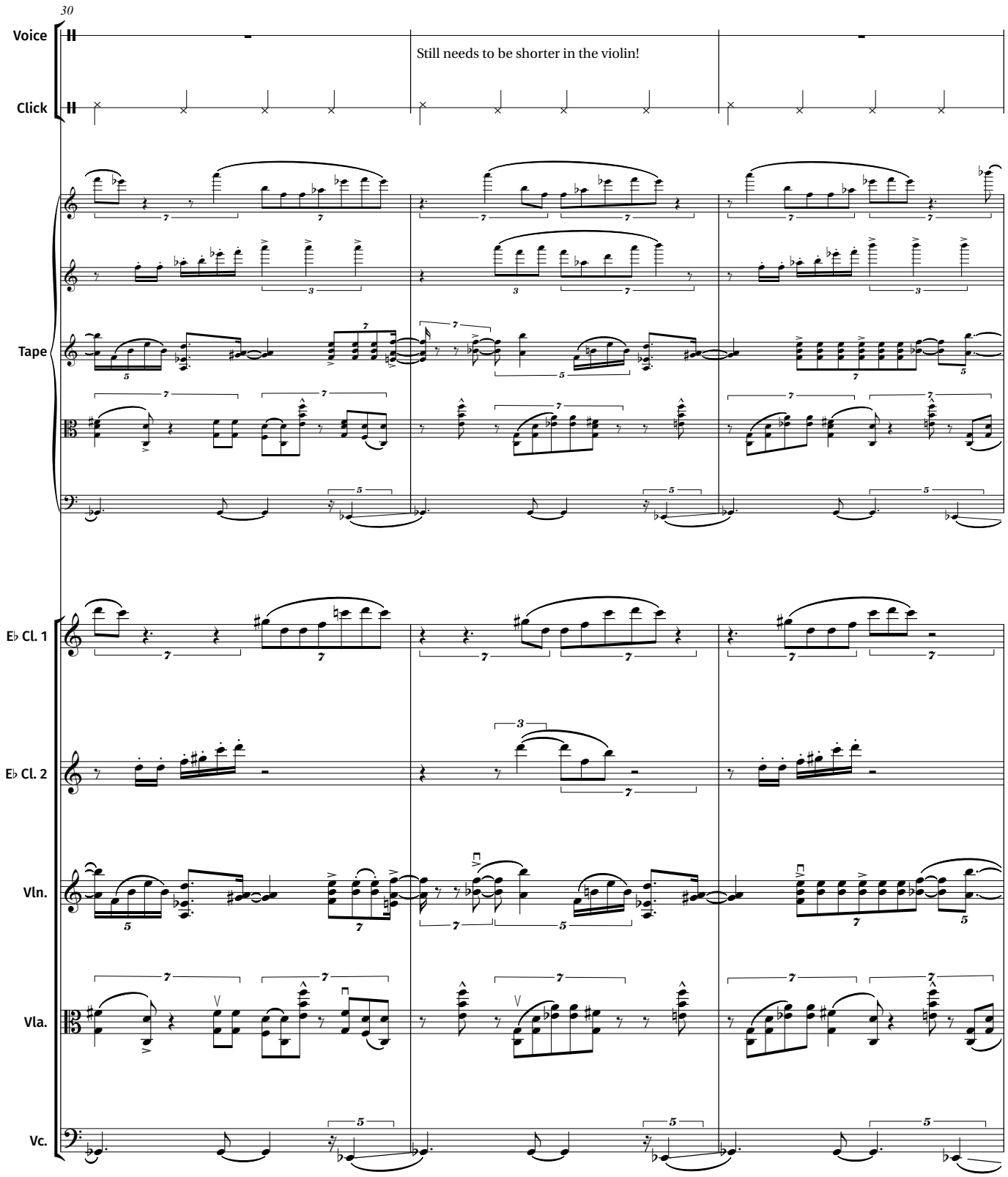

17
Voice
That phrase in the violin needs to be shortened and repeated!
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

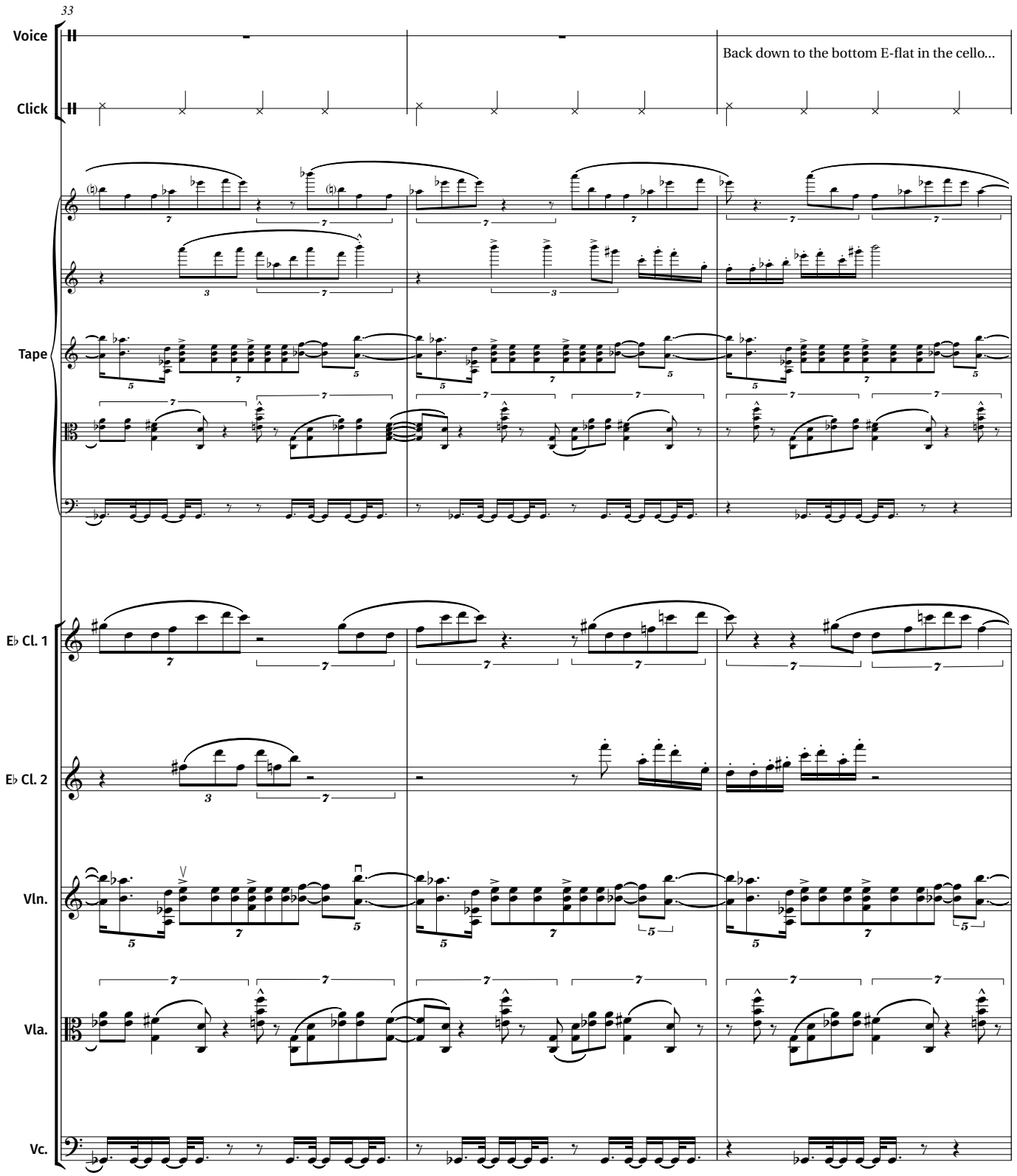

19
Voice
Yeah, OK, in the viola part, also...
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

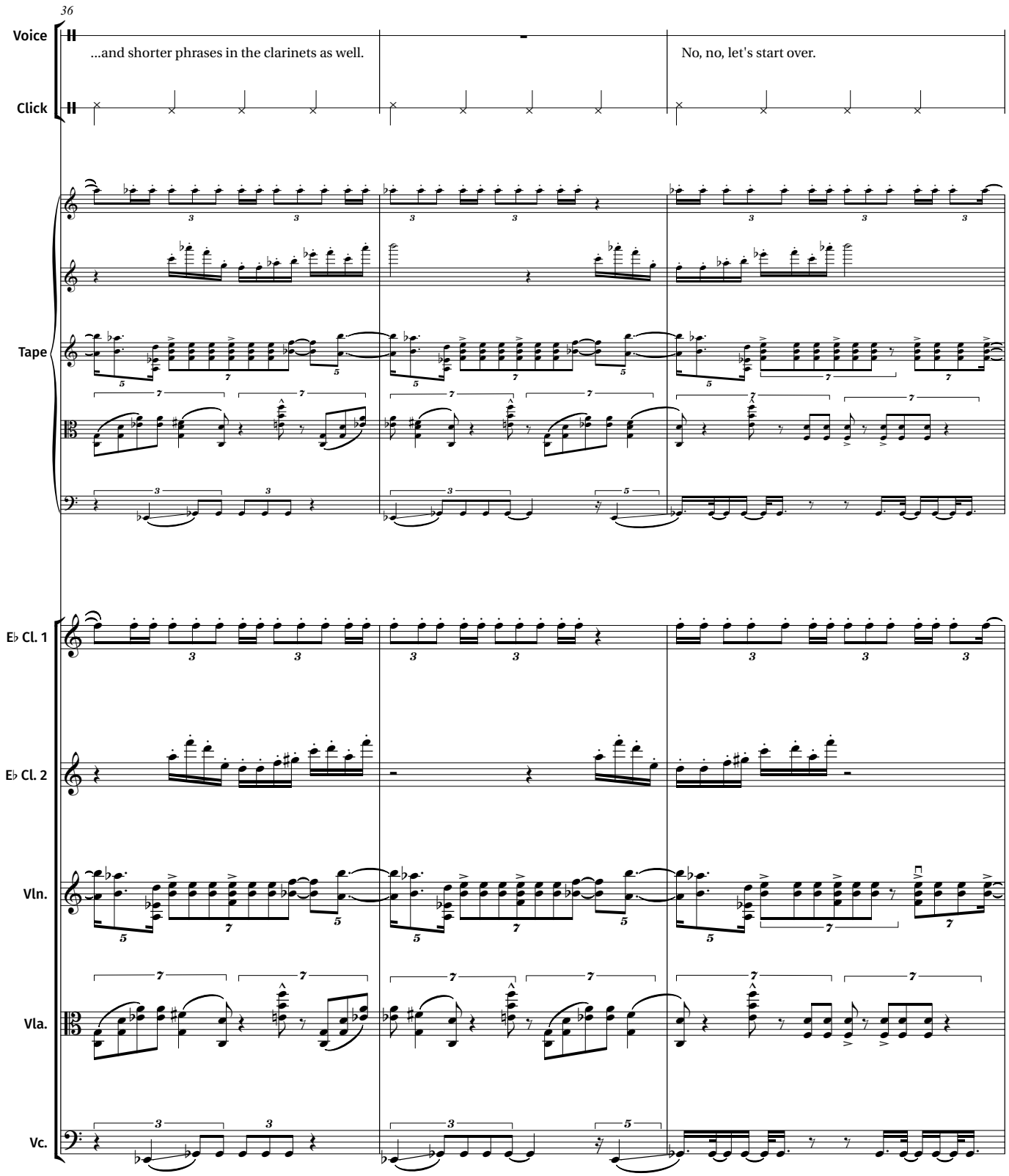

21
Voice
...make a short repeated riff out of that.
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

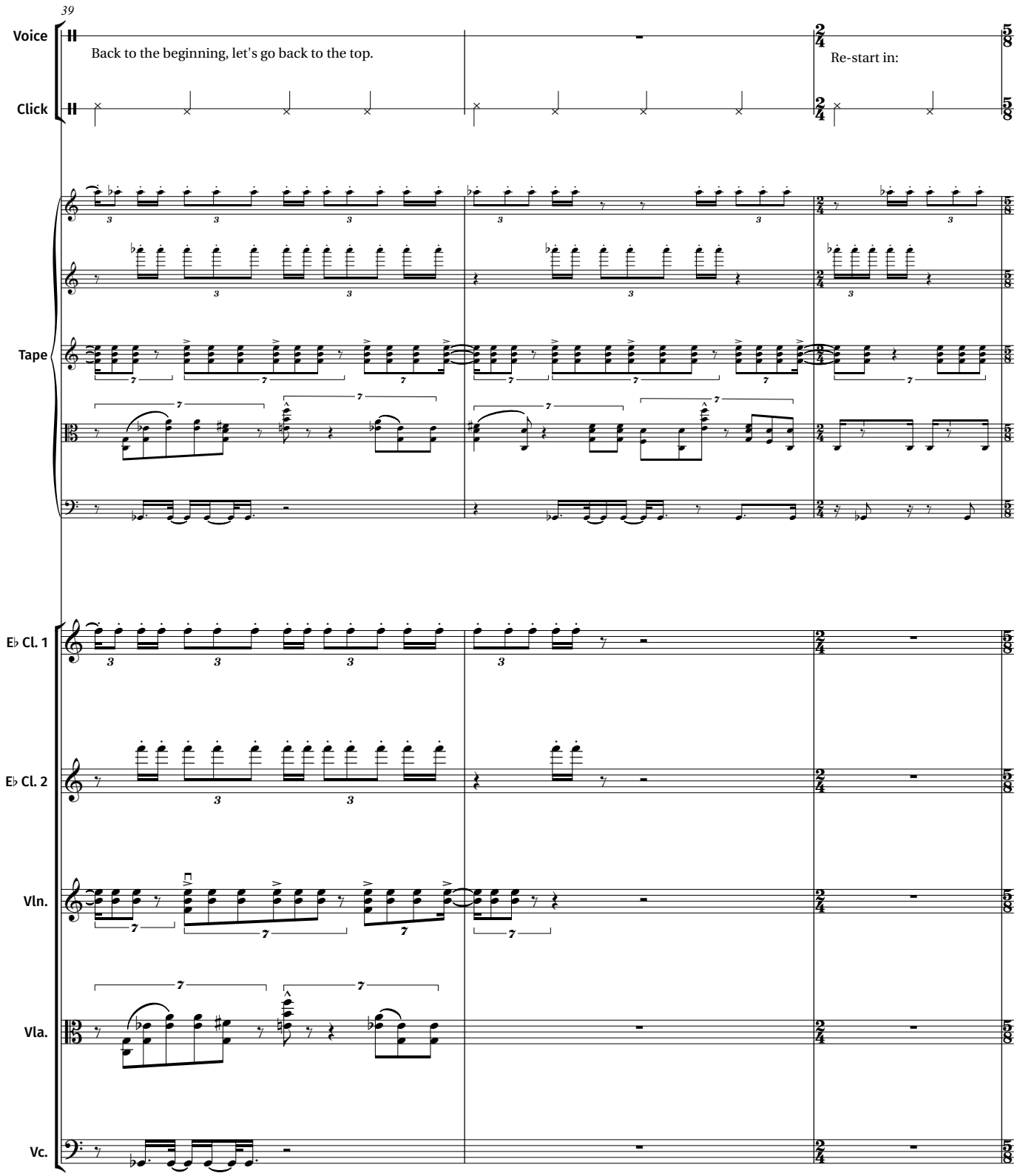

24
Voice
That violin riff needs to be shorter... short!
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.


B
27
Voice
Click
Tape
B
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

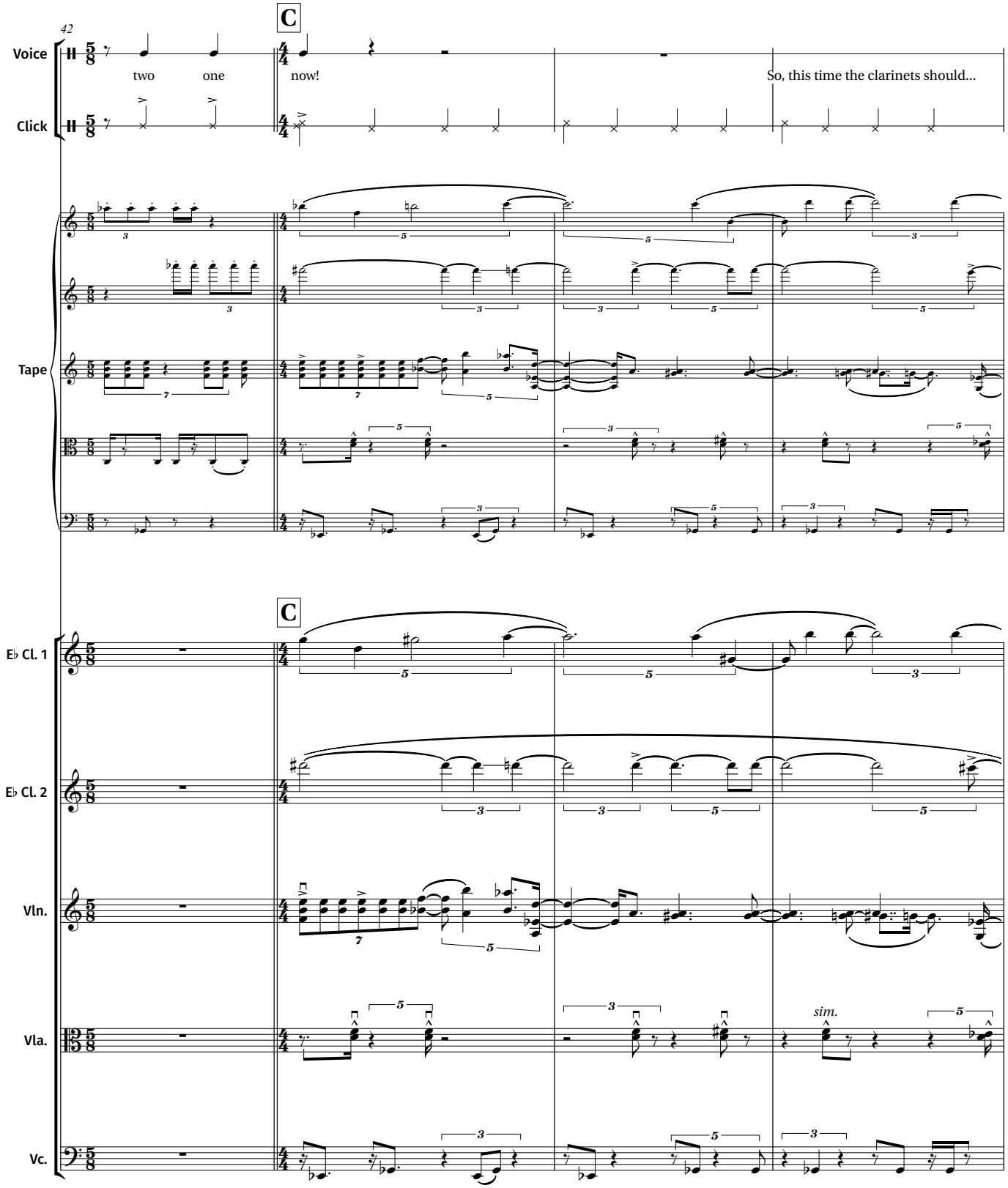

30
Voice
Still needs to be shorter in the violin!
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

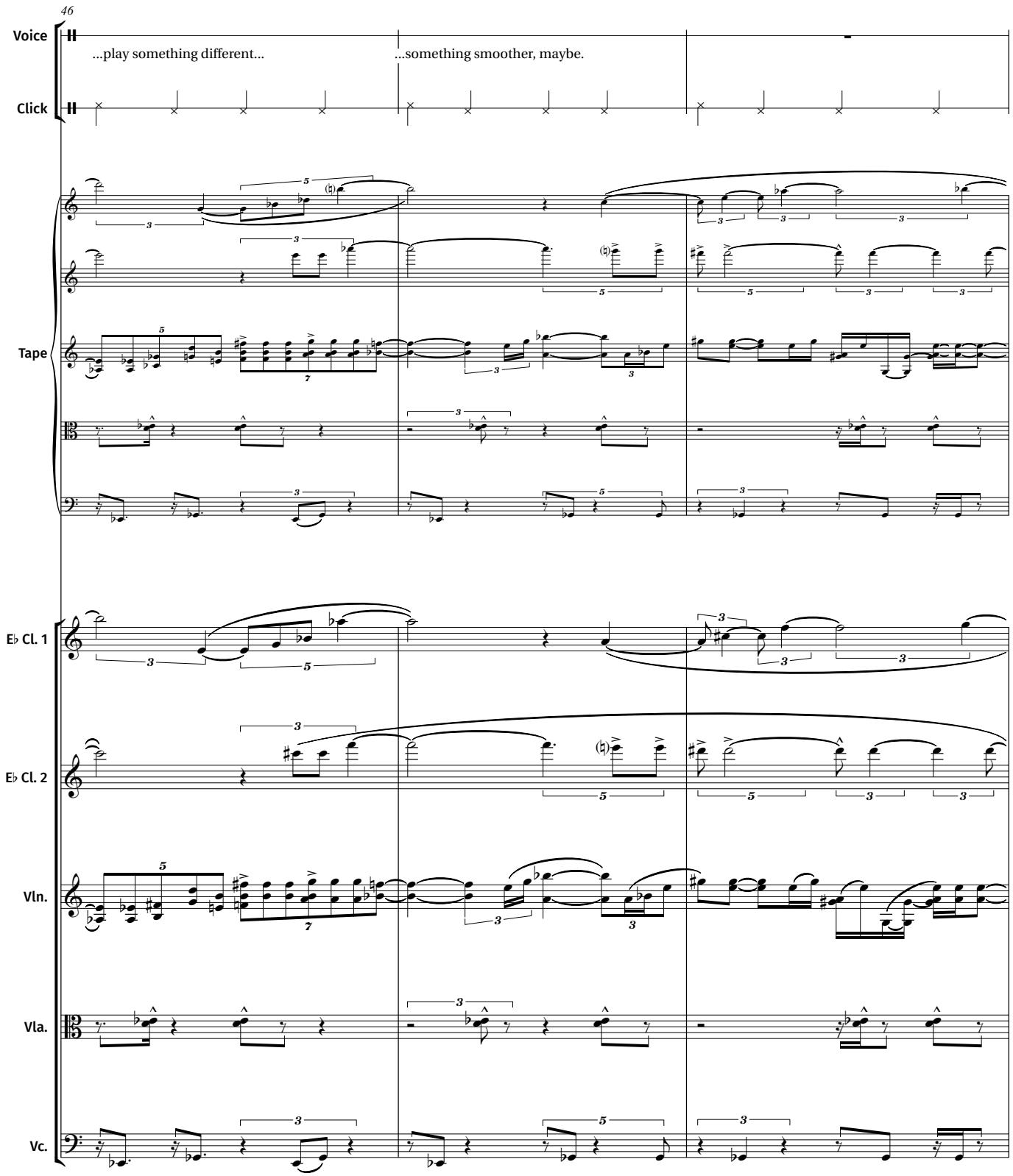

33
Voice
Click
Back down to the bottom E-flat in the cello...
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

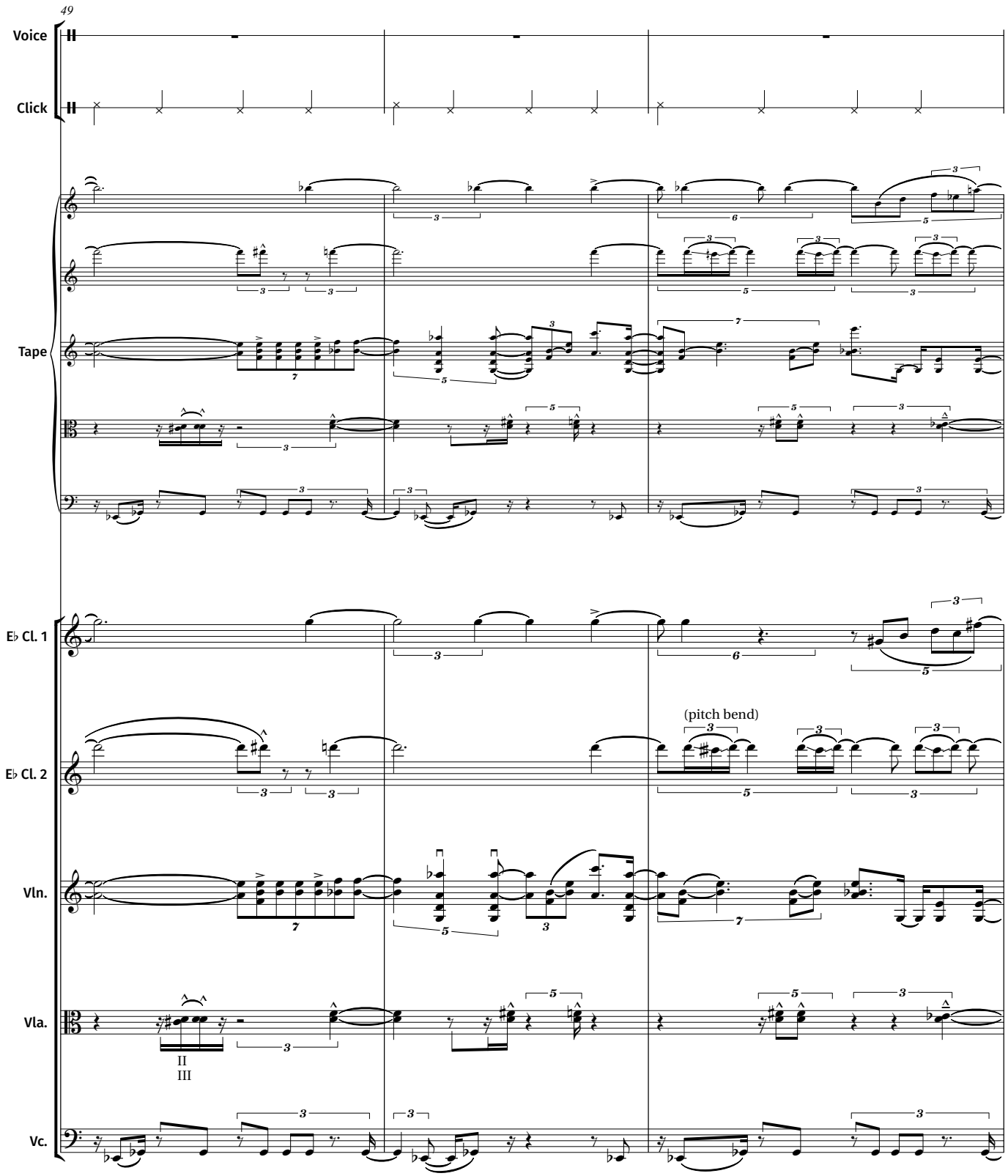

36
Voice
...and shorter phrases in the clarinets as well.
No, no, let's start over.
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

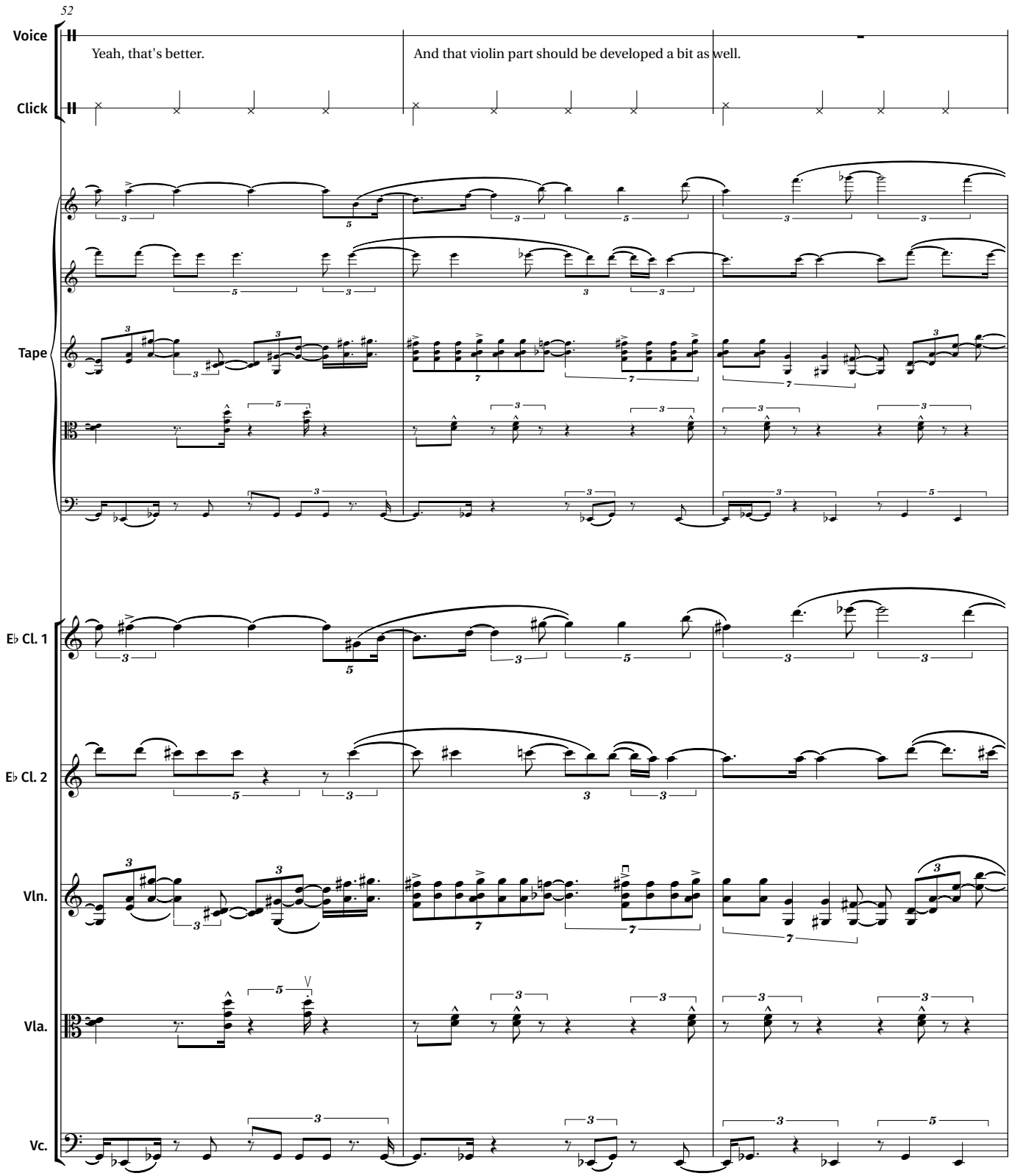


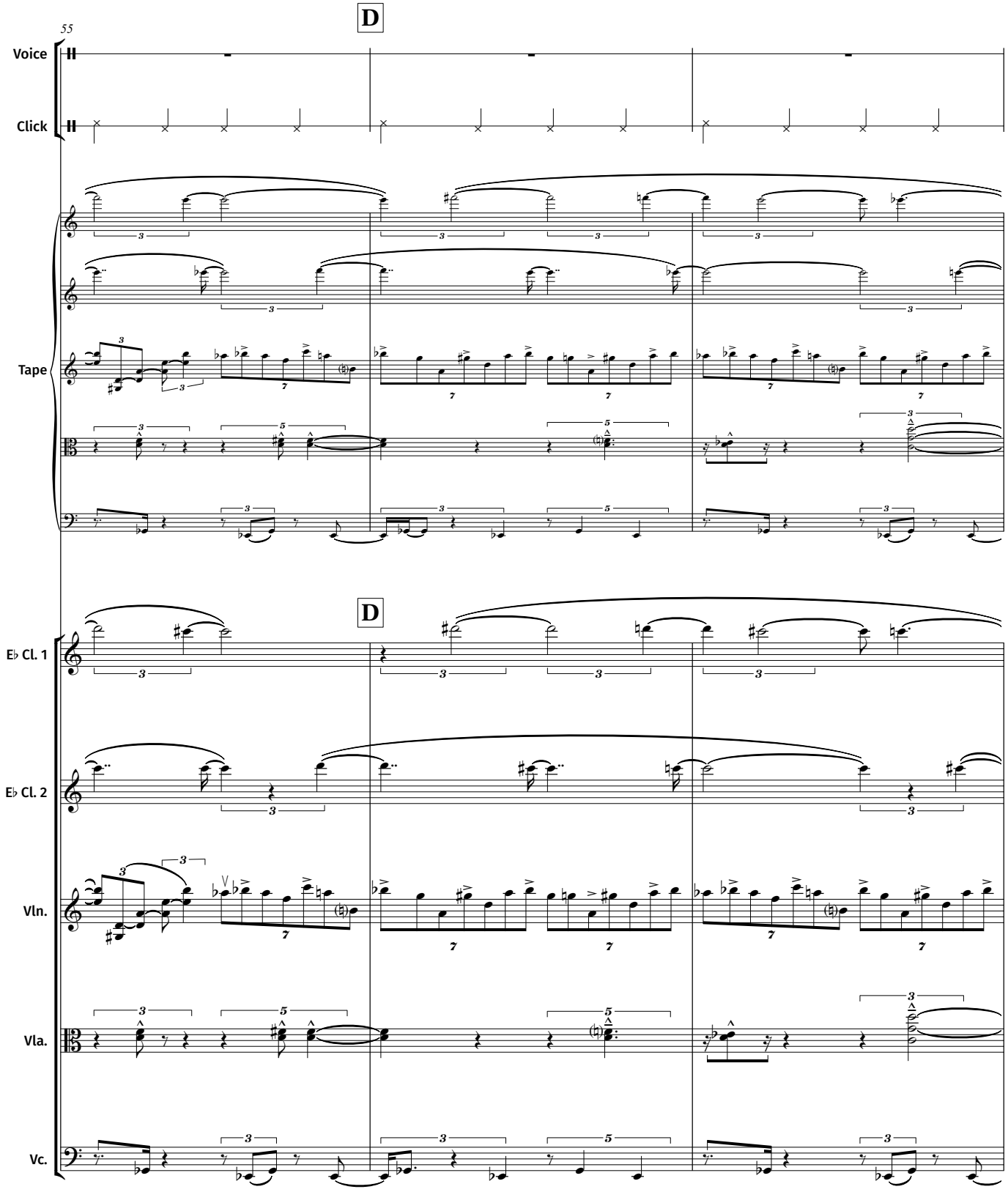
During these bars rest the ensemble are to turn back to the "beginning" of the piece, to the first page of their parts. It should seem as if the musicians are simply responding to the composer's voice (on tape) who demands the piece returns to the beginning.

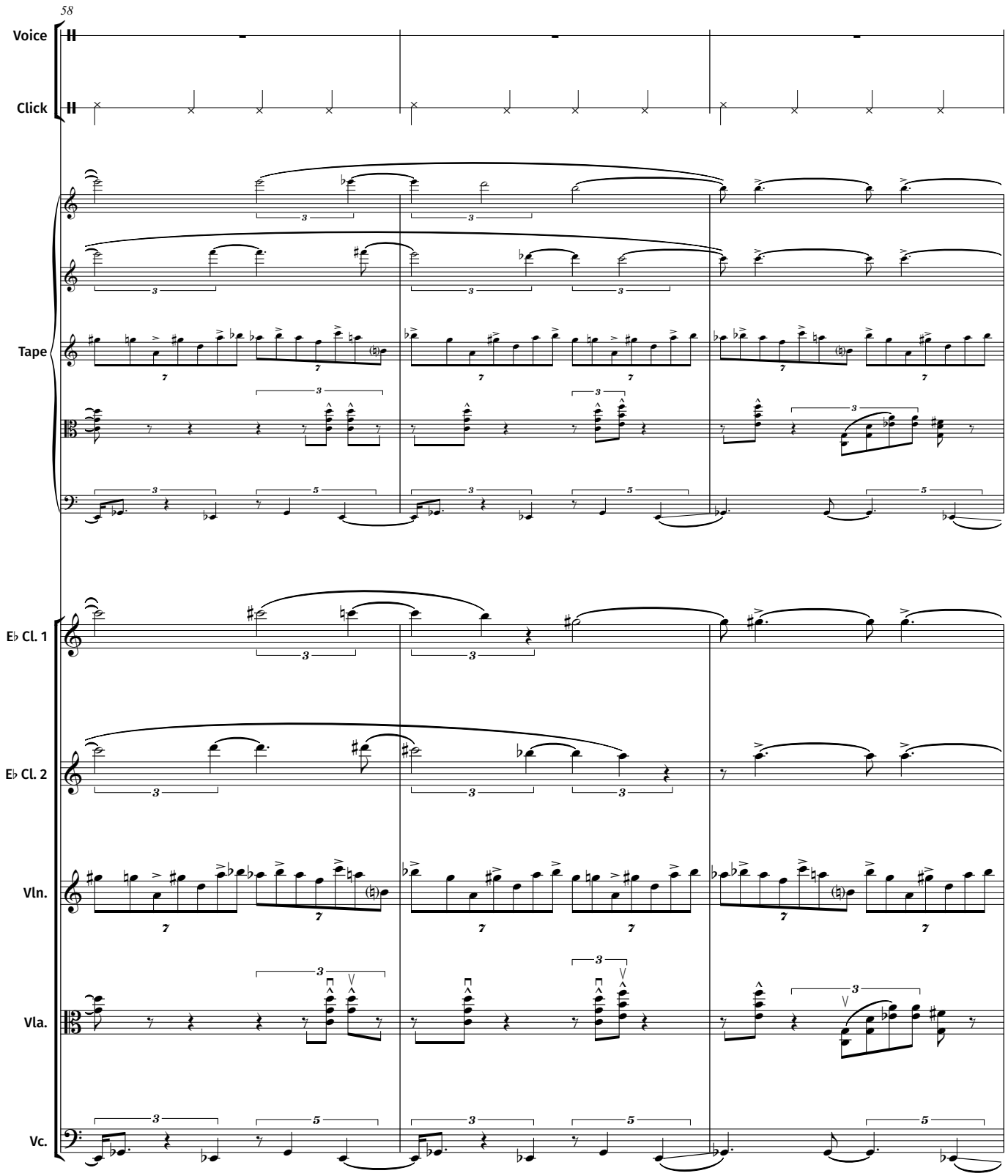

42
C
Voice
two
one
now!
So, this time the clarinets should...
Click
Tape
C
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
sim.
Vc.

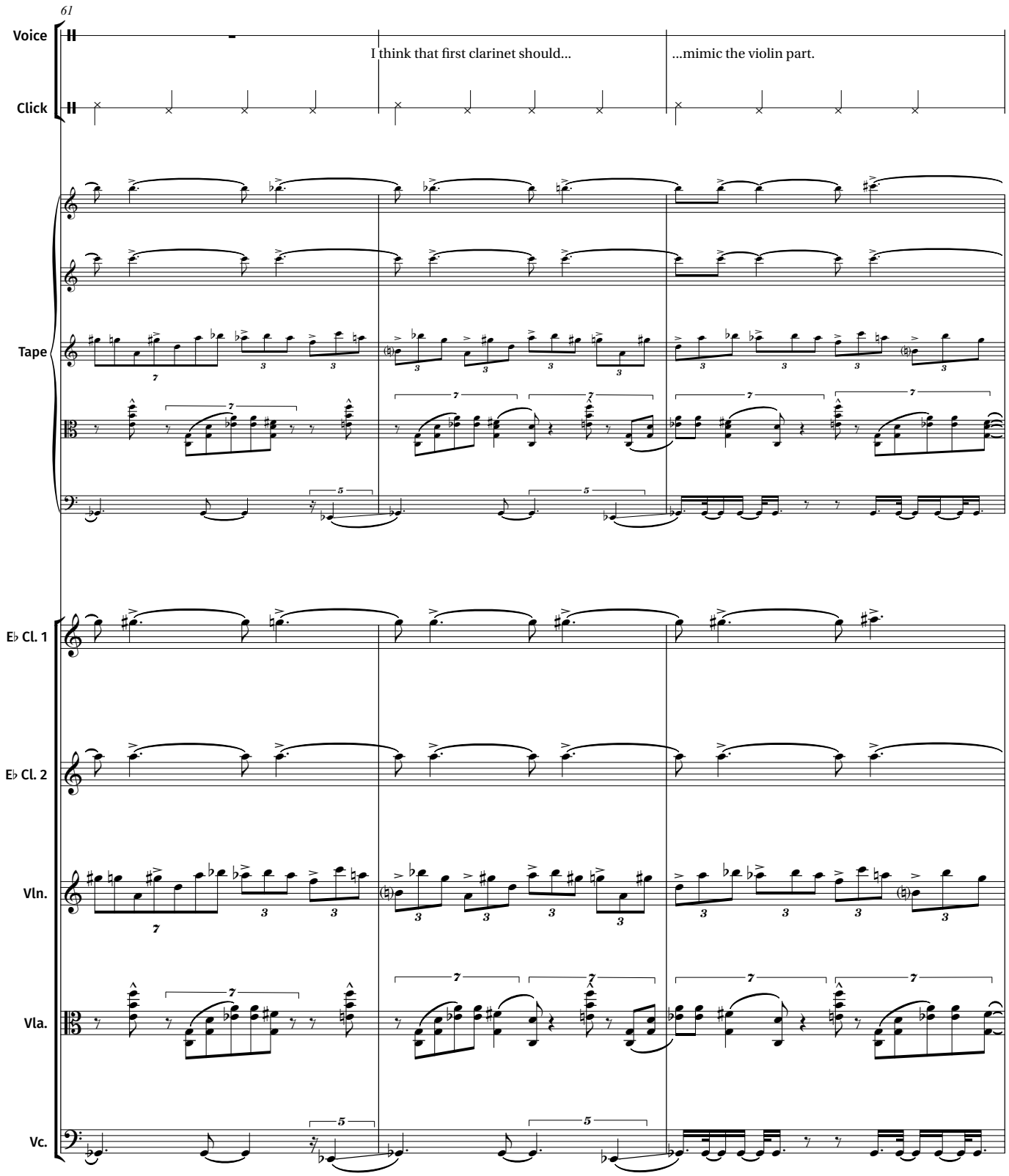

46
Voice
...play something different...
...something smoother, maybe.
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

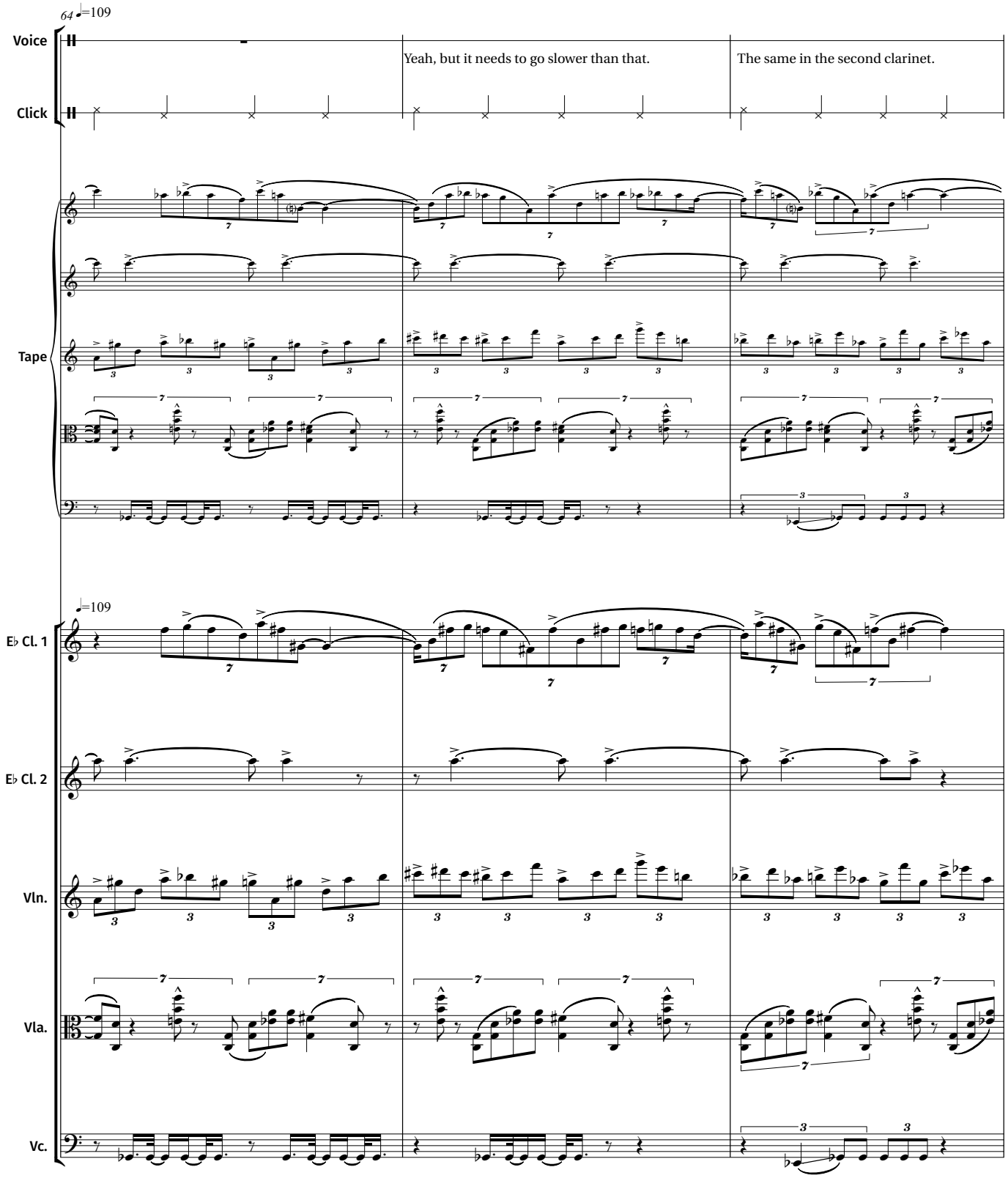

49
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
(pitch bend)
Vln.
Vla.
II
III
Vc.

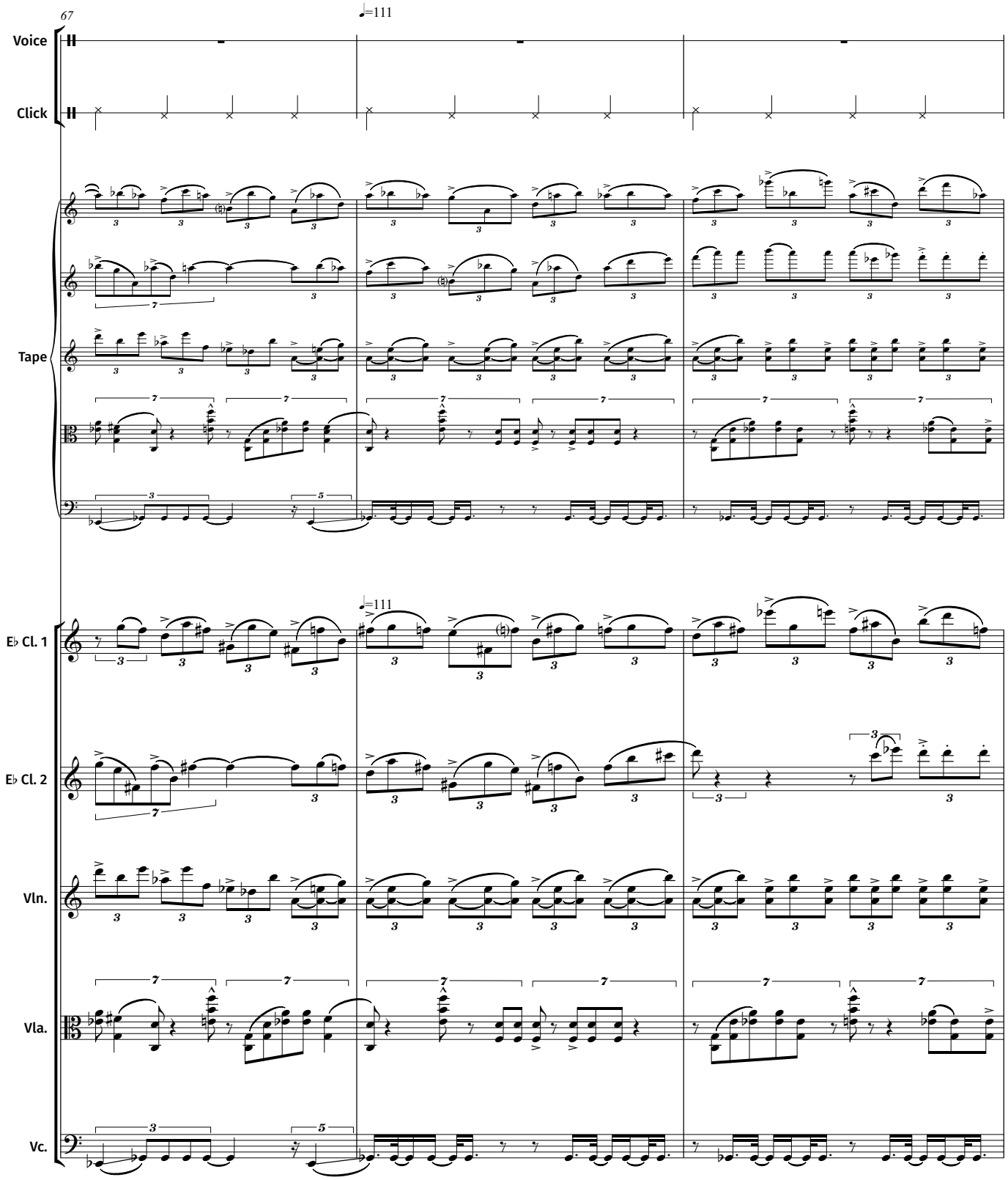

52
Voice
Yeah, that's better.
And that violin part should be developed a bit as well.
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

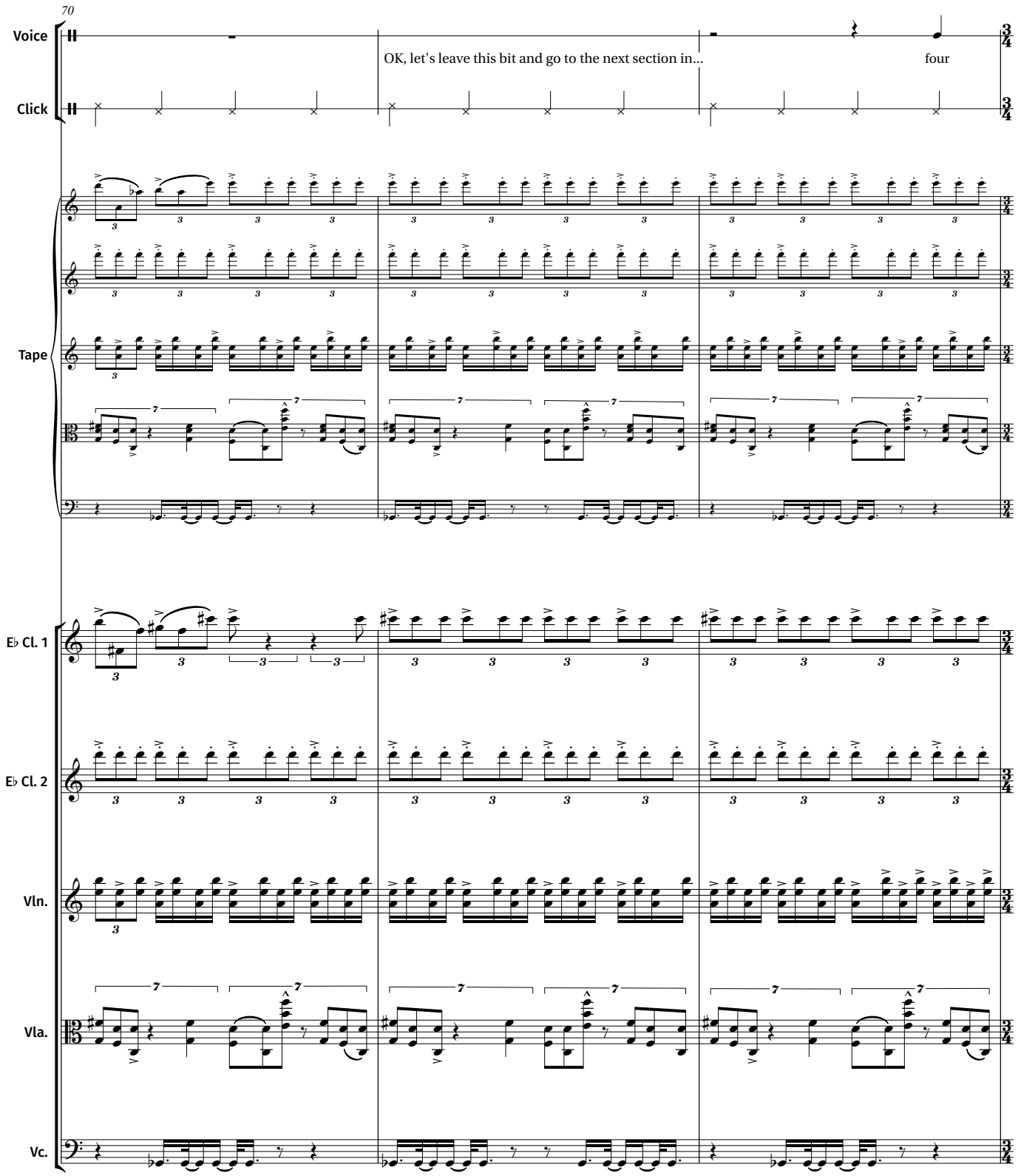

D
55
Voice
Click
Tape
D
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

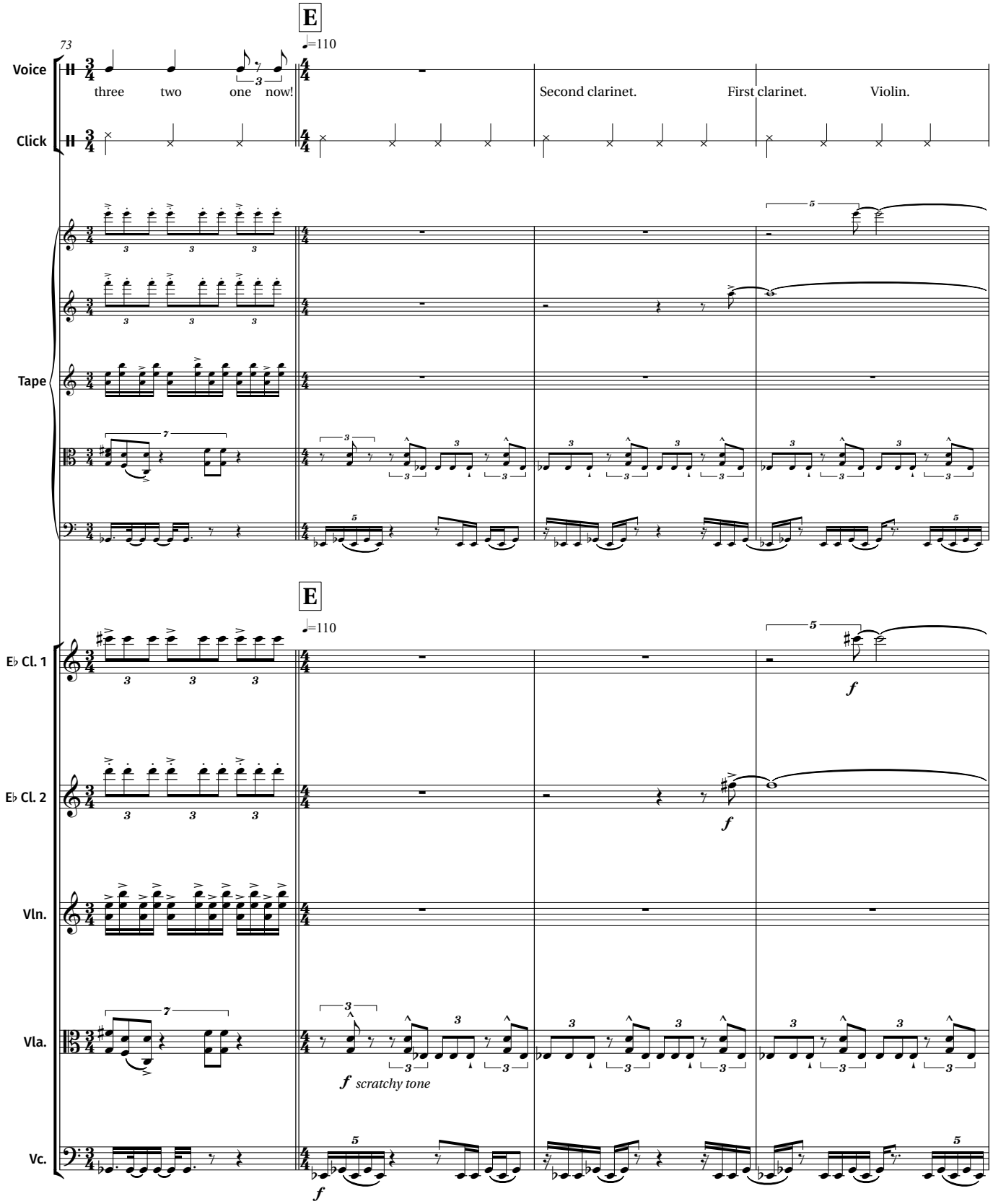

58
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

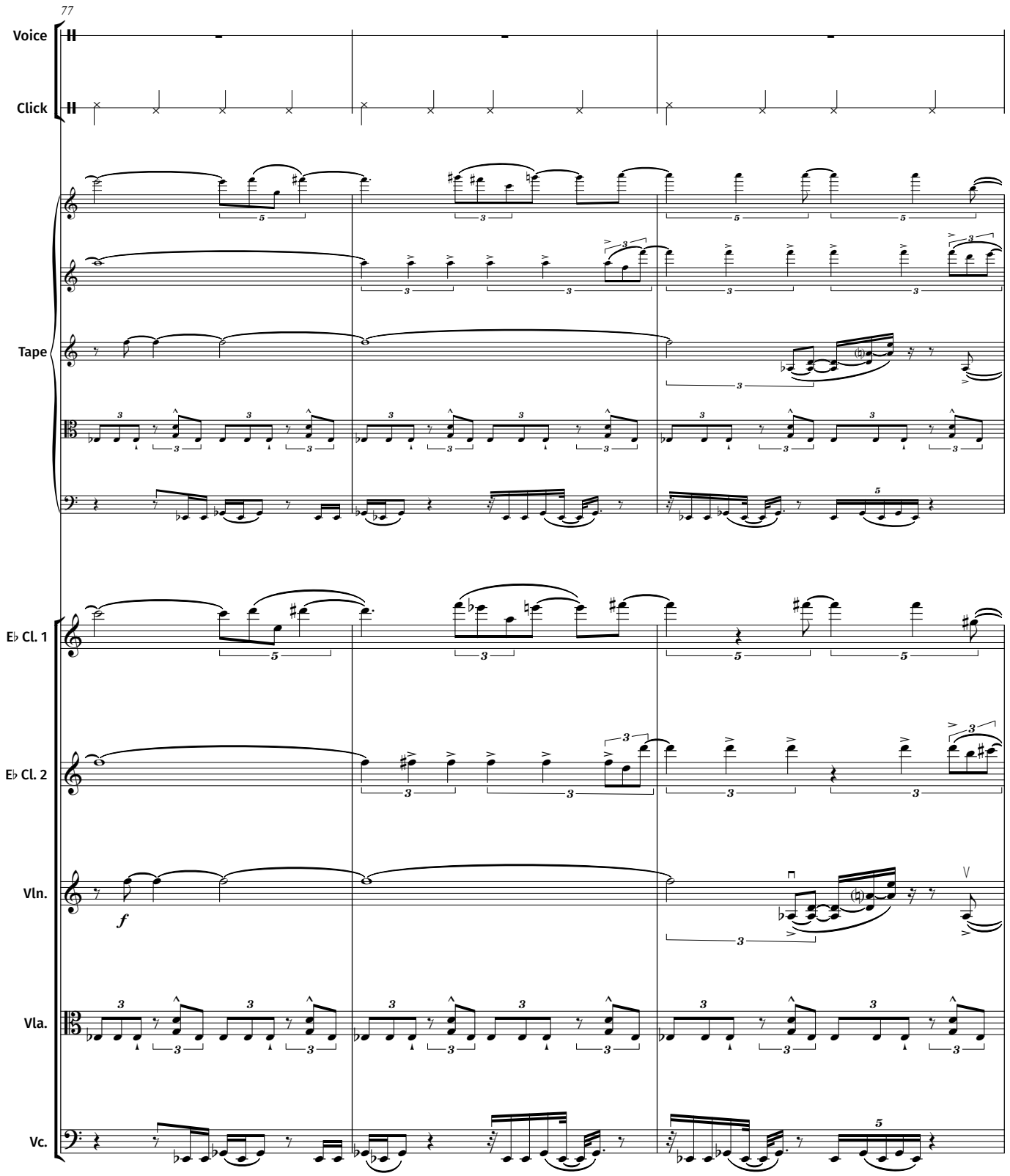

61
Voice
I think that first clarinet should...
...mimic the violin part.
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

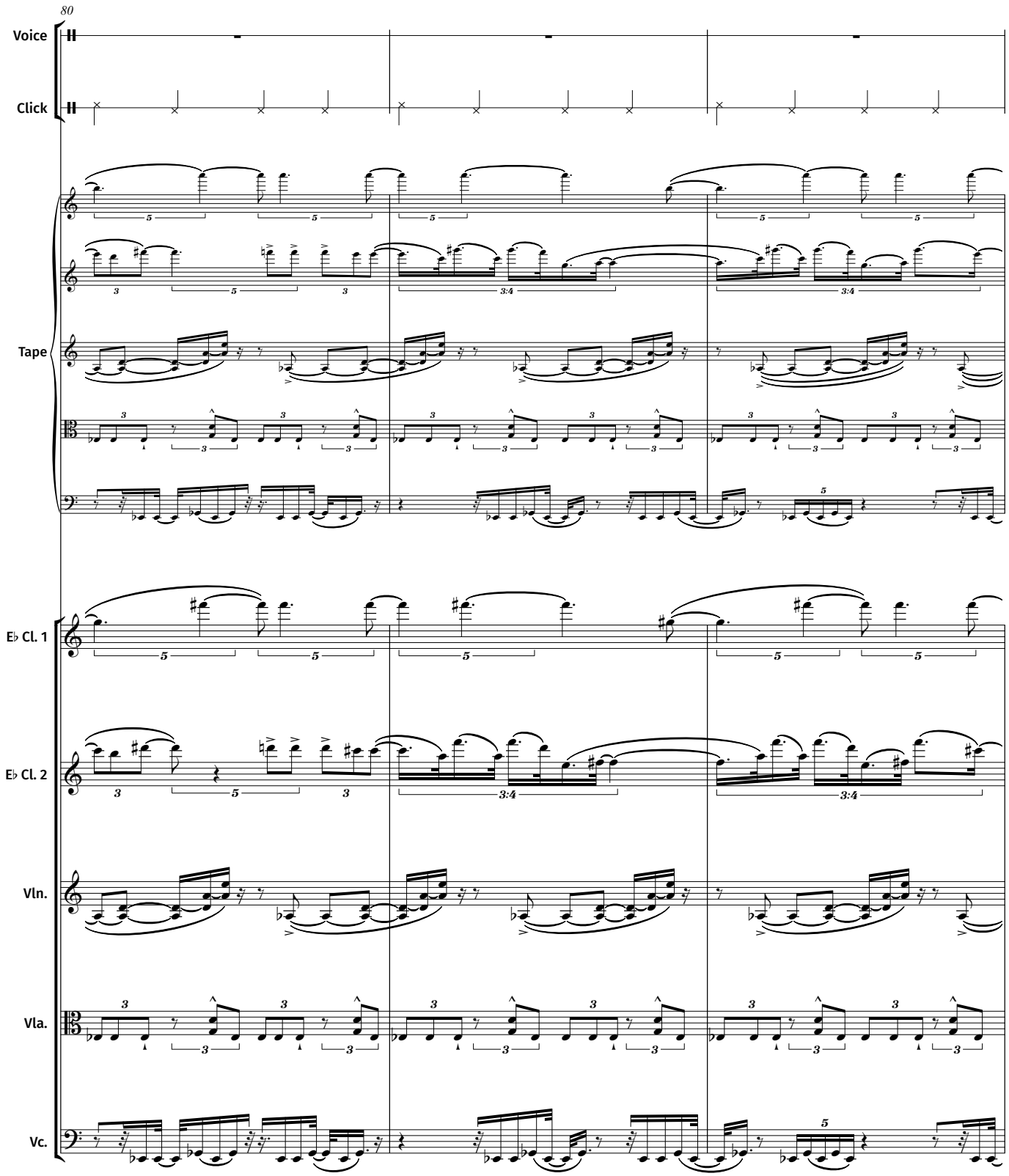

64 ♩=109
Voice
Click
Yeah, but it needs to go slower than that.
The same in the second clarinet.
Tape
♩=109
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

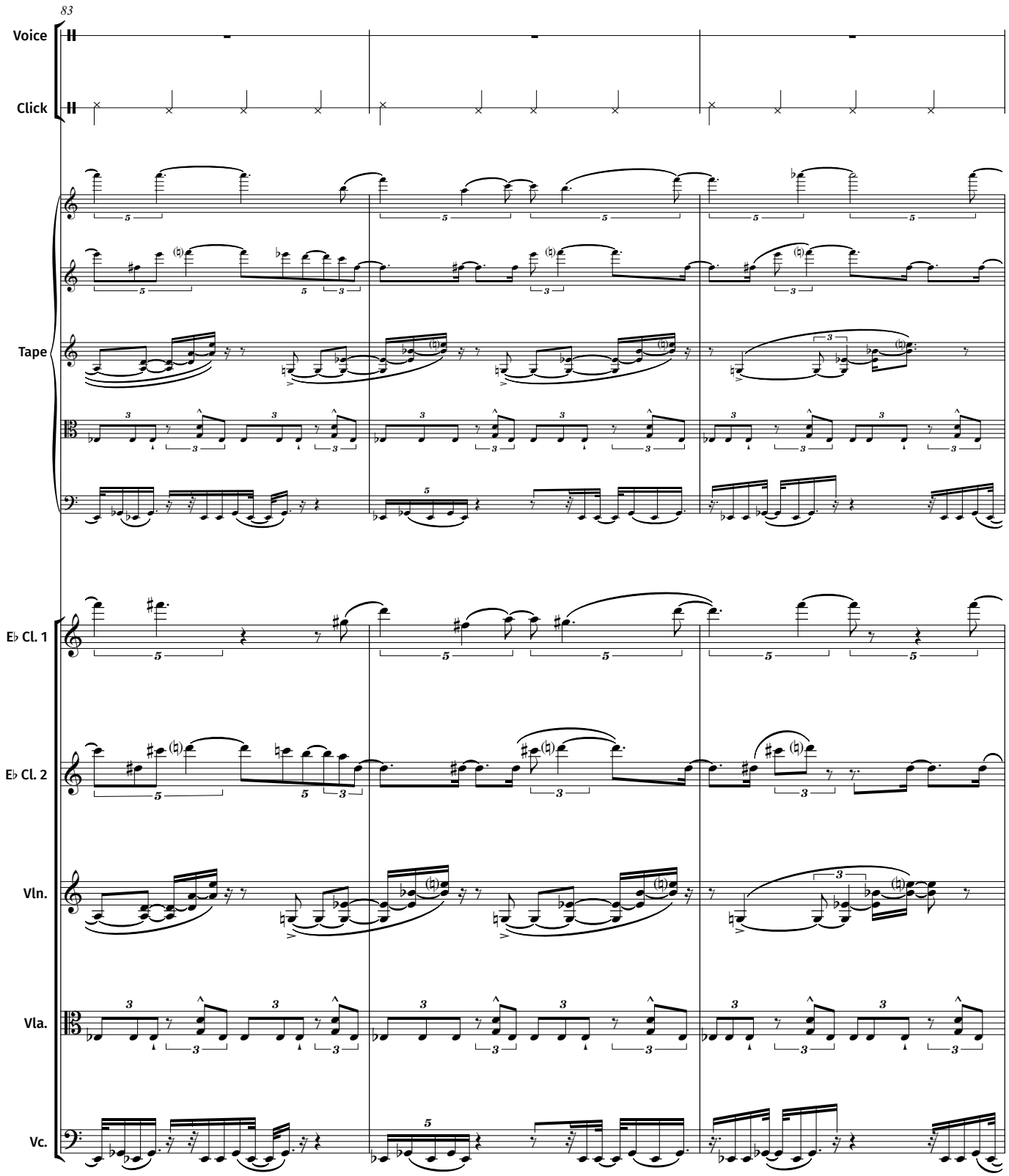

67
♩=111
Voice
Click
Tape
♩=111
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

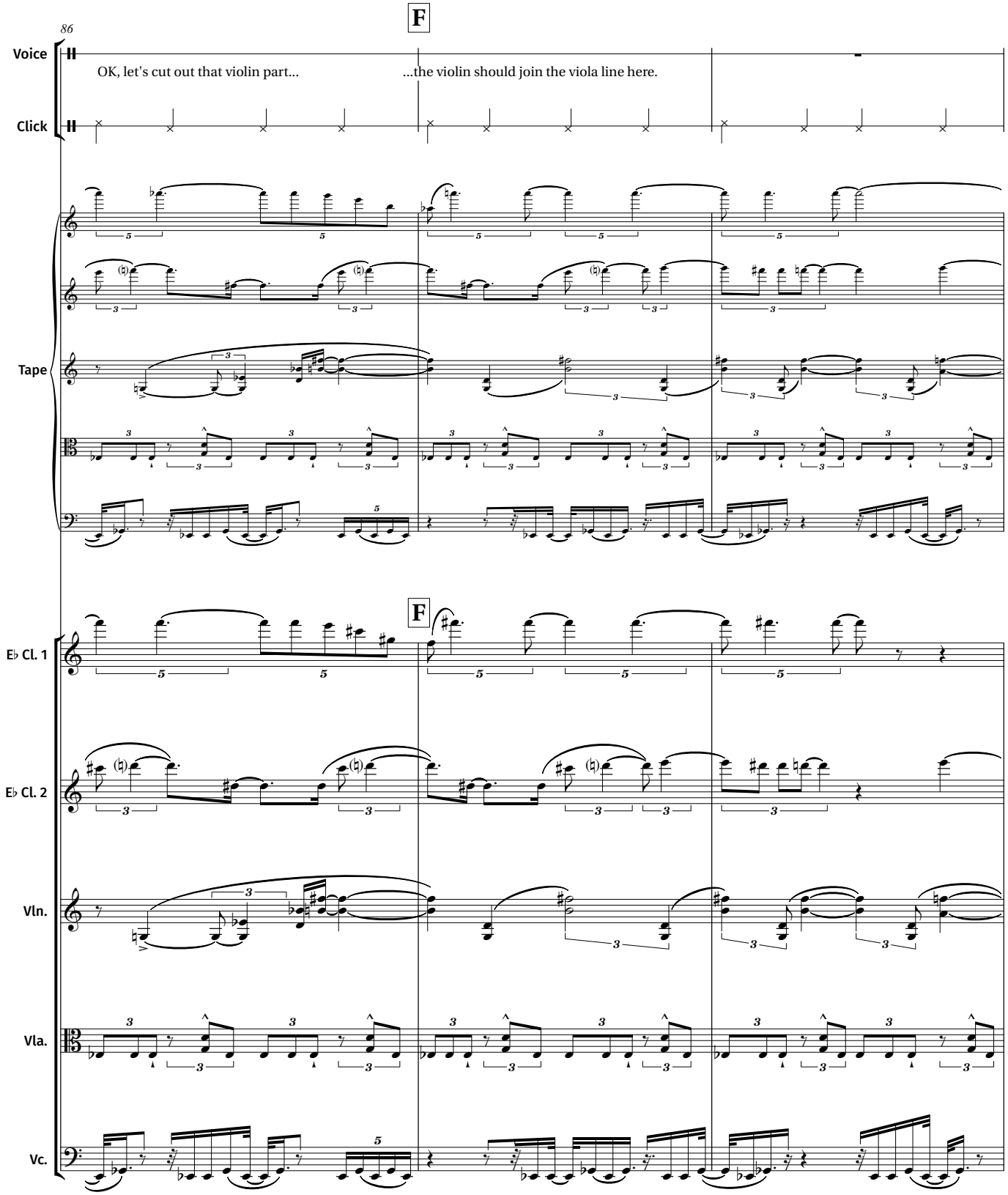

70
Voice
OK, let's leave this bit and go to the next section in...
four
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

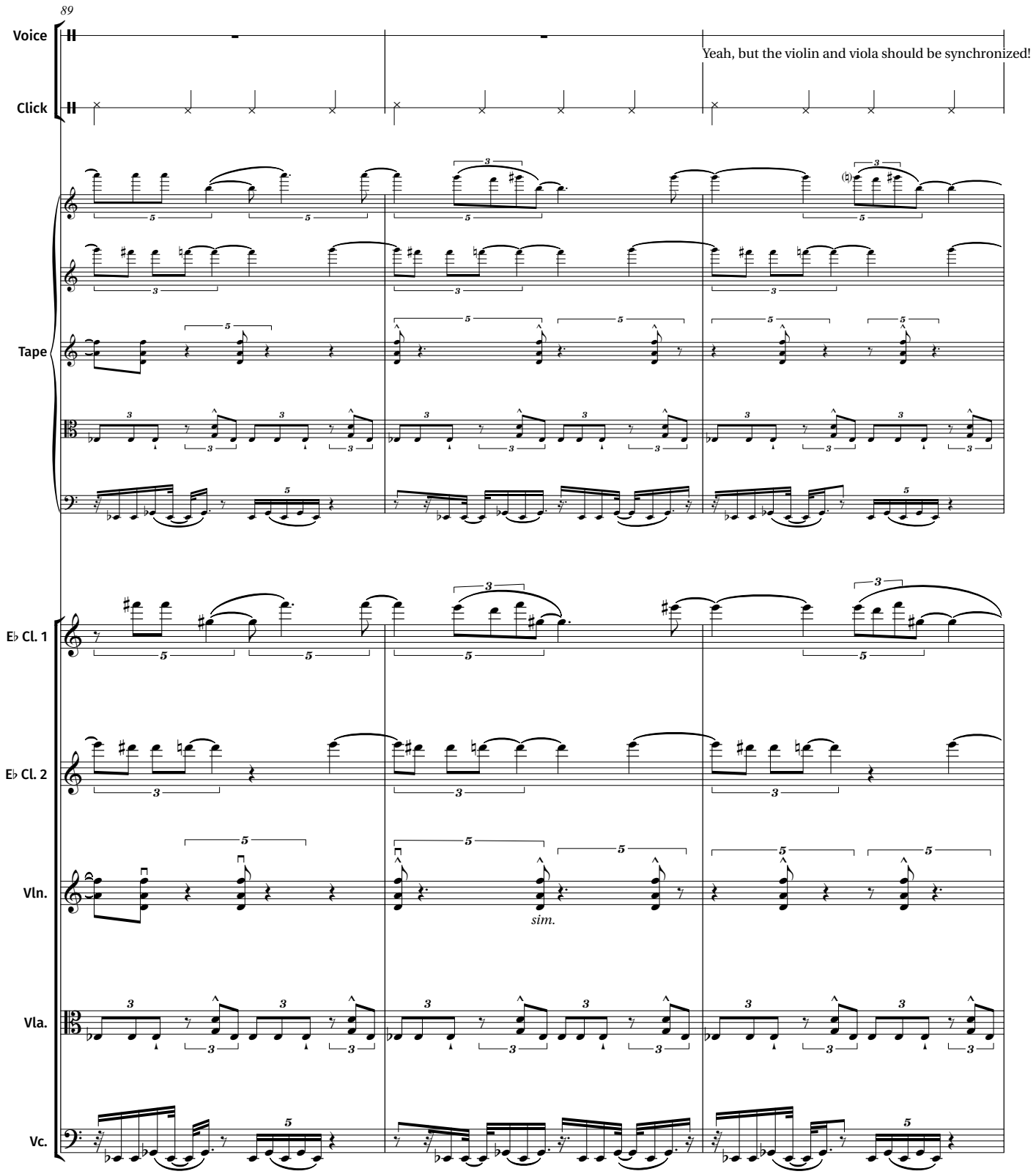

E
73
♩=110
Voice
three two one now!
Second clarinet.
First clarinet.
Violin.
Click
Tape
E
♩=110
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
f
f scratchy tone
f

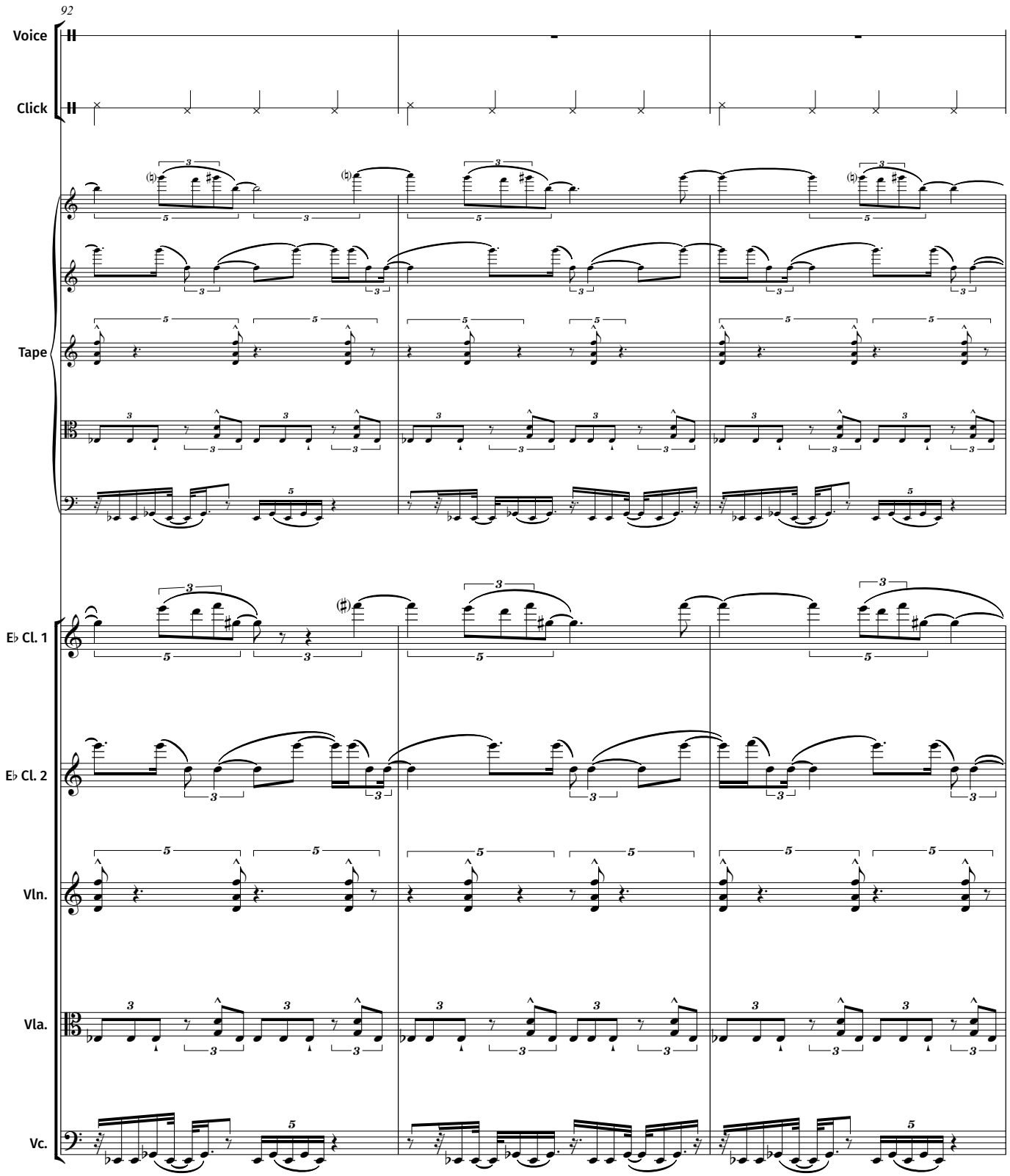

77
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
f

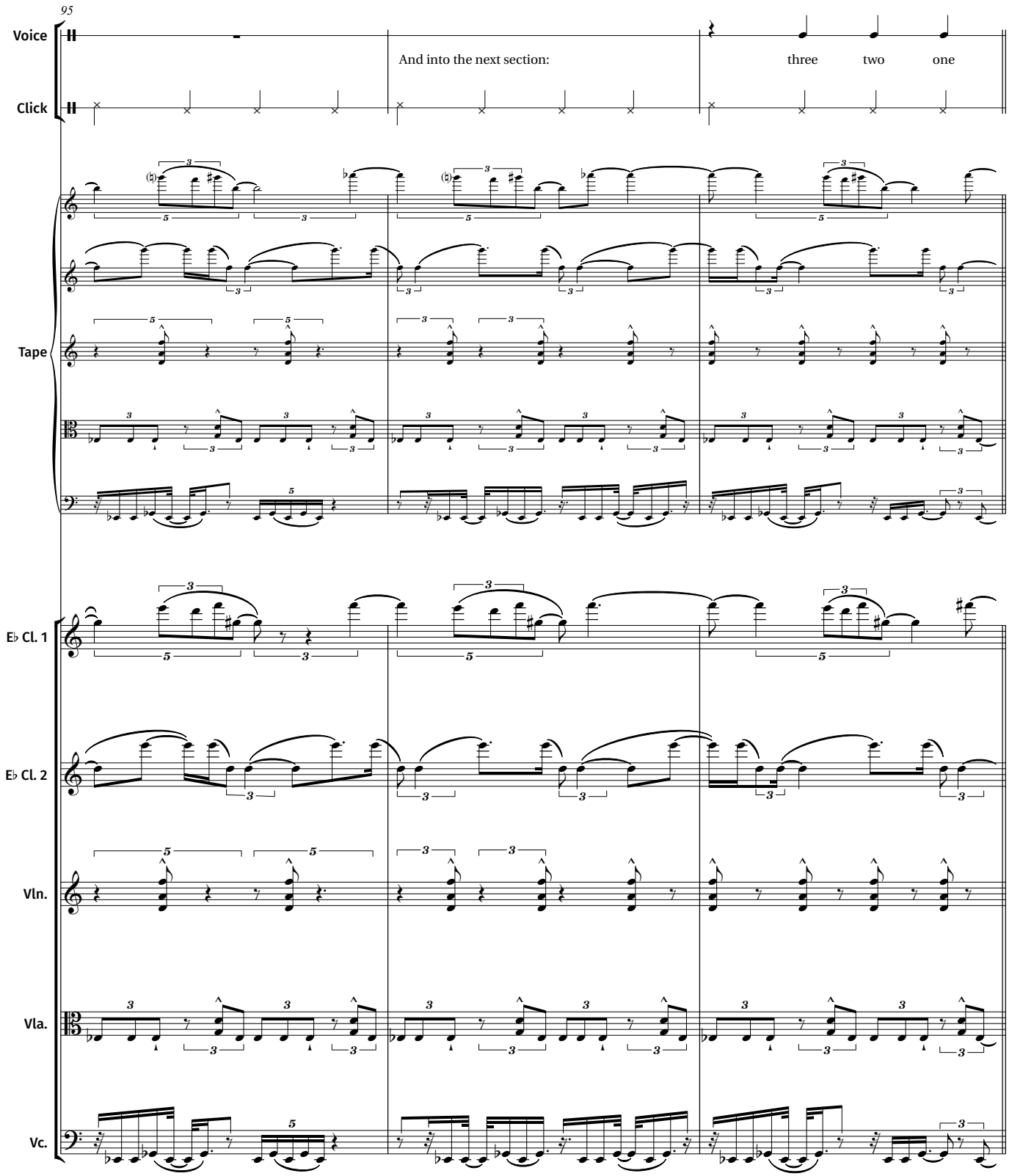

80
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

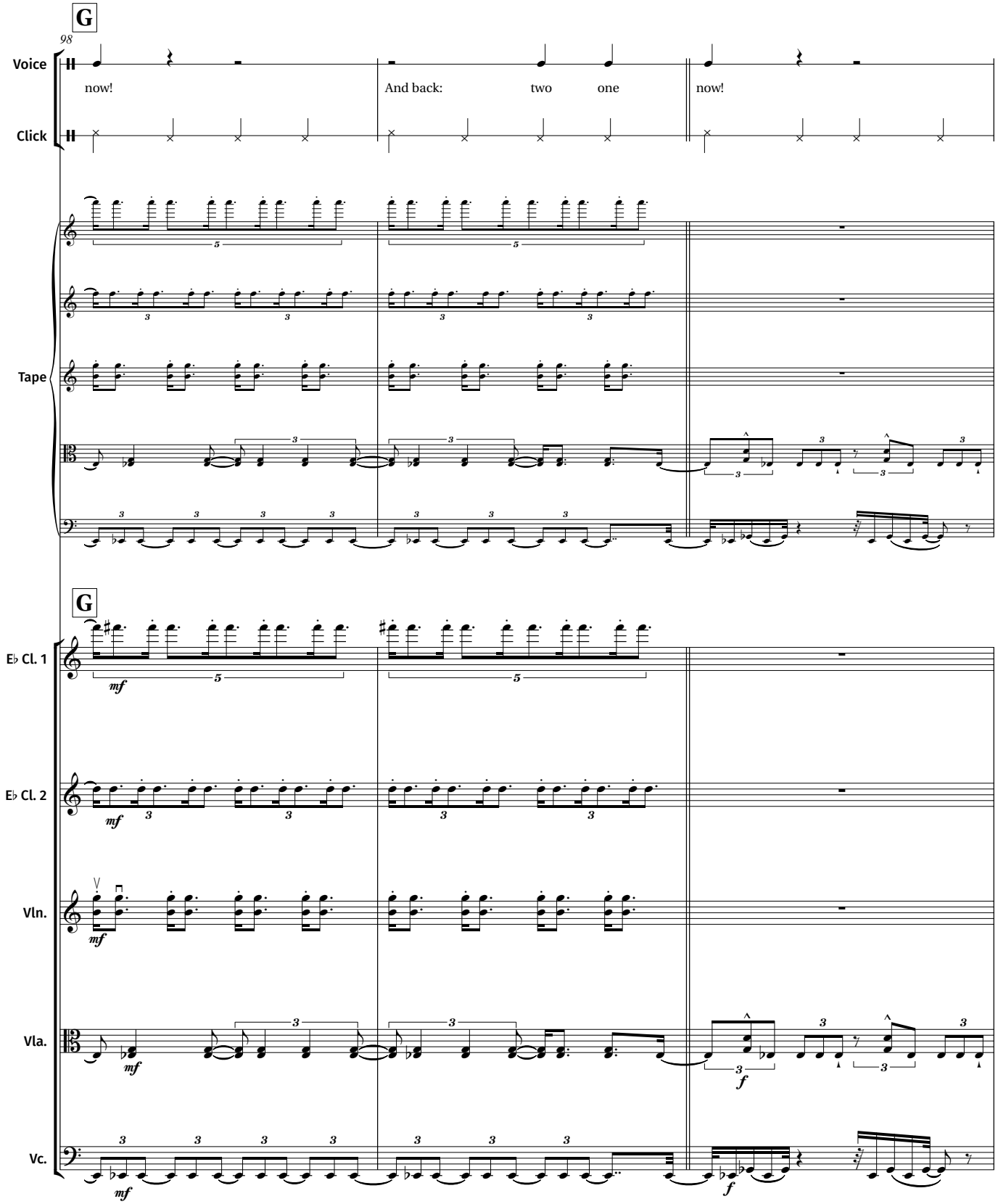

83
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

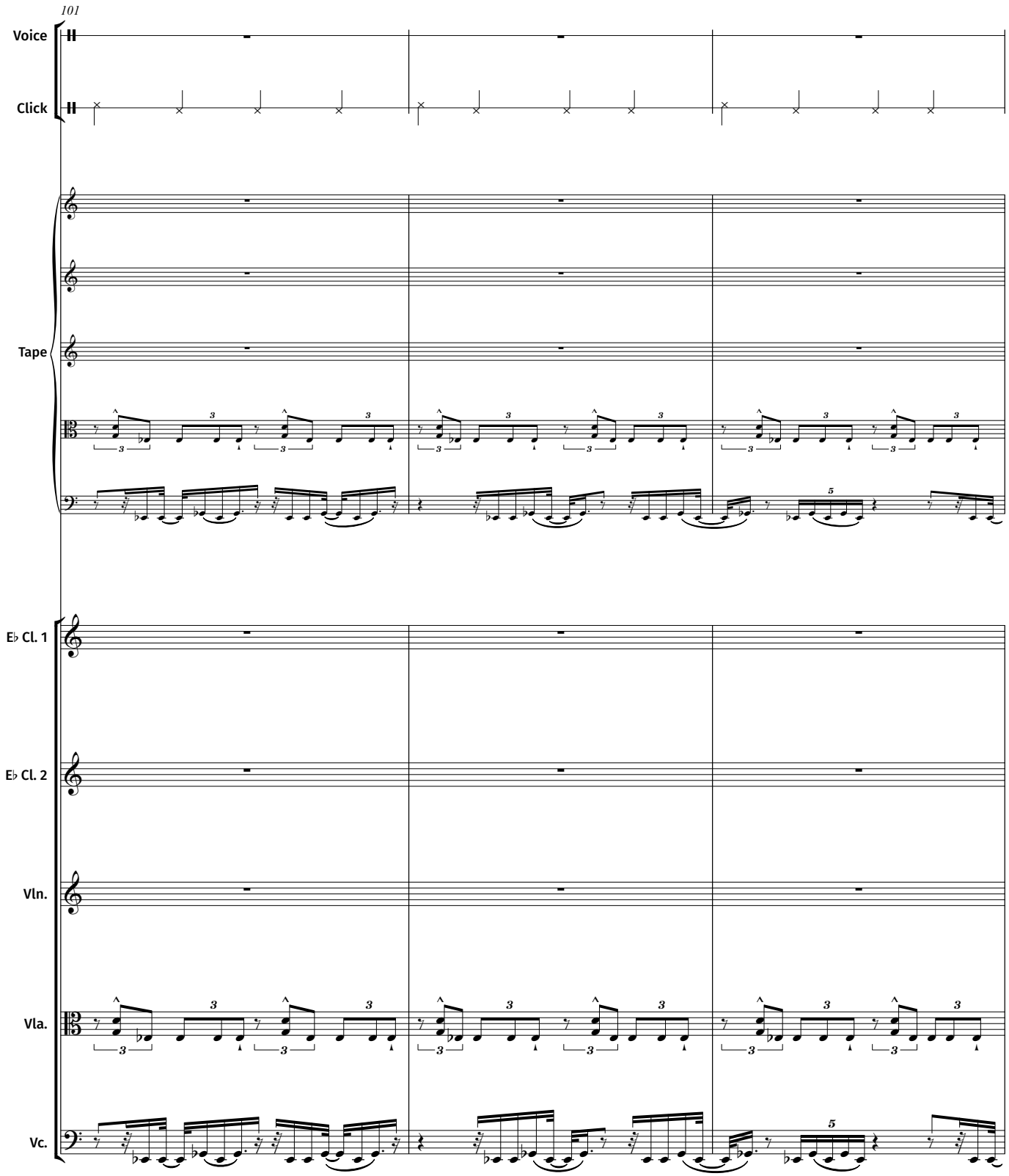

F
86
Voice
OK, let's cut out that violin part...
...the violin should join the viola line here.
Click
Tape
F
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

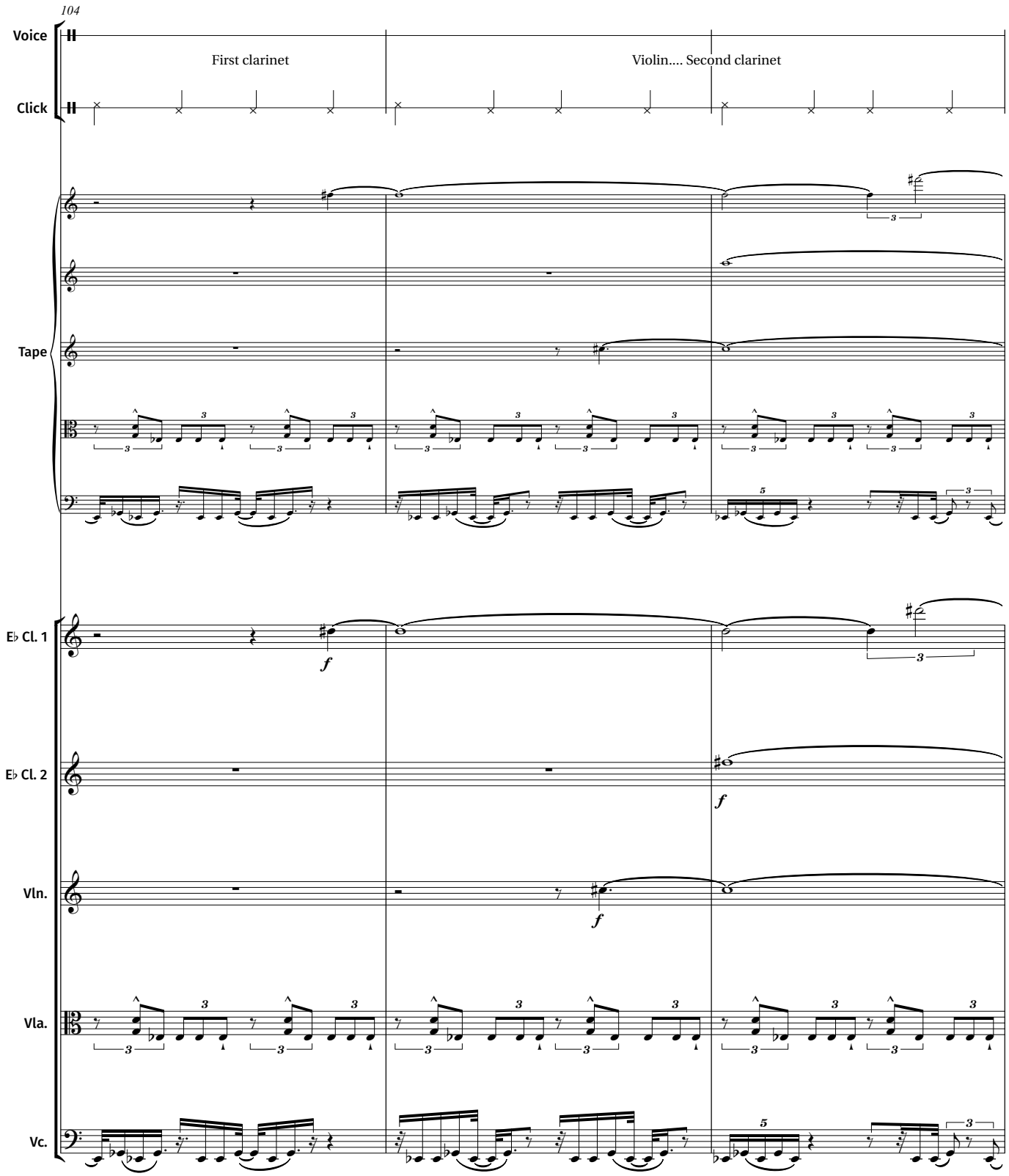

89
Voice
Yeah, but the violin and viola should be synchronized!
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
sim.
Vla.
Vc.

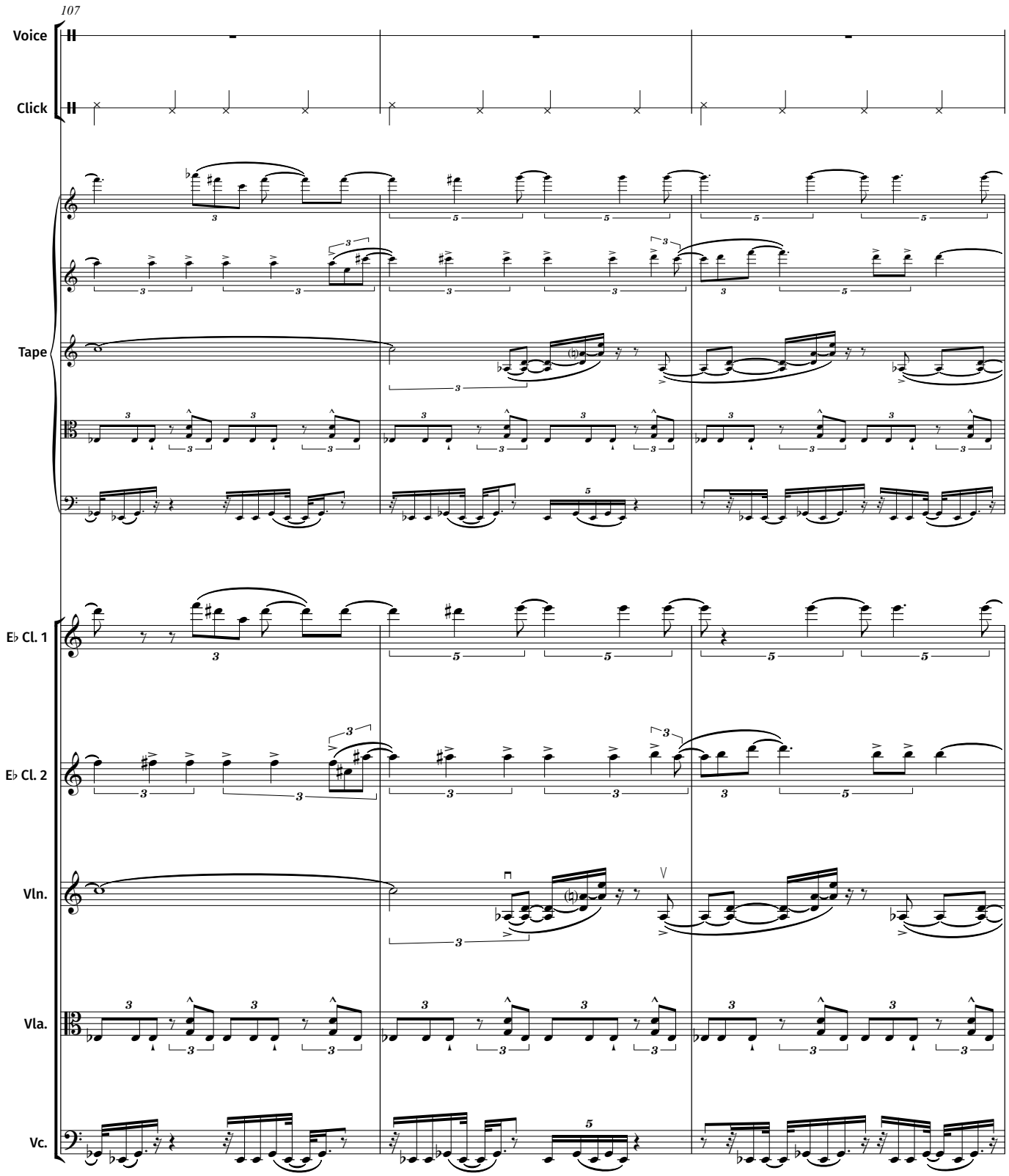

92
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

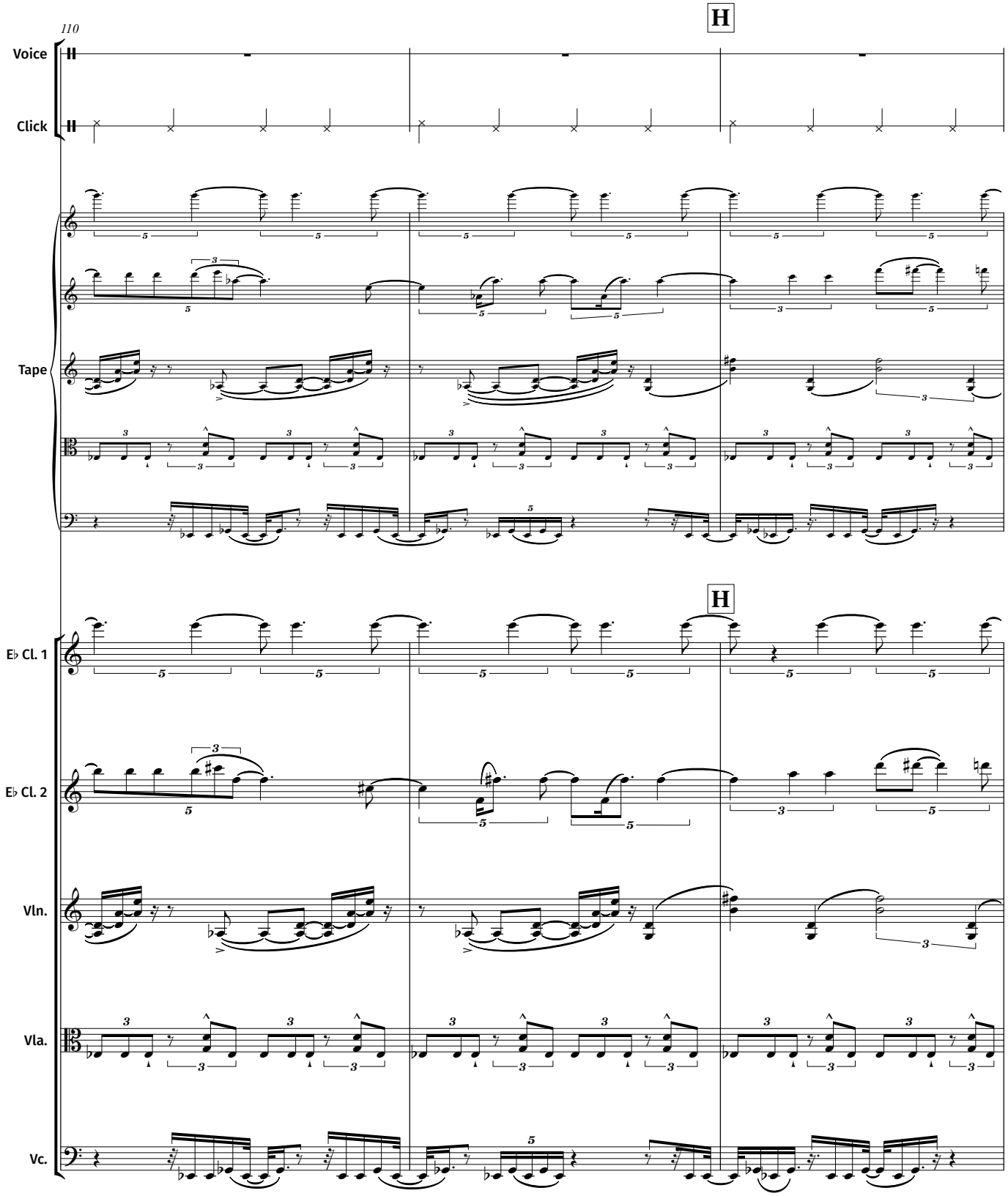

95
Voice
Click
And into the next section:
three two one
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

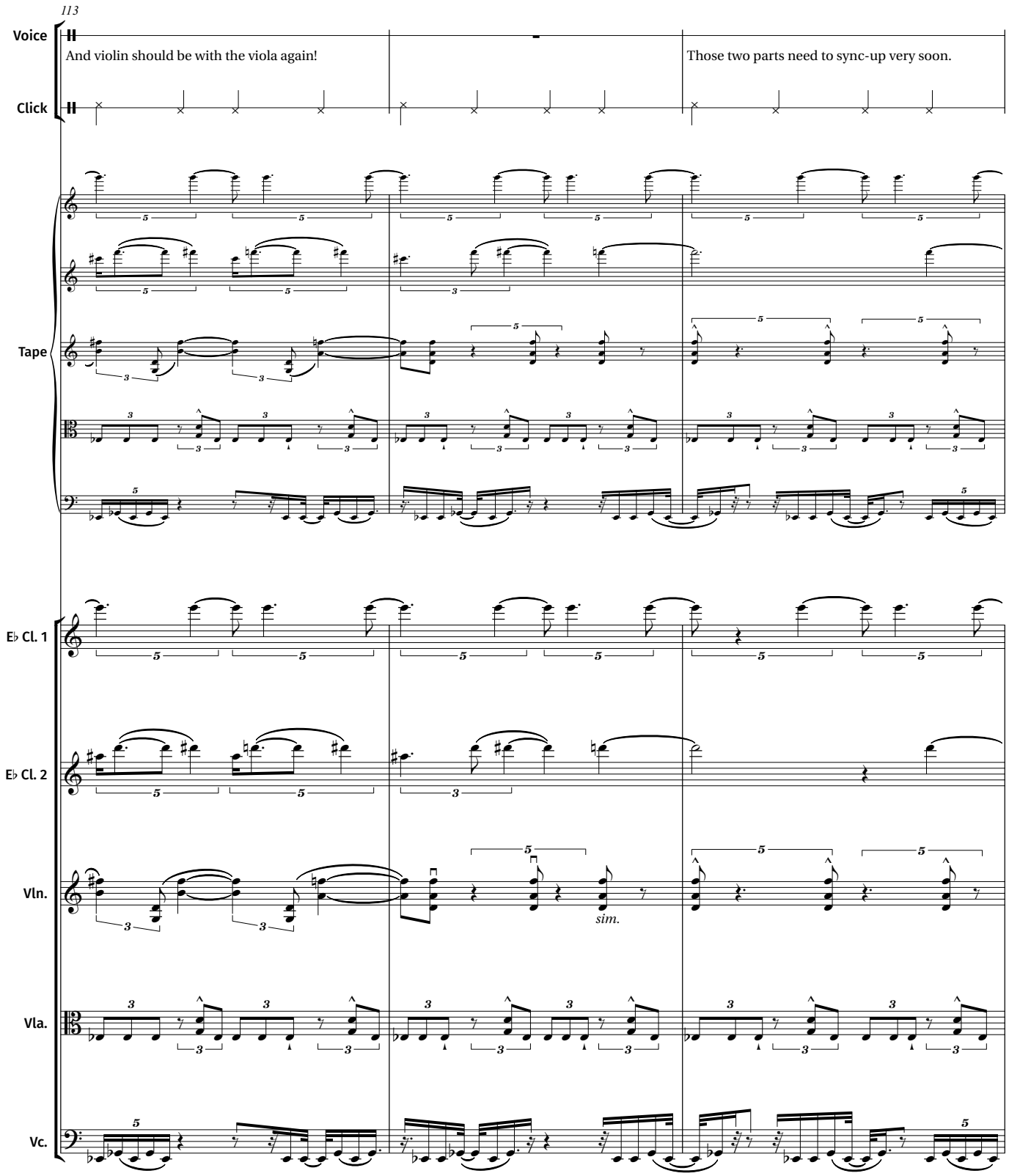

G
98
Voice
now!
And back:
two
one
now!
Click
Tape
G
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
mf
f

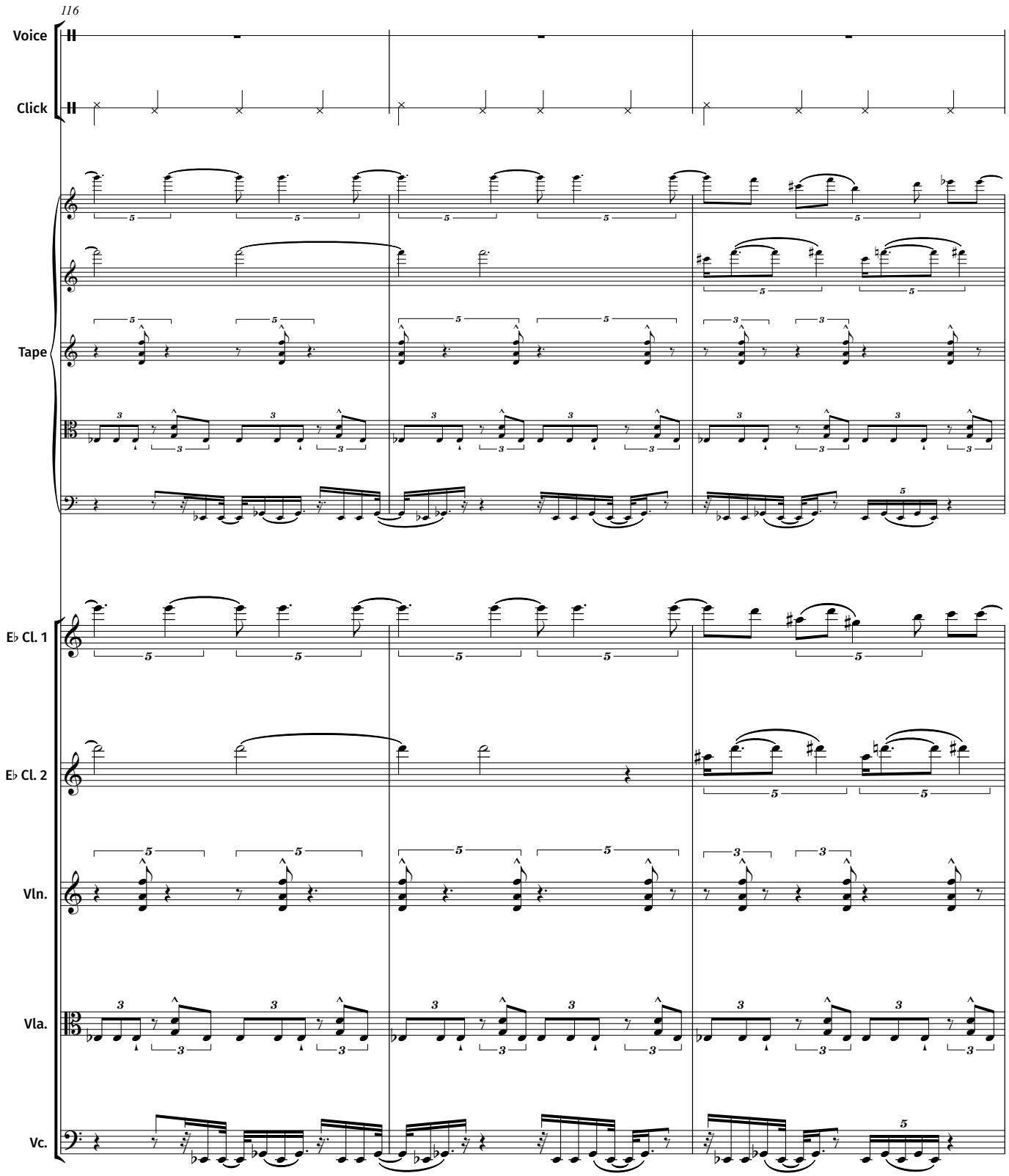

101
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

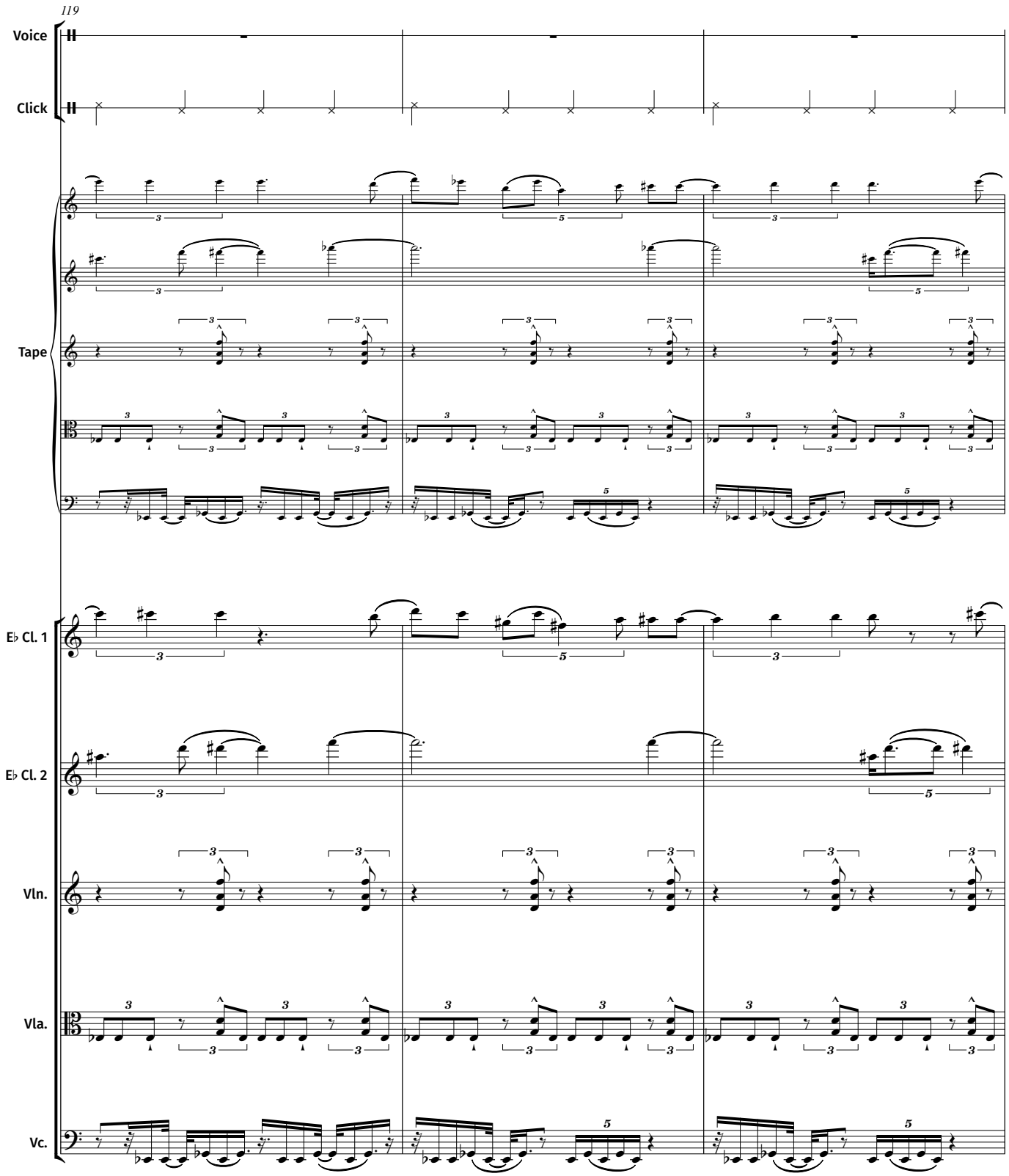

104
Voice
Click
First clarinet
Violin.... Second clarinet
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
f

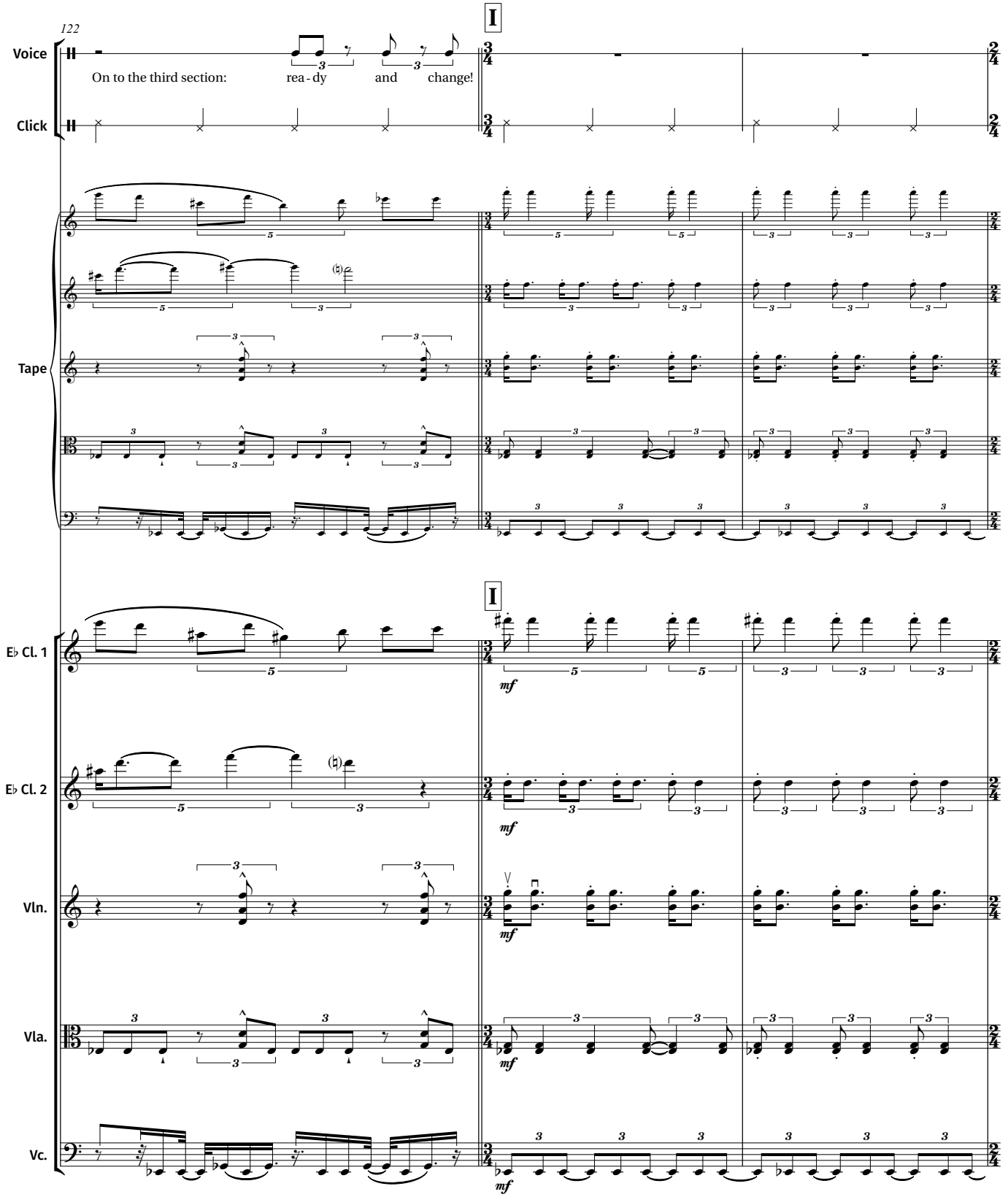

107
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

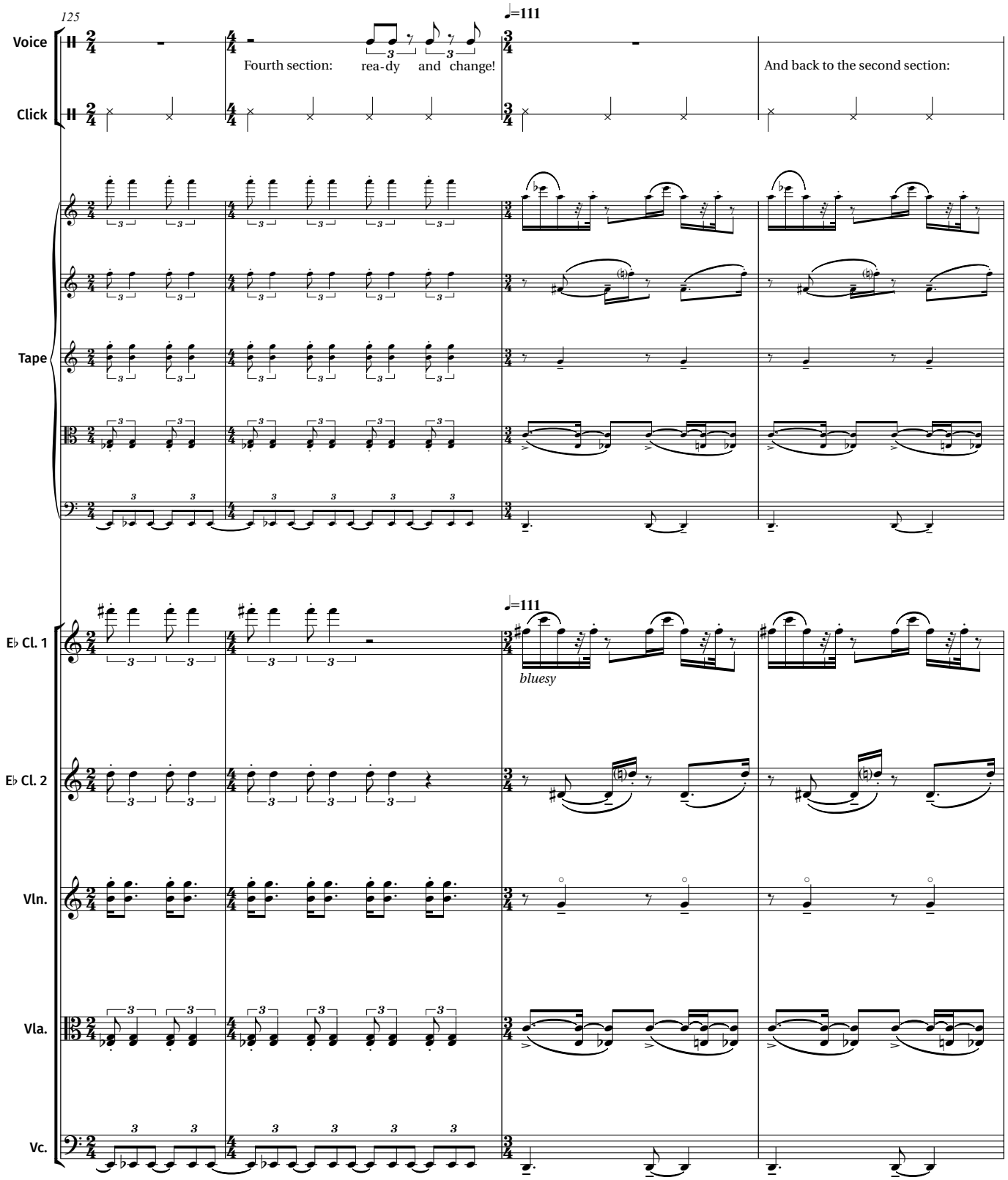

110
H
Voice
Click
Tape
H
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

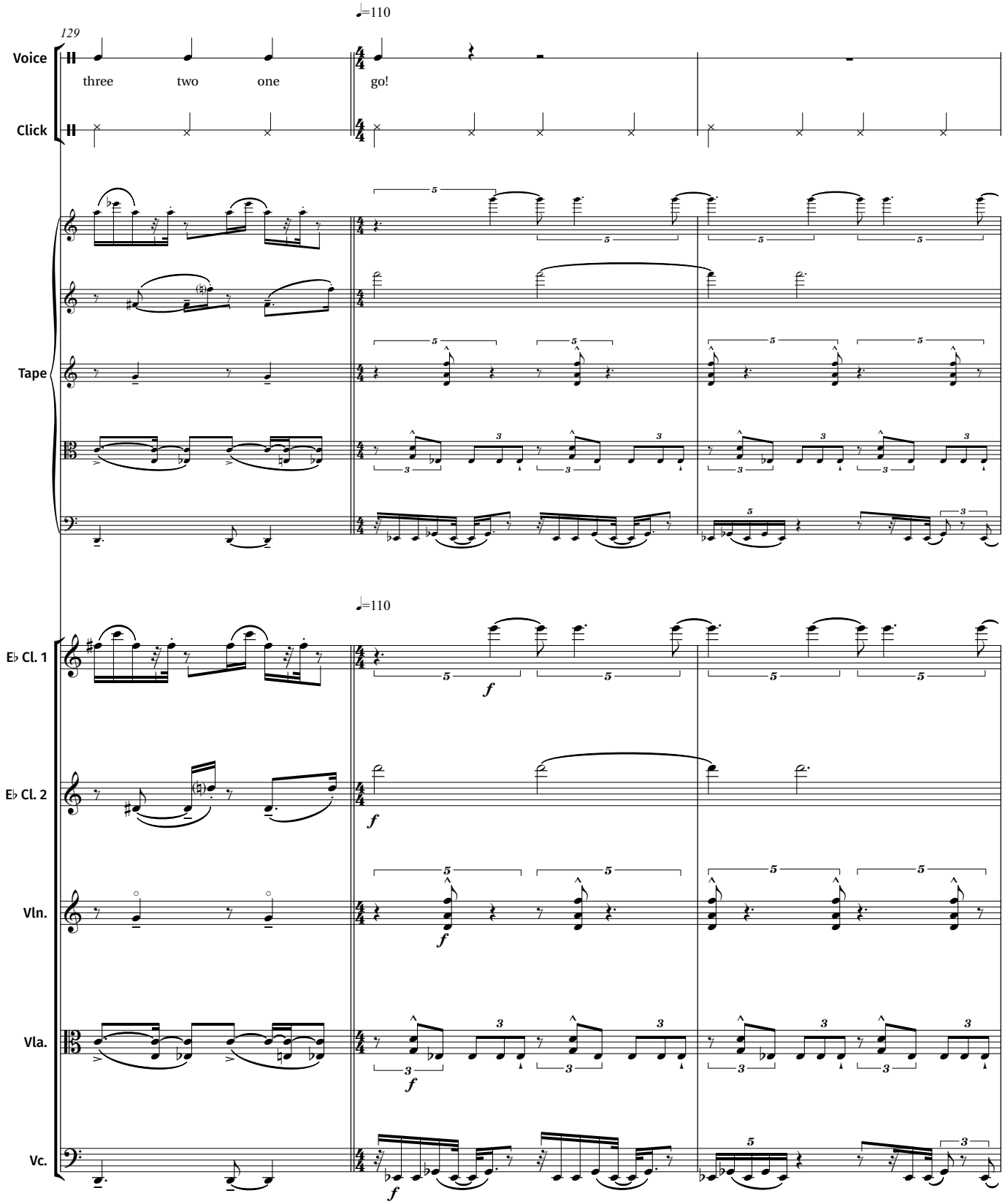

113
Voice
And violin should be with the viola again!
Those two parts need to sync-up very soon.
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
sim.
Vla.
Vc.

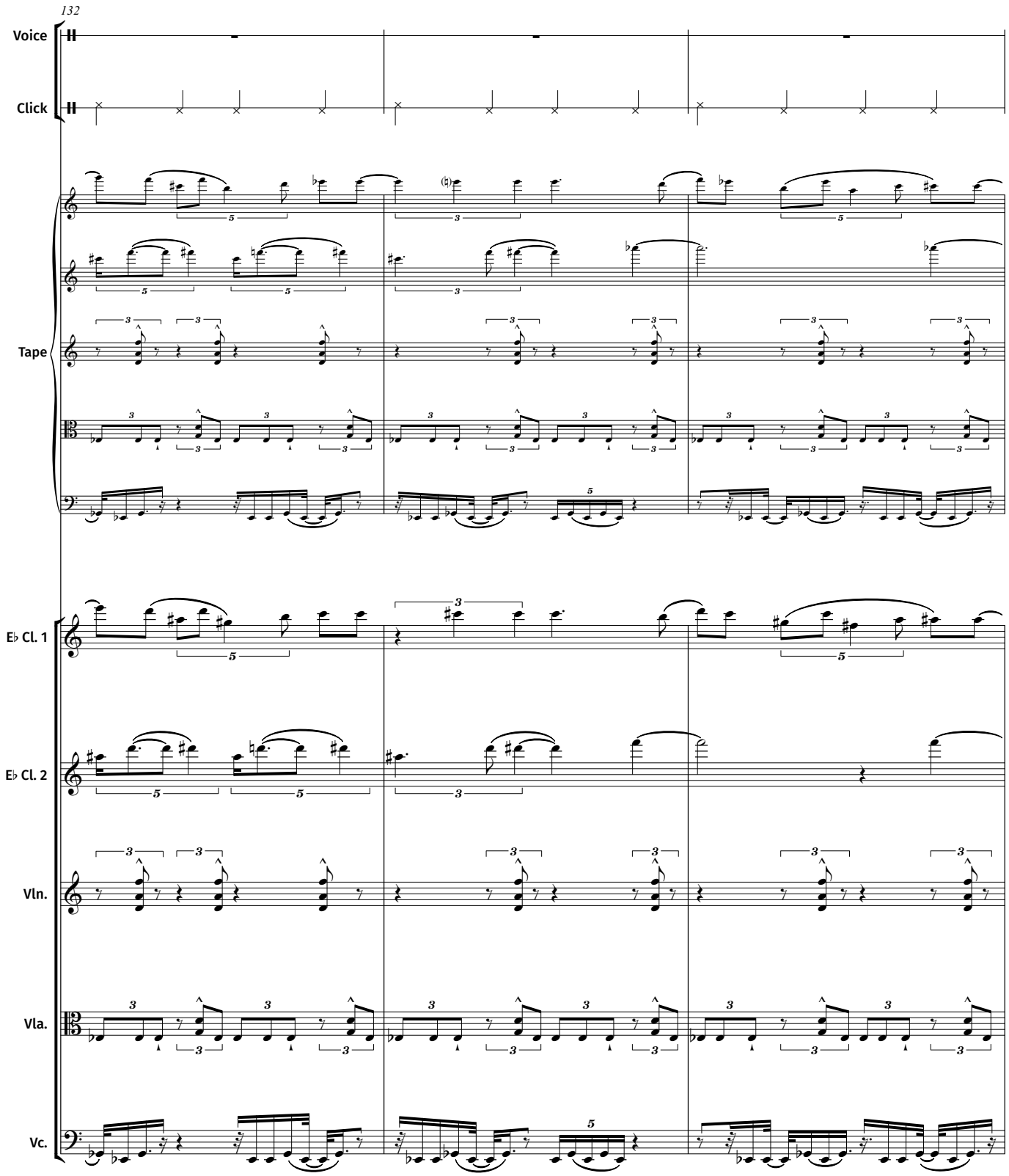

116
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

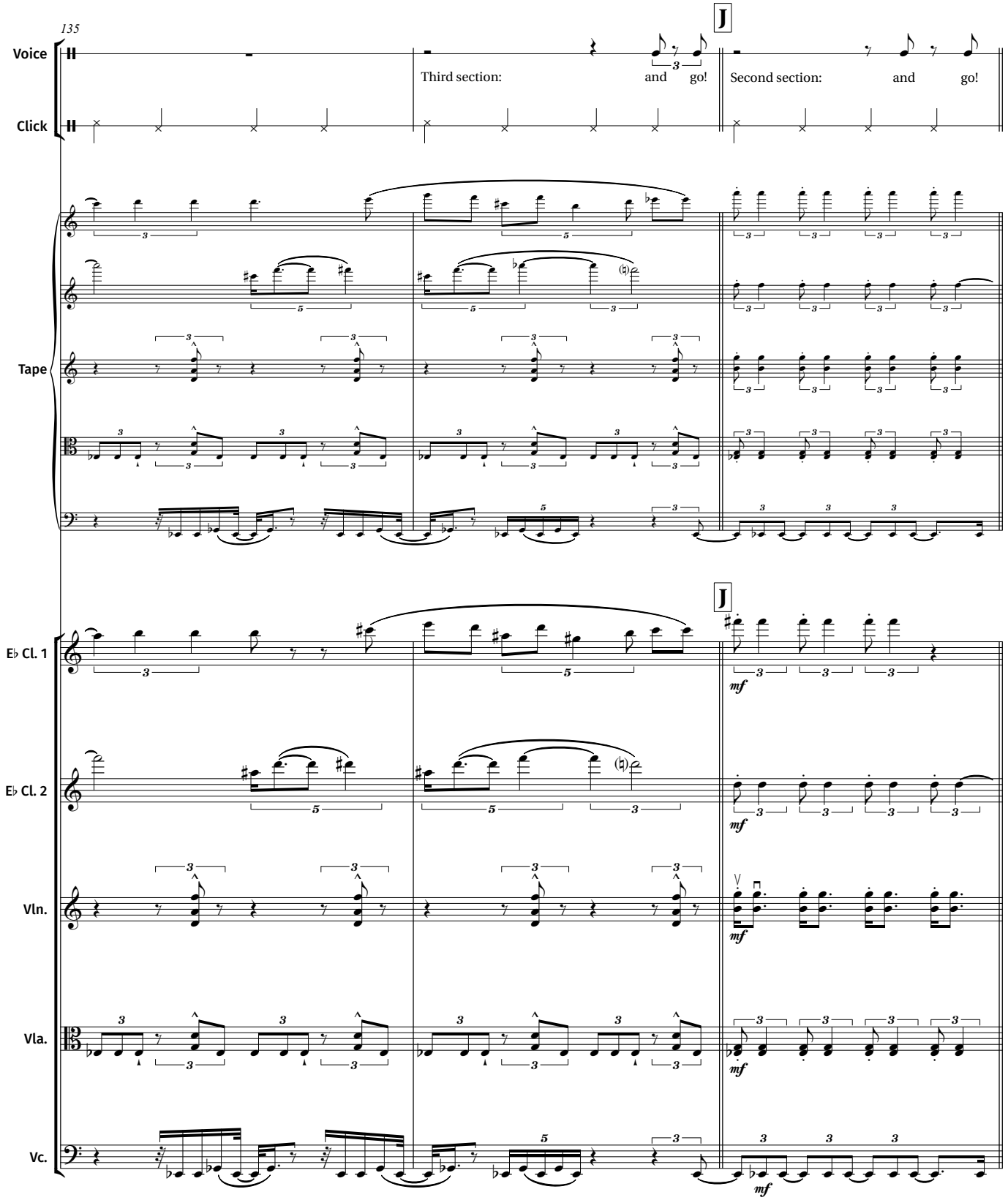

119
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

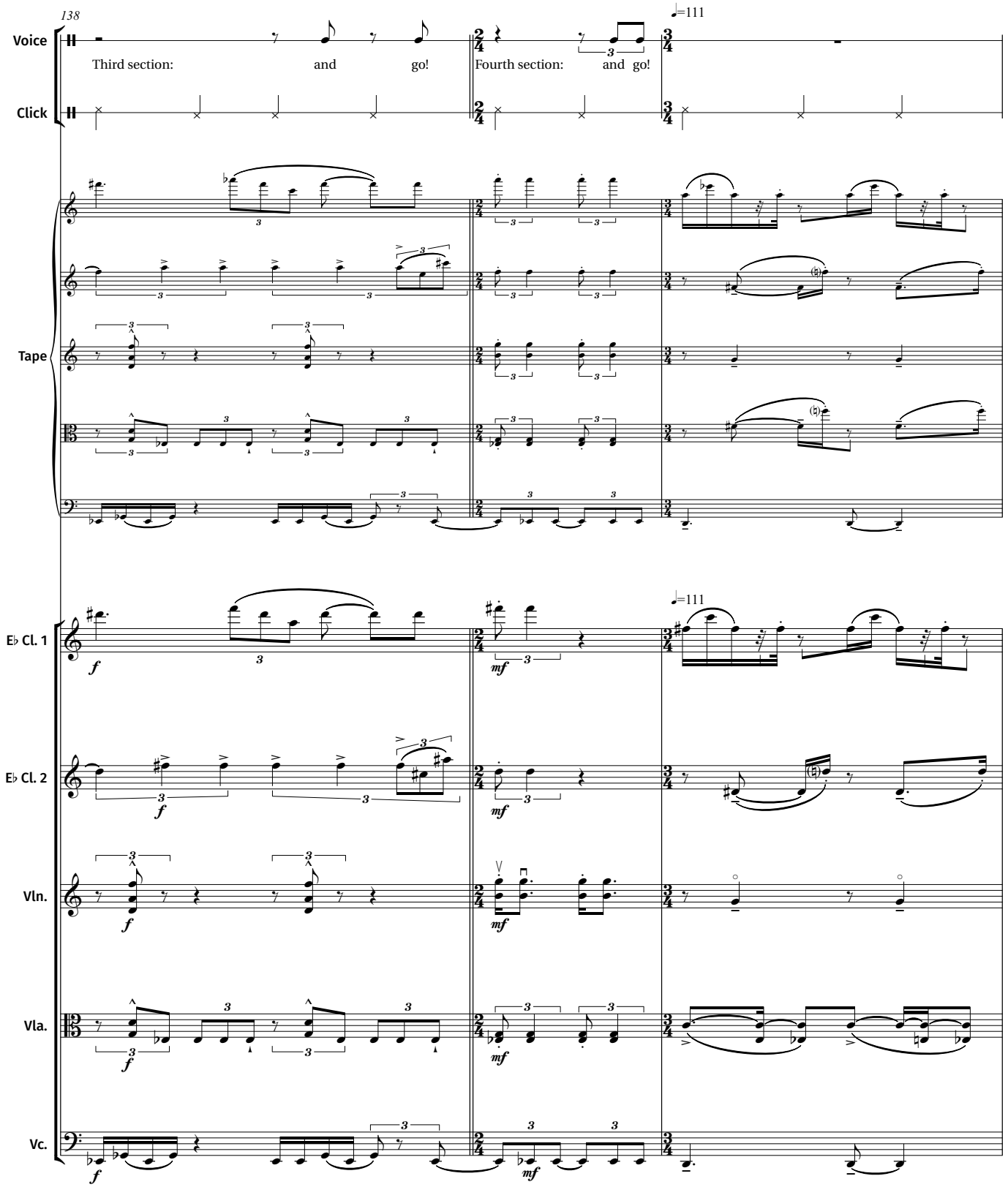

122
I
Voice
On to the third section:
rea - dy
and
change!
Click
Tape
I
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
mf

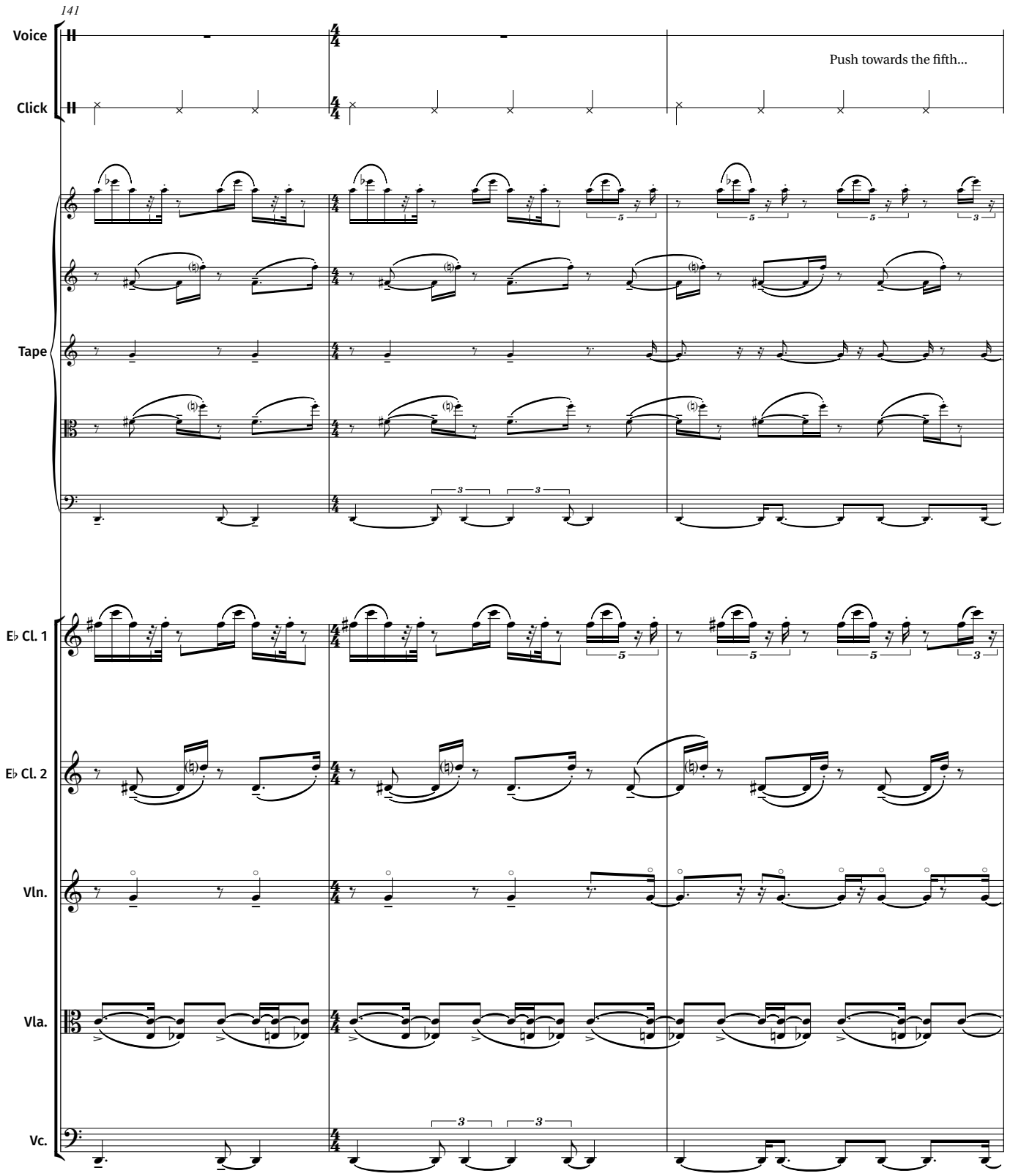

125
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
Fourth section: rea-dy and change!
♩=111
And back to the second section:
♩=111
bluesy

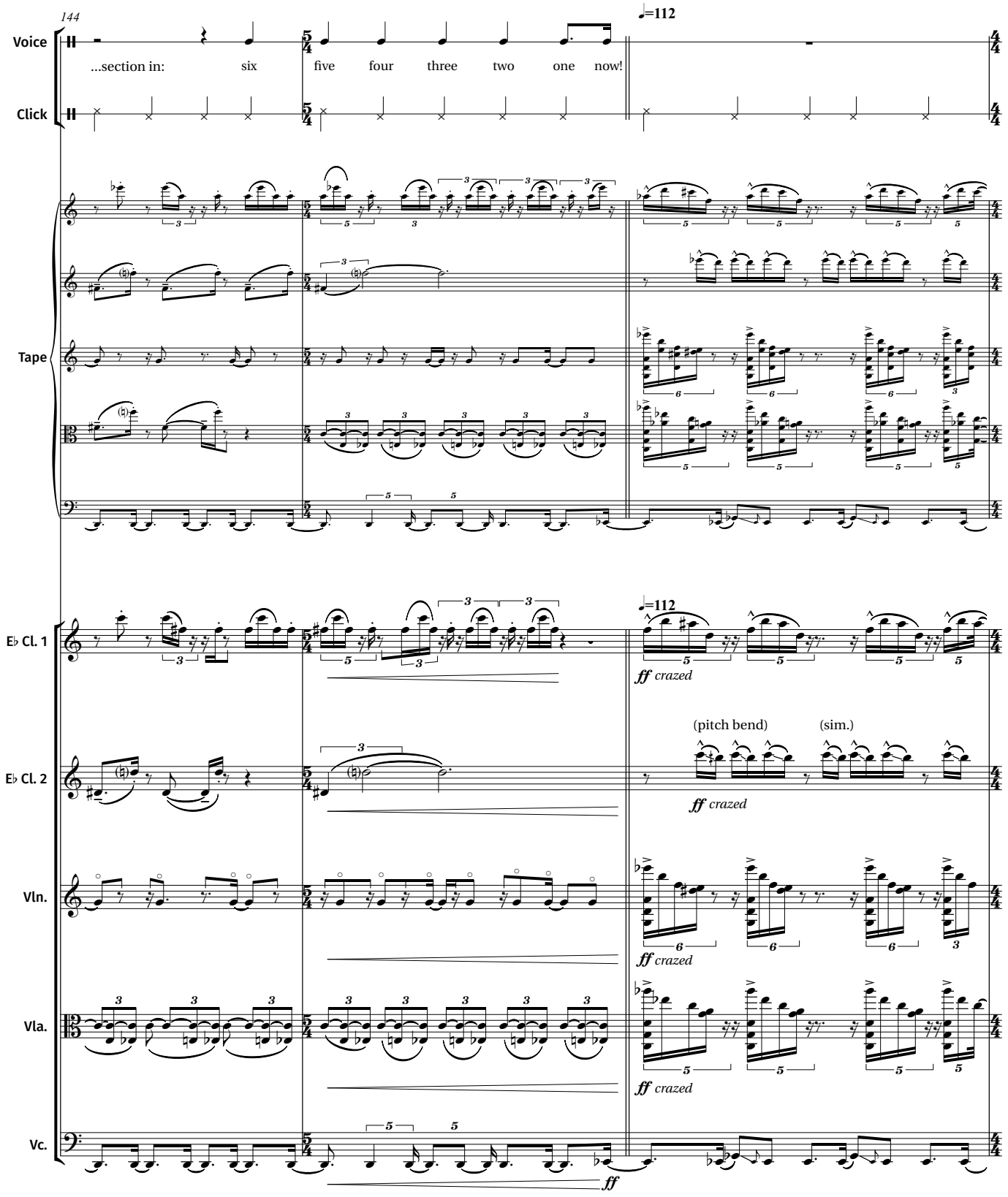

129
♩=110
Voice
three two one go!
Click
Tape
♩=110
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
f

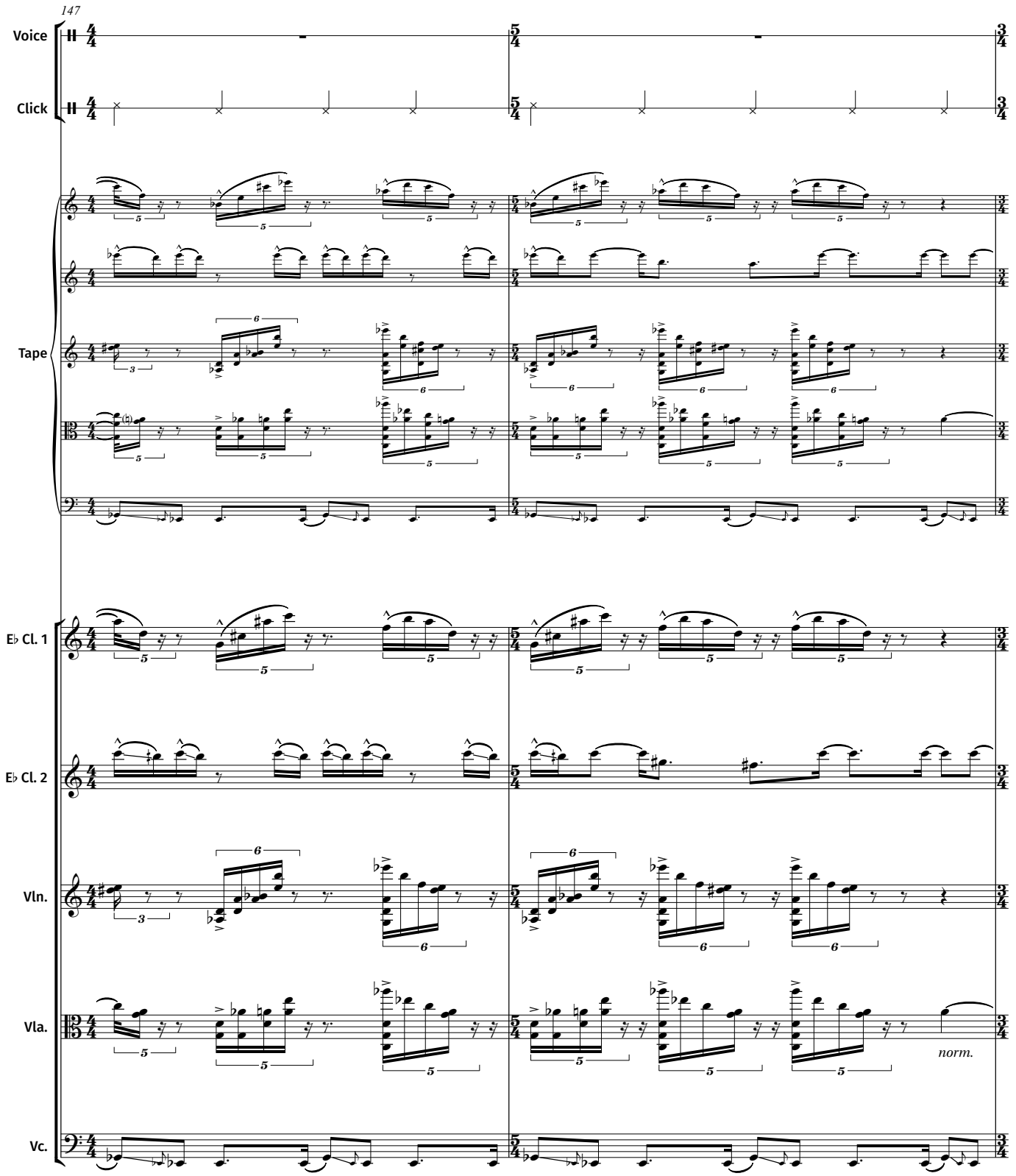

132
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

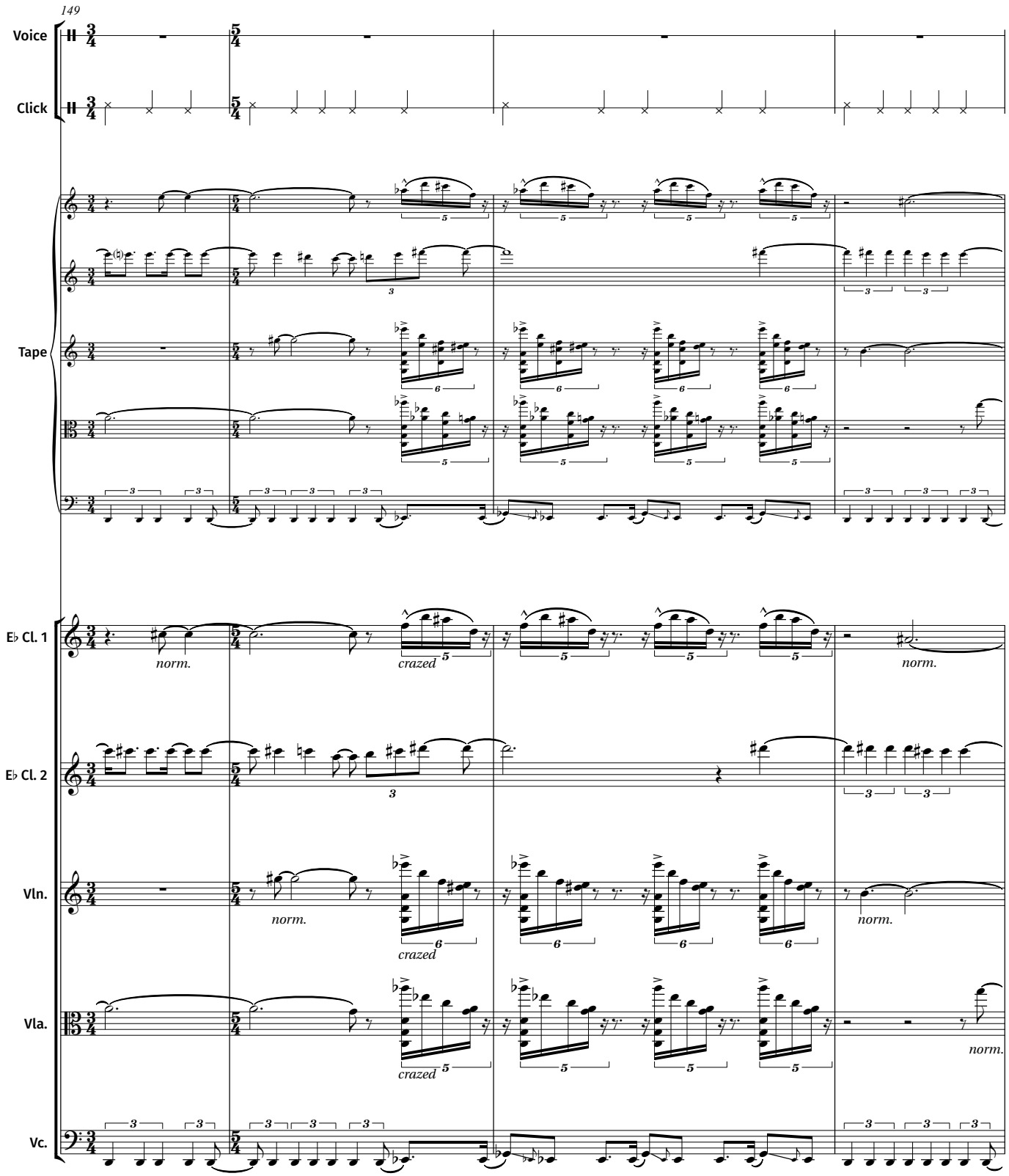

135
Voice
Click
Third section: and go!
Second section: and go!
J
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
mf

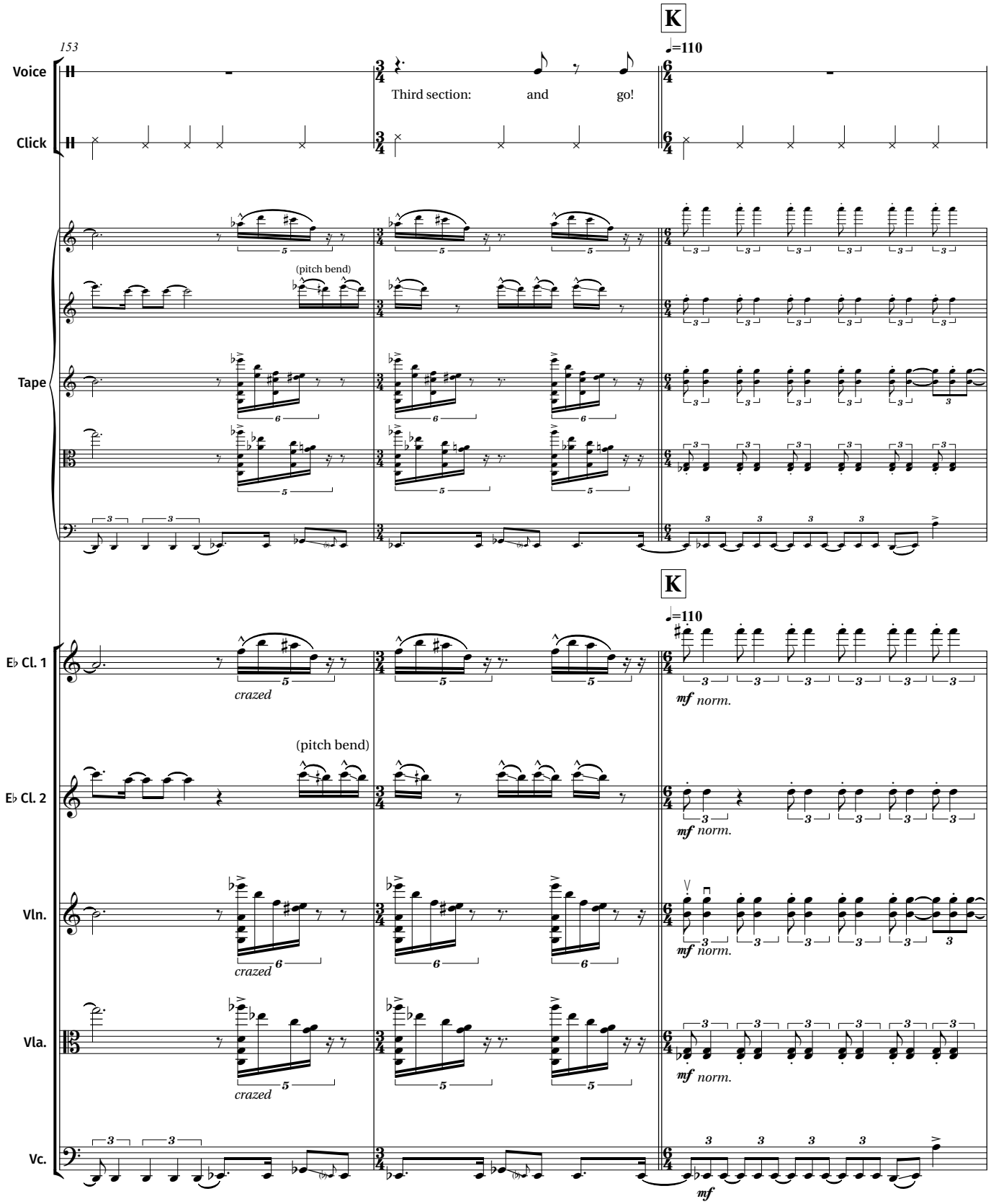

138
Voice
Third section: and go!
Fourth section: and go!
♩=111
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
f
mf

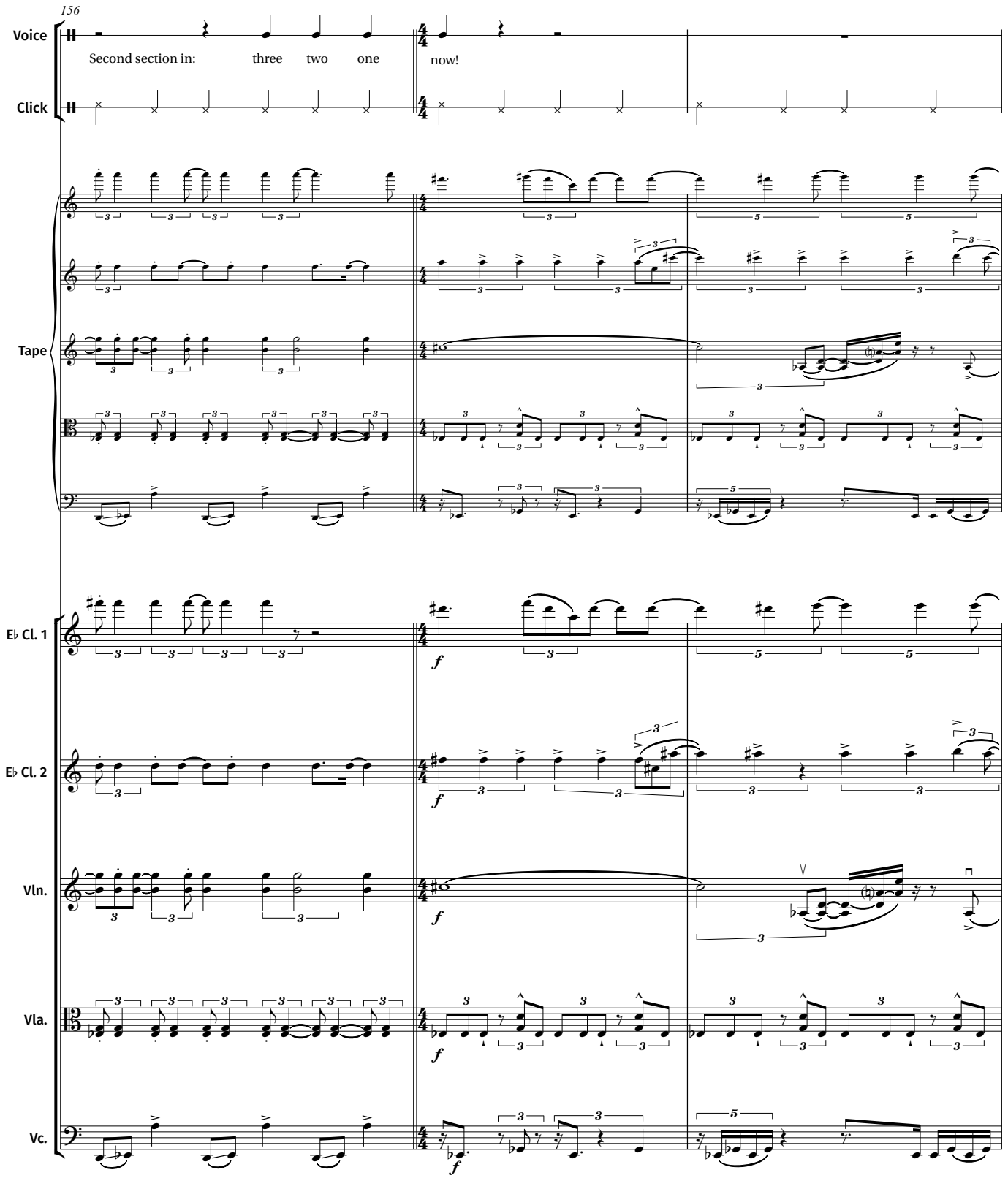

141
Voice
Click
Push towards the fifth...
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

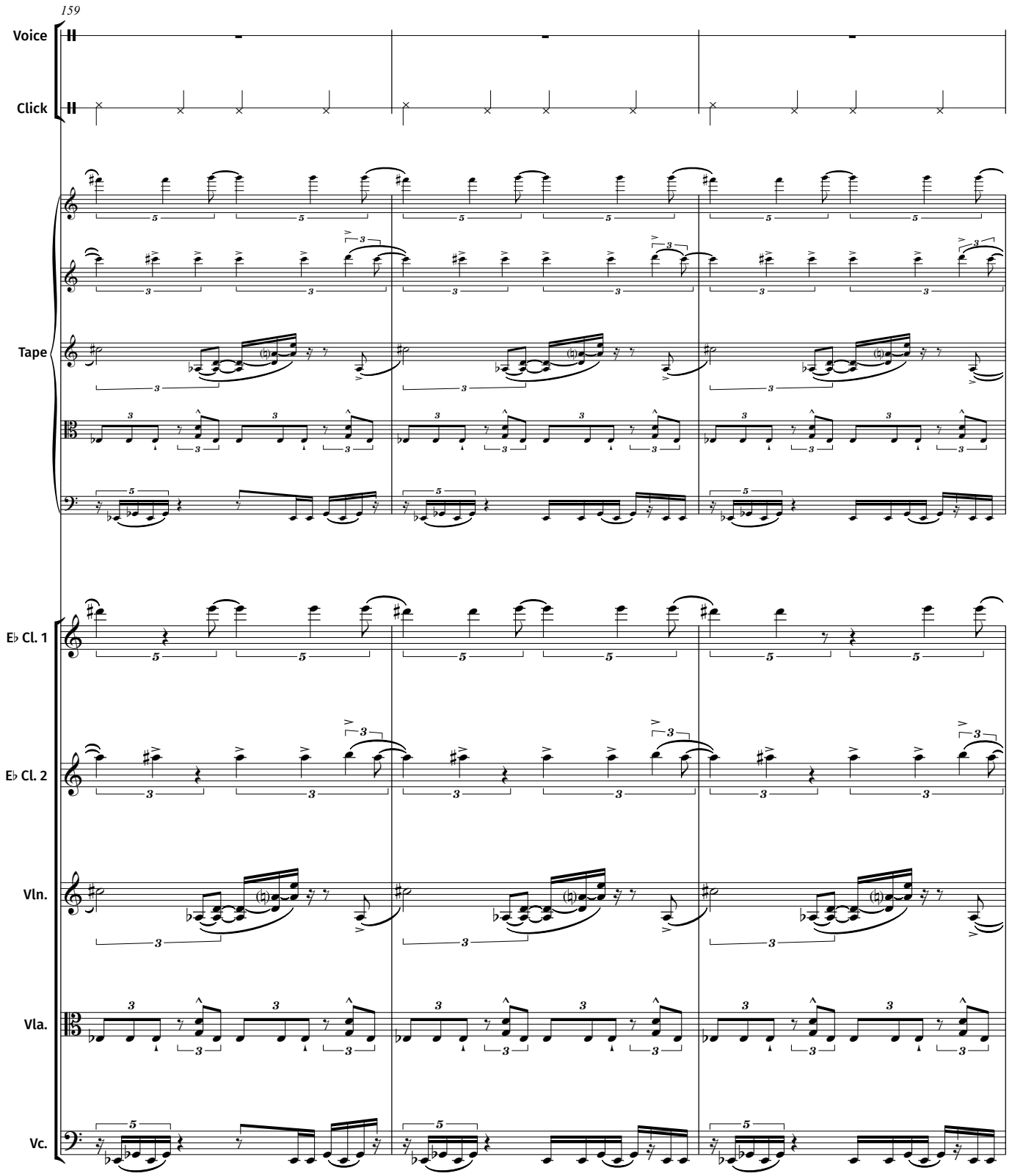

144
Voice
...section in: six five four three two one now!
Click
♩=112
Tape
E♭ Cl. 1
ff crazed
(pitch bend)
(sim.)
E♭ Cl. 2
Vln.
Vla.
Vc.
ff

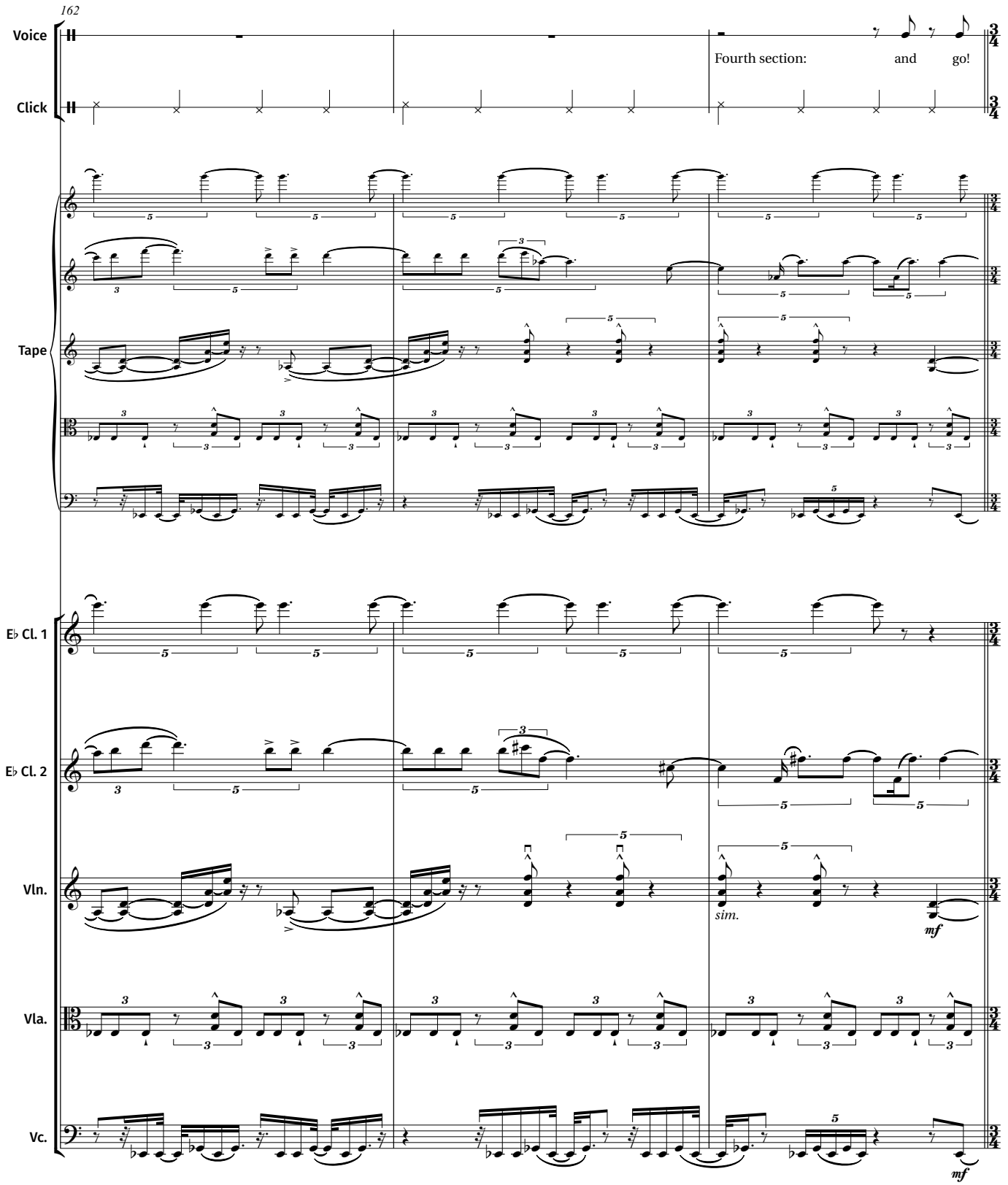

147
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
norm.

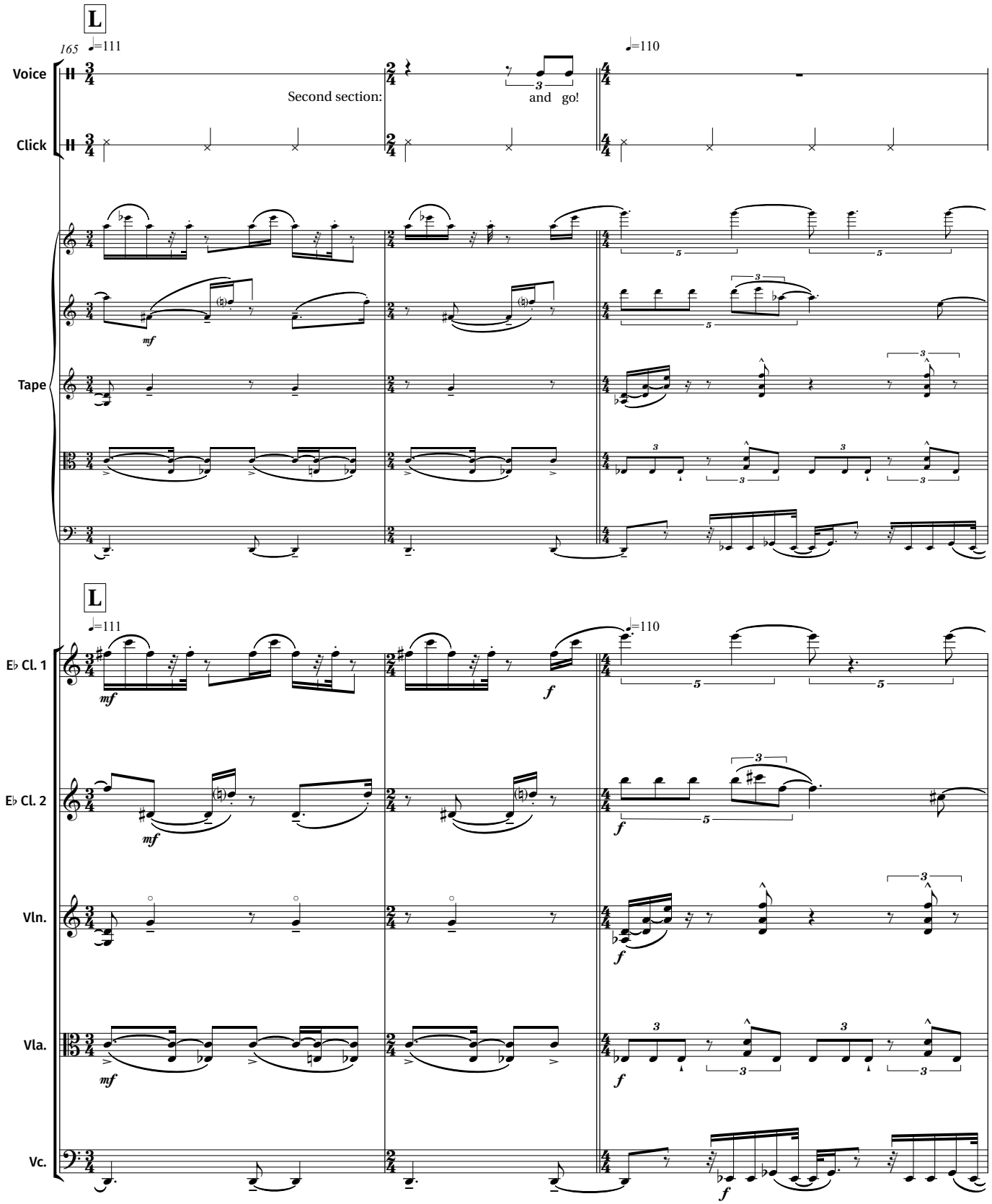

149
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
norm.
crazed
norm.
norm.
crazed
norm.
crazed
norm.

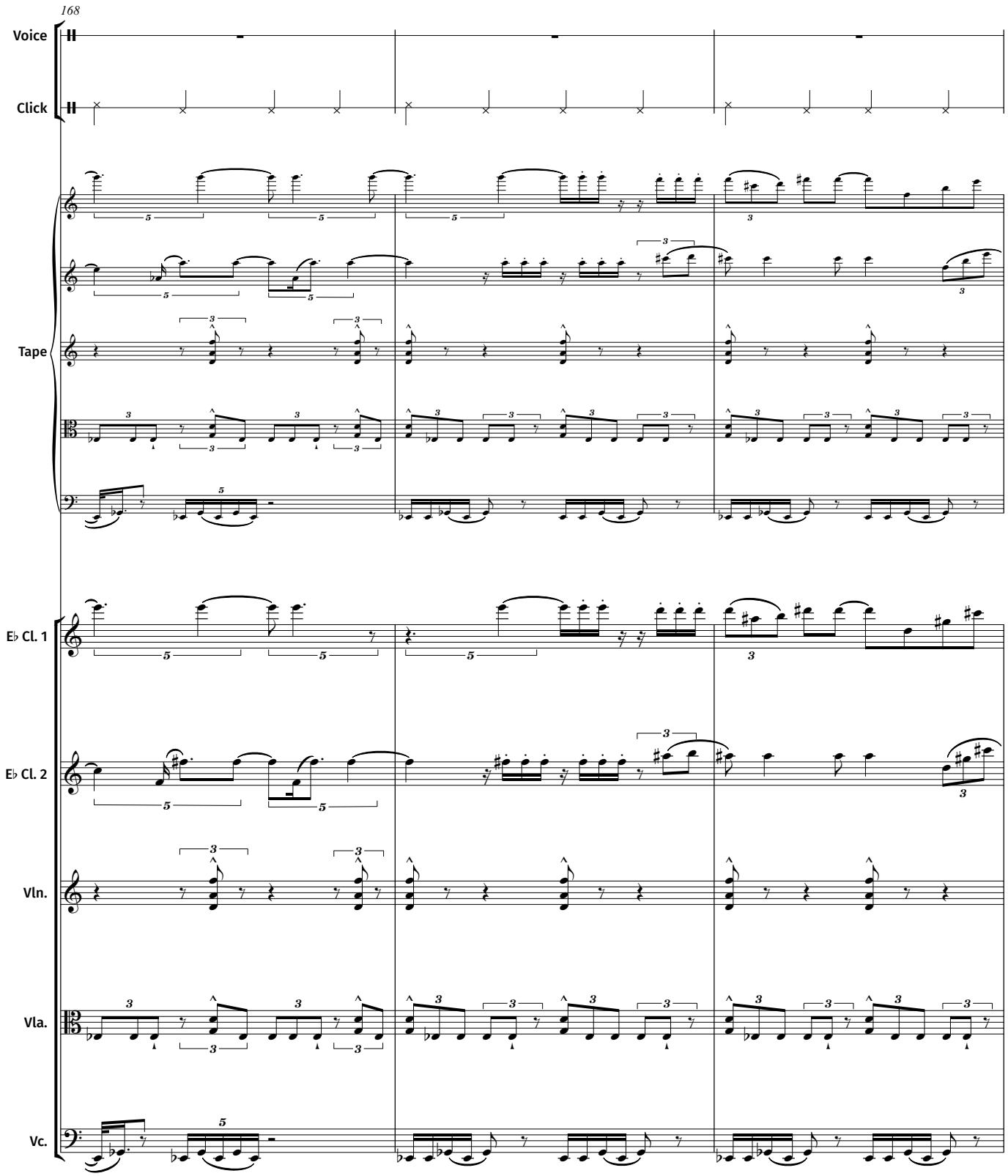

153
K
♩=110
Voice
Third section: and go!
Click
(pitch bend)
Tape
K
♩=110
E♭ Cl. 1
crazed
mf norm.
(pitch bend)
E♭ Cl. 2
mf norm.
Vln.
crazed
mf norm.
Vla.
crazed
mf norm.
Vc.
mf

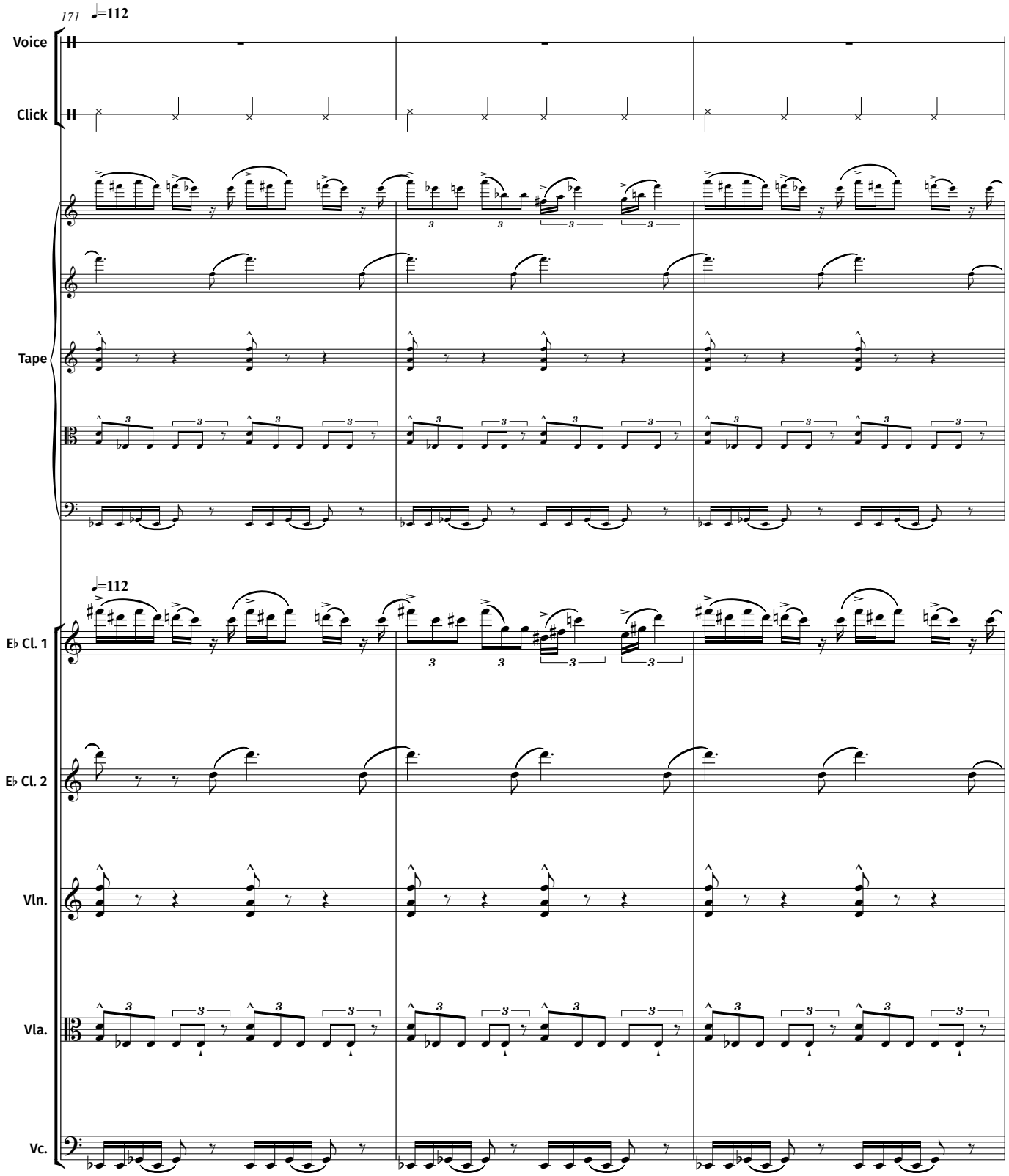

156
Voice
Second section in: three two one
now!
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

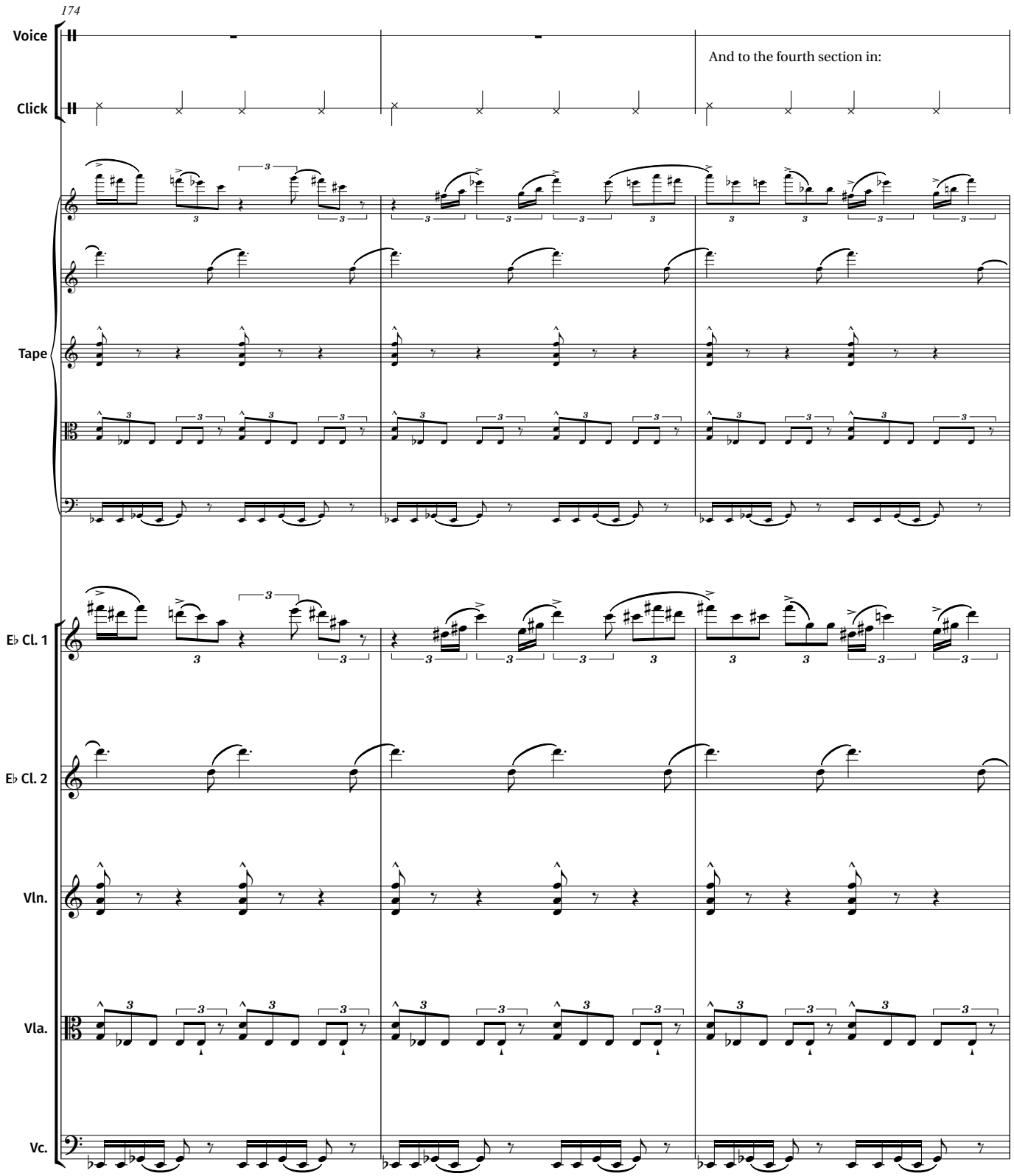

159
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

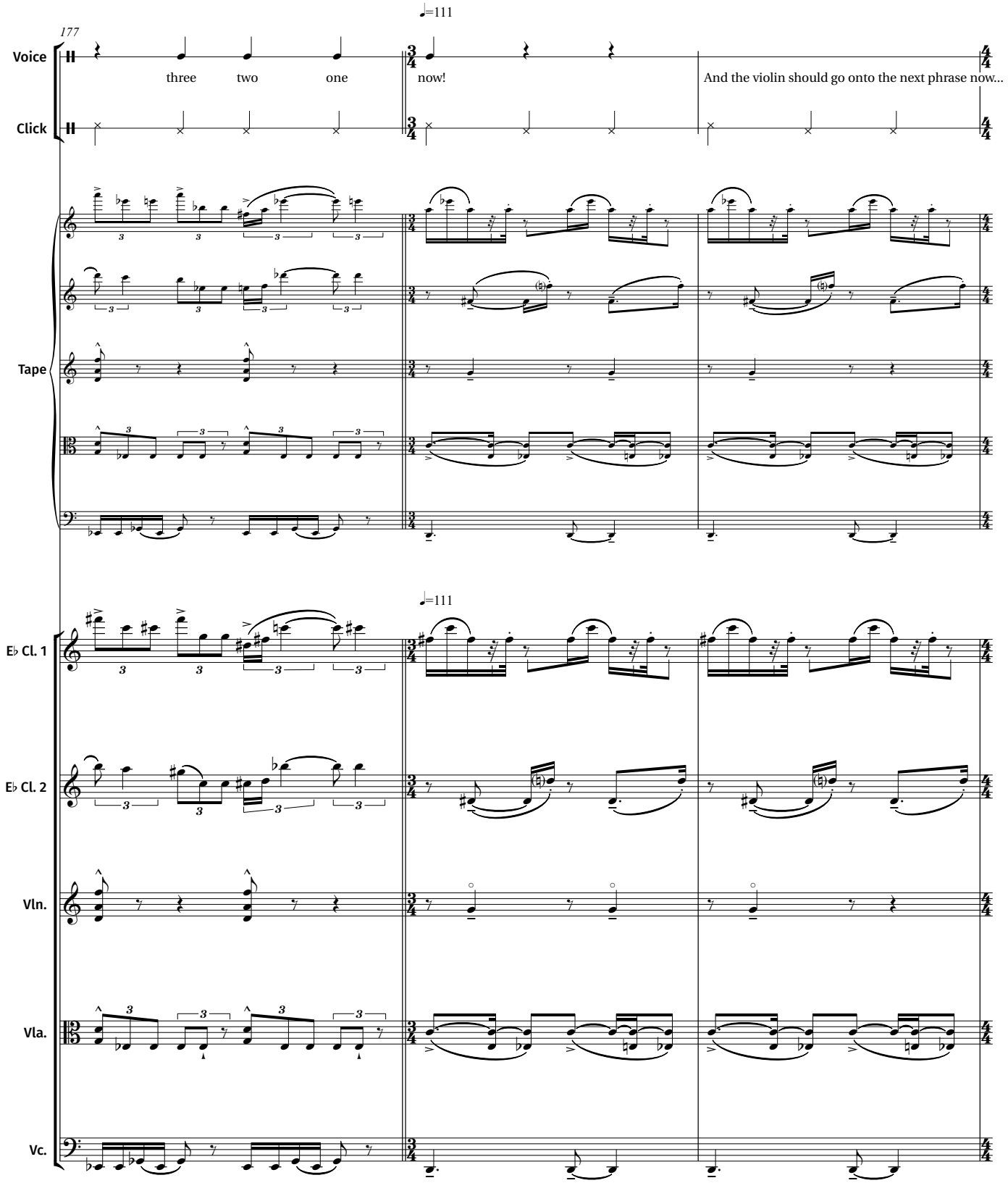

162
Voice
Fourth section: and go!
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
sim.
mf
Vla.
Vc.
mf

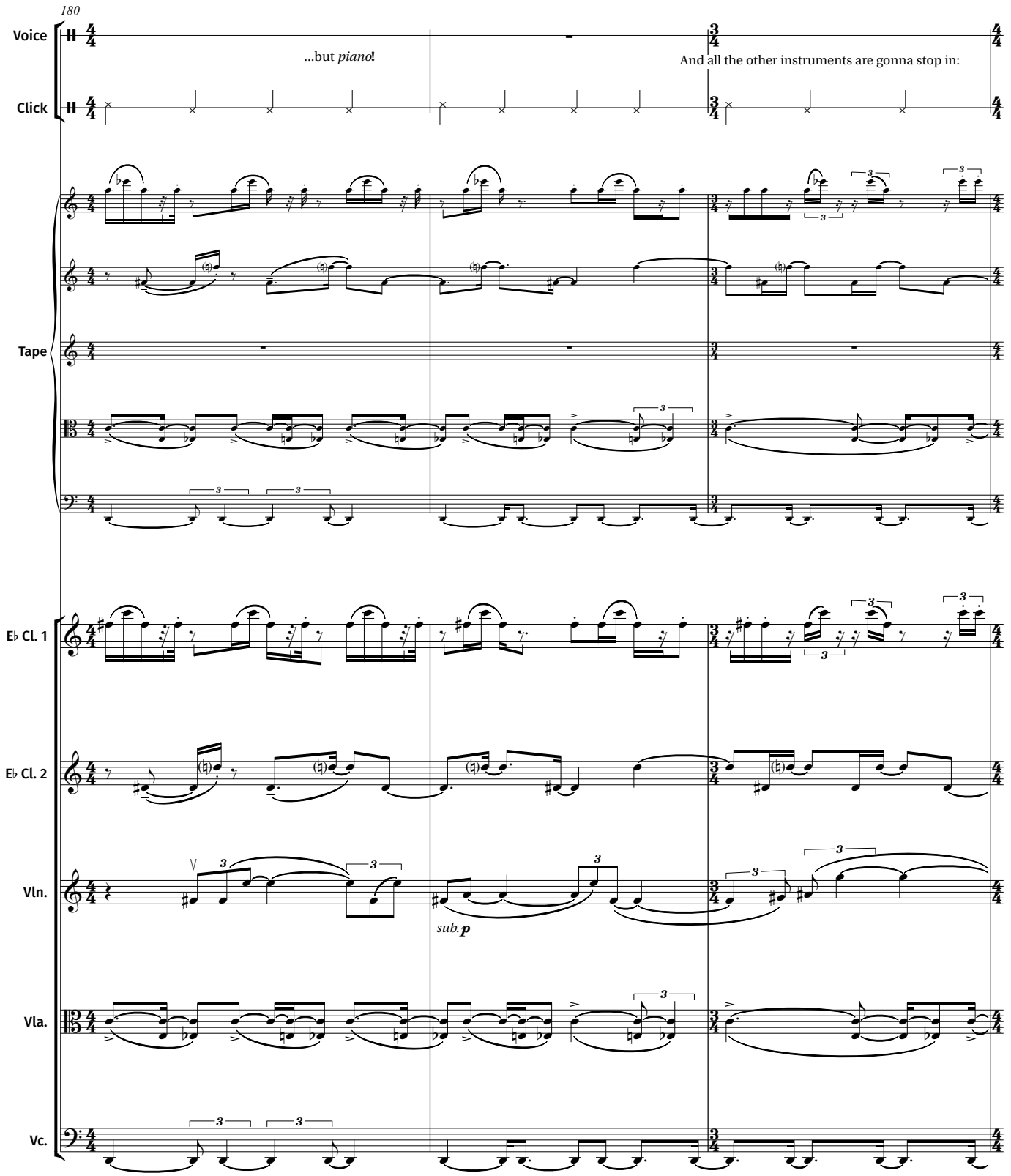

L
165
♩=111
Voice
Click
Second section:
and go!
♩=110
Tape
mf
L
♩=111
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
mf
f
♩=110

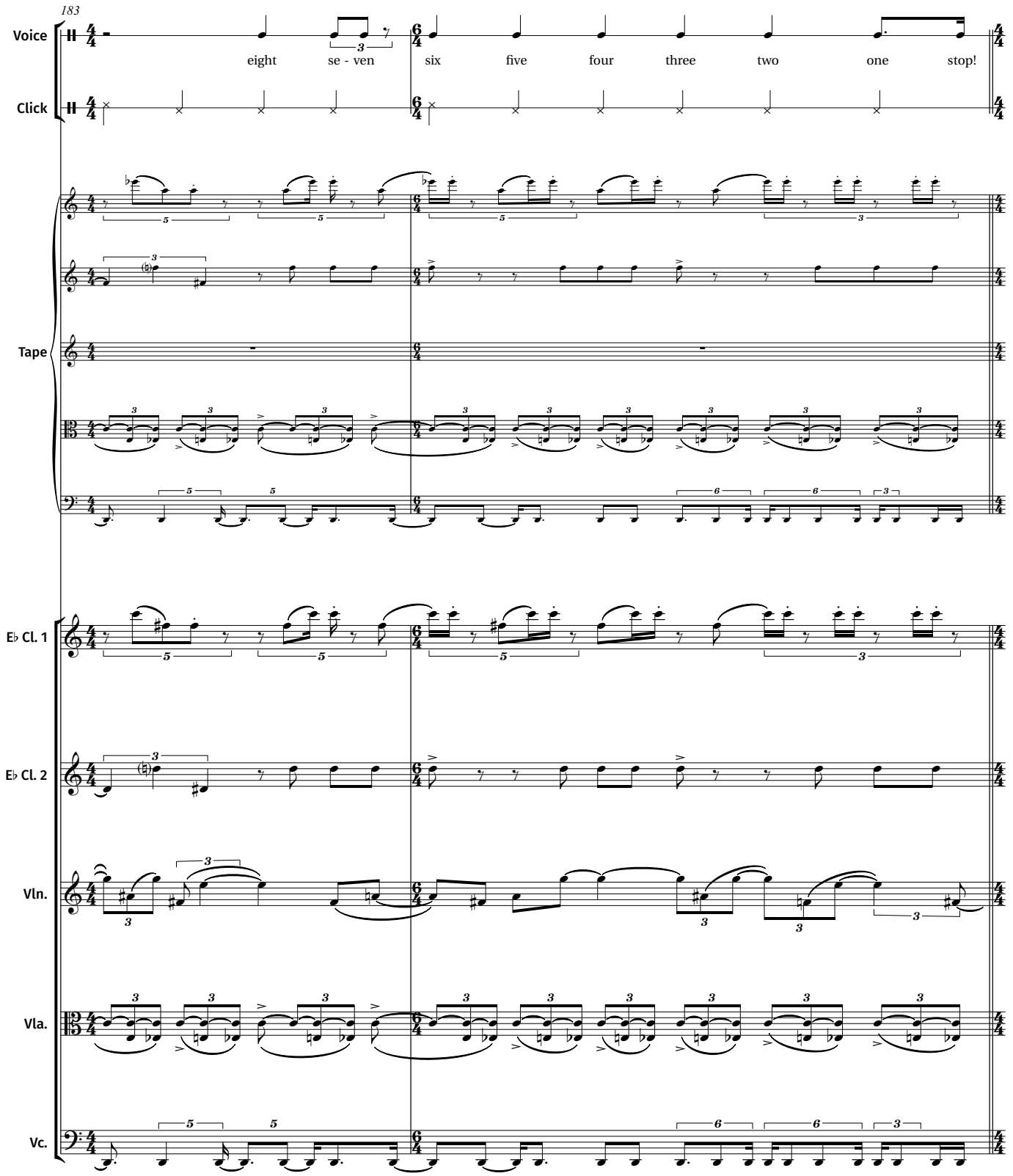

168
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

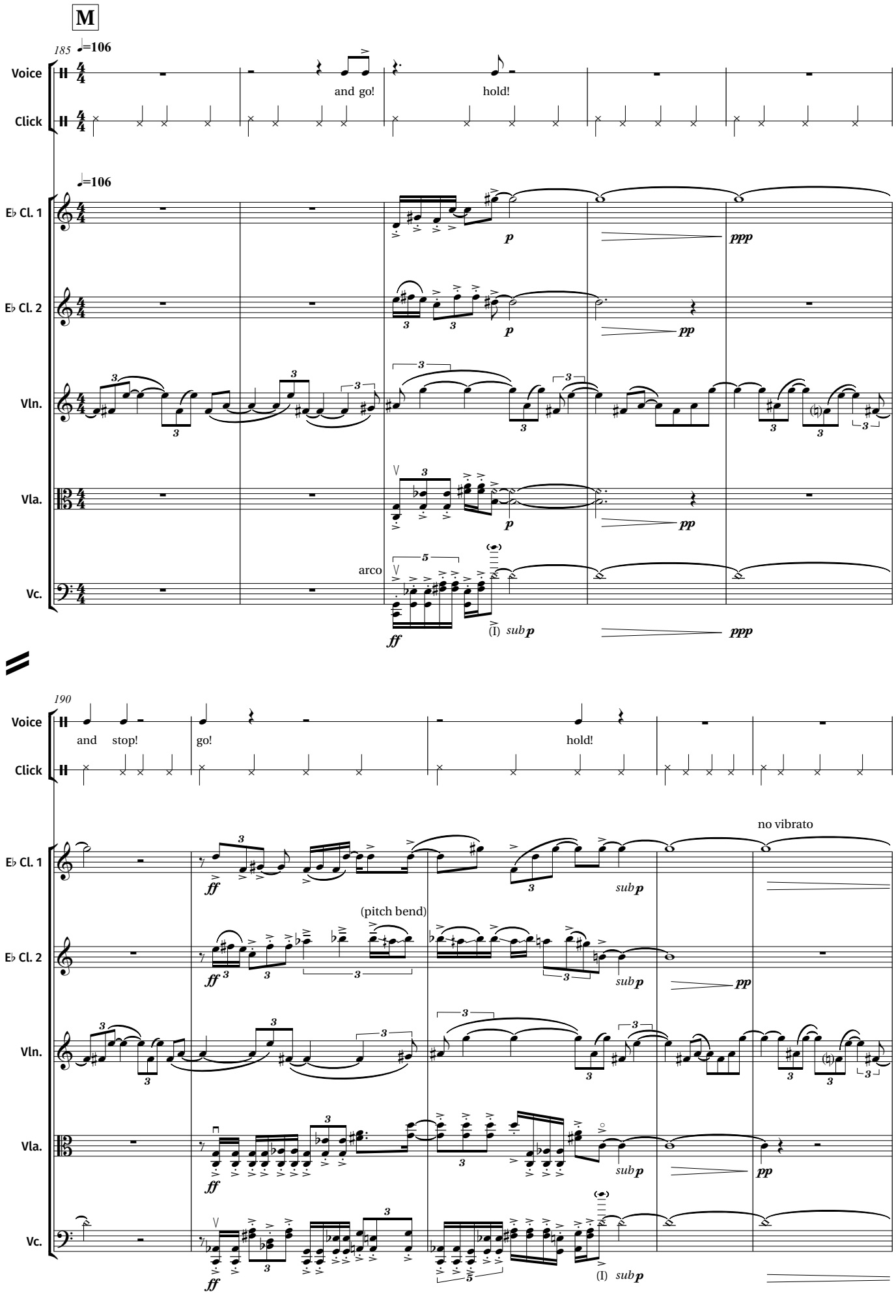

171
♩=112
Voice
Click
Tape
♩=112
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

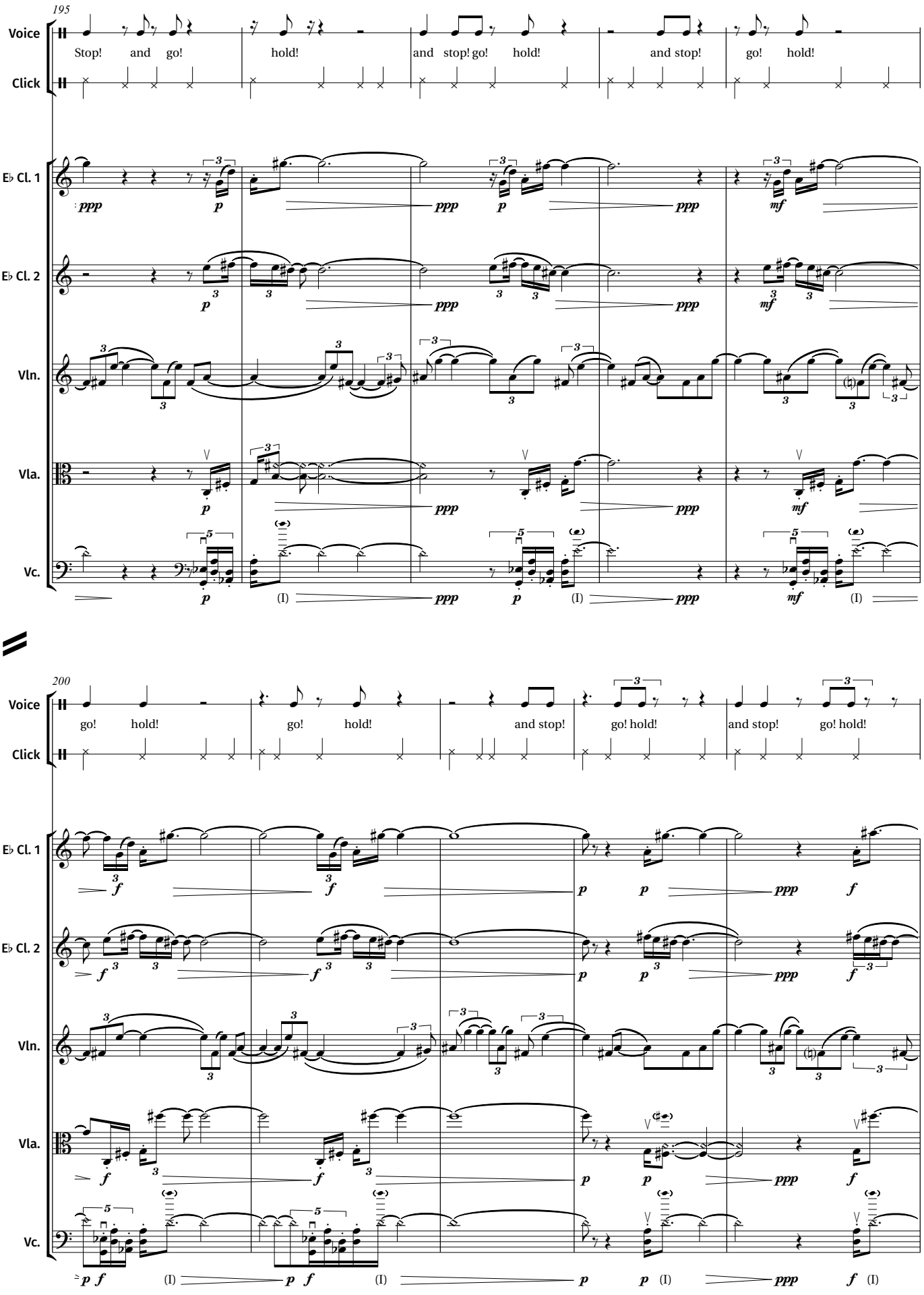

174
Voice
Click
And to the fourth section in:
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

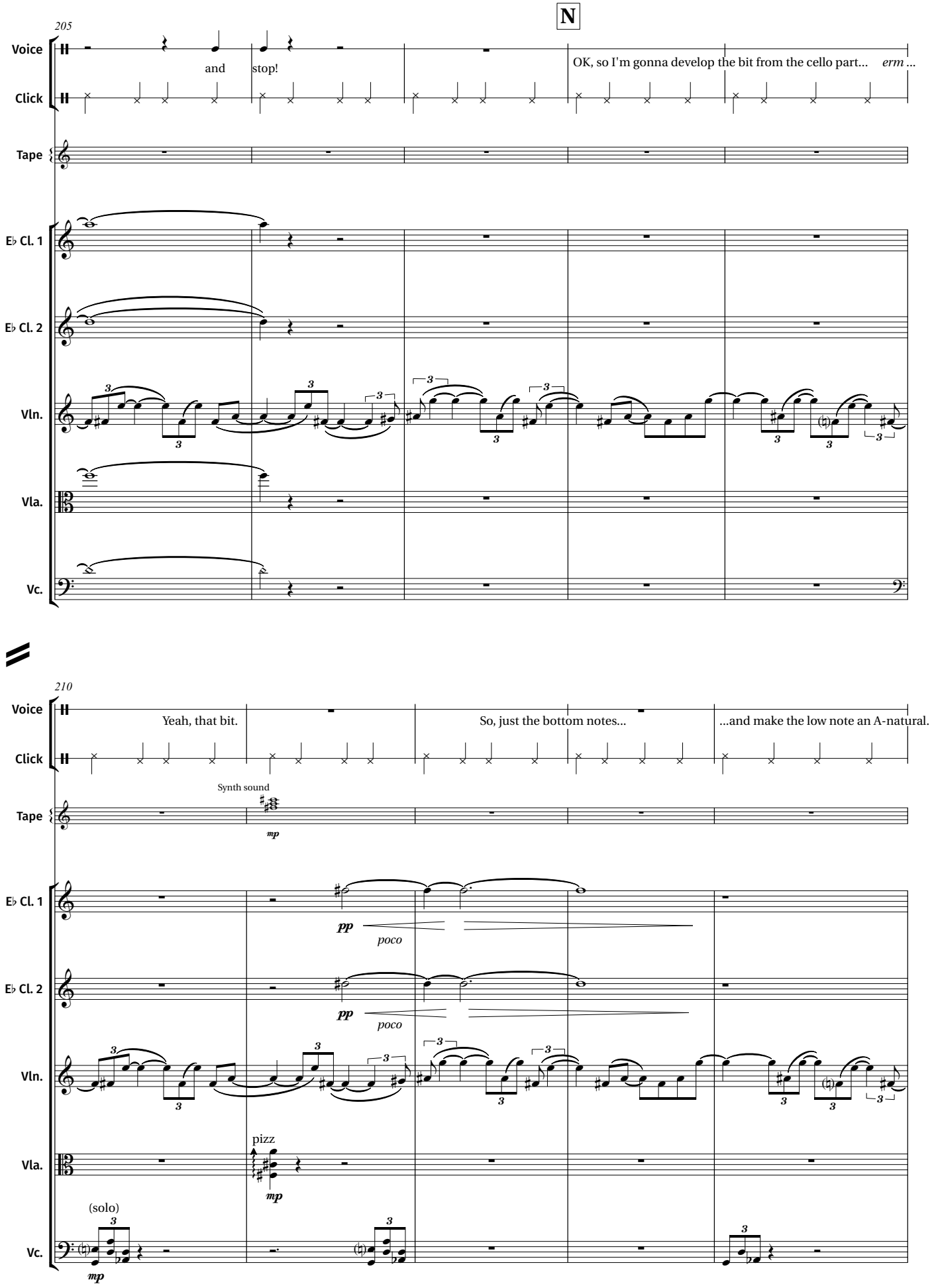

177
♩=111
Voice
three two one
now!
And the violin should go onto the next phrase now...
Click
Tape
♩=111
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

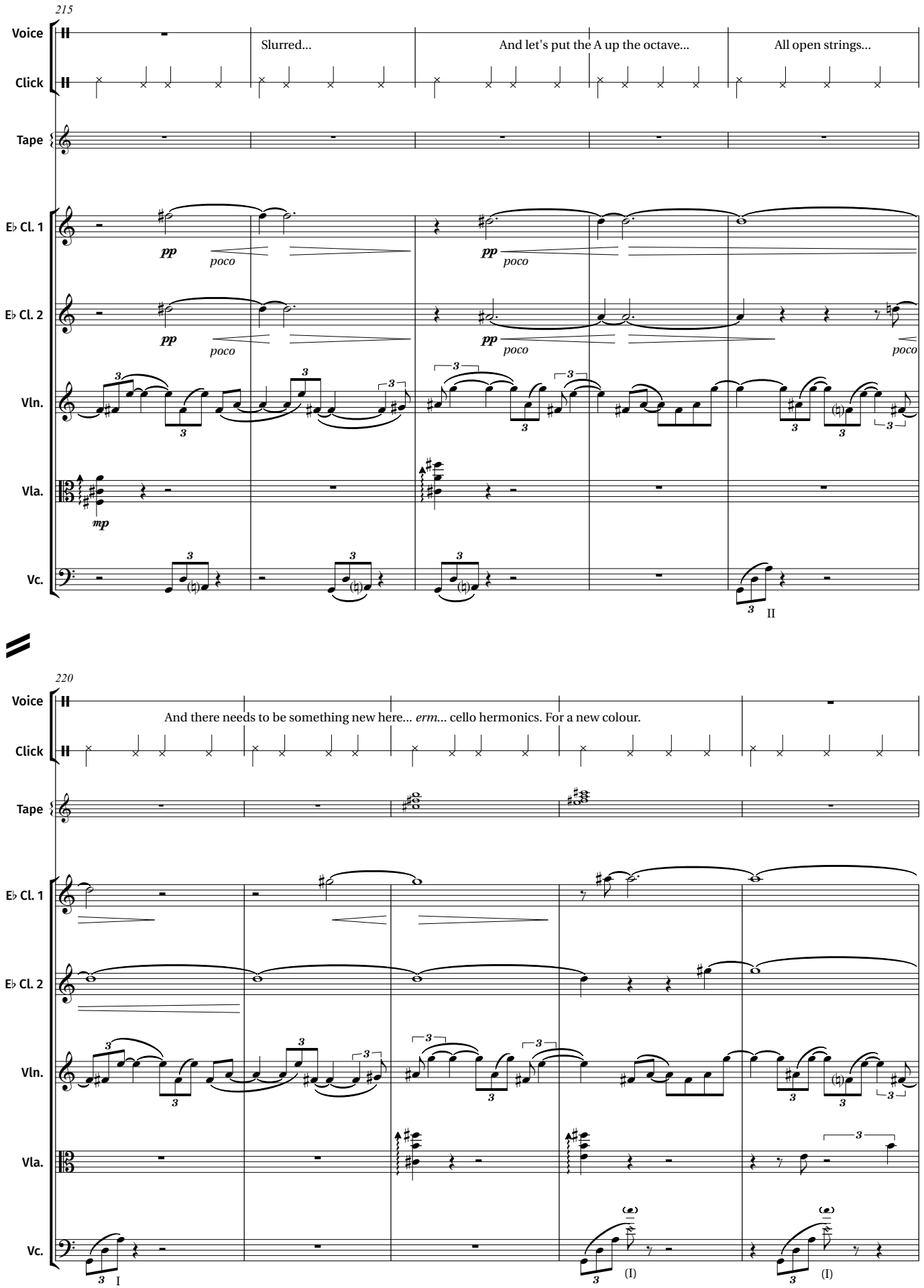

180
Voice
...but *piano*!
And all the other instruments are gonna stop in:
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
sub. **p**
Vla.
Vc.

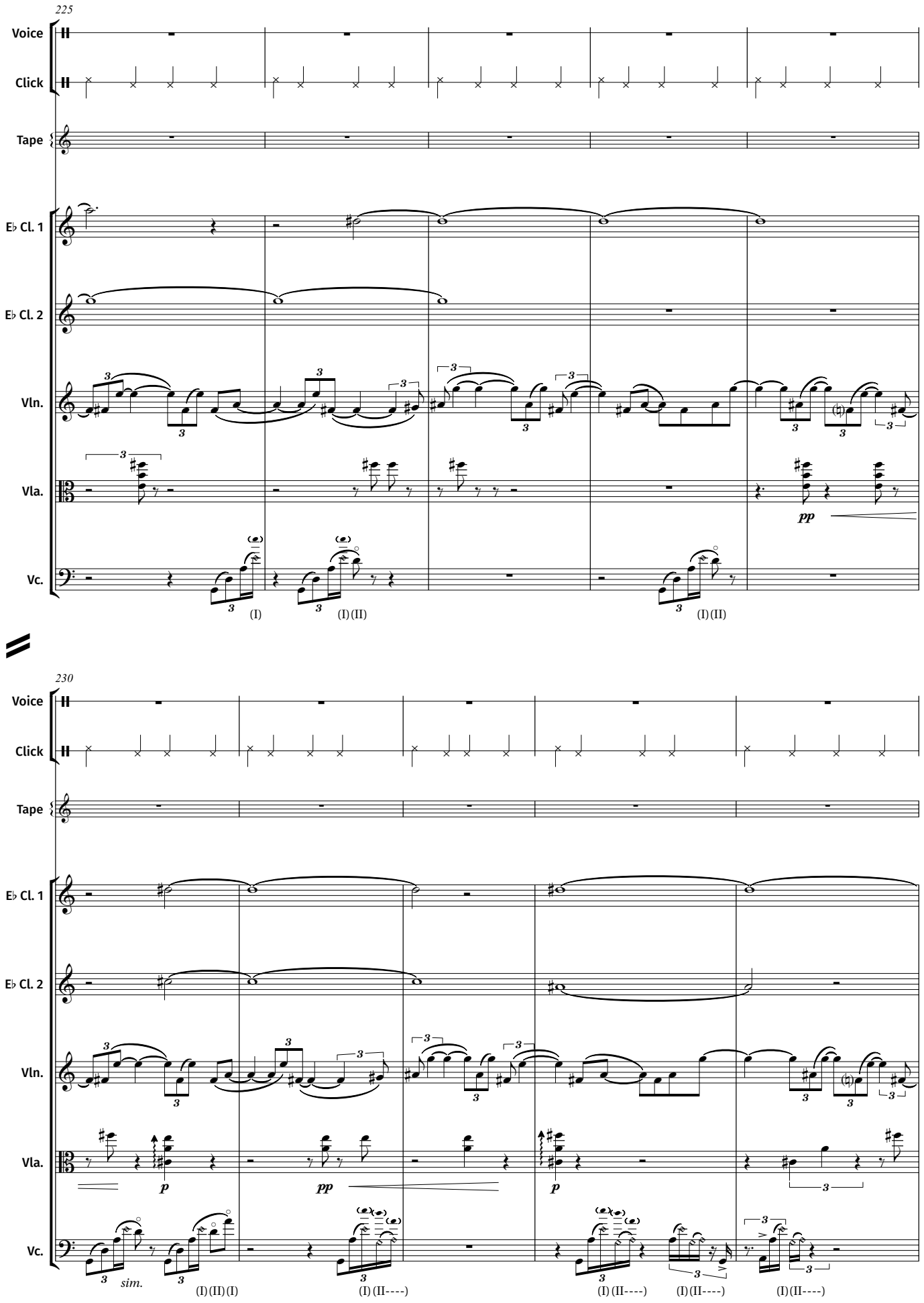

183
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
eight se - ven six five four three two one stop!

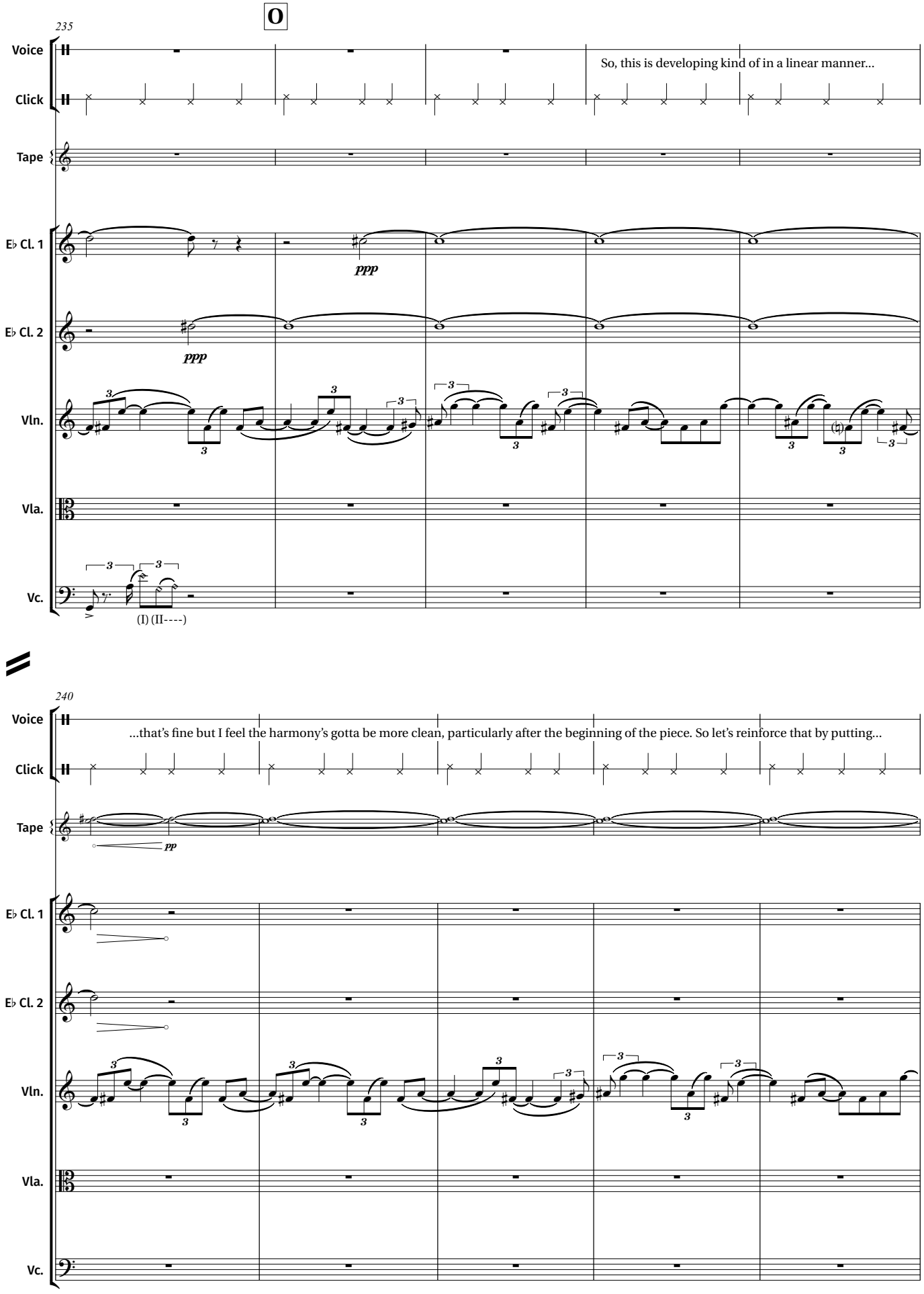

M
185
♩=106
Voice
Click
and go!
hold!
♩=106
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
arco
p
ppp
pp
ff
(I) sub p
190
and stop!
go!
hold!
no vibrato
(pitch bend)
sub p

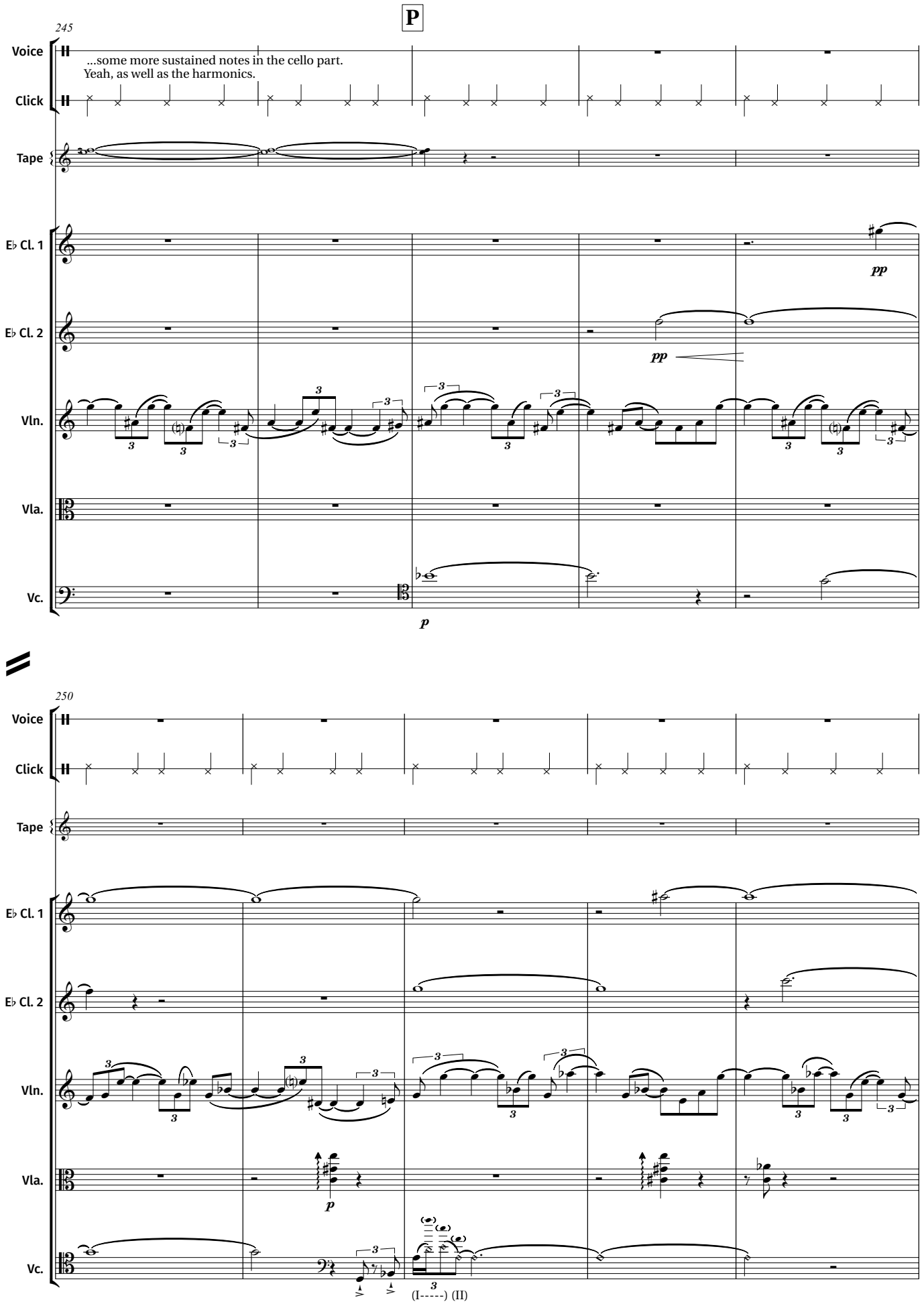

195
Voice
Click
Stop! and go!
hold!
and stop! go! hold!
and stop!
go! hold!
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
ppp
p
mf
(I)
200
go! hold!
go! hold!
and stop!
go! hold!
and stop!
go! hold!
f

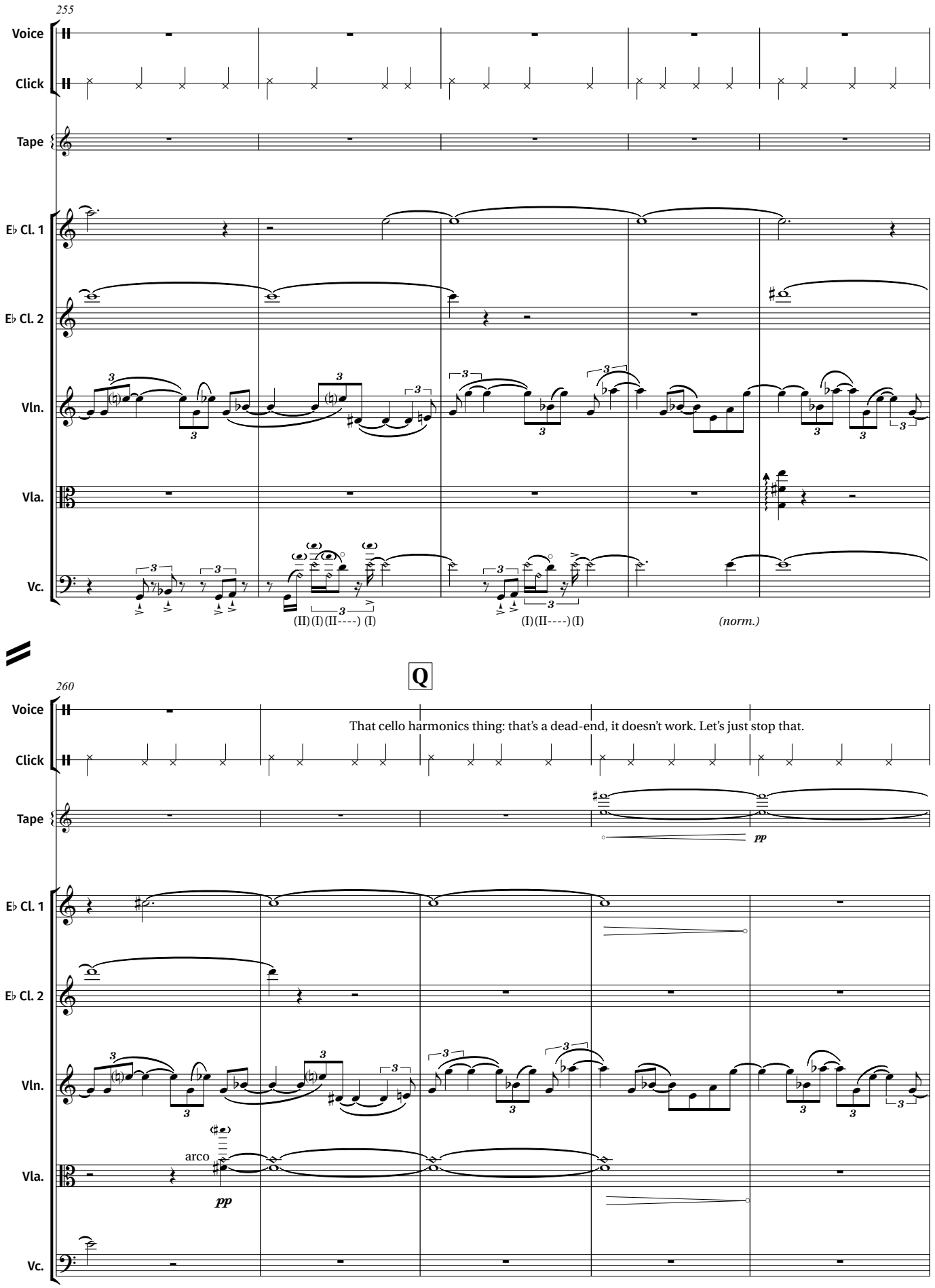

N
205
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
and
stop!
OK, so I'm gonna develop the bit from the cello part...
erm ...
210
Yeah, that bit.
So, just the bottom notes...
...and make the low note an A-natural.
Synth sound
mp
pp
poco
pizz
(solo)

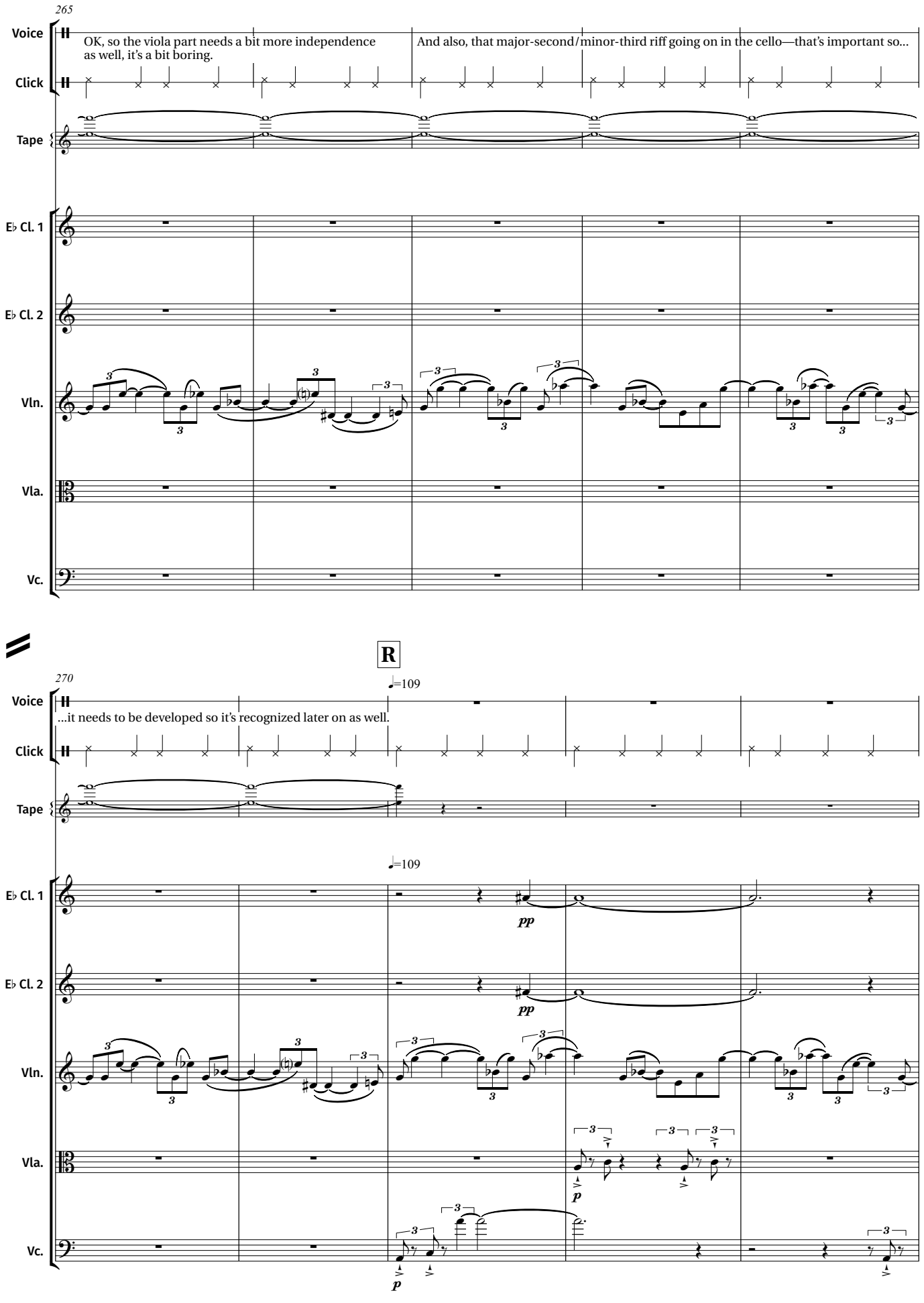

215
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
Slurred...
And let's put the A up the octave...
All open strings...
pp
poco
mp
II
220
And there needs to be something new here... erm... cello hermonics. For a new colour.
I
(I)

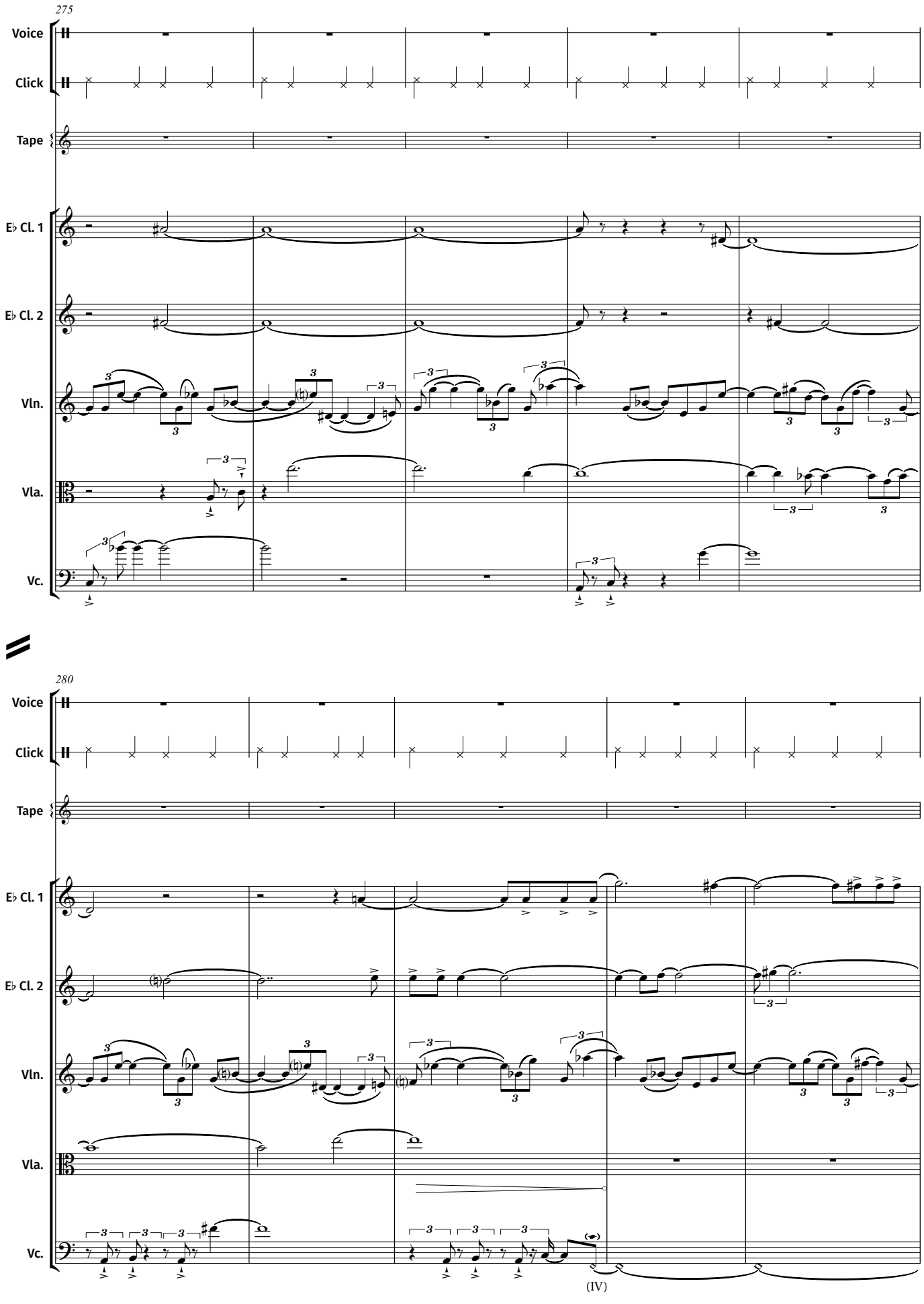

225
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
pp
(I)
(I) (II)
(I) (II)
230
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
p
pp
p
sim.
(I) (II) (I)
(I) (II----)
(I) (II----)
(I) (II----)
(I) (II----)

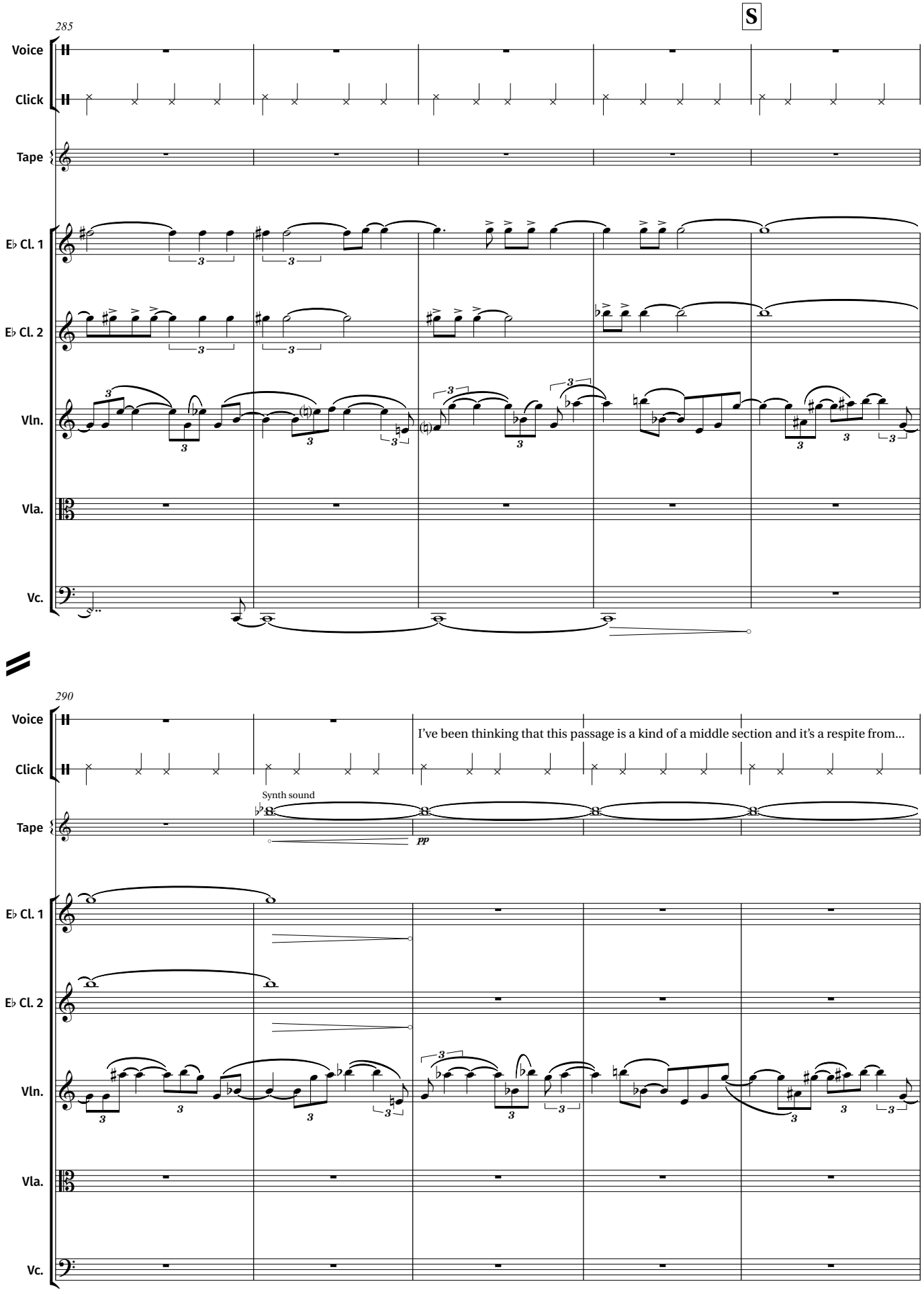

O
235
Voice
So, this is developing kind of in a linear manner...
Click
Tape
E♭ Cl. 1
ppp
E♭ Cl. 2
ppp
Vln.
Vla.
Vc.
(I) (II----)
240
Voice
...that's fine but I feel the harmony's gotta be more clean, particularly after the beginning of the piece. So let's reinforce that by putting...
Click
Tape
pp
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

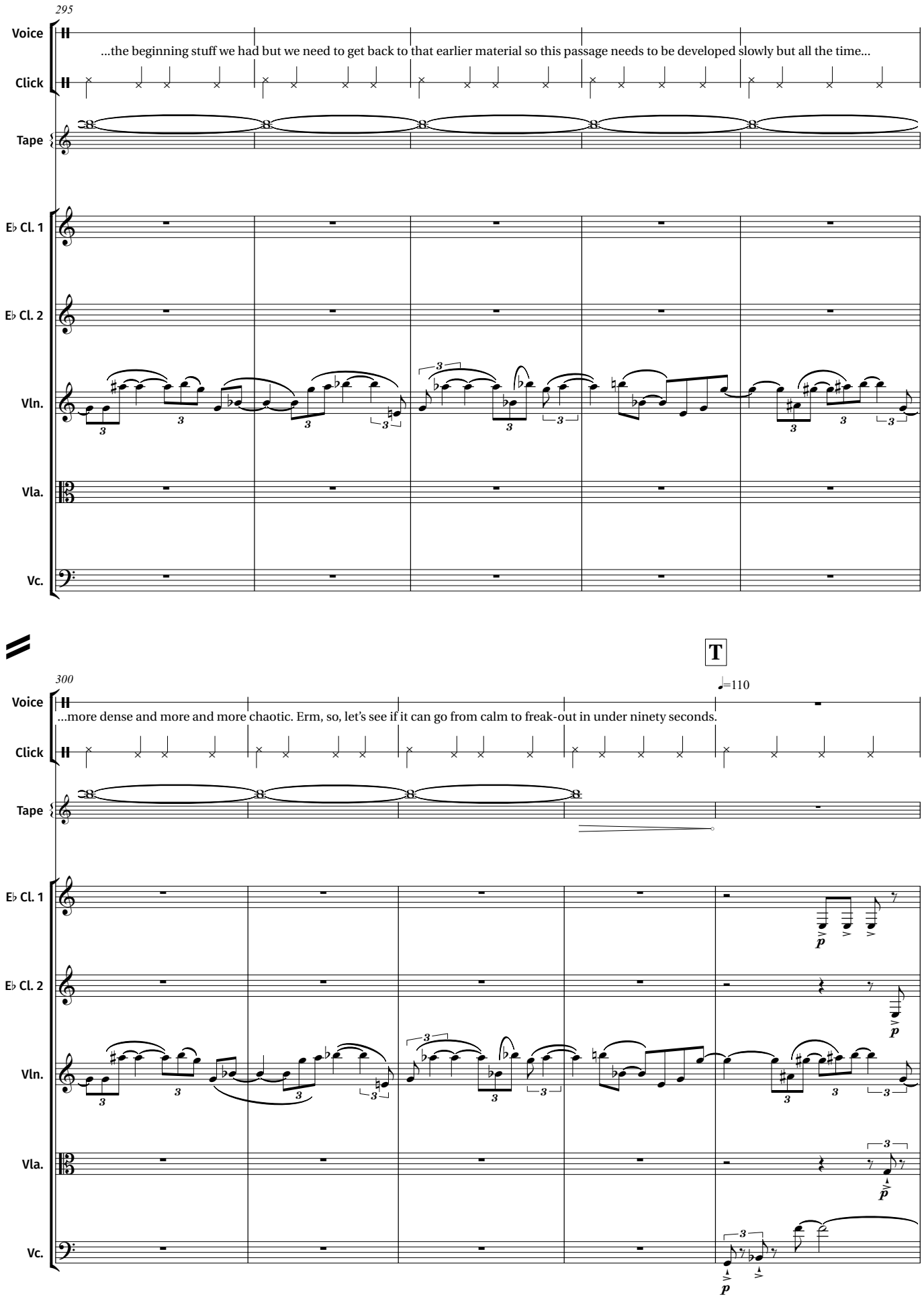

P
245
Voice
...some more sustained notes in the cello part.
Yeah, as well as the harmonics.
Click
Tape
E♭ Cl. 1
pp
E♭ Cl. 2
pp
Vln.
Vla.
Vc.
p
250
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
p
Vc.
(I-----) (II)

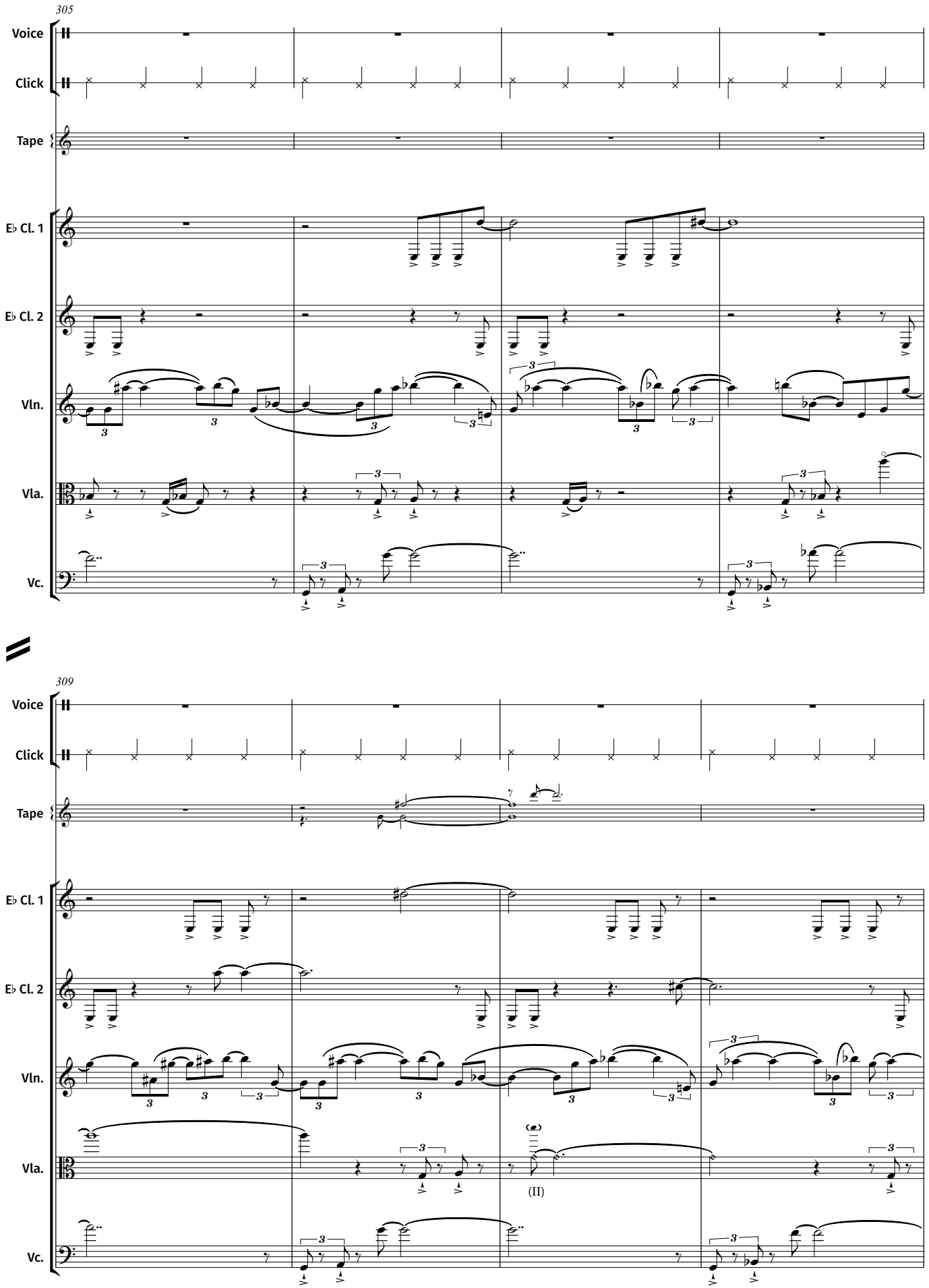

255
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
(II) (I) (II----) (I)
(I) (II----) (I)
(norm.)
Q
260
That cello harmonics thing: that's a dead-end, it doesn't work. Let's just stop that.
pp
arco
pp

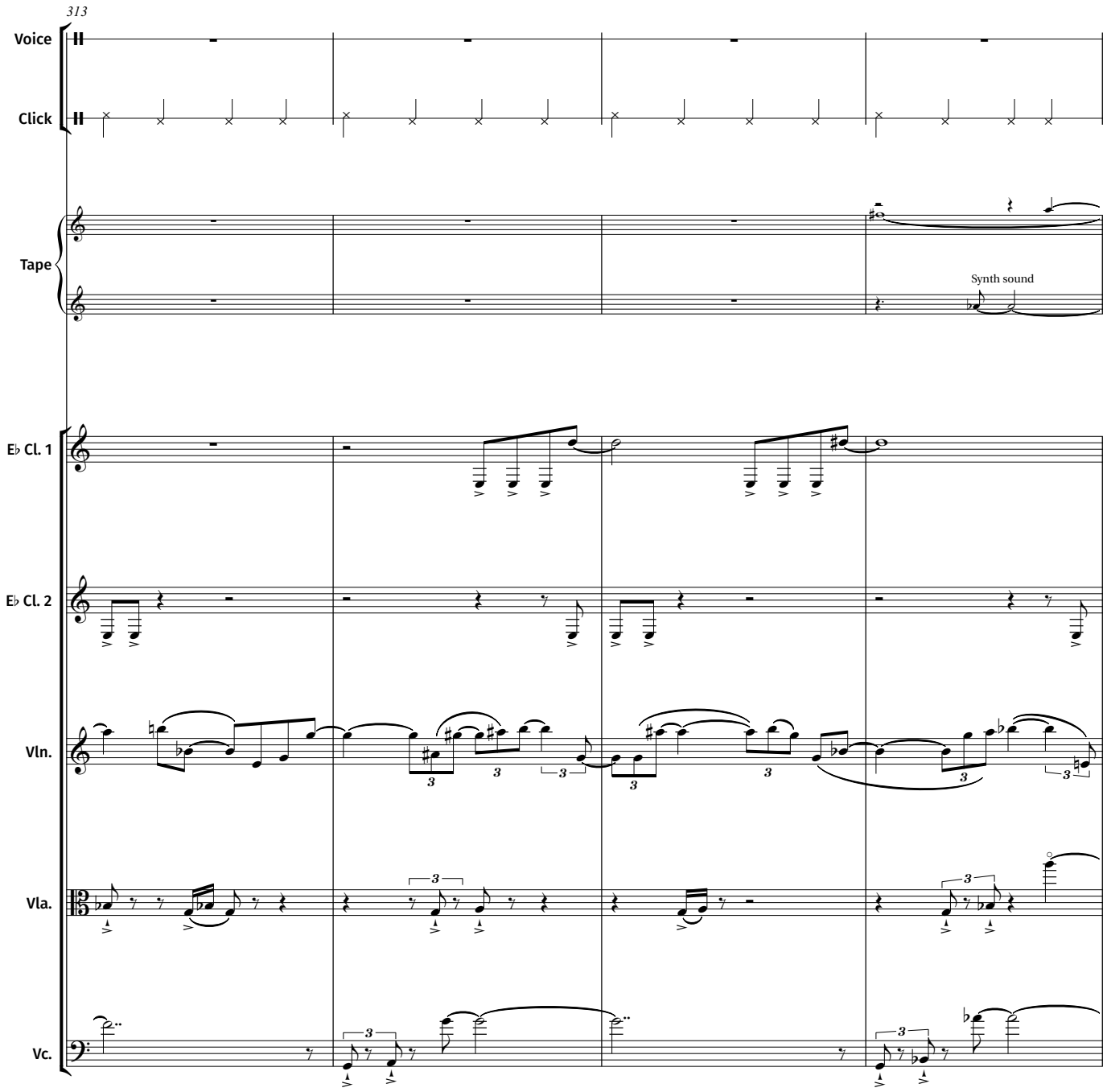

265
Voice
OK, so the viola part needs a bit more independence as well, it's a bit boring.
And also, that major-second/minor-third riff going on in the cello—that's important so...
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
R
270
♩=109
...it needs to be developed so it's recognized later on as well.
pp
p

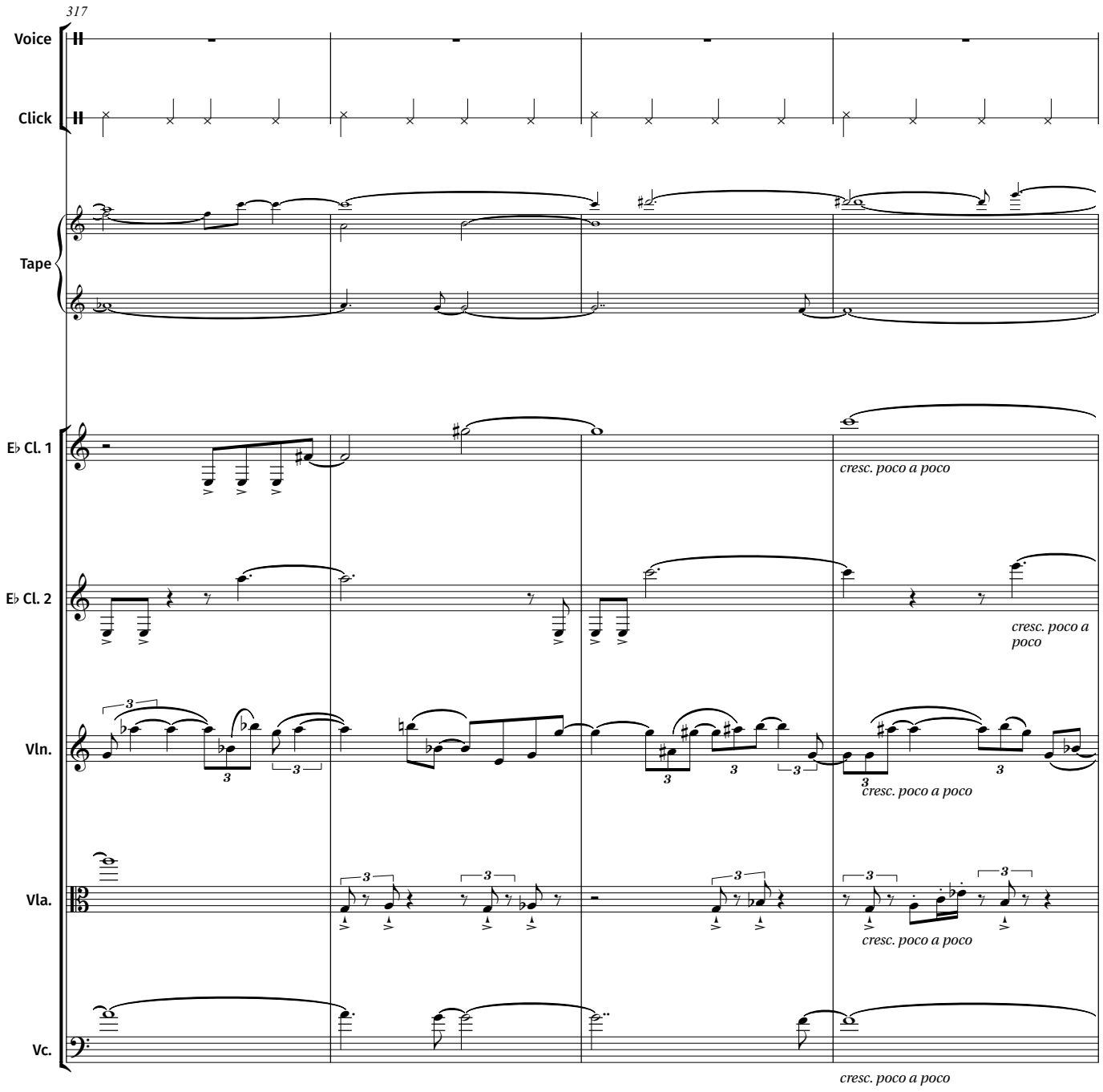

275
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
280
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
(IV)

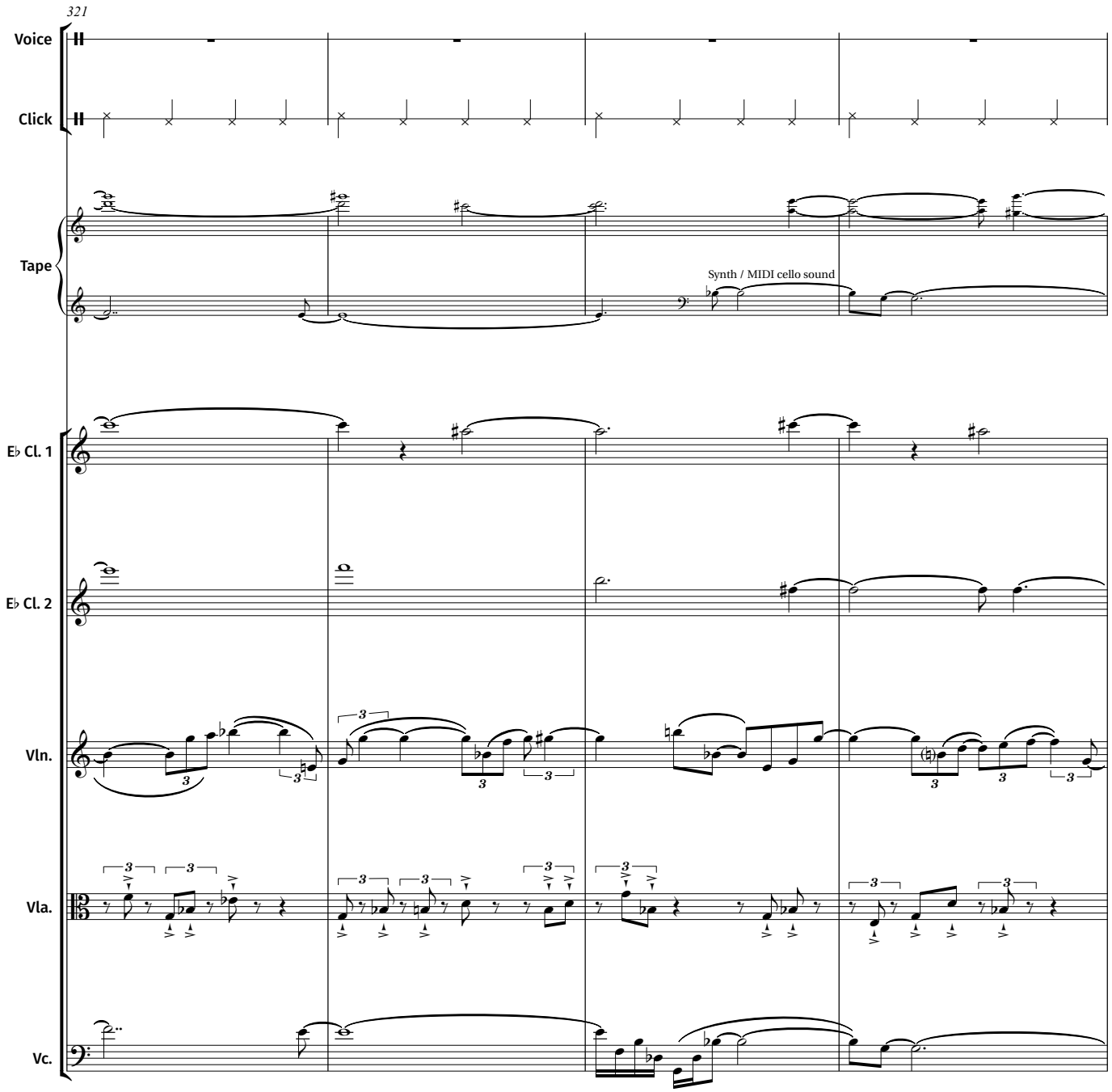

S
285
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
290
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
I've been thinking that this passage is a kind of a middle section and it's a respite from...
Synth sound
pp

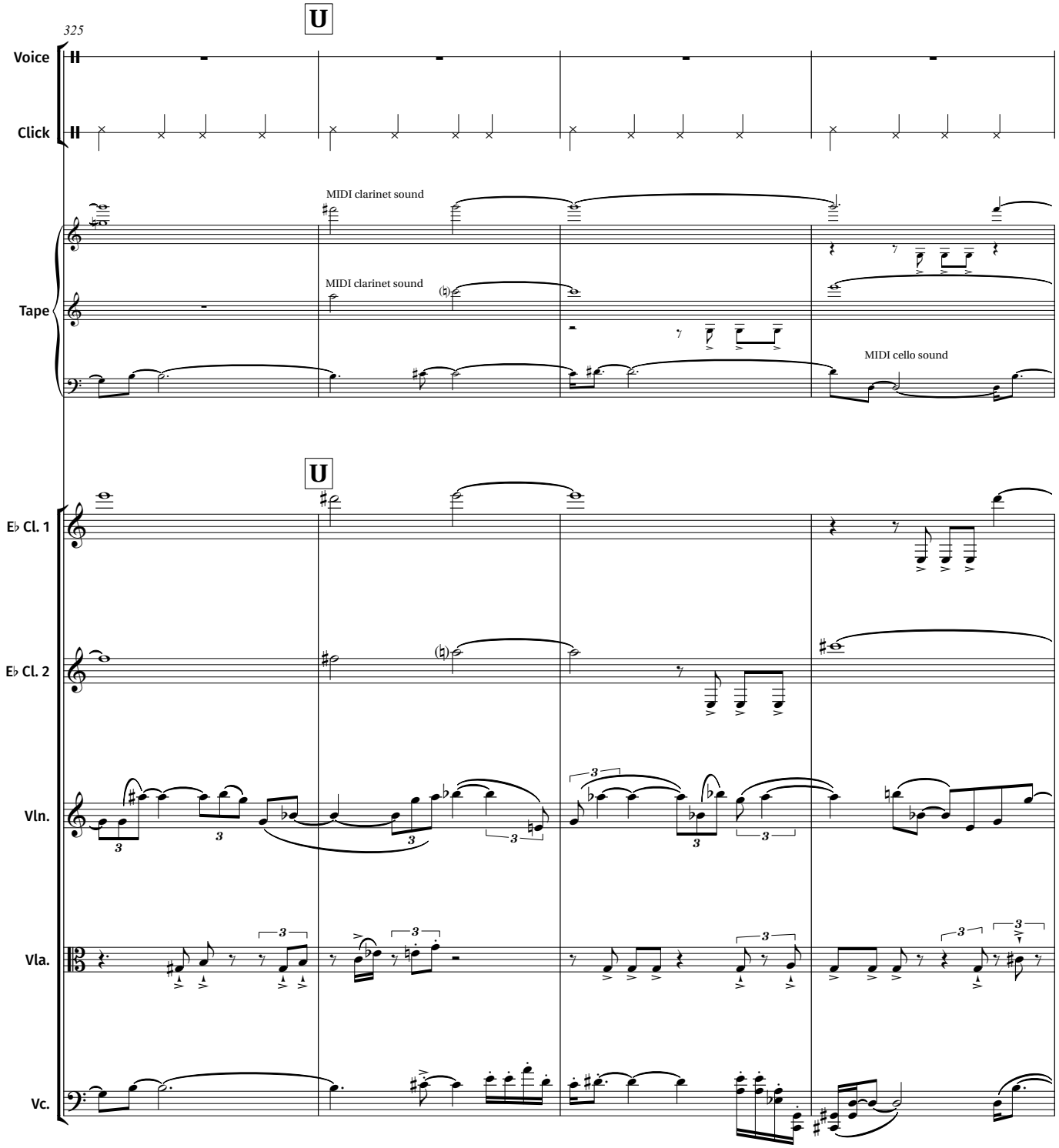

295
Voice
...the beginning stuff we had but we need to get back to that earlier material so this passage needs to be developed slowly but all the time...
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
T
300
♩=110
Voice
...more dense and more and more chaotic. Erm, so, let's see if it can go from calm to freak-out in under ninety seconds.
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

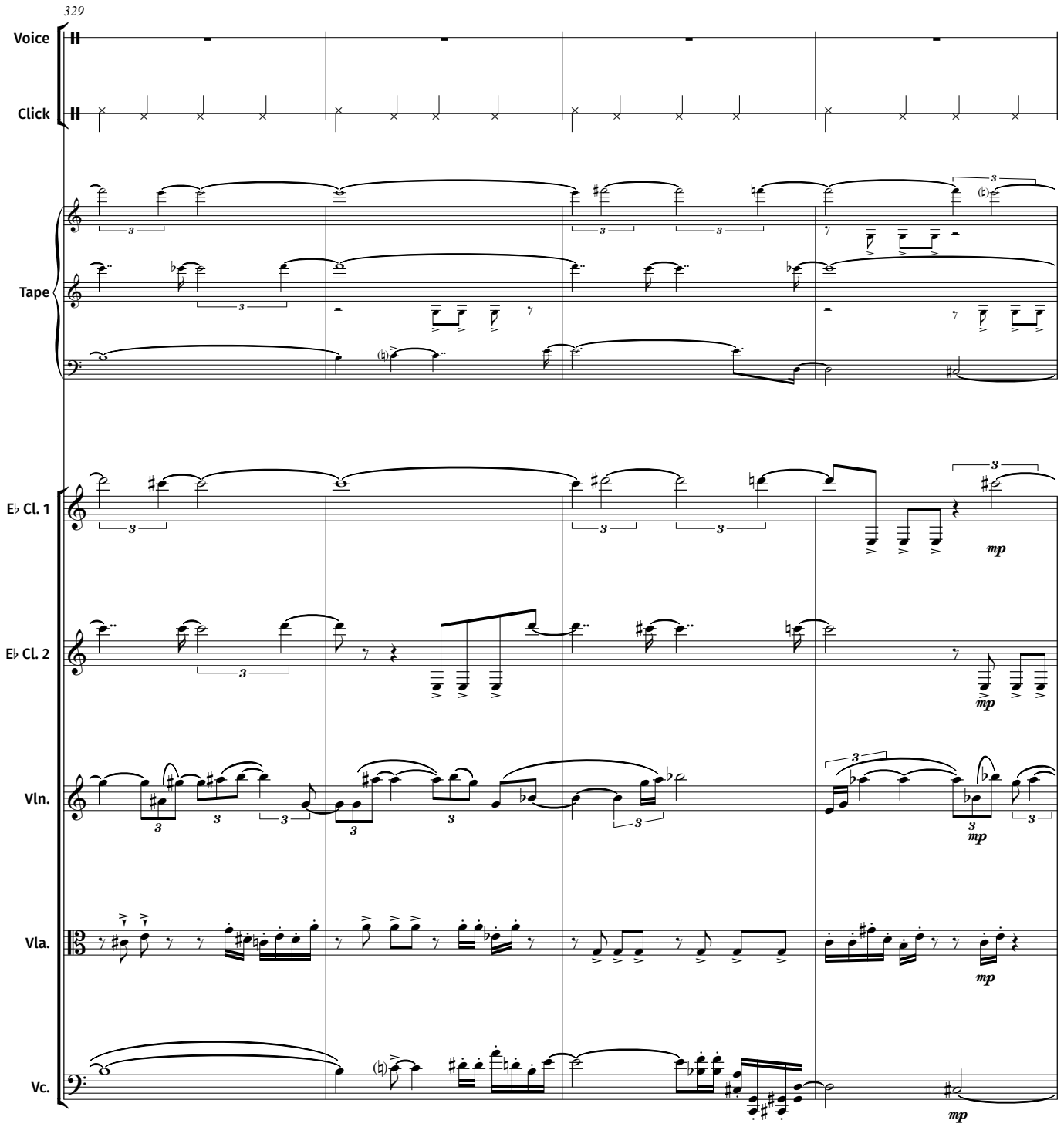

305
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
309
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
(II)
Vc.

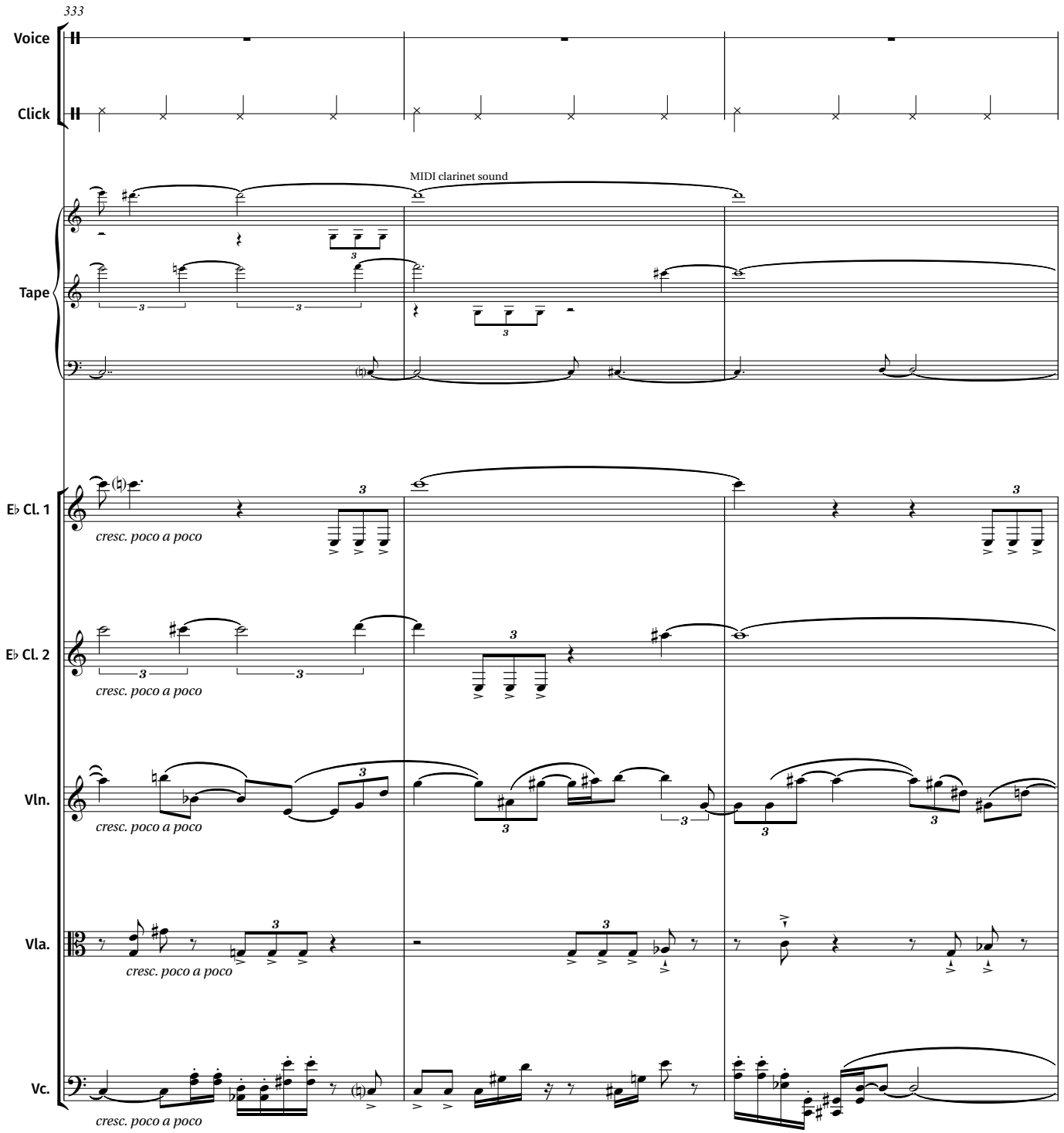

313
Voice
Click
Tape
Synth sound
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

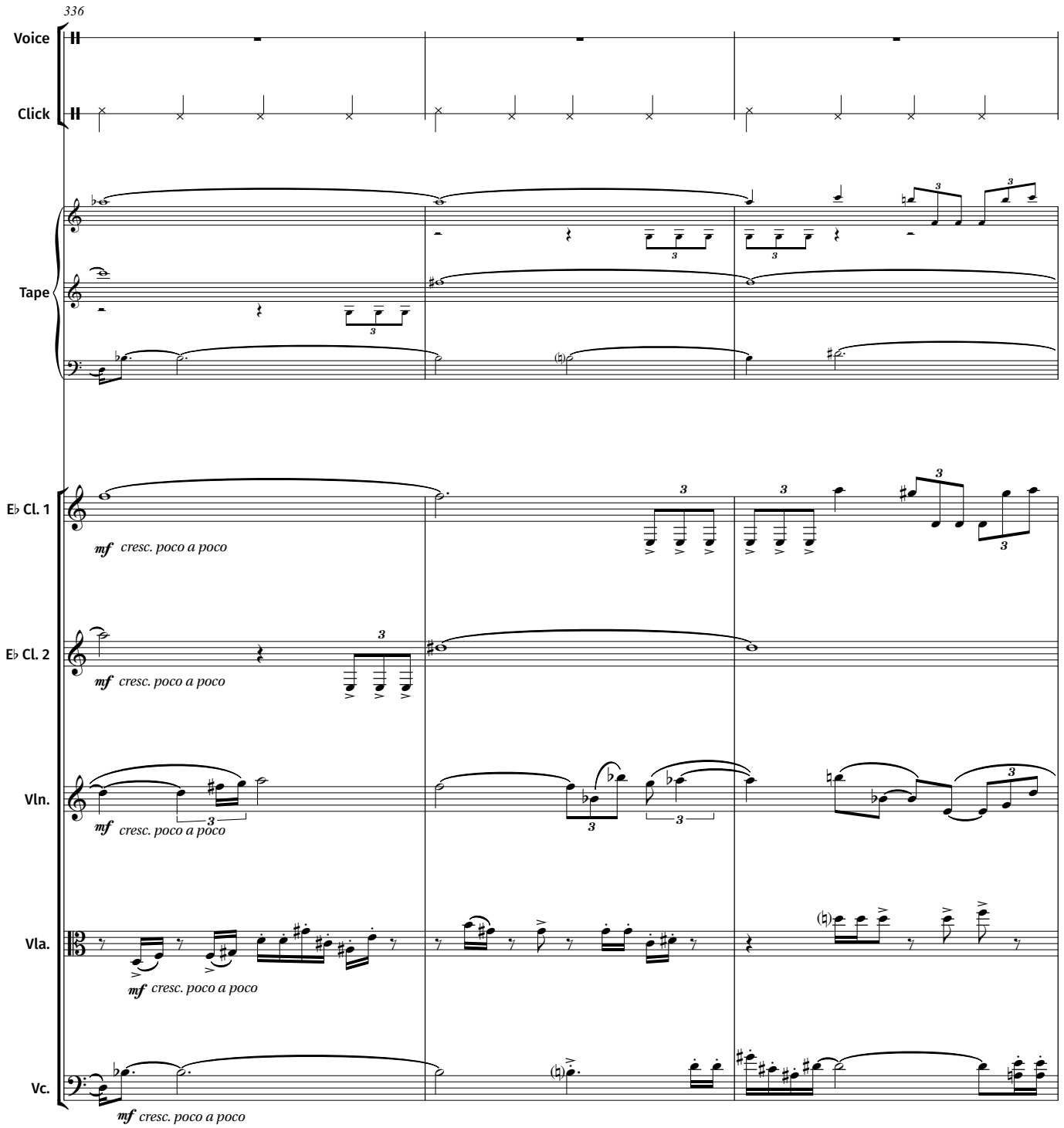

317
Voice
Click
Tape
E♭ Cl. 1
cresc. poco a poco
E♭ Cl. 2
cresc. poco a poco
Vln.
cresc. poco a poco
Vla.
cresc. poco a poco
Vc.
cresc. poco a poco

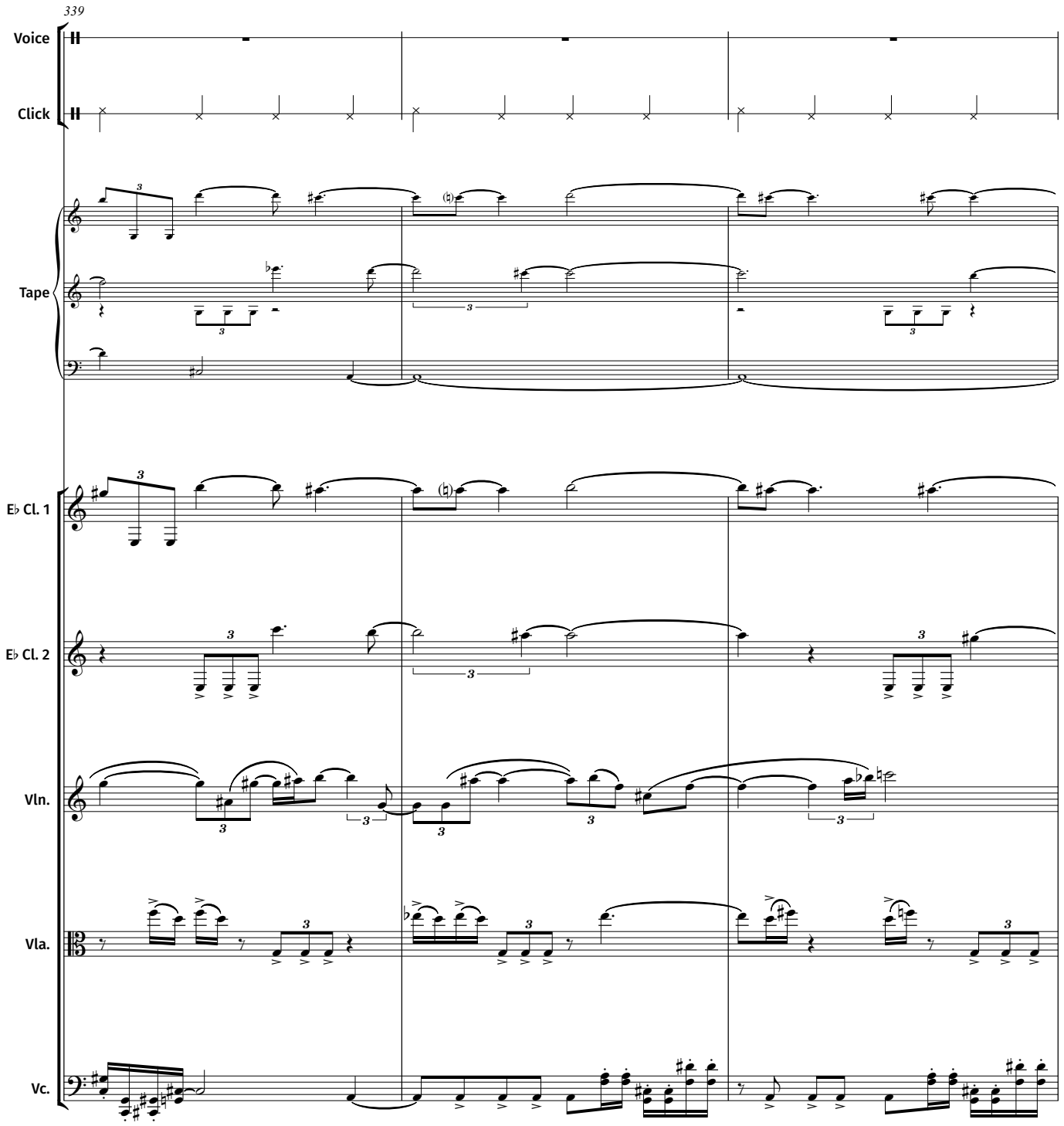

321
Voice
Click
Tape
Synth / MIDI cello sound
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

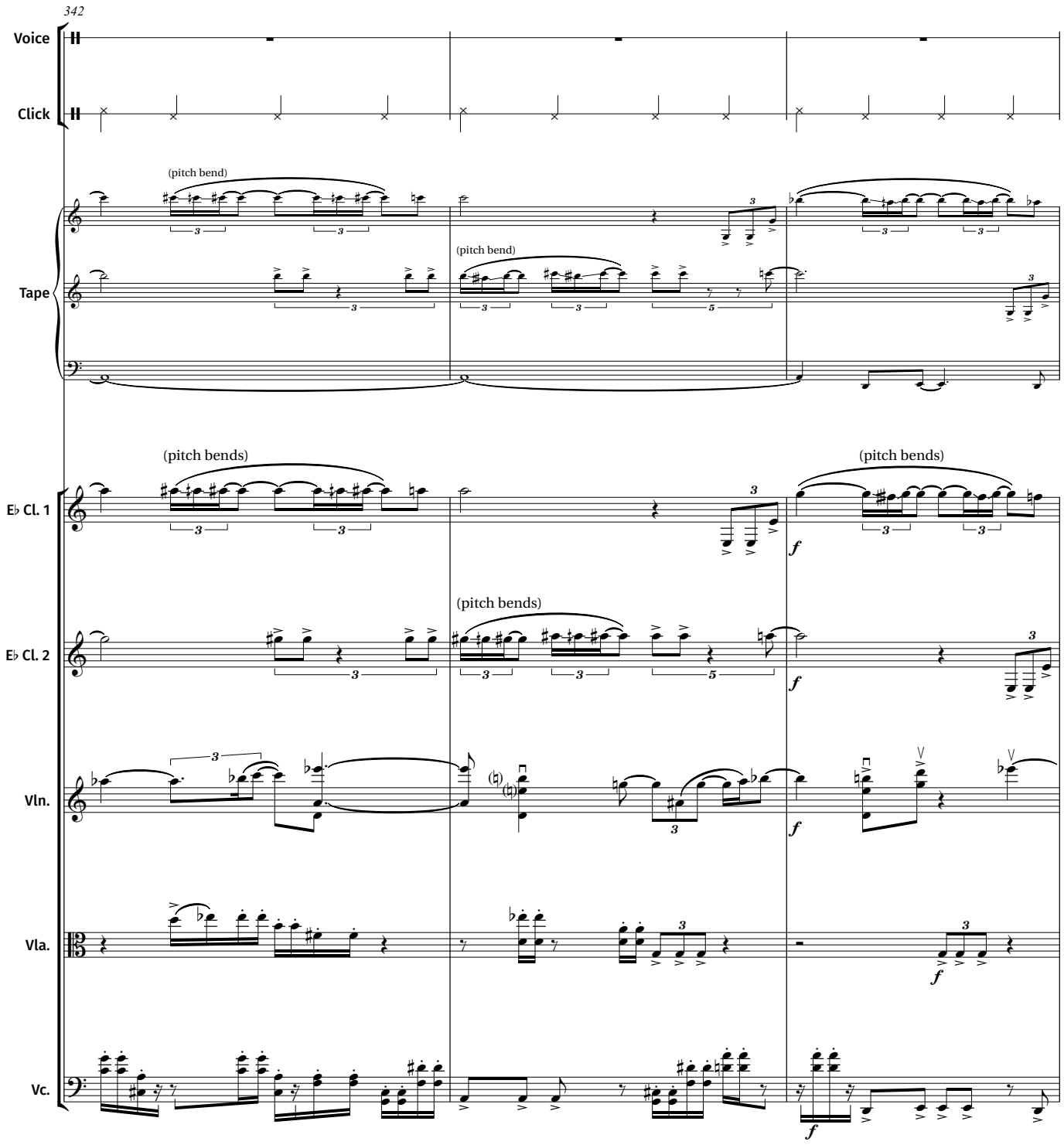

325
U
Voice
Click
MIDI clarinet sound
MIDI clarinet sound
Tape
MIDI cello sound
U
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

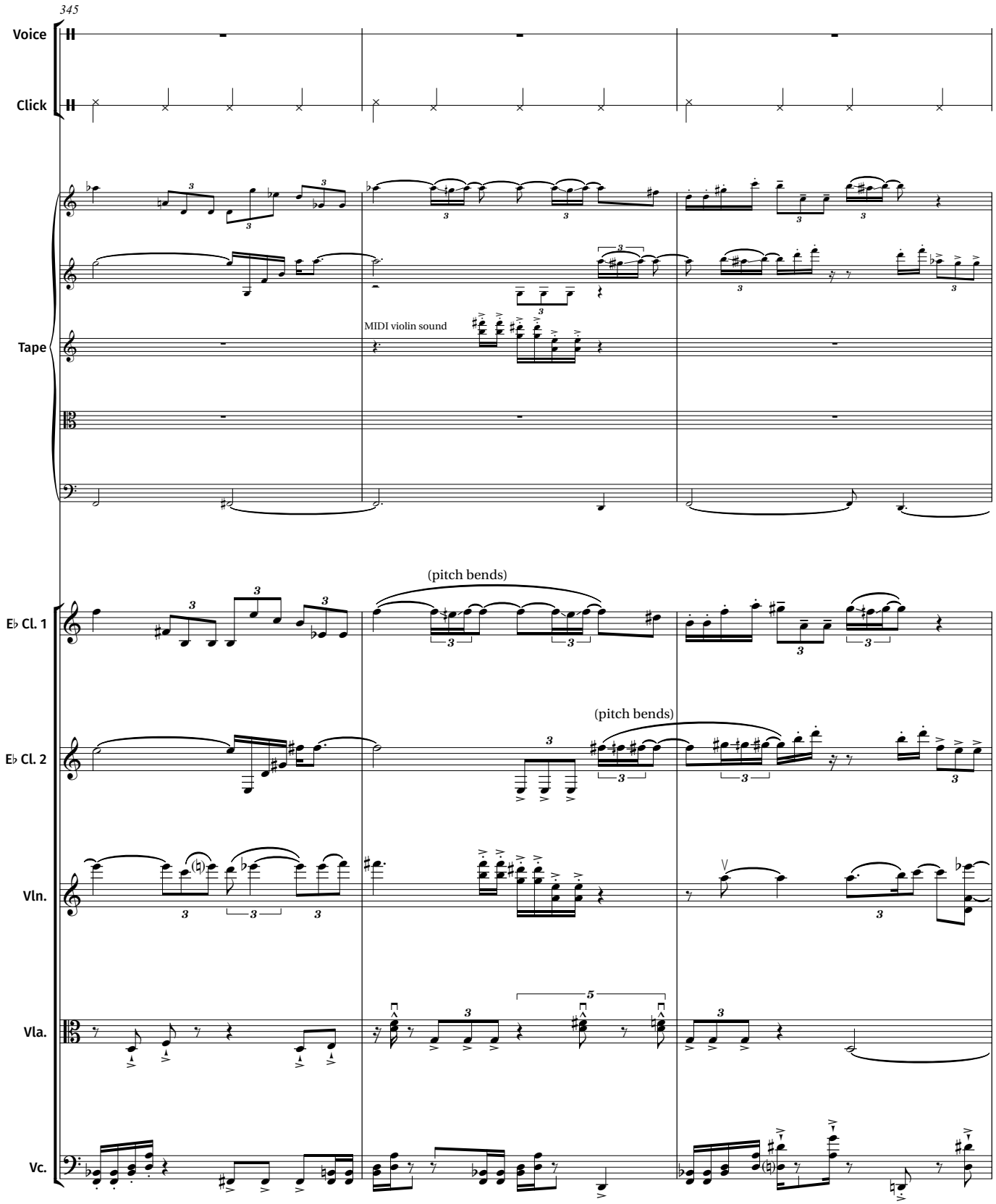

329
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
mp

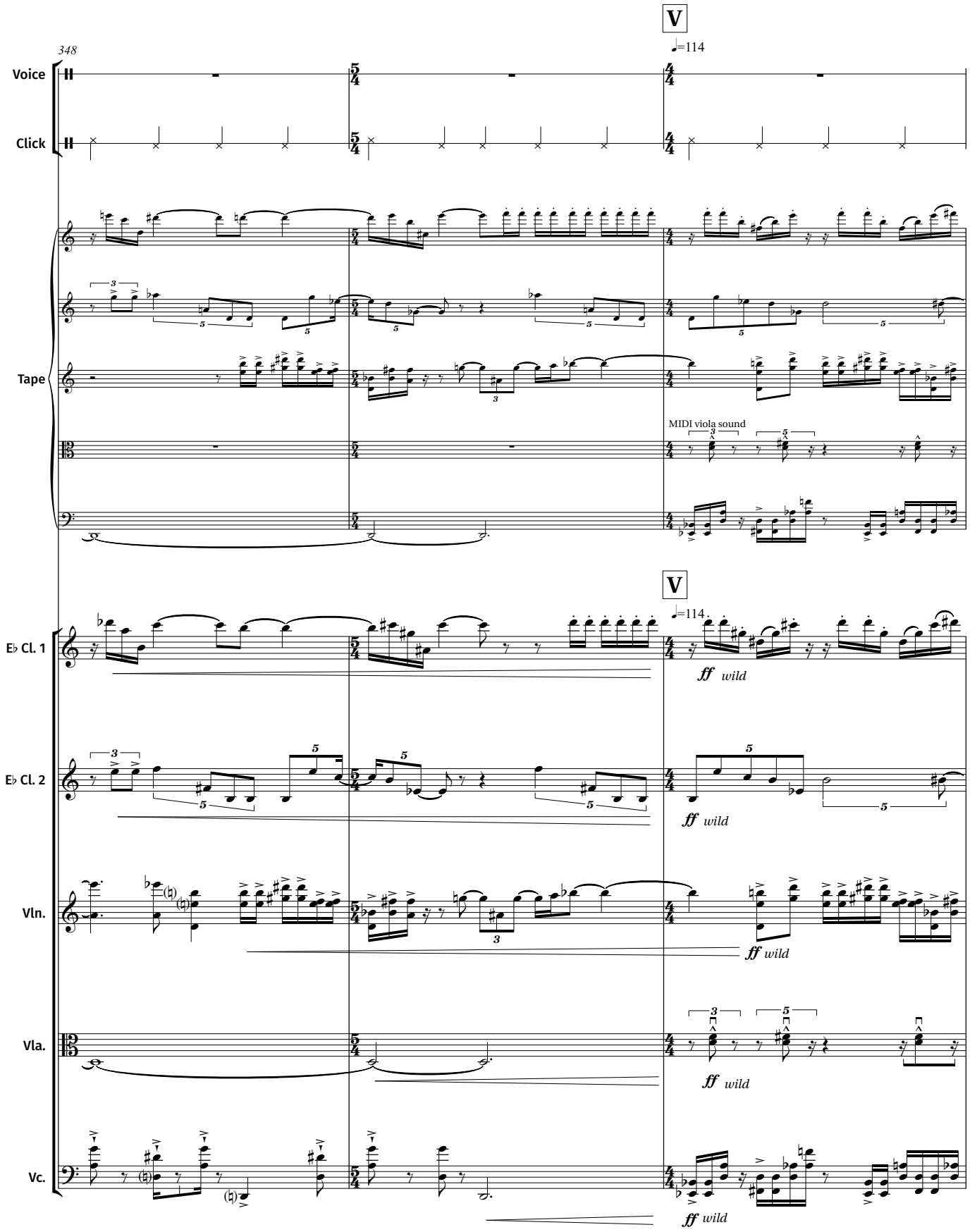

333
Voice
Click
MIDI clarinet sound
Tape
E♭ Cl. 1
cresc. poco a poco
E♭ Cl. 2
cresc. poco a poco
Vln.
cresc. poco a poco
Vla.
cresc. poco a poco
Vc.
cresc. poco a poco

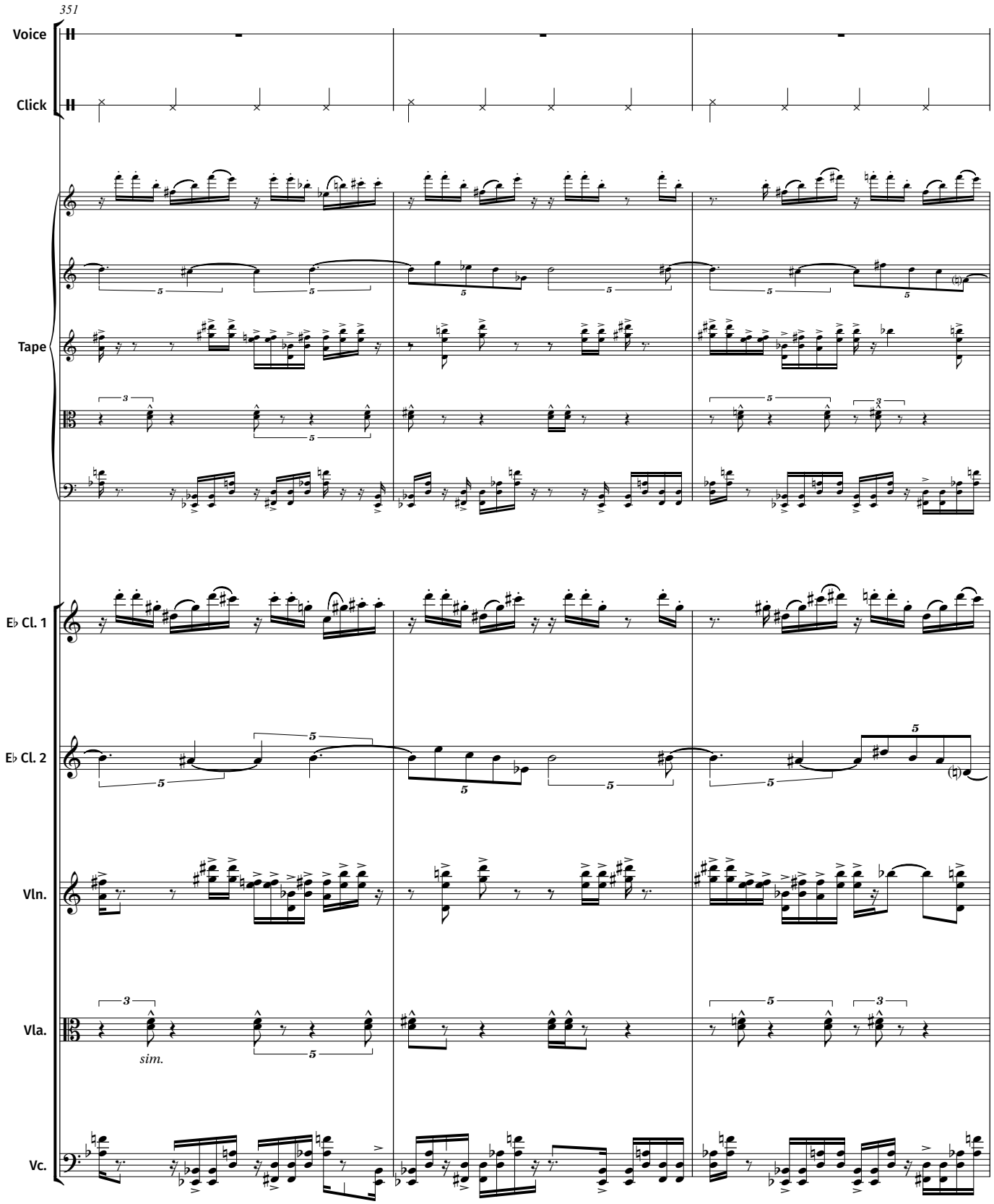

336
Voice
Click
Tape
E♭ Cl. 1
mf cresc. poco a poco
E♭ Cl. 2
mf cresc. poco a poco
Vln.
mf cresc. poco a poco
Vla.
mf cresc. poco a poco
Vc.
mf cresc. poco a poco

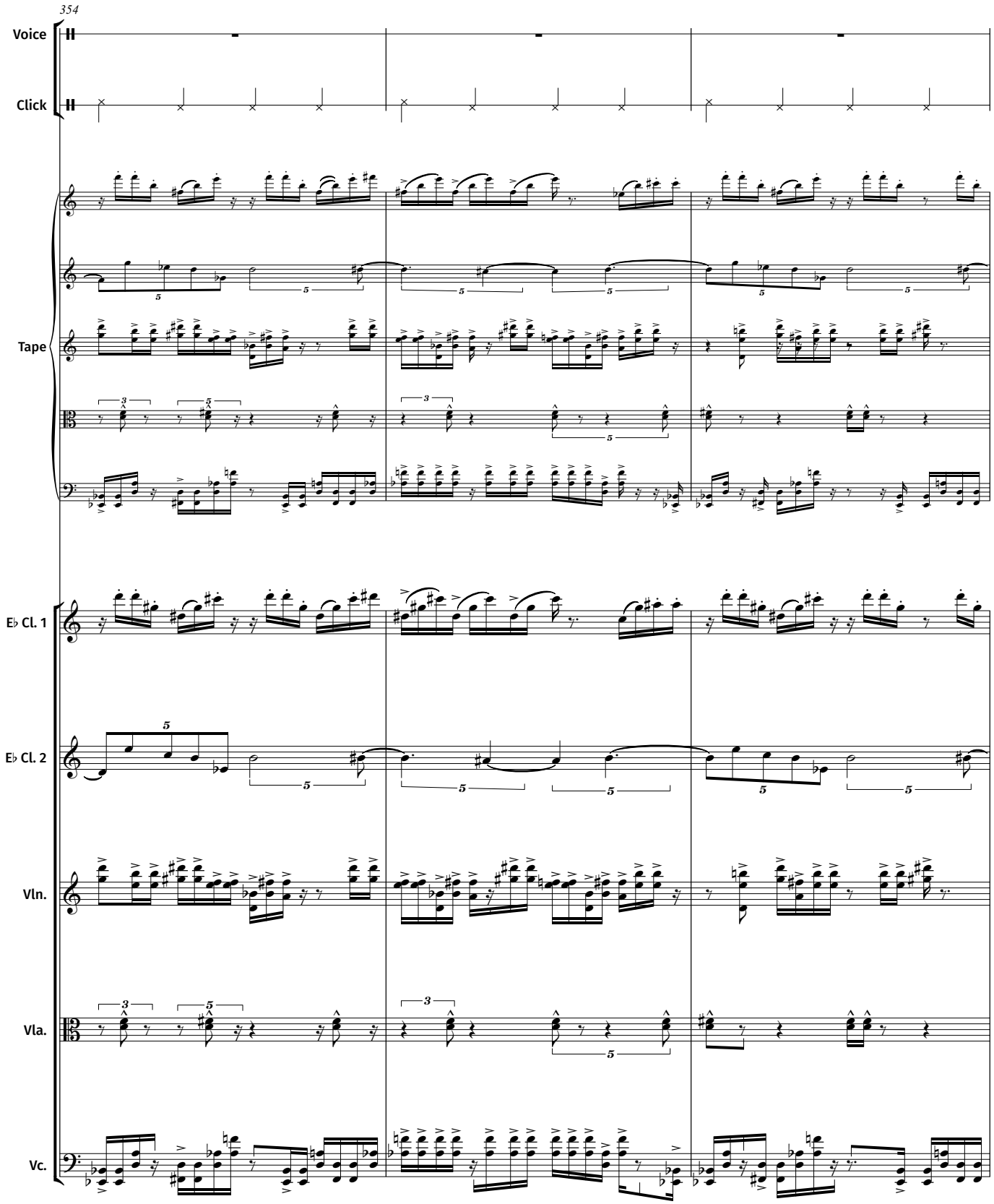

339
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

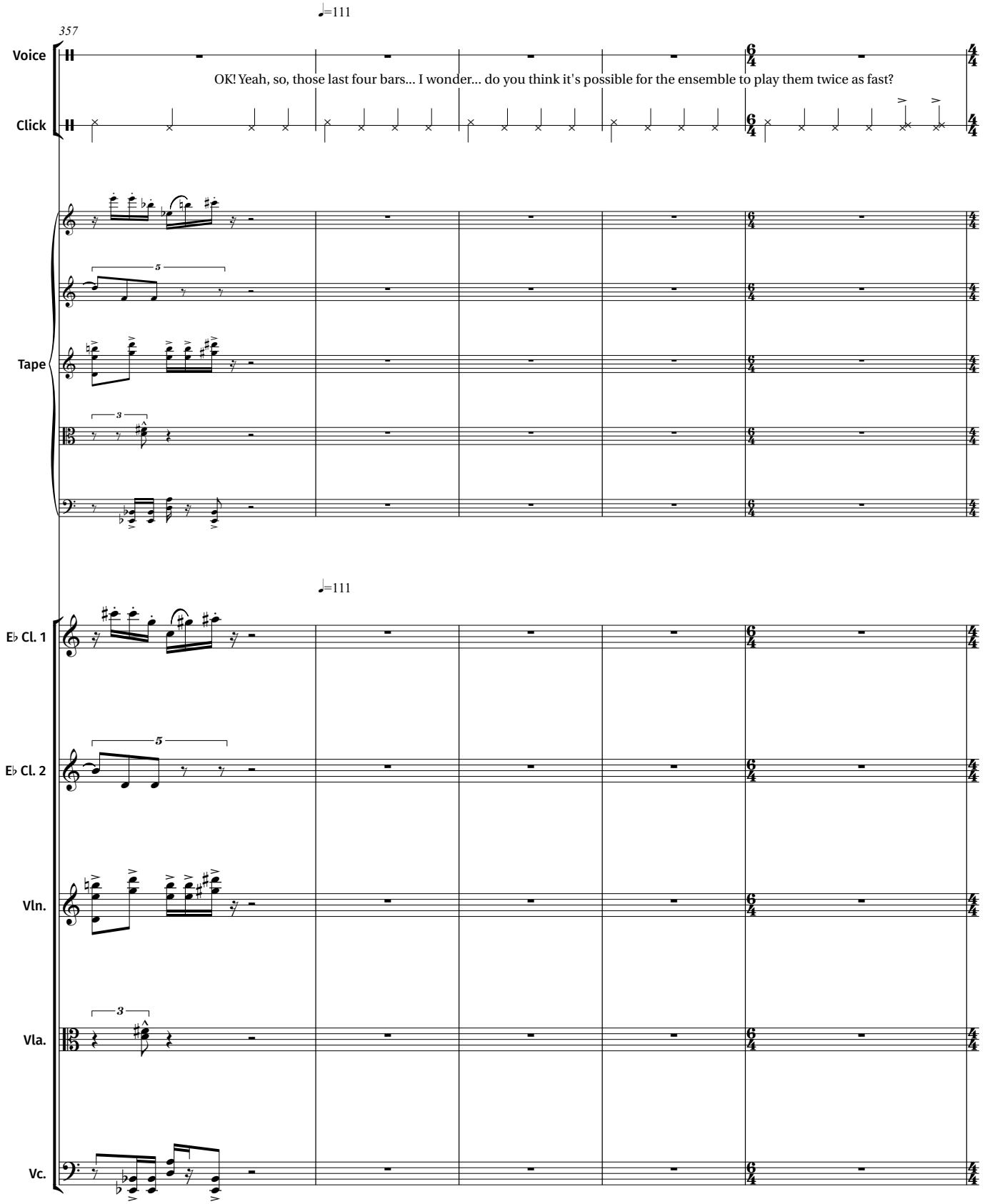

342
Voice
Click
(pitch bend)
Tape
(pitch bend)
(pitch bends)
(pitch bends)
E♭ Cl. 1
(pitch bends)
E♭ Cl. 2
Vln.
Vla.
Vc.

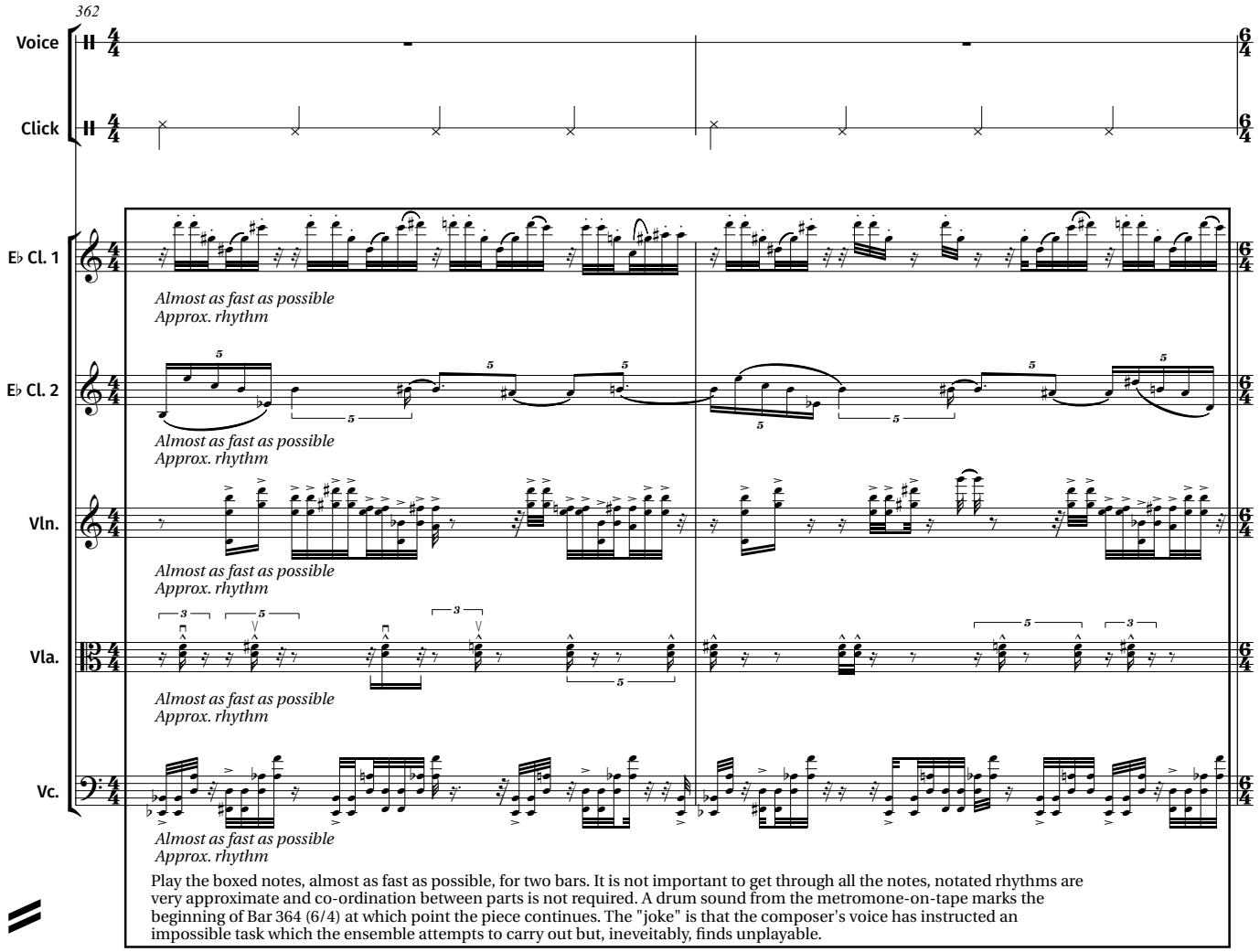

345
Voice
Click
Tape
MIDI violin sound
(pitch bends)
E♭ Cl. 1
(pitch bends)
E♭ Cl. 2
Vln.
Vla.
Vc.

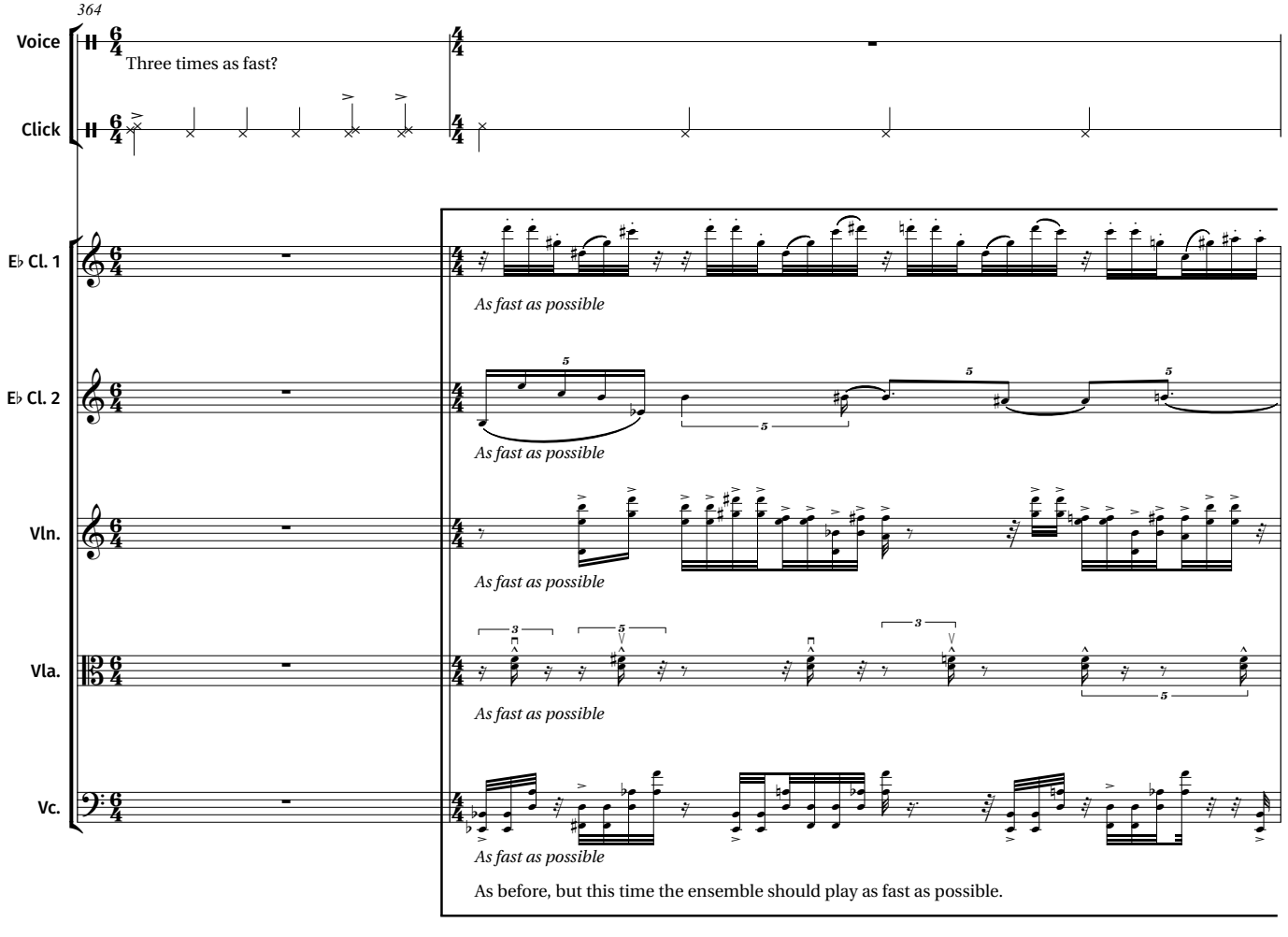

V
348
♩=114
Voice
Click
Tape
MIDI viola sound
V
♩=114
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
ff wild

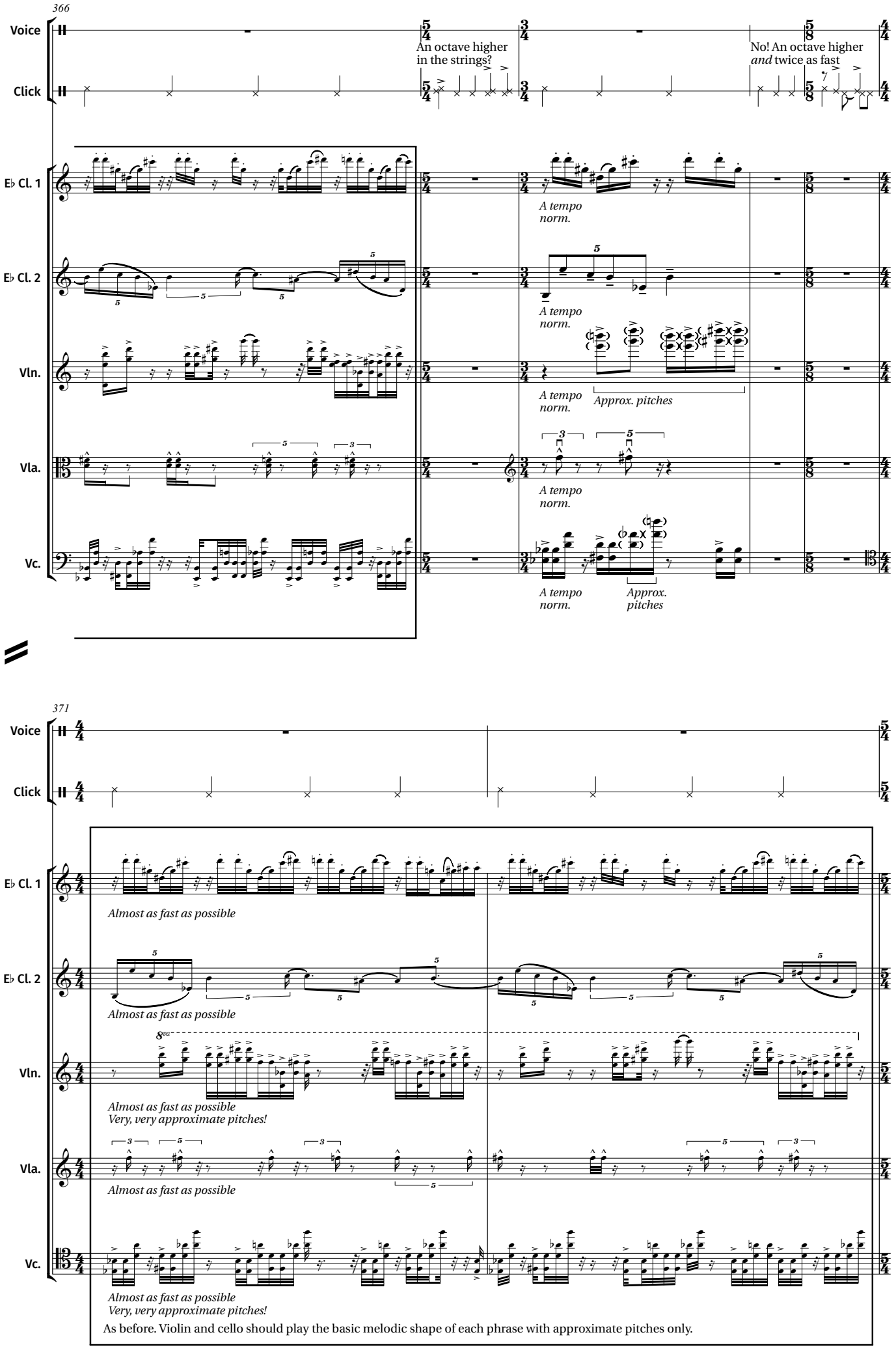

351
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
sim.
Vc.


354
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

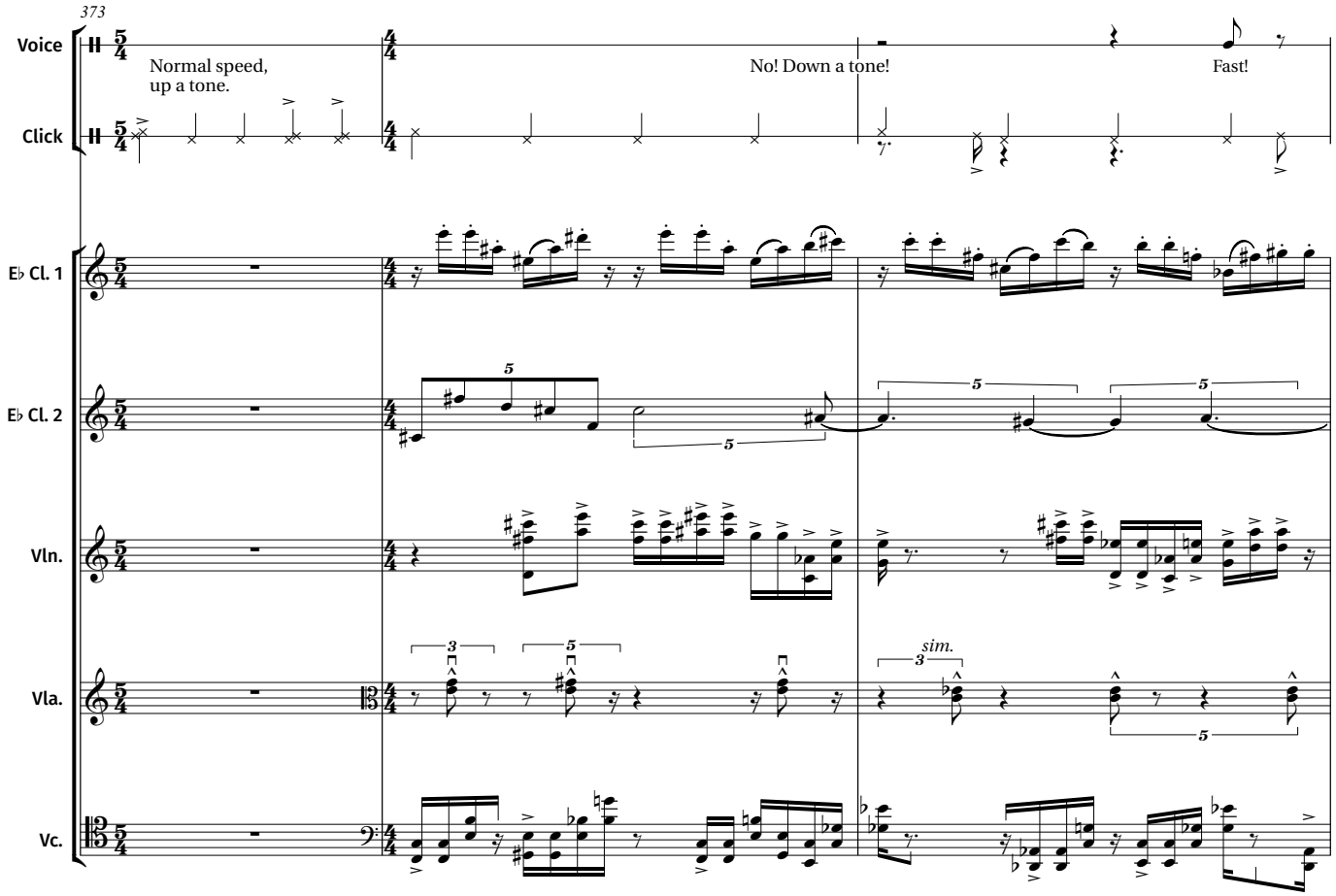

357
♩=111
Voice
OK! Yeah, so, those last four bars... I wonder... do you think it's possible for the ensemble to play them twice as fast?
Click
Tape
♩=111
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

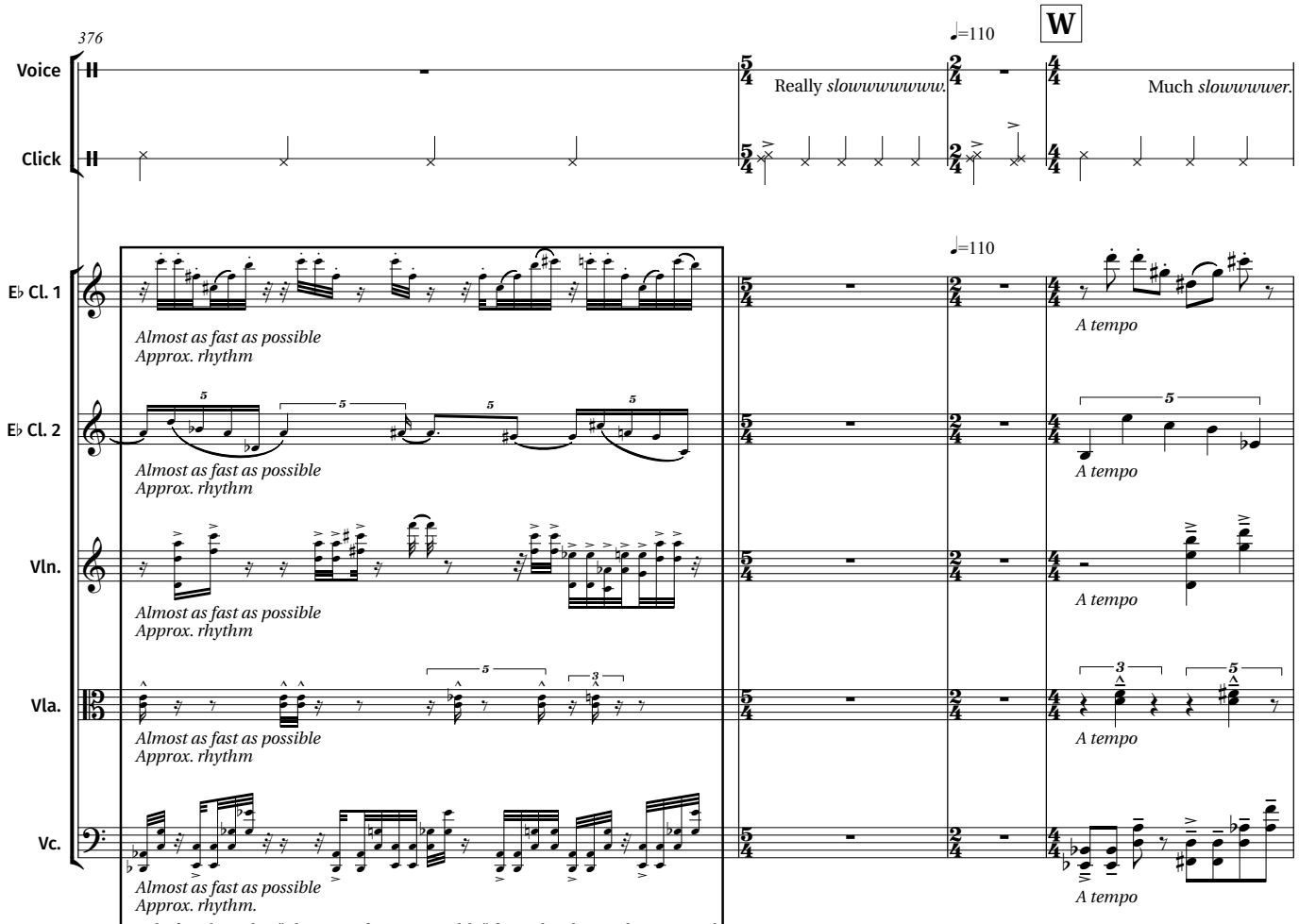

362
Voice
Click
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
Almost as fast as possible
Approx. rhythm
Play the boxed notes, almost as fast as possible, for two bars. It is not important to get through all the notes, notated rhythms are very approximate and co-ordination between parts is not required. A drum sound from the metromone-on-tape marks the beginning of Bar 364 (6/4) at which point the piece continues. The "joke" is that the composer's voice has instructed an impossible task which the ensemble attempts to carry out but, ineveitably, finds unplayable.

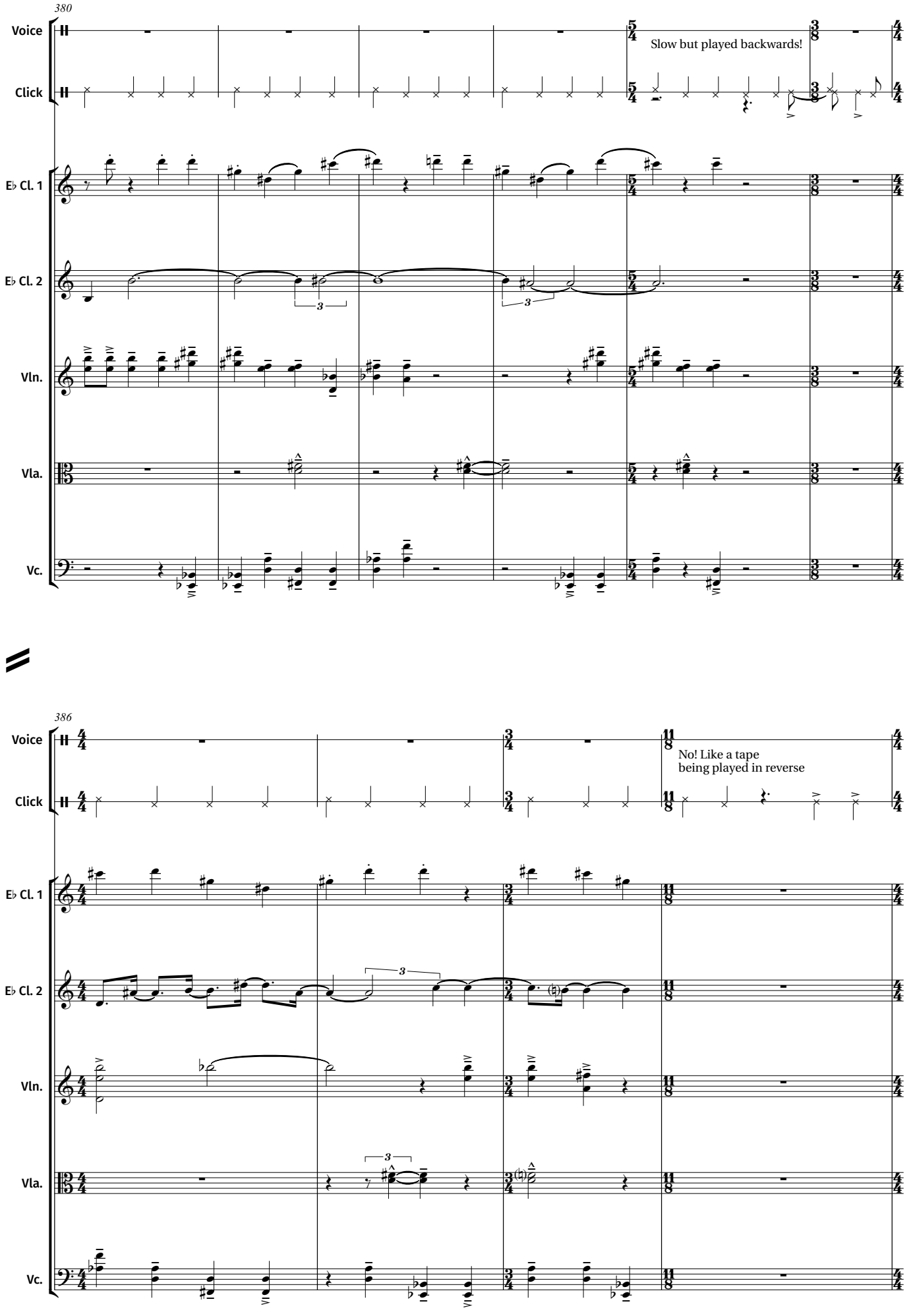

364
Voice
Three times as fast?
Click
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
As fast as possible
As before, but this time the ensemble should play as fast as possible.

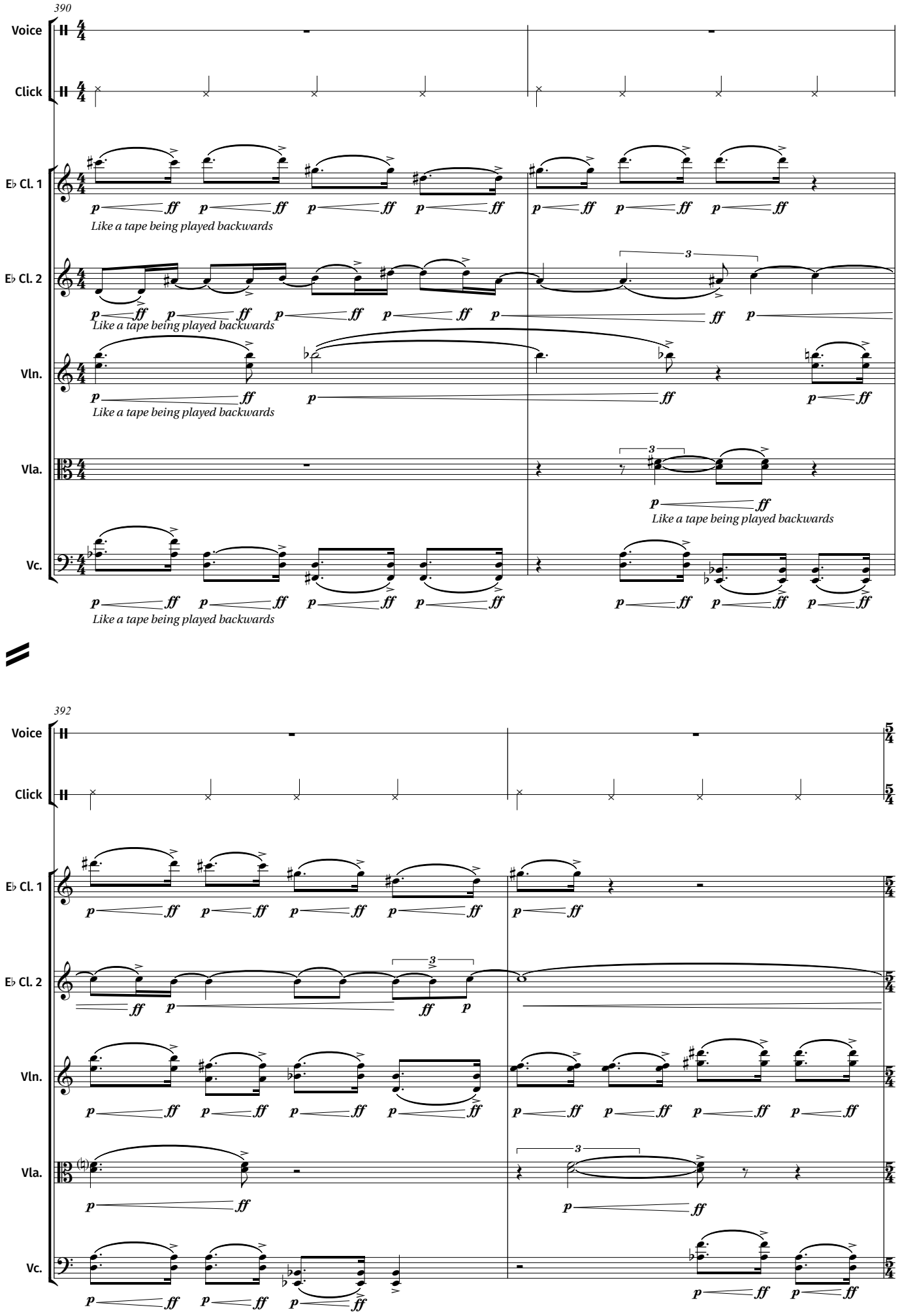


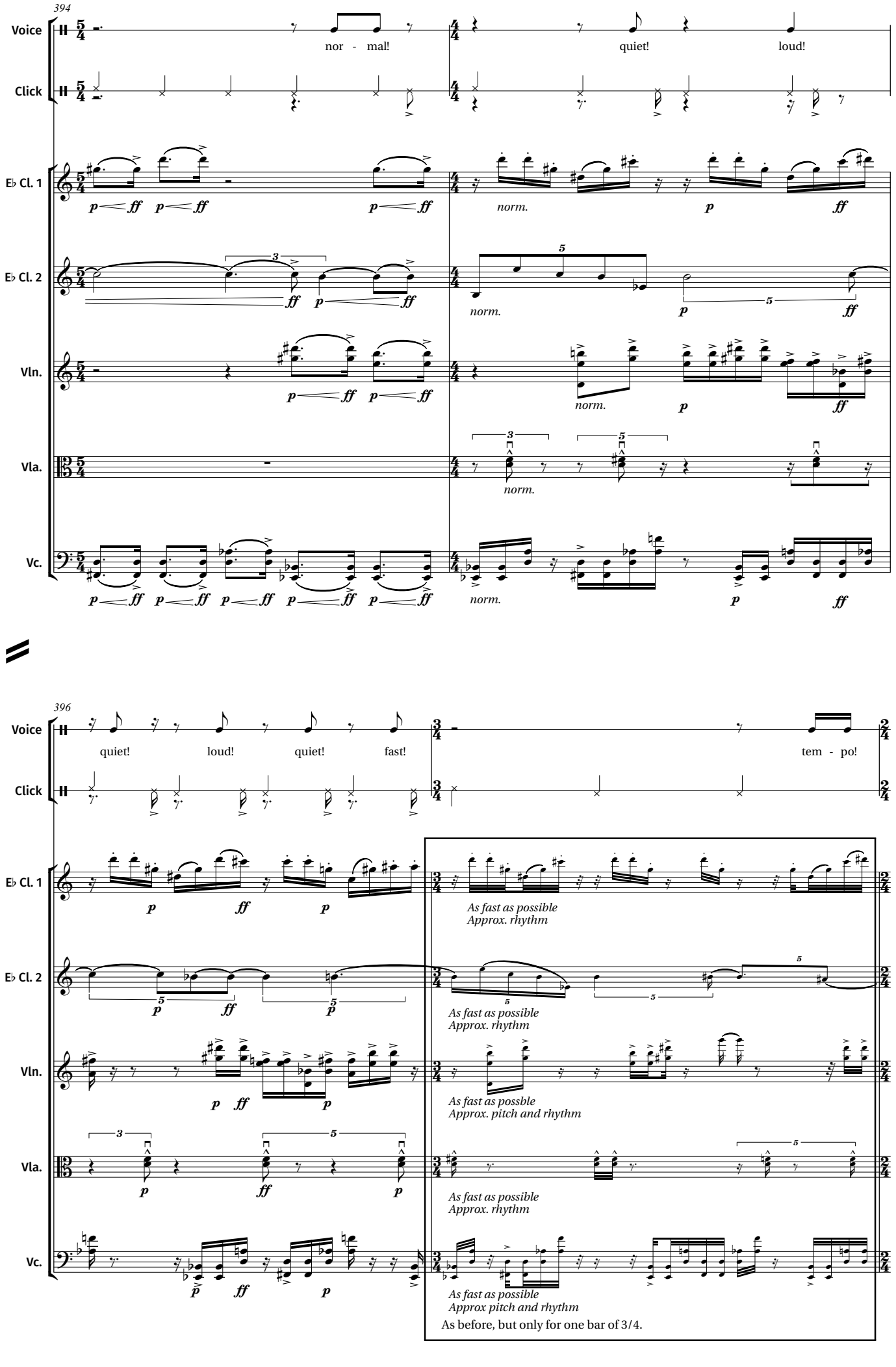
As before. Violin and cello should play the basic melodic shape of each phrase with approximate pitches only.

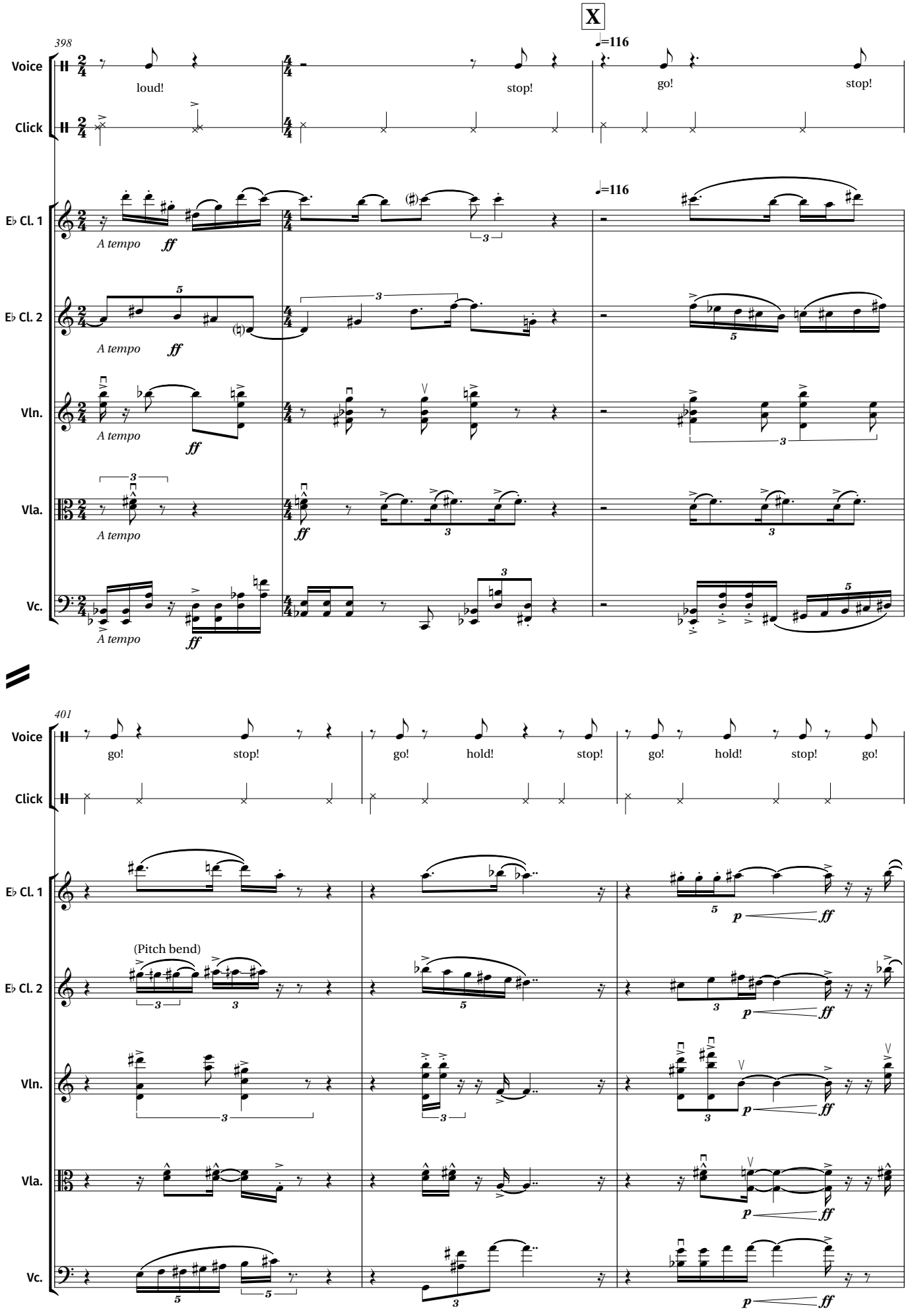

373
Voice
Click
Normal speed,
up a tone.
No! Down a tone!
Fast!
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
sim.
Vc.

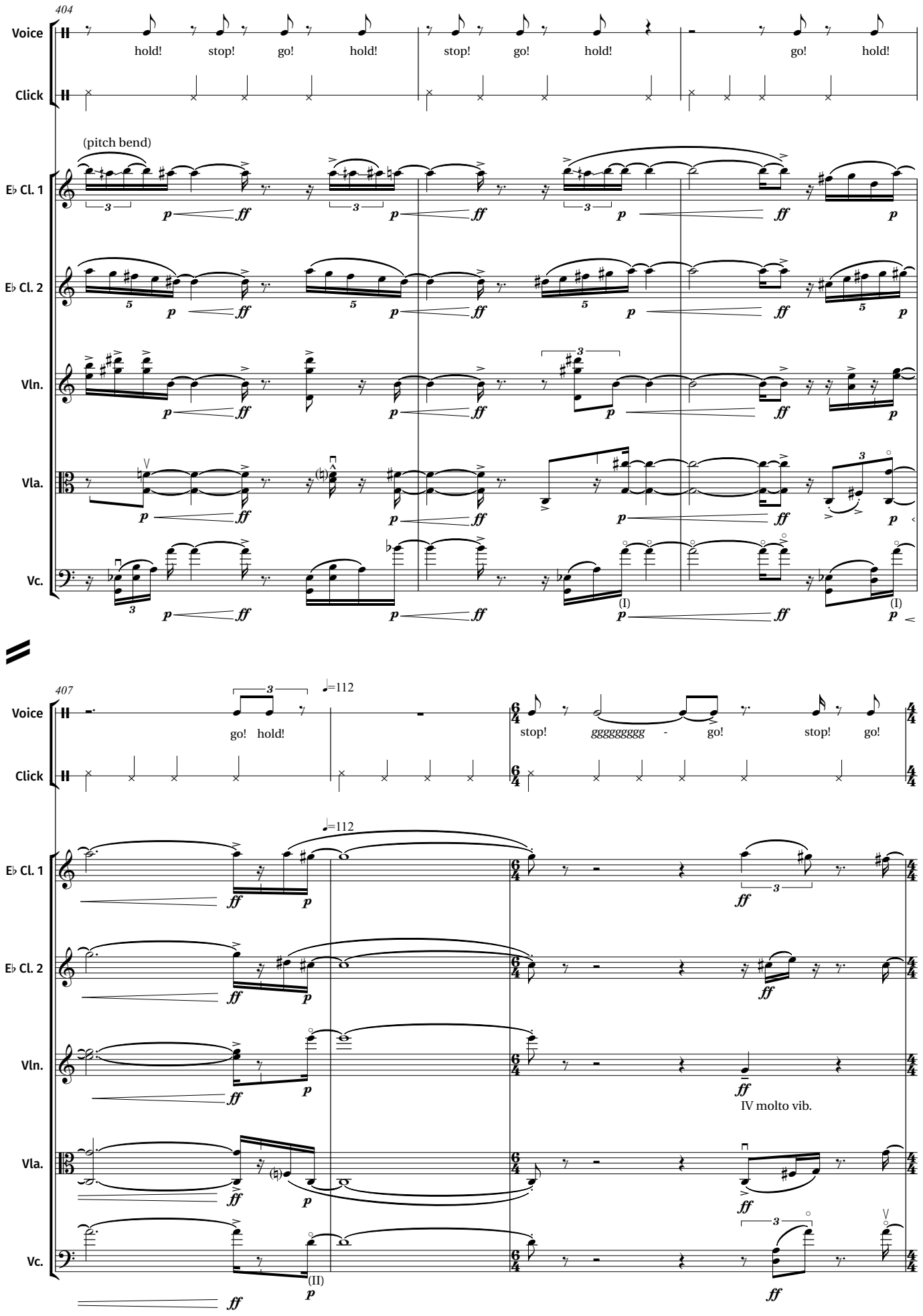

376
Voice
Click
♩=110
W
Really slowwwwwww.
Much slowwwwer.
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
Almost as fast as possible
Approx. rhythm
A tempo
Almost as fast as possible
Approx. rhythm.
As before but play "almost as fast as possible" for only 1 bar. A drum sound in the metronome-on-tape part will mark the beginning of Bar 377 (5/4)

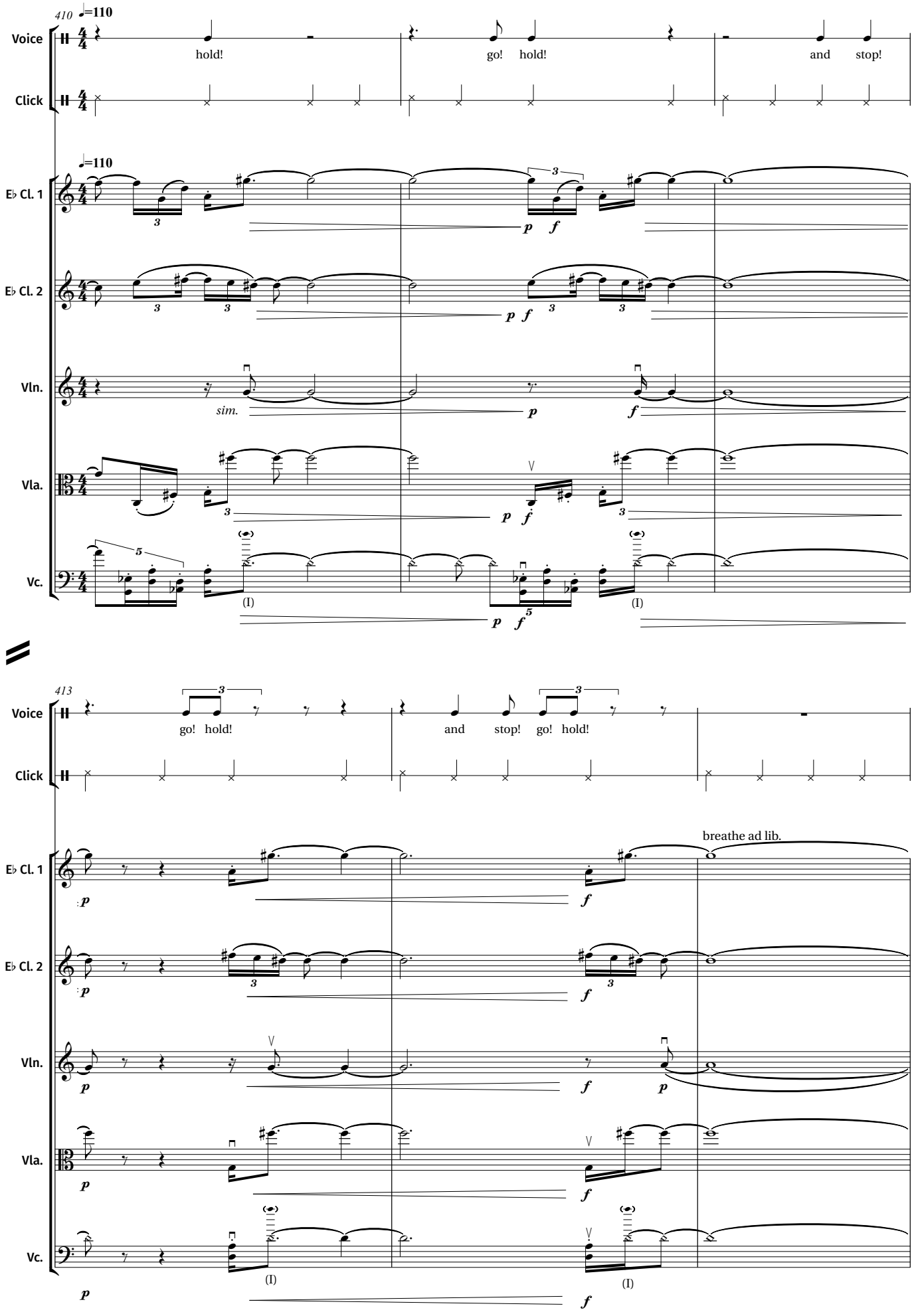

380
Voice
Click
Slow but played backwards!
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
386
Voice
Click
No! Like a tape
being played in reverse
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

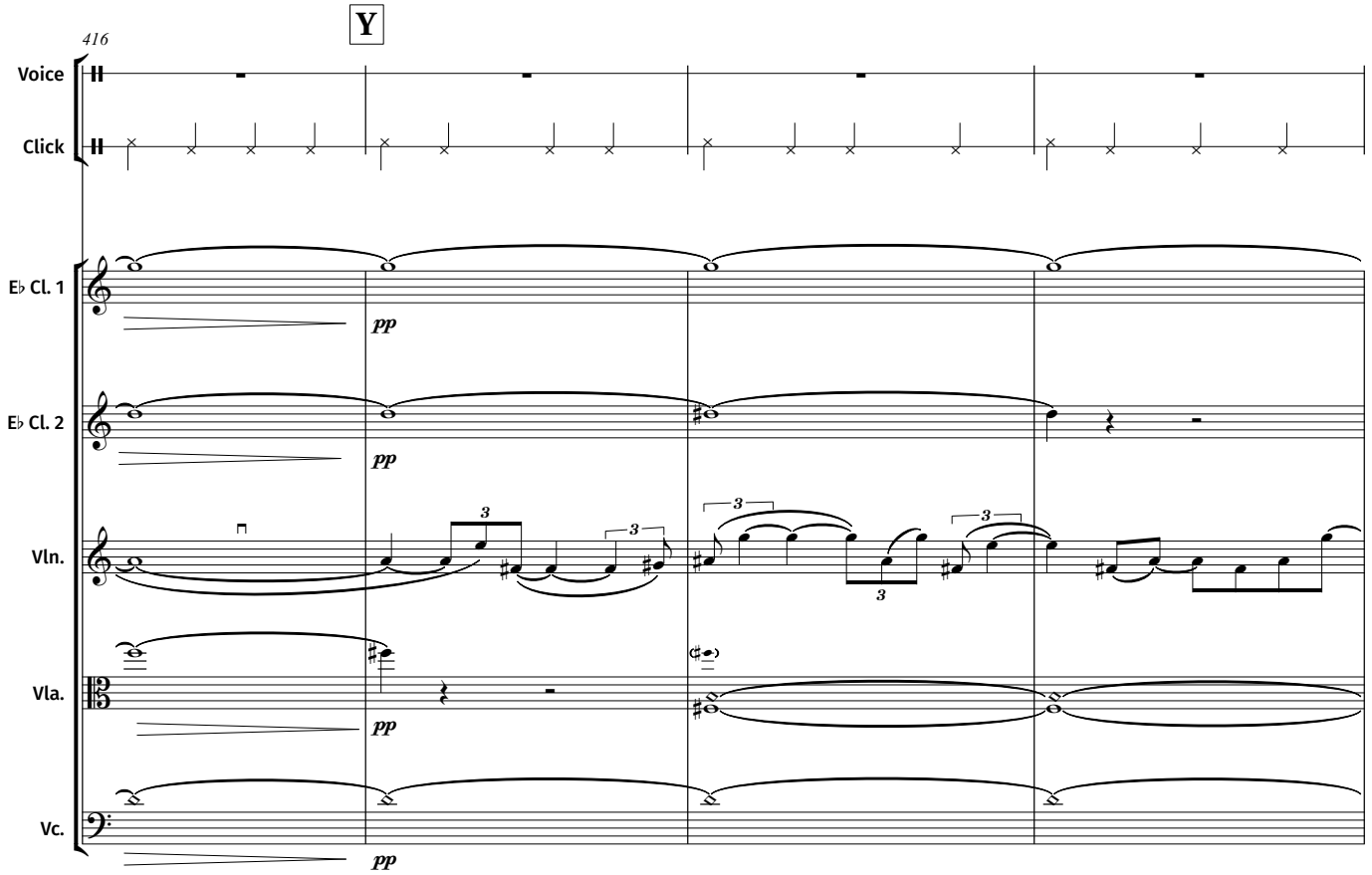

390
Voice
Click
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
Like a tape being played backwards
392
5/4

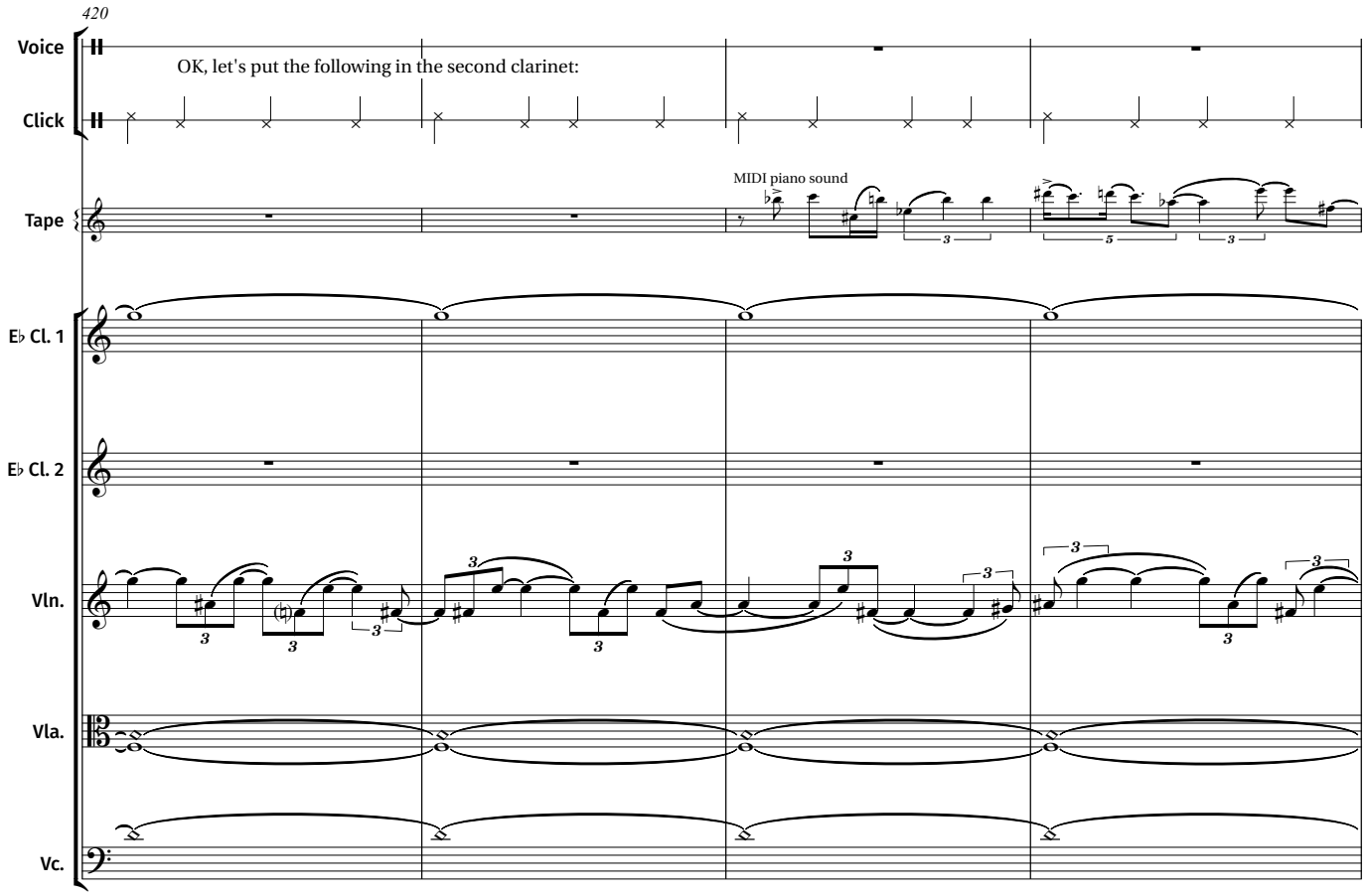

394
Voice
Click
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
nor - mal!
quiet!
loud!
norm.
396
quiet!
loud!
quiet!
fast!
tem - po!
As fast as possible
Approx. rhythm
As fast as possble
Approx. pitch and rhythm
Approx pitch and rhythm
As before, but only for one bar of 3/4.

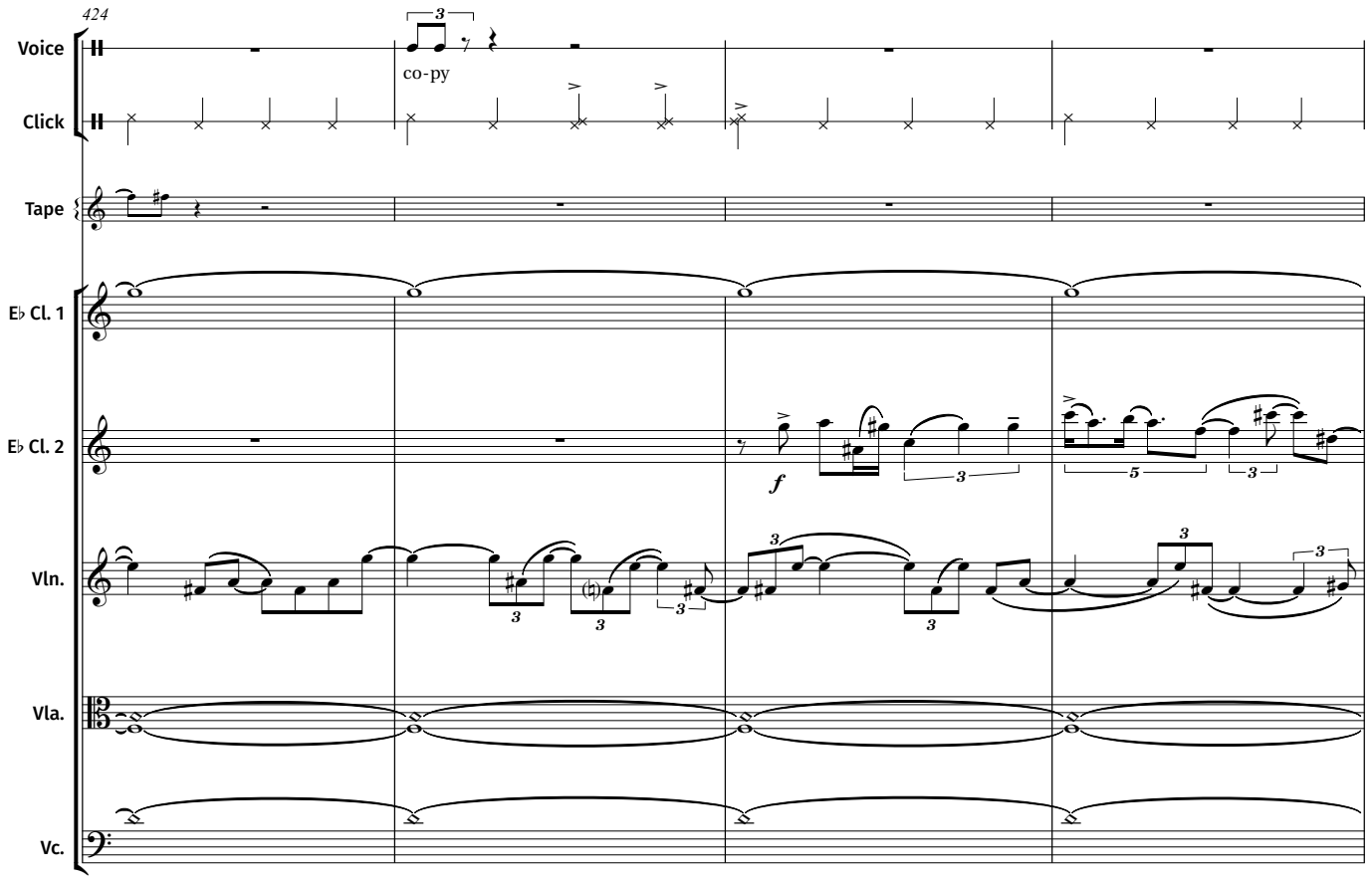

X
398
Voice
Click
loud!
stop!
go!
stop!
♩=116
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
A tempo
ff
401
go!
stop!
go!
hold!
stop!
go!
hold!
stop!
go!
(Pitch bend)
p
ff

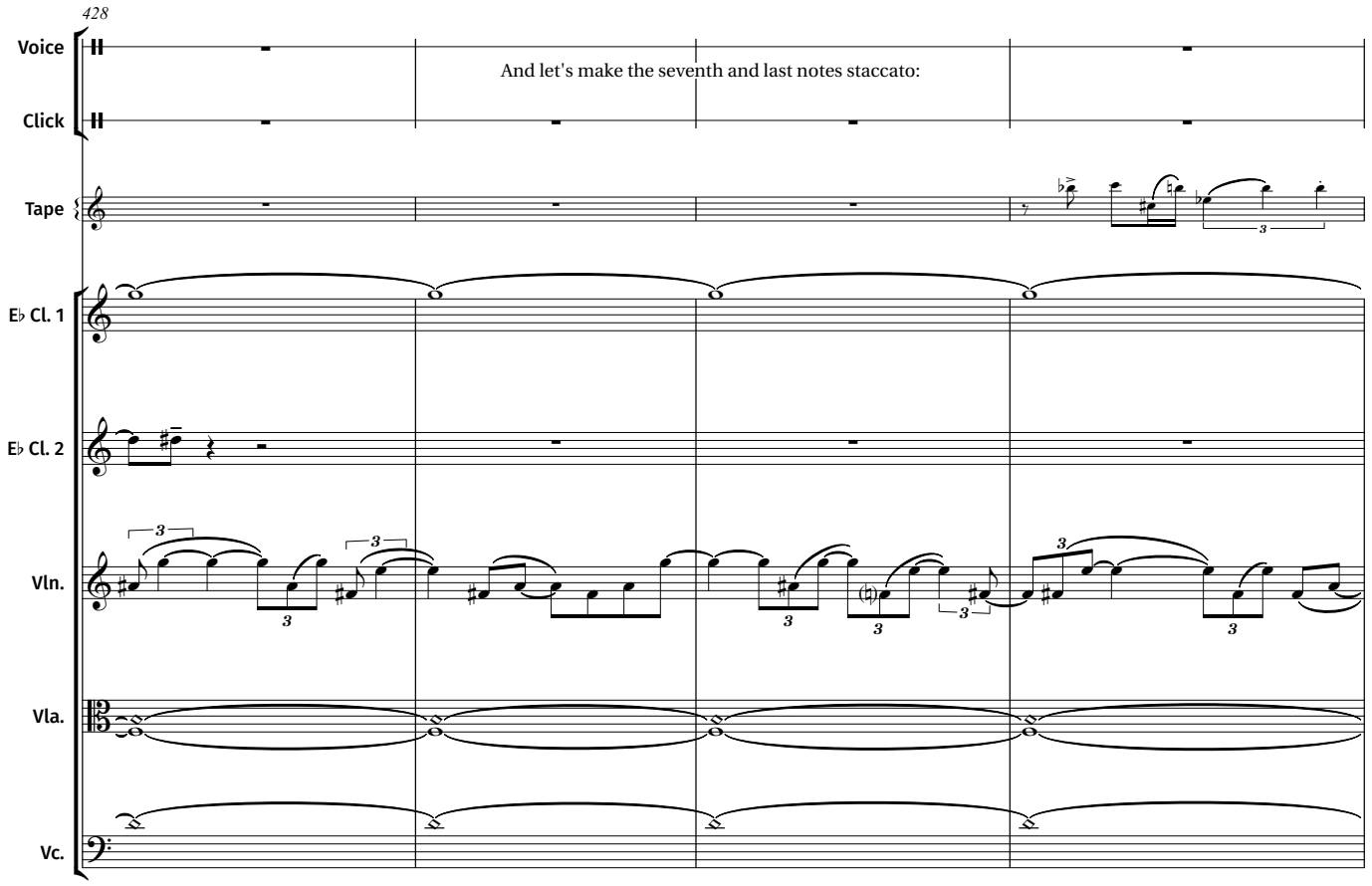

404
Voice
Click
hold! stop! go! hold! stop! go! hold! go! hold!
(pitch bend)
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
407
go! hold!
stop! gggggggggg - go! stop! go!
IV molto vib.

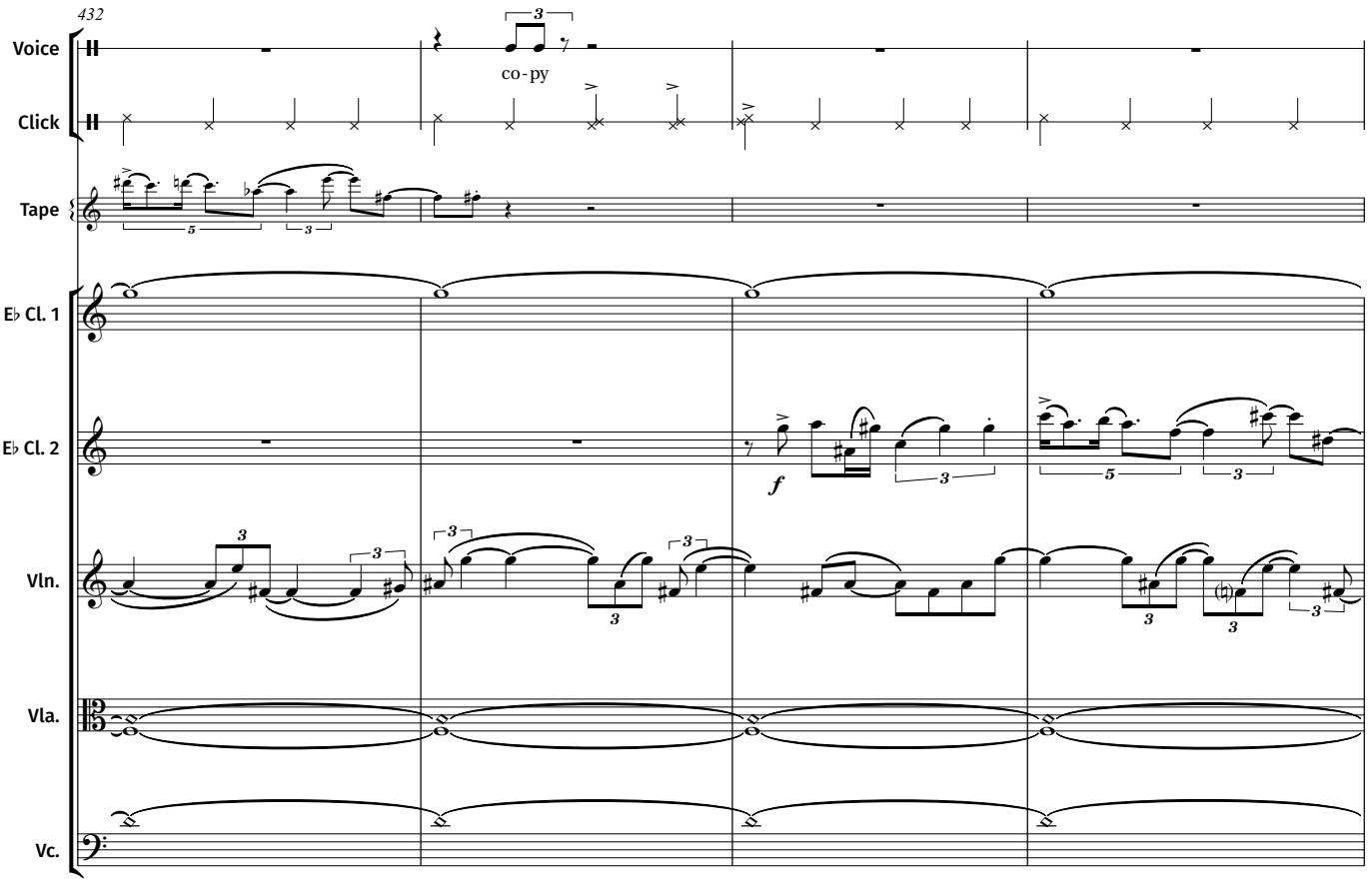

410
♩=110
Voice
hold!
go! hold!
and stop!
Click
♩=110
E♭ Cl. 1
E♭ Cl. 2
Vln.
sim.
Vla.
Vc.
(I)
(I)
413
Voice
go! hold!
and stop! go! hold!
Click
breathe ad lib.
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
(I)
(I)

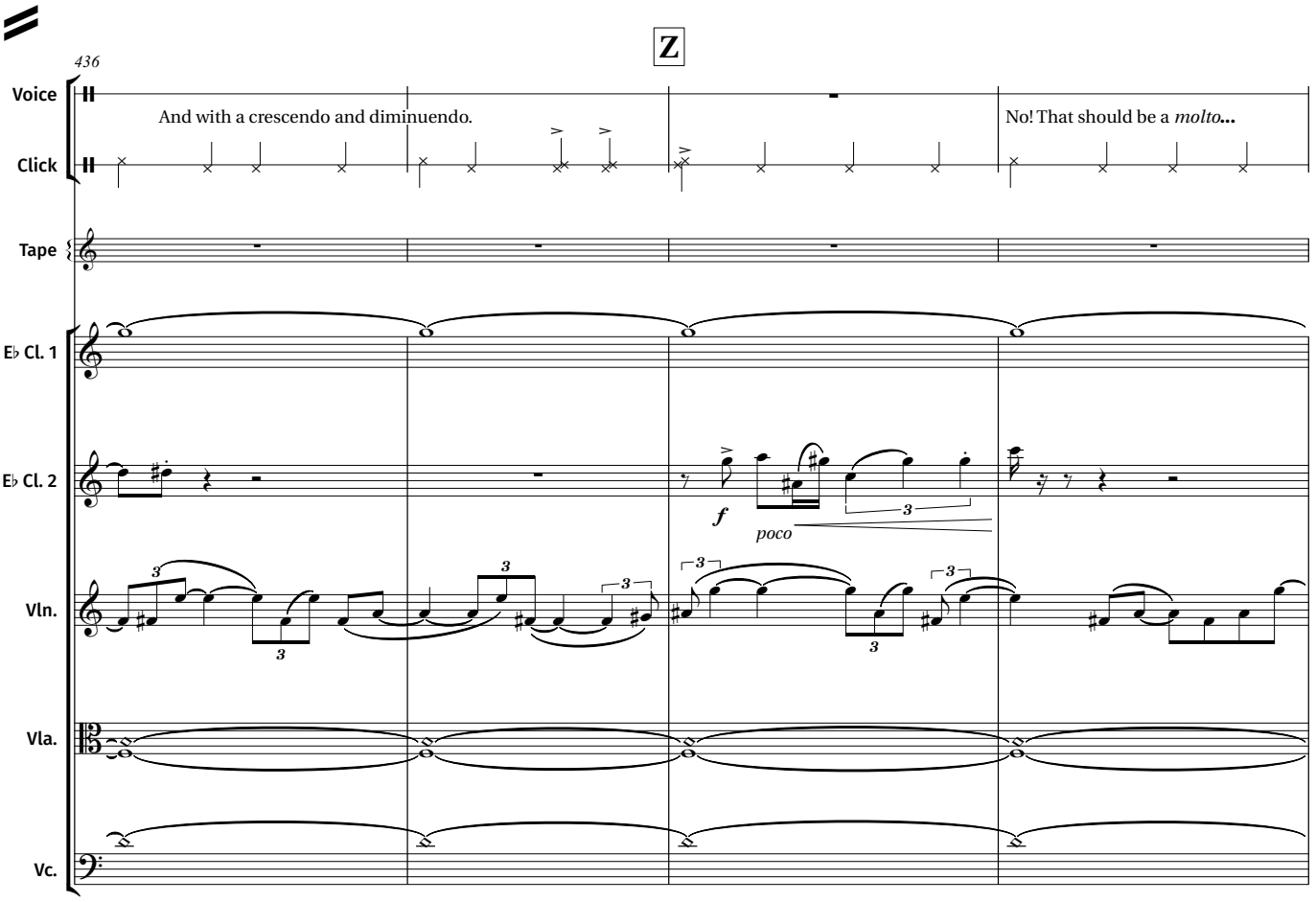

Y
416
Voice
Click
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
pp

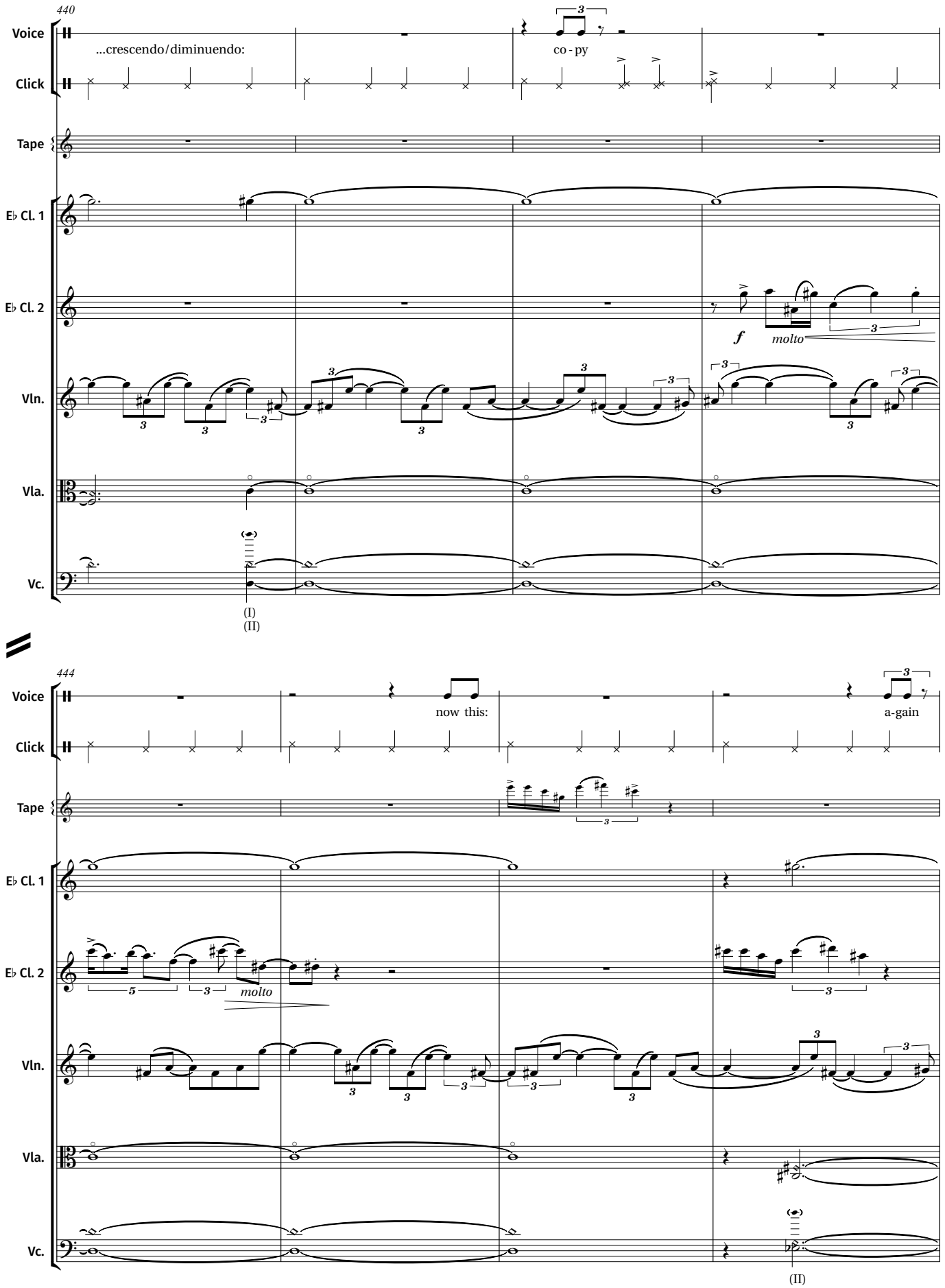

420
Voice
OK, let's put the following in the second clarinet:
Click
Tape
MIDI piano sound
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

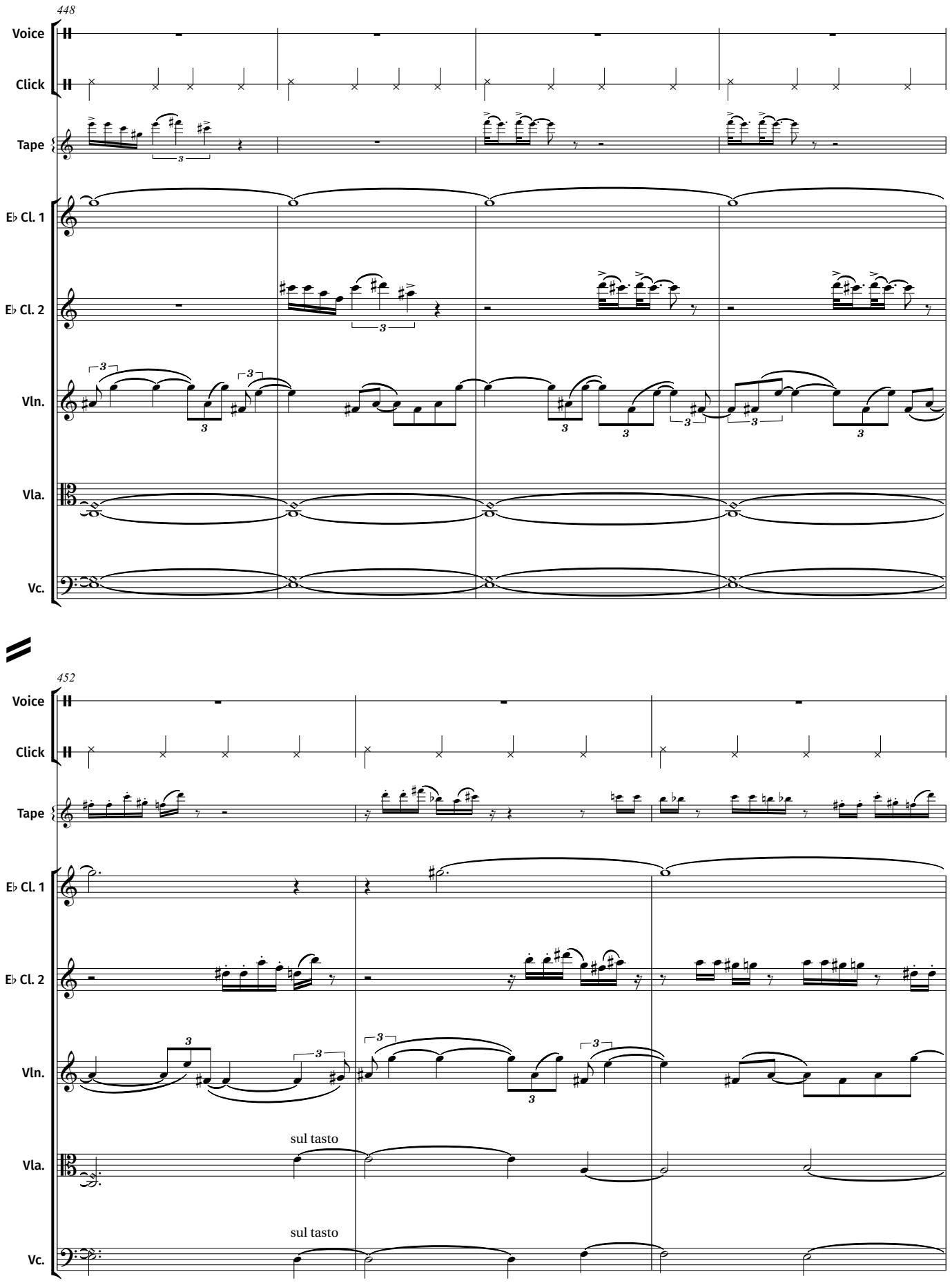

424
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
co-py
f

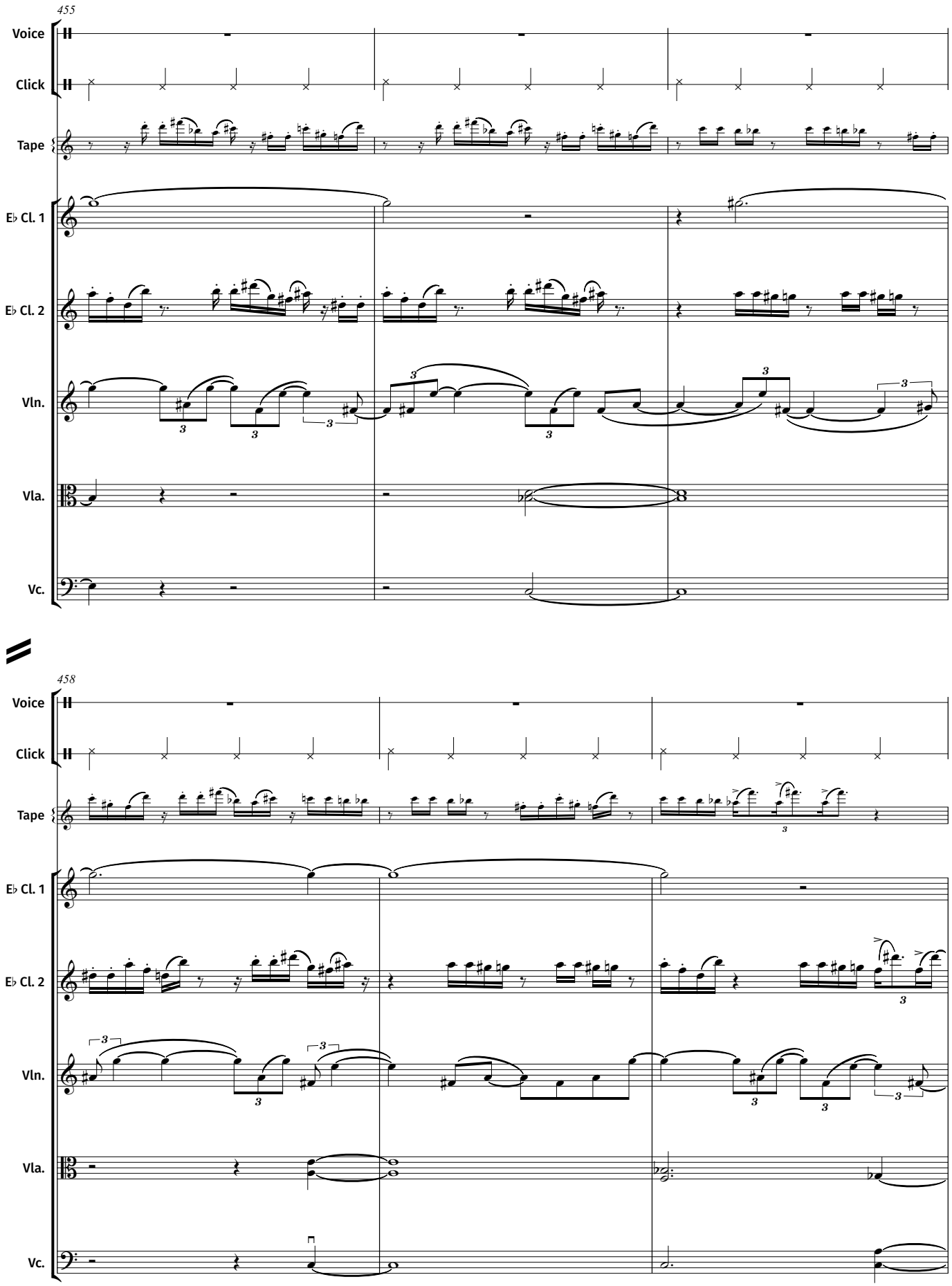

428
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
And let's make the seventh and last notes staccato:

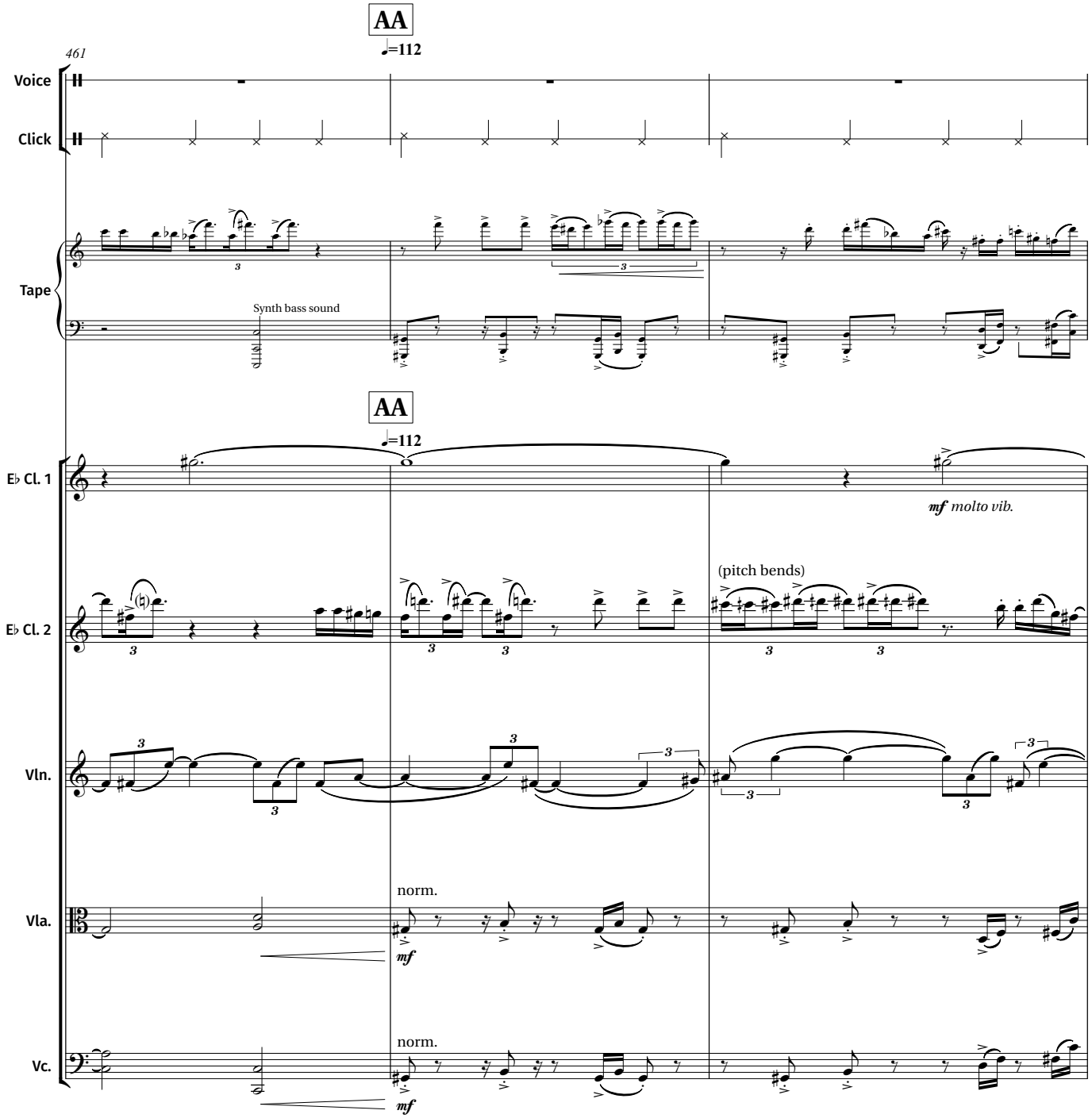

432
Voice
Click
Tape
co-py
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
f

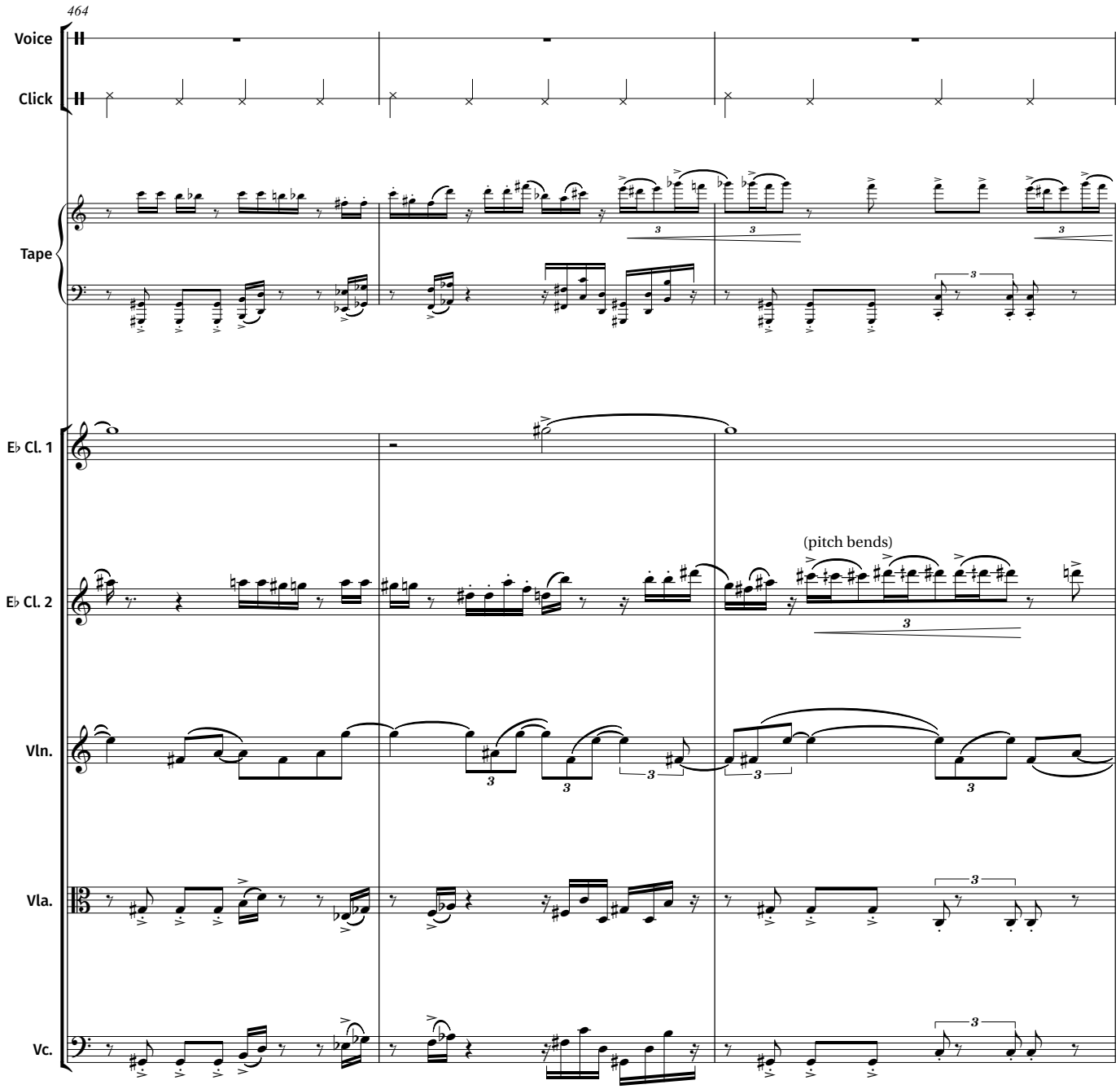

Z
436
Voice
Click
Tape
And with a crescendo and diminuendo.
No! That should be a molto...
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
f
poco

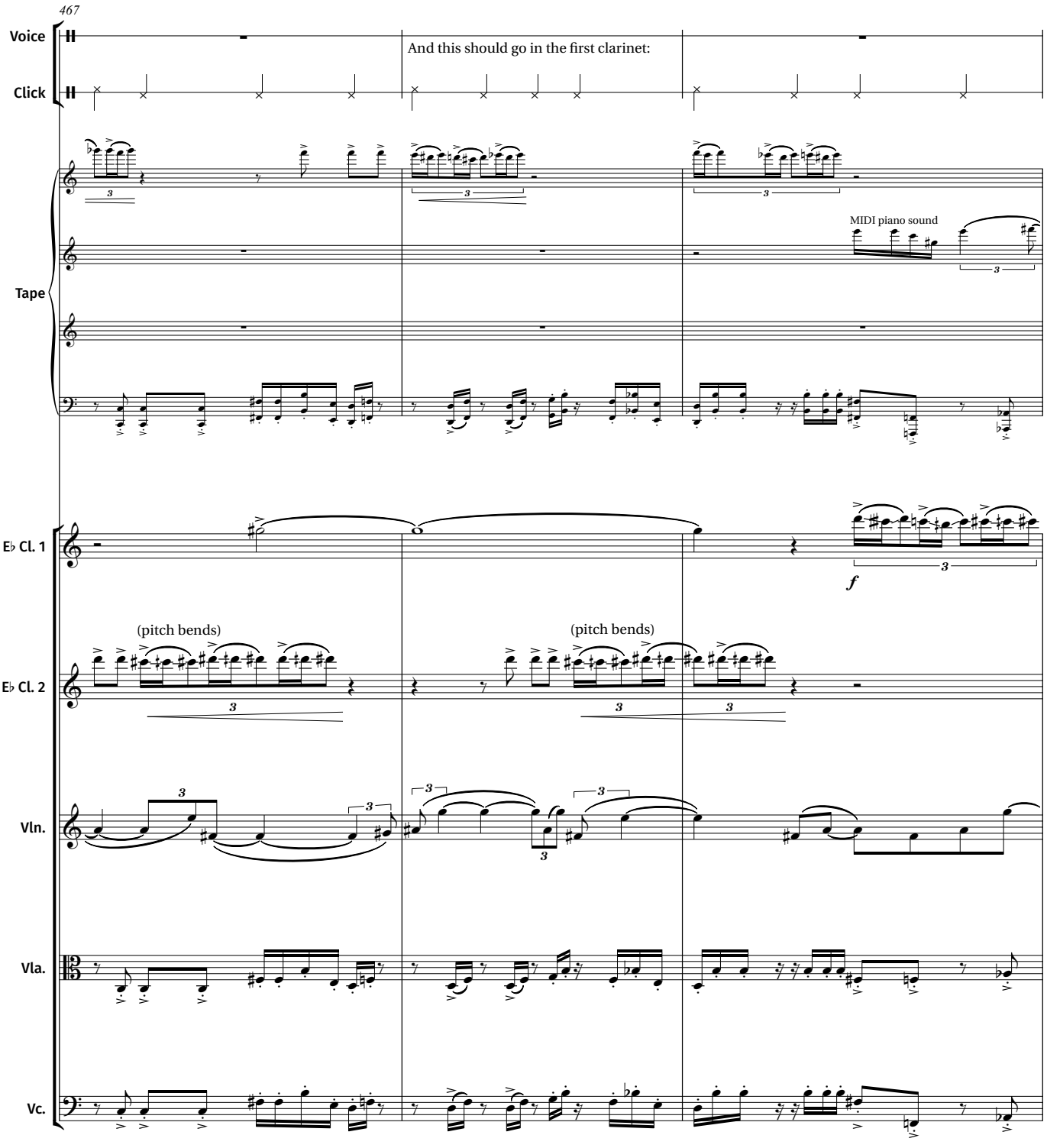

440
Voice
...crescendo/diminuendo:
co - py
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
f
molto
Vln.
Vla.
Vc.
(I)
(II)
444
Voice
now this:
a-gain
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
molto
Vln.
Vla.
Vc.
(II)
(III)

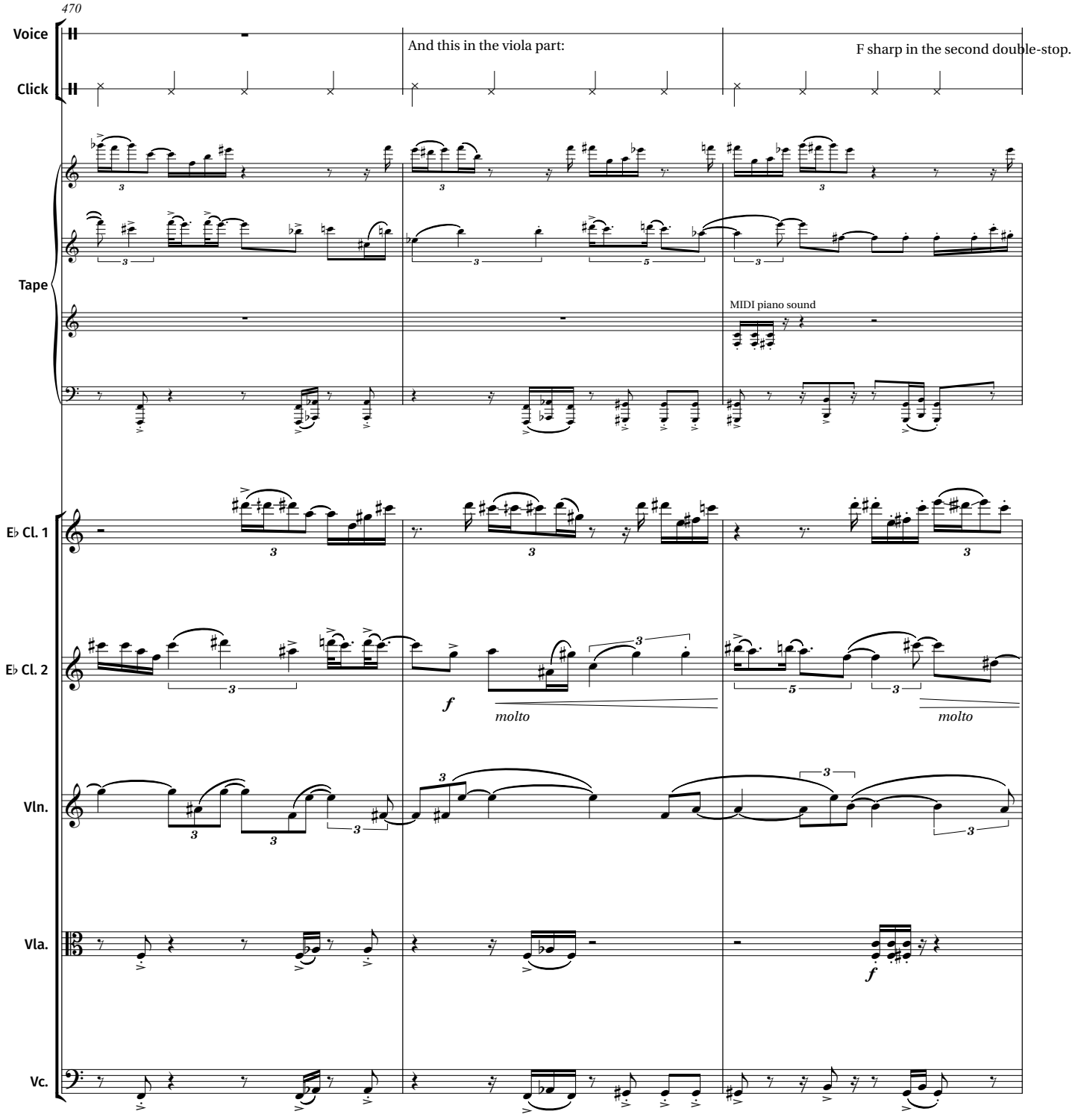

448
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
452
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
sul tasto
Vc.
sul tasto

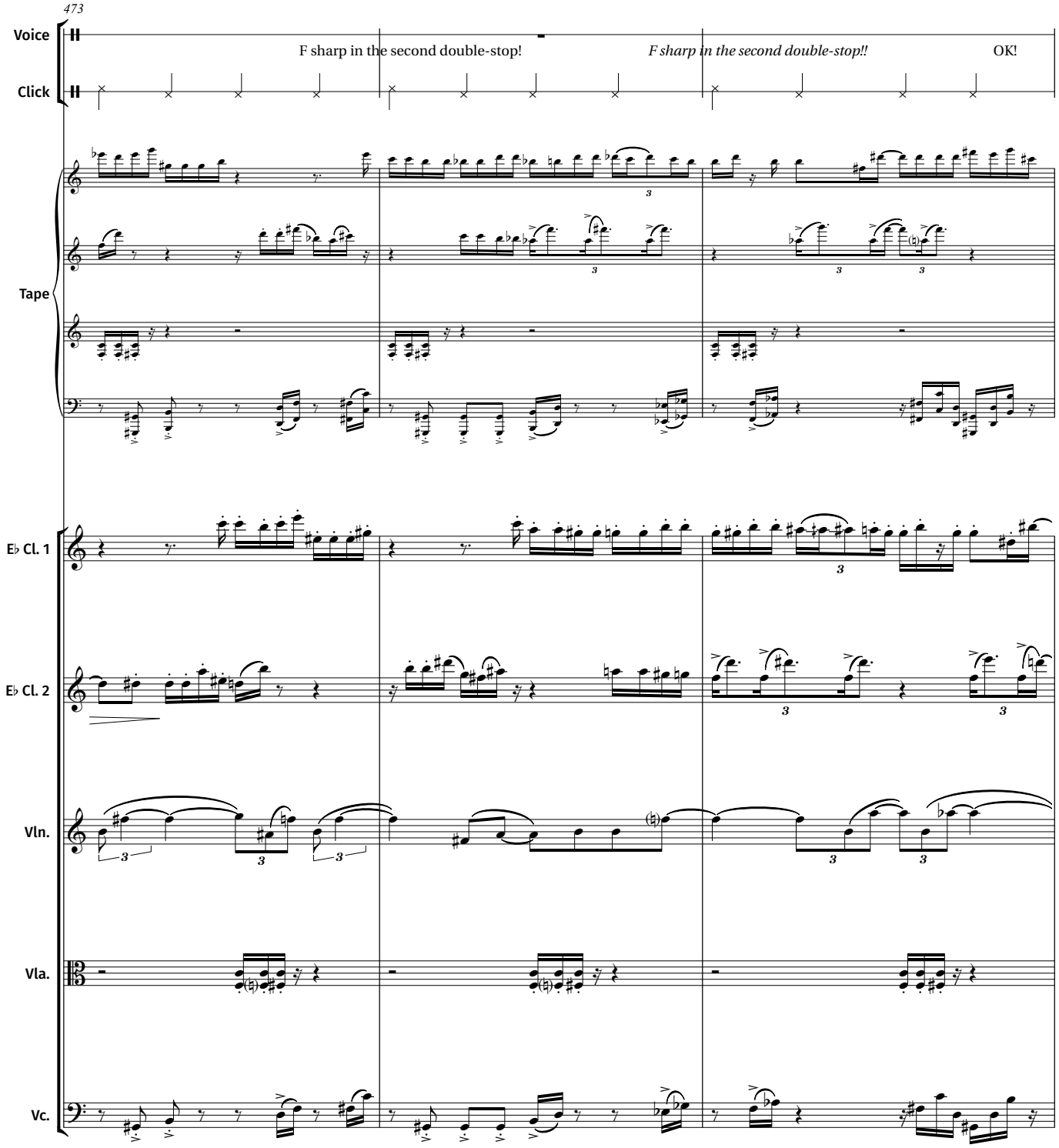

455
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
458
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

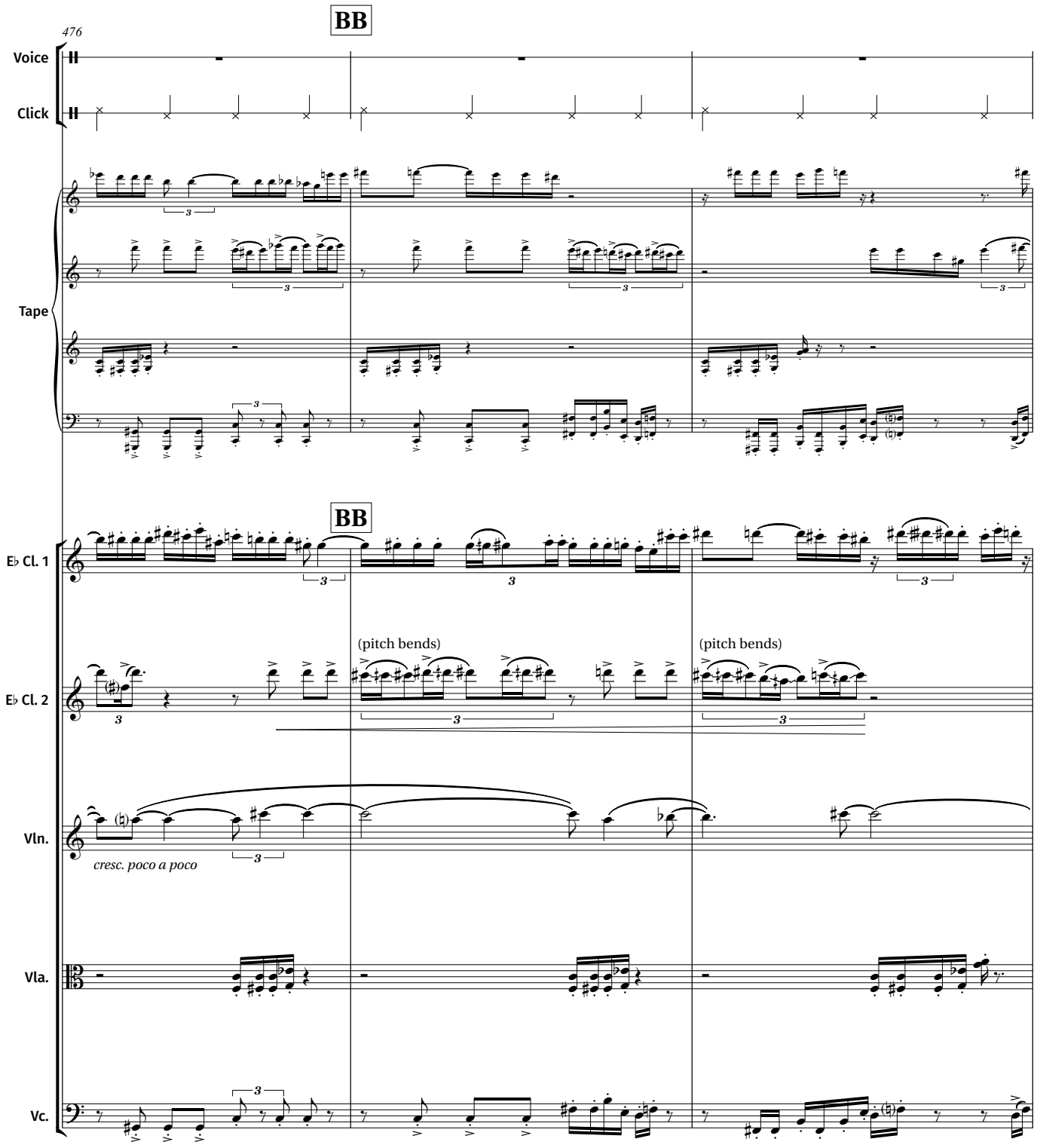

AA
♩=112
461
Voice
Click
Tape
Synth bass sound
AA
♩=112
E♭ Cl. 1
mf molto vib.
E♭ Cl. 2
(pitch bends)
Vln.
Vla.
norm.
mf
Vc.
norm.
mf

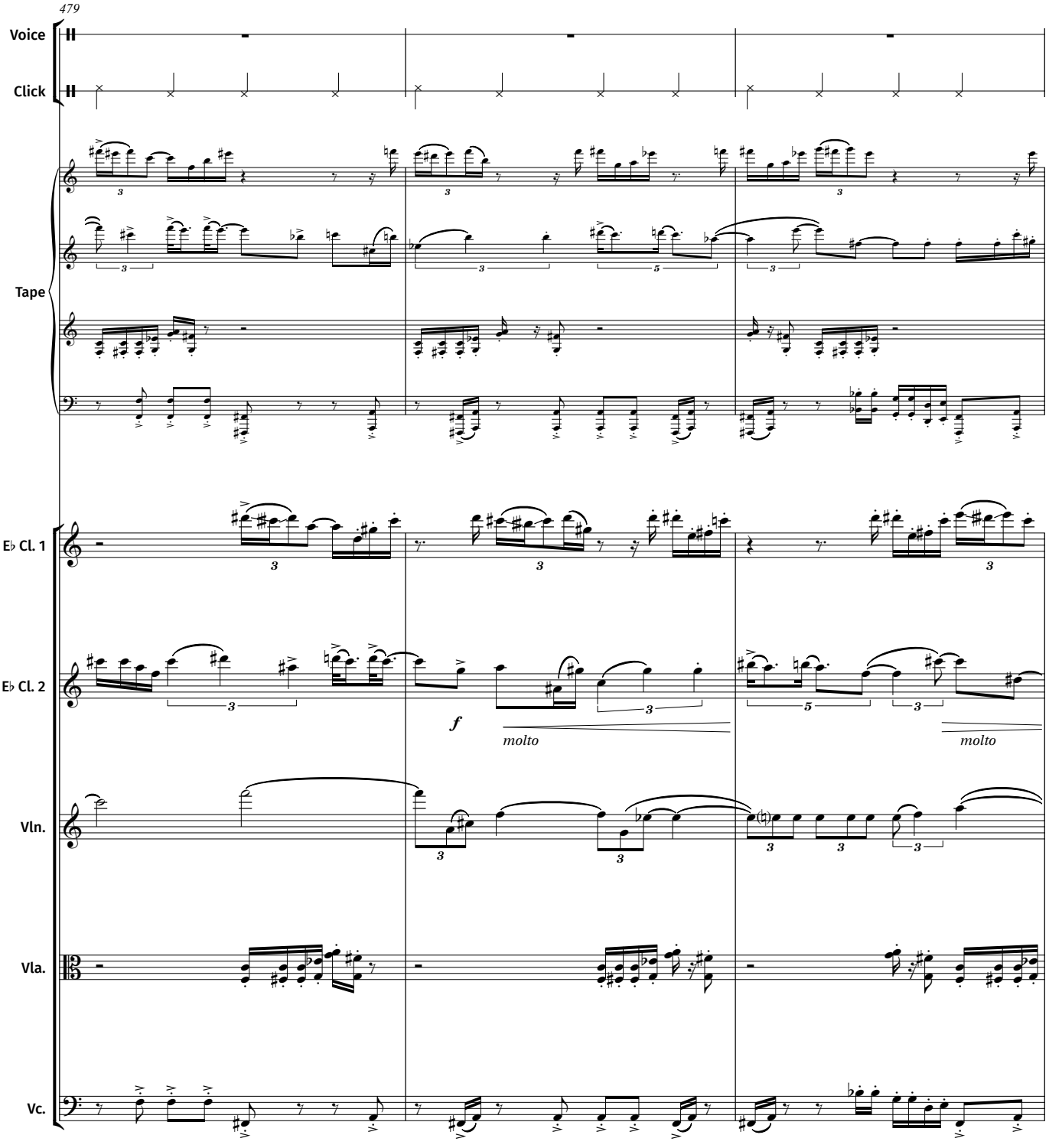

464
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
(pitch bends)
Vln.
Vla.
Vc.

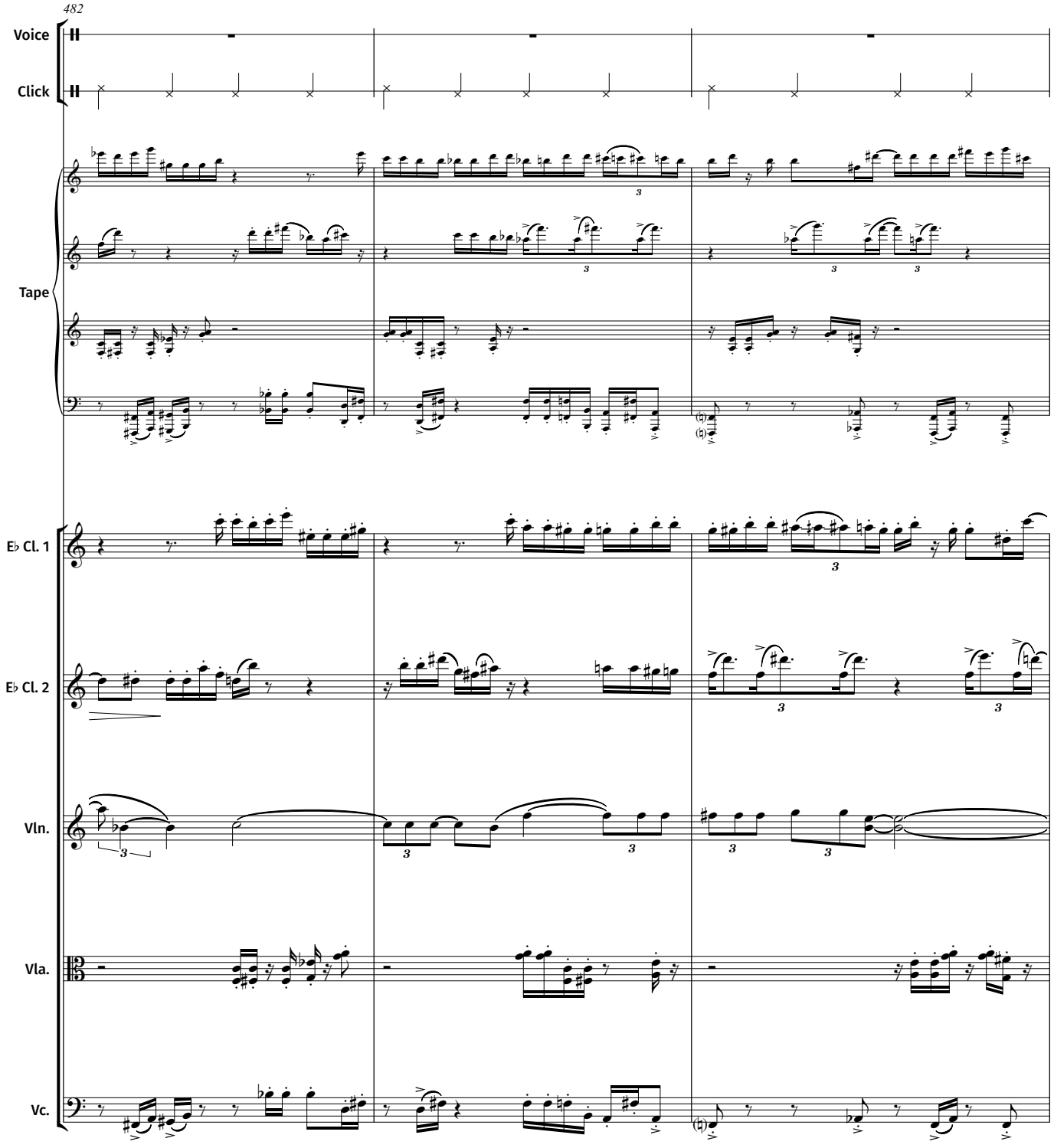

467
Voice
Click
And this should go in the first clarinet:
Tape
MIDI piano sound
E♭ Cl. 1
f
E♭ Cl. 2
(pitch bends)
(pitch bends)
Vln.
Vla.
Vc.

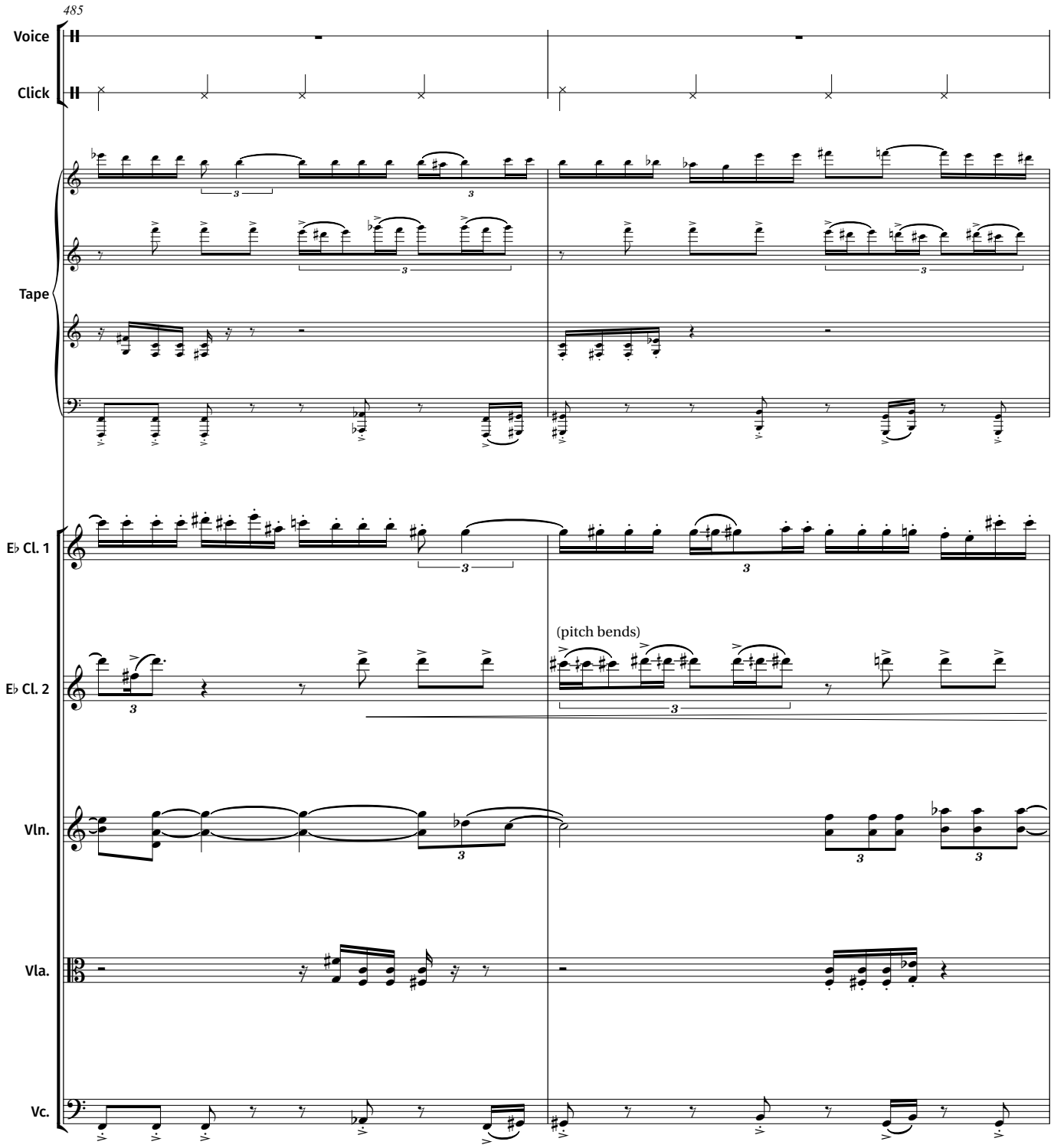

470
Voice
Click
And this in the viola part:
F sharp in the second double-stop.
Tape
MIDI piano sound
E♭ Cl. 1
E♭ Cl. 2
molto
molto
Vln.
Vla.
Vc.

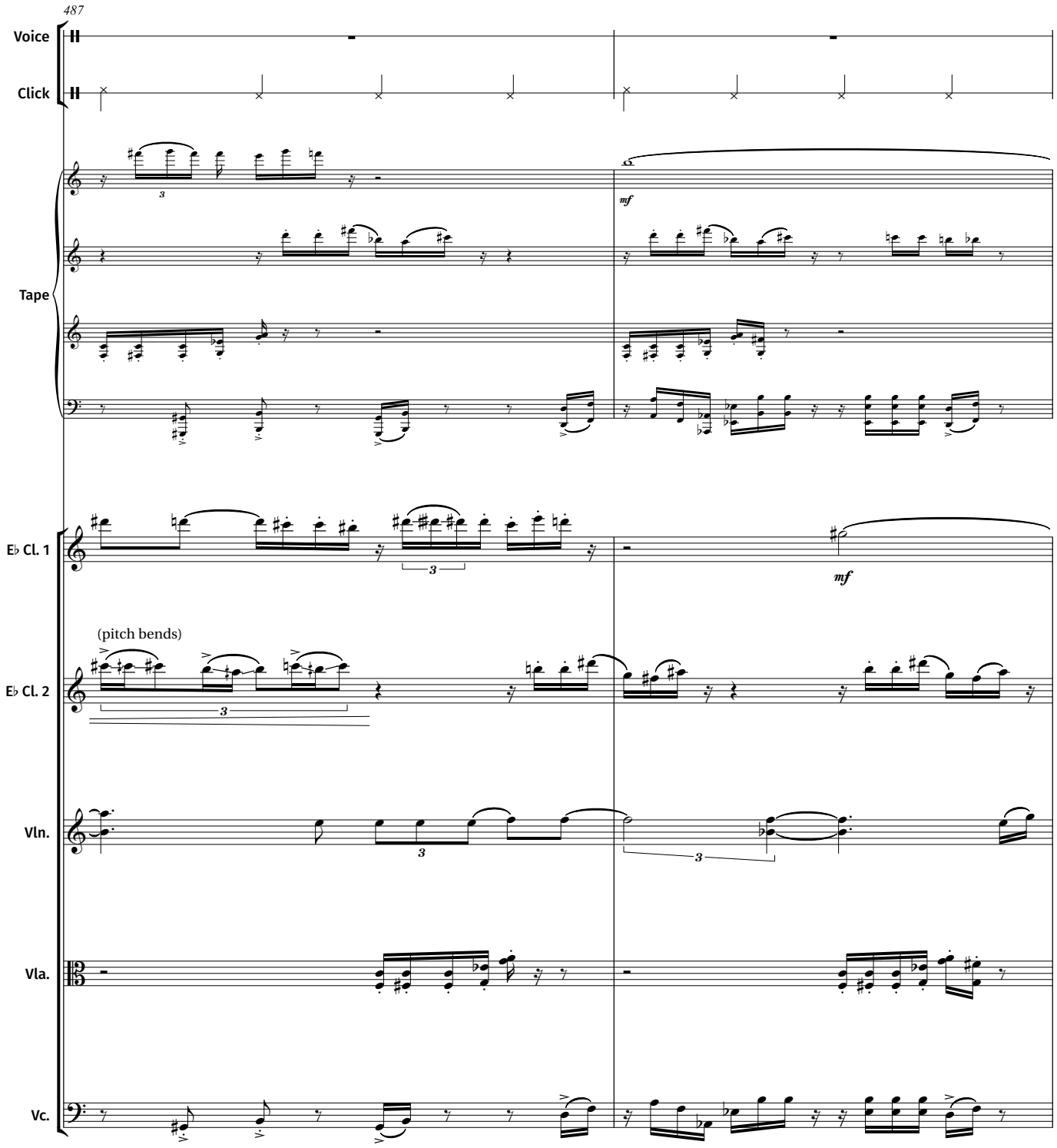

473
Voice
Click
F sharp in the second double-stop!
F sharp in the second double-stop!!
OK!
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

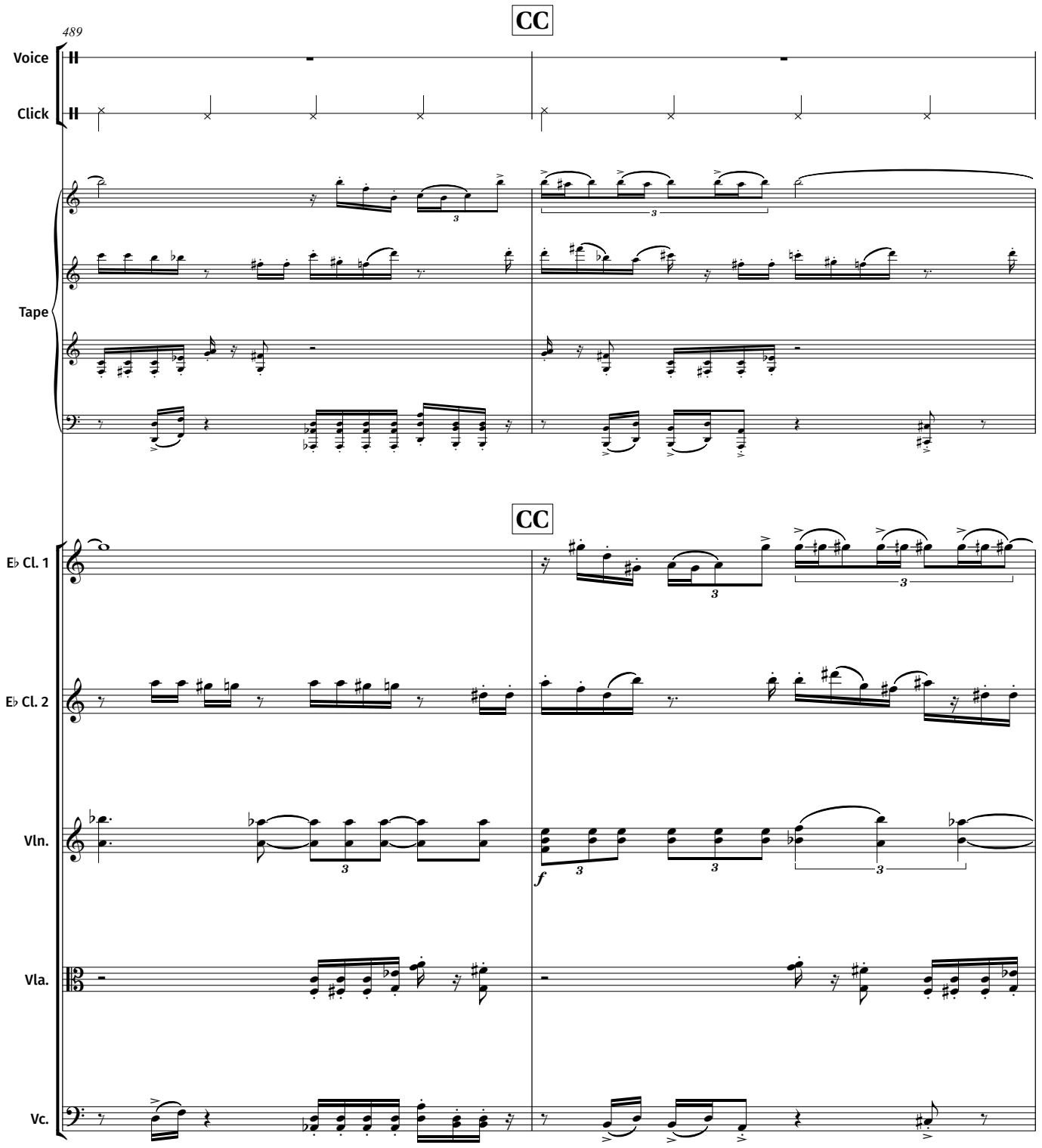

476
BB
Voice
Click
Tape
BB
E♭ Cl. 1
E♭ Cl. 2
(pitch bends)
(pitch bends)
Vln.
cresc. poco a poco
Vla.
Vc.

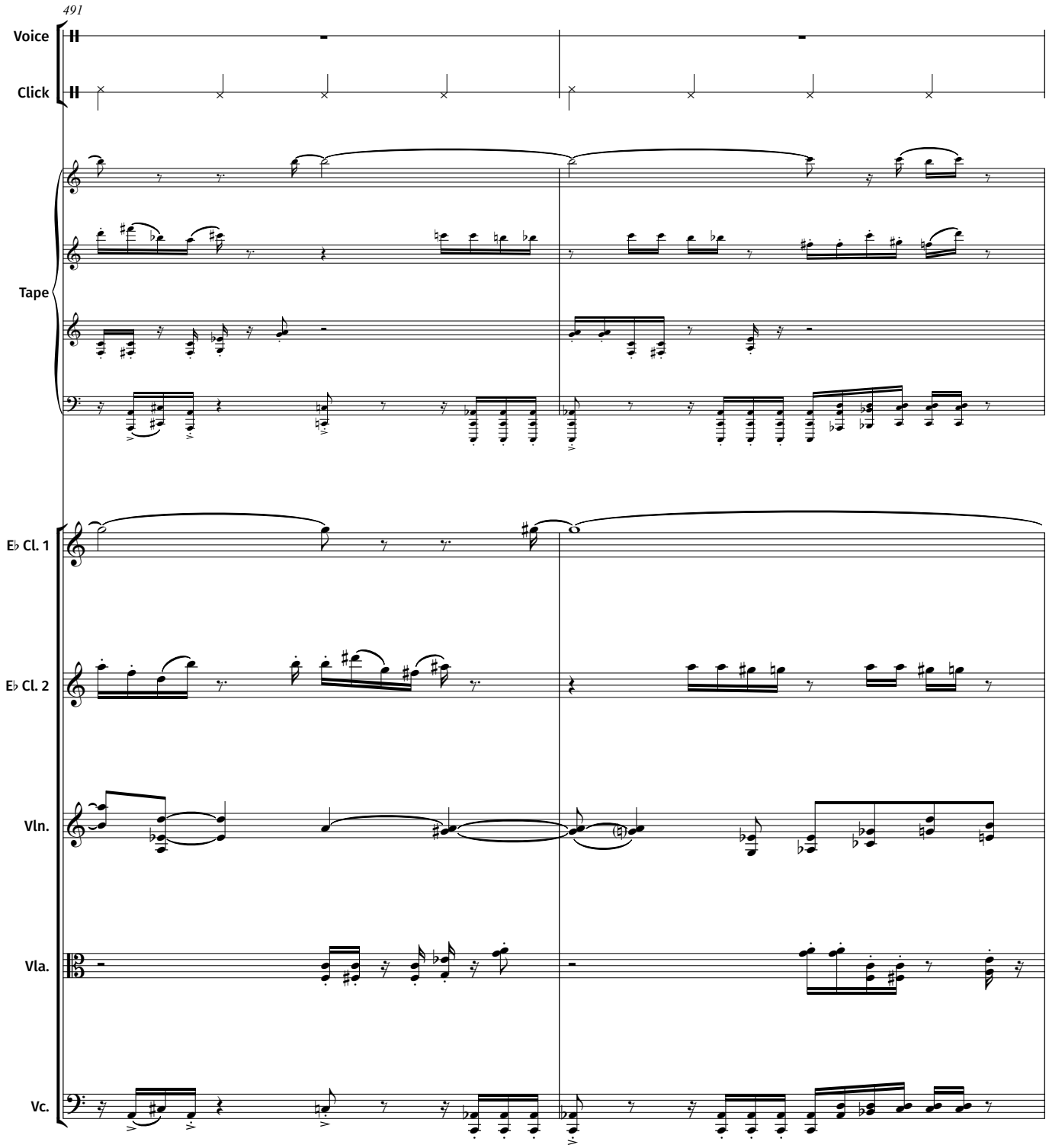

479
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
f
molto
molto

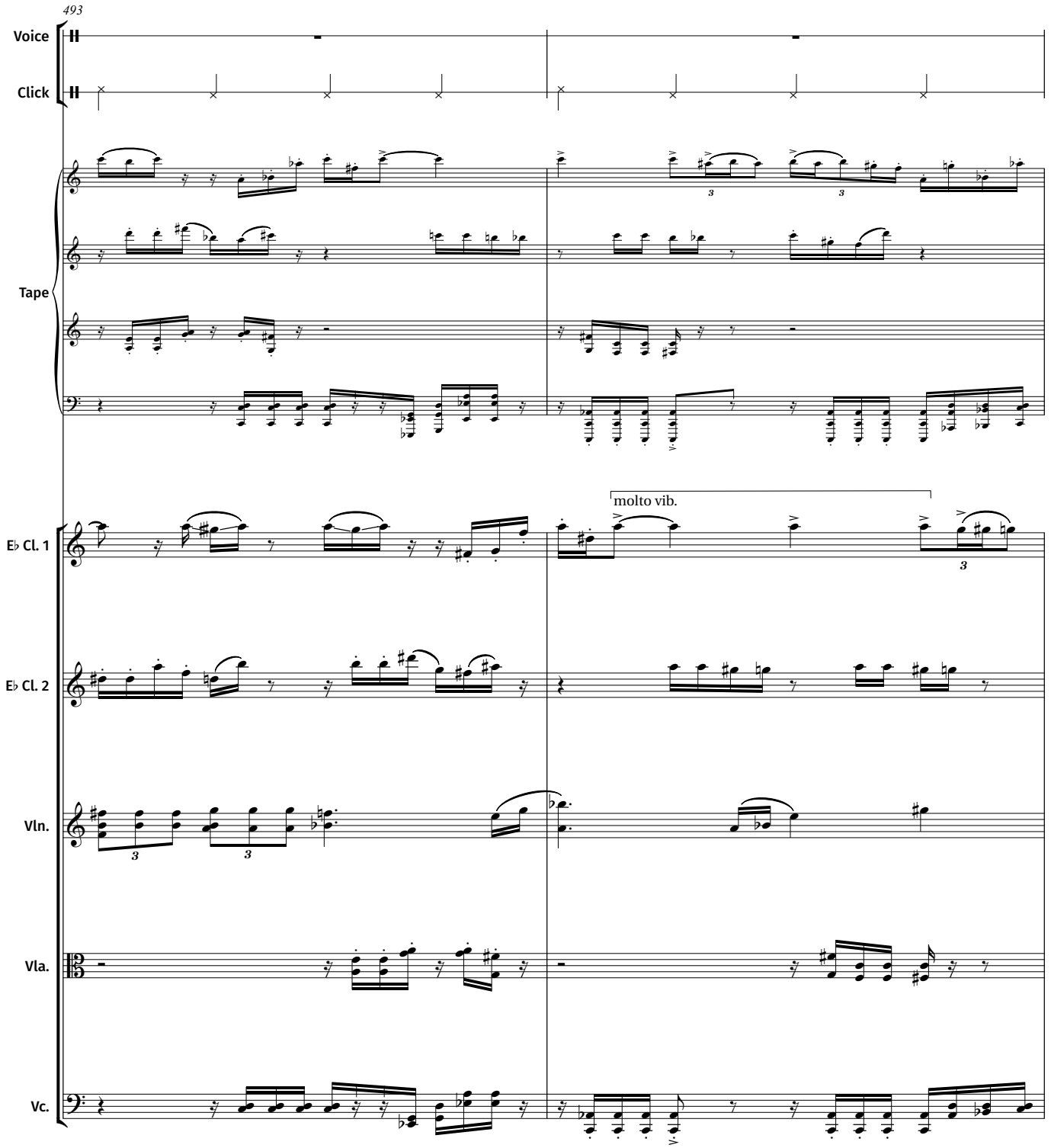

482
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

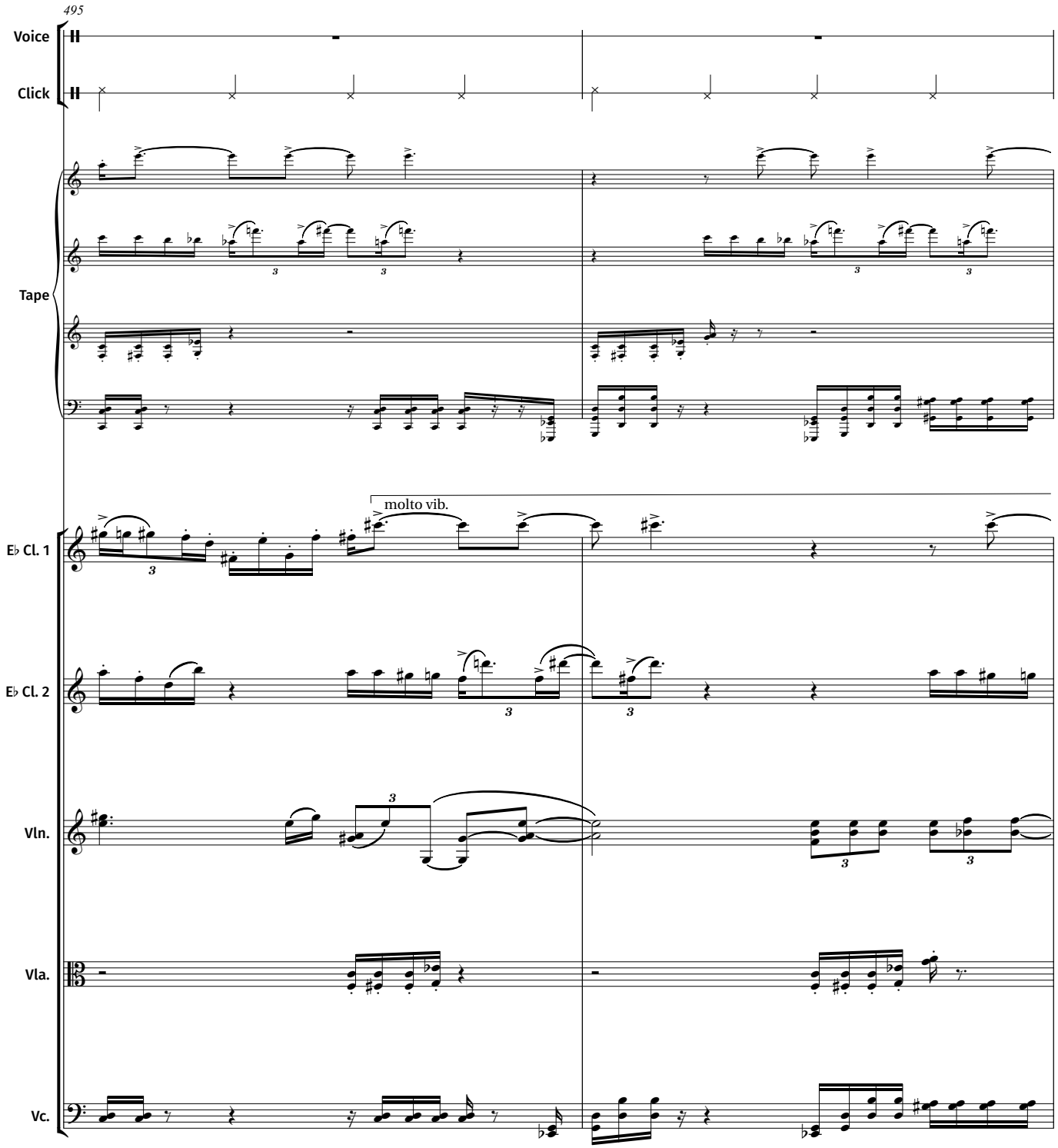

485
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
(pitch bends)
Vln.
Vla.
Vc.

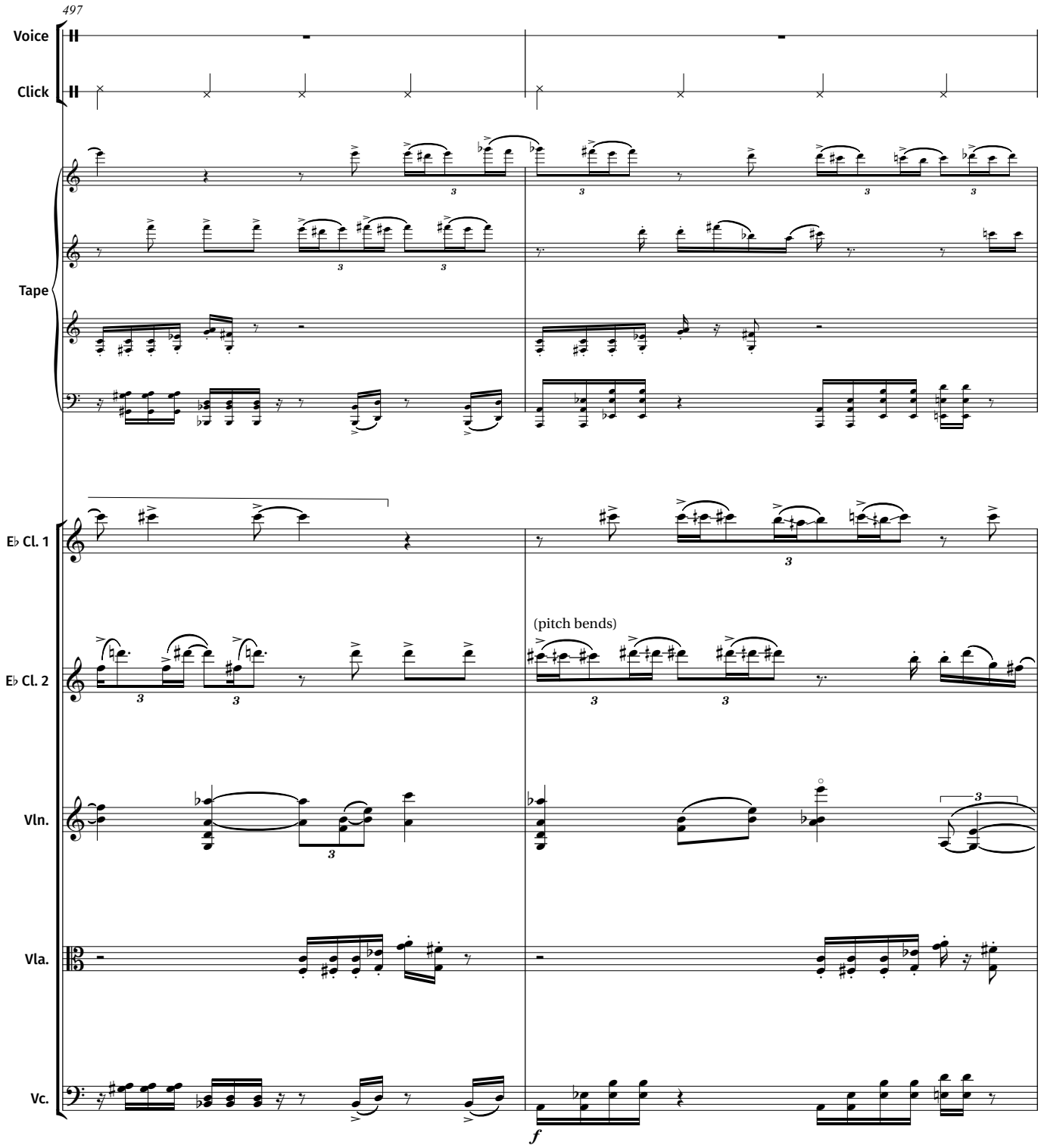

487
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
mf
mf
(pitch bends)
3
3
3
3

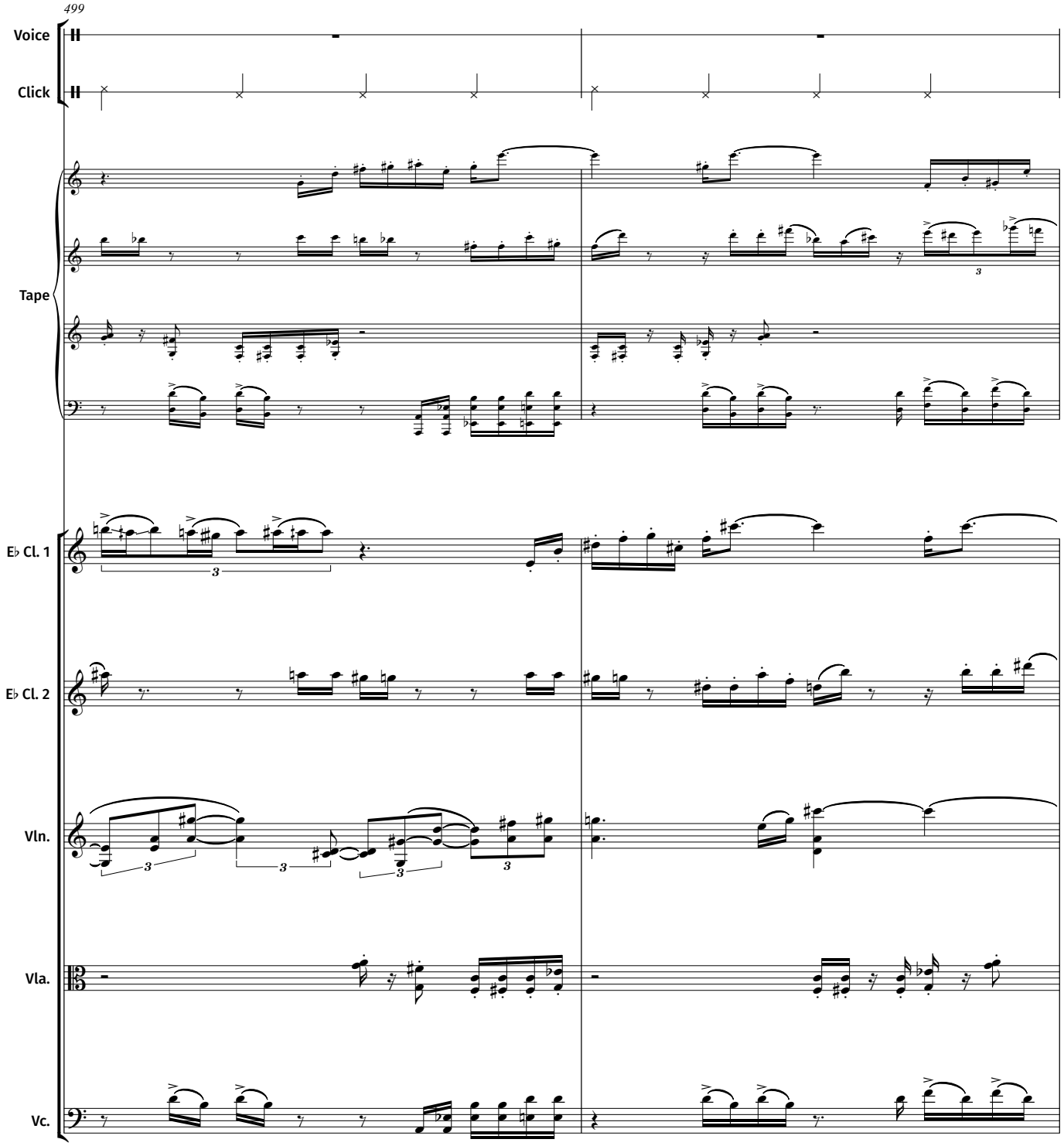

CC
489
Voice
Click
Tape
CC
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
f

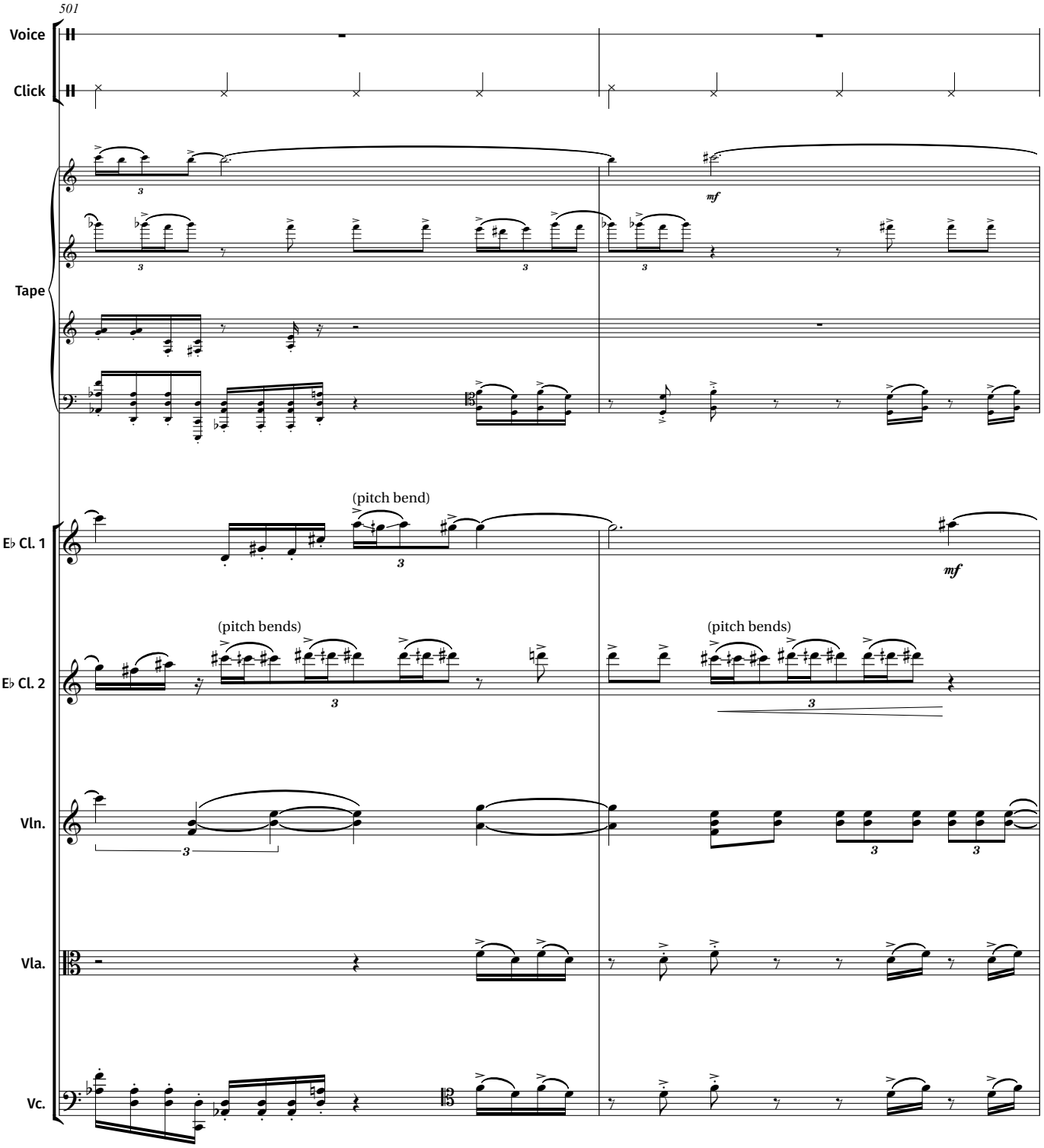

491
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

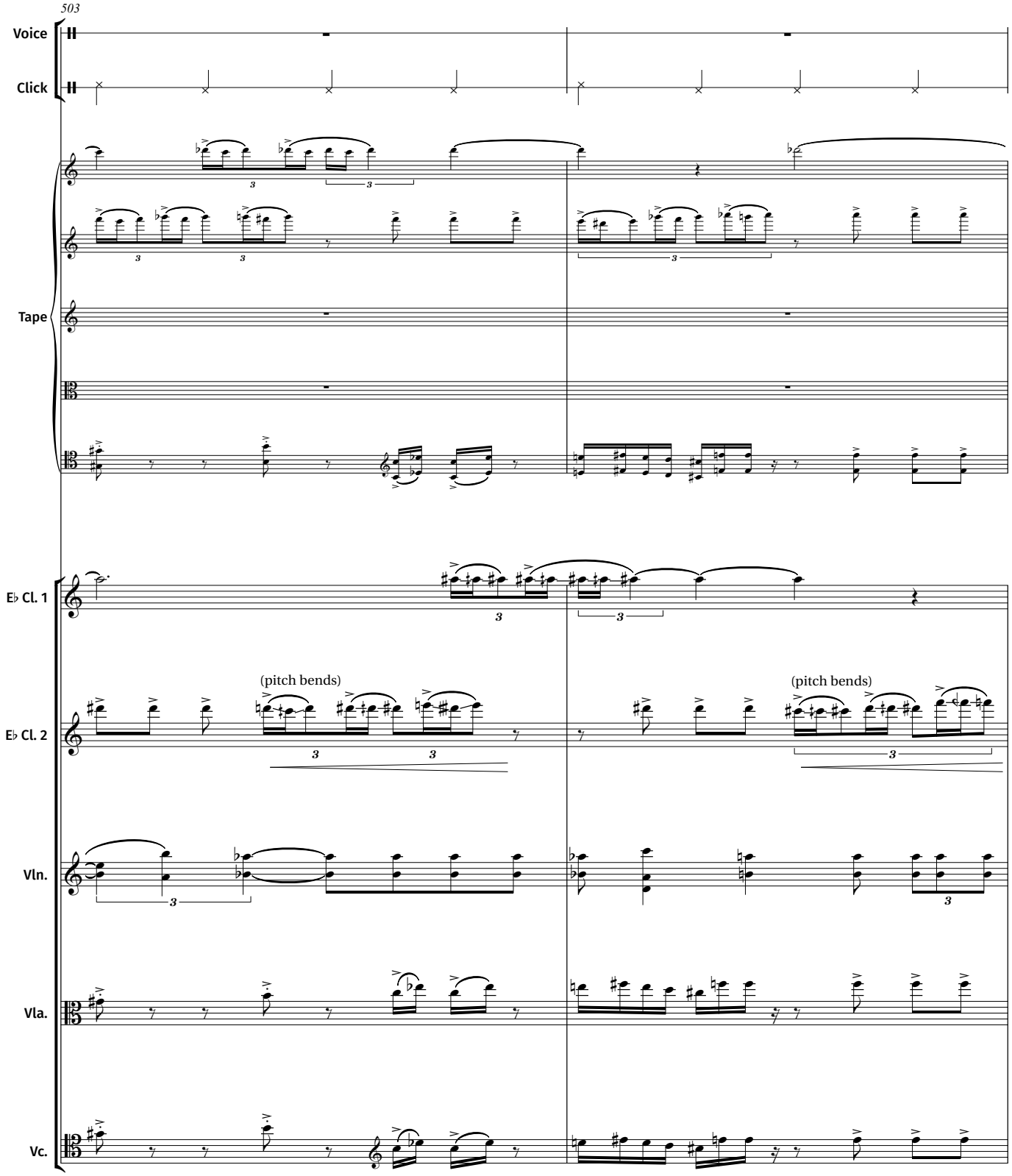

493
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
molto vib.

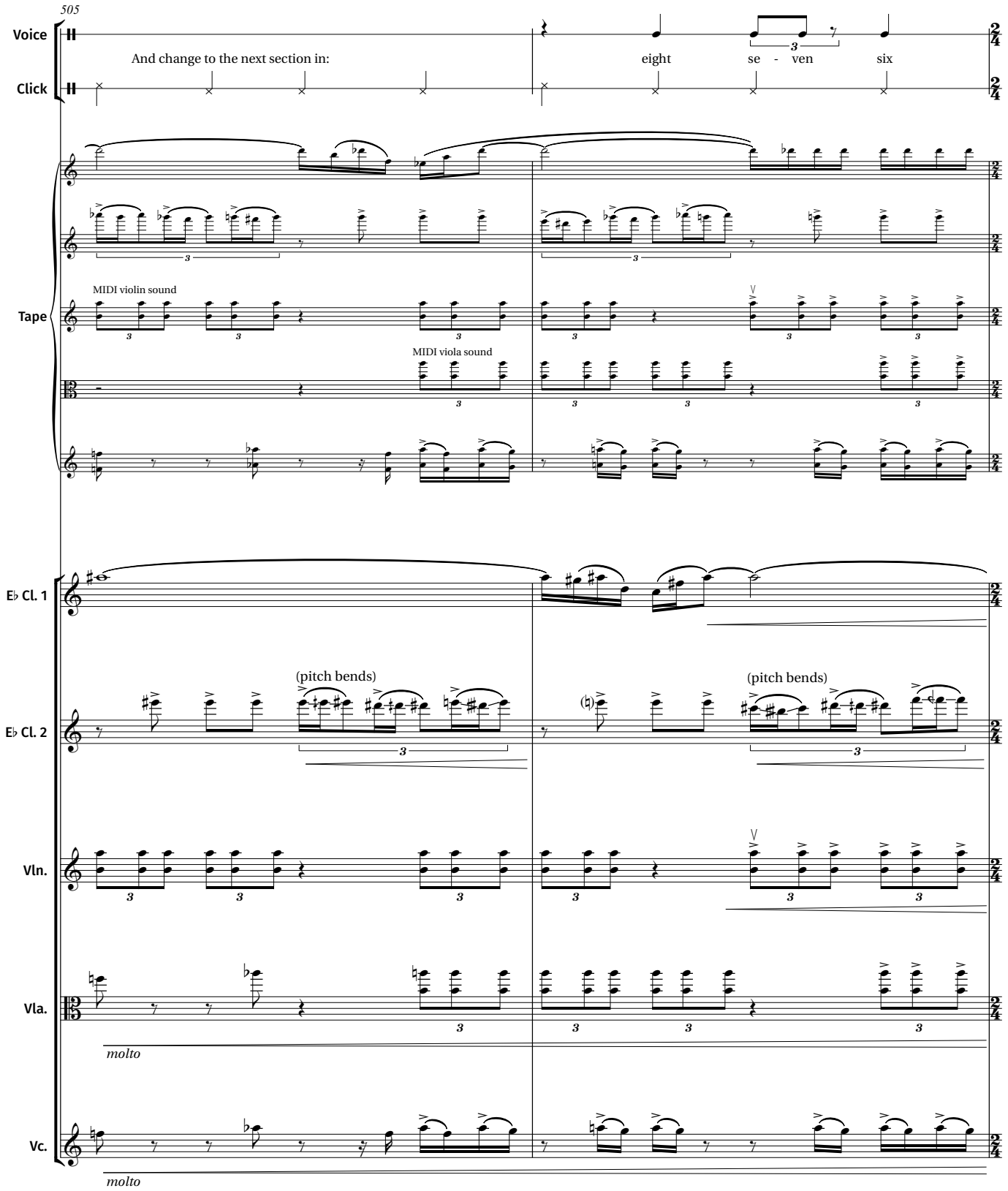

495
Voice
Click
Tape
molto vib.
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

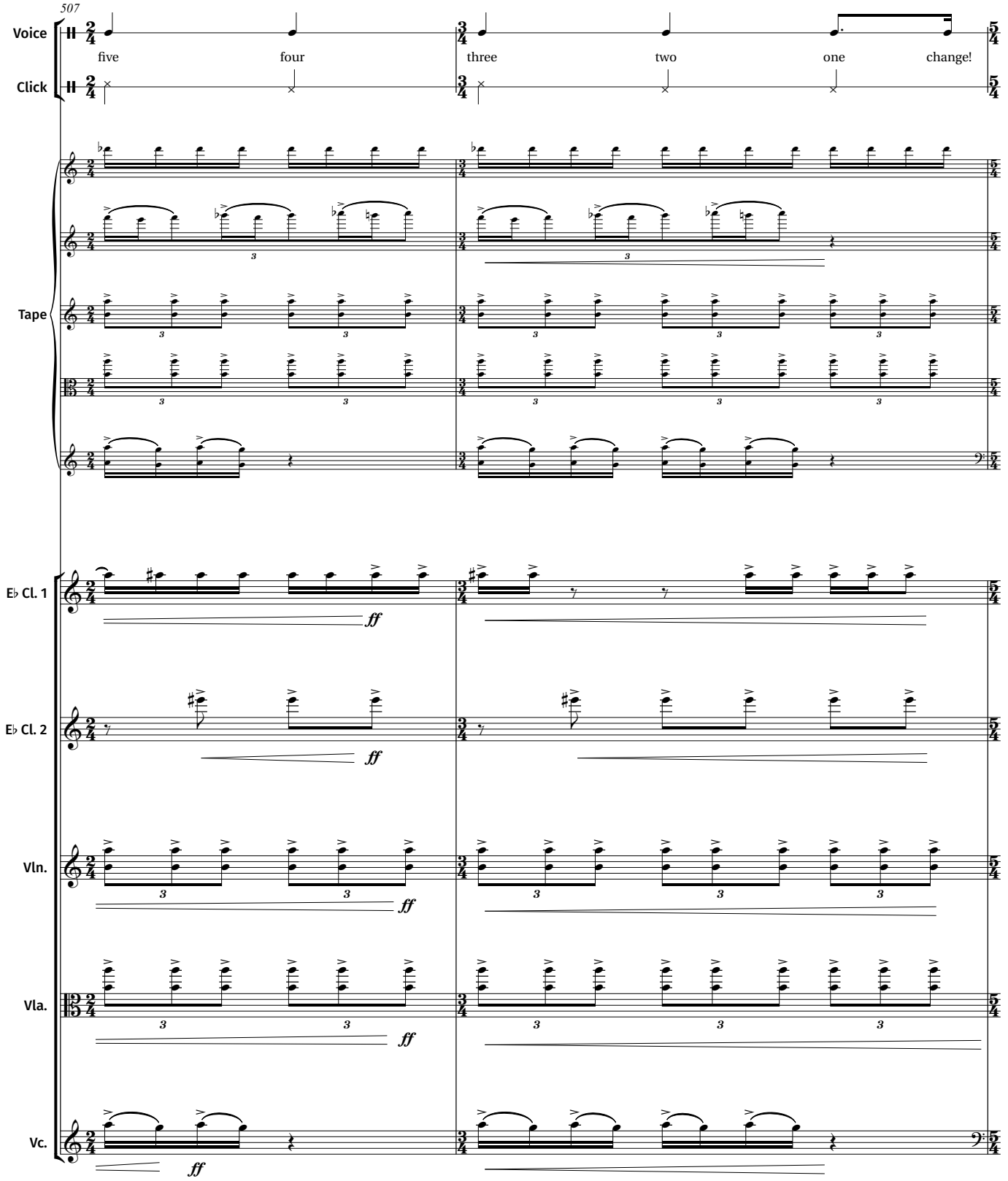

497
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
(pitch bends)
Vln.
Vla.
Vc.
f

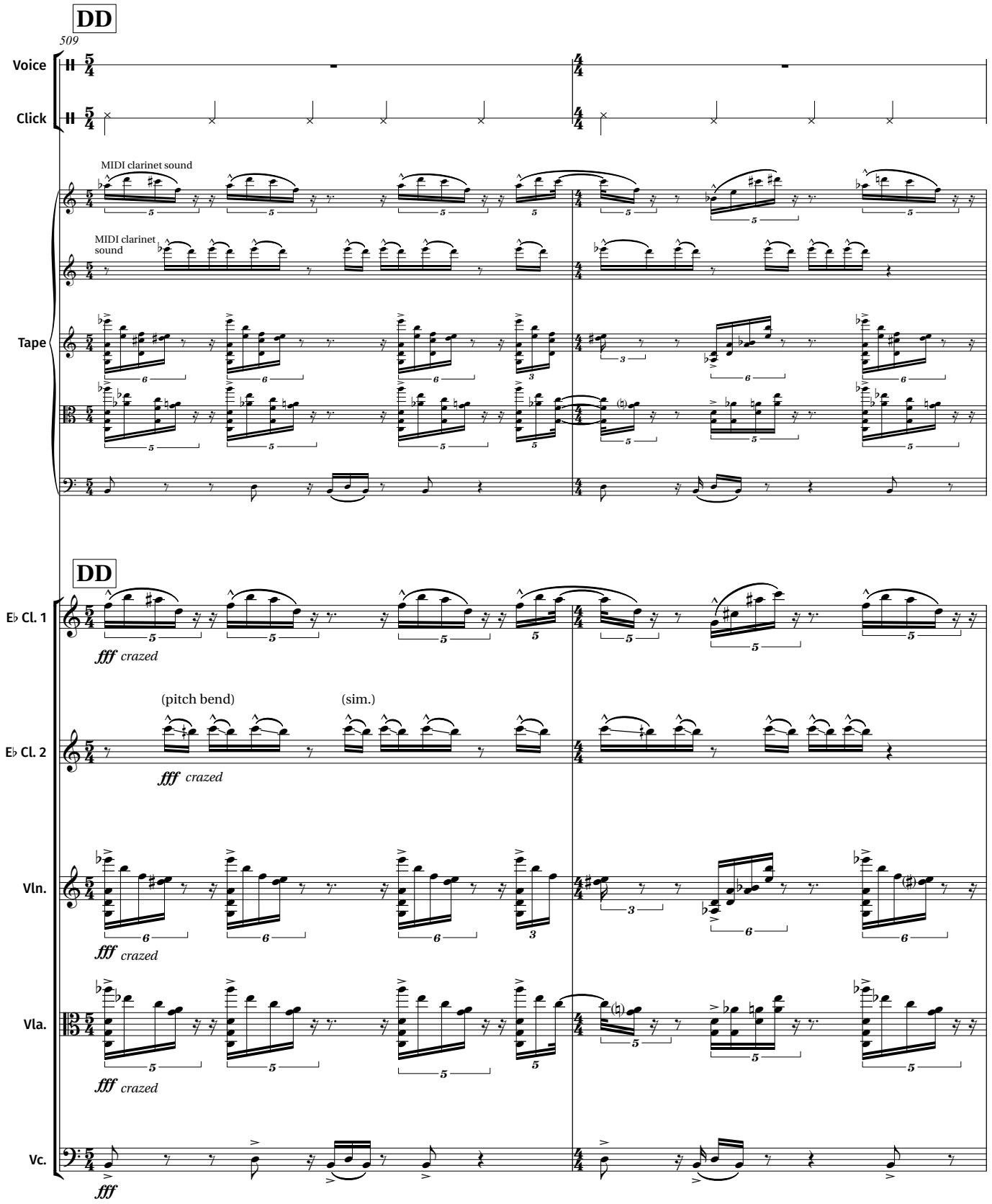

499
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.

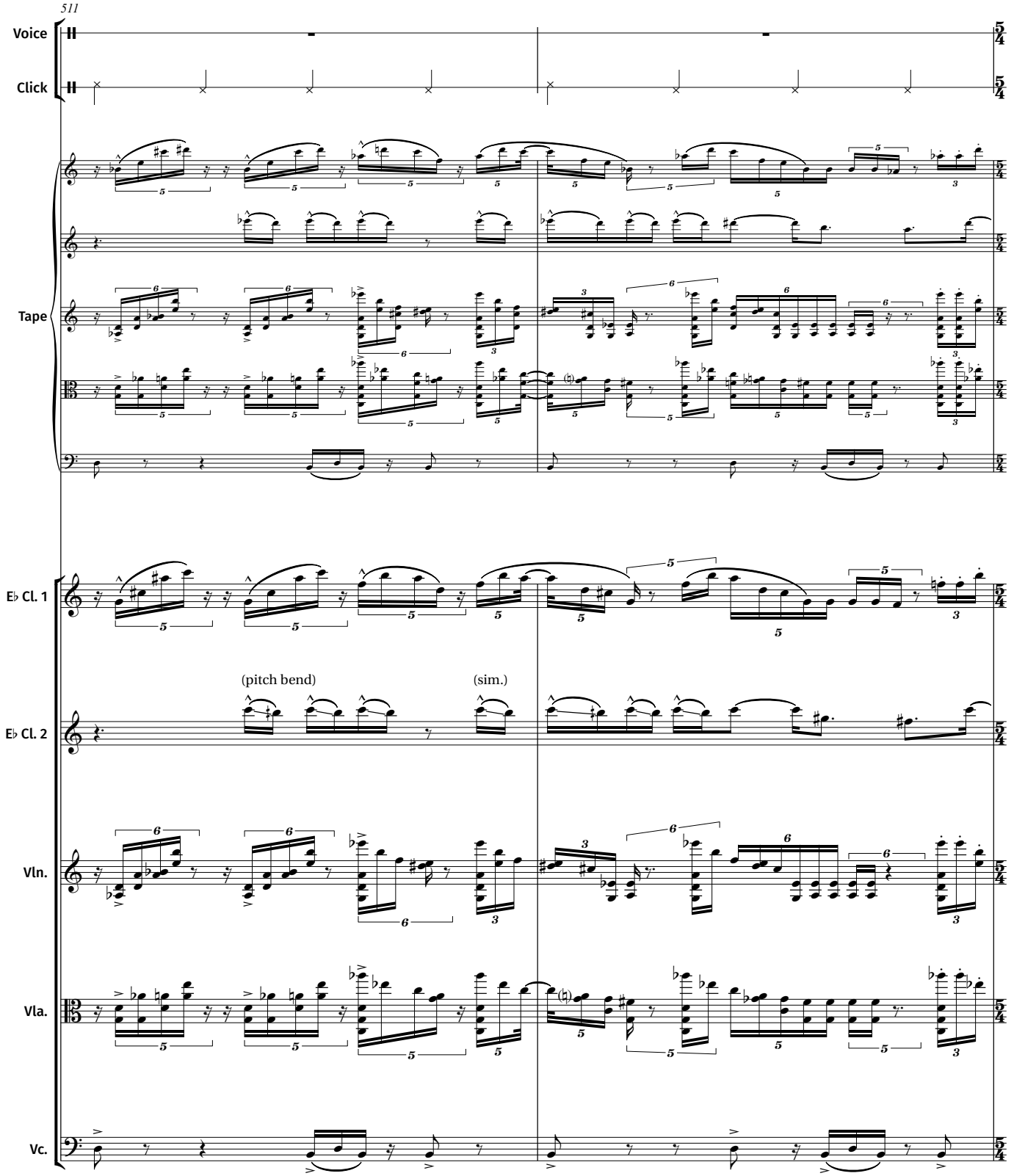

501
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
mf
(pitch bend)
(pitch bends)
(pitch bends)

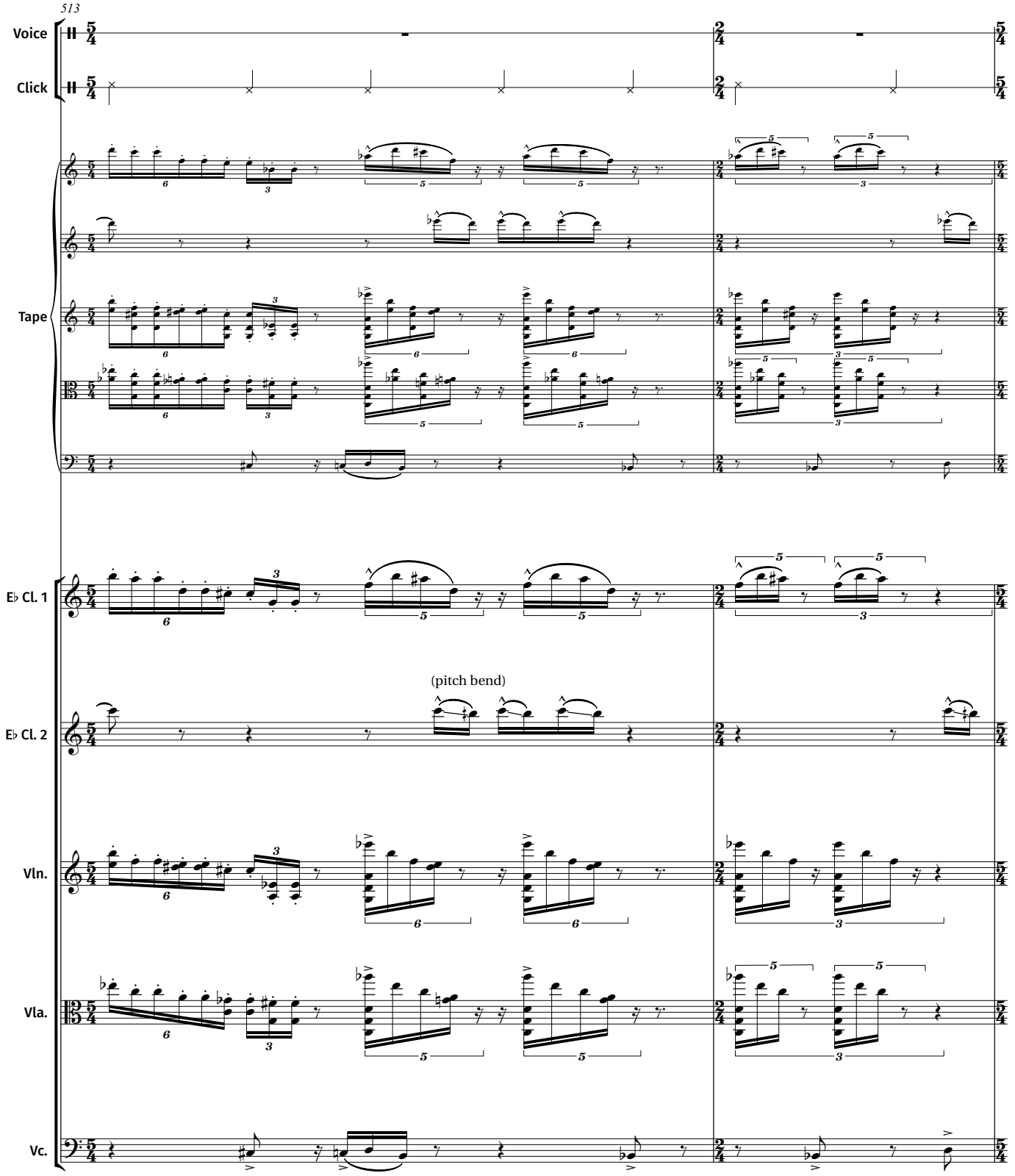

503
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
(pitch bends)
(pitch bends)
Vln.
Vla.
Vc.

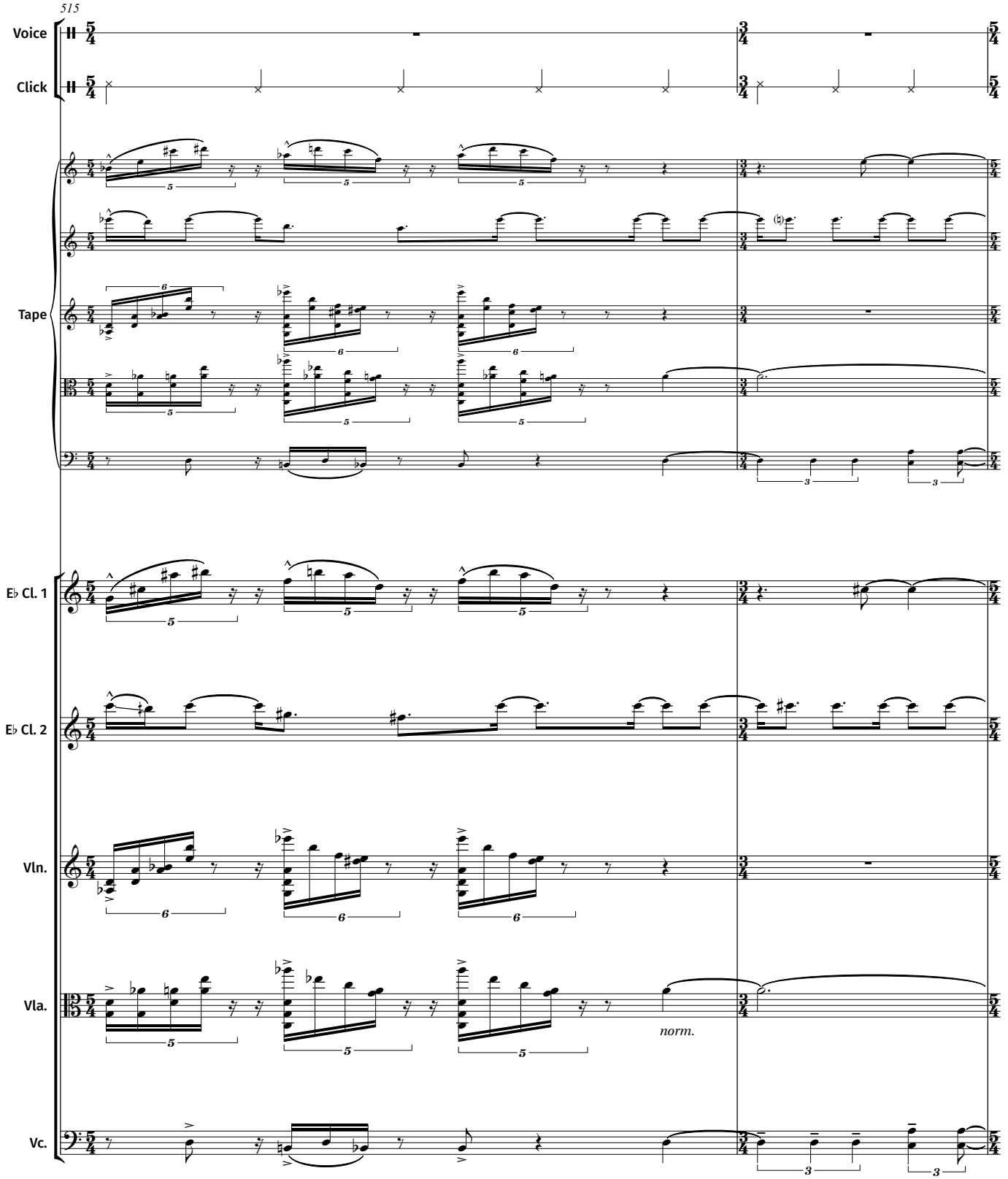

505
Voice
Click
And change to the next section in:
eight
se - ven
six
Tape
MIDI violin sound
MIDI viola sound
E♭ Cl. 1
E♭ Cl. 2
(pitch bends)
(pitch bends)
Vln.
Vla.
molto
Vc.
molto

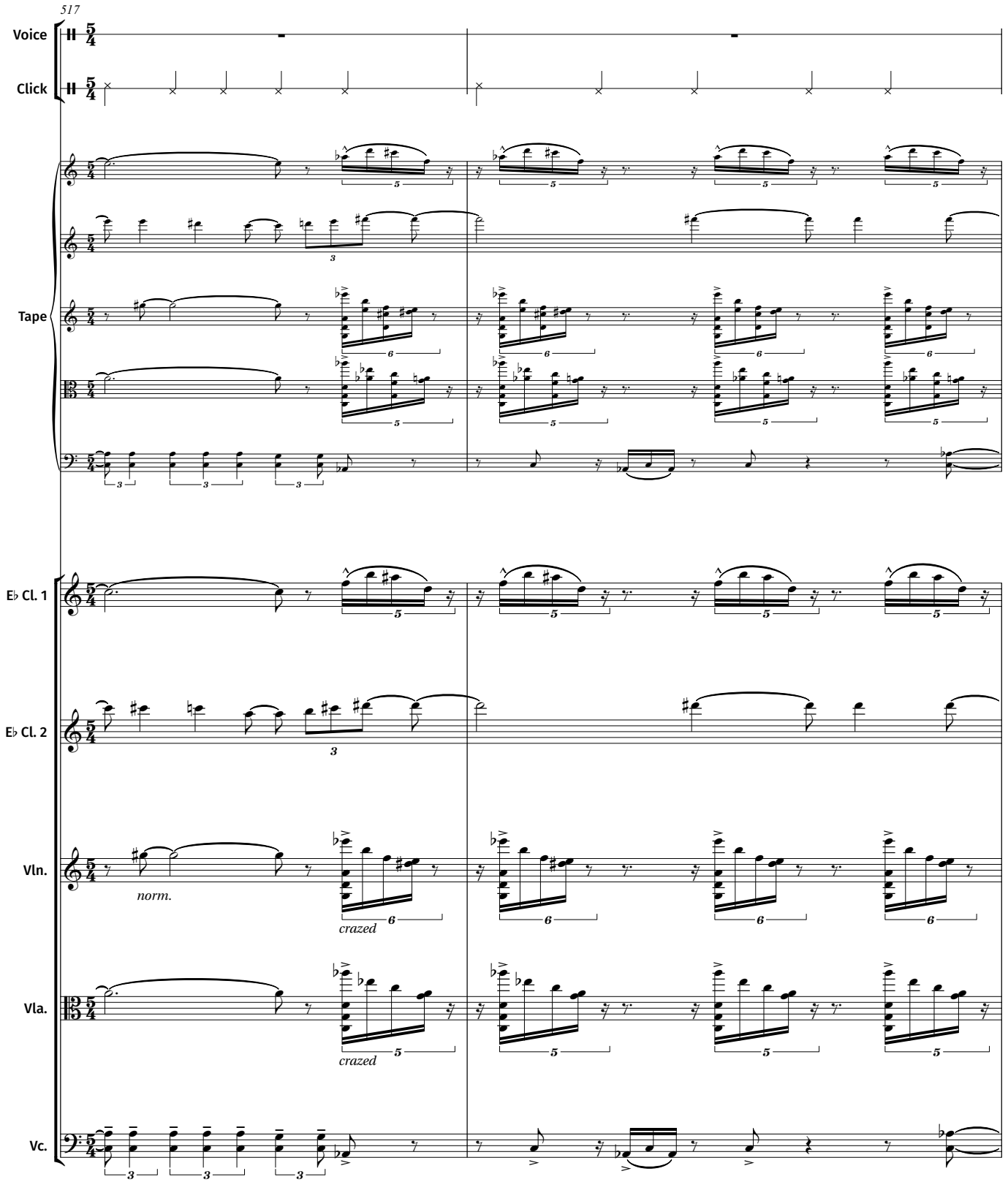

507
Voice
Click
five
four
three
two
one
change!
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
ff

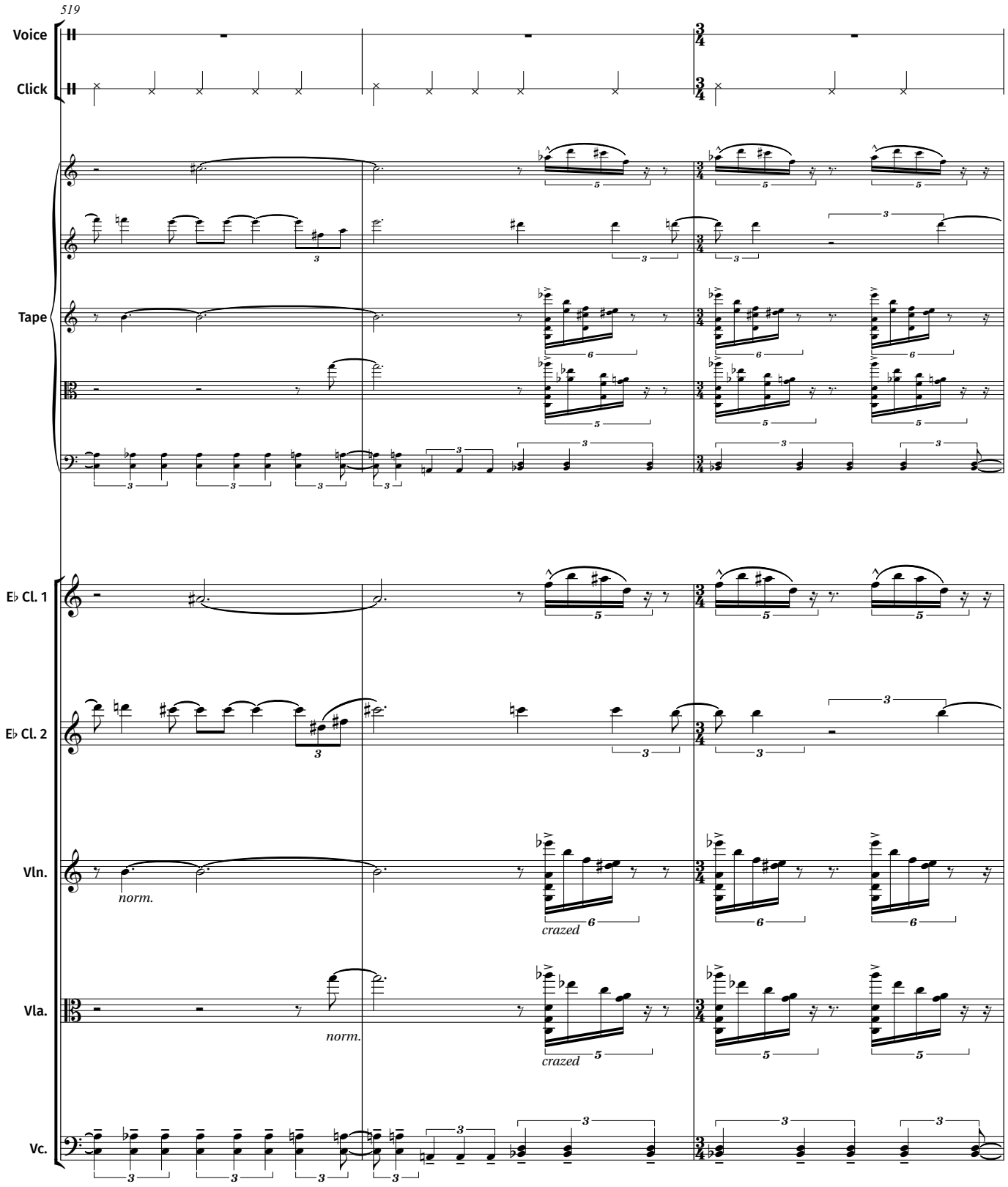

DD
509
Voice
Click
MIDI clarinet sound
MIDI clarinet sound
Tape
DD
E♭ Cl. 1
fff crazed
(pitch bend)
(sim.)
E♭ Cl. 2
fff crazed
Vln.
fff crazed
Vla.
fff crazed
Vc.
fff

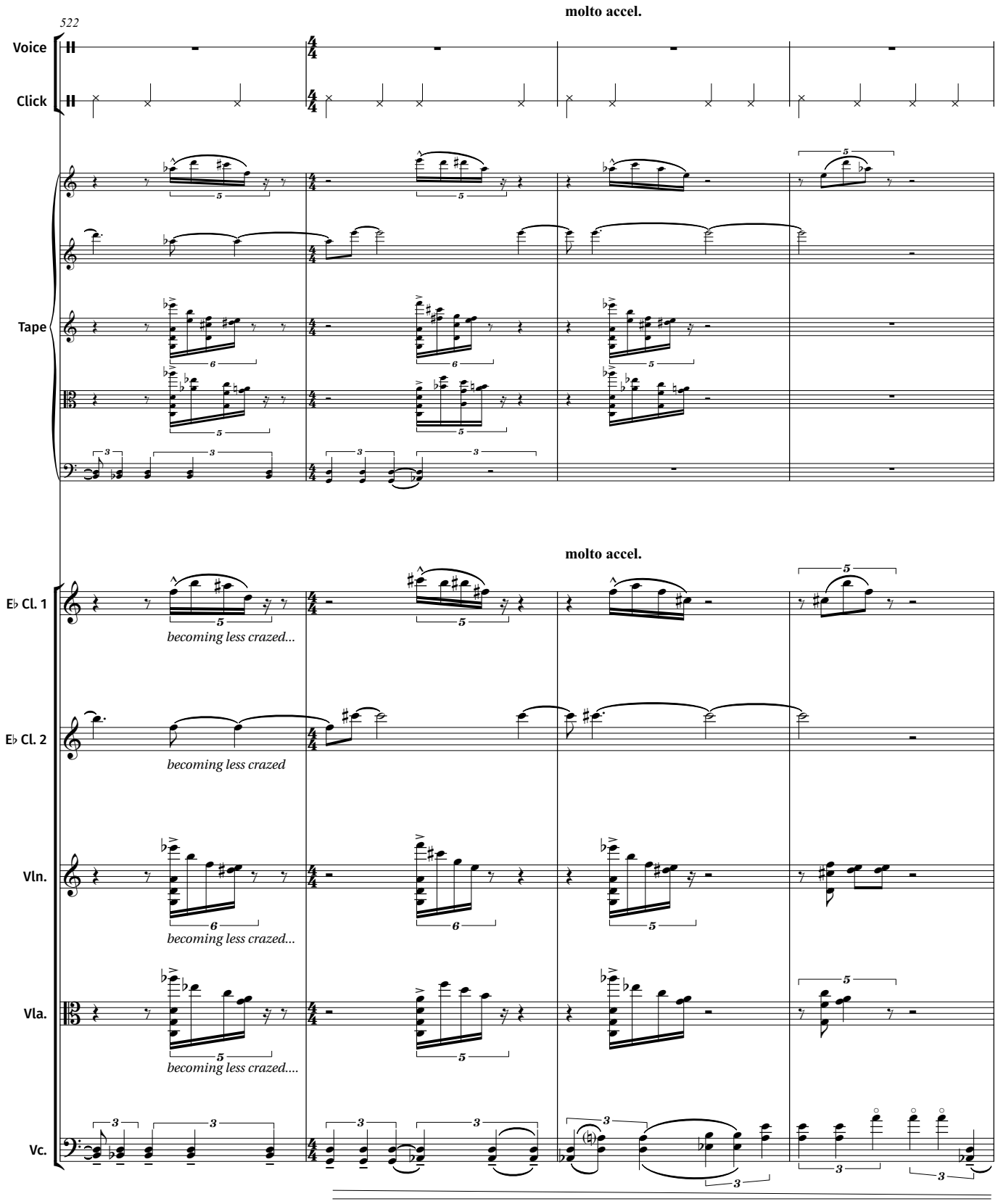

511
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
(pitch bend)
(sim.)

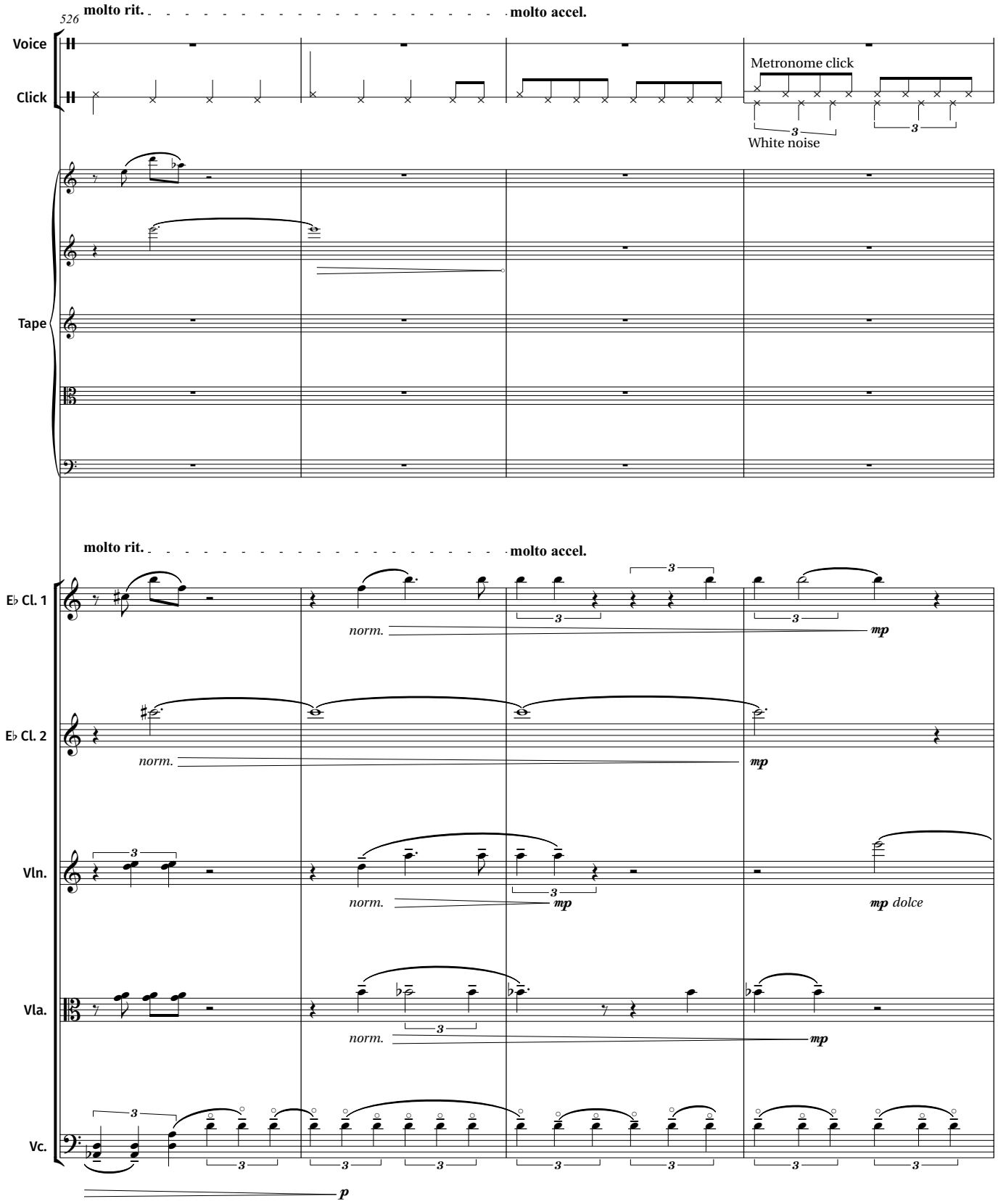

513
Voice
Click
Tape
E♭ Cl. 1
(pitch bend)
E♭ Cl. 2
Vln.
Vla.
Vc.

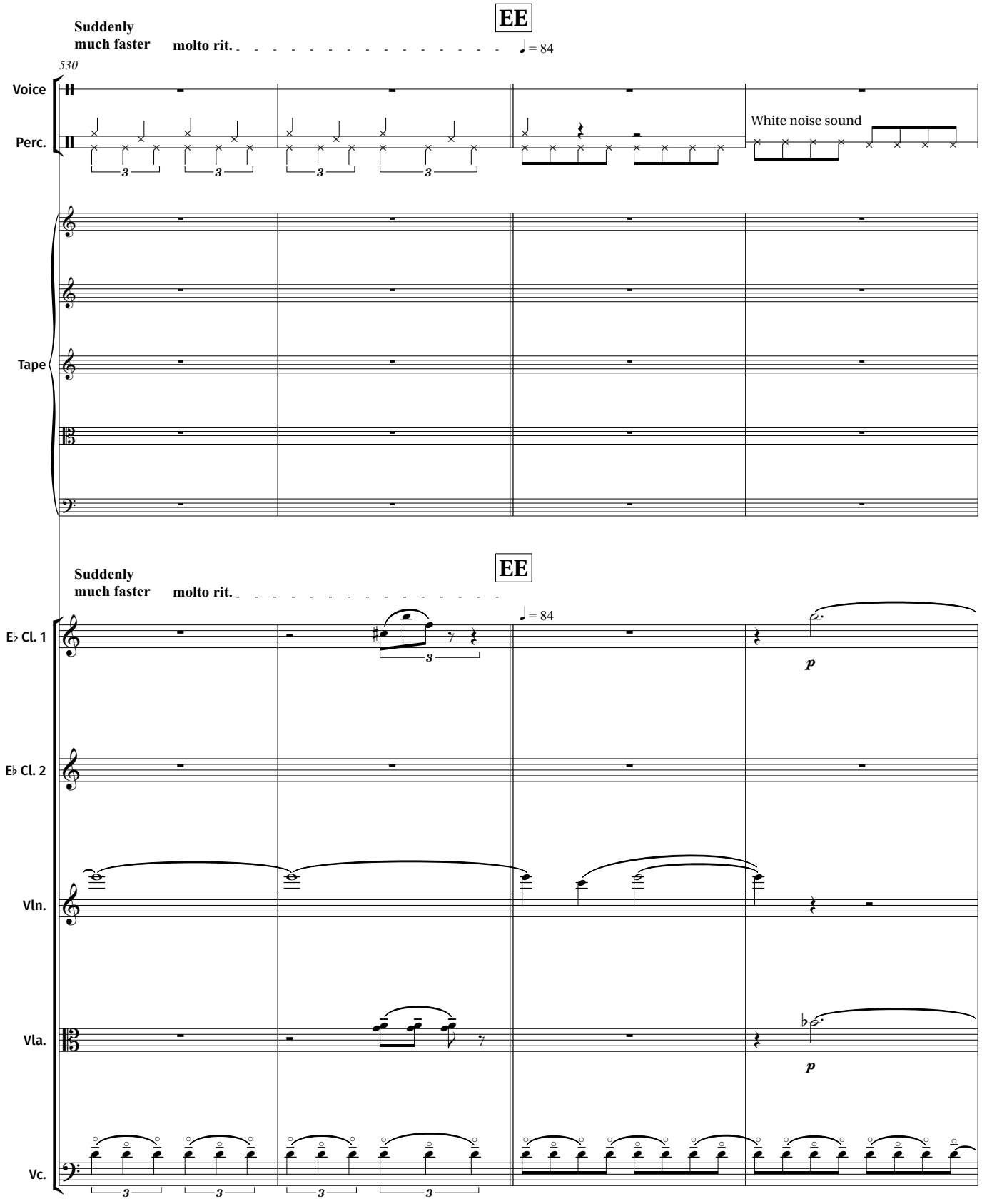

515
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
norm.

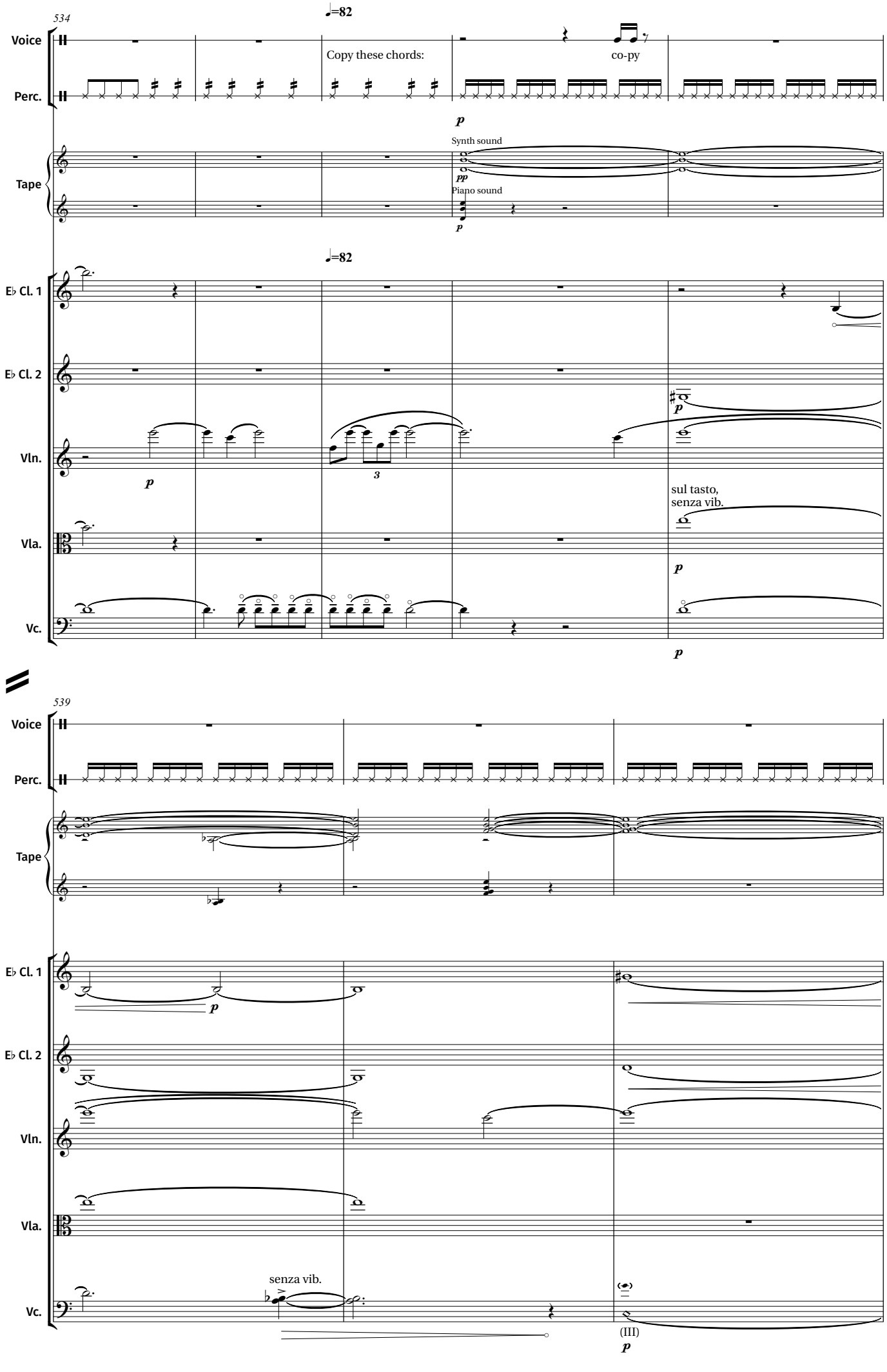

517
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
norm.
crazed
crazed

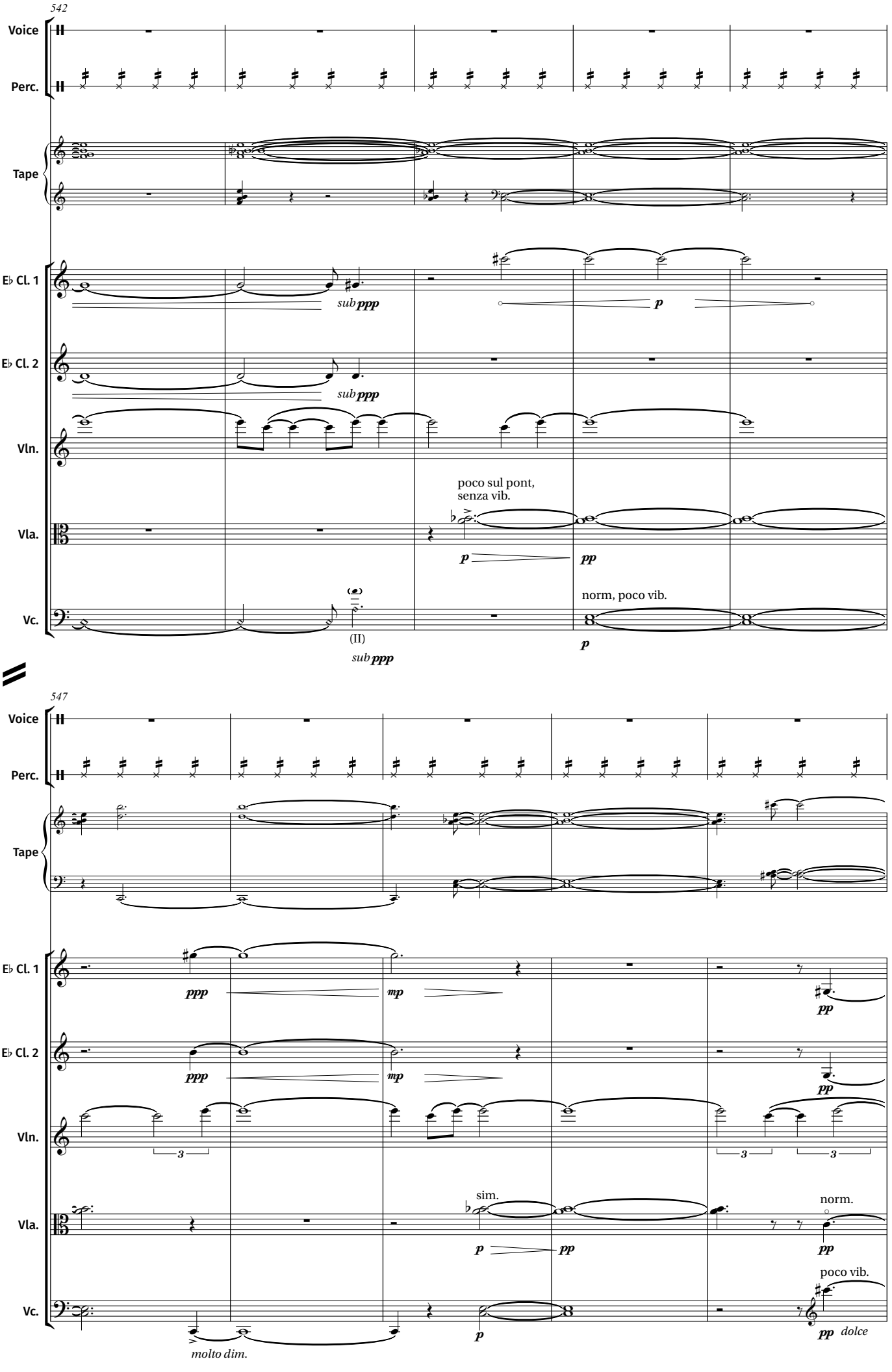

519
Voice
Click
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
norm.
crazed
Vla.
norm.
crazed
Vc.

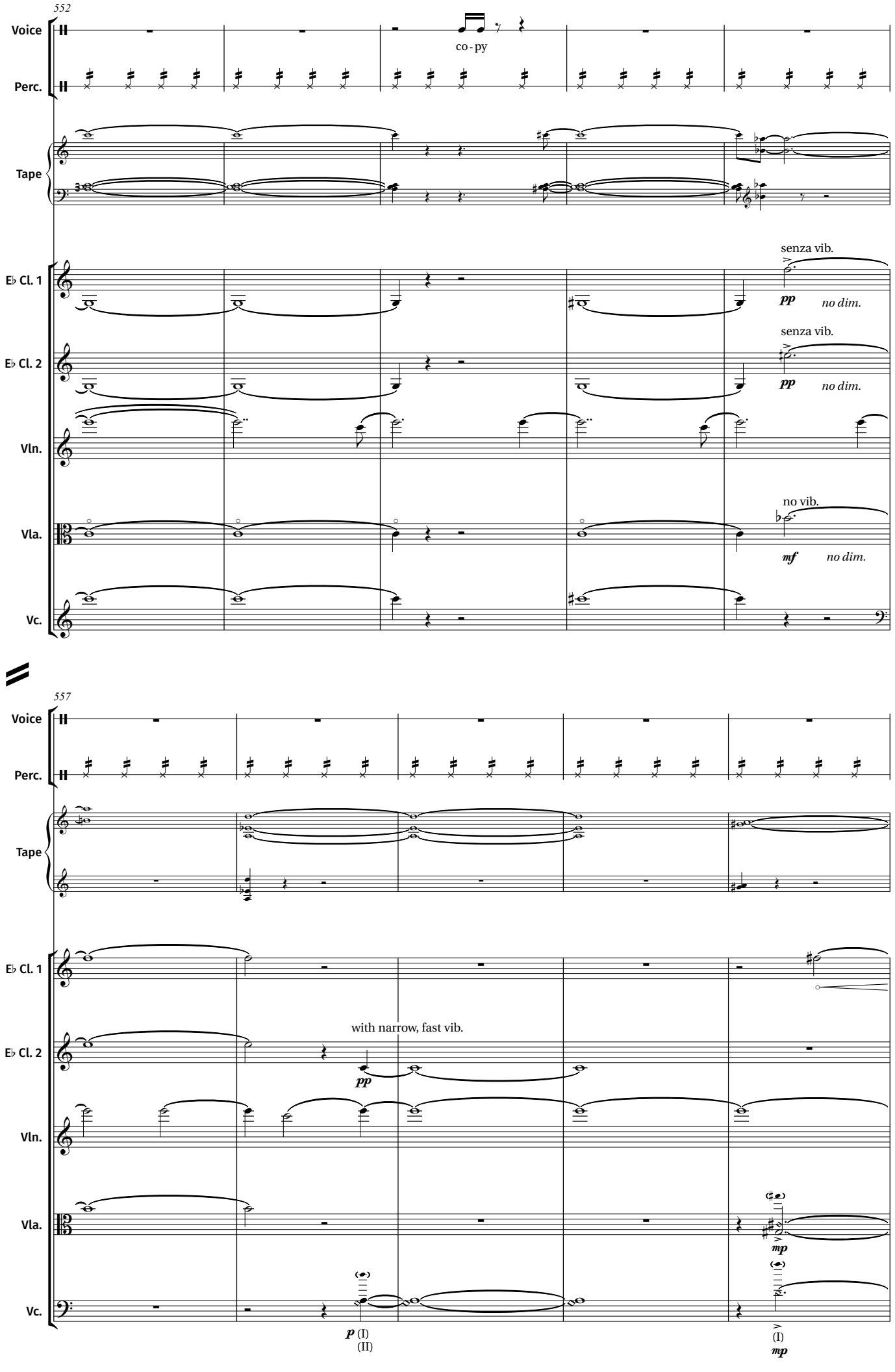

molto accel.
522
Voice
Click
Tape
molto accel.
E♭ Cl. 1
becoming less crazed...
E♭ Cl. 2
becoming less crazed
Vln.
becoming less crazed...
Vla.
becoming less crazed....
Vc.

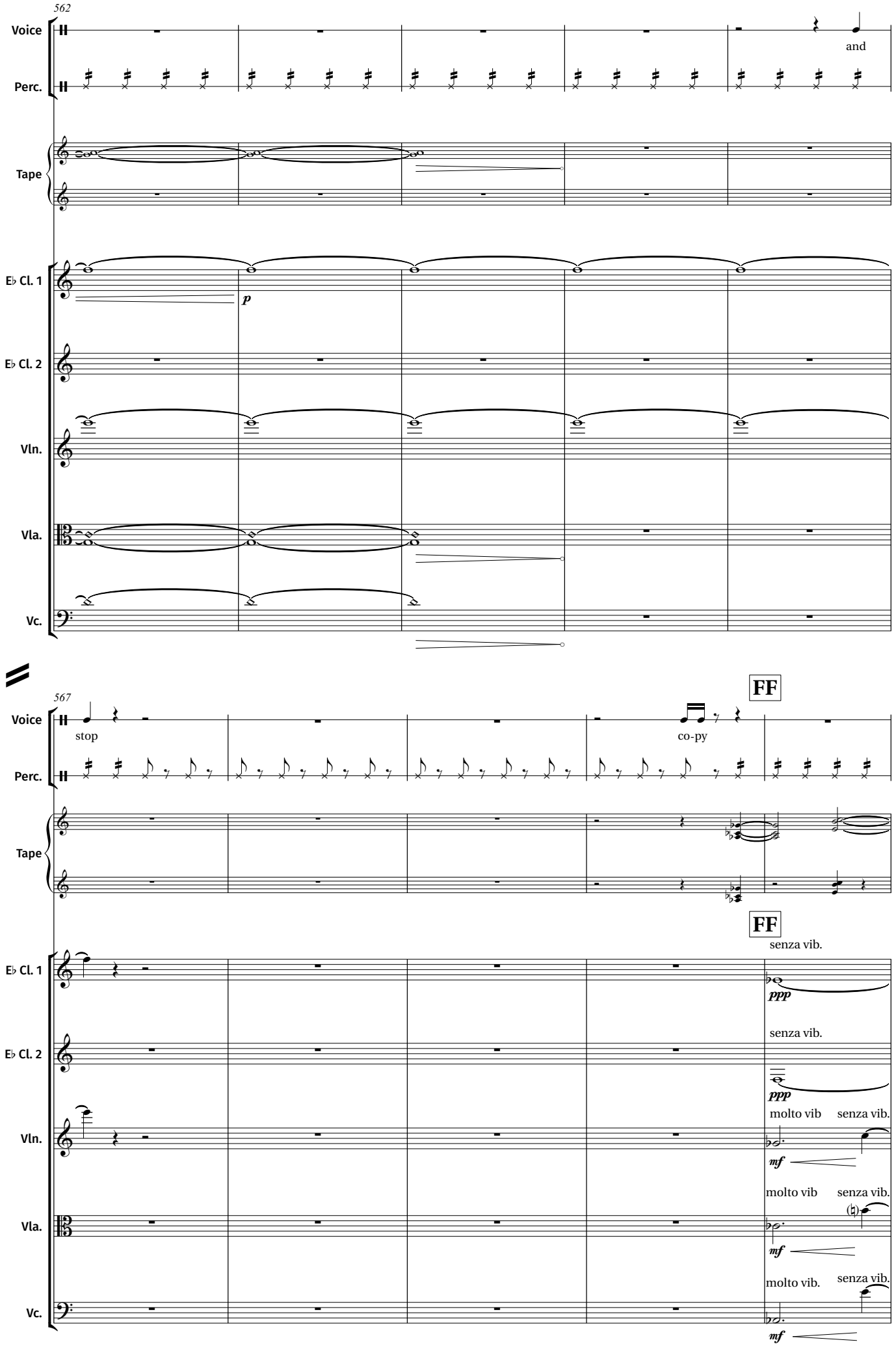

526
molto rit.
molto accel.
Voice
Click
Metronome click
White noise
Tape
molto rit.
molto accel.
E♭ Cl. 1
norm.
mp
E♭ Cl. 2
norm.
mp
Vln.
norm.
mp
mp dolce
Vla.
norm.
mp
Vc.
p

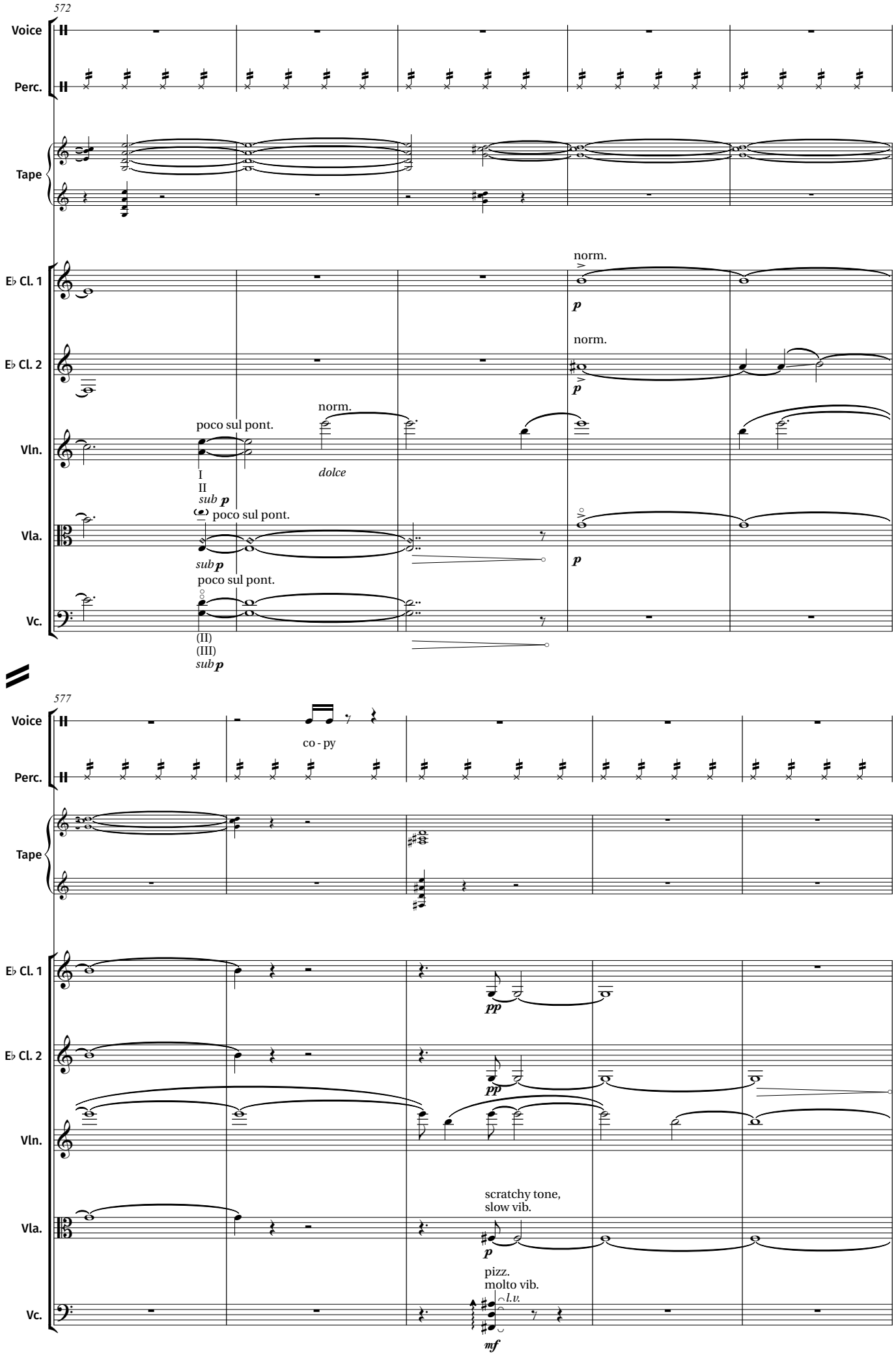

EE
Suddenly
much faster
molto rit.
♩ = 84
530
Voice
Perc.
White noise sound
Tape
EE
Suddenly
much faster
molto rit.
♩ = 84
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
p
p

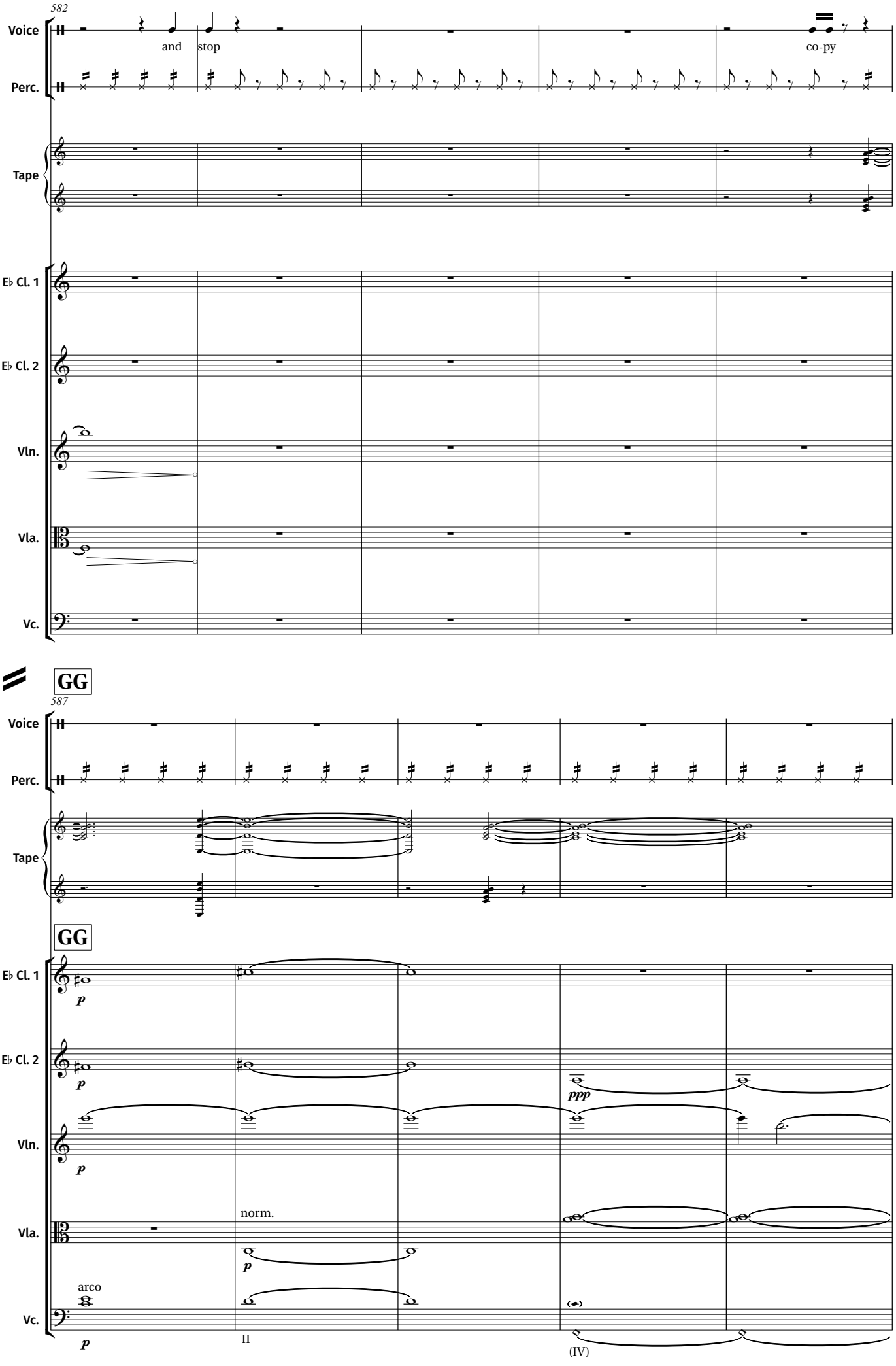

534
♩=82
Voice
Perc.
Copy these chords:
co-py
p
Synth sound
pp
Piano sound
p
Tape
♩=82
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
p
3
p
sul tasto,
senza vib.
p
p
539
Voice
Perc.
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
p
senza vib.
(III)
p

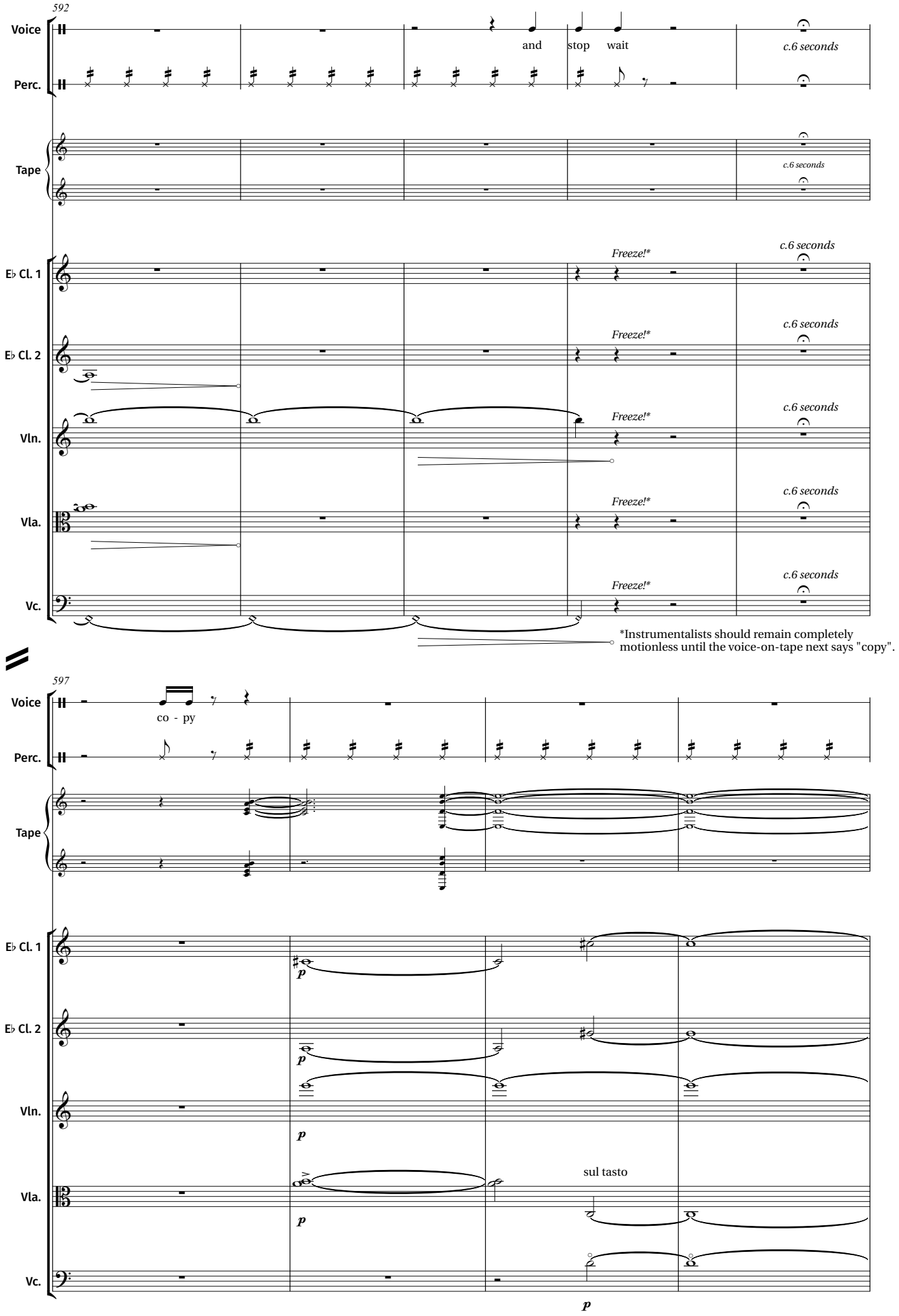

542
Voice
Perc.
Tape
E♭ Cl. 1
sub ppp
p
E♭ Cl. 2
sub ppp
Vln.
poco sul pont,
senza vib.
Vla.
p
pp
norm, poco vib.
Vc.
(II)
sub ppp
p
547
Voice
Perc.
Tape
E♭ Cl. 1
ppp
mp
pp
E♭ Cl. 2
ppp
mp
pp
Vln.
3
3
3
Vla.
sim.
p
pp
norm.
pp
poco vib.
Vc.
molto dim.
p
pp dolce

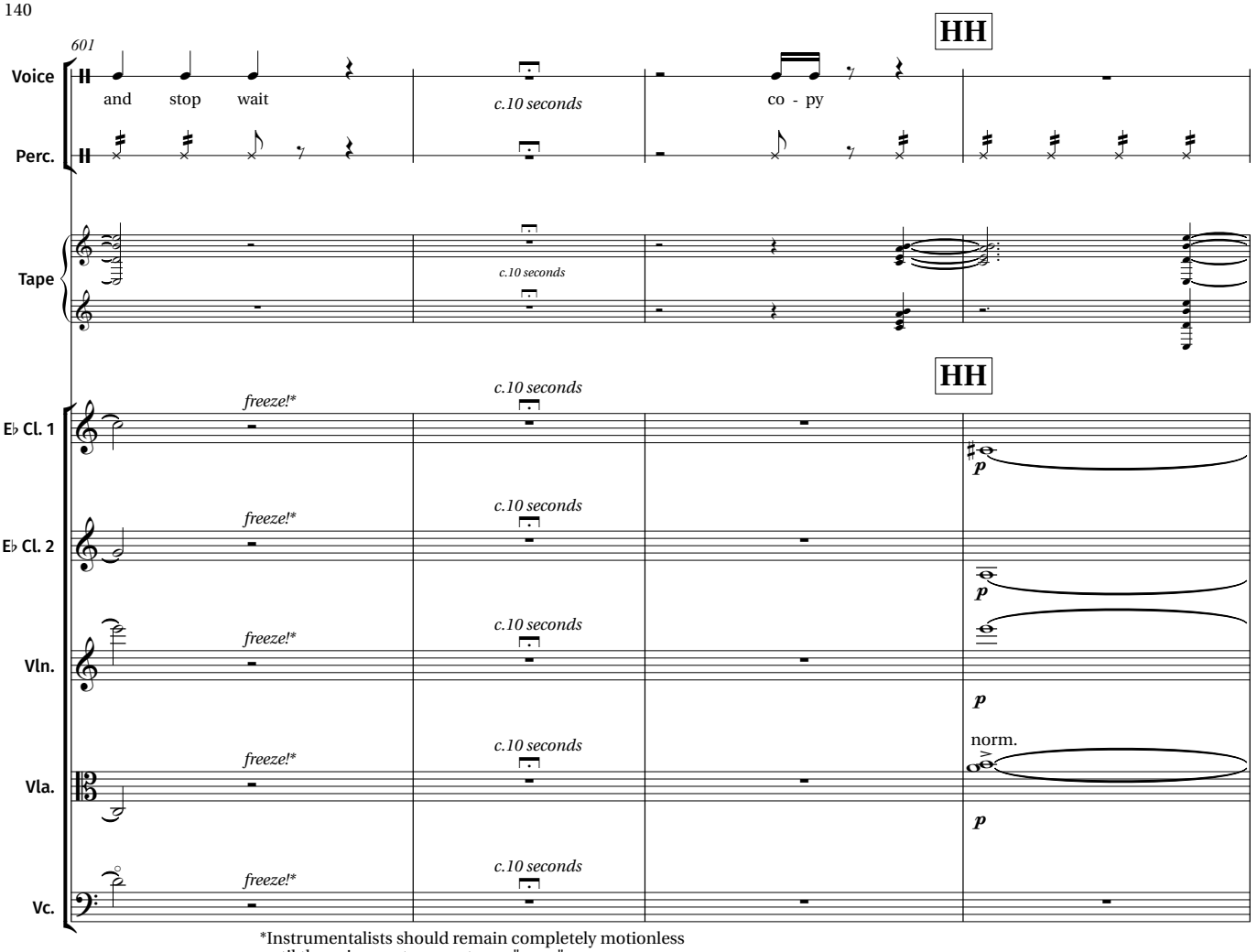

552
Voice
co - py
Perc.
Tape
E♭ Cl. 1
senza vib.
pp
no dim.
E♭ Cl. 2
senza vib.
pp
no dim.
Vln.
Vla.
no vib.
mf
no dim.
Vc.
557
Voice
Perc.
Tape
E♭ Cl. 1
E♭ Cl. 2
with narrow, fast vib.
pp
Vln.
Vla.
mp
Vc.
p (I)
(II)
(I)
mp


562
Voice
and
Perc.
Tape
E♭ Cl. 1
p
E♭ Cl. 2
Vln.
Vla.
Vc.
567
FF
stop
co-py
FF
senza vib.
ppp
molto vib
senza vib.
mf
molto vib.

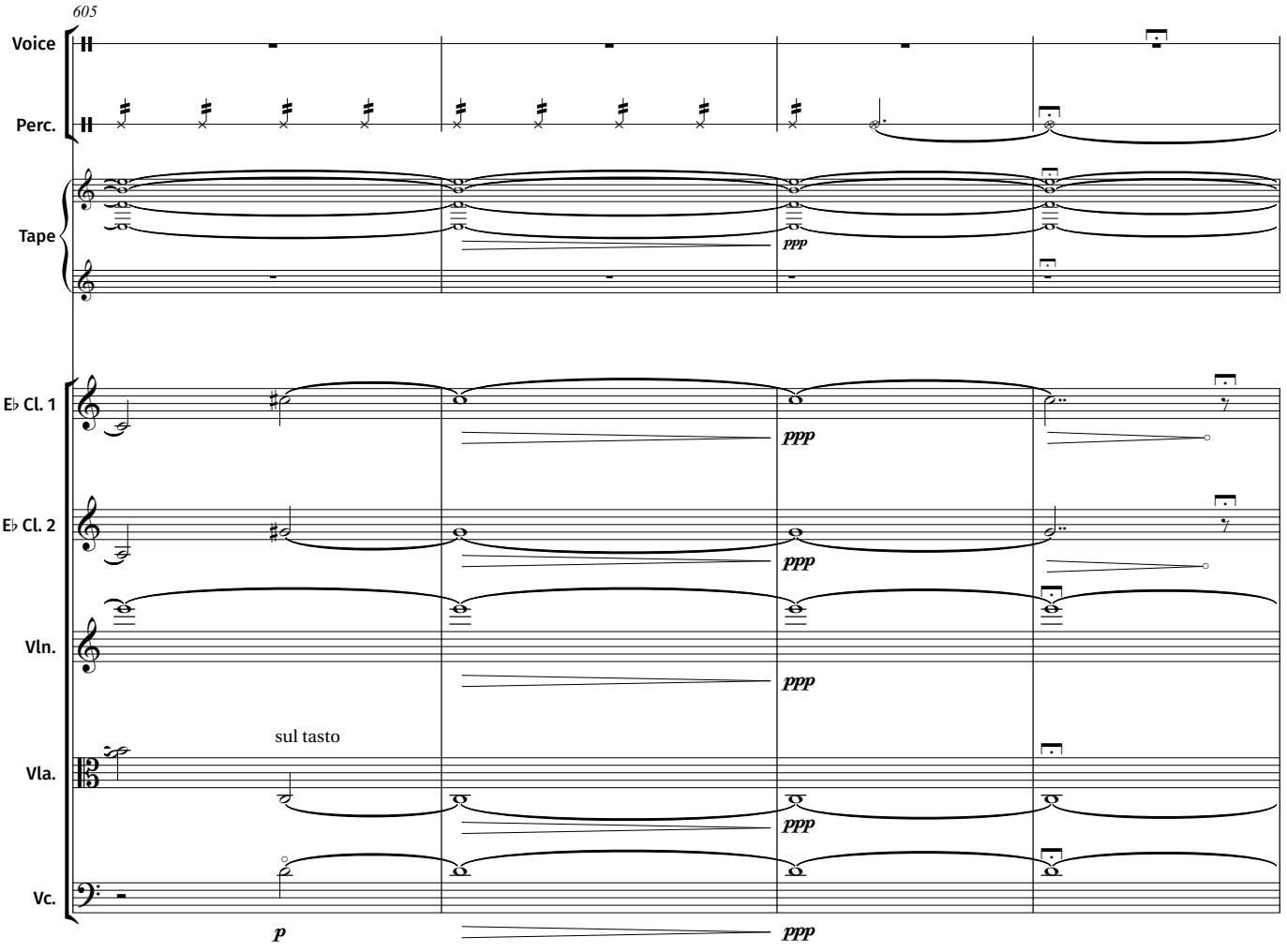

572
Voice
Perc.
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
norm.
p
norm.
p
poco sul pont.
norm.
dolce
I
II
sub p
poco sul pont.
sub p
poco sul pont.
(II)
(III)
sub p
577
Voice
co - py
Perc.
Tape
E♭ Cl. 1
pp
E♭ Cl. 2
pp
Vln.
Vla.
scratchy tone,
slow vib.
p
pizz.
molto vib.
l.v.
Vc.
mf

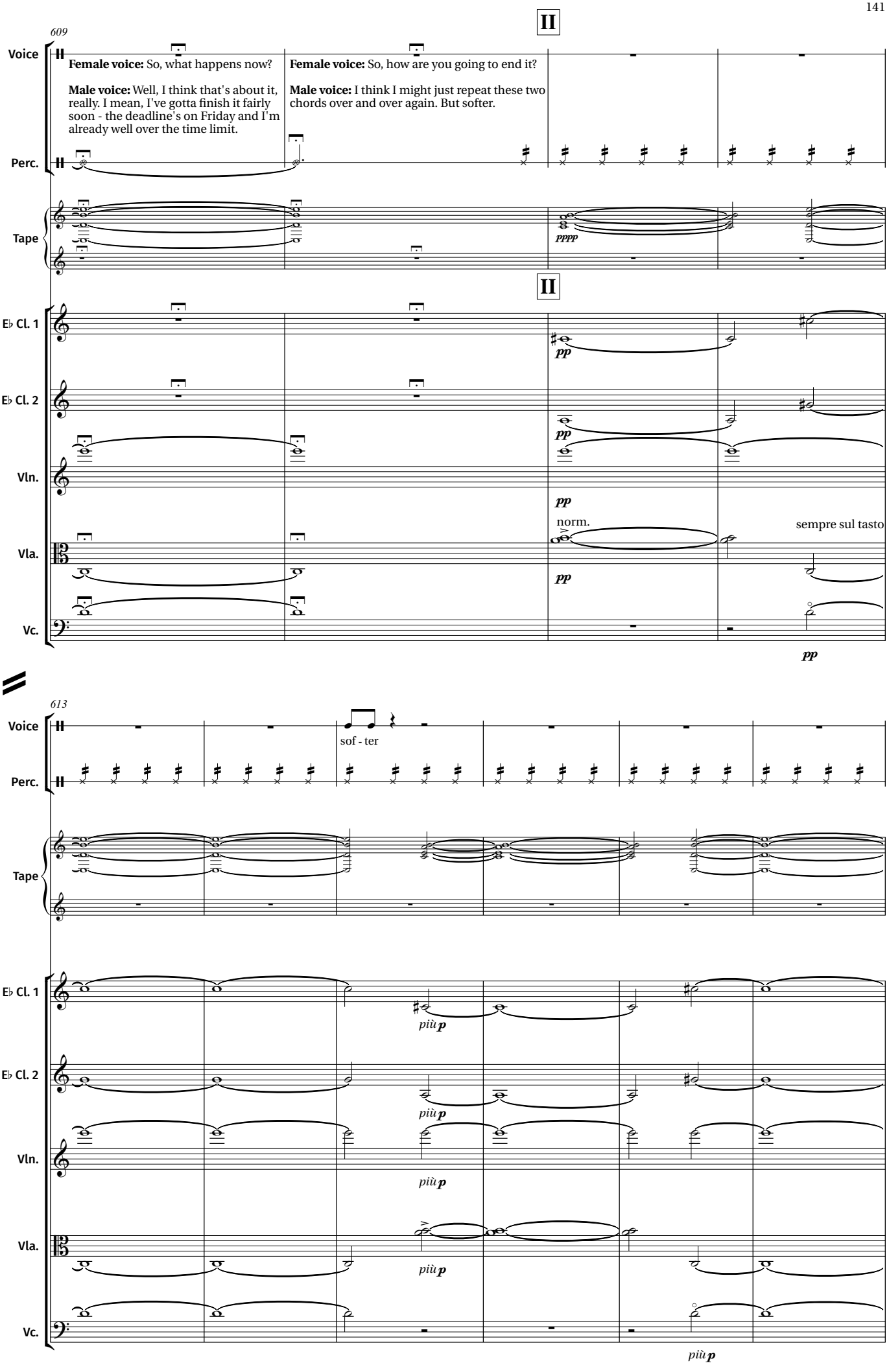

582
Voice
and
stop
co-py
Perc.
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
GG
587
Voice
Perc.
Tape
GG
E♭ Cl. 1
p
E♭ Cl. 2
p
ppp
Vln.
p
Vla.
norm.
p
arco
Vc.
p
II
(IV)

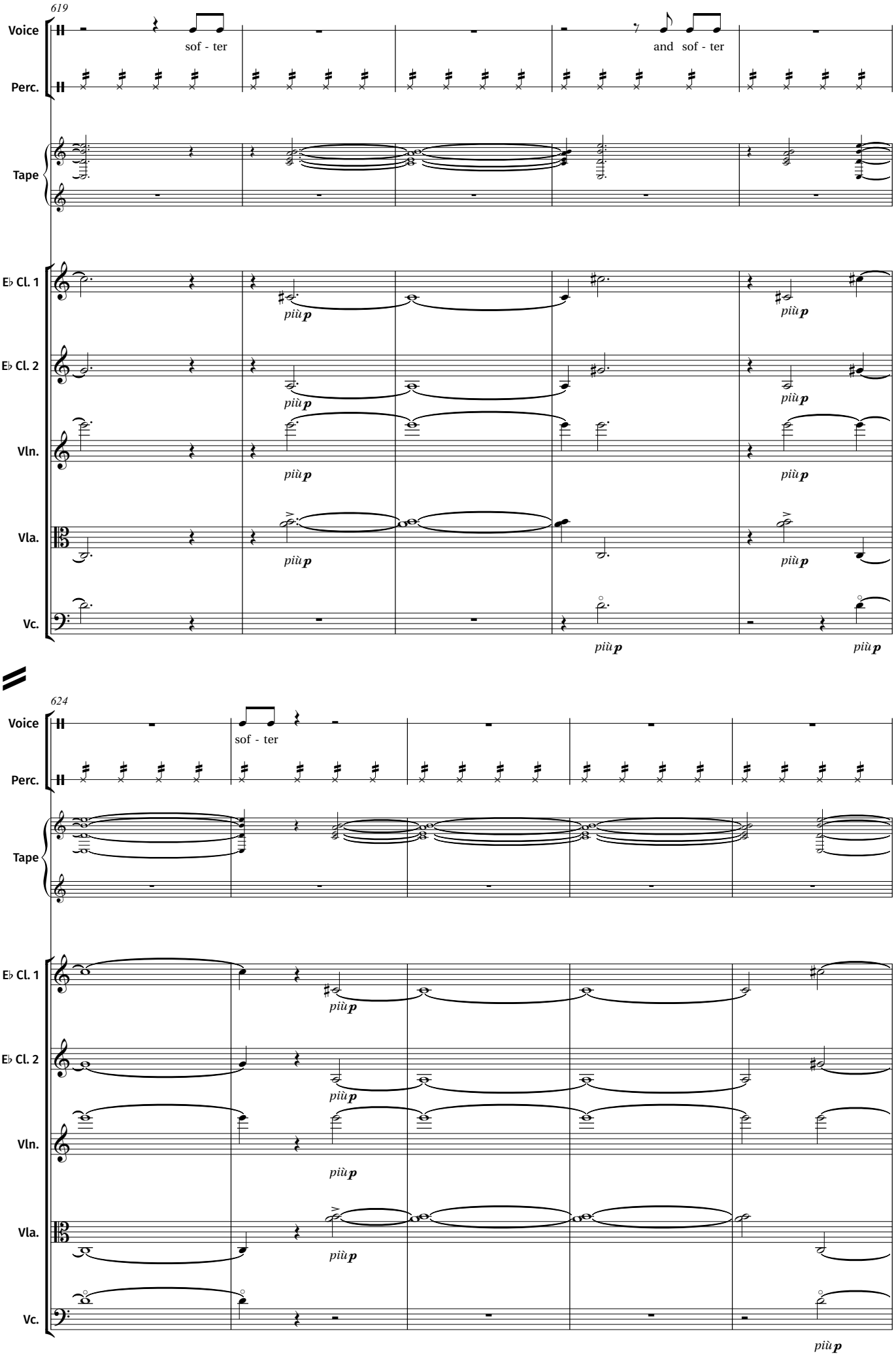

592
Voice
Perc.
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
and
stop
wait
c.6 seconds
Freeze!*
*Instrumentalists should remain completely motionless until the voice-on-tape next says "copy".
597
co - py
sul tasto
p

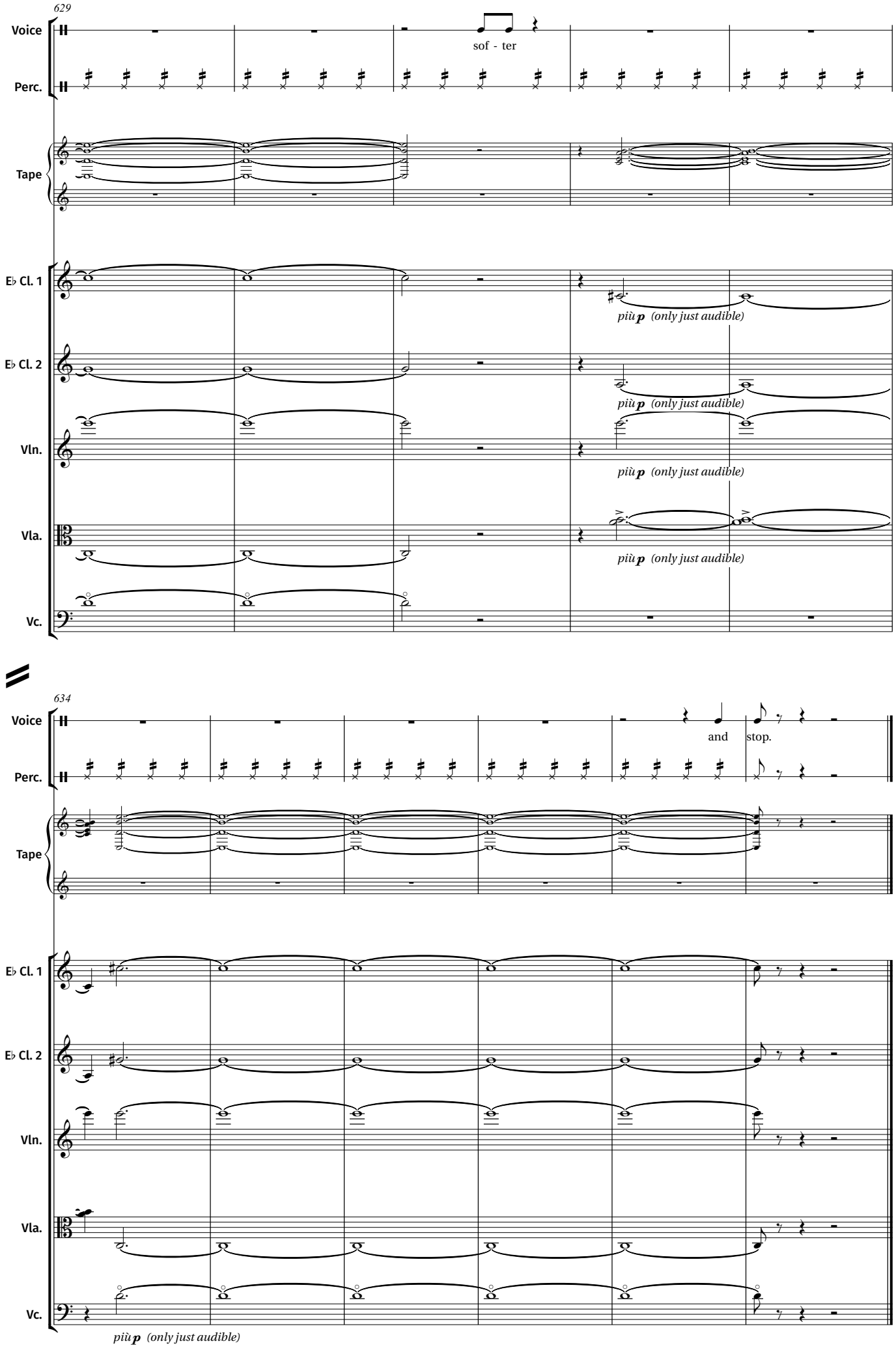


*Instrumentalists should remain completely motionless until the voice-on-tape next says "copy".




609
II
Voice
Female voice: So, what happens now?
Male voice: Well, I think that's about it, really. I mean, I've gotta finish it fairly soon - the deadline's on Friday and I'm already well over the time limit.
Female voice: So, how are you going to end it?
Male voice: I think I might just repeat these two chords over and over again. But softer.
Perc.
Tape
pppp
II
E♭ Cl. 1
pp
E♭ Cl. 2
pp
Vln.
pp
norm.
sempre sul tasto
Vla.
pp
Vc.
pp
613
Voice
sof - ter
Perc.
Tape
E♭ Cl. 1
più p
E♭ Cl. 2
più p
Vln.
più p
Vla.
più p
Vc.
più p


619
Voice
sof - ter
and sof - ter
Perc.
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
più p
624
Voice
sof - ter
Perc.
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
più p


629
Voice
sof - ter
Perc.
Tape
E♭ Cl. 1
più p (only just audible)
E♭ Cl. 2
più p (only just audible)
Vln.
più p (only just audible)
Vla.
più p (only just audible)
Vc.
634
Voice
and stop.
Perc.
Tape
E♭ Cl. 1
E♭ Cl. 2
Vln.
Vla.
Vc.
più p (only just audible)

Thomas Butler

My Life in Ventriloquism

For clarinet in B-flat with pre-recorded sound.

My Life in Ventriloquism (2012)

By Thomas Butler

For clarinet in B-flat with pre-recorded sound.

Score in B-flat.

Duration: c.11 minutes.

The first performance of this work was given by Jenny Stephenson (clarinet) and the composer (laptop operator) on 27th April 2012 at the Royal Conservatoire of Scotland, Glasgow.

Performance considerations

My Life in Ventriloquism combines virtuosic clarinet music with pre-recorded sound and mime to create a performance in which the audience are forced to question the authenticity of the work's presentation. The presence of pre-recorded material (and related hardware) must therefore remain a secret before and during the performance. The piece should always be billed as a work for solo clarinet only and nothing in the presentation of the work should alert the audience to the use of pre-recorded sound.

The piece requires a laptop: an operator – hidden from sight – cues the pre-recorded sounds as marked in the score (designated Q1–Q61). When indicated, the clarinettist should mime to these cues, which contain material that is impossible to play on a real clarinet. The clarinettist should mime as “accurately” as possible and in time with the recordings, and cues should be timed with the utmost sensitivity to both the musical and theatrical flow of the performance; the clarinettist and operator should develop their performance together.

The pre-recorded cues are all mono, therefore only one speaker is required. This should be hidden from view (perhaps in darkness, perhaps in plain sight if appropriate for the performance context) but near enough to the clarinettist to ensure that all sound seems to emanate from a single point on stage.

Software requirements

The laptop requires either Max/MSP (Version 6 .0 or later) or Max Runtime (Version 6 .0 or later), published by Cycling '74. A Max patch is provided.

Lighting

Where possible, the soloist should be illuminated by a single spotlight (or spotlight effect) in an otherwise dark auditorium.

Notations

Crossed noteheads indicate sub-tones.

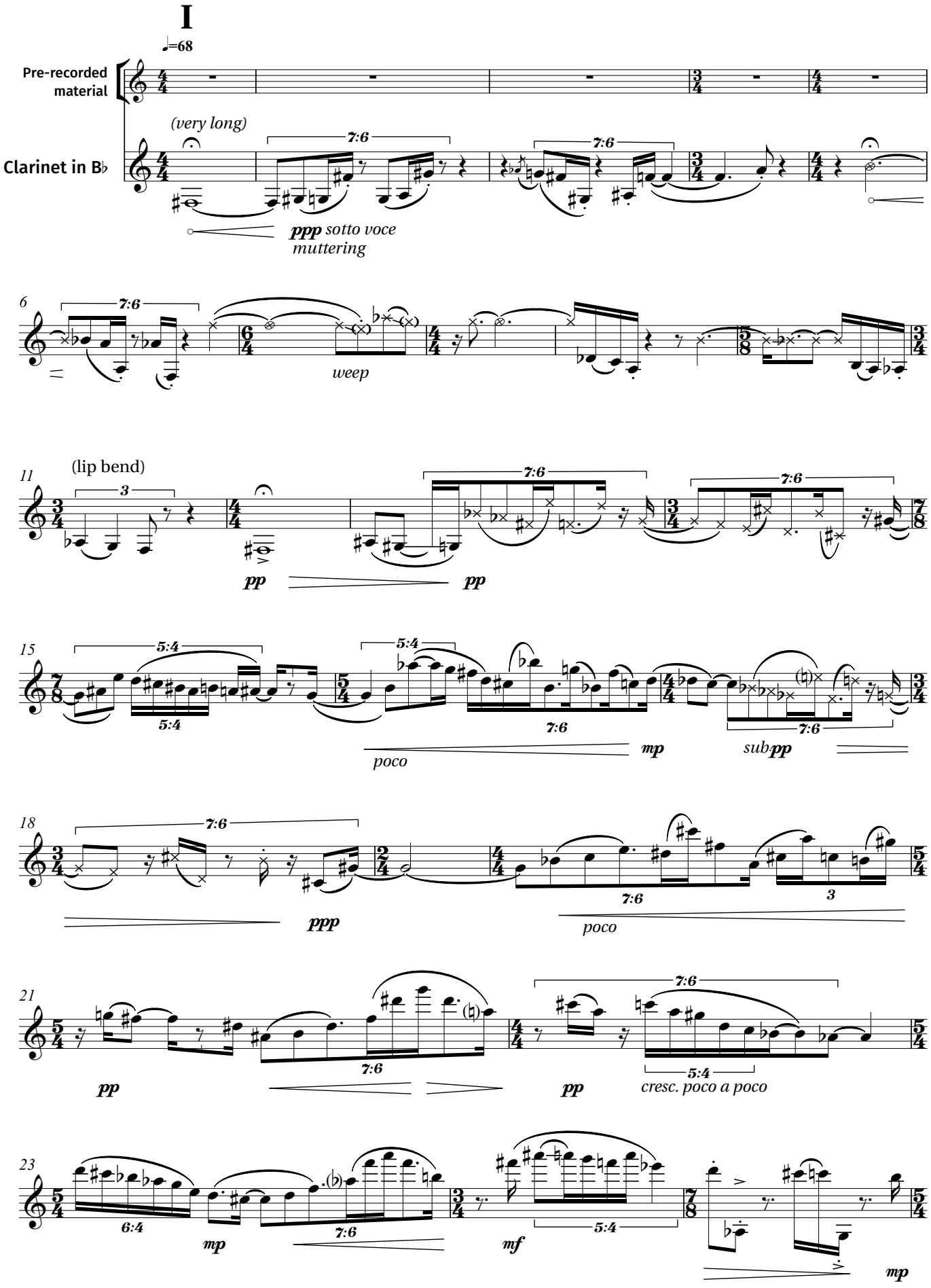
Multiphonics diagrams are taken from: Rehfeldt, P., 1994. *New Directions for Clarinet (Revised Edition)*. Oakland, CA: University of California Press.

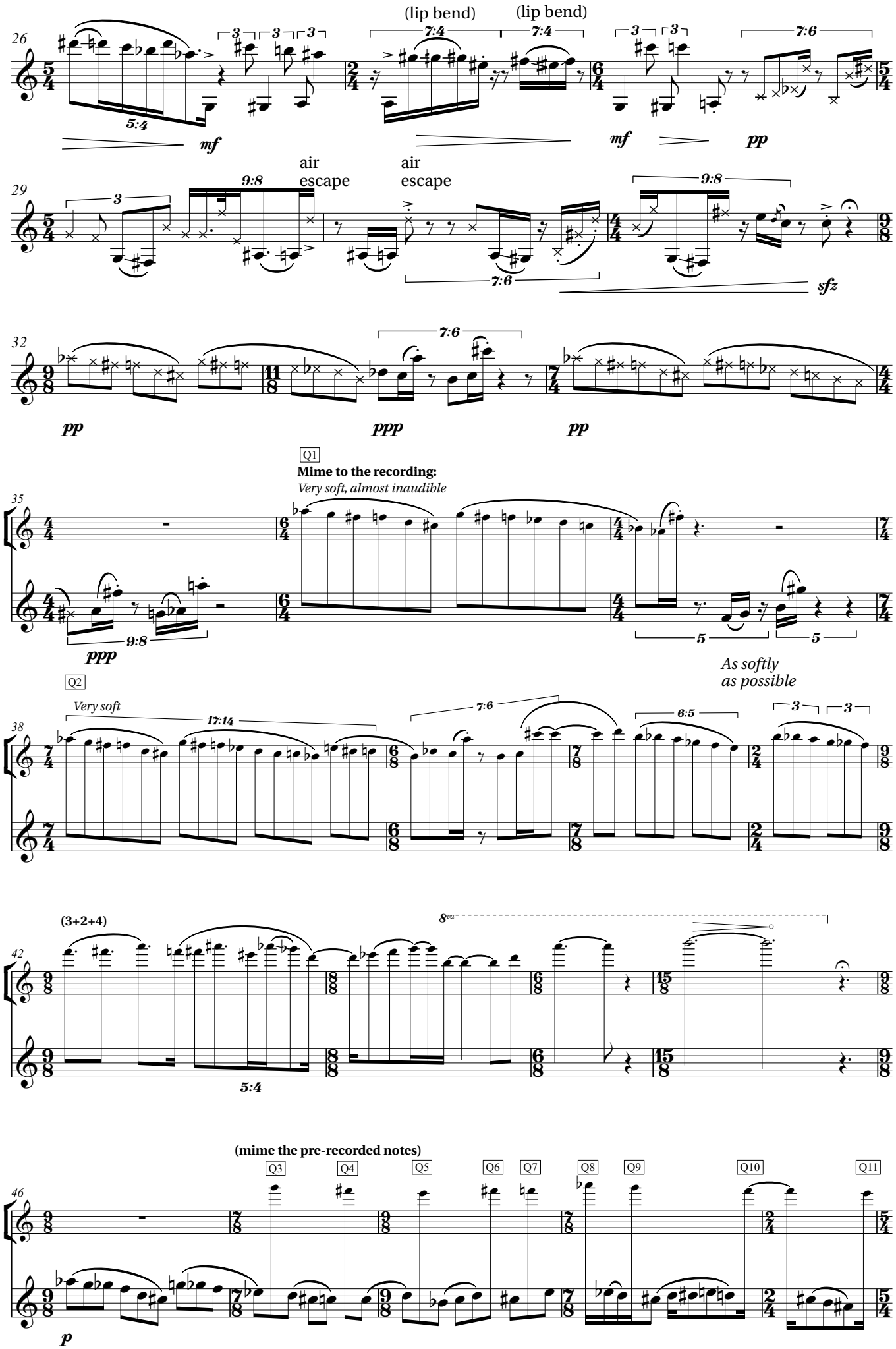
Programme note

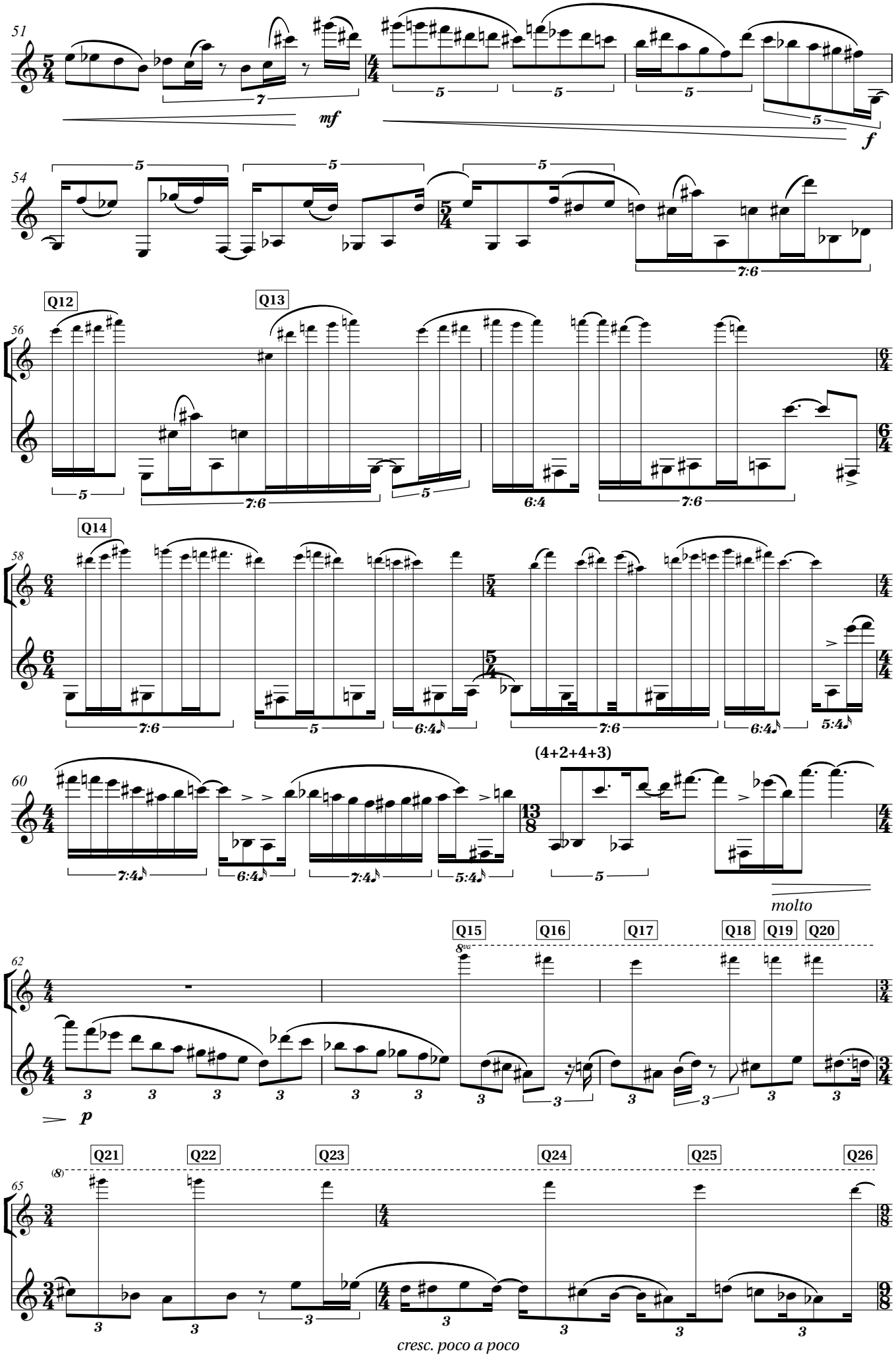
My Life in Ventriloquism is a virtuosic piece for solo clarinet in three continuous movements. It lasts about eleven minutes.

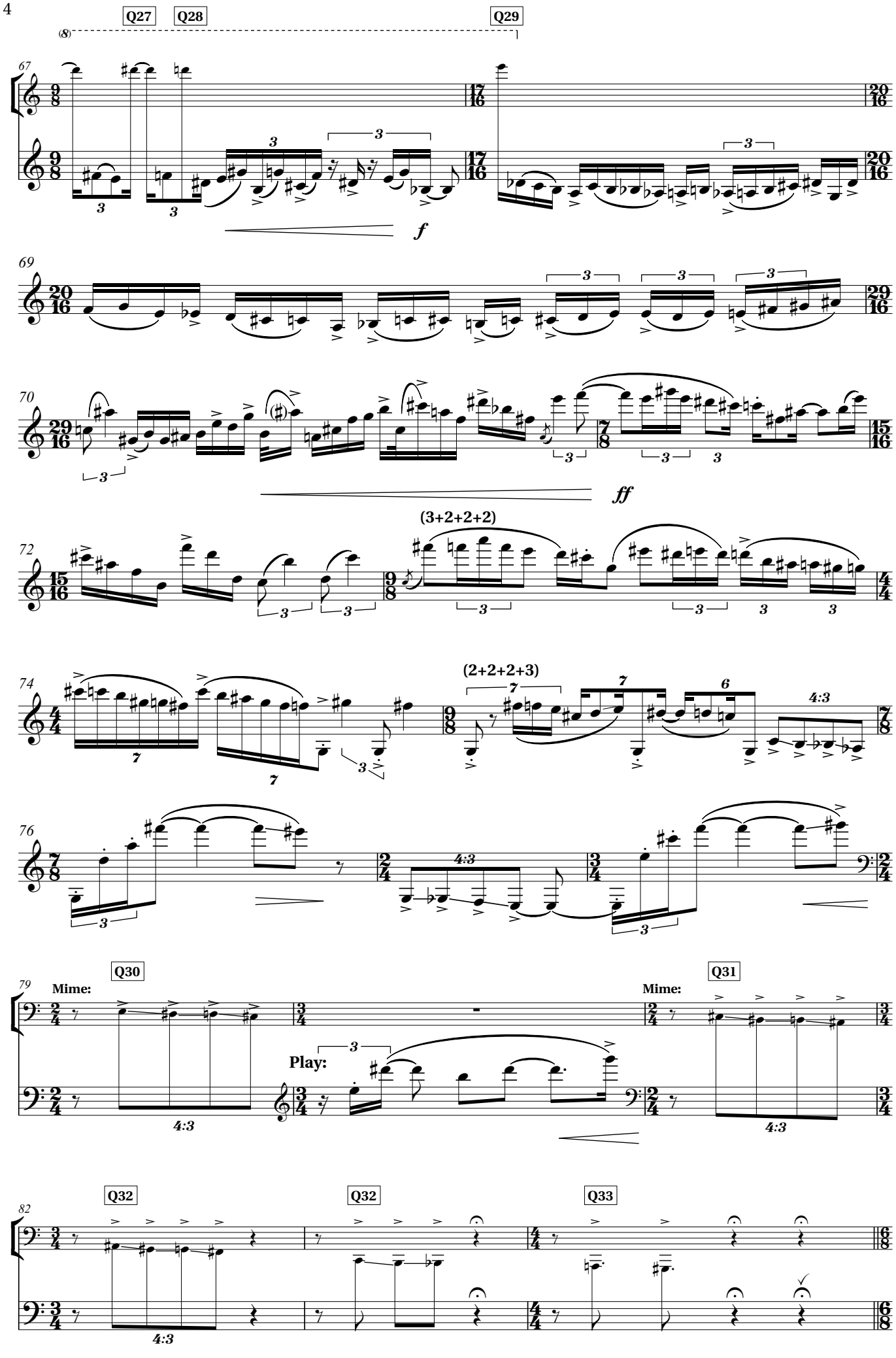
My Life in Ventriloquism

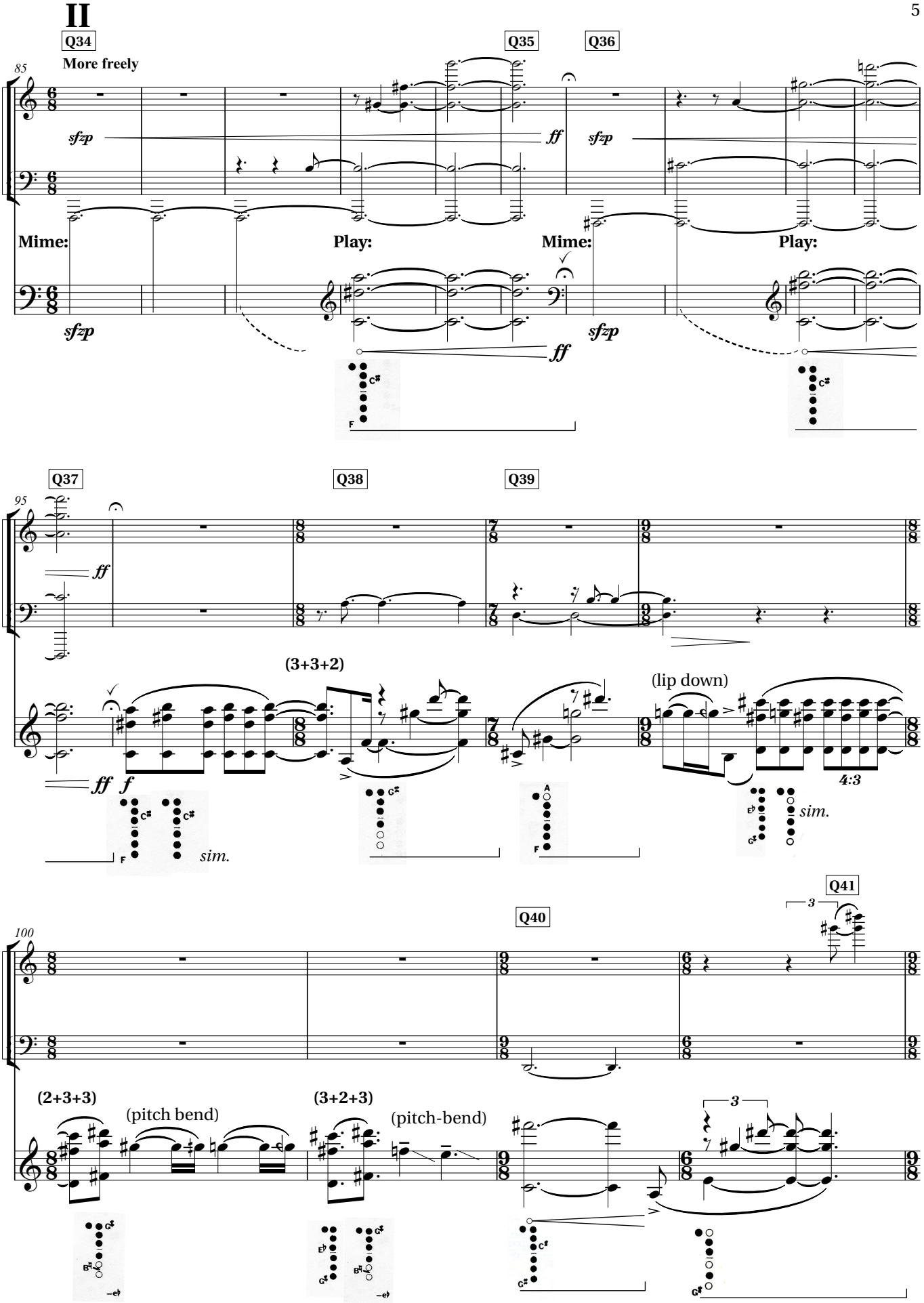
Thomas Butler

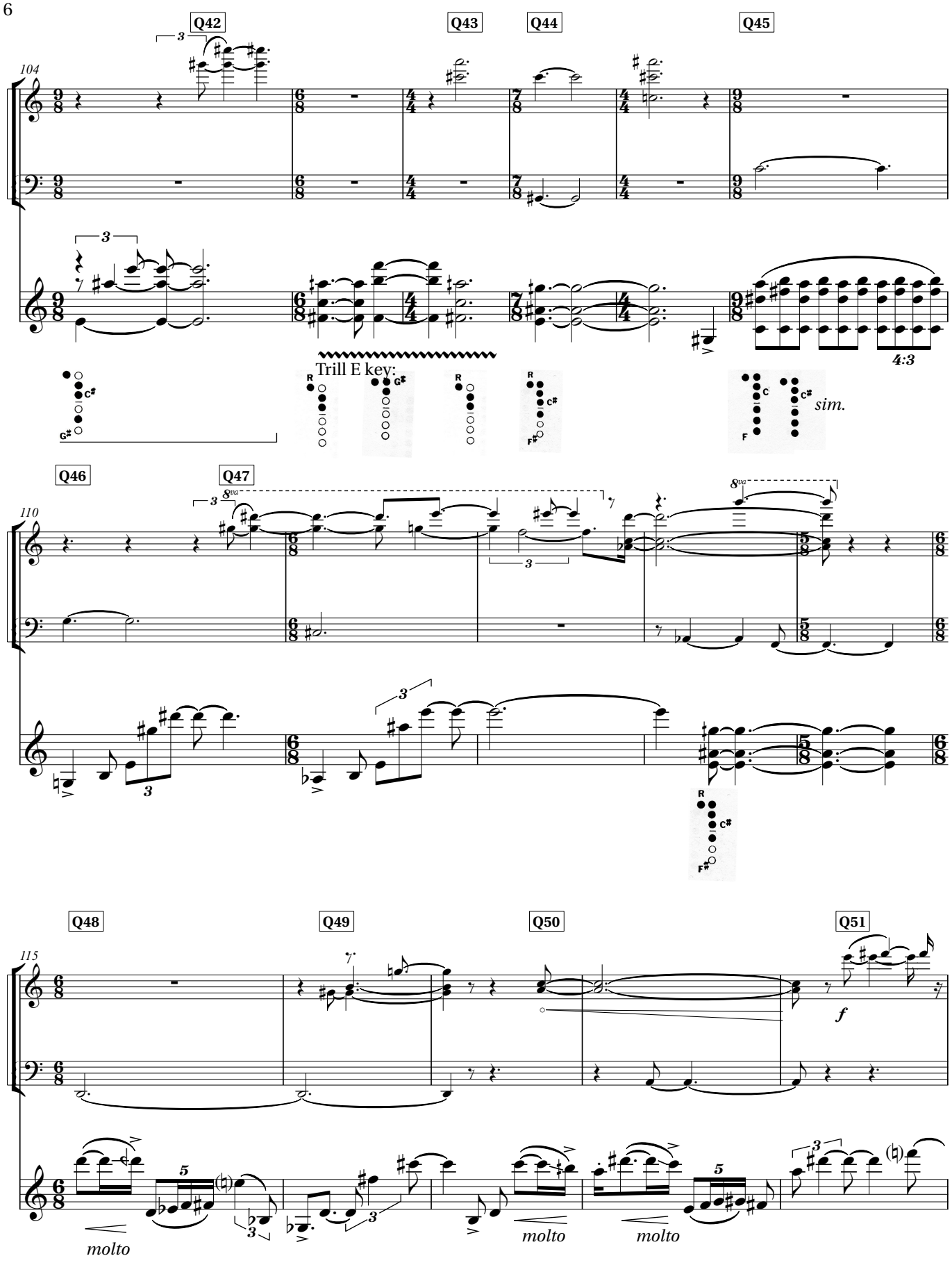


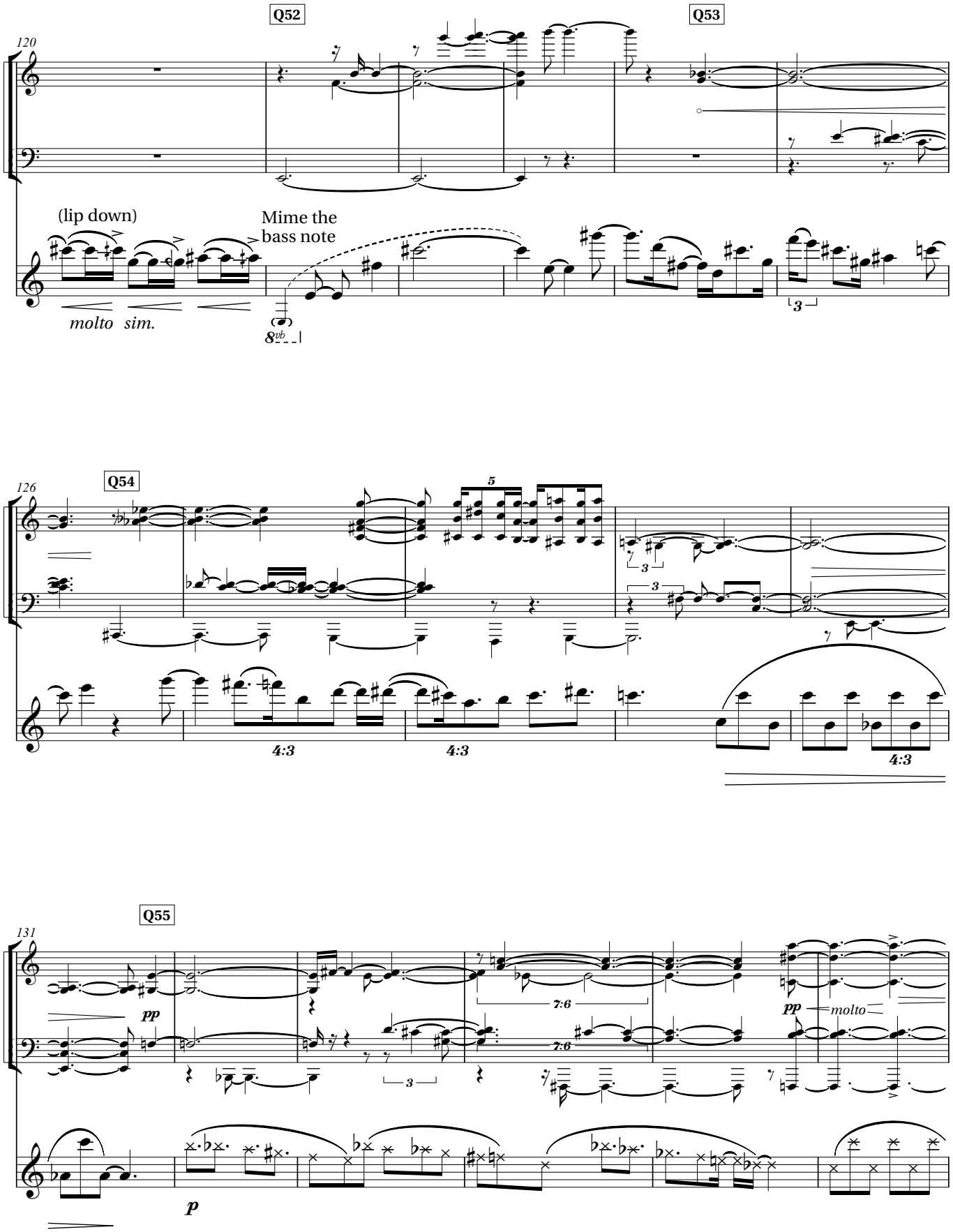

26
(lip bend)
(lip bend)
mf
mf
pp
29
air escape
air escape
sfz
32
pp
ppp
pp
Q1
Mime to the recording:
Very soft, almost inaudible
35
ppp
As softly as possible
Q2
Very soft
38
(3+2+4)
42
(mime the pre-recorded notes)
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
Q11
46
p

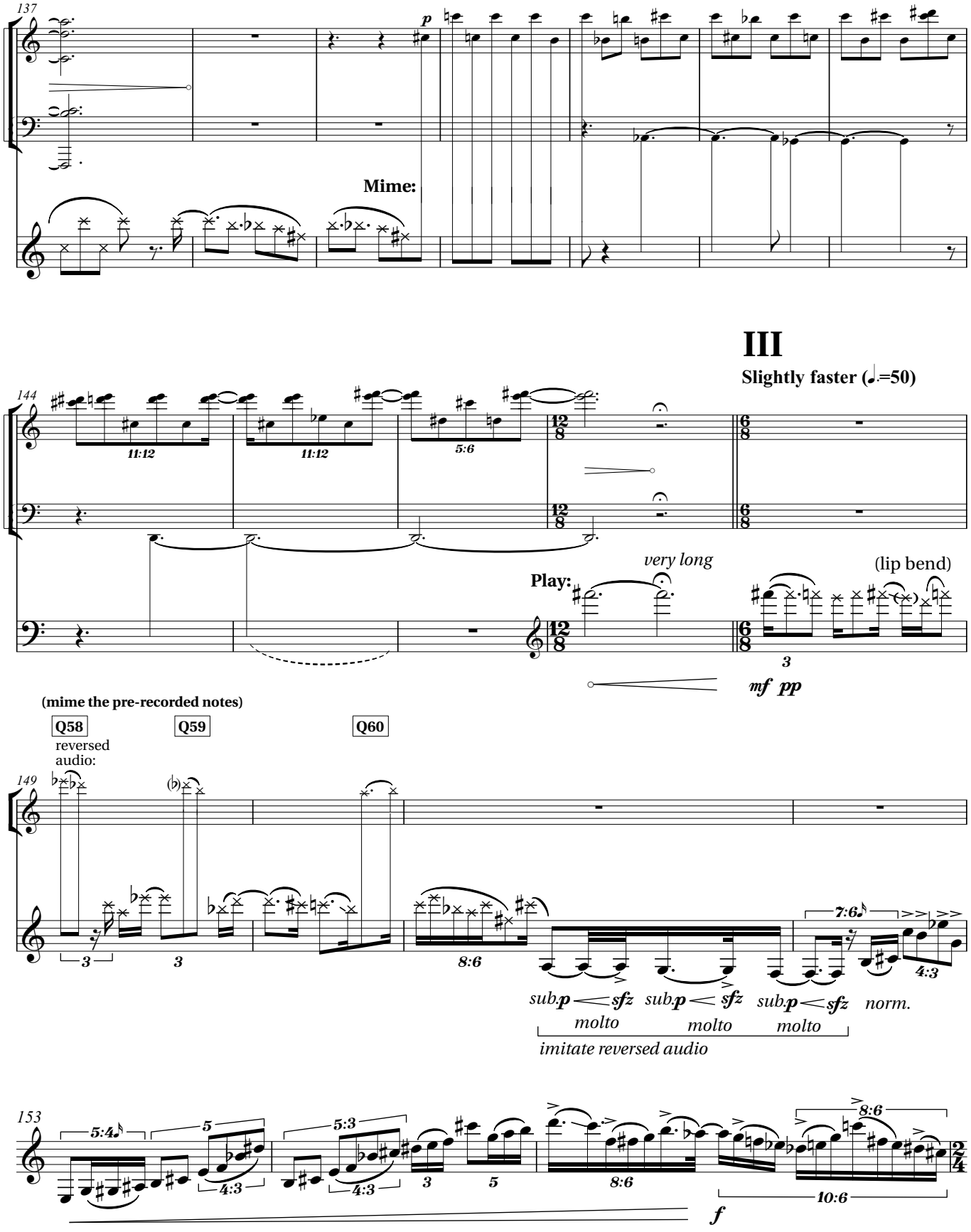

51
mf
f
54
7:6
Q12
Q13
56
7:6
6:4
7:6
Q14
58
7:6
6:4
7:6
6:4
5:4
60
(4+2+4+3)
7:4
6:4
7:4
5:4
molto
Q15
Q16
Q17
Q18
Q19
Q20
62
p
Q21
Q22
Q23
Q24
Q25
Q26
65
cresc. poco a poco

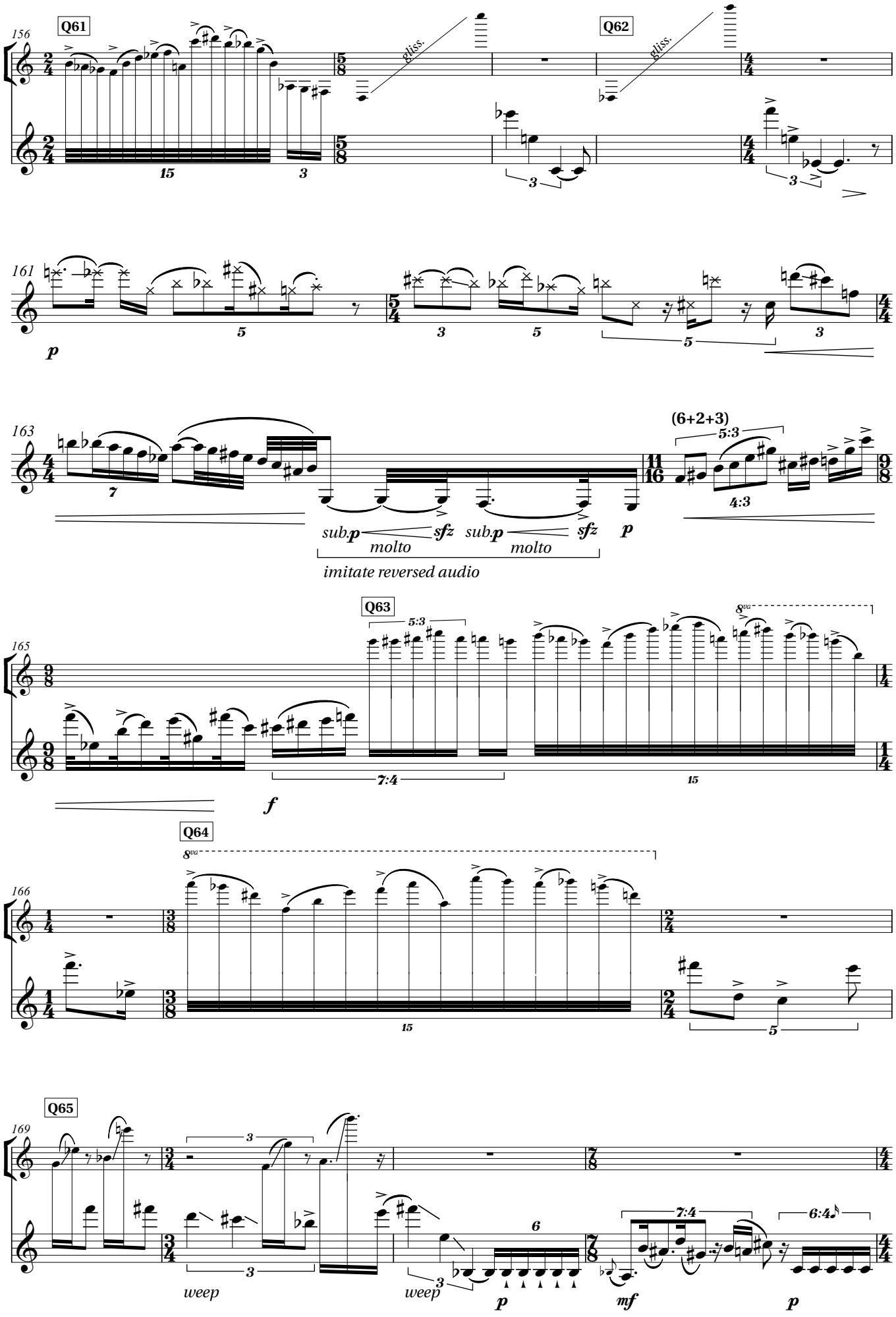

Q27
Q28
Q29
67
69
70
f
ff
72
(3+2+2+2)
74
(2+2+2+3)
76
Q30
Mime:
Play:
Q31
Mime:
79
Q32
Q32
Q33
82

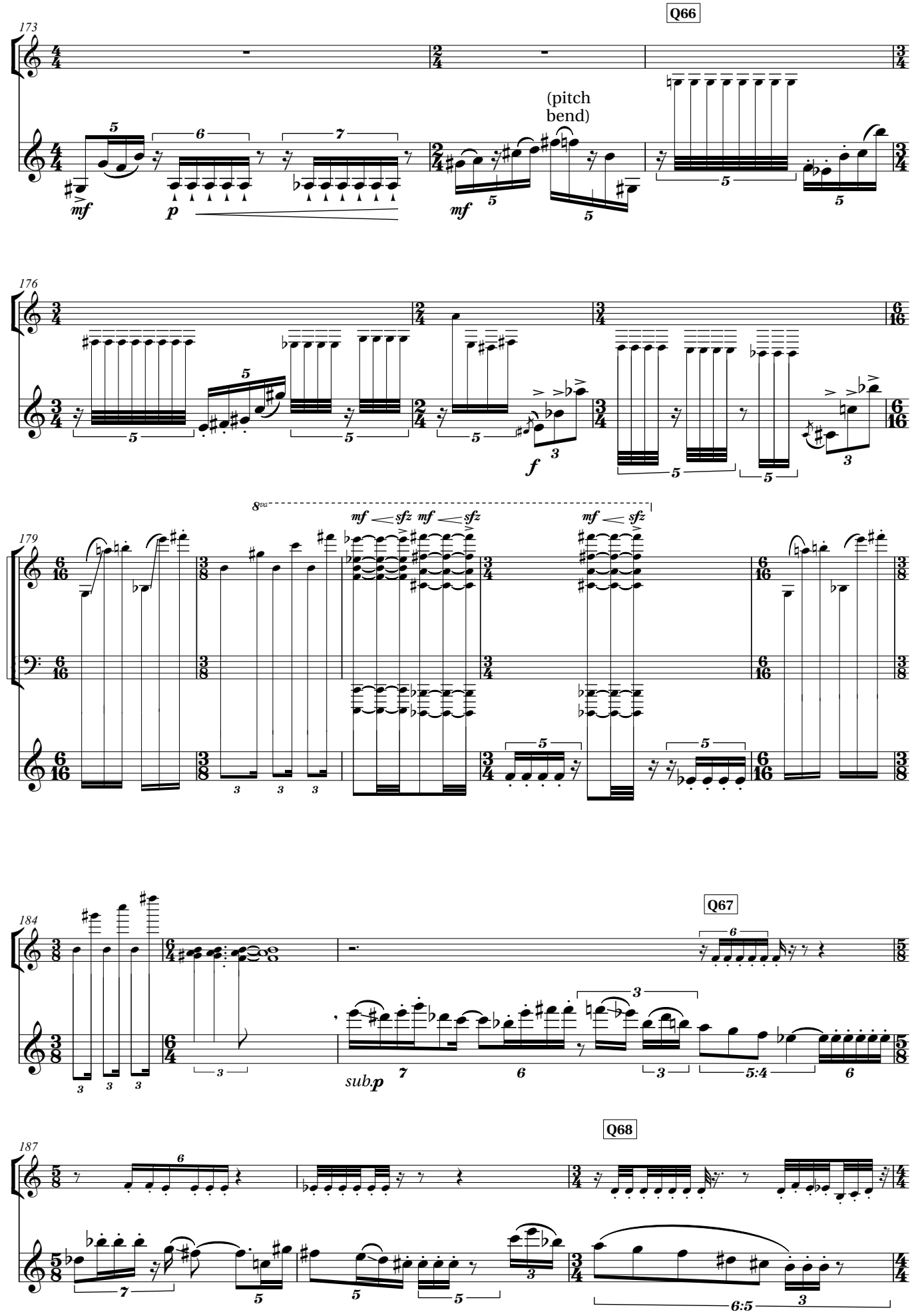

II
Q34
More freely
Q35
Q36
Mime:
Play:
Mime:
Play:
Q37
Q38
Q39
(3+3+2)
(lip down)
4:3
sim.
sim.
Q40
Q41
(2+3+3)
(pitch bend)
(3+2+3)
(pitch-bend)

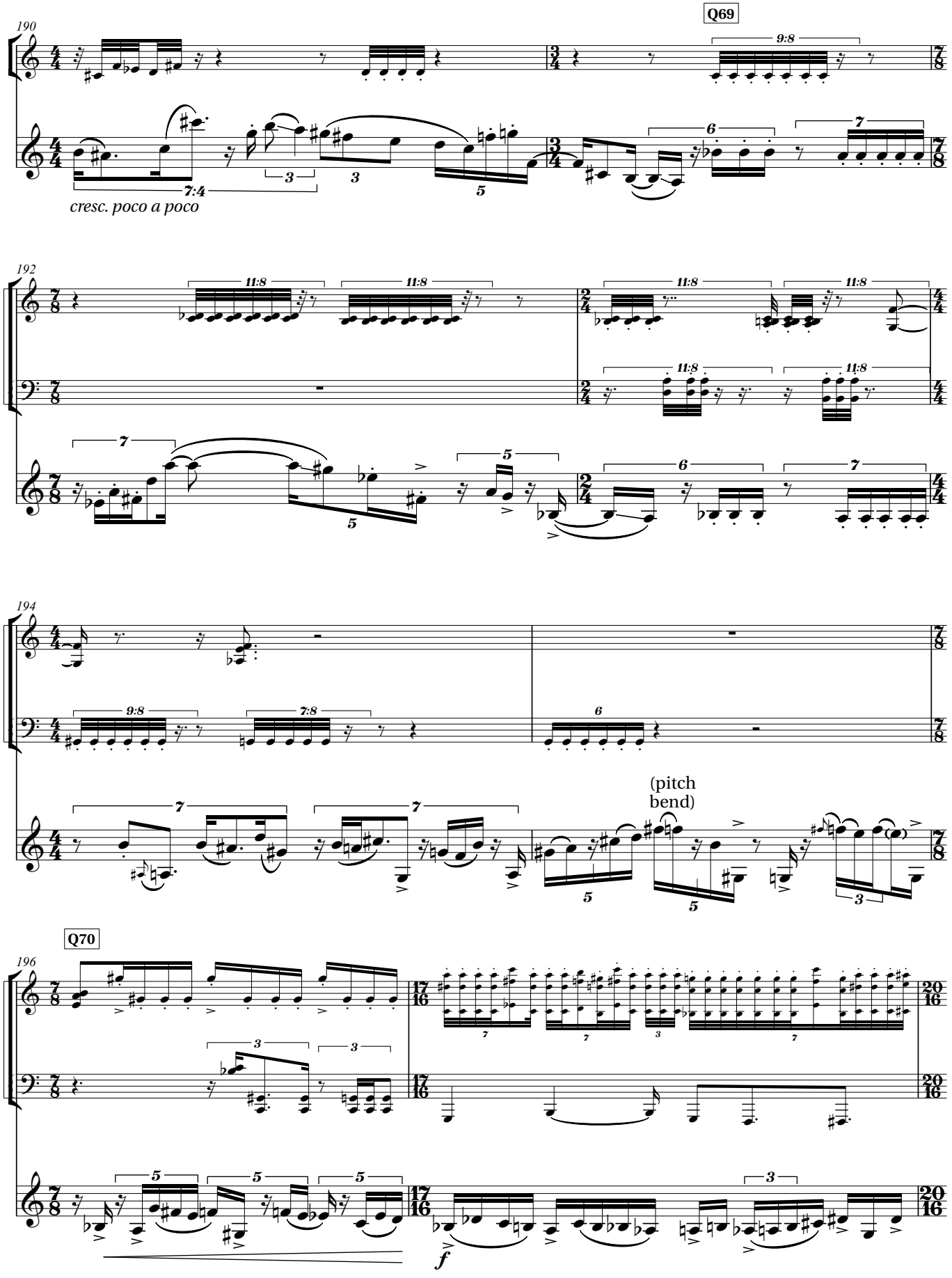

Q42
Q43
Q44
Q45
104
Trill E key:
4:3
sim.
Q46
Q47
110
Q48
Q49
Q50
Q51
115
molto
molto
molto
f

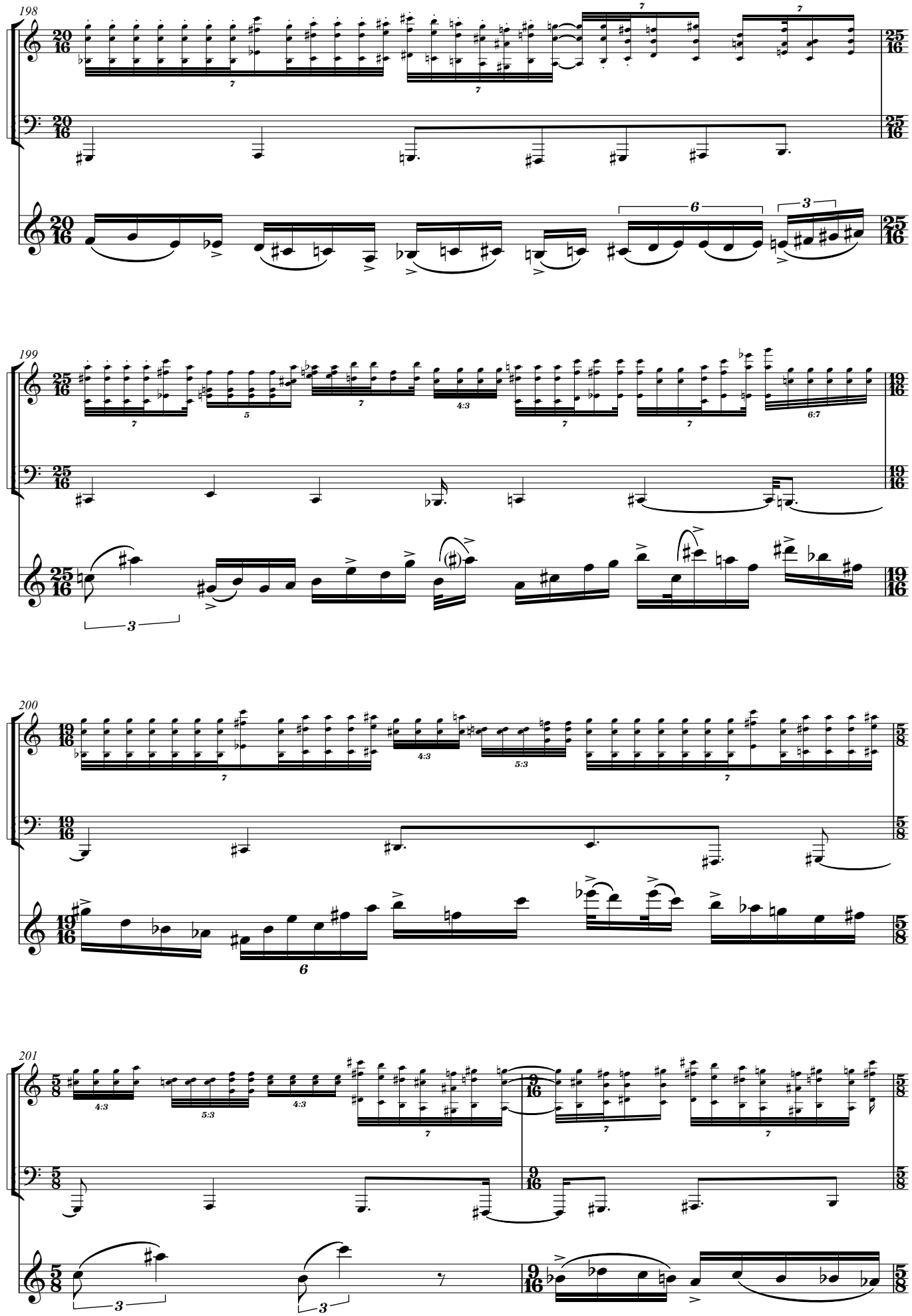

Q52
Q53
120
(lip down)
Mime the
bass note
molto sim.
8vb
Q54
126
5
3
4:3
4:3
4:3
Q55
131
pp
7:6
7:6
pp
molto
p

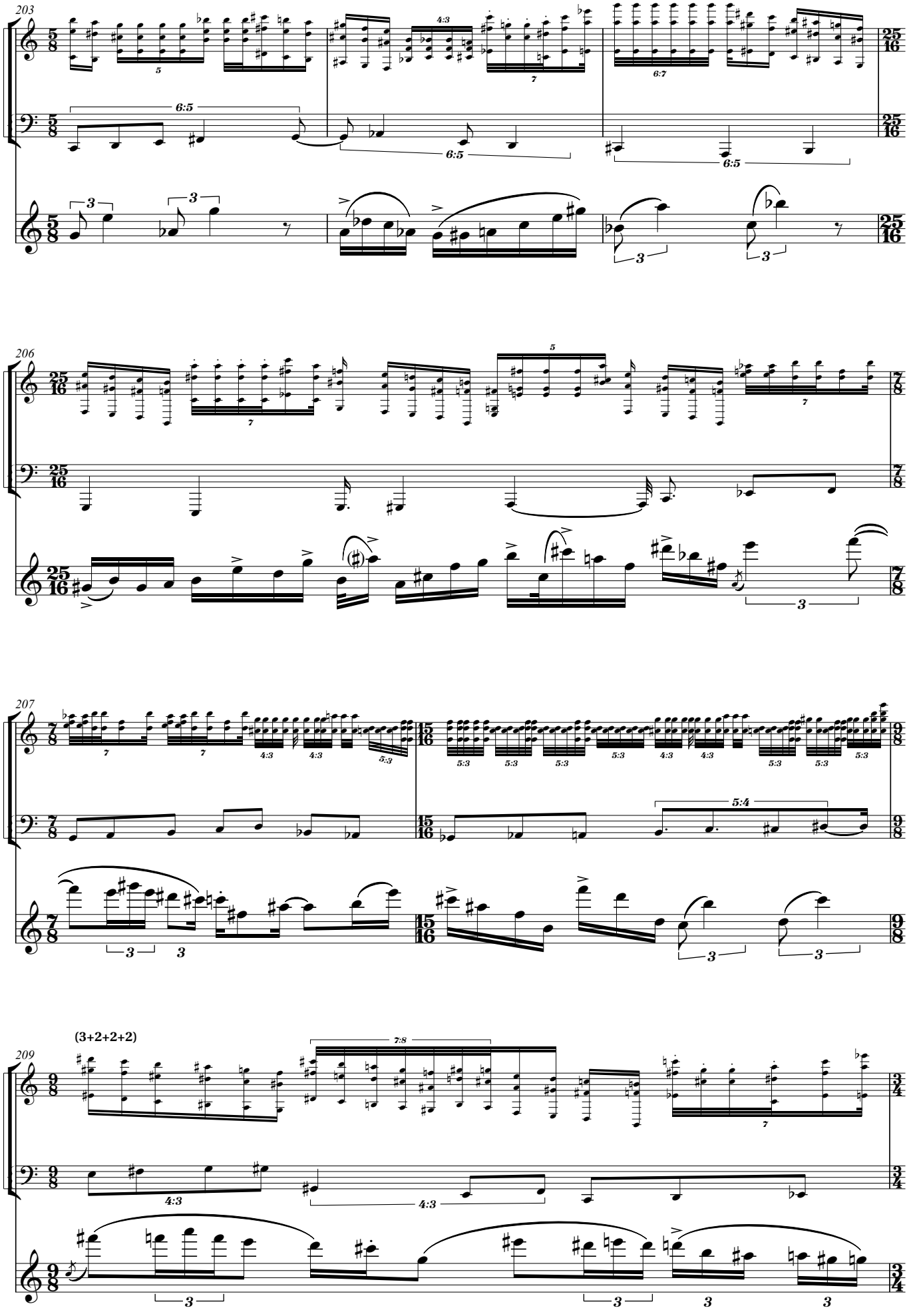

137
p
Mime:
III
Slightly faster (♩.=50)
144
11:12
11:12
5:6
very long
Play:
(lip bend)
3
mf pp
(mime the pre-recorded notes)
Q58
Q59
Q60
reversed audio:
149
3
3
8:6
7:6
4:3
sub.p sfz
sub.p sfz
sub.p sfz
norm.
molto
molto
molto
imitate reversed audio
153
5:4
5
4:3
5:3
4:3
3
5
8:6
8:6
10:6
f

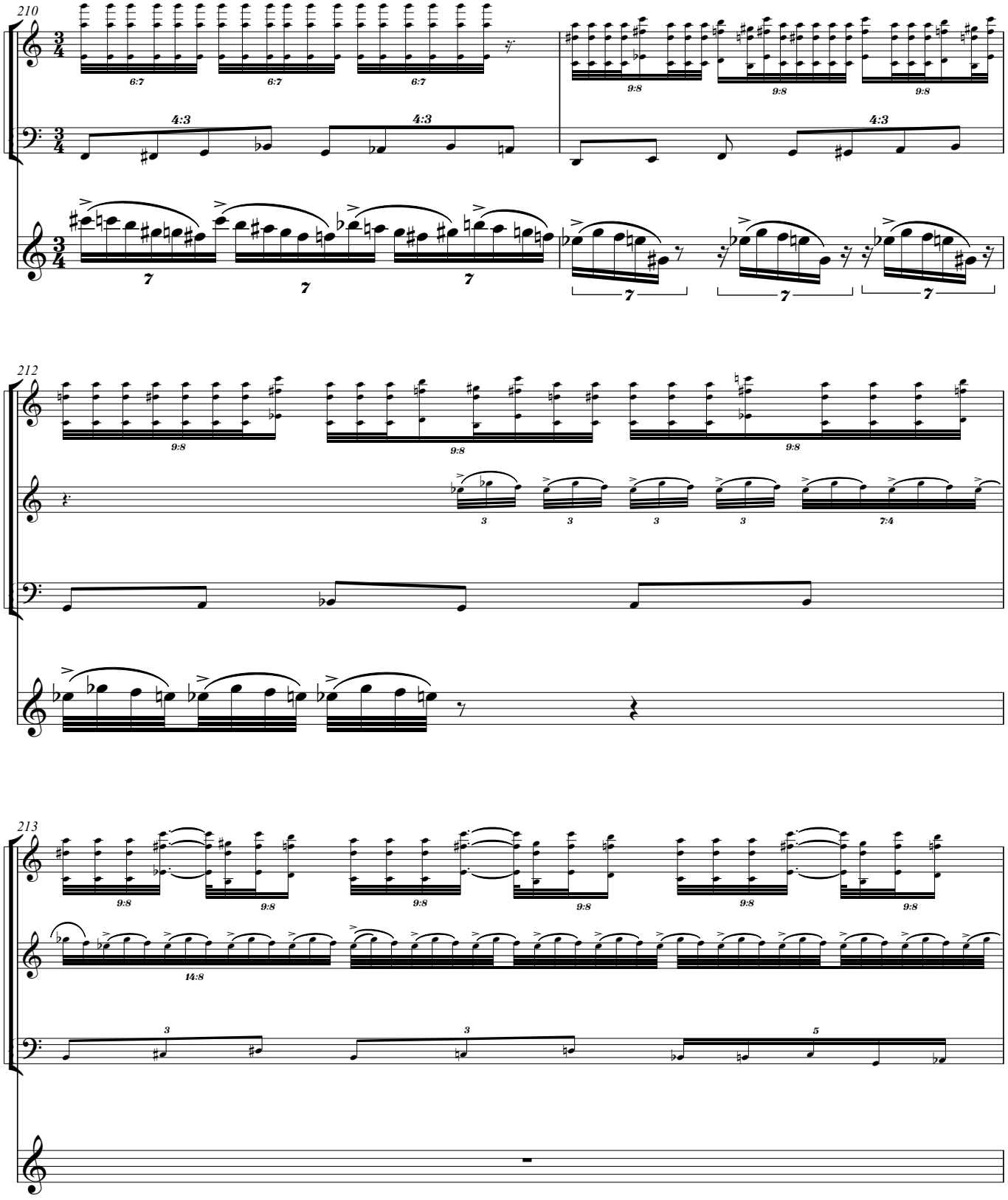

156
Q61
gliss.
Q62
gliss.
161
p
163
(6+2+3)
5:3
4:3
sub.p molto sfz
sub.p molto sfz
p
imitate reversed audio
165
Q63
5:3
7:4
15
f
Q64
8va
166
15
5
Q65
169
3
weep
3
weep
6
p
7:4
mf
6:4
p

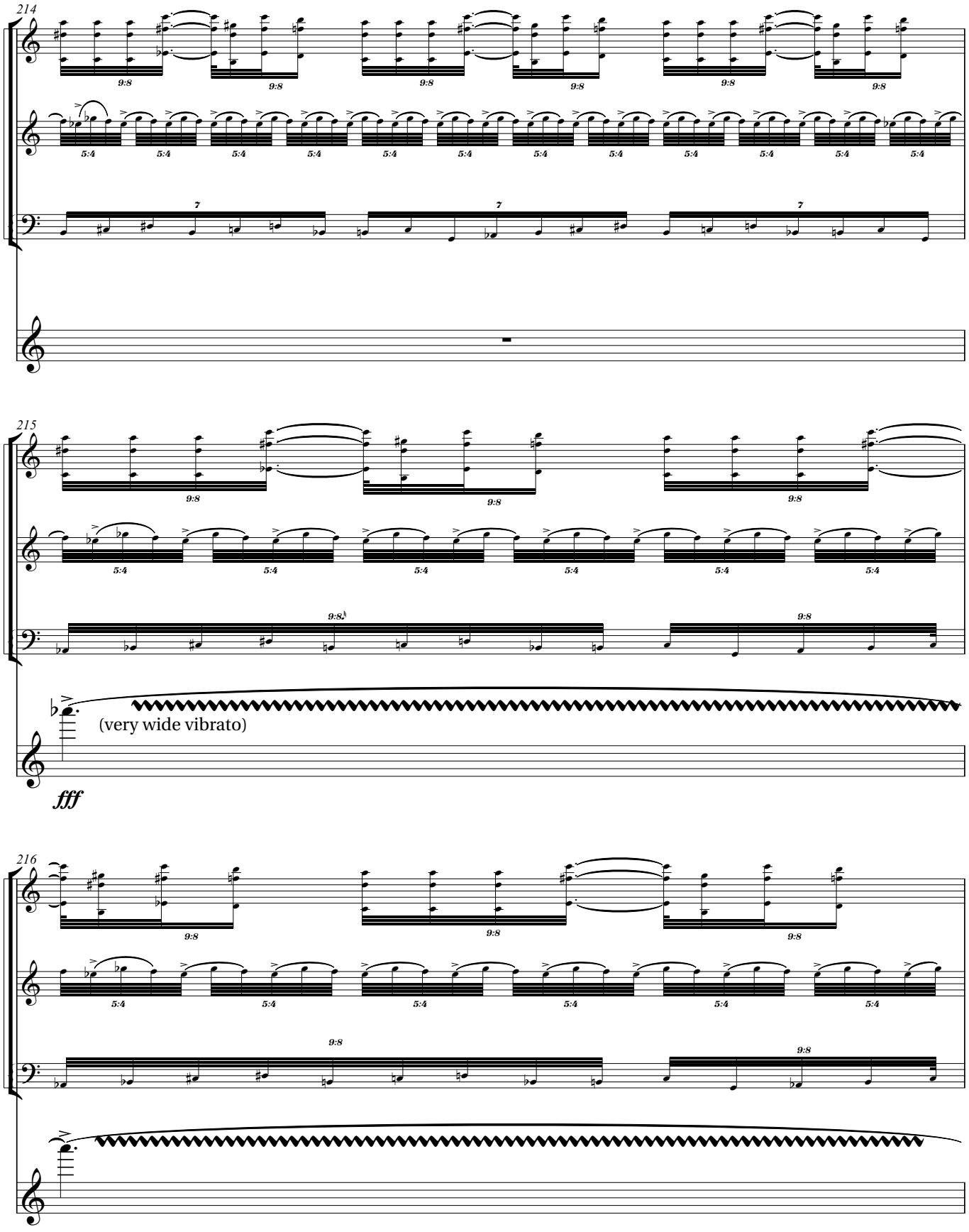

Q66
(pitch bend)
Q67
Q68
sub.p

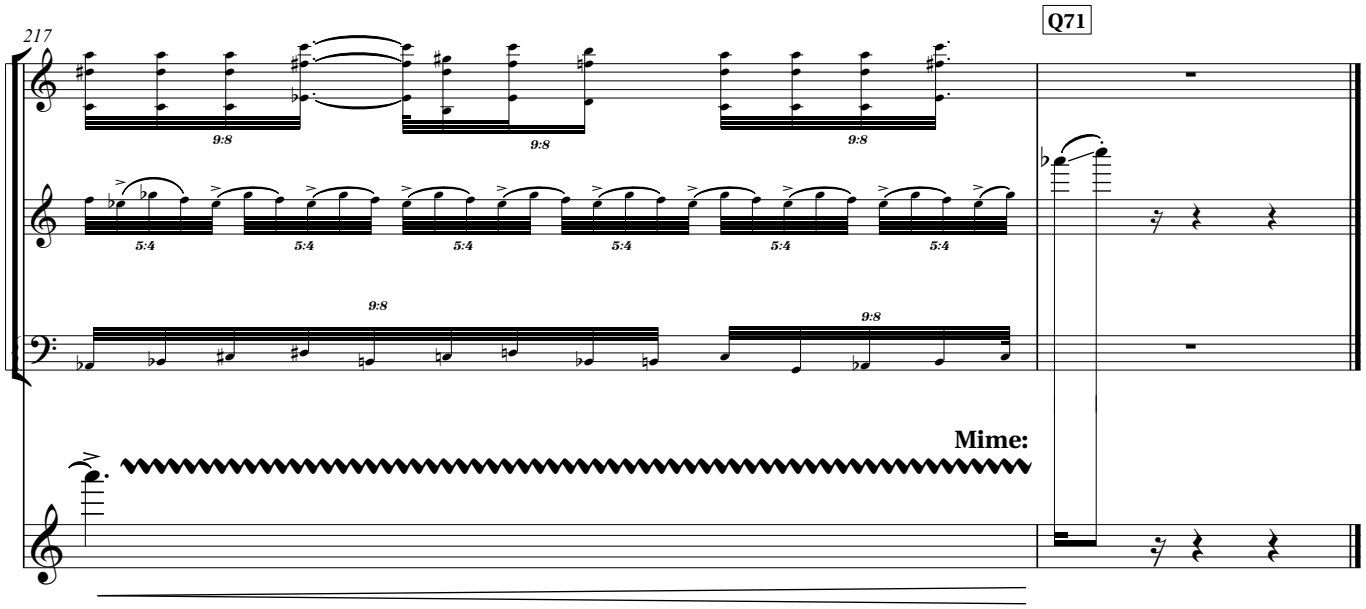

190
Q69
9:8
7:4
cresc. poco a poco
192
11:8
194
9:8
7:8
(pitch
bend)
196
Q70
f


198
199
200
201


203
206
207
(3+2+2+2)
209


210
212
213


214
9:8
5:4
7
215
9:8
5:4
9:8
(very wide vibrato)
fff
216
9:8
5:4
9:8


217
Q71
9:8
9:8
9:8
5:4
5:4
5:4
5:4
5:4
5:4
9:8
9:8
Mime:

Thomas Butler

Replaceable Parts for the Irreplaceable You

For ensemble, pre-recorded sound and video.

Replaceable Parts for the Irreplaceable You (2013)

By Thomas Butler

For ensemble, pre-recorded sound and video.

I. Circuit breakers
II. Karaoke cello sonata
III. Compatibility issues
IV. Instructions for curing the human heart

Score in C

Duration: 25 minutes

The first performance of the original version of this work was given by Red Note Ensemble with MusicLab, conducted by Jessica Cottis, on 3rd May 2013 at the Royal Conservatoire of Scotland, Glasgow. The first performance of this revised version was given by Ensemble Thing on 15th August 2015 at Summerhall, Edinburgh.

Instrumentation

Clarinet in B-flat, doubling Bass Clarinet in B-flat
Accordion (Stradella bass)
Violin
Cello

The ensemble play to clicktrack throughout.

Pre-recorded soundtrack and video

The pre-recorded soundtrack has been notated in the score. However, please note that for the sake of legibility, not every sound has been notated. In addition to the .wav files supplied for the backing track and clicktracks, two .mp4 video files have been provided. These videos are to be projected behind the ensmeble during the second and fourth movements.

Amplification

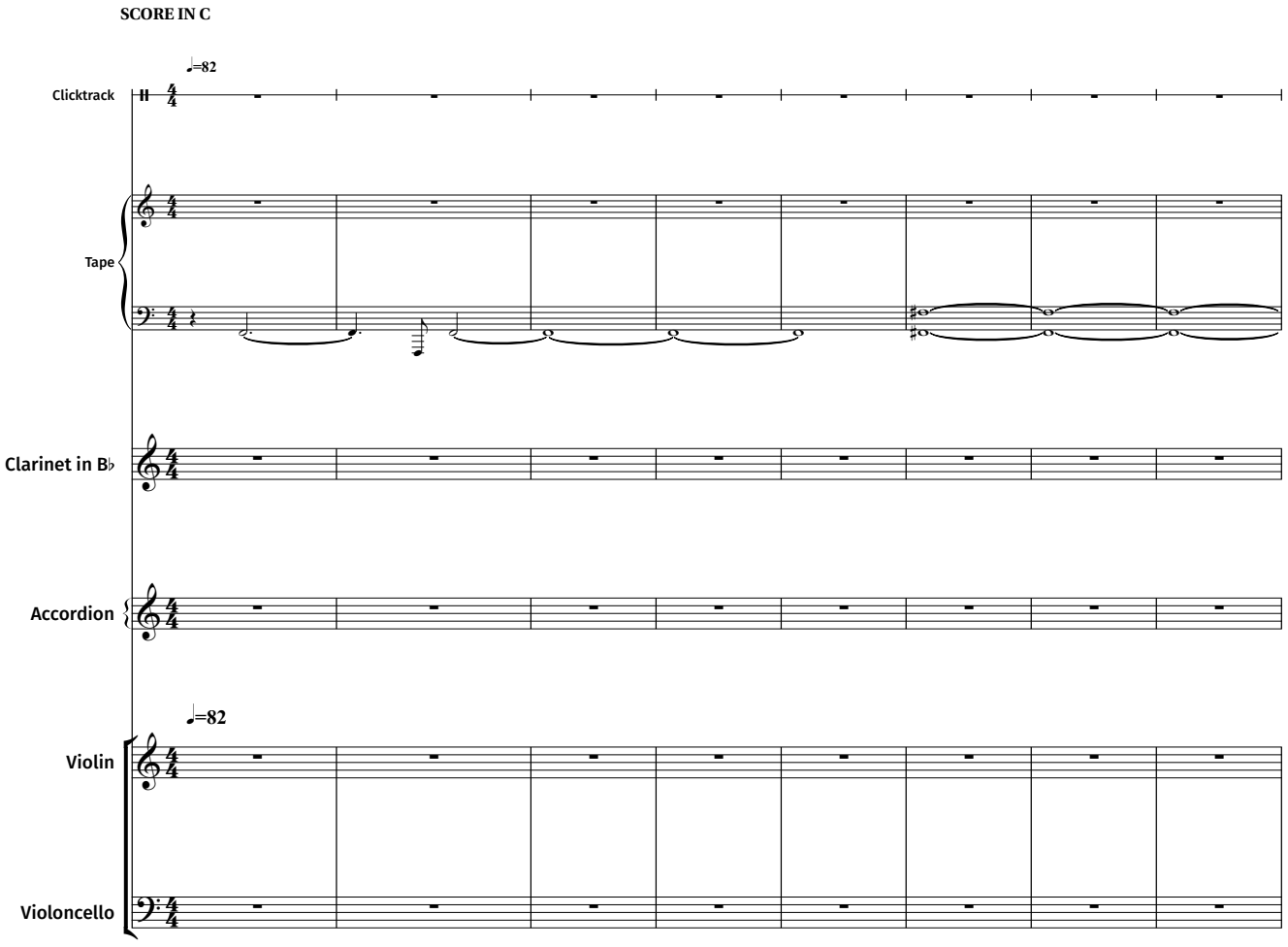
The ensemble should play unamplified throughout, except the cello which should be slightly amplified during the second movement.

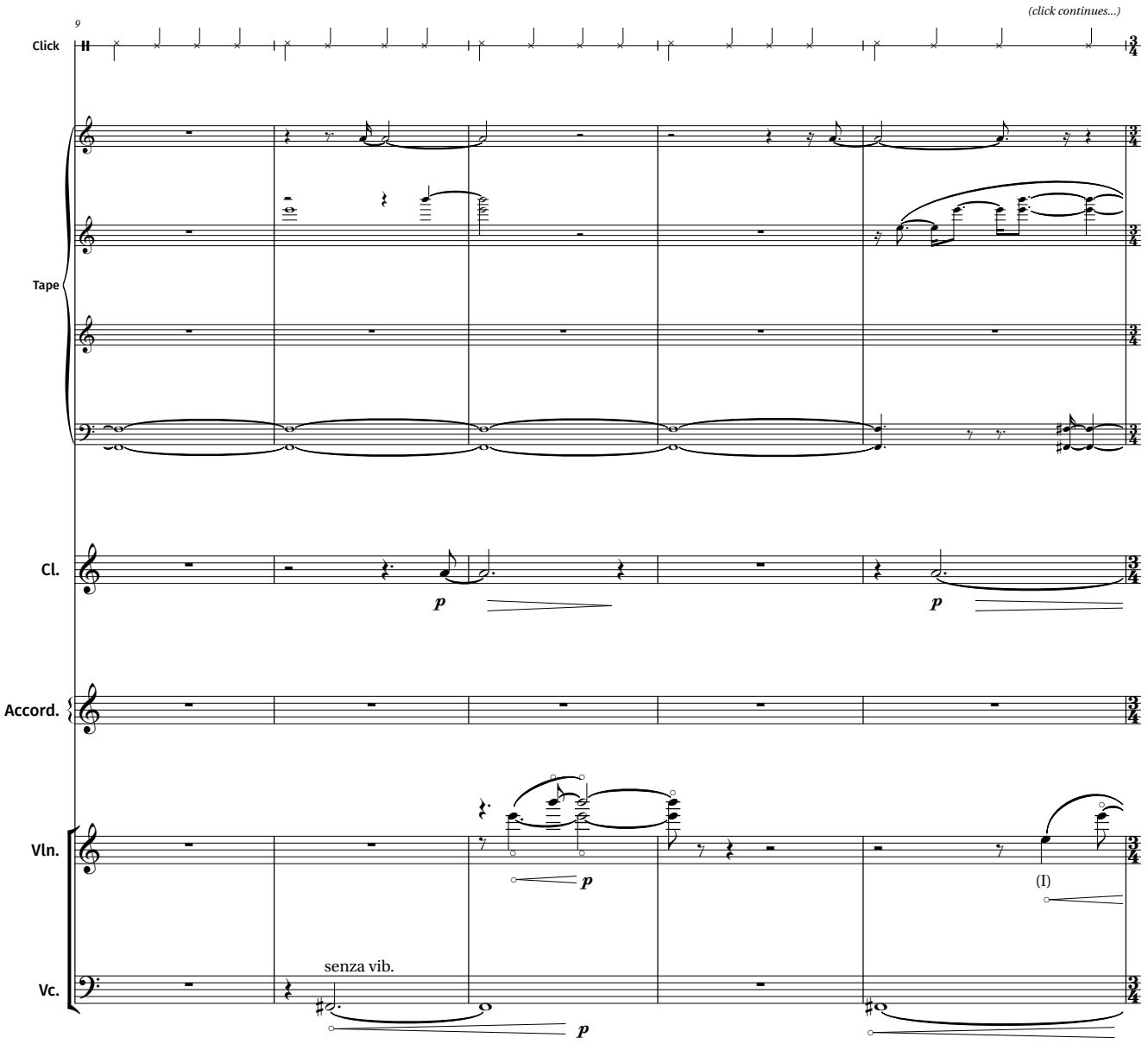
Replaceable Parts for the Irreplaceable You

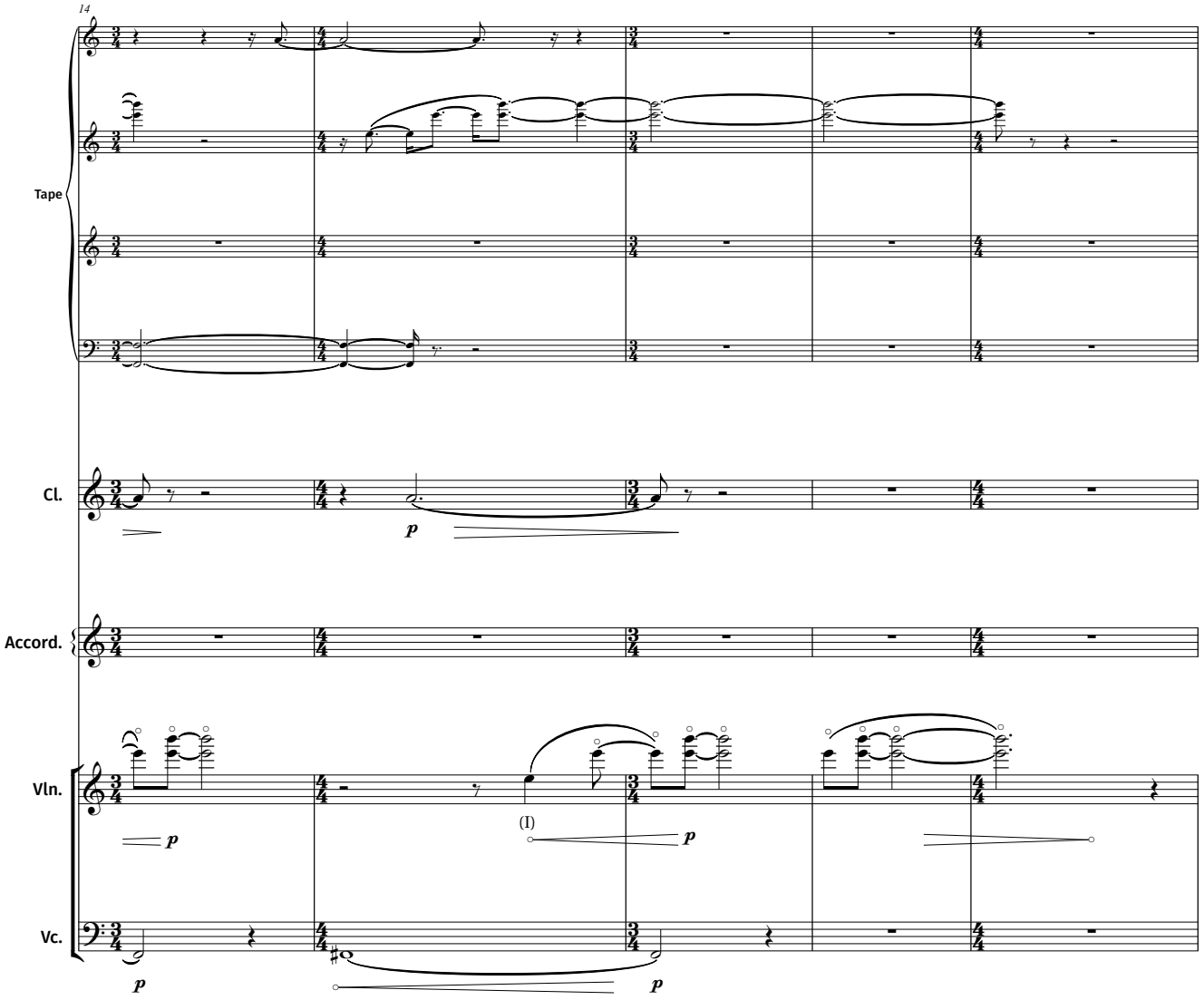
Thomas Butler

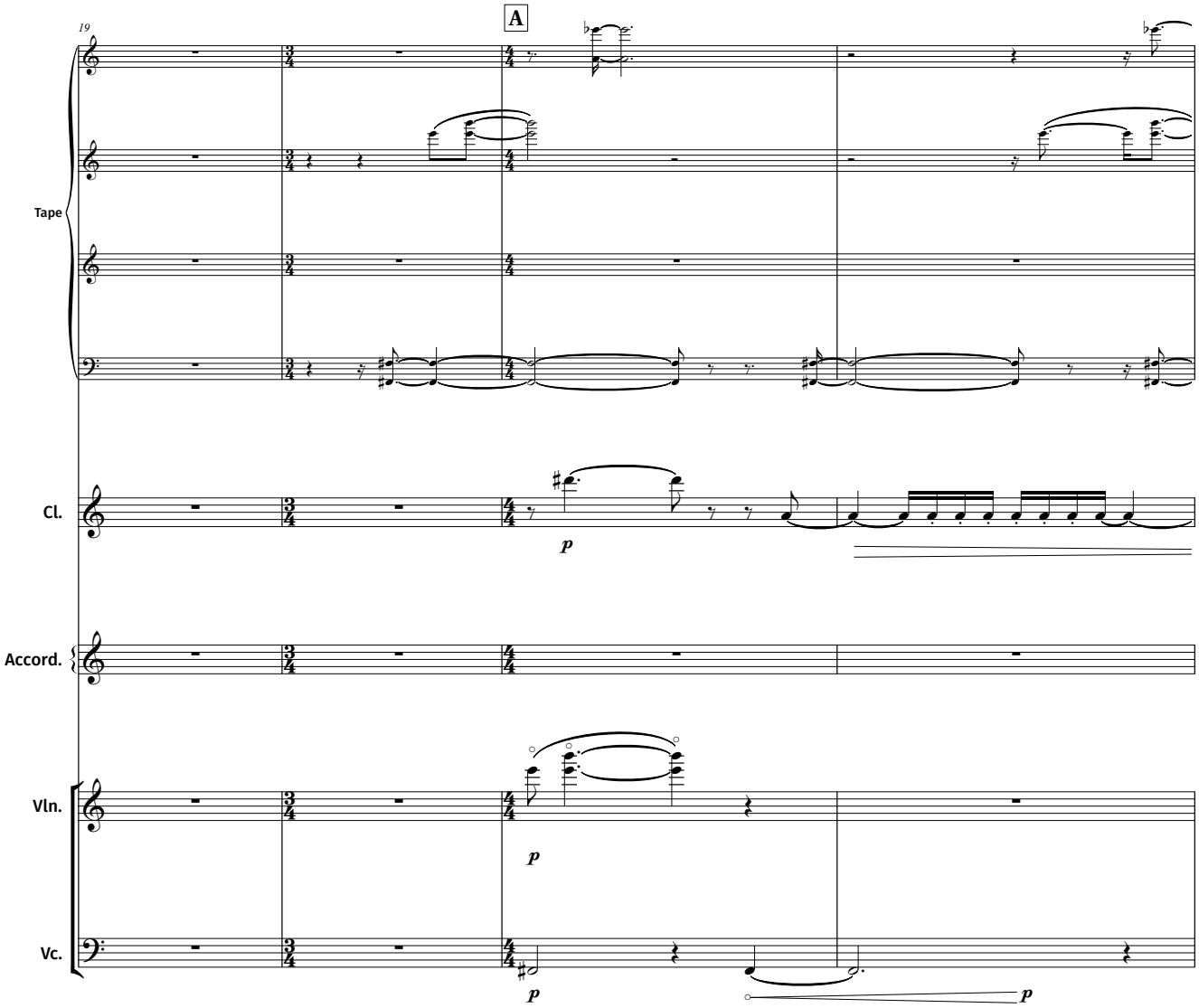
When the audience enters the auditorium, the ensemble are already on stage. They are sitting in silence in near-darkness, already wearing the headphones that deliver the clicktrack. As the audience takes their seats, the pre-recorded introductory soundtrack (RPFTIY_intro.wav) is playing on a loop. When the audience are seated, the introduction slowly fades away and the first movement begins.

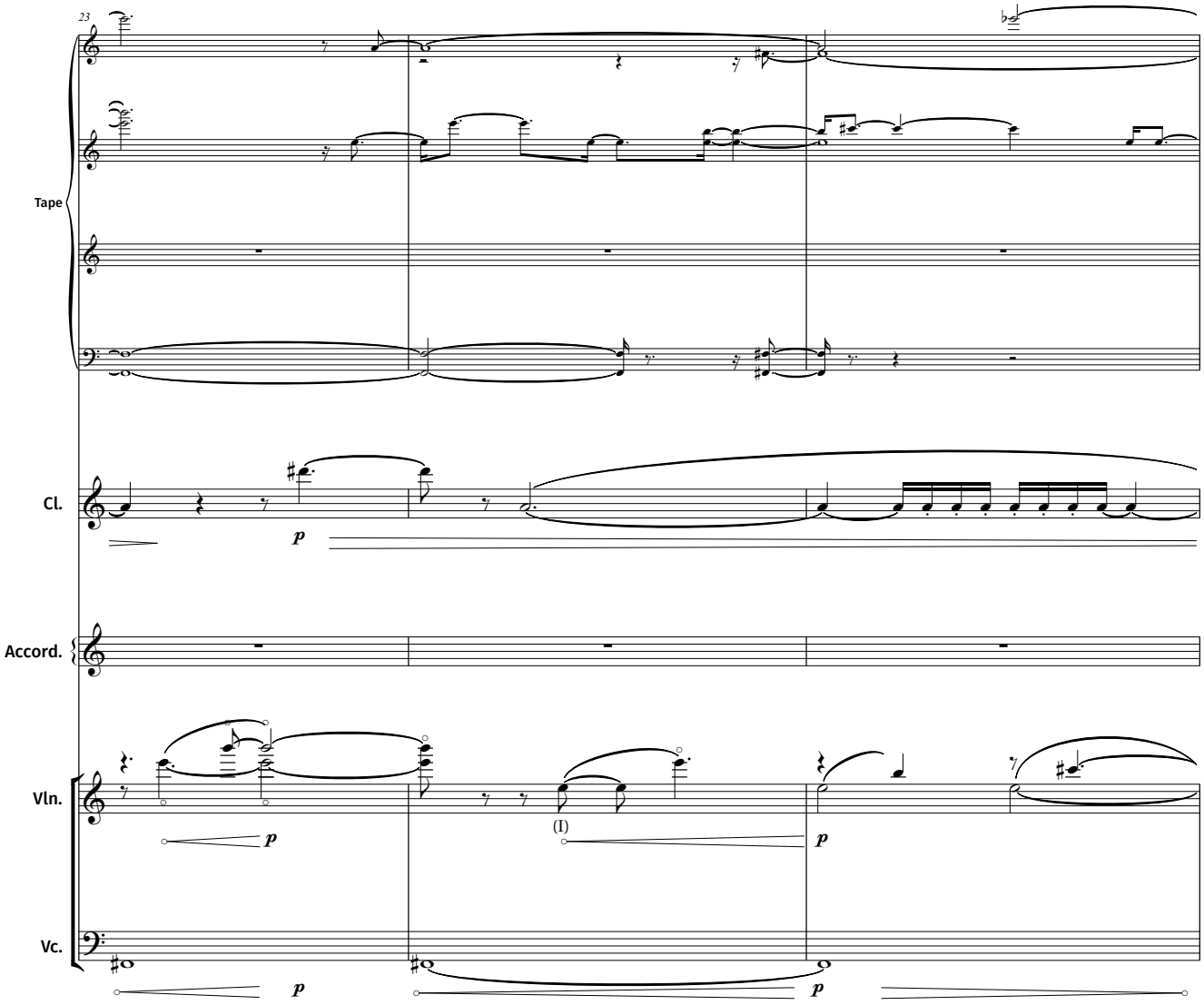
1. Circuit Breakers

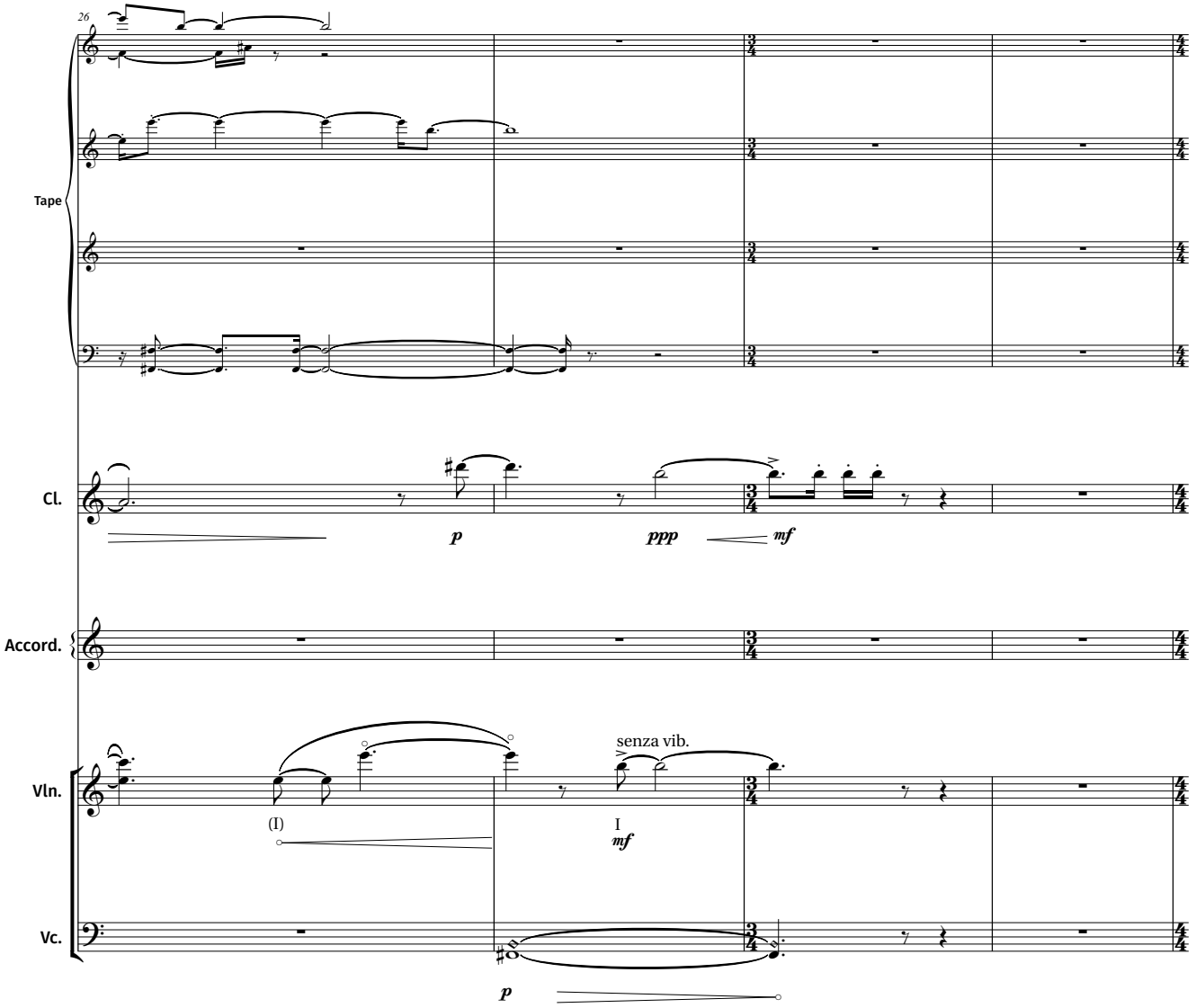


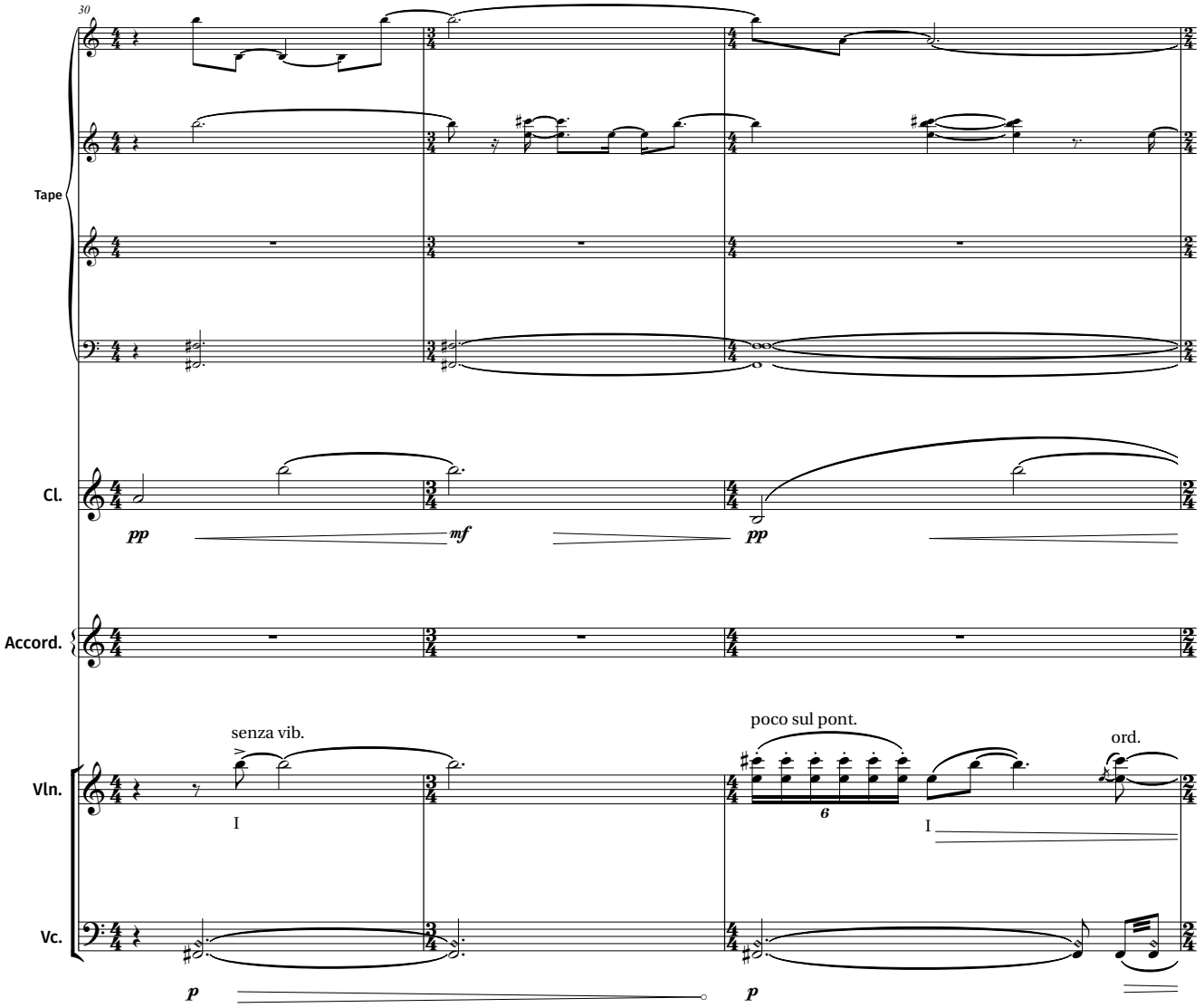

(click continues...)
9
Click
Tape
Cl.
Accord.
Vln.
Vc.
p
p
p
(I)
senza vib.
p

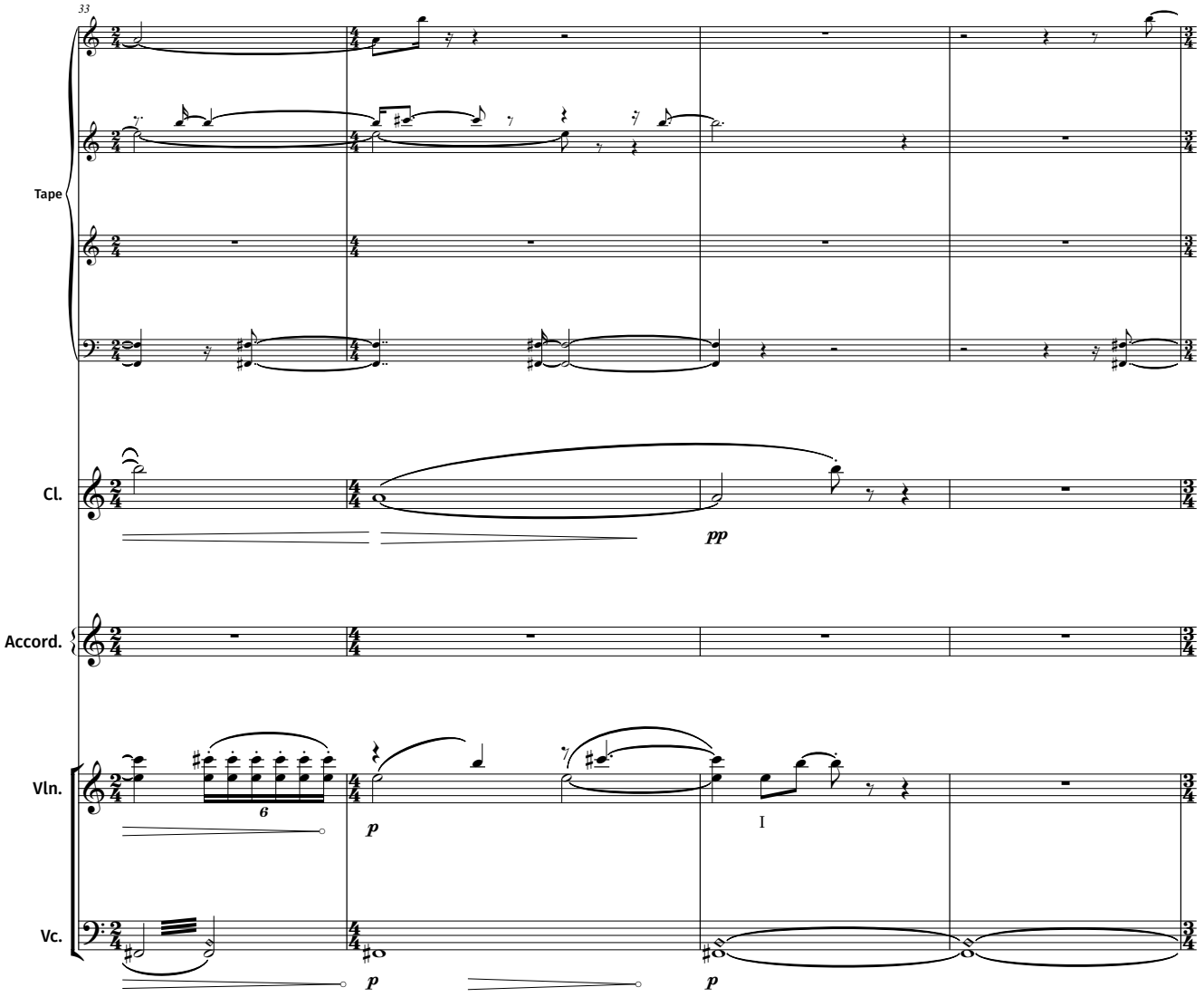

14
Tape
Cl.
Accord.
Vln.
Vc.
p
(I)

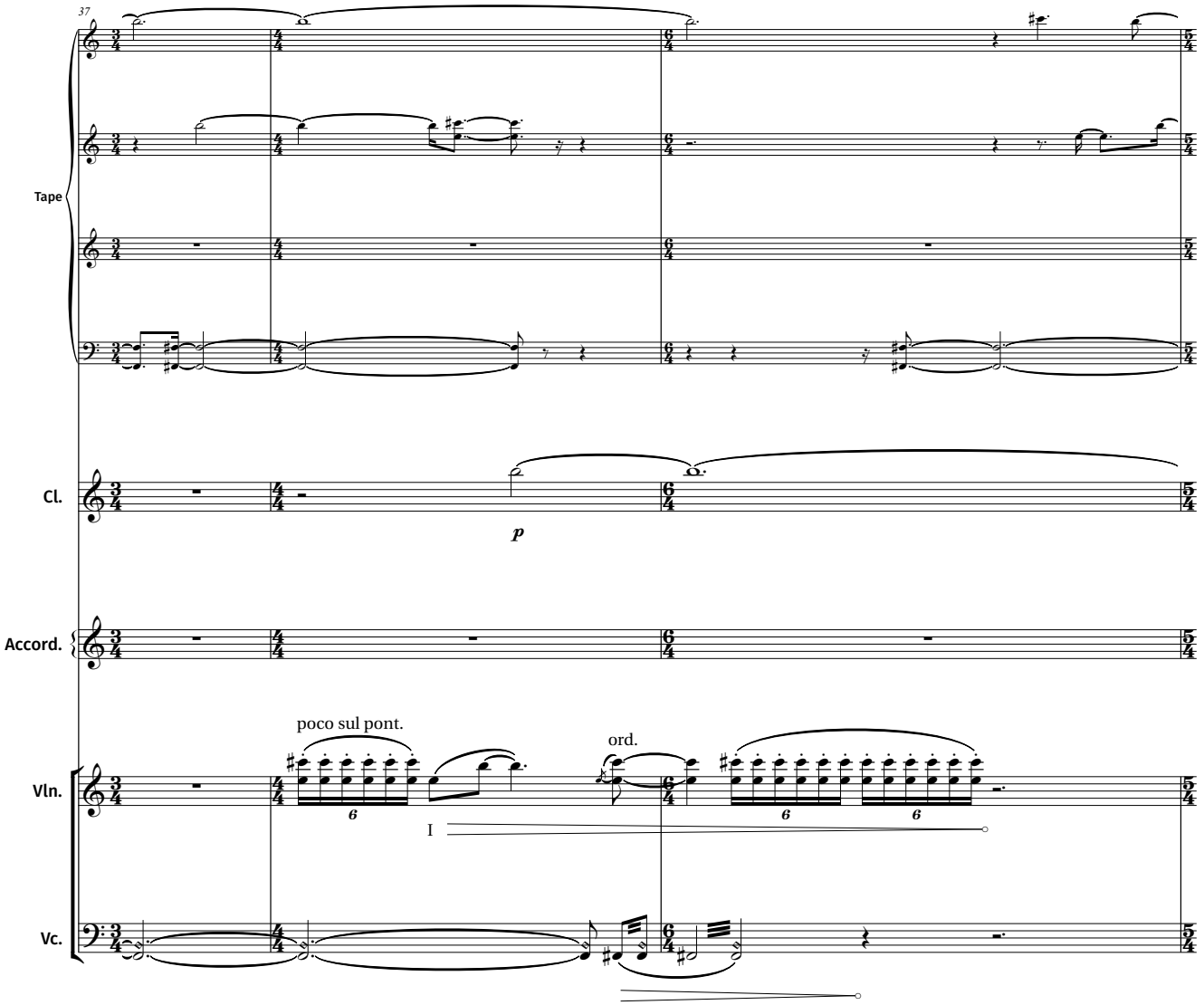

19
A
Tape
Cl.
Accord.
Vln.
Vc.
p
p
p
p

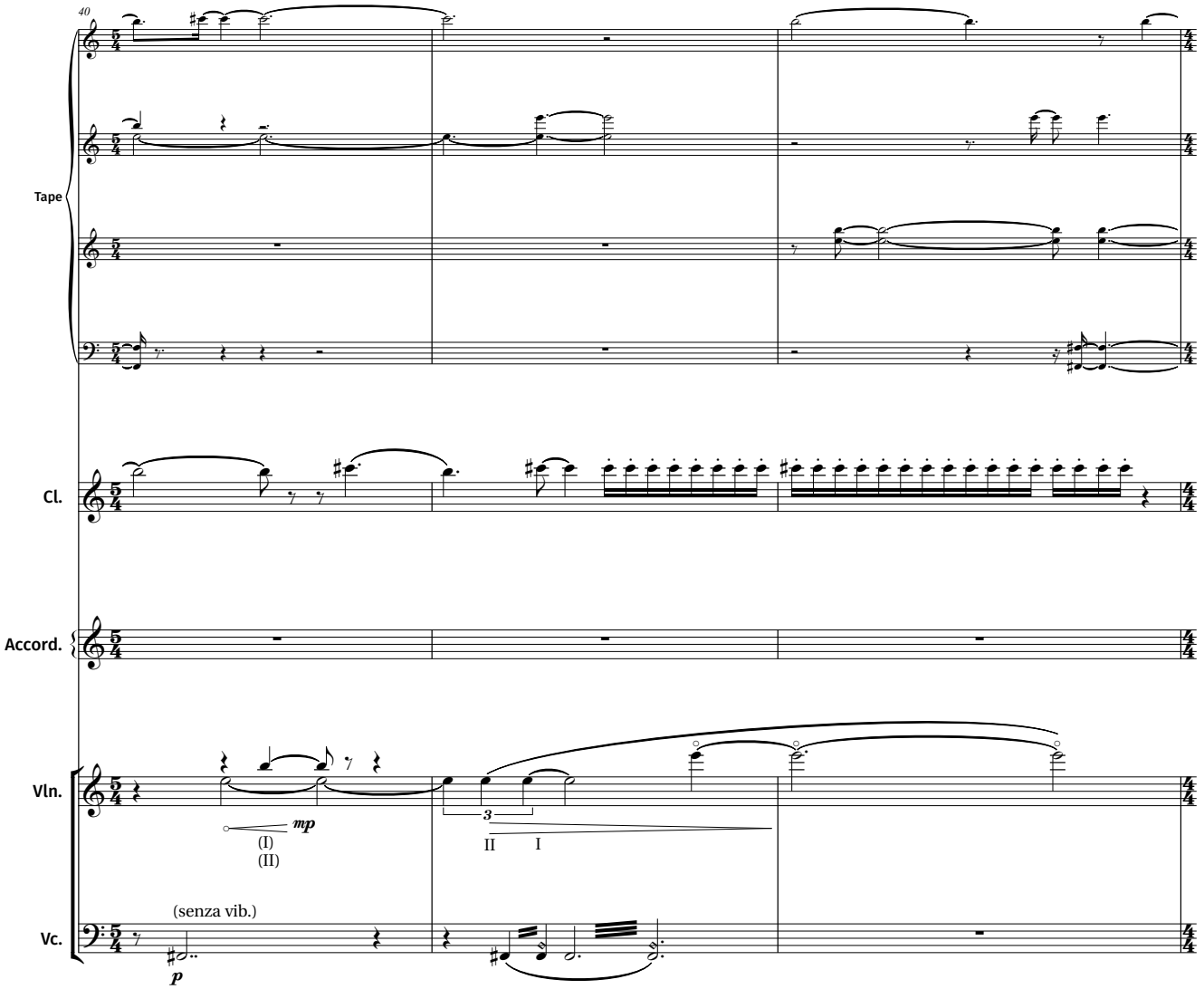

23
Tape
Cl.
Accord.
Vln.
Vc.
p
(I)

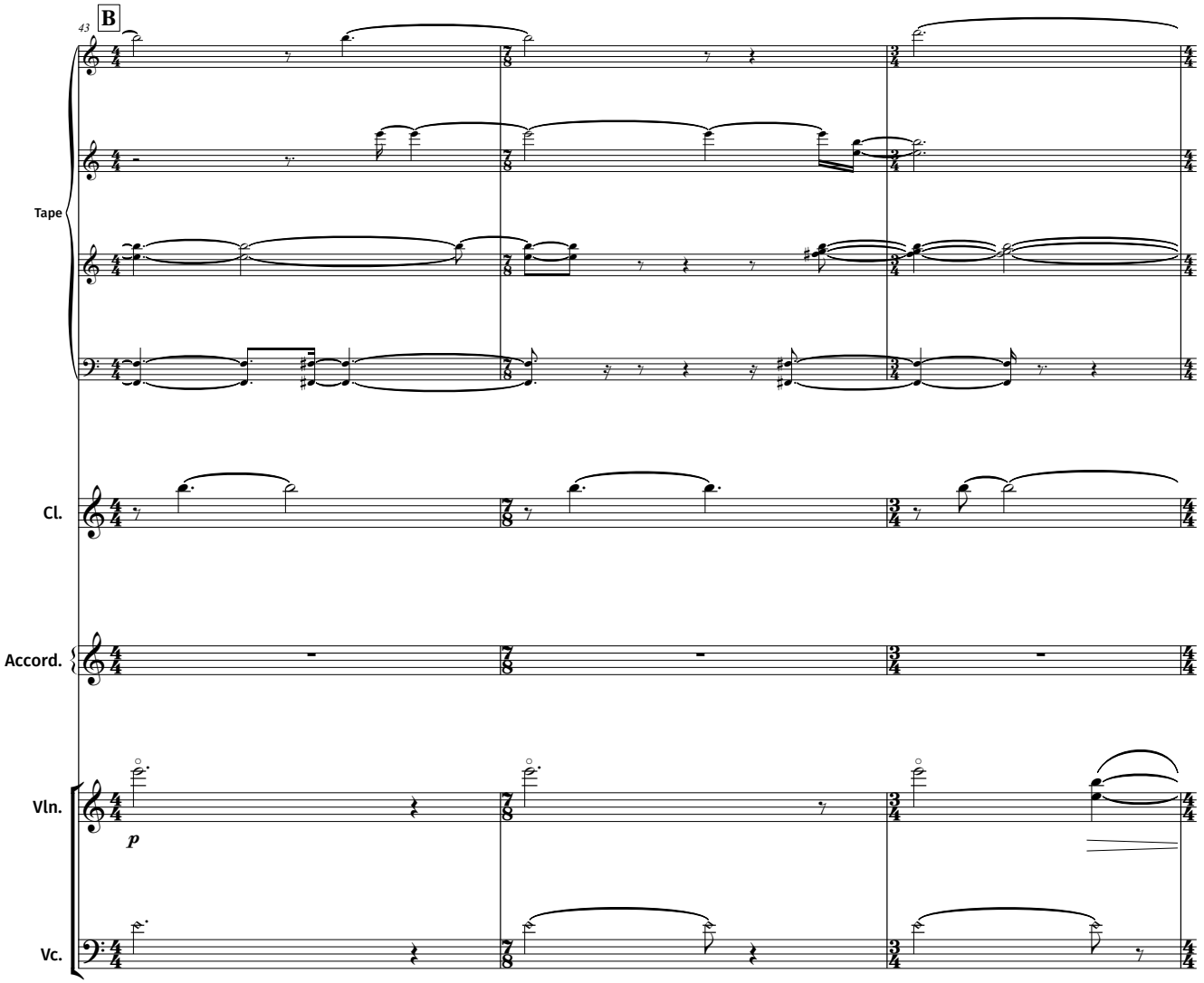

26
Tape
Cl.
p
ppp
mf
Accord.
Vln.
(I)
senza vib.
I
mf
Vc.
p

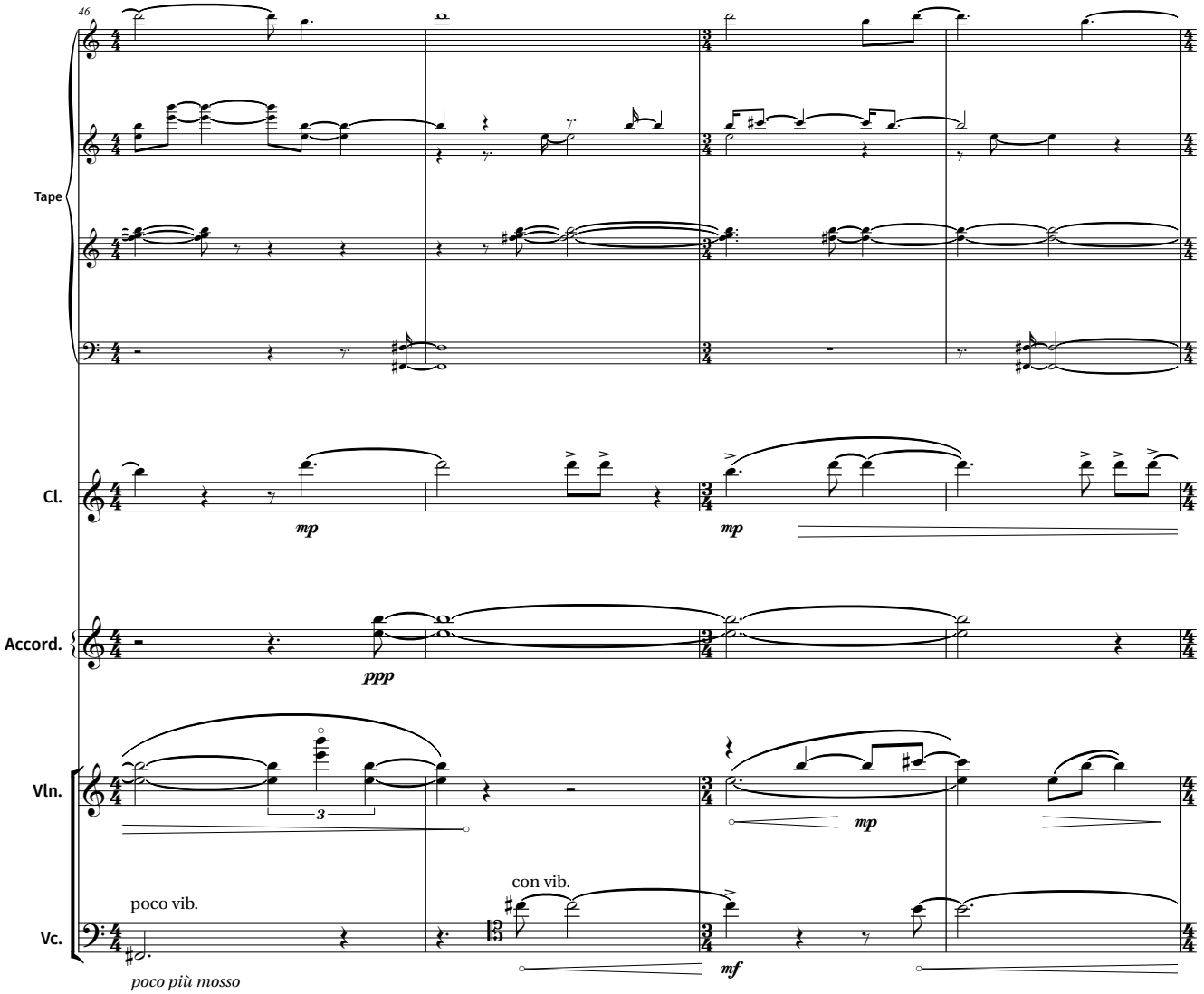

30
Tape
Cl.
pp
mf
pp
Accord.
Vln.
senza vib.
I
poco sul pont.
6
I
ord.
Vc.
p
p

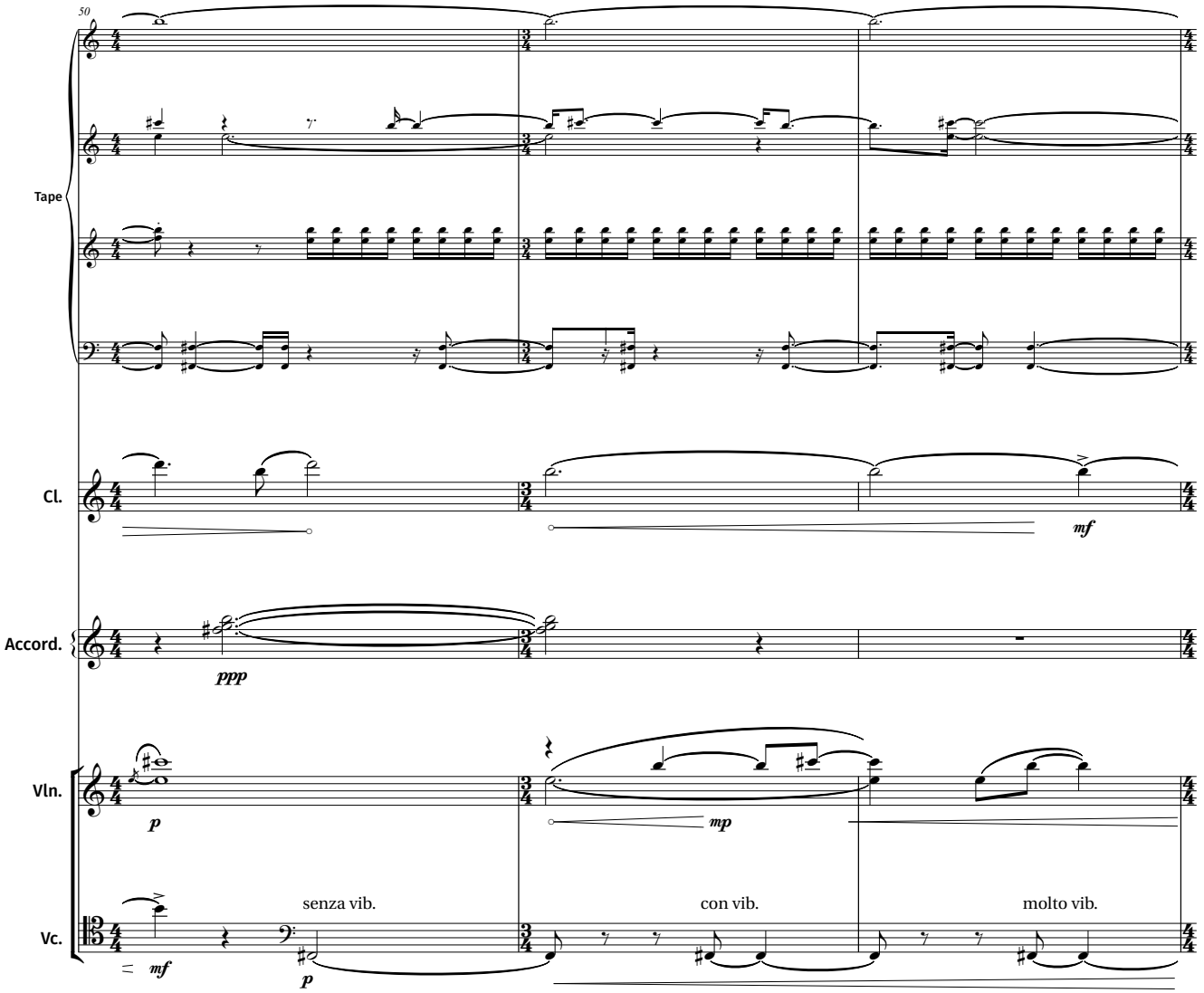

33
Tape
Cl.
pp
Accord.
Vln.
6
p
I
Vc.
p
p

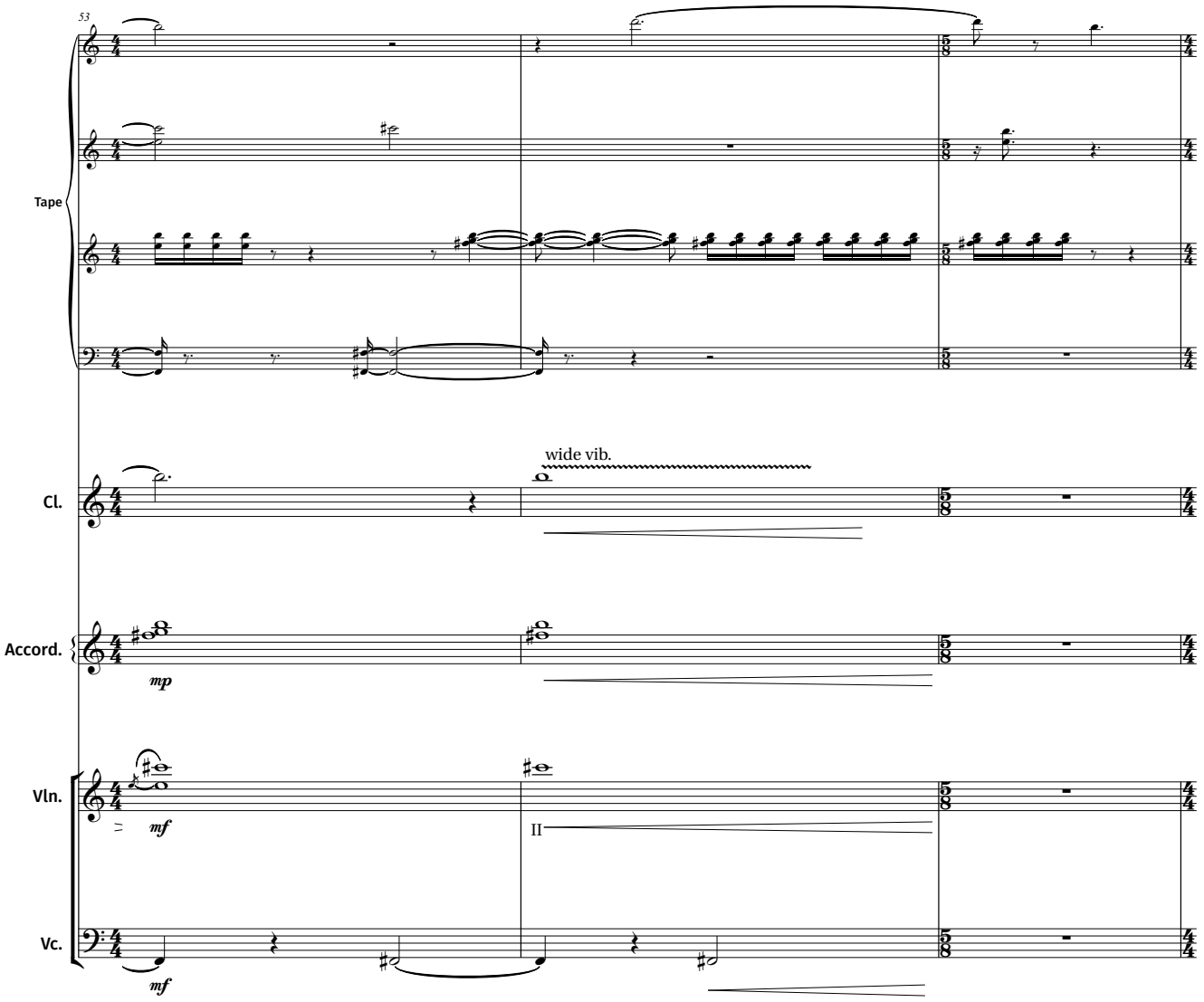

37
Tape
Cl.
p
Accord.
poco sul pont.
ord.
Vln.
I
Vc.

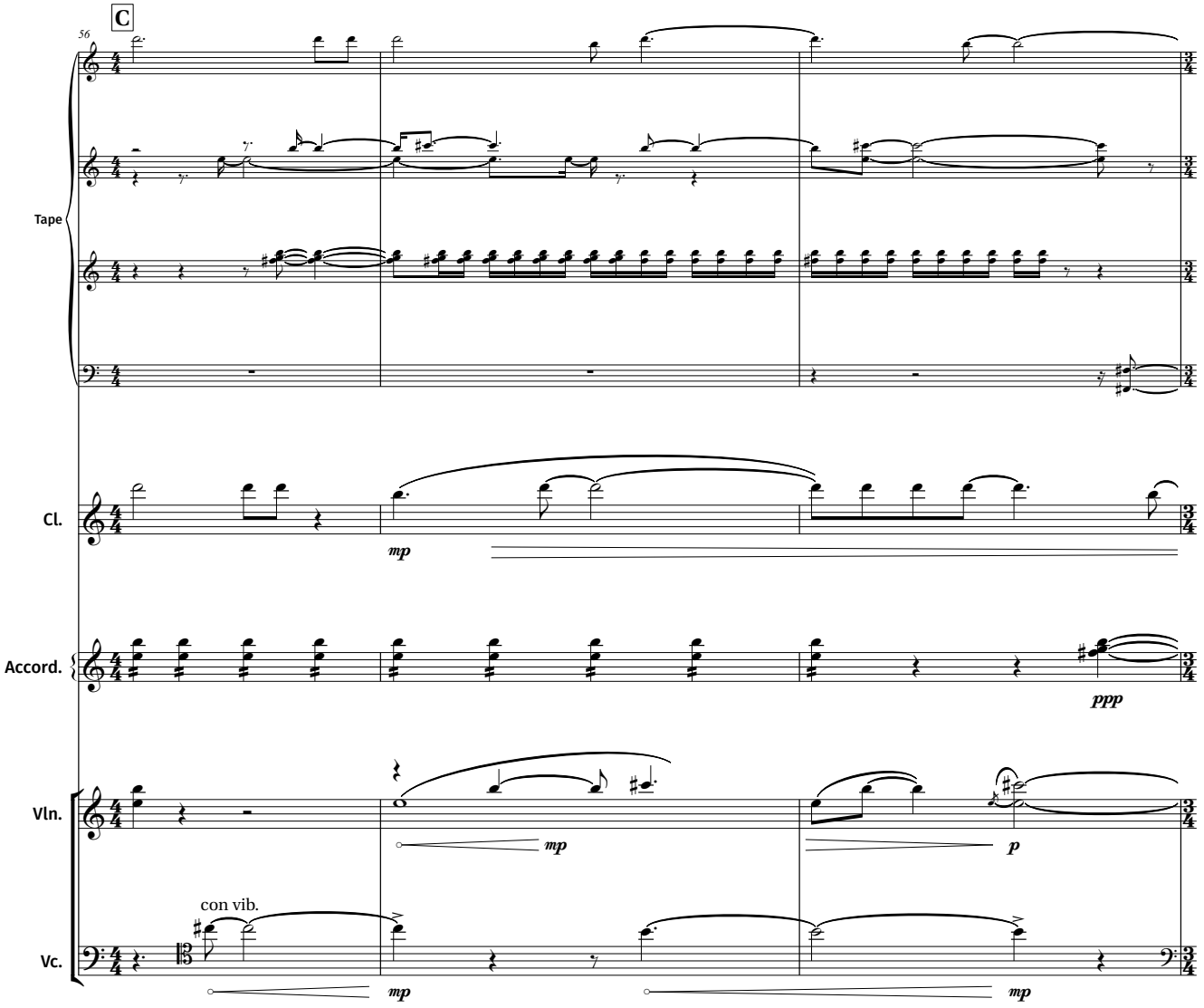

40
Tape
Cl.
Accord.
Vln.
Vc.
mp
(I)
(II)
3
II I
(senza vib.)
p

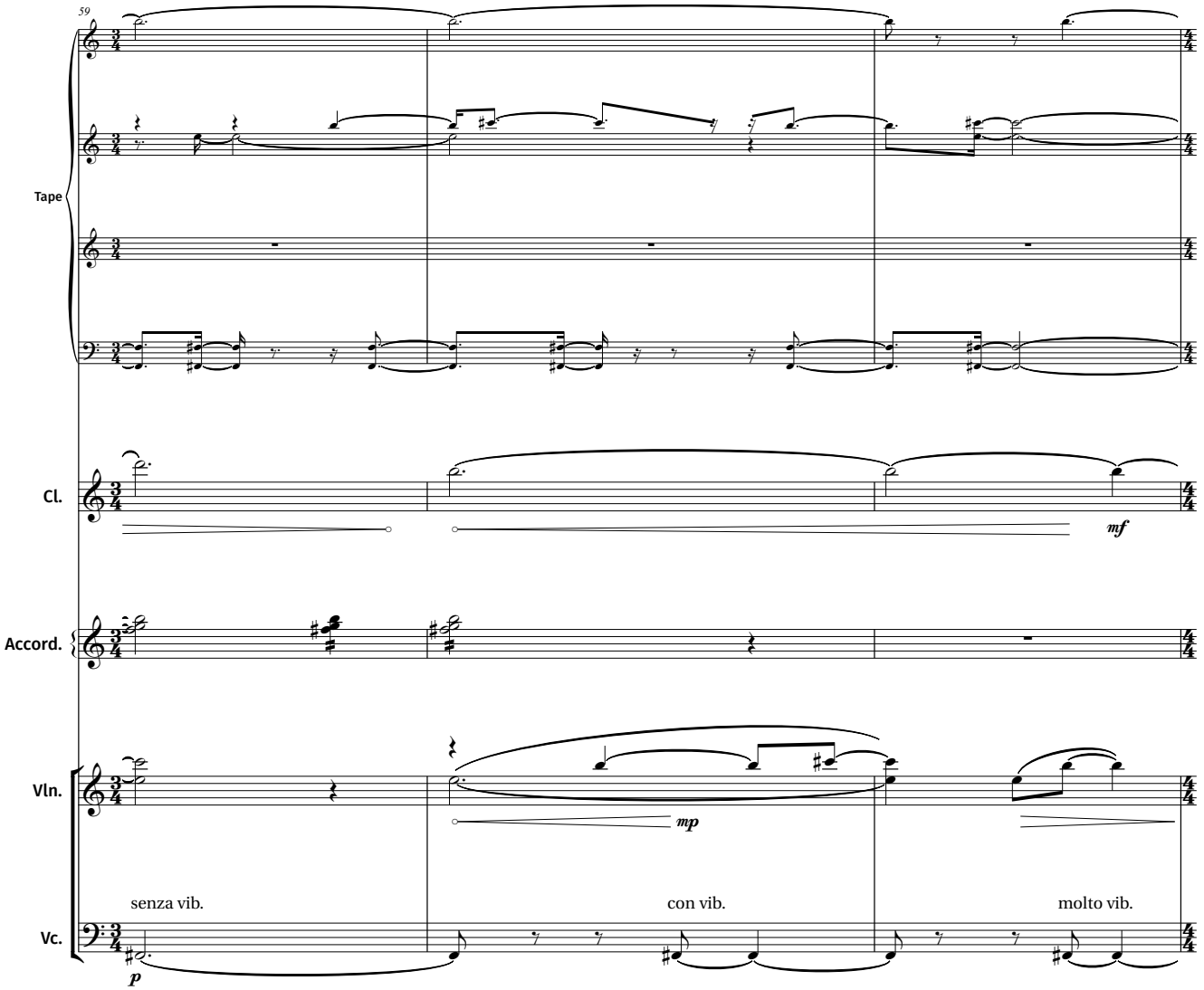

43
B
Tape
Cl.
Accord.
Vln.
p
Vc.

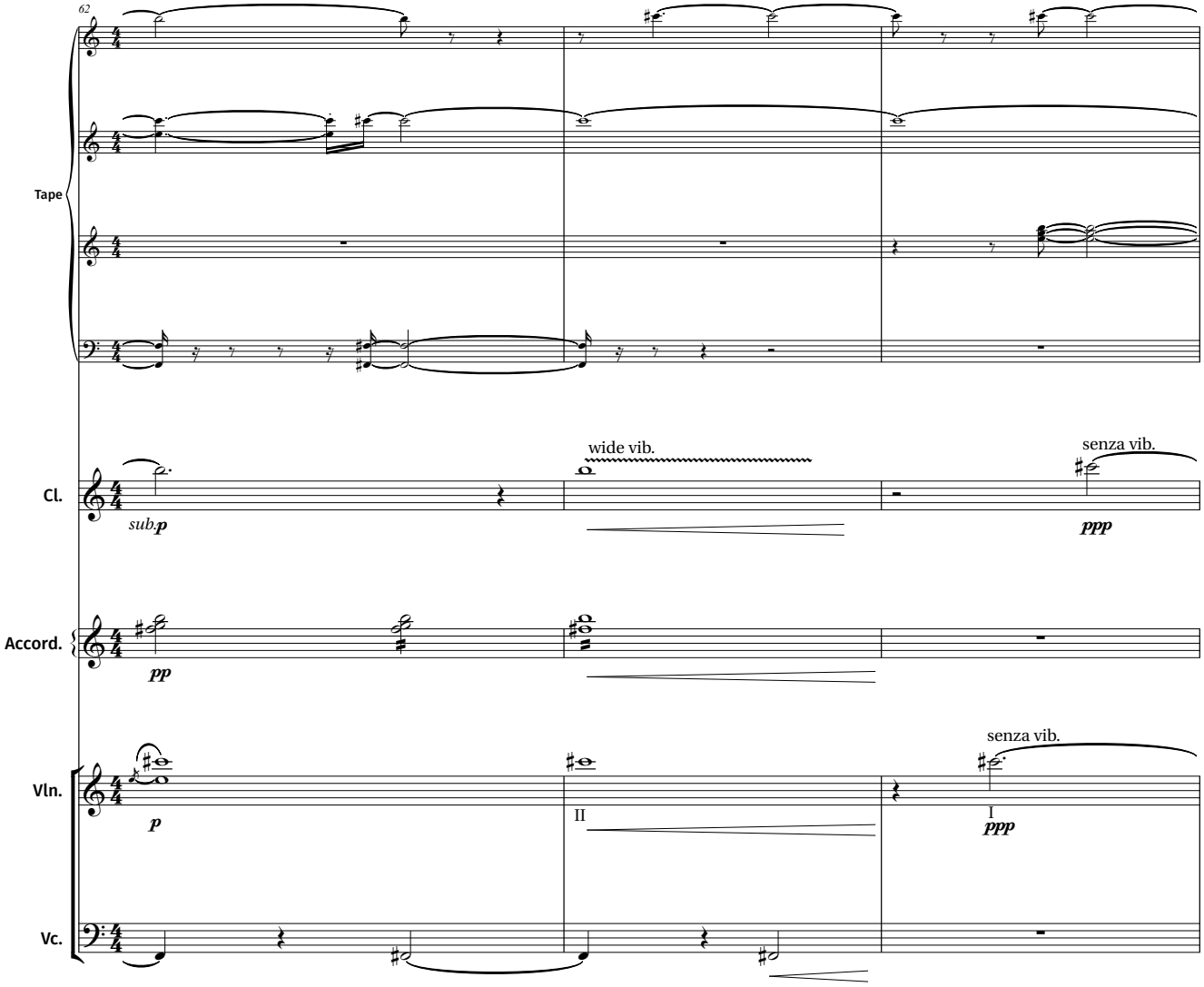

46
Tape
Cl.
mp
mp
Accord.
ppp
Vln.
3
mp
poco vib.
con vib.
Vc.
poco più mosso
mf

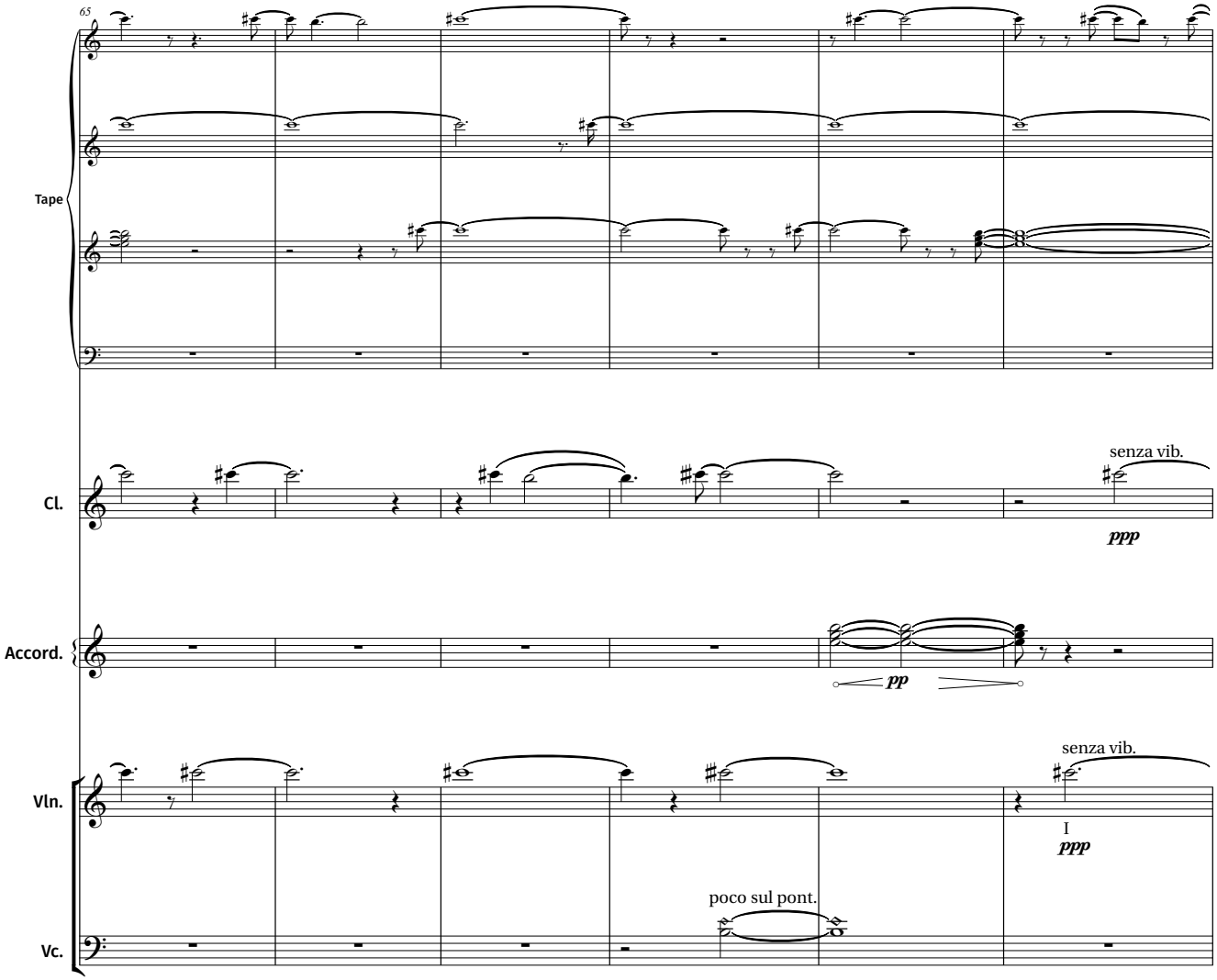

50
Tape
Cl.
mf
Accord.
ppp
Vln.
p
mp
Vc.
senza vib.
con vib.
molto vib.
mf
p

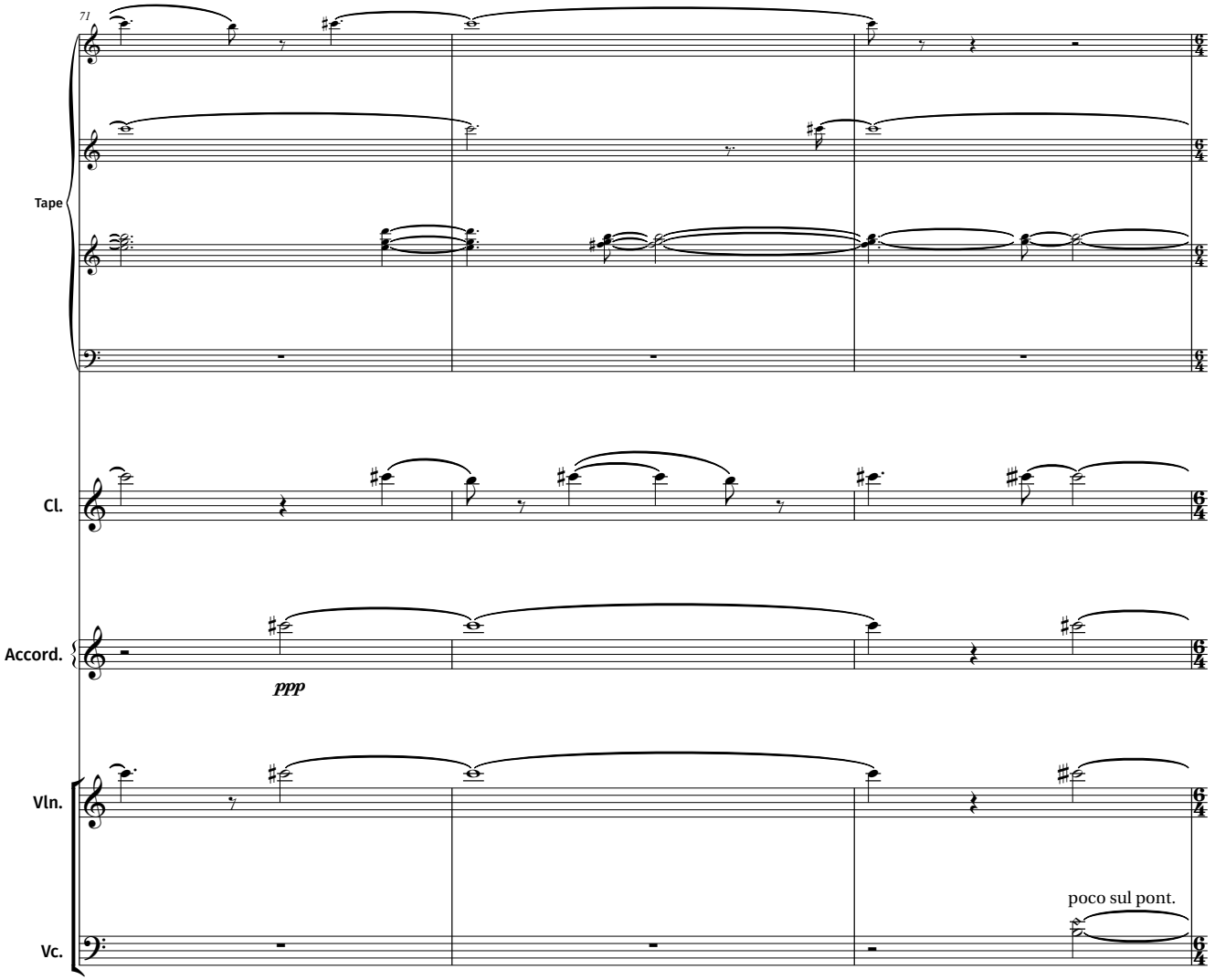

53
Tape
Cl.
wide vib.
Accord.
mp
Vln.
mf
II
Vc.
mf

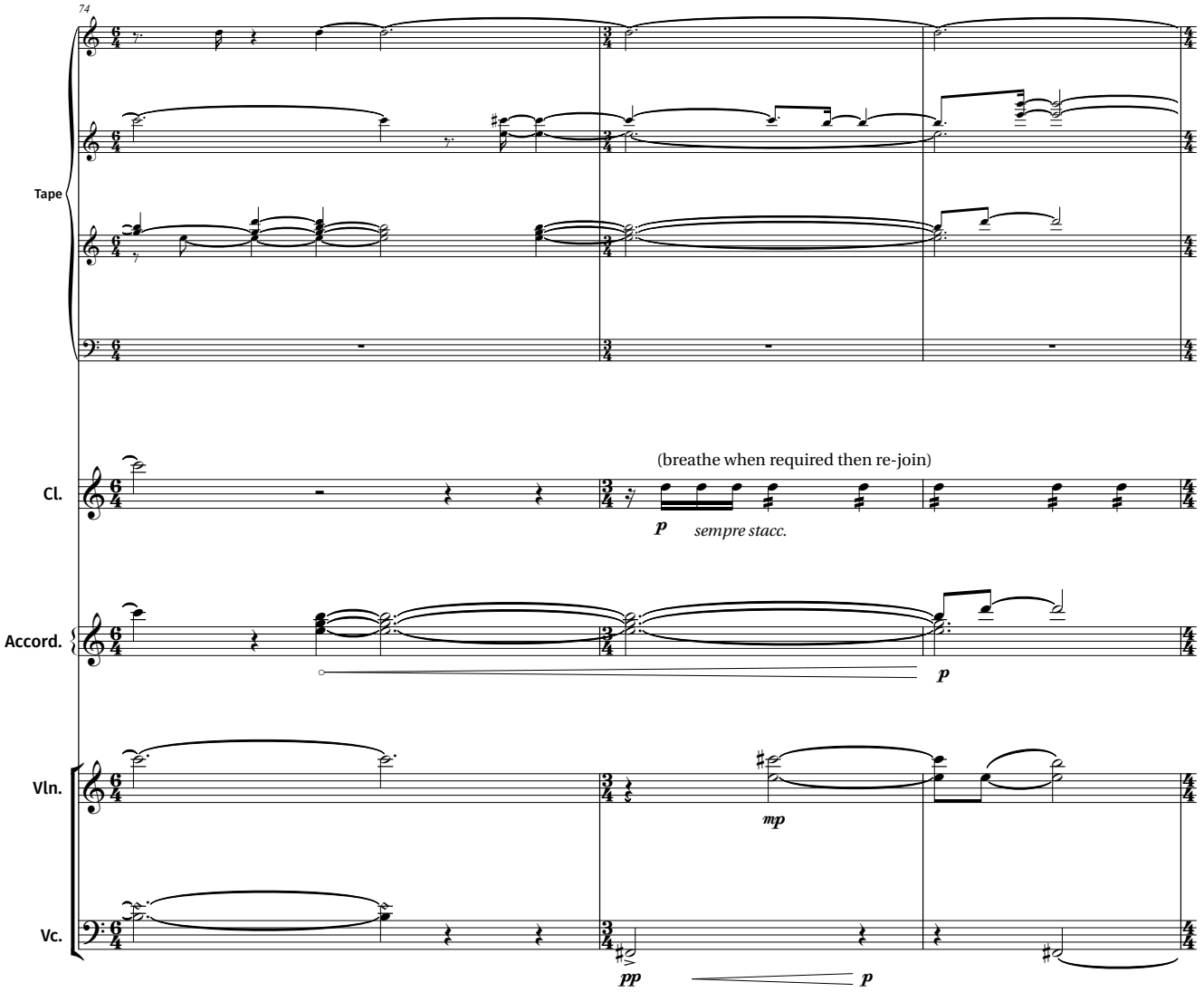

C
56
Tape
Cl.
mp
Accord.
ppp
Vln.
mp
p
con vib.
Vc.
mp
mp

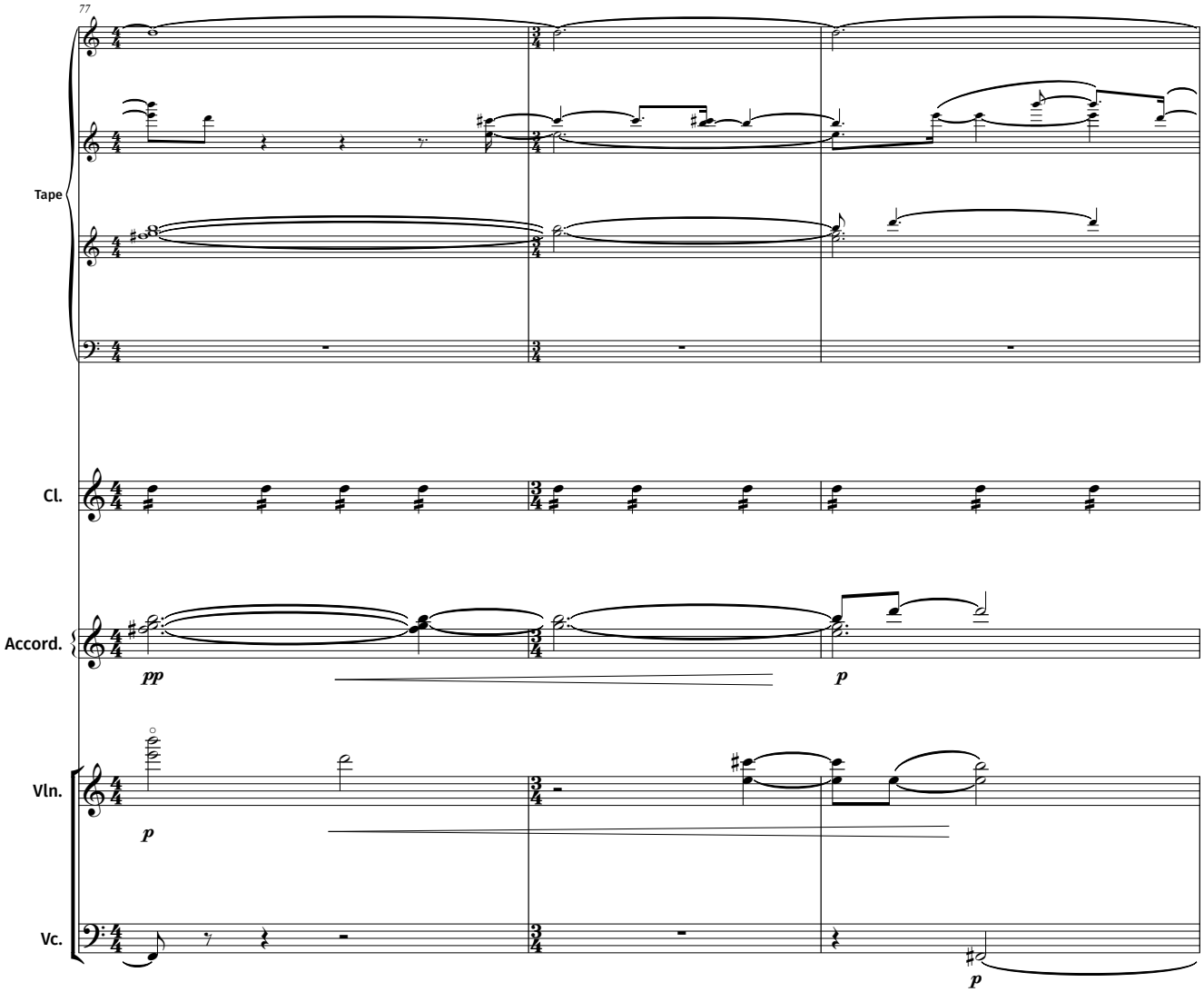

59
Tape
Cl.
mf
Accord.
Vln.
mp
senza vib.
con vib.
molto vib.
Vc.
p

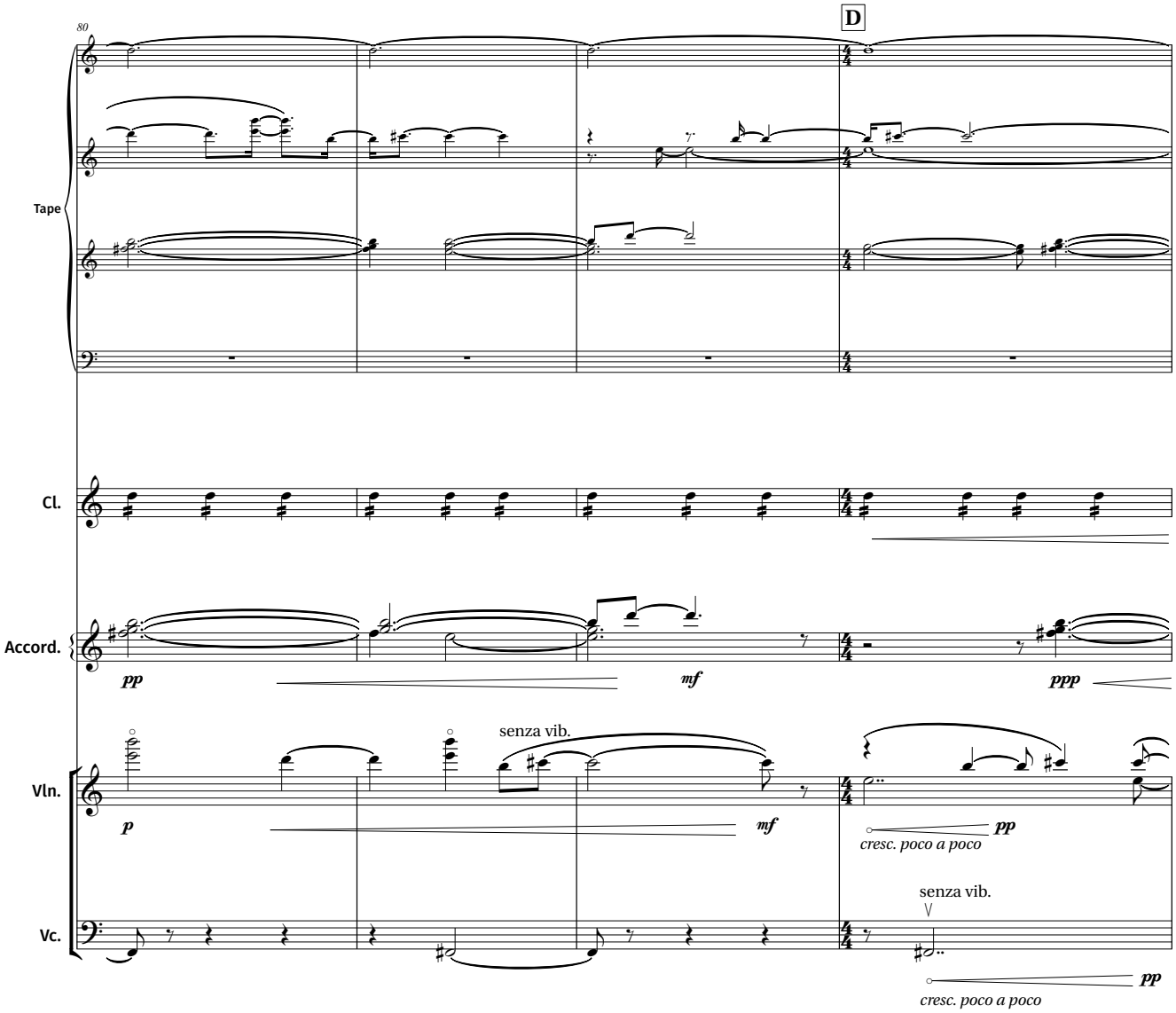

62
Tape
Cl.
sub.p
wide vib.
senza vib.
ppp
Accord.
pp
Vln.
p
II
I
senza vib.
ppp
Vc.

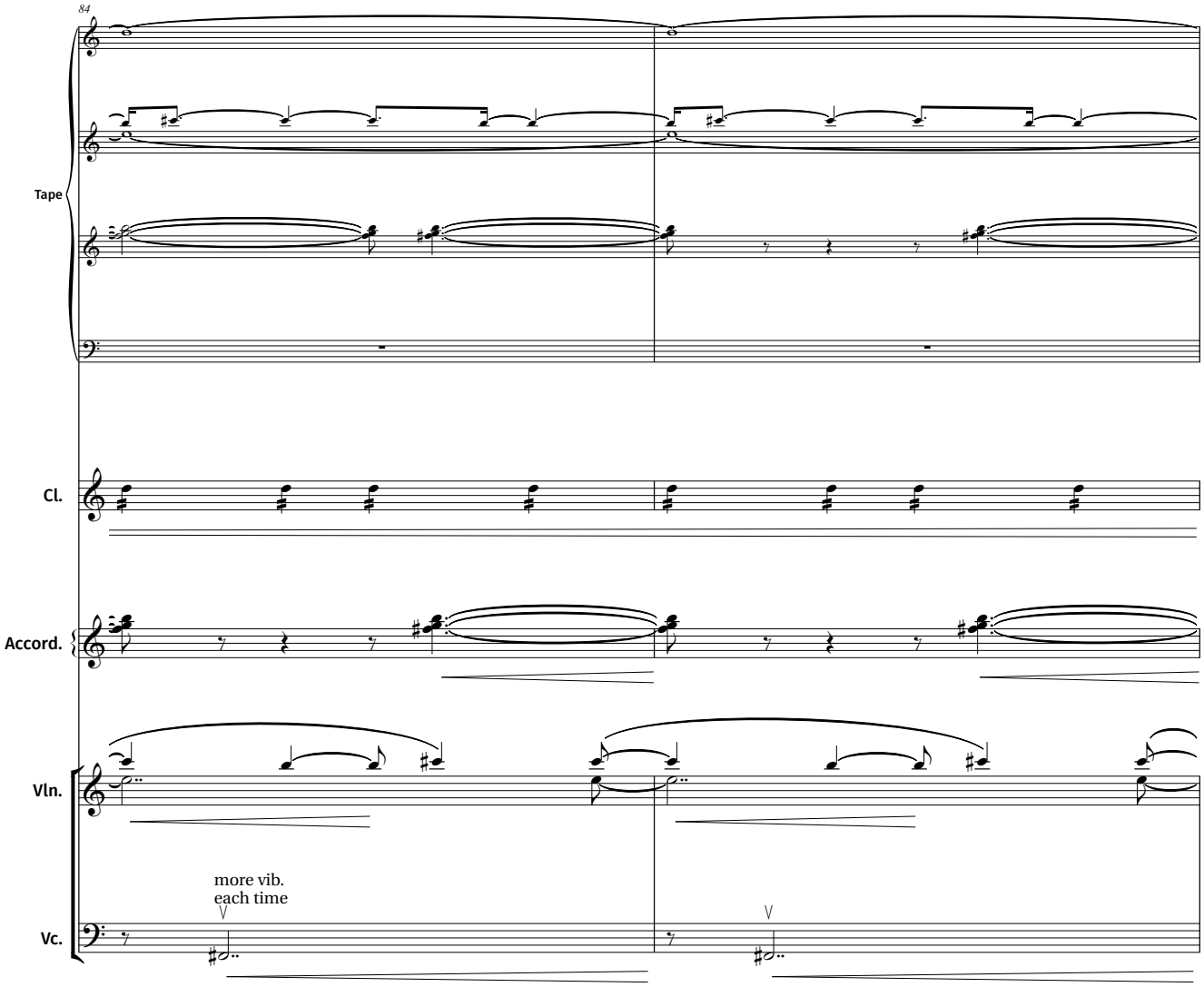

65
Tape
Cl.
senza vib.
ppp
Accord.
pp
Vln.
senza vib.
I
ppp
poco sul pont.
Vc.

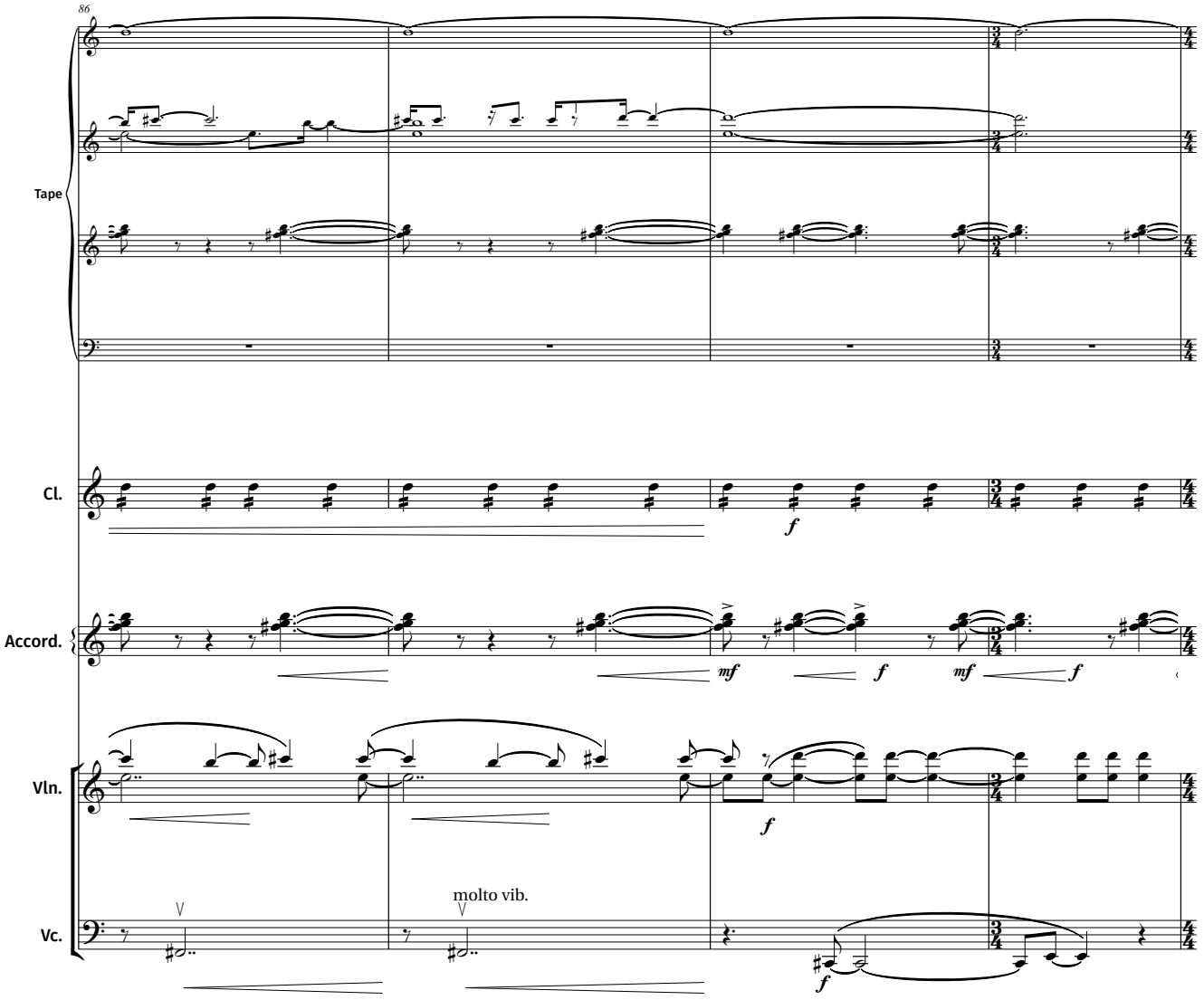

71
Tape
Cl.
Accord.
ppp
Vln.
poco sul pont.
Vc.

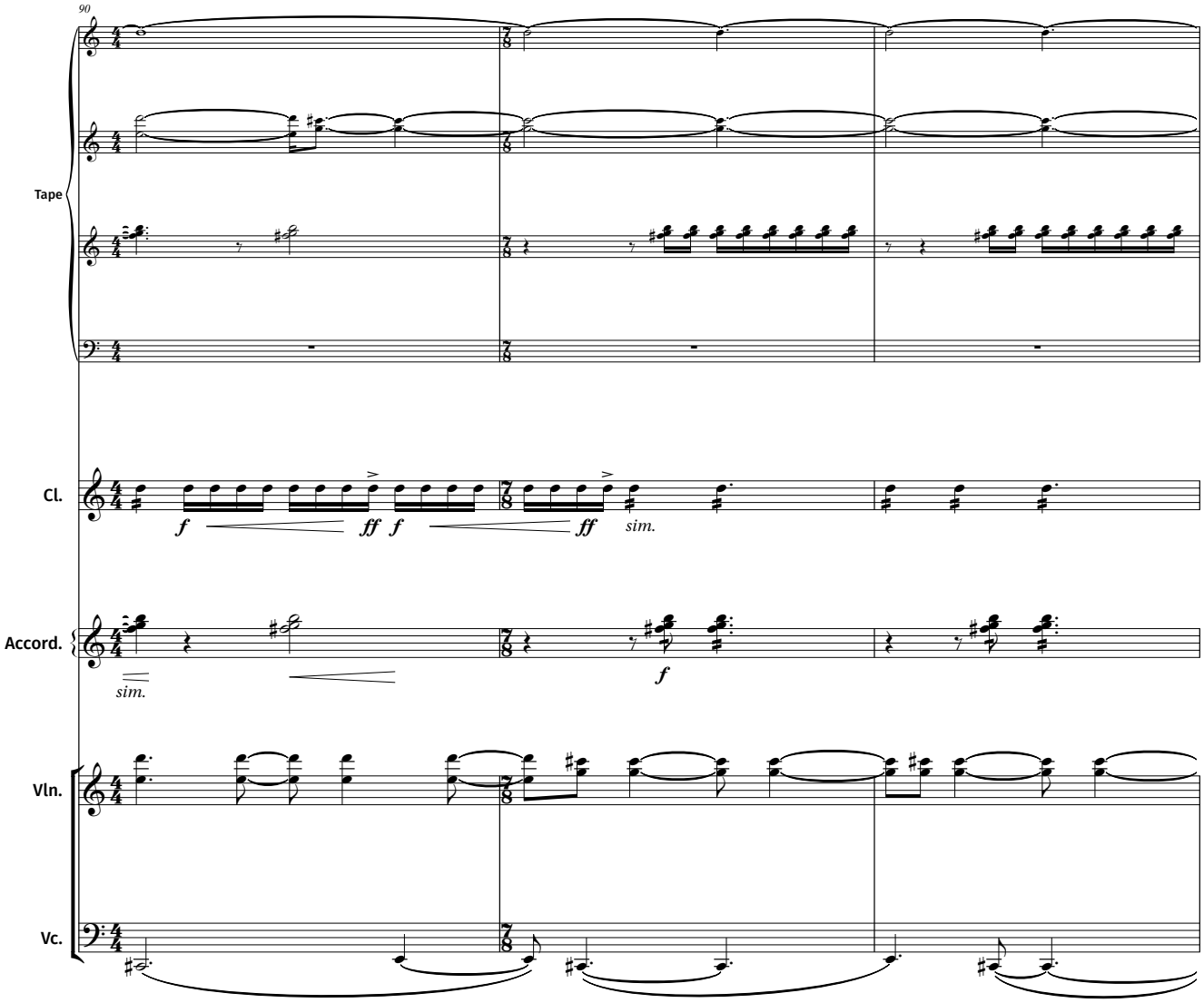

74
Tape
Cl.
(breathe when required then re-join)
p
sempre stacc.
Accord.
p
Vln.
mp
Vc.
pp
p

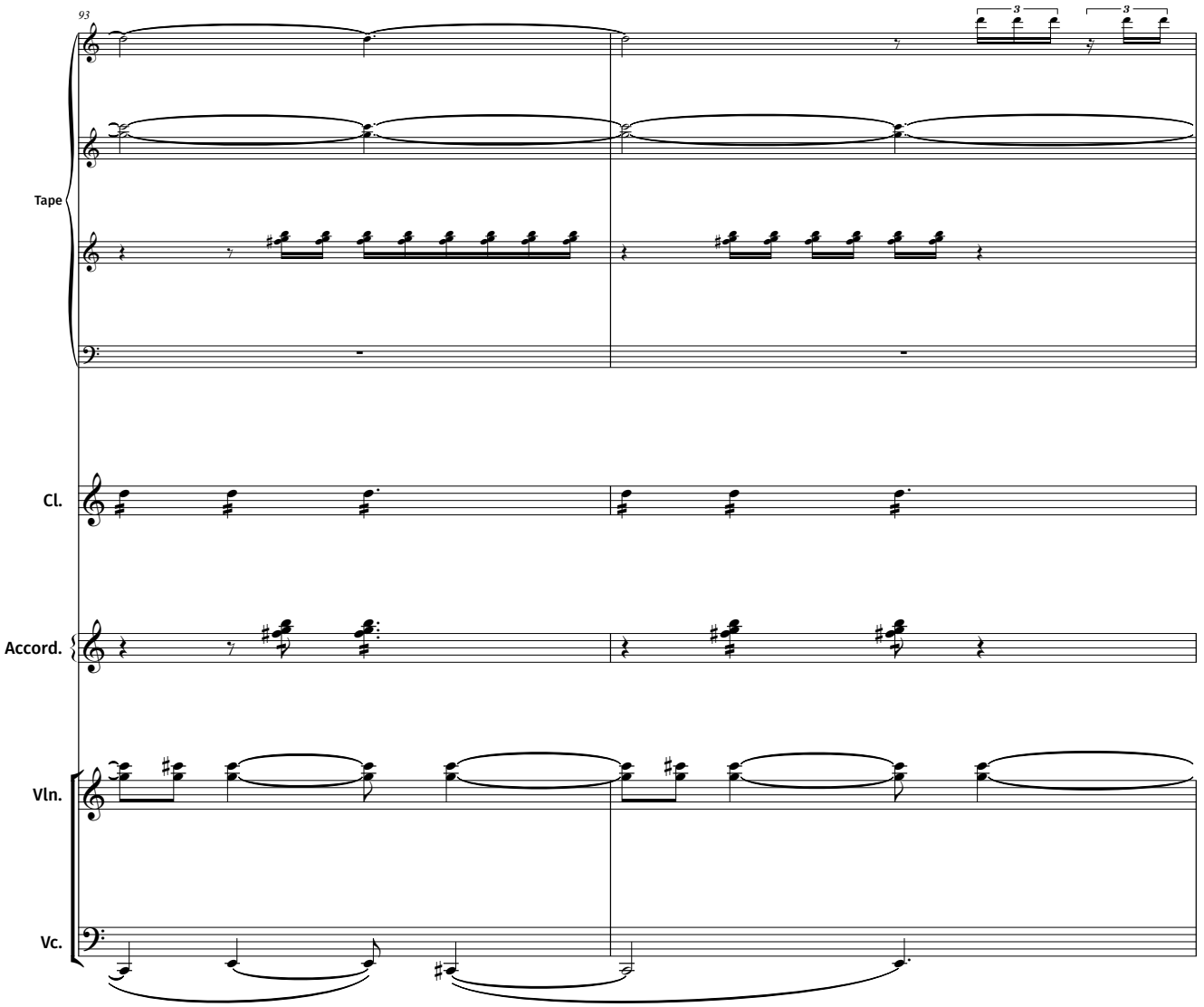

77
Tape
Cl.
Accord.
pp
p
Vln.
p
Vc.
p

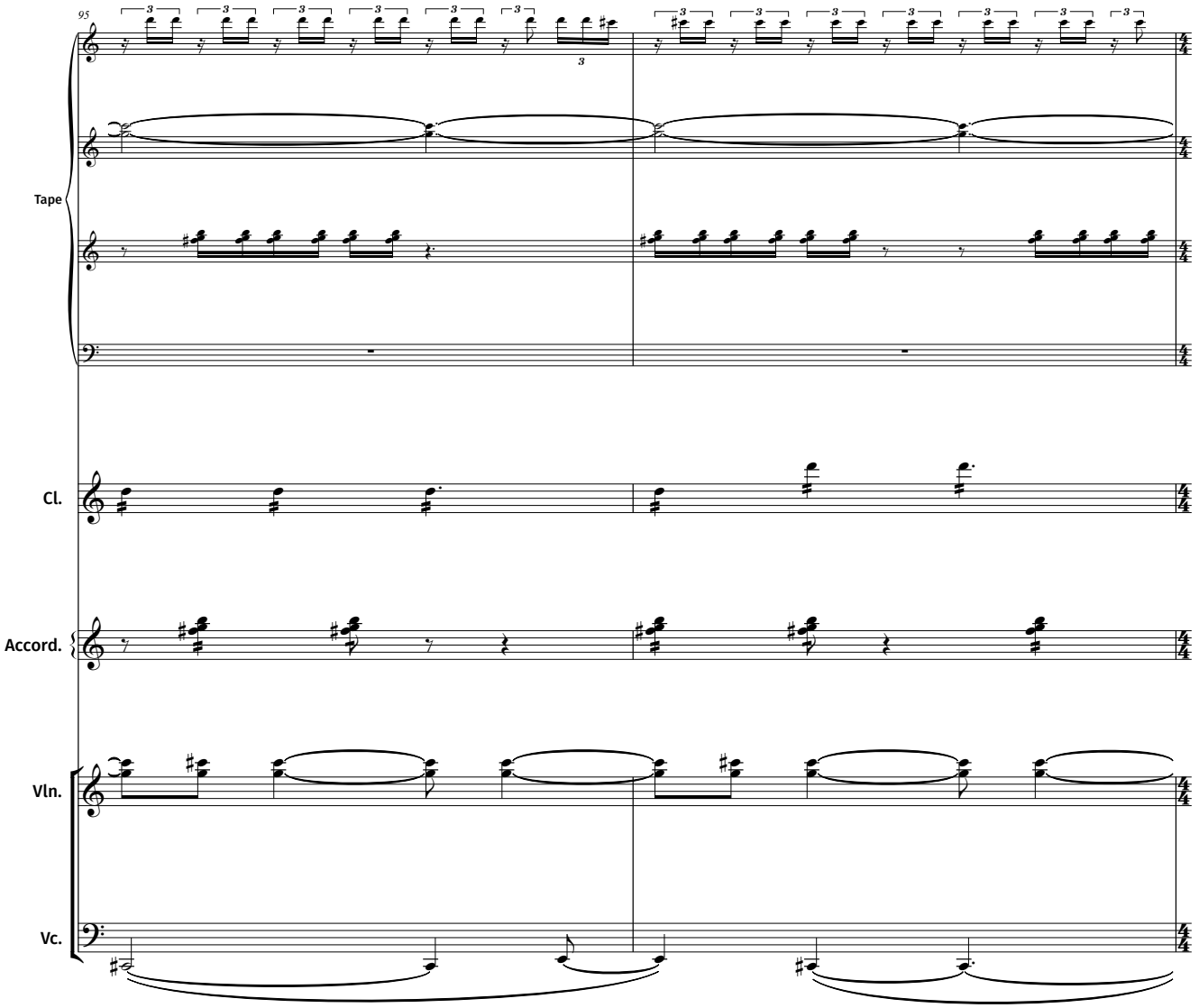

80
D
Tape
Cl.
Accord.
pp
mf
ppp
Vln.
senza vib.
p
mf
pp
cresc. poco a poco
Vc.
senza vib.
pp
cresc. poco a poco

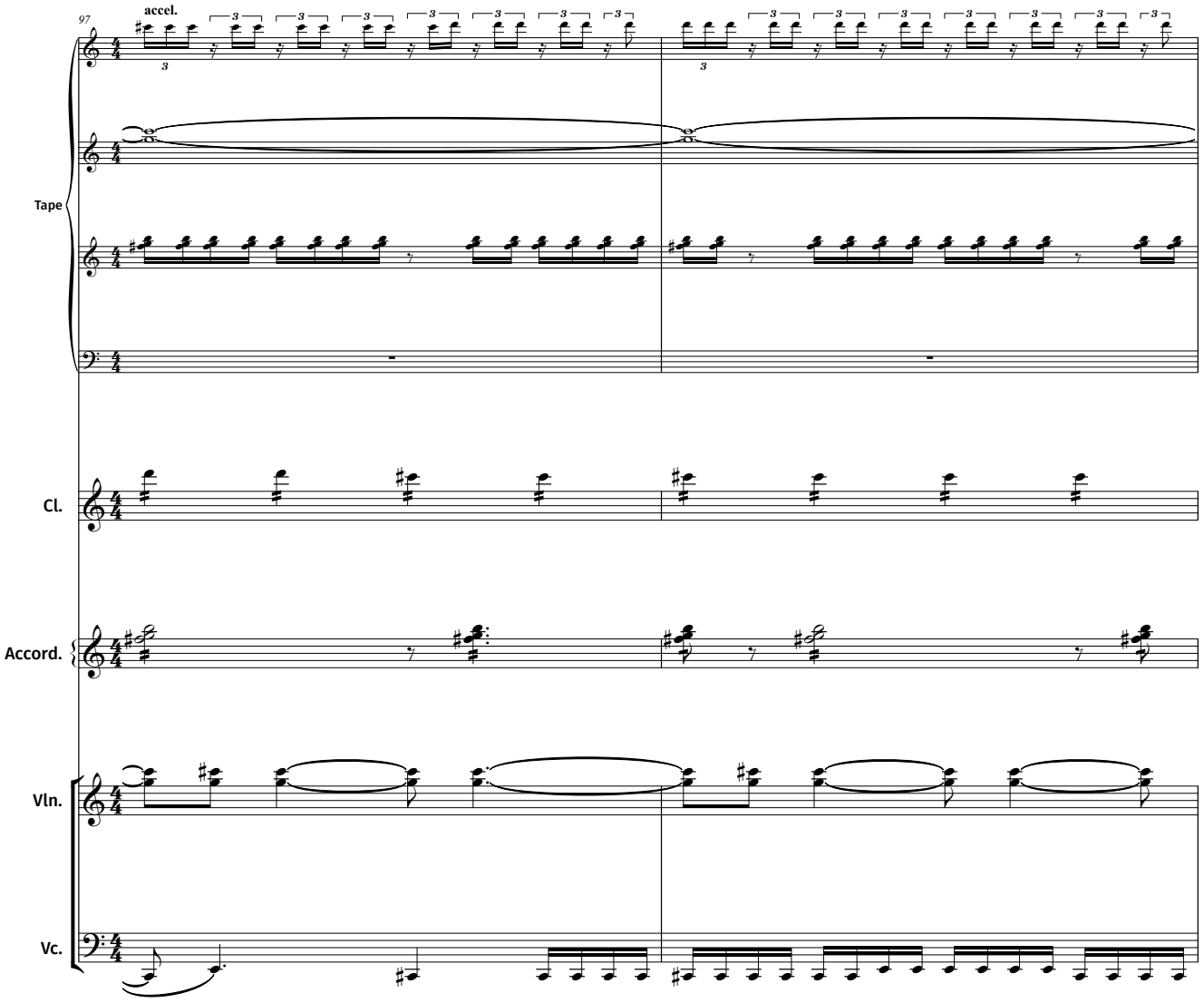

84
Tape
Cl.
Accord.
Vln.
more vib.
each time
Vc.

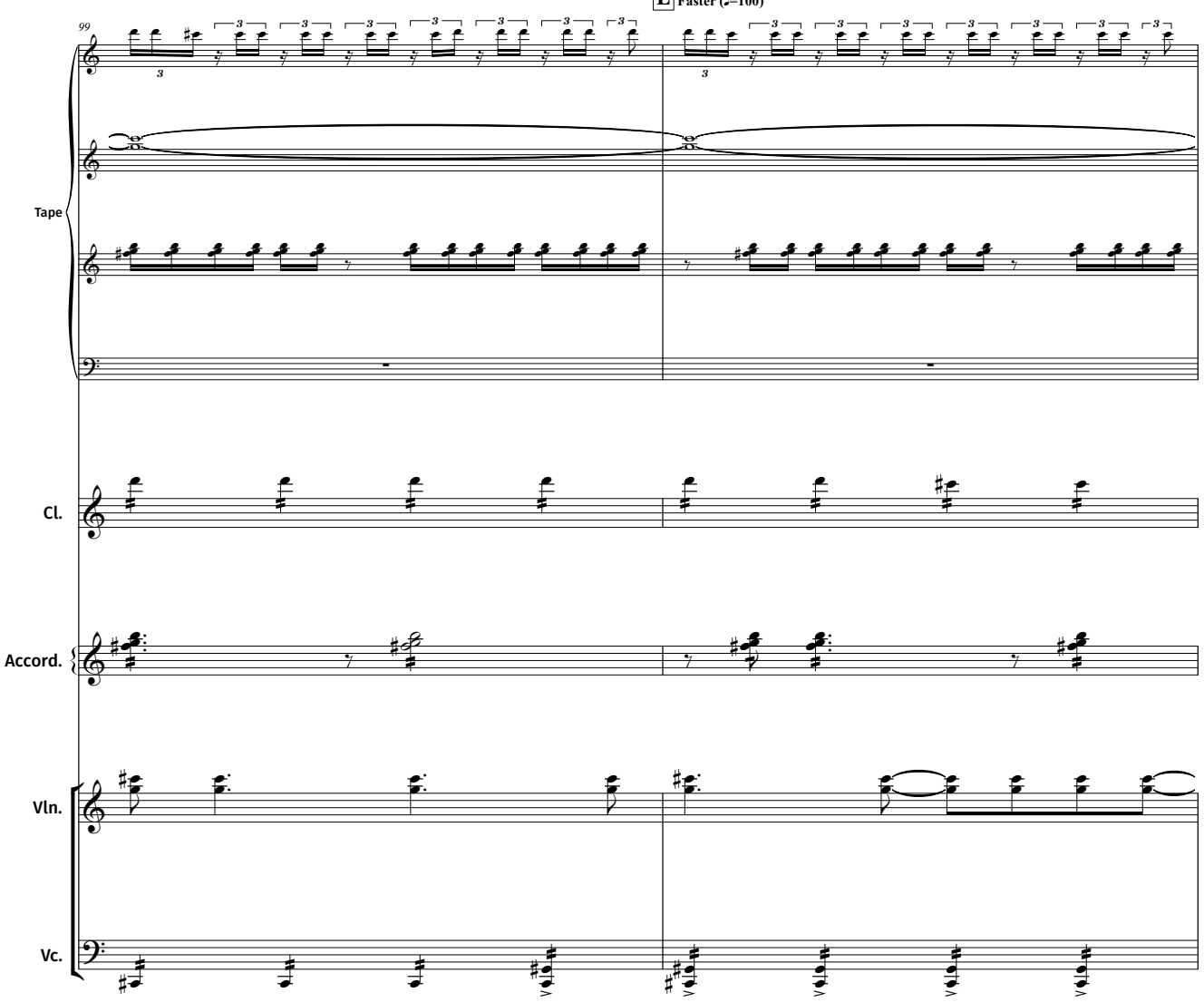

86
Tape
Cl.
Accord.
Vln.
Vc.
molto vib.
f
mf
f
mf
f
f
f

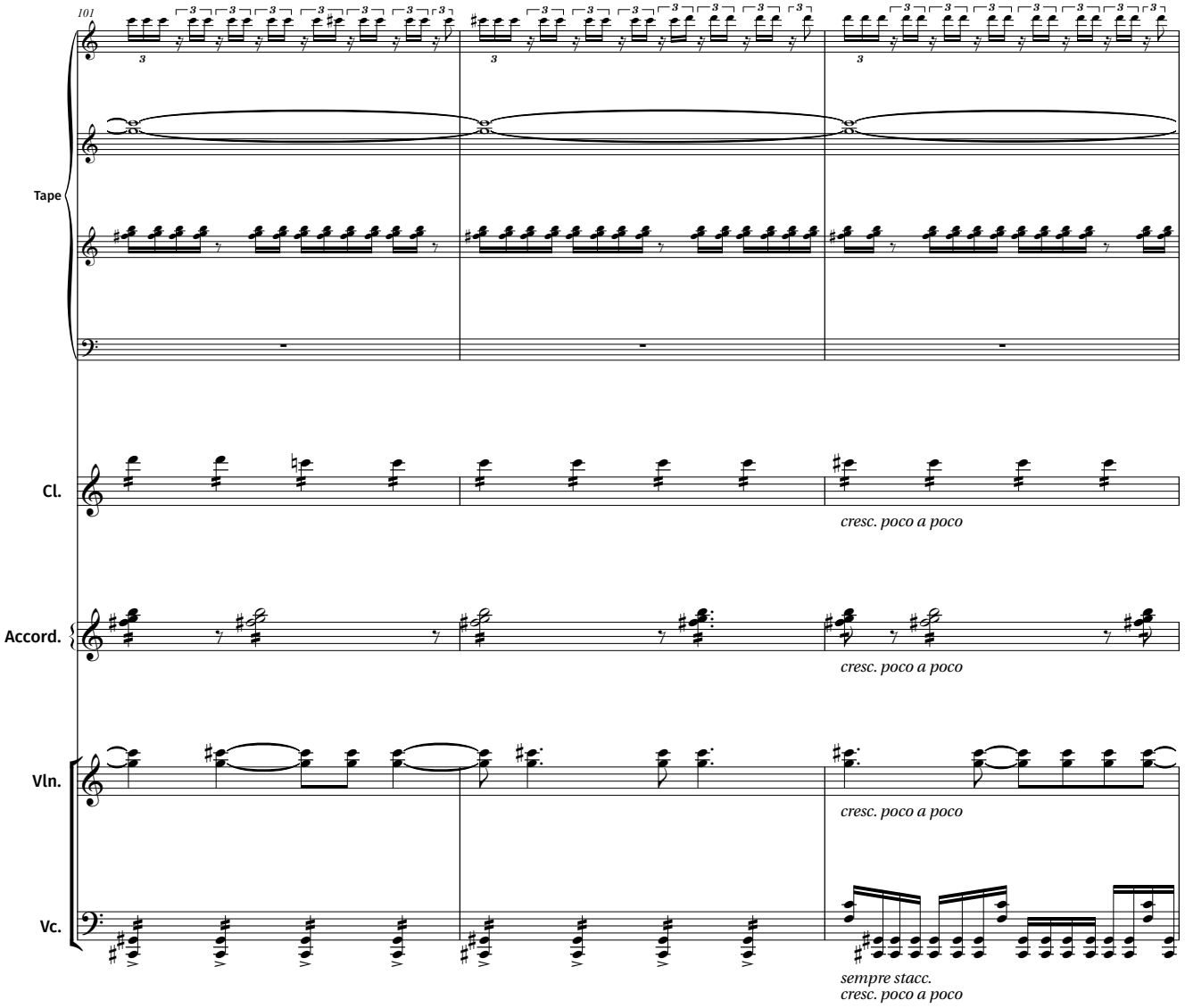

90
Tape
Cl.
f
ff
f
ff
sim.
Accord.
sim.
f
Vln.
Vc.

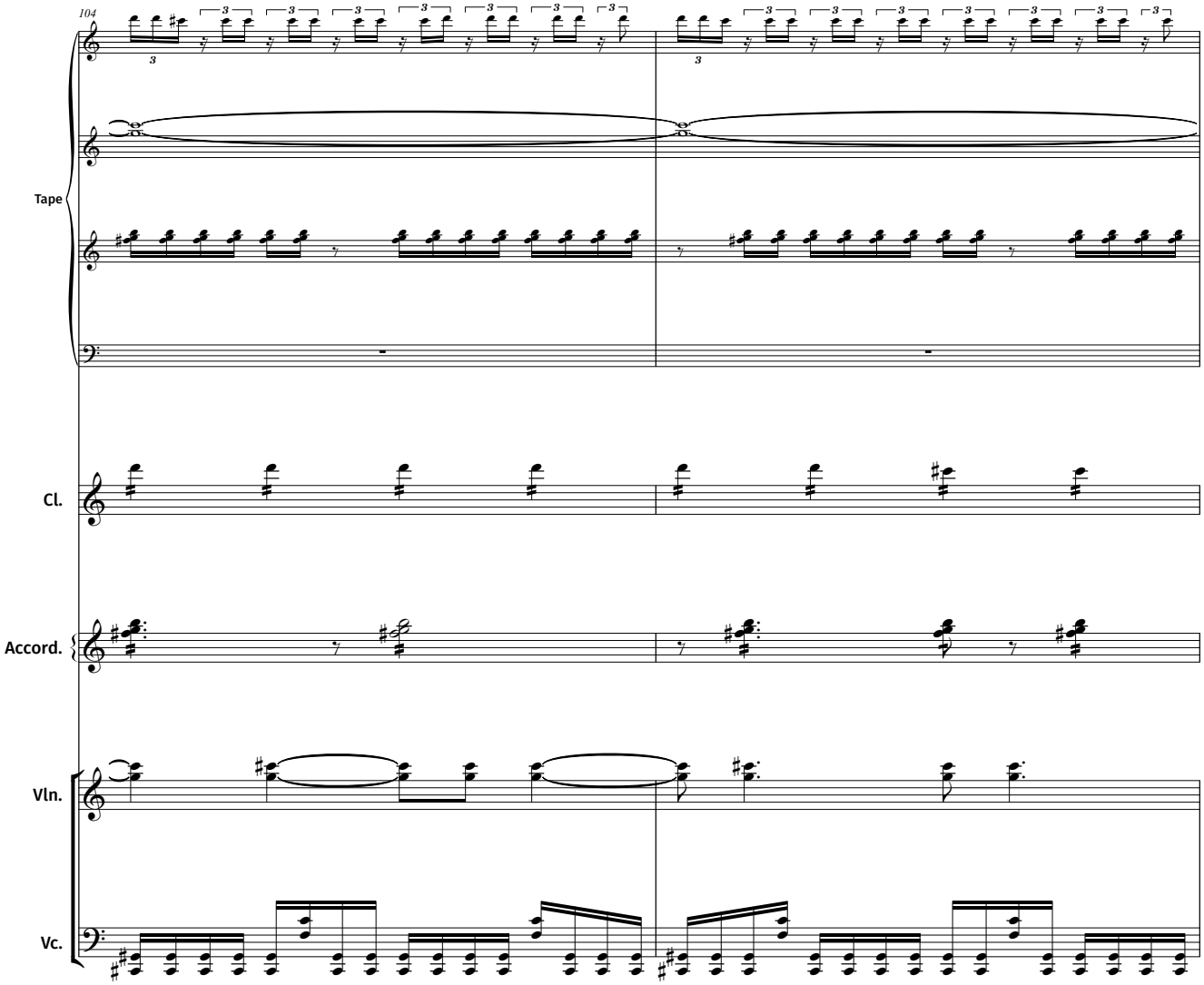

93
3
3
Tape
Cl.
Accord.
Vln.
Vc.

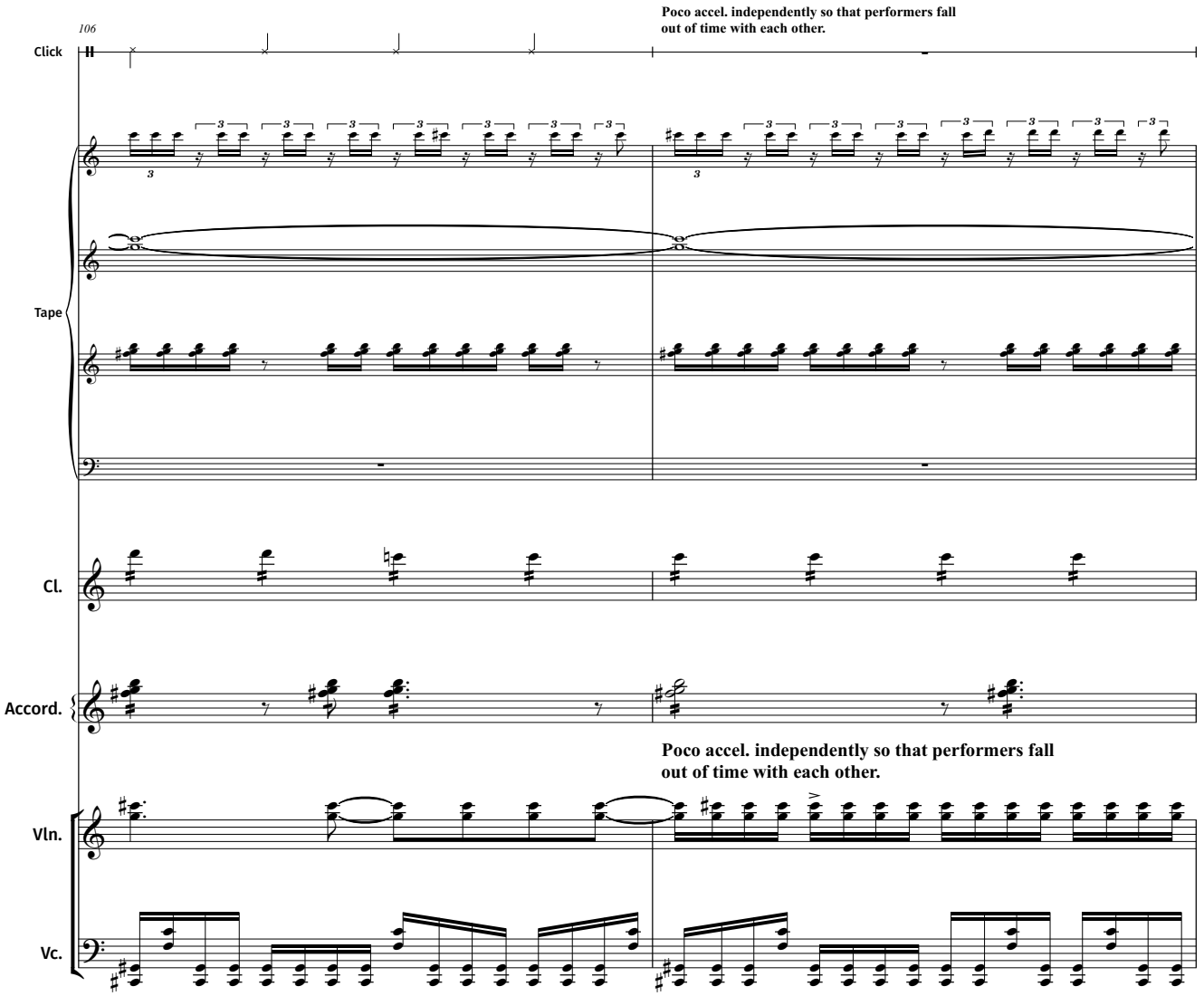

95
Tape
Cl.
Accord.
Vln.
Vc.

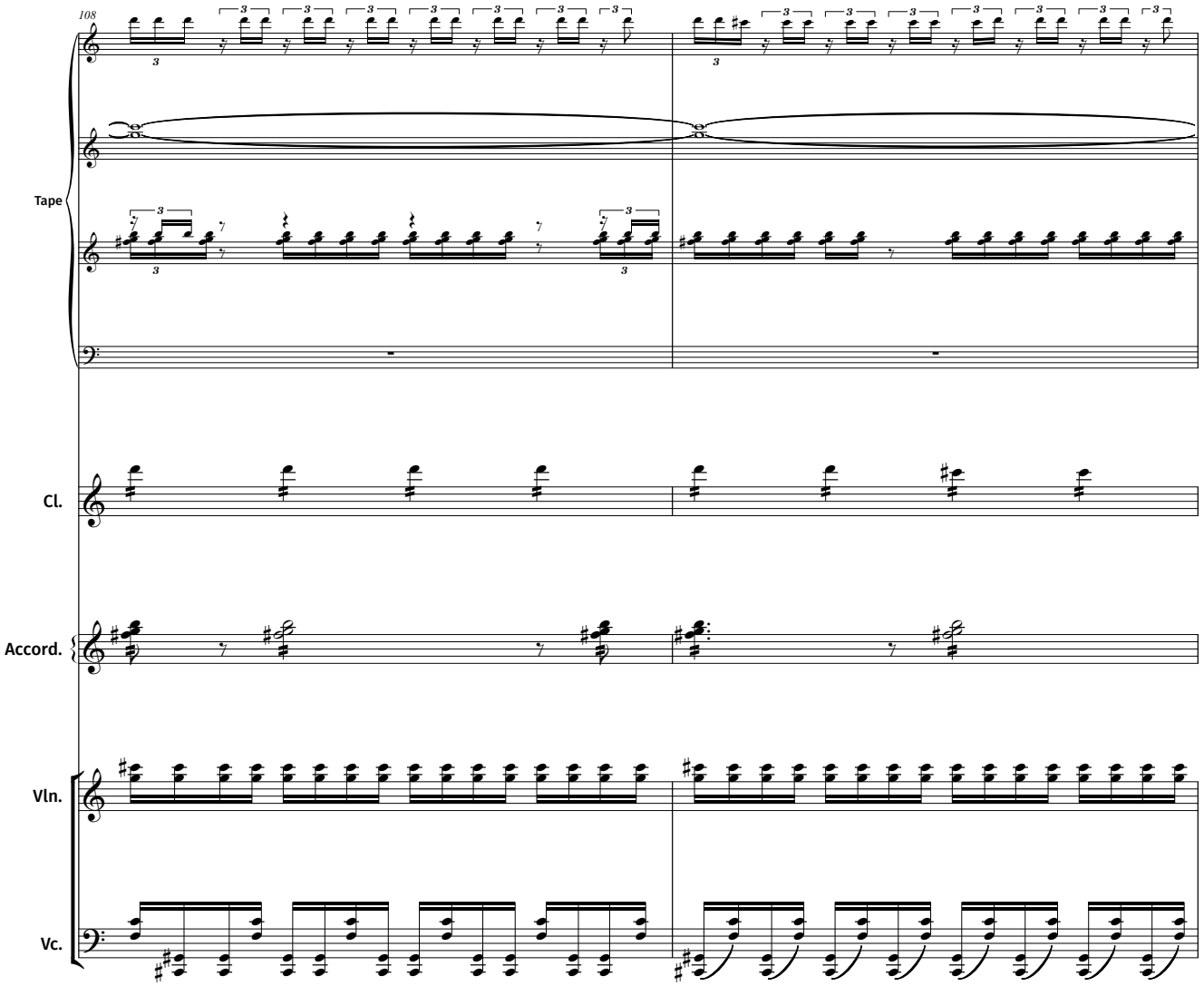

97
accel.
Tape
Cl.
Accord.
Vln.
Vc.

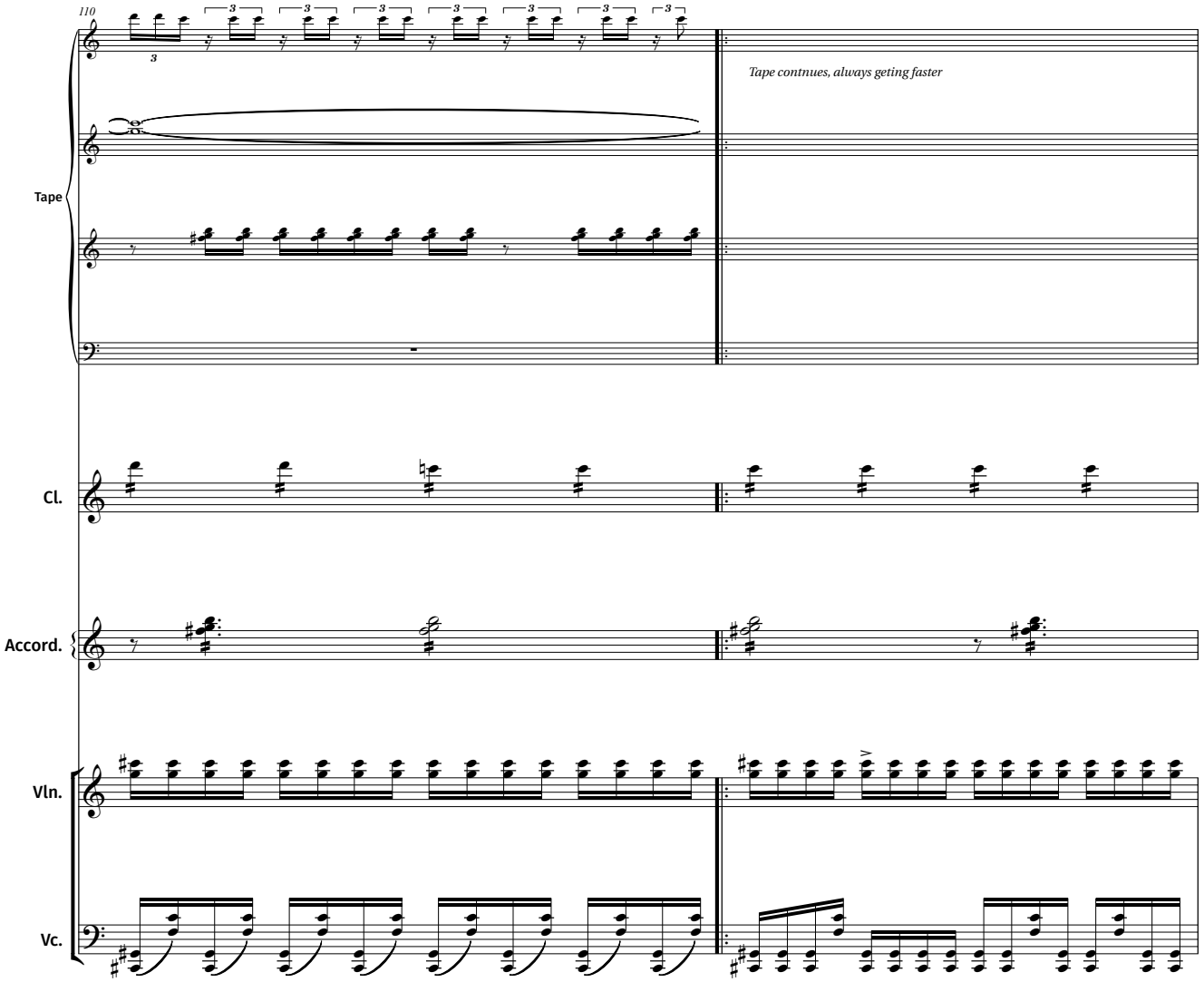

E
Faster (♩=100)
99
Tape
Cl.
Accord.
Vln.
Vc.

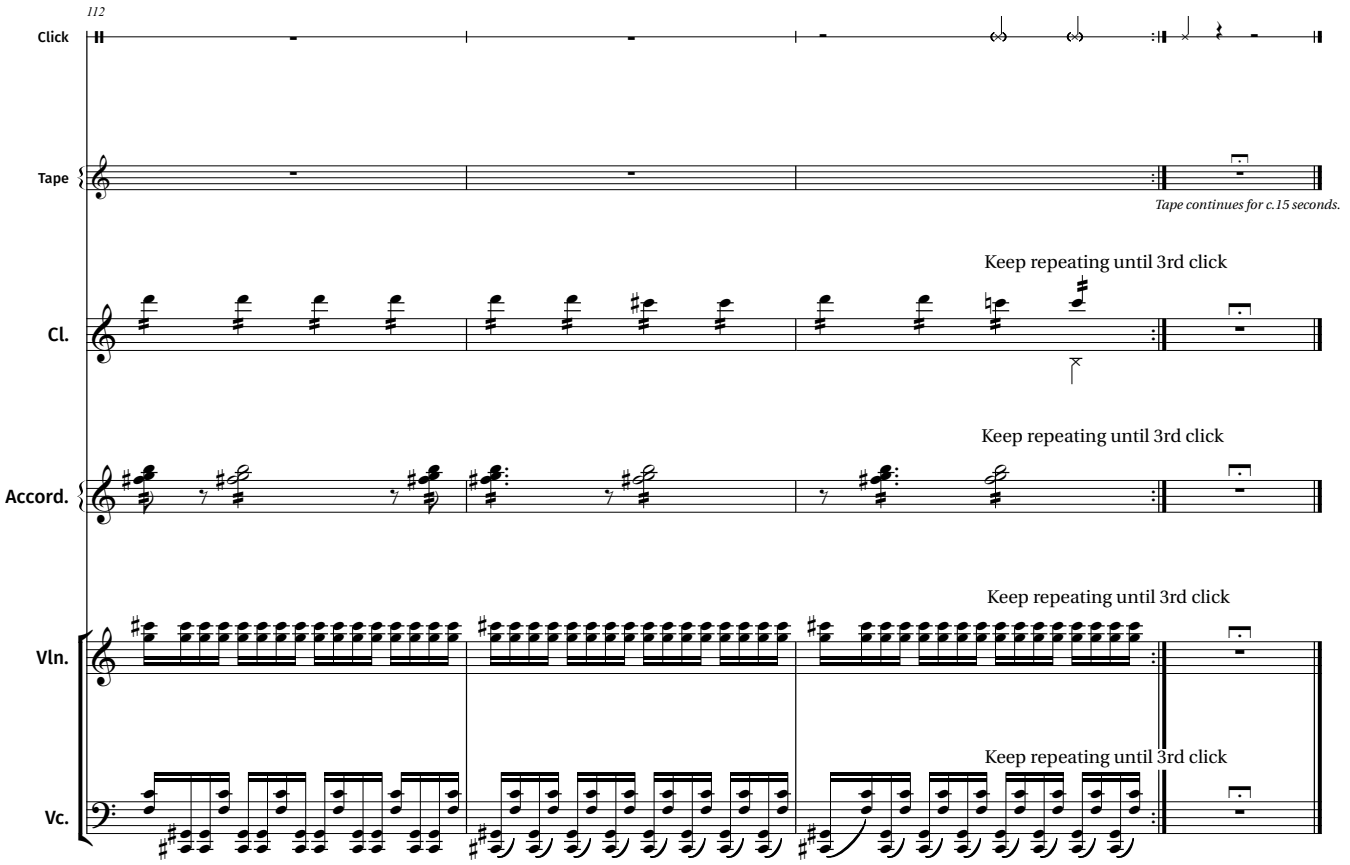

101
Tape
Cl.
cresc. poco a poco
Accord.
cresc. poco a poco
Vln.
cresc. poco a poco
Vc.
sempre stacc.
cresc. poco a poco


104
Tape
Cl.
Accord.
Vln.
Vc.

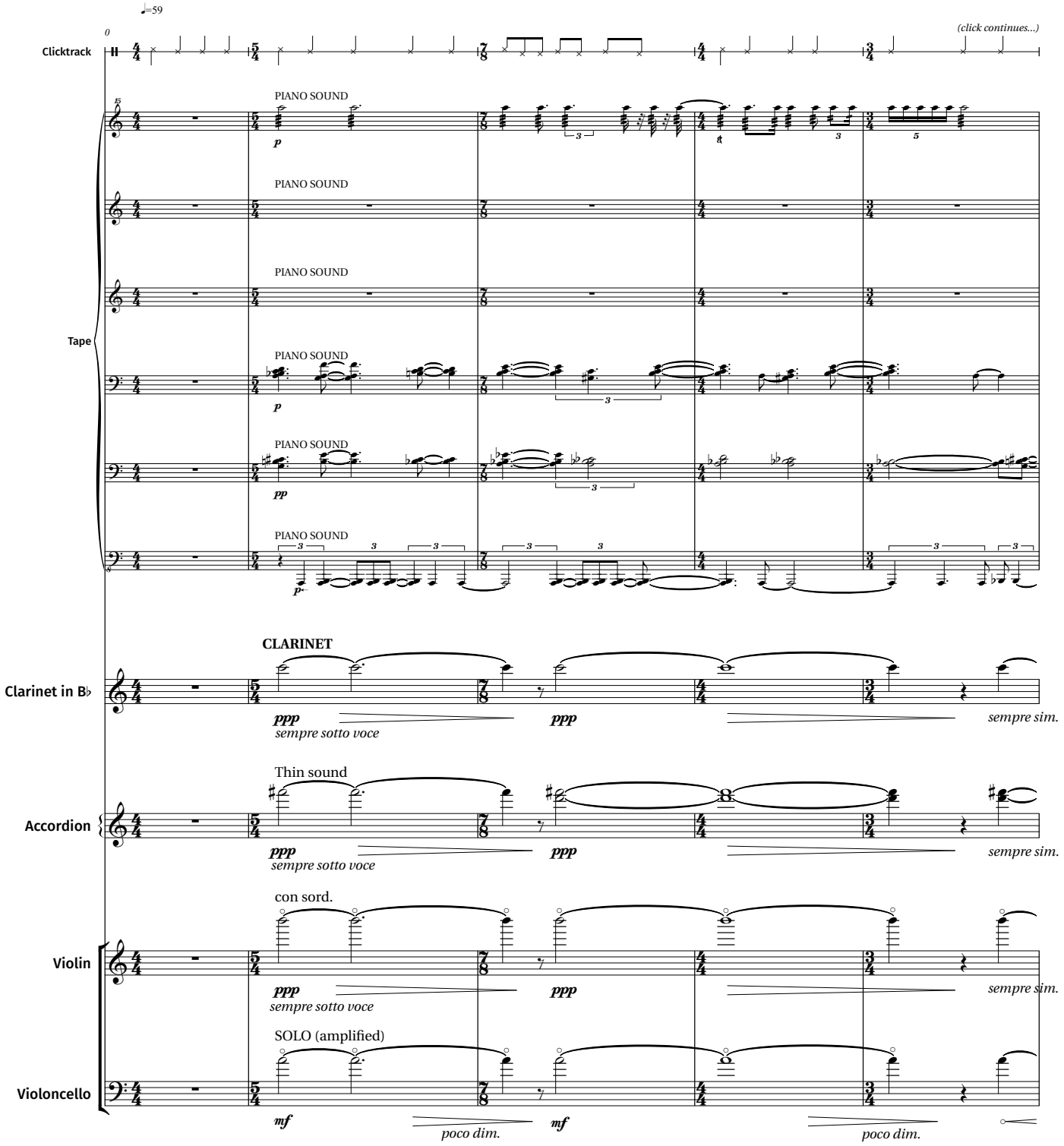

106
Poco accel. independently so that performers fall
out of time with each other.
Click
Tape
Cl.
Accord.
Poco accel. independently so that performers fall
out of time with each other.
Vln.
Vc.

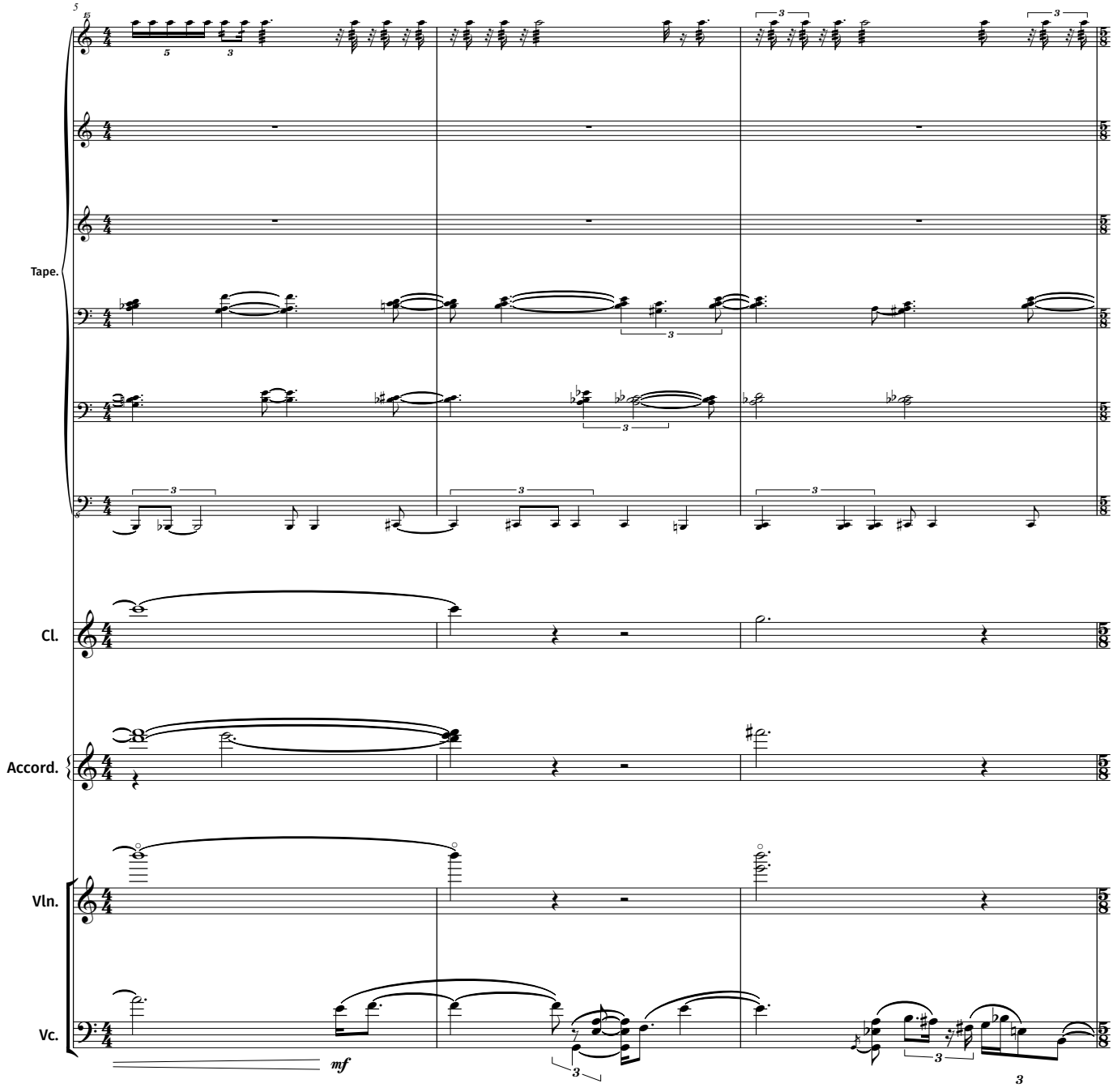

108
Tape
Cl.
Accord.
Vln.
Vc.

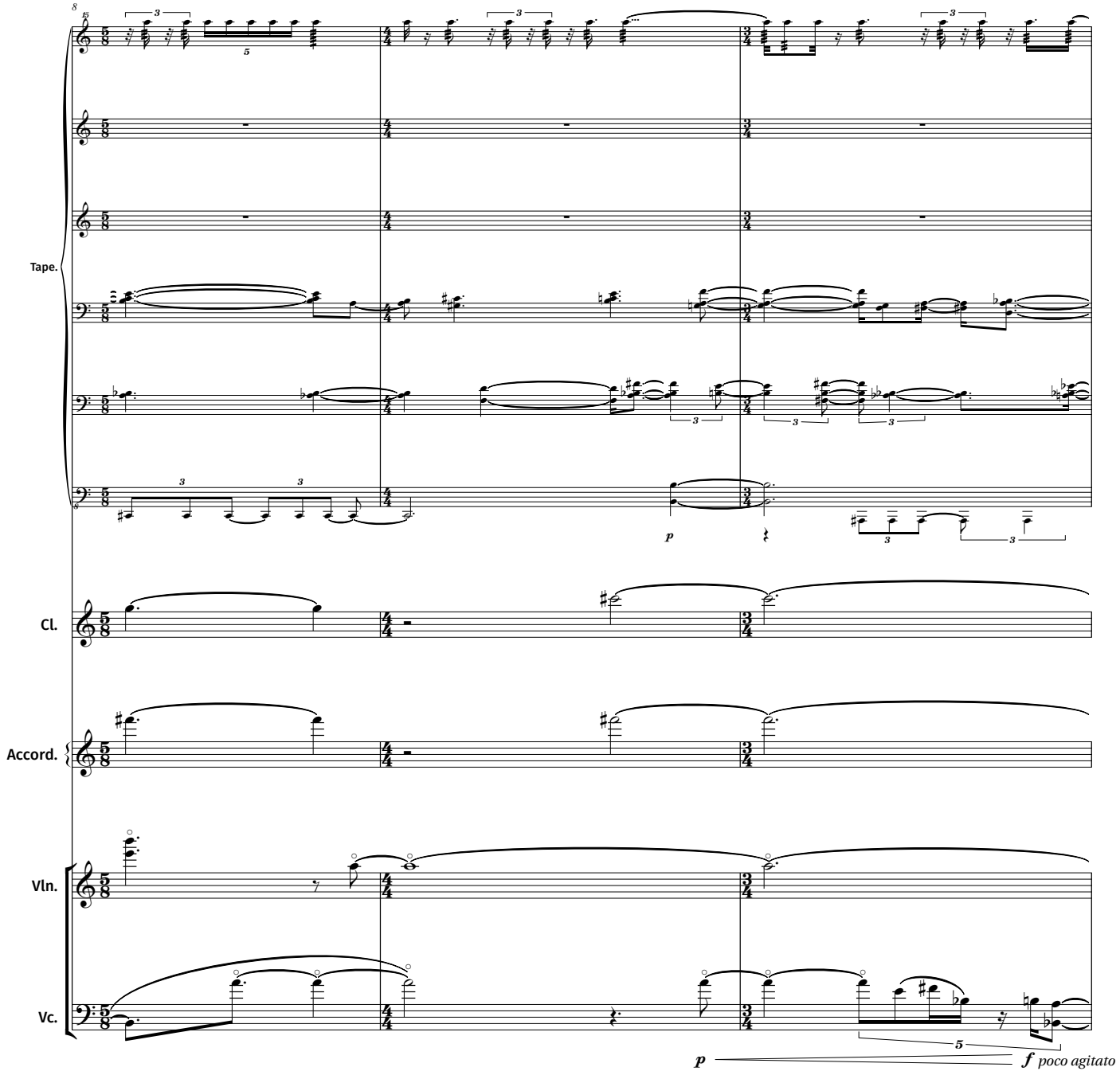

110
Tape contnues, always geting faster
Tape
Cl.
Accord.
Vln.
Vc.

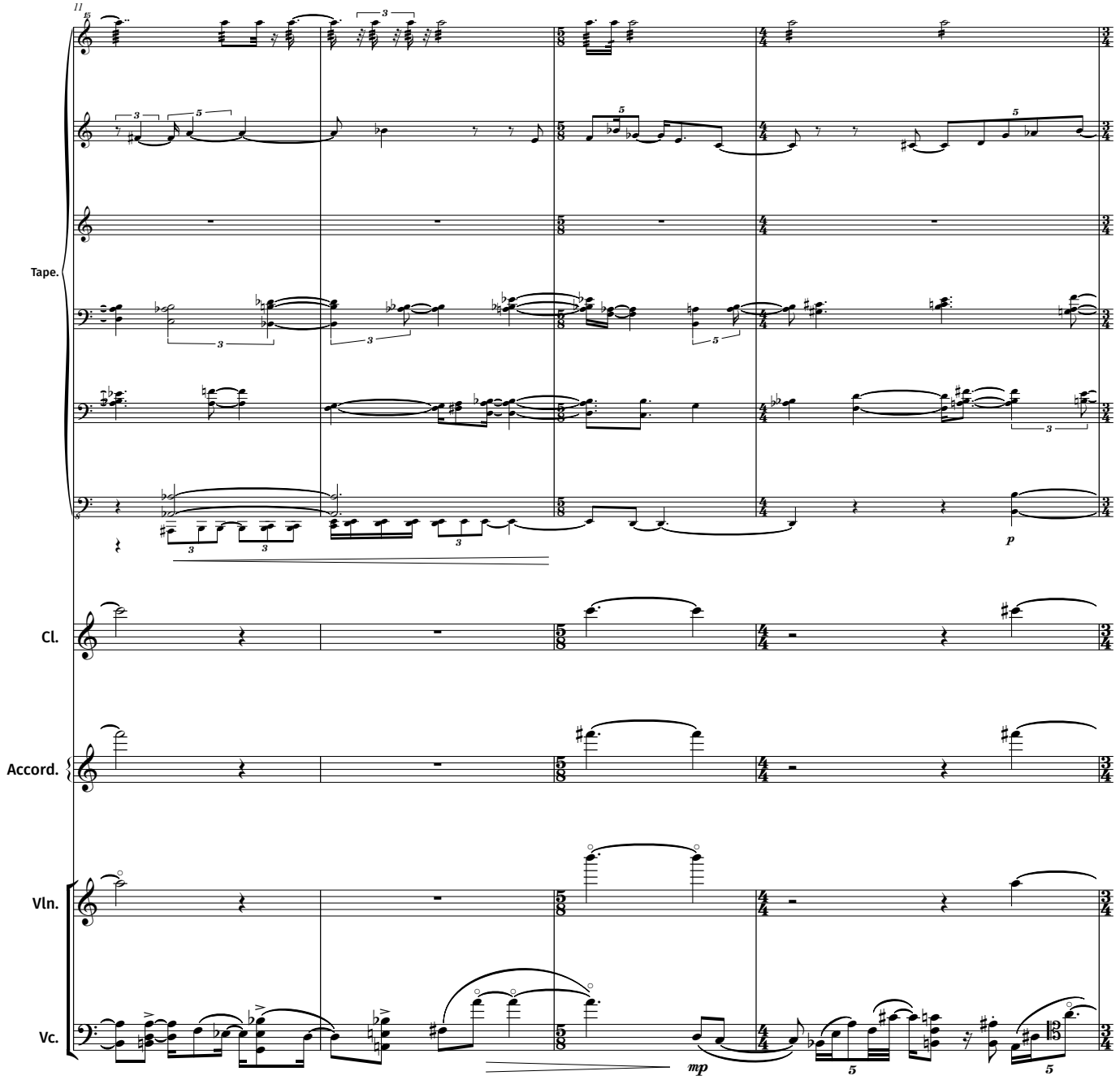

112
Click
Tape
Tape continues for c.15 seconds.
Keep repeating until 3rd click
Cl.
Keep repeating until 3rd click
Accord.
Keep repeating until 3rd click
Vln.
Keep repeating until 3rd click
Vc.

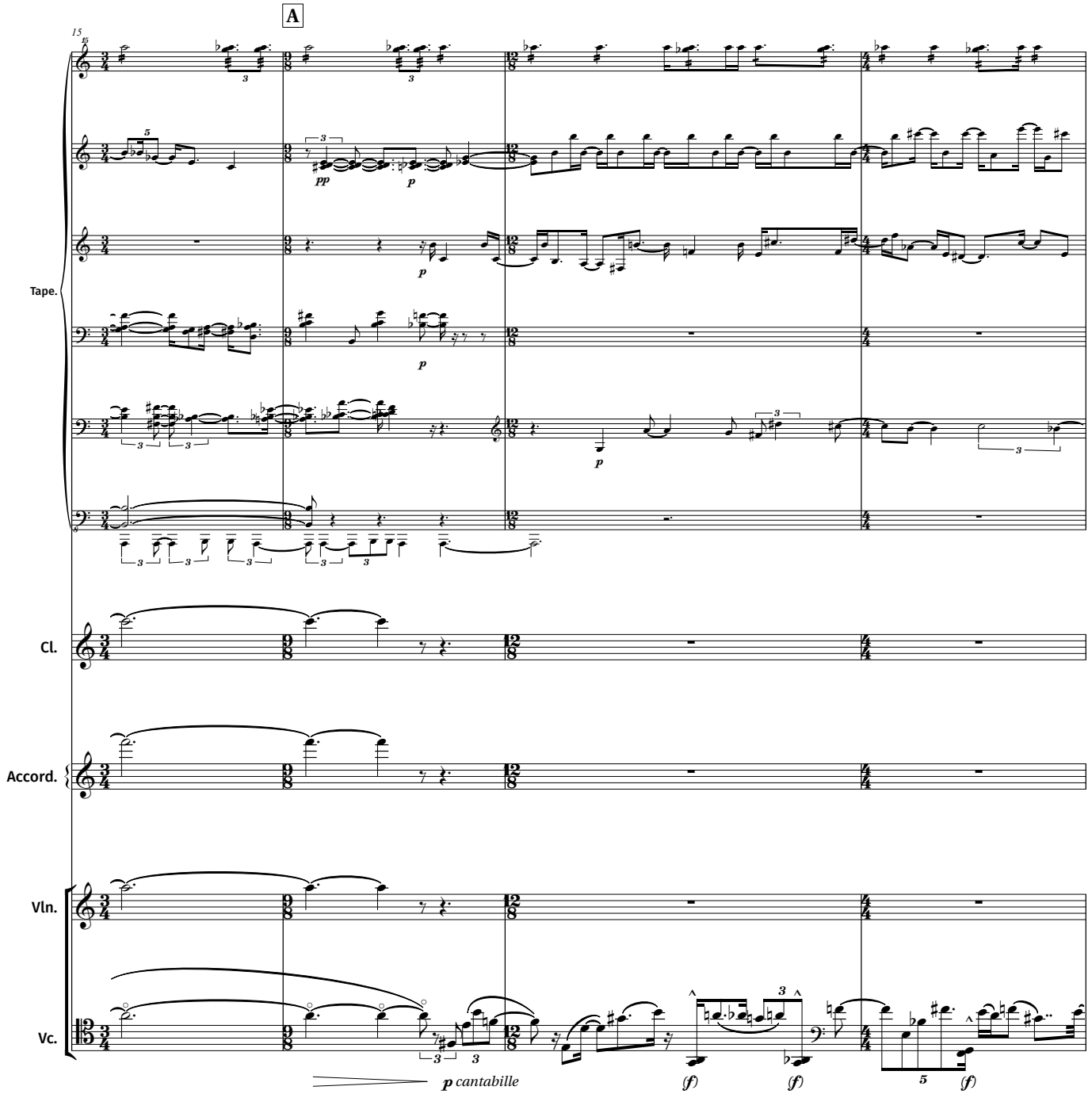
2. Karaoke cello sonata

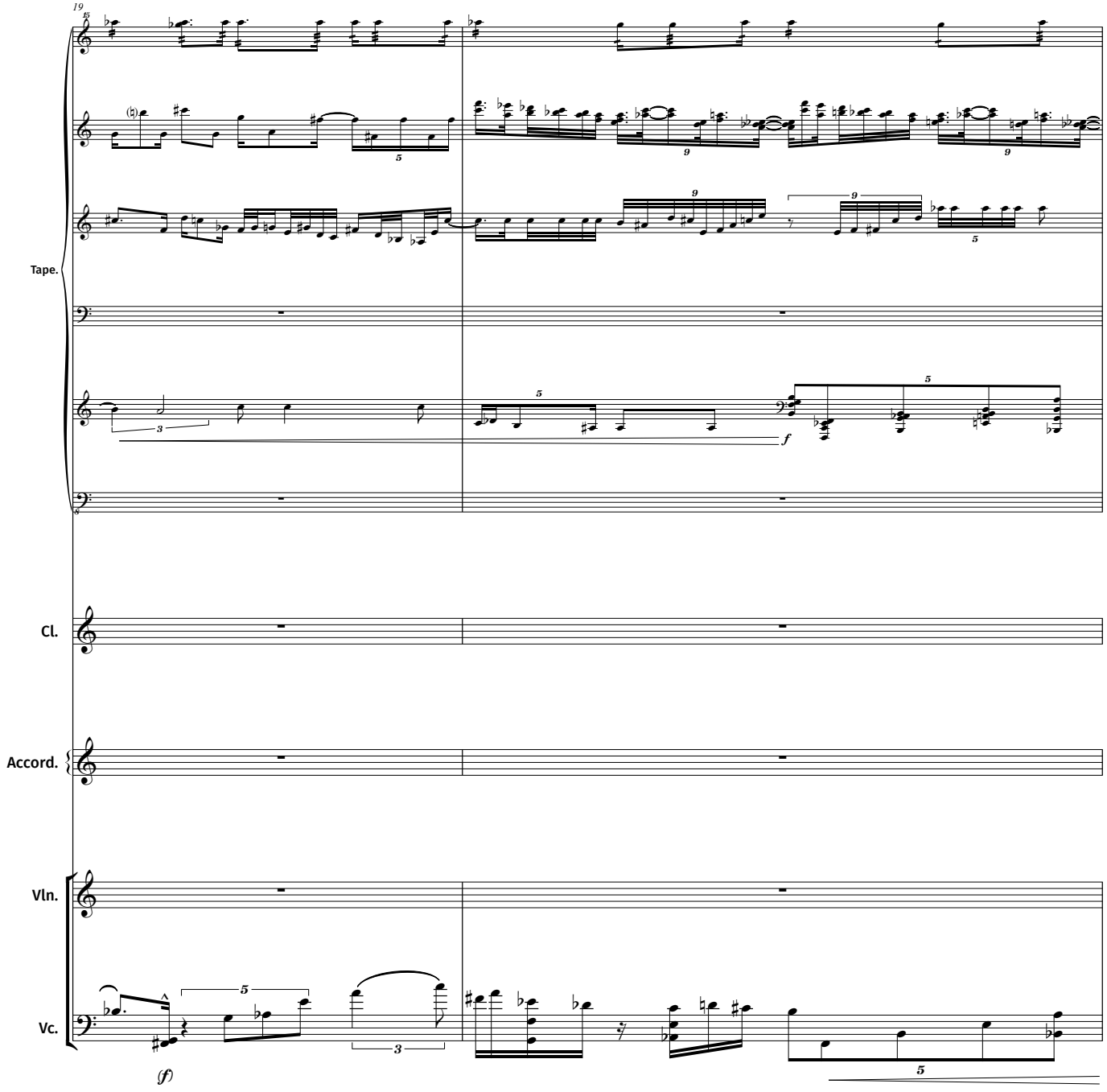


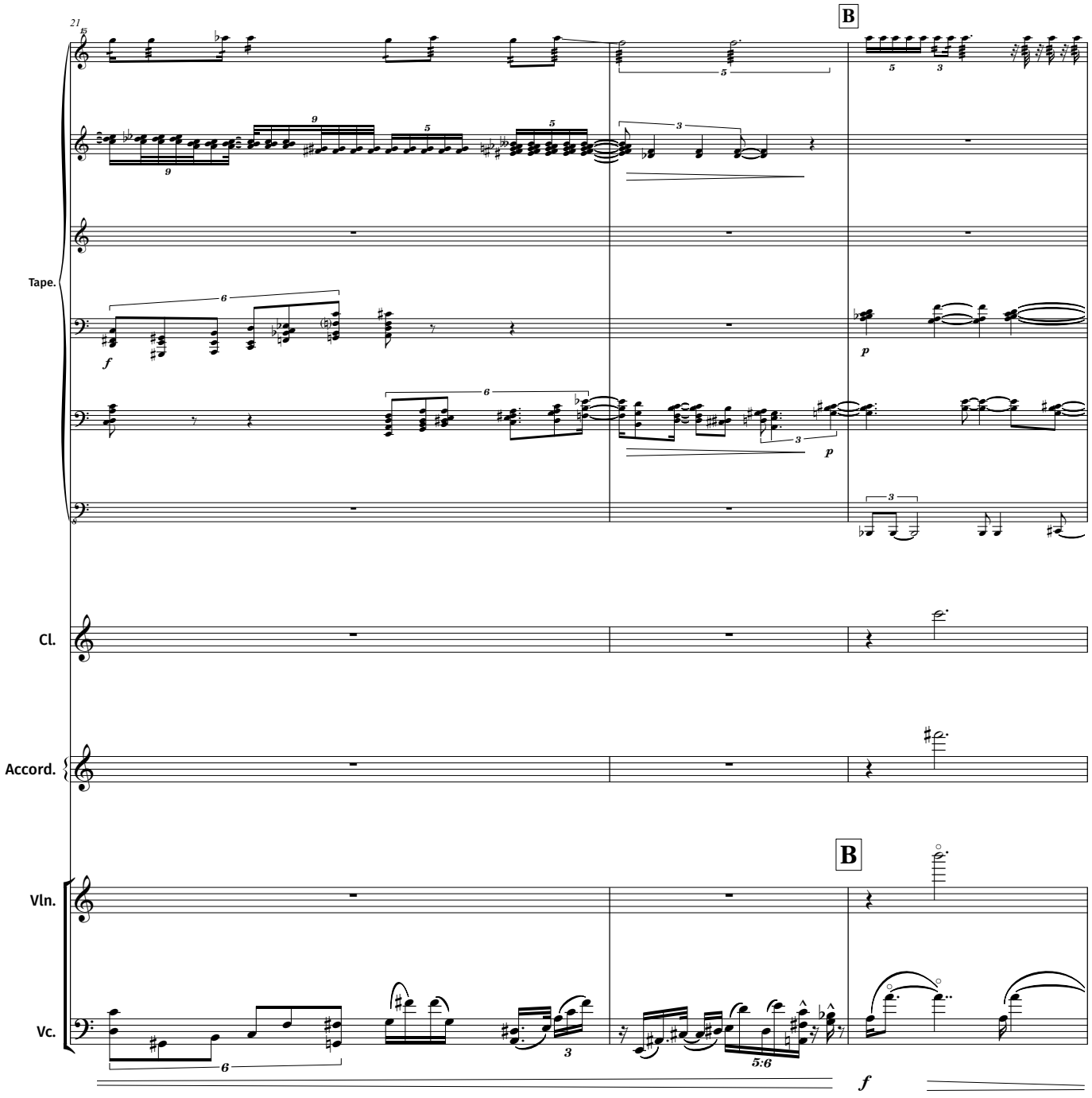

Tape.
Cl.
Accord.
Vln.
Vc.
mf

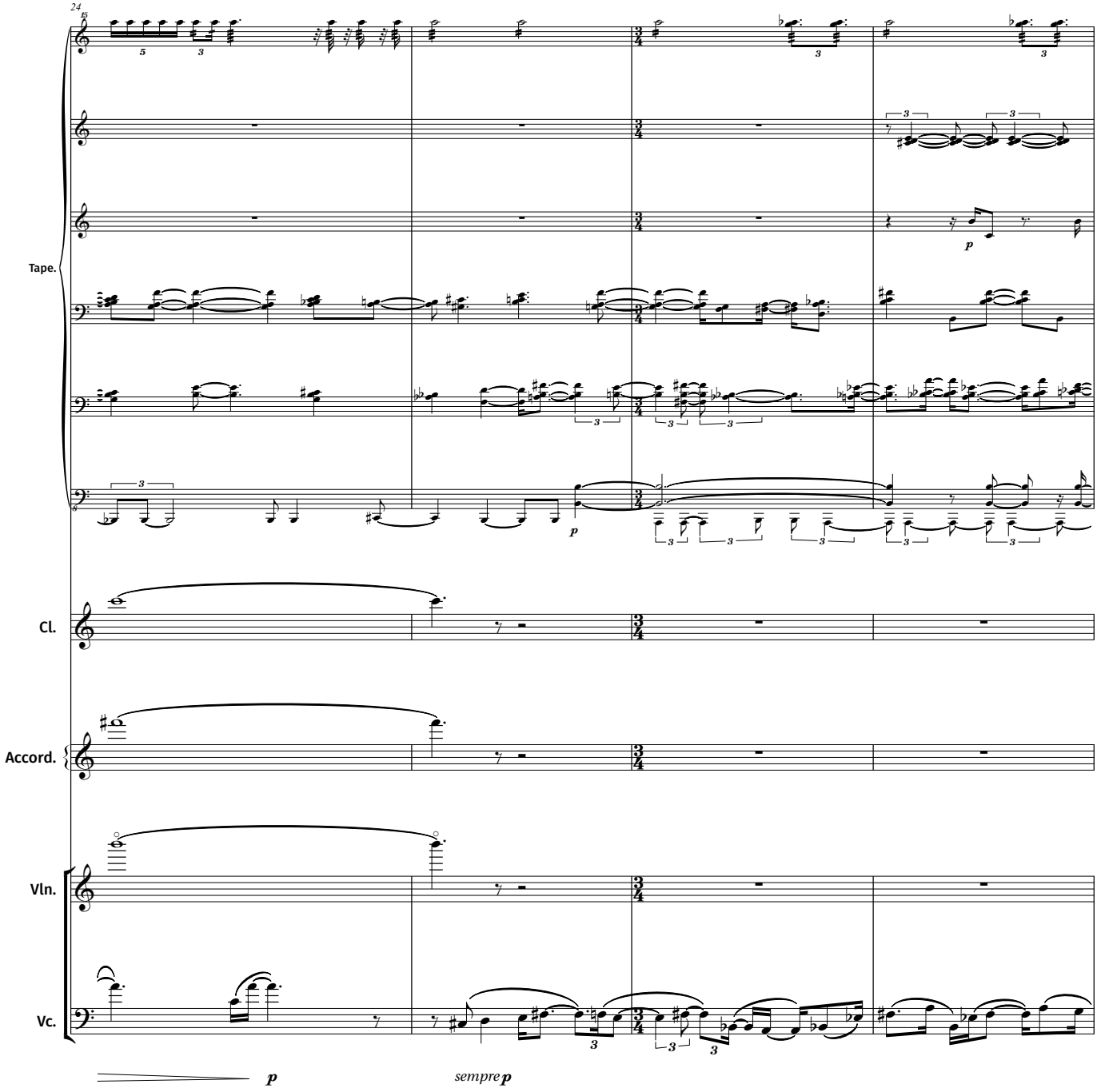

Tape.
Cl.
Accord.
Vln.
Vc.
p
f poco agitato

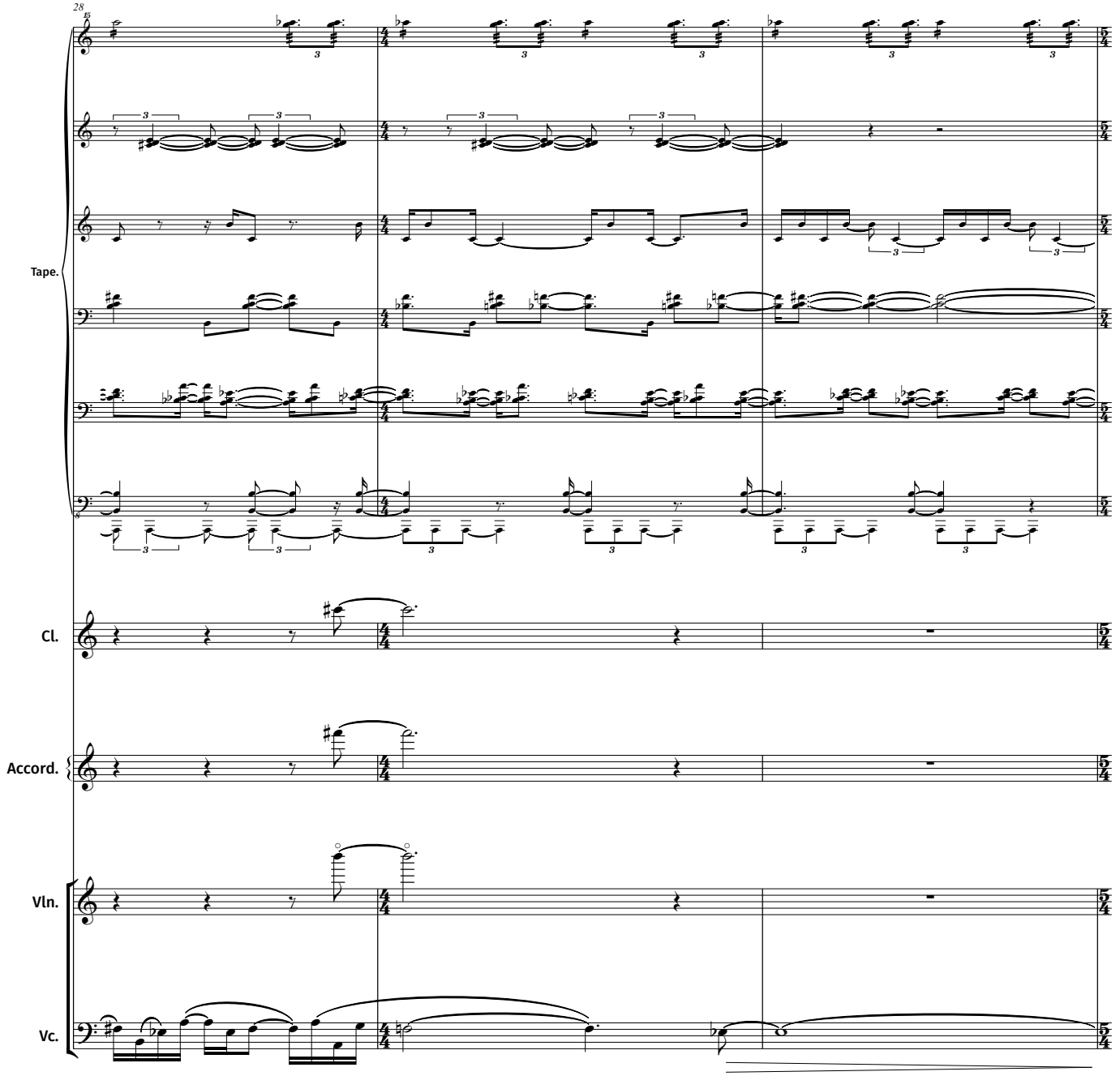

11
Tape.
Cl.
Accord.
Vln.
Vc.
p
mp

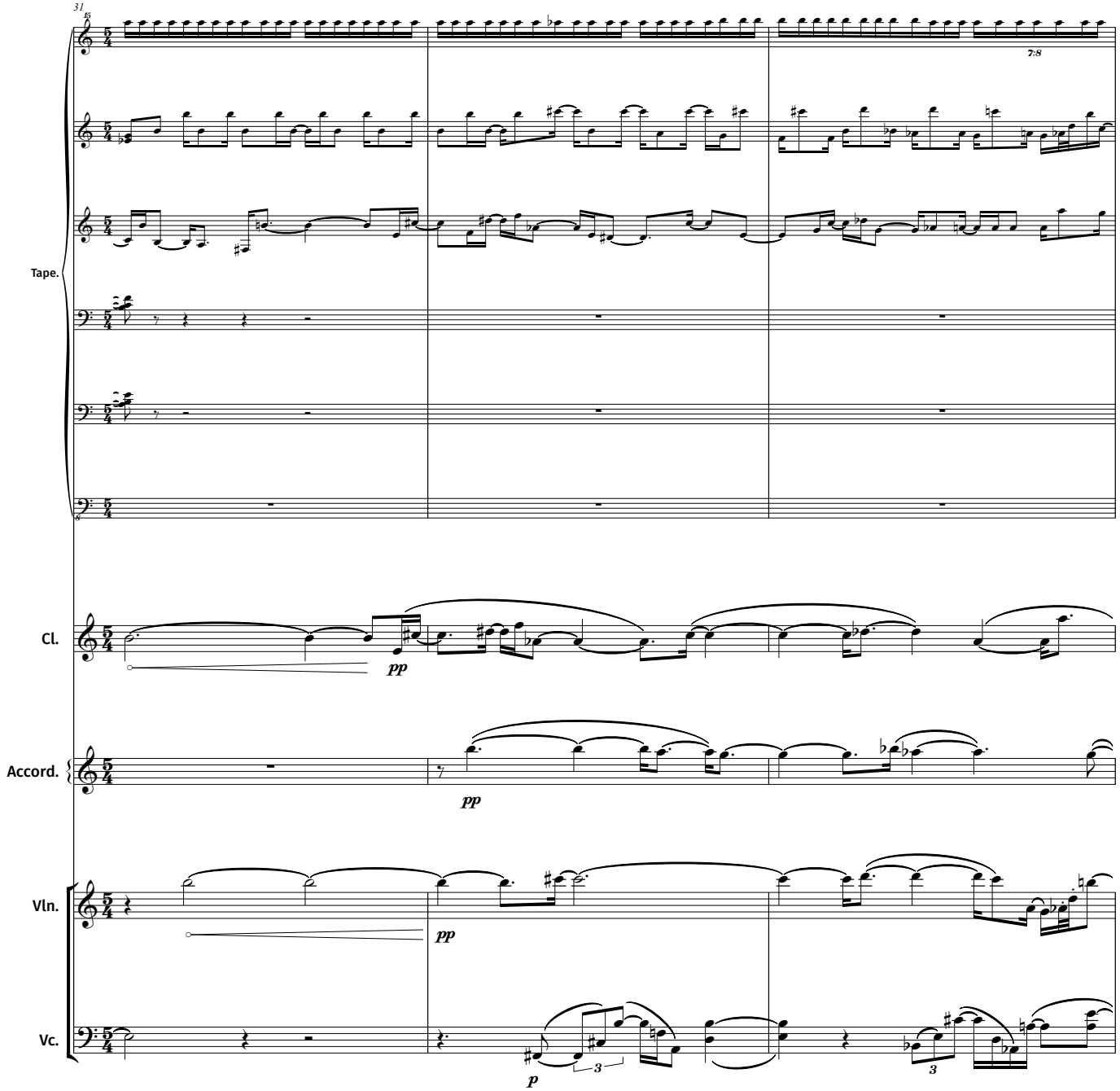

A
Tape.
Cl.
Accord.
Vln.
Vc.
pp
p
p cantabille
(f)
(f)
(f)

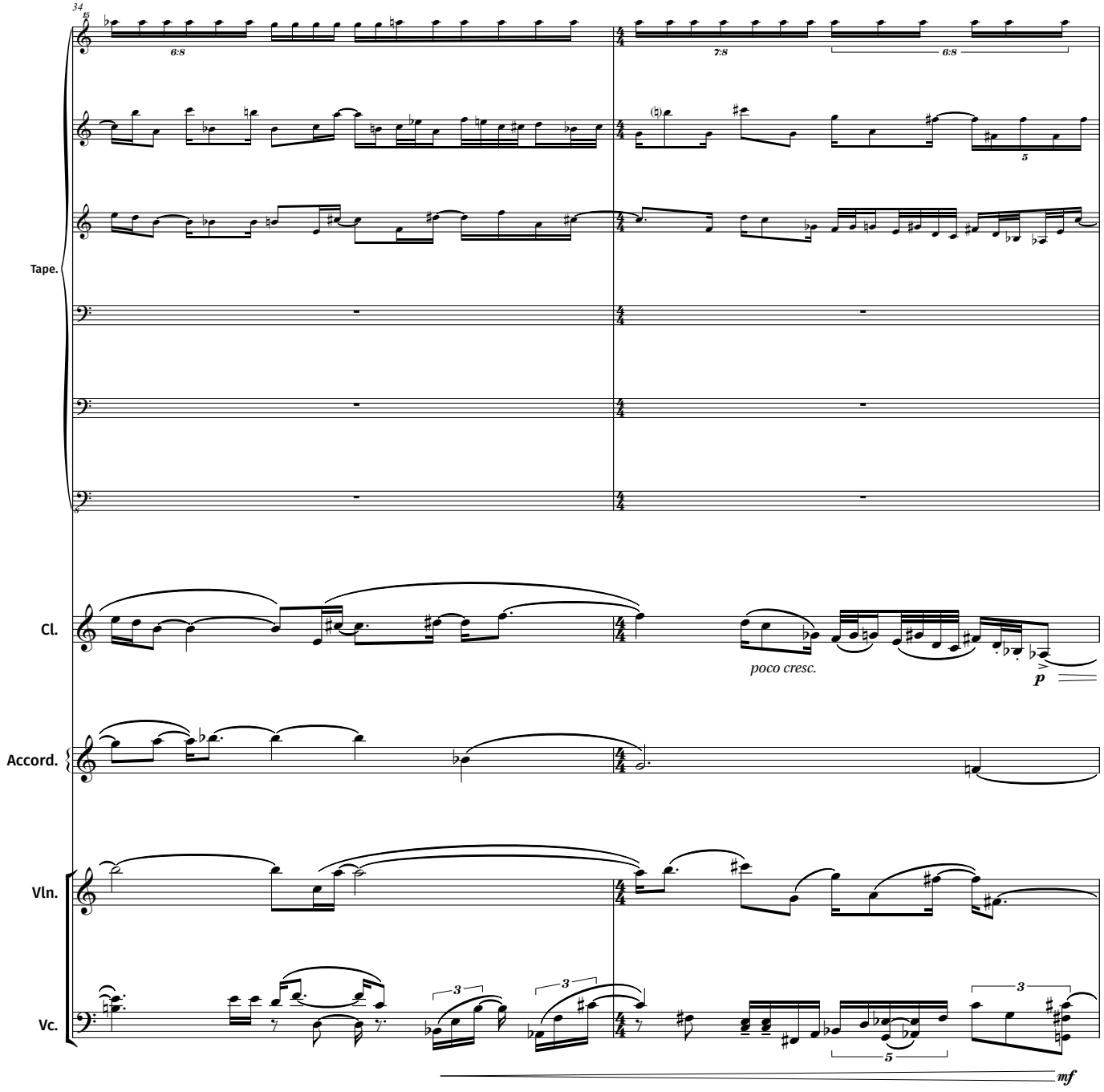

19
Tape.
Cl.
Accord.
Vln.
Vc.
f
(f)

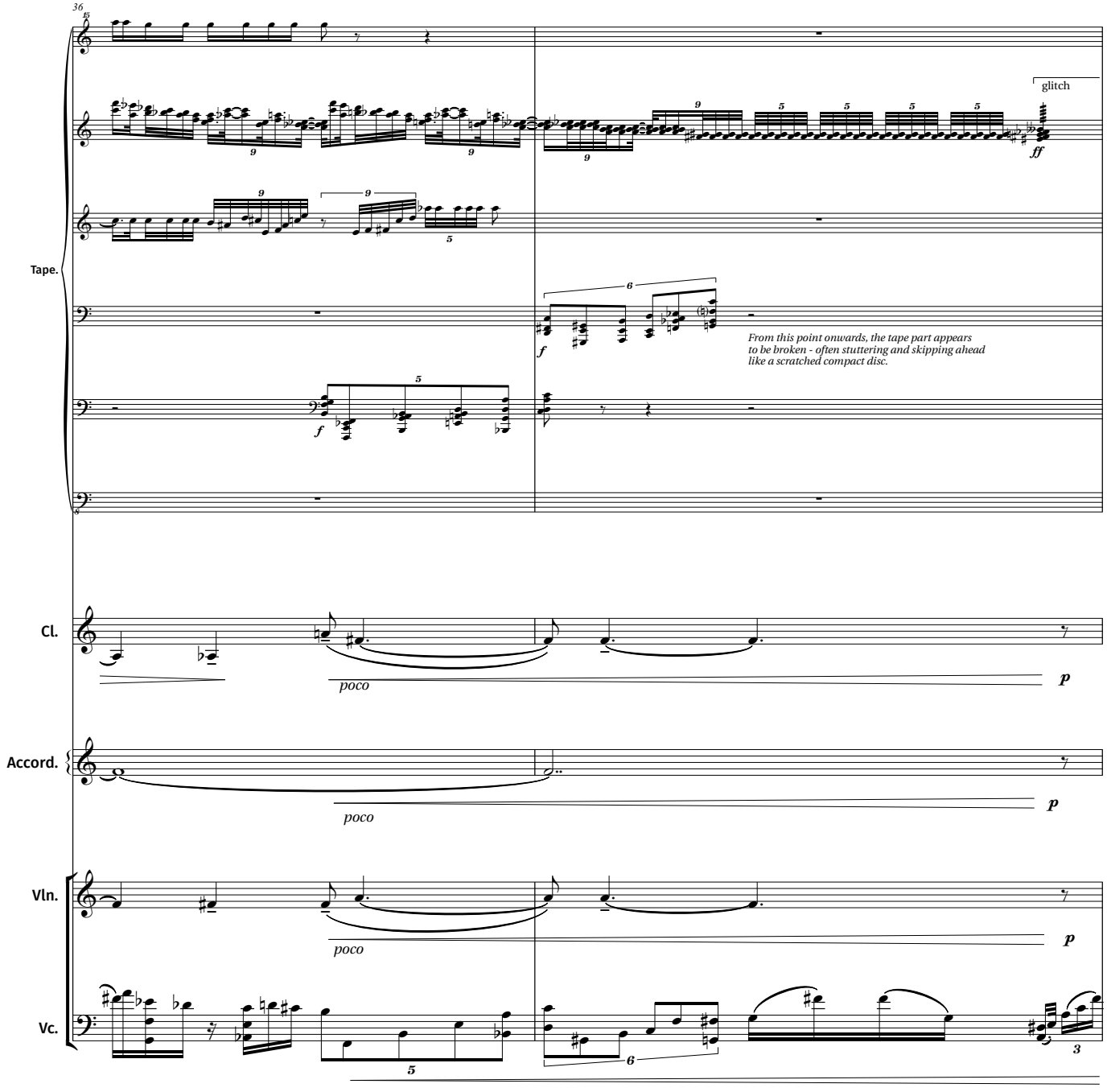

21
B
Tape.
Cl.
Accord.
B
Vln.
Vc.

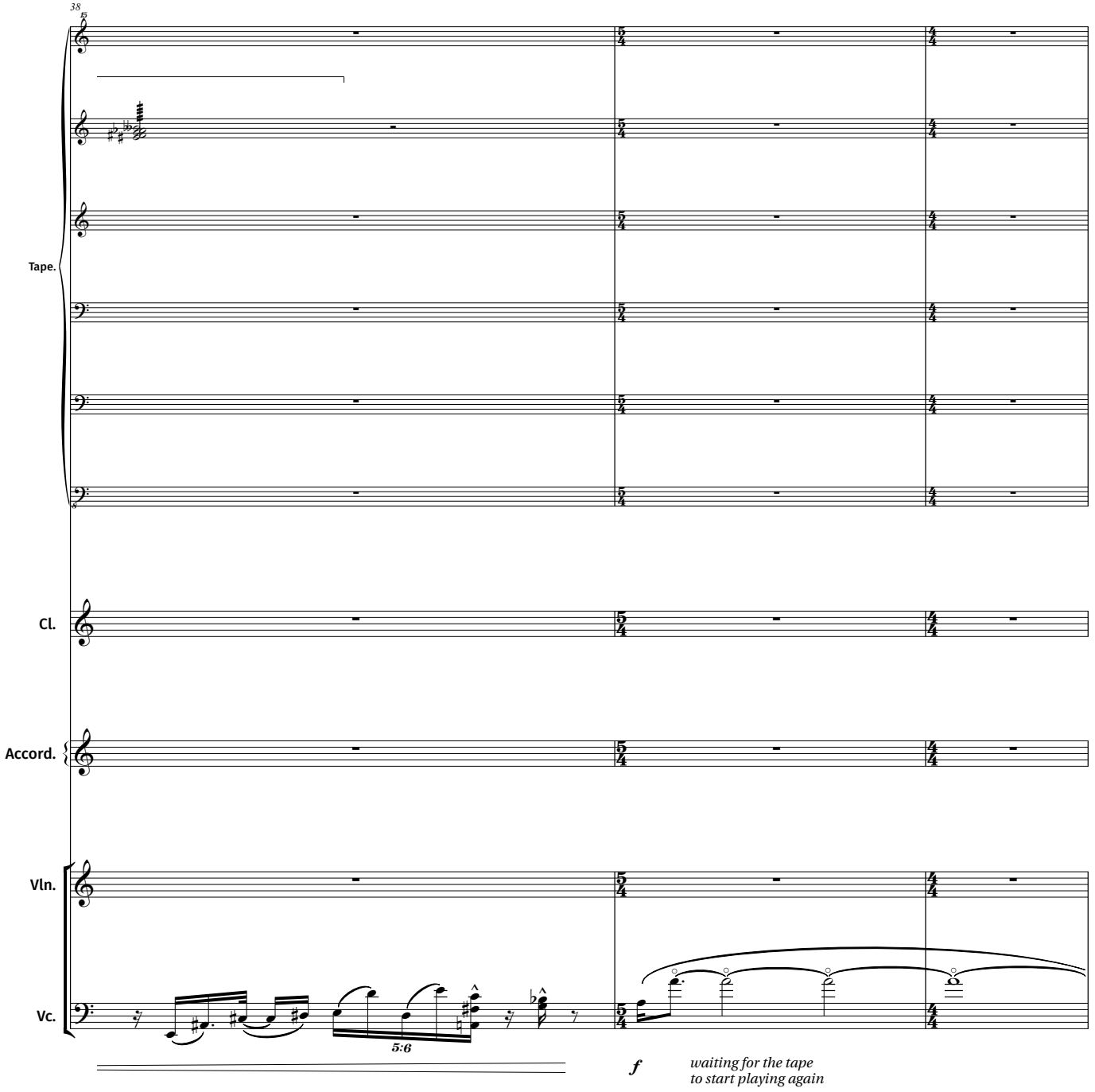

24
Tape.
Cl.
Accord.
Vln.
Vc.
p
sempre p

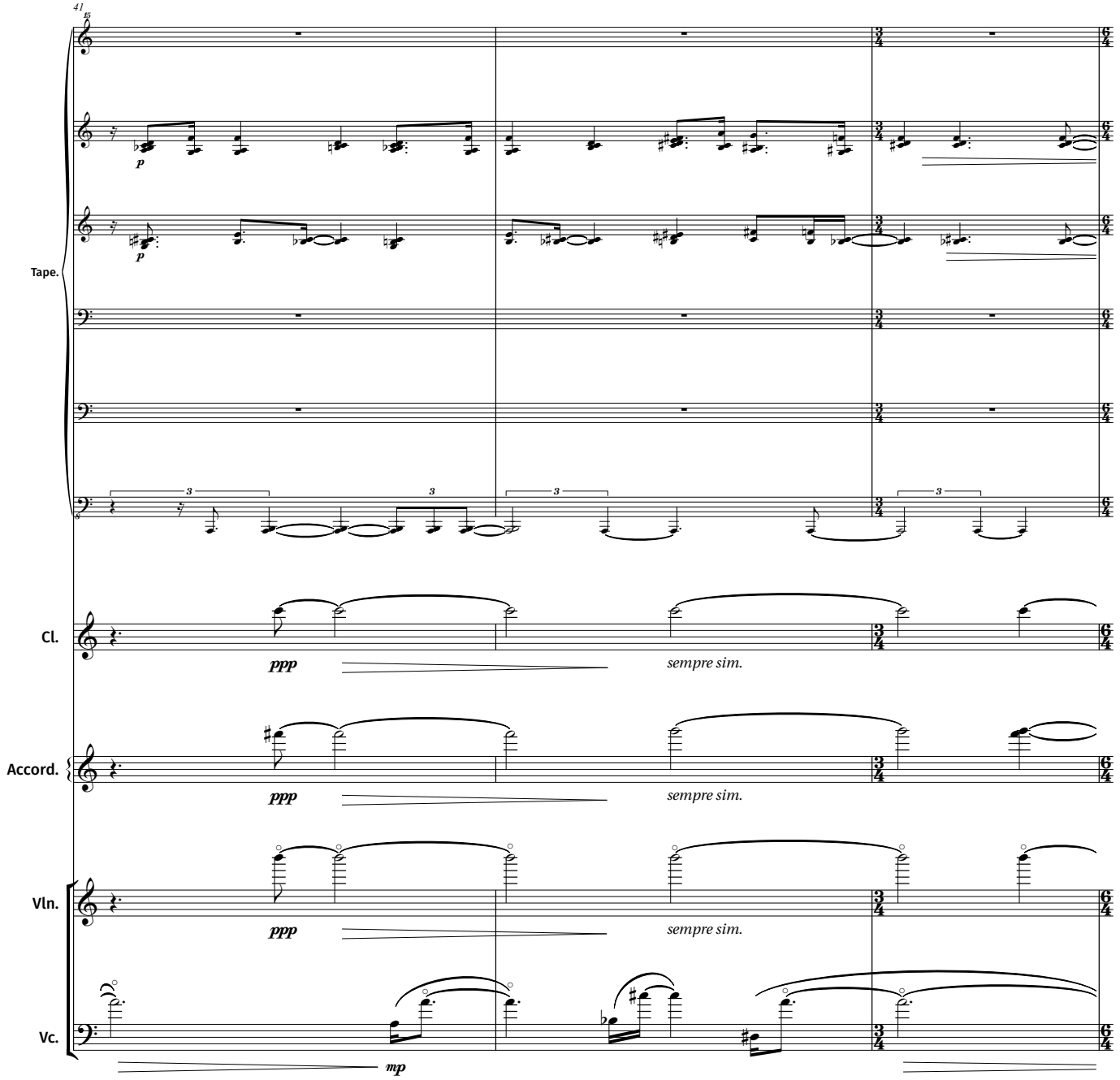

28
Tape.
Cl.
Accord.
Vln.
Vc.

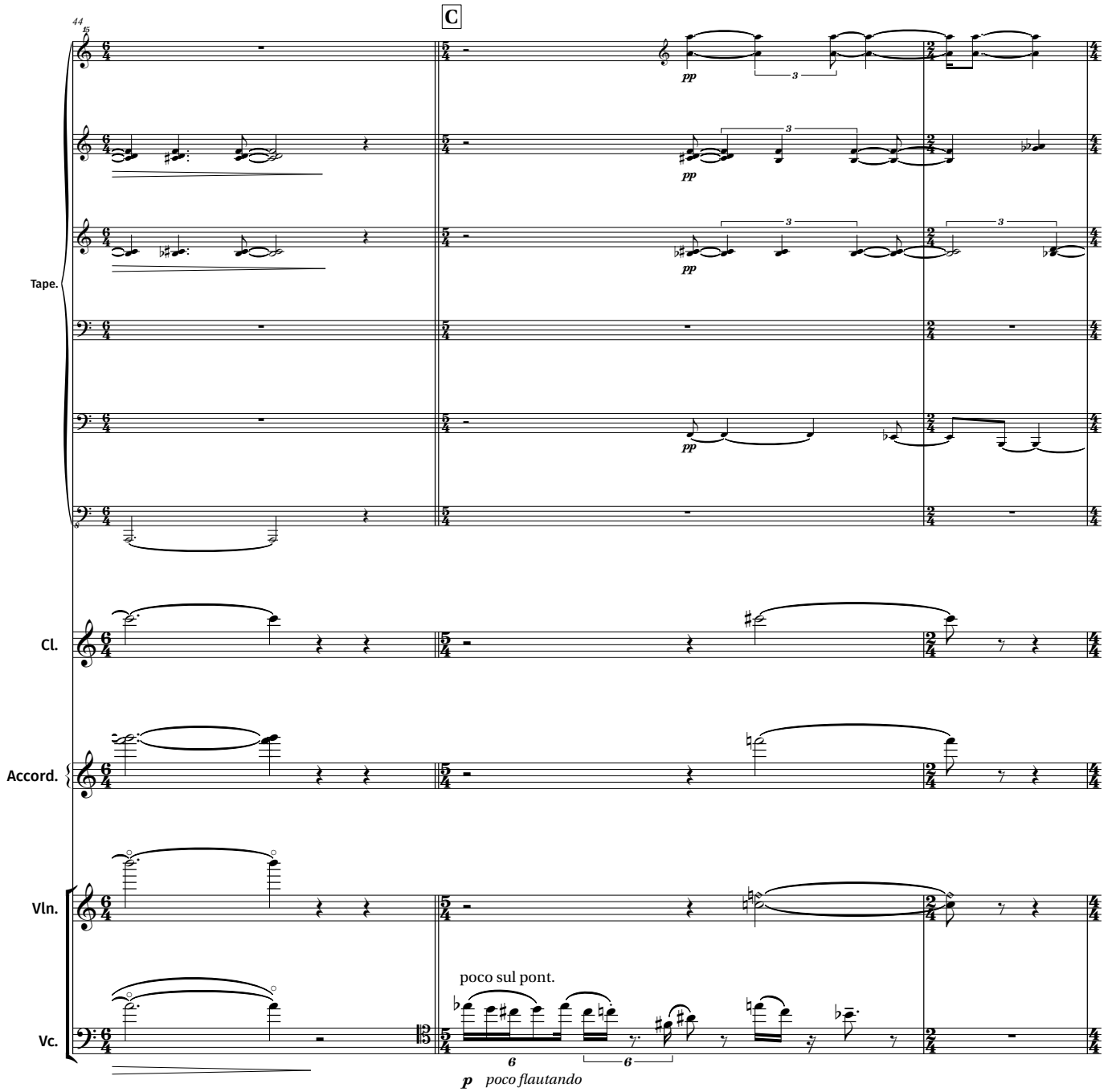

31
15
7:8
Tape.
Cl.
pp
Accord.
pp
Vln.
pp
Vc.
p
3
3

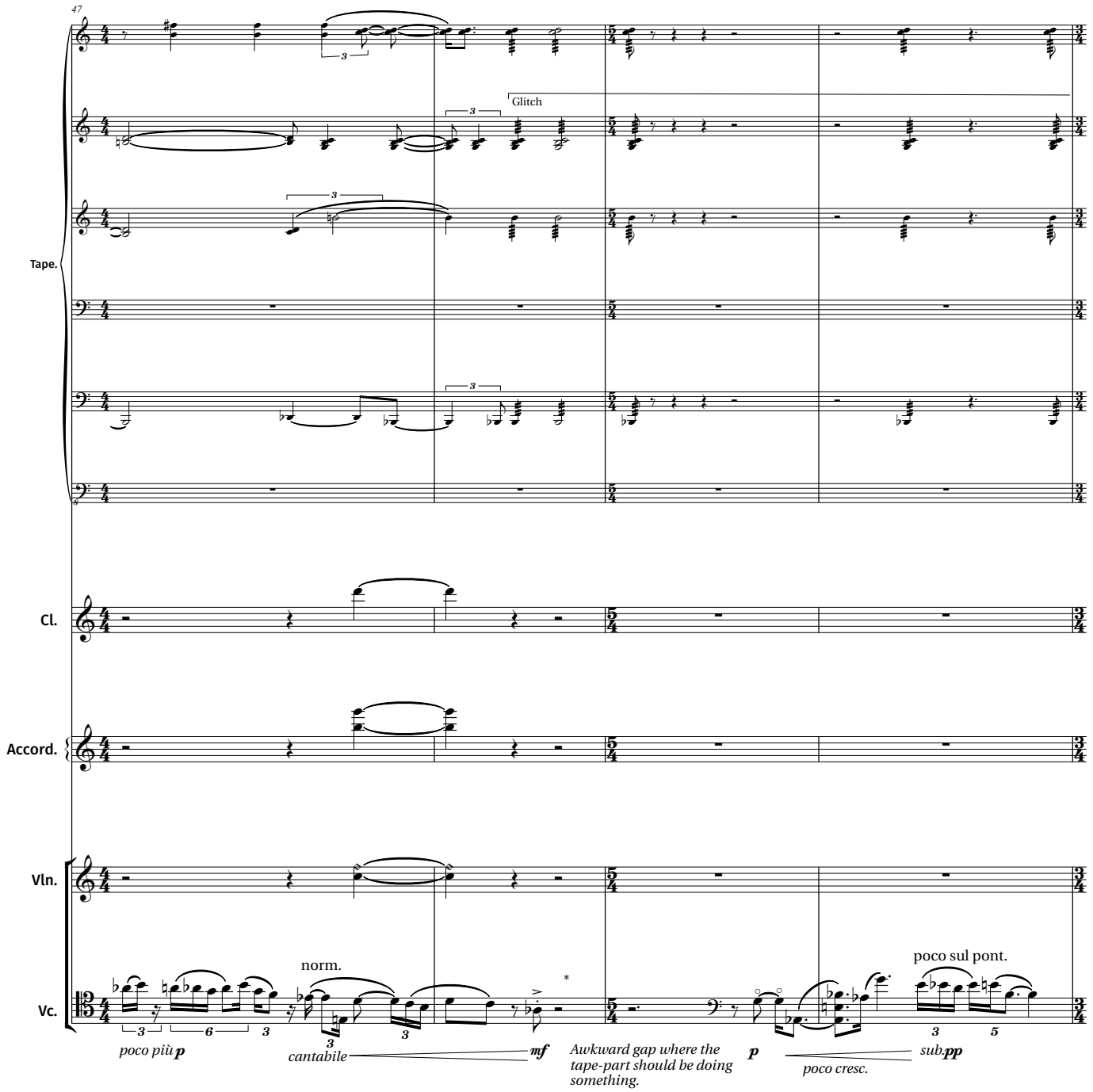

34
6:8
7:8
6:8
Tape.
Cl.
poco cresc.
p
Accord.
Vln.
Vc.
3
3
3
5
mf

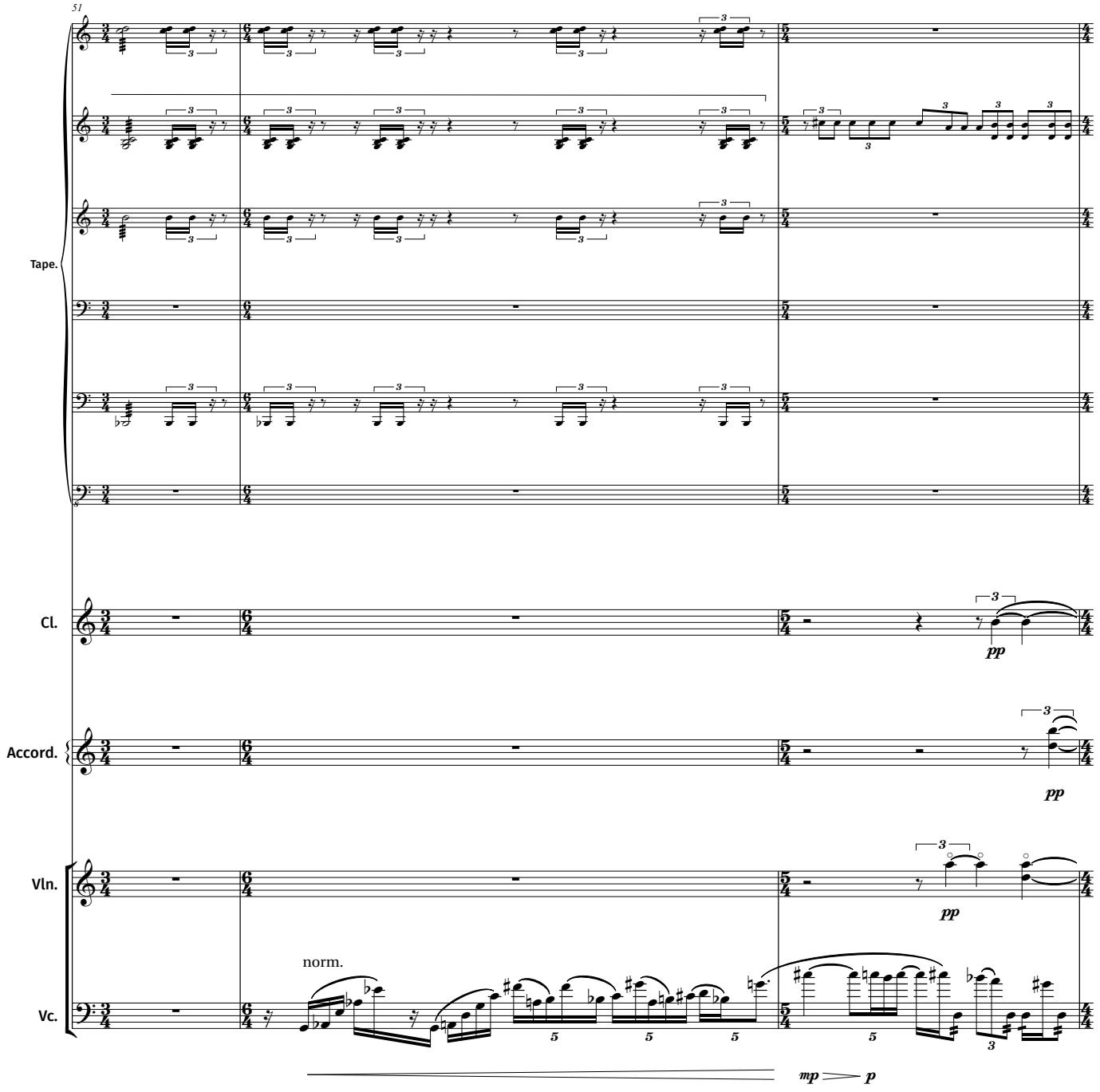

36
Tape.
glitch
ff
f
6
From this point onwards, the tape part appears
to be broken - often stuttering and skipping ahead
like a scratched compact disc.
f
5
Cl.
poco
p
Accord.
poco
p
Vln.
poco
p
Vc.
5
6
3

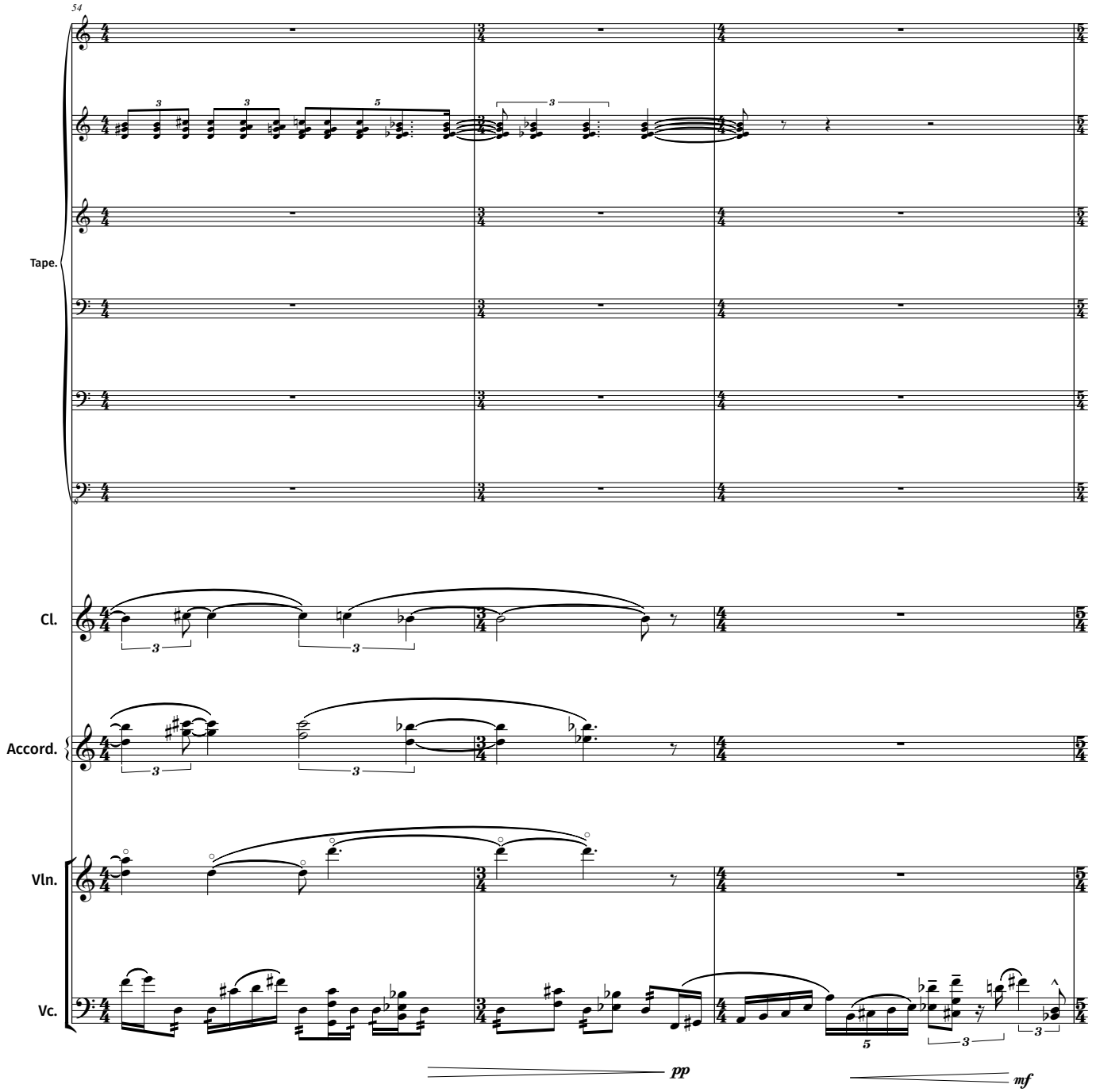

38
Tape.
Cl.
Accord.
Vln.
Vc.
5:6
f
waiting for the tape
to start playing again

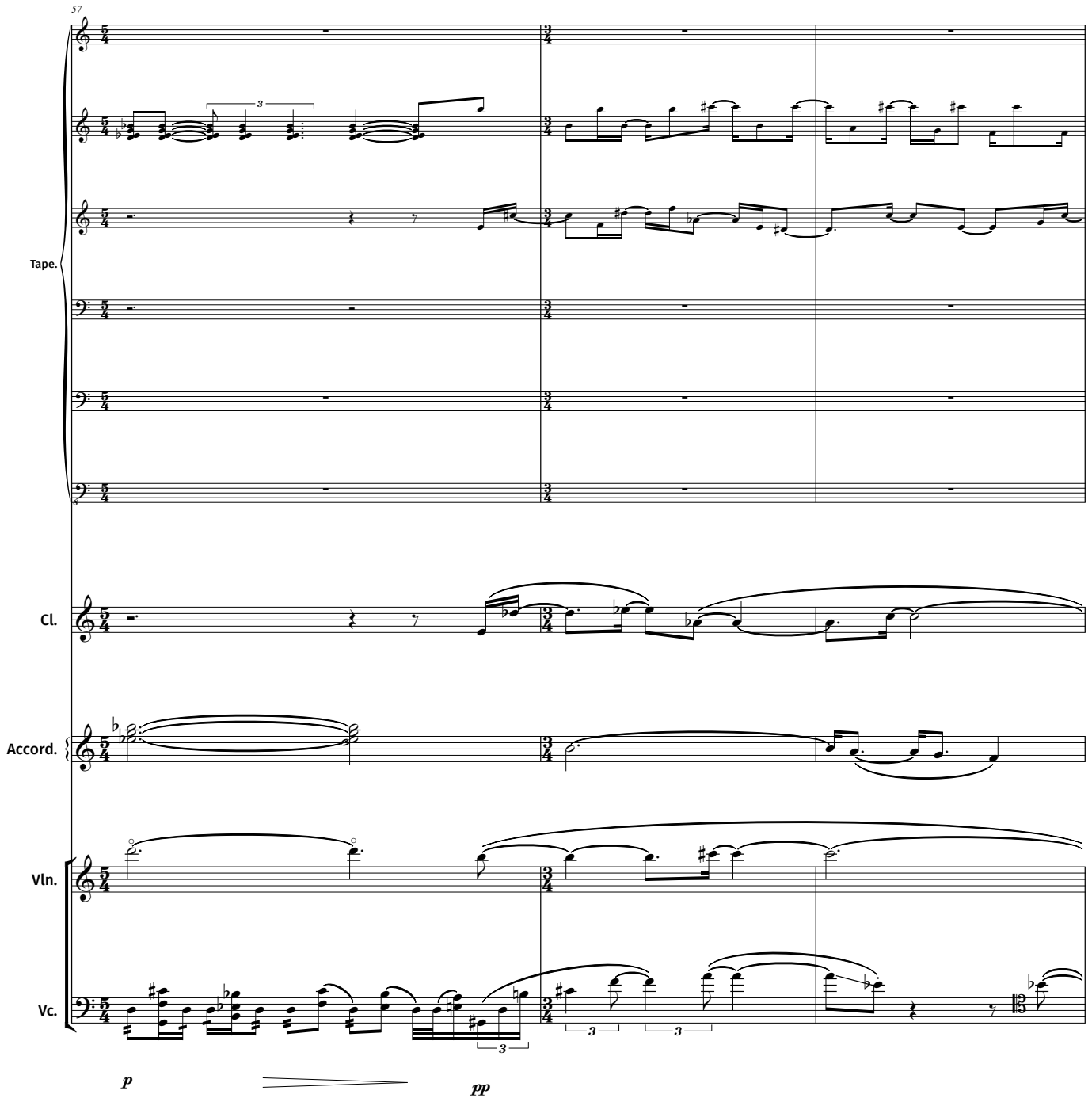

41
Tape.
Cl.
Accord.
Vln.
Vc.
p
p
ppp
sempre sim.
ppp
sempre sim.
ppp
sempre sim.
mp

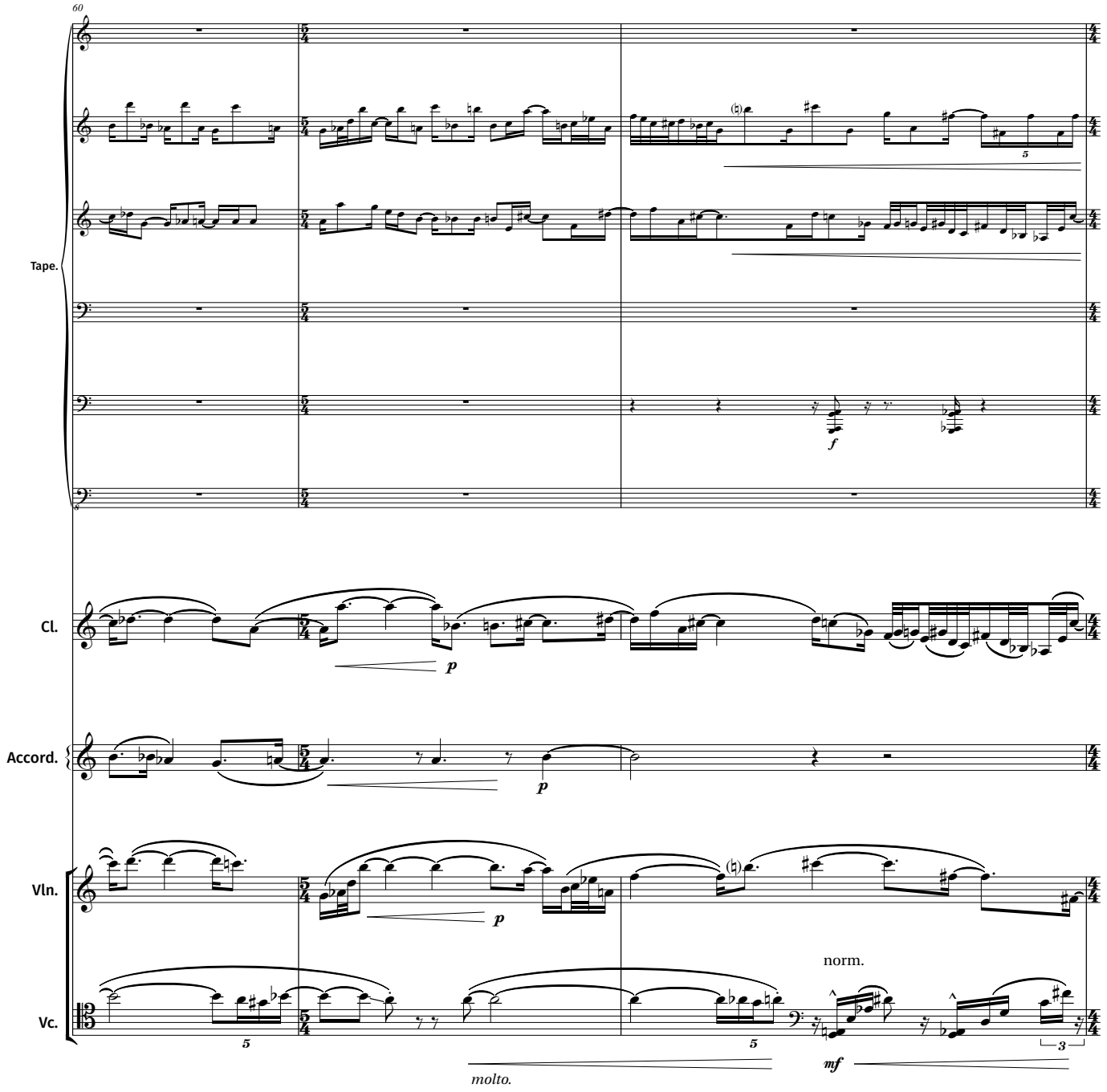

C
Tape.
Cl.
Accord.
Vln.
Vc.
poco sul pont.
p poco flautando

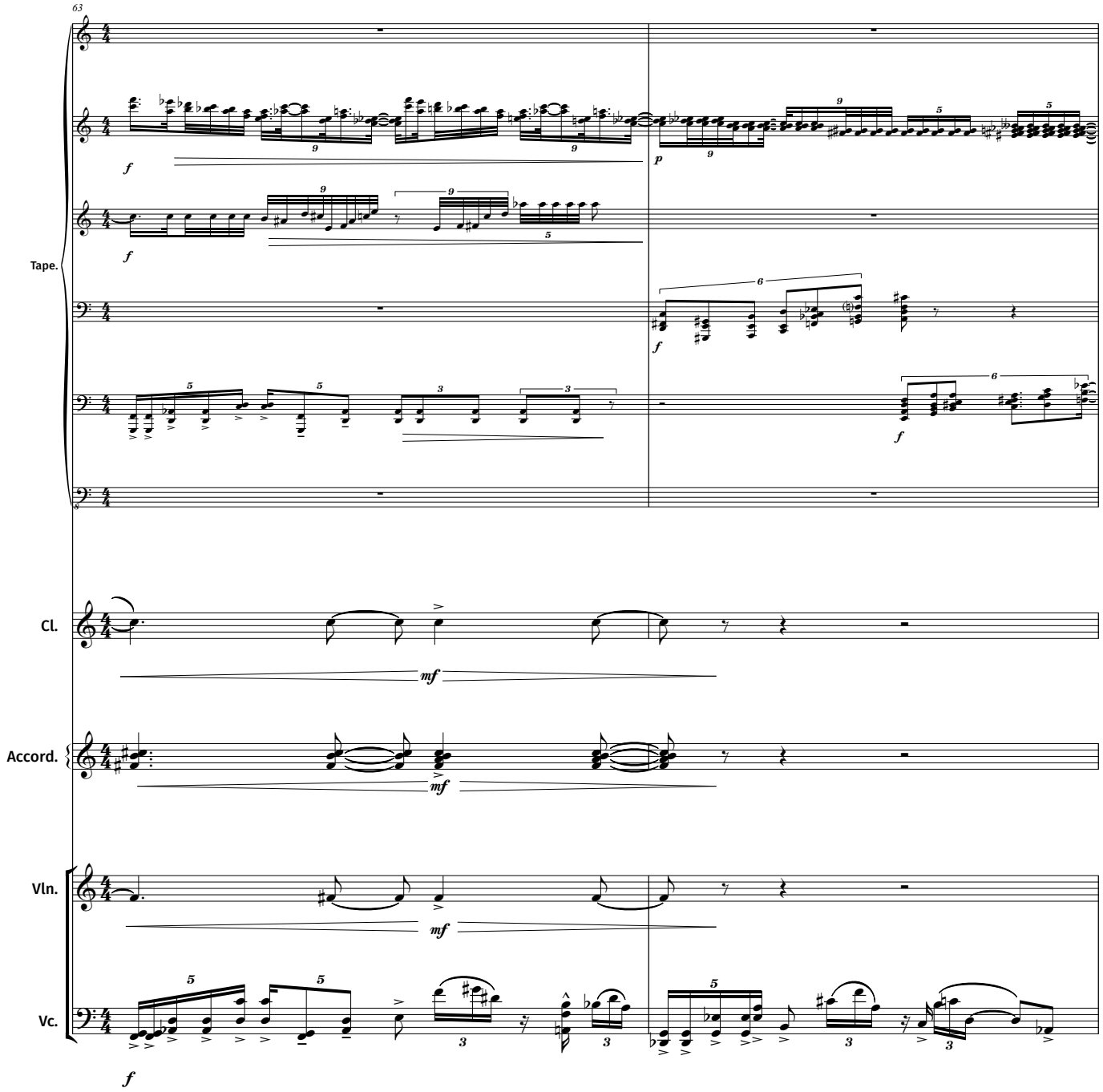

47
Glitch
Tape.
Cl.
Accord.
Vln.
Vc.
norm.
poco sul pont.
poco più p
cantabile
mf
Awkward gap where the tape-part should be doing something.
p
poco cresc.
sub.pp

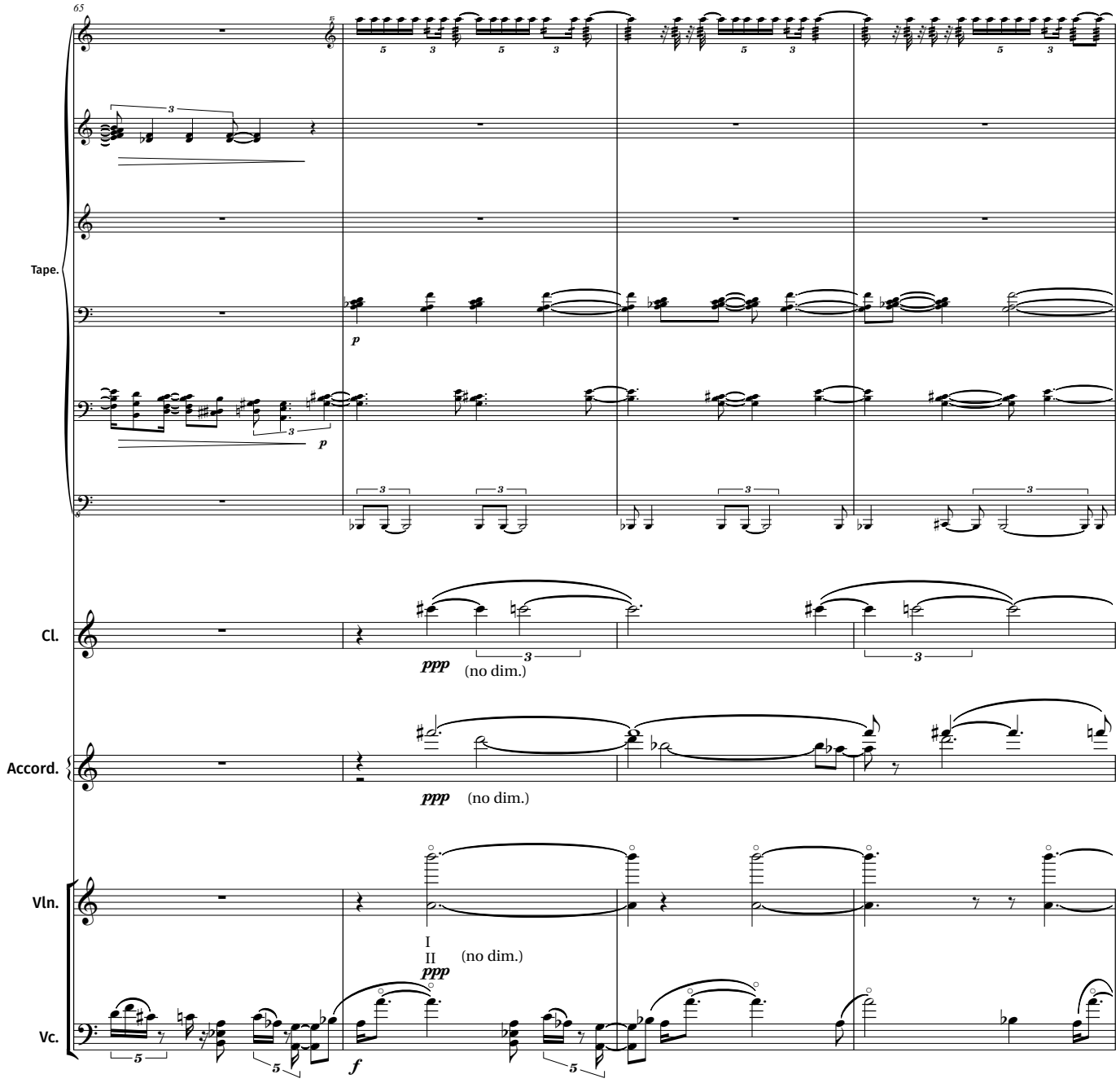

51
Tape.
Cl.
pp
Accord.
pp
Vln.
pp
Vc.
norm.
mp
p

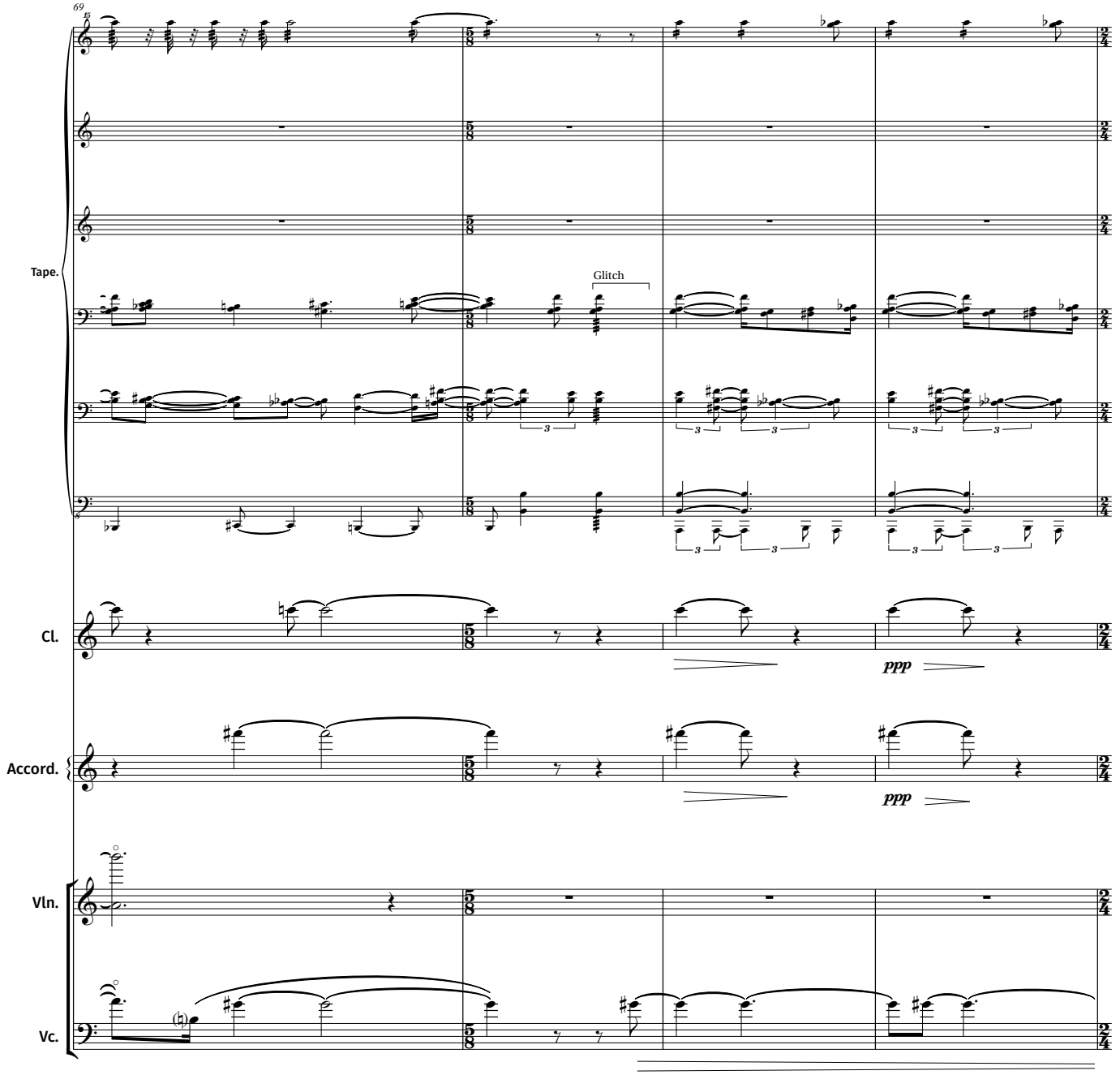

54
Tape.
Cl.
Accord.
Vln.
Vc.
pp
mf

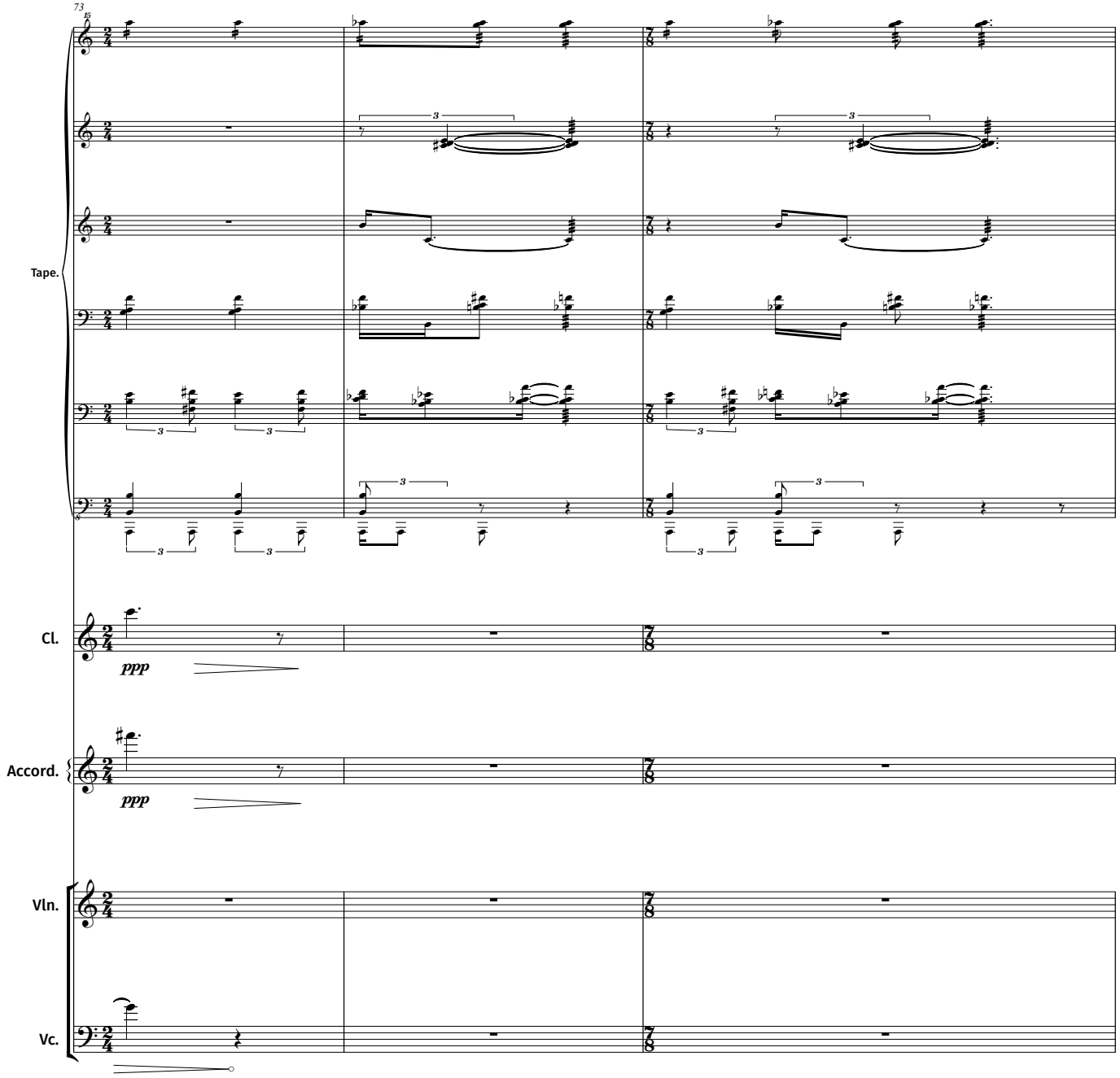

57
Tape.
Cl.
Accord.
Vln.
Vc.
p
pp

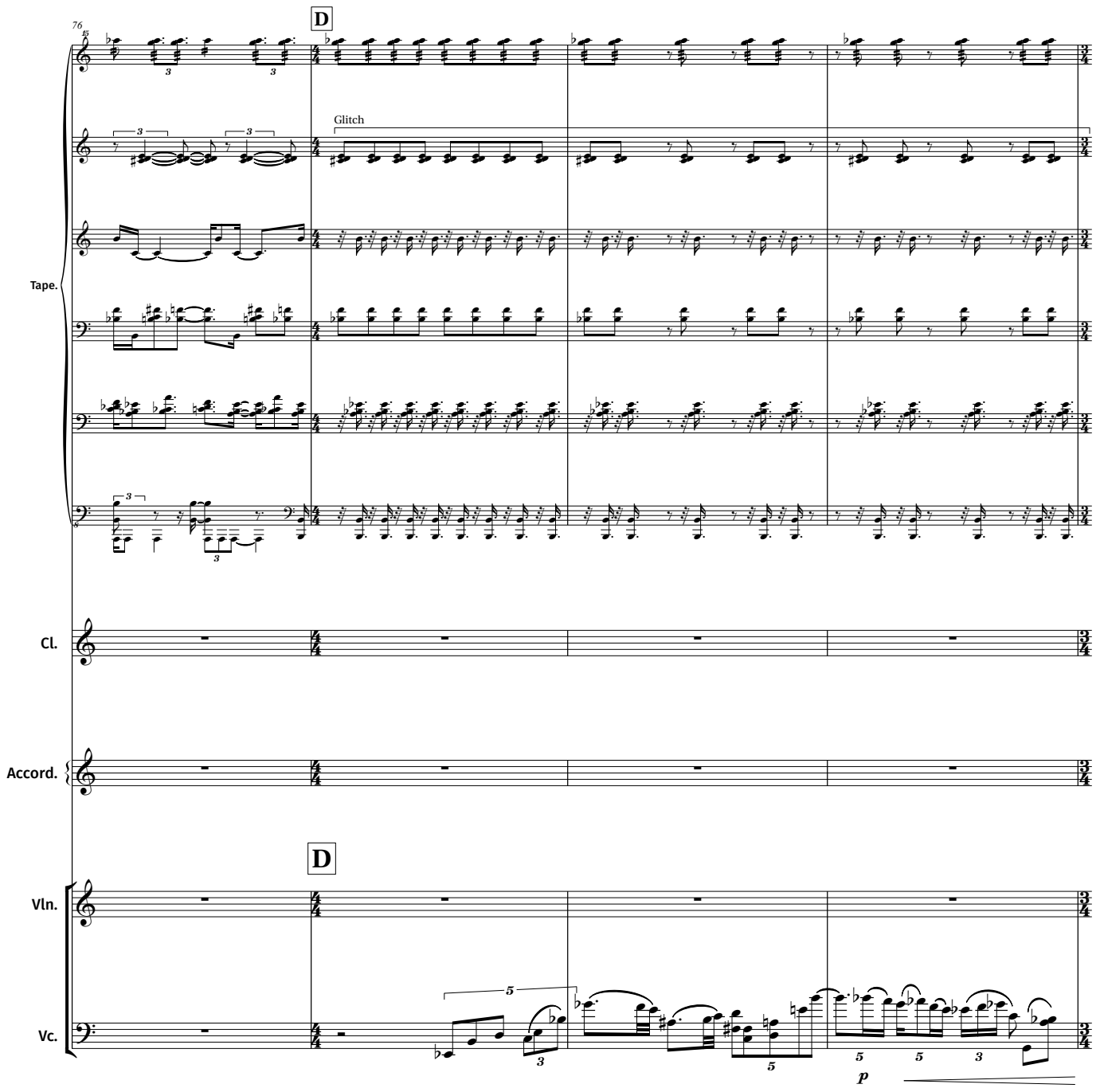

60
Tape.
Cl.
Accord.
Vln.
Vc.
norm.
molto.

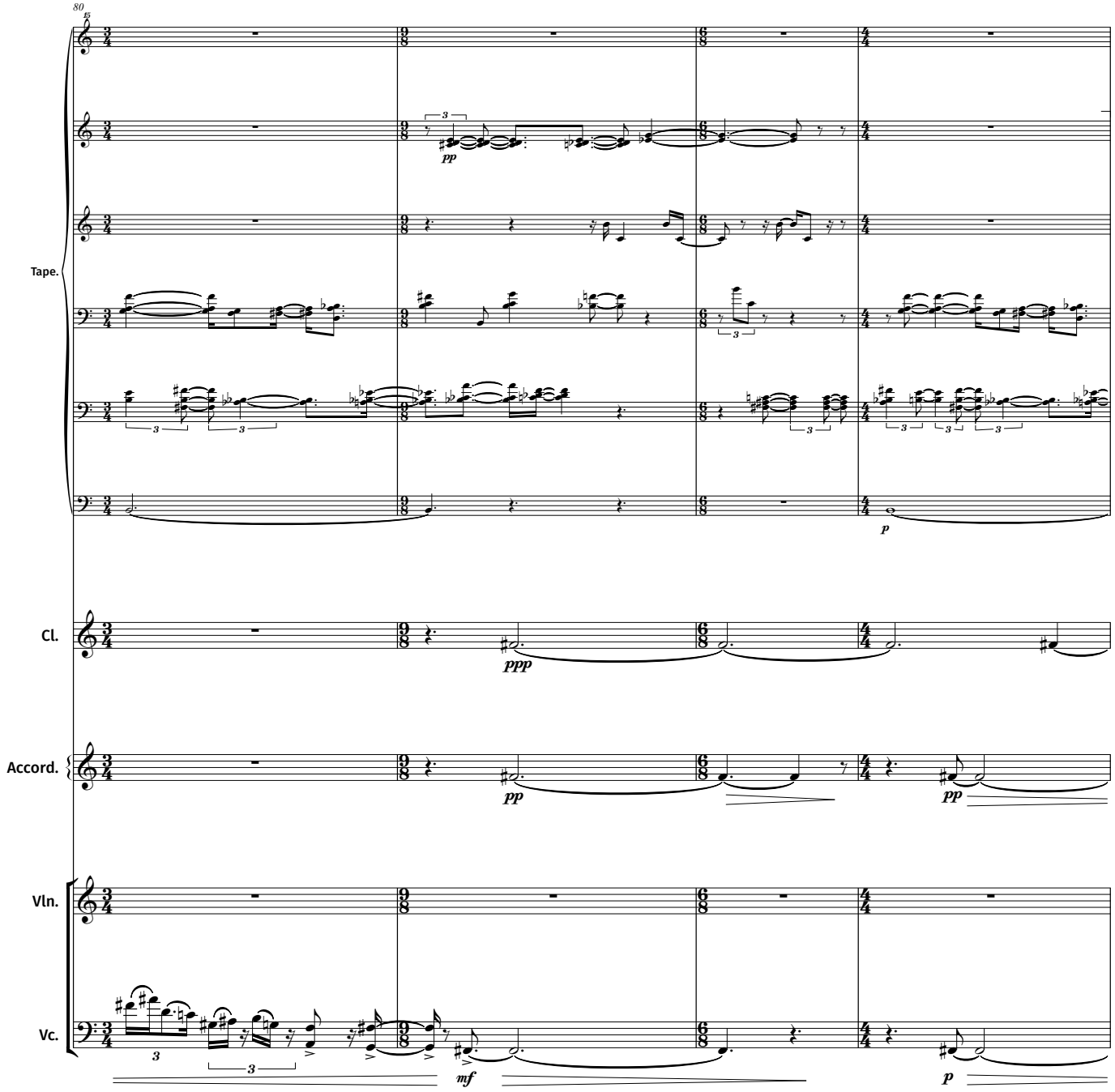

63
Tape.
Cl.
Accord.
Vln.
Vc.
f
p
mf

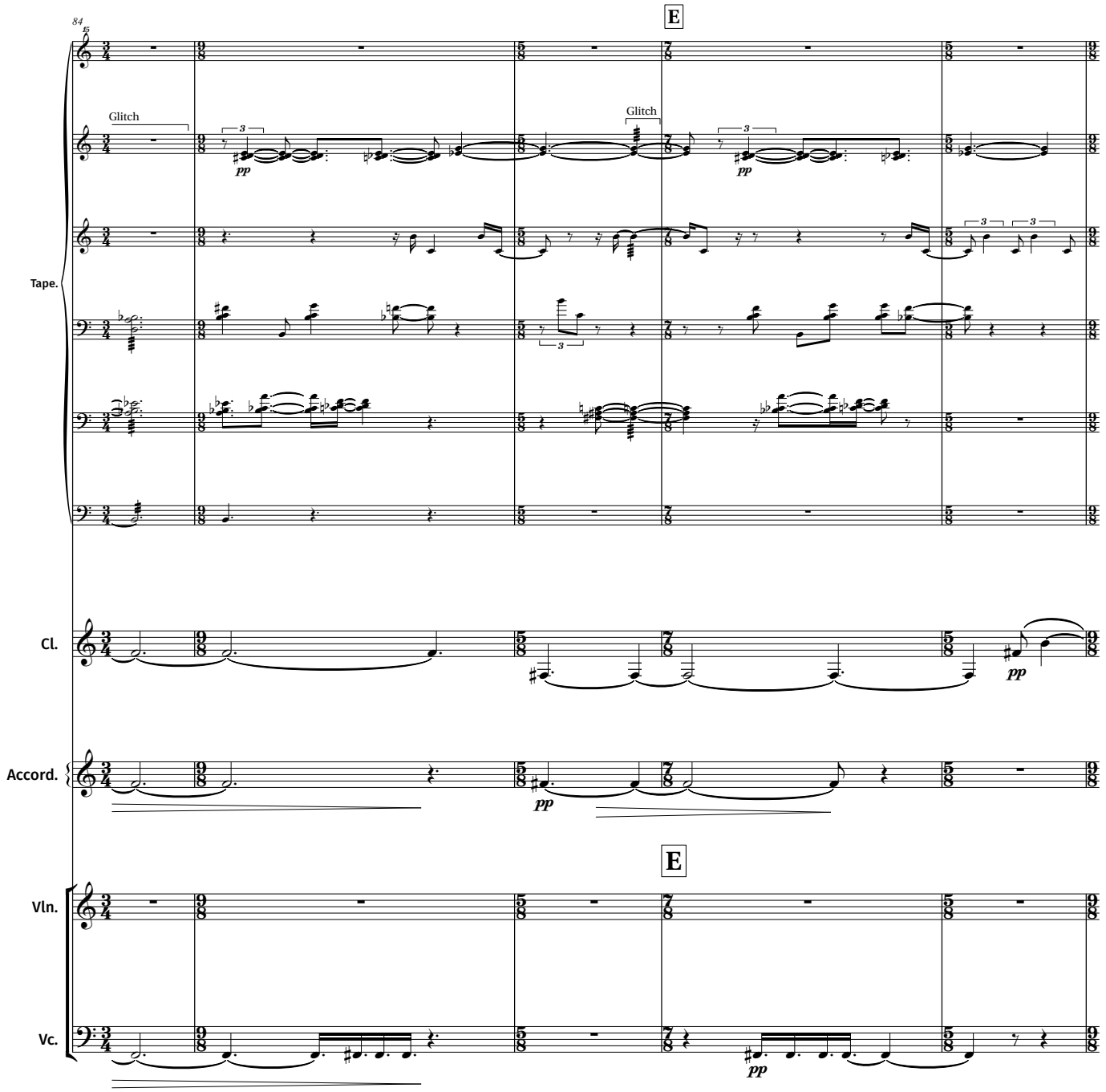

65
Tape.
p
p
Cl.
ppp
(no dim.)
Accord.
ppp
(no dim.)
Vln.
I
II
(no dim.)
ppp
Vc.
f

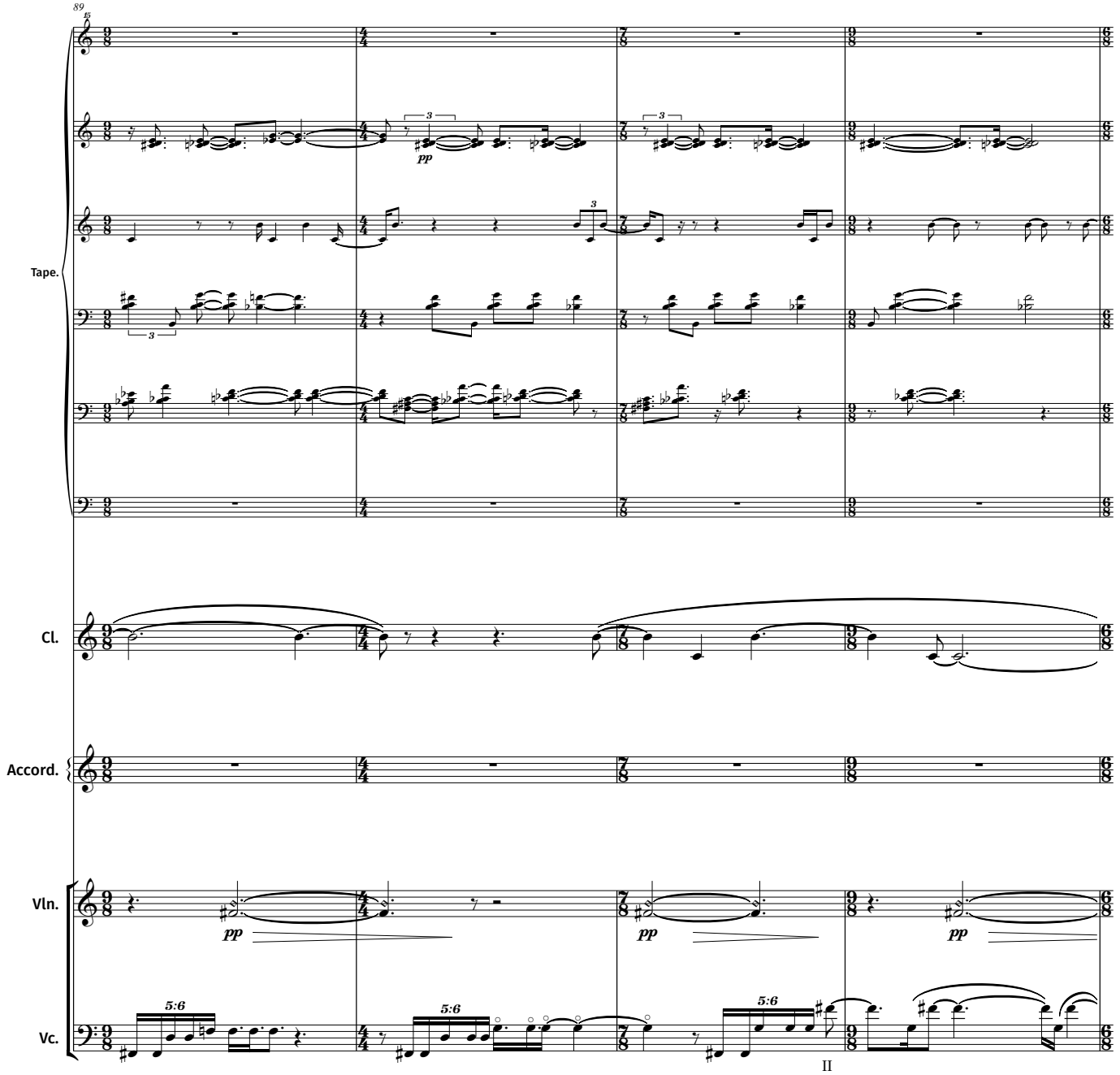

69
Tape.
Glitch
Cl.
ppp
Accord.
ppp
Vln.
Vc.

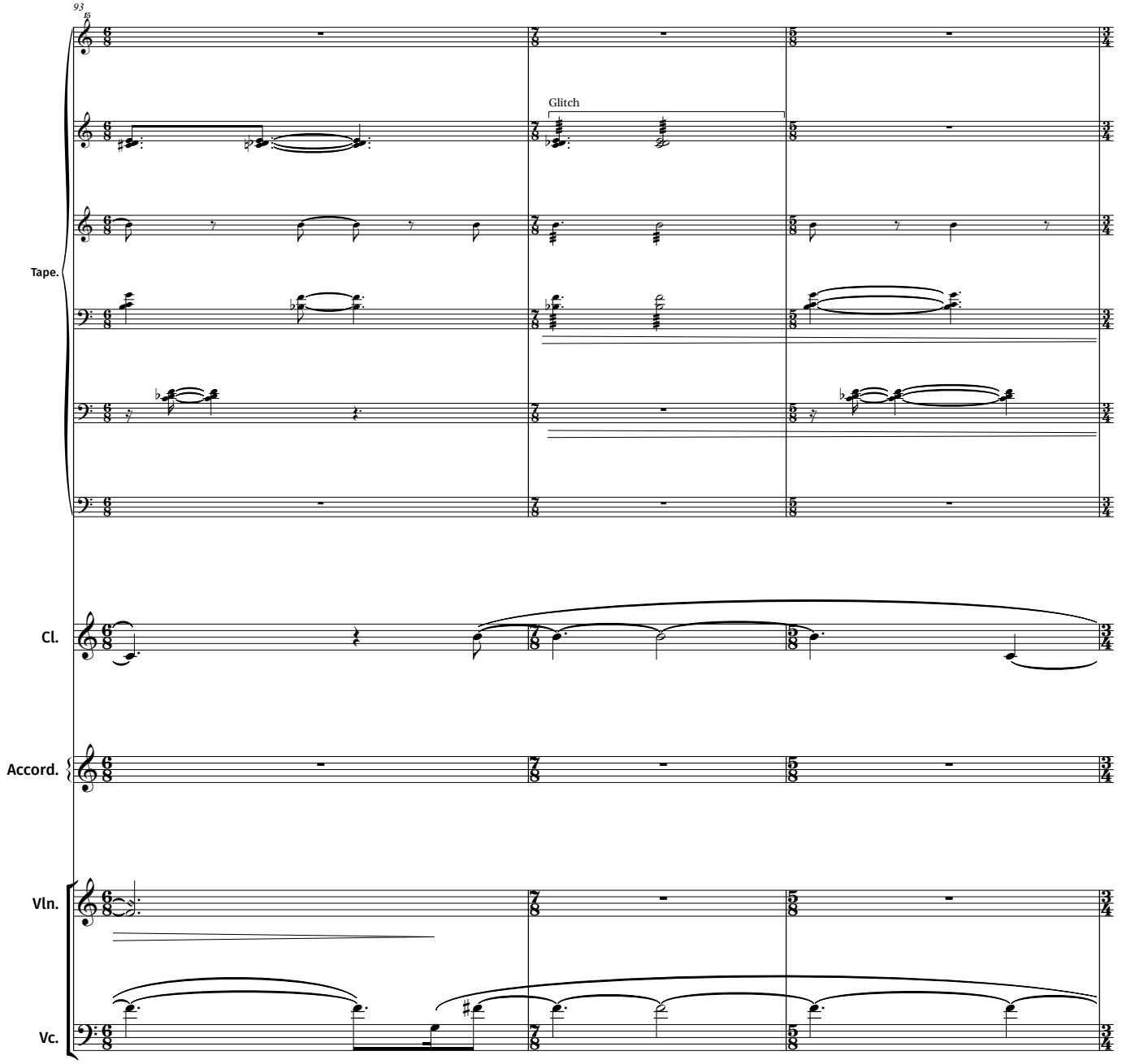

73
Tape.
Cl.
ppp
Accord.
ppp
Vln.
Vc.

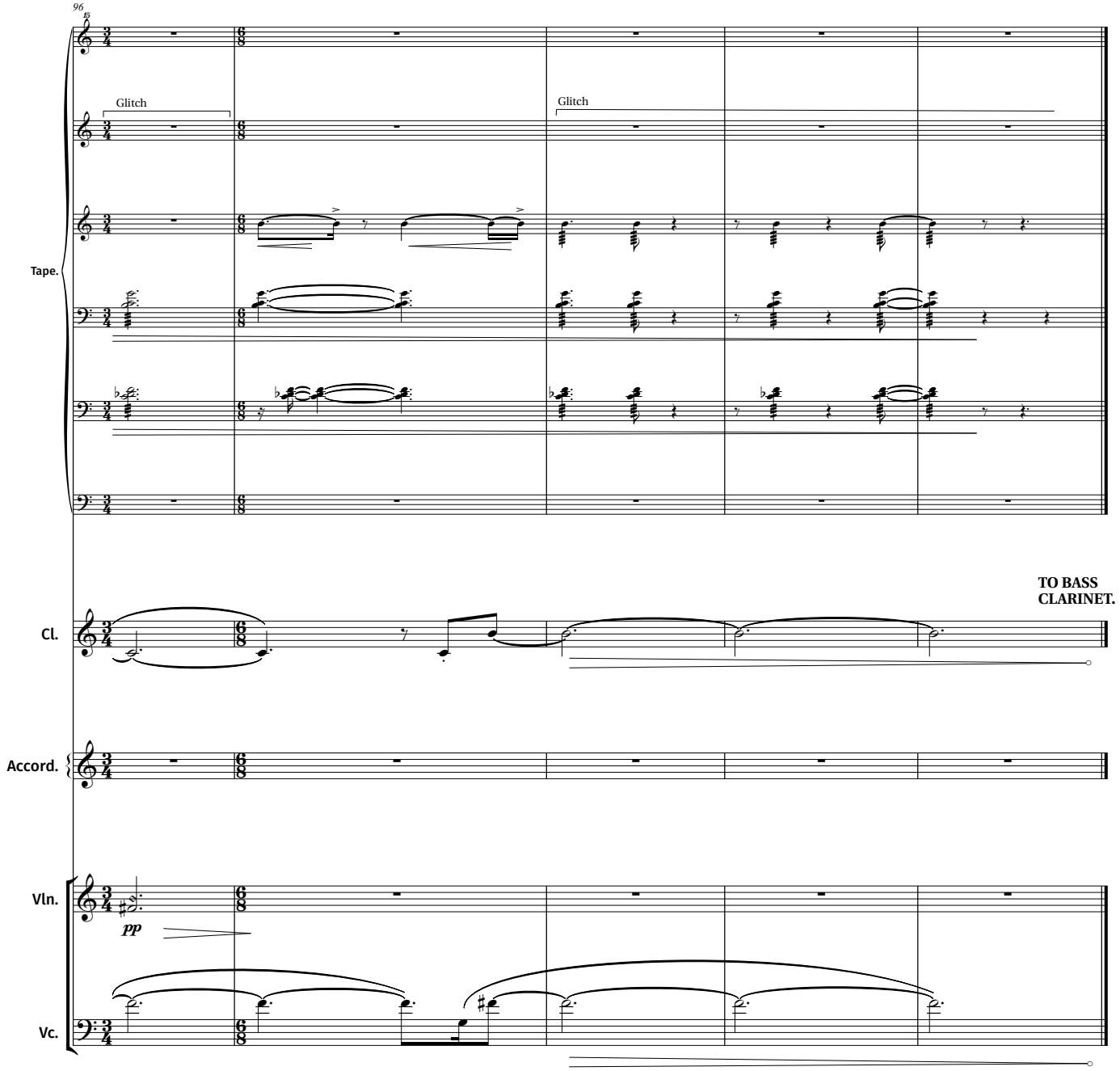

D
Glitch
Tape.
Cl.
Accord.
D
Vln.
Vc.
p


80
Tape.
pp
p
Cl.
ppp
Accord.
pp
pp
Vln.
Vc.
mf
p

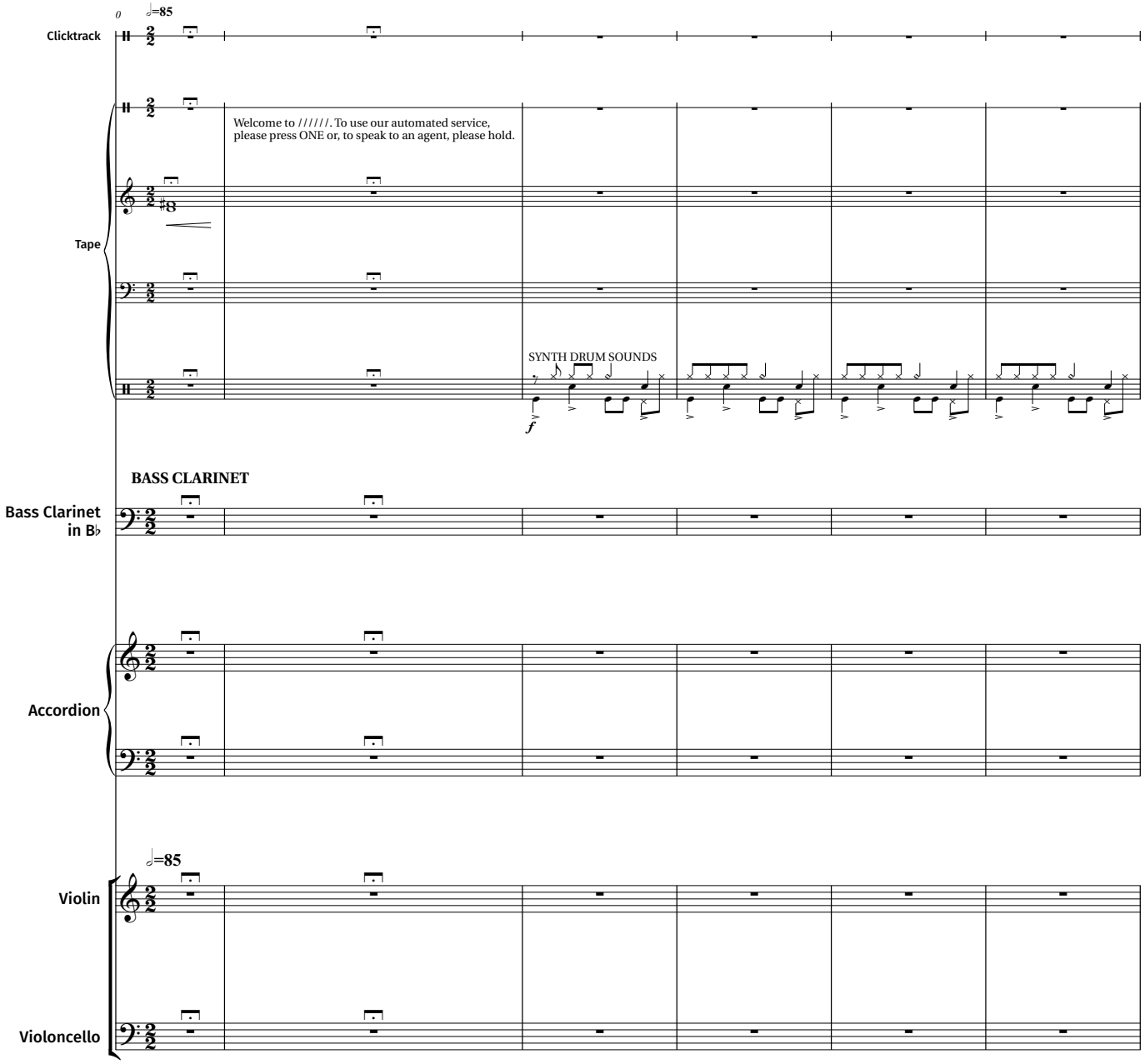

84
E
Glitch
Glitch
pp
pp
Tape.
Cl.
pp
Accord.
pp
E
Vln.
Vc.
pp

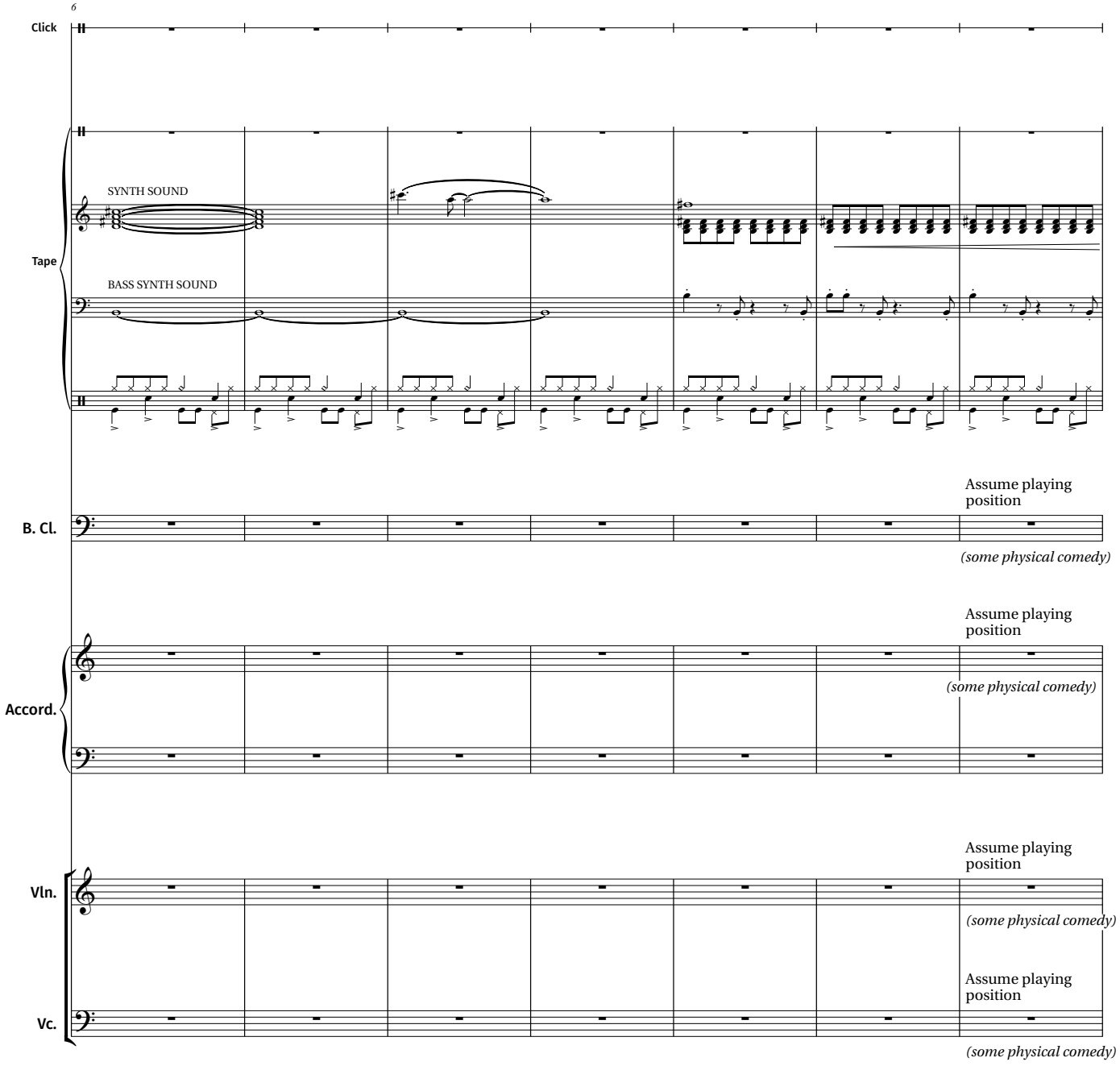

89
Tape.
Cl.
Accord.
Vln.
Vc.
pp
pp
pp
5:6
5:6
5:6

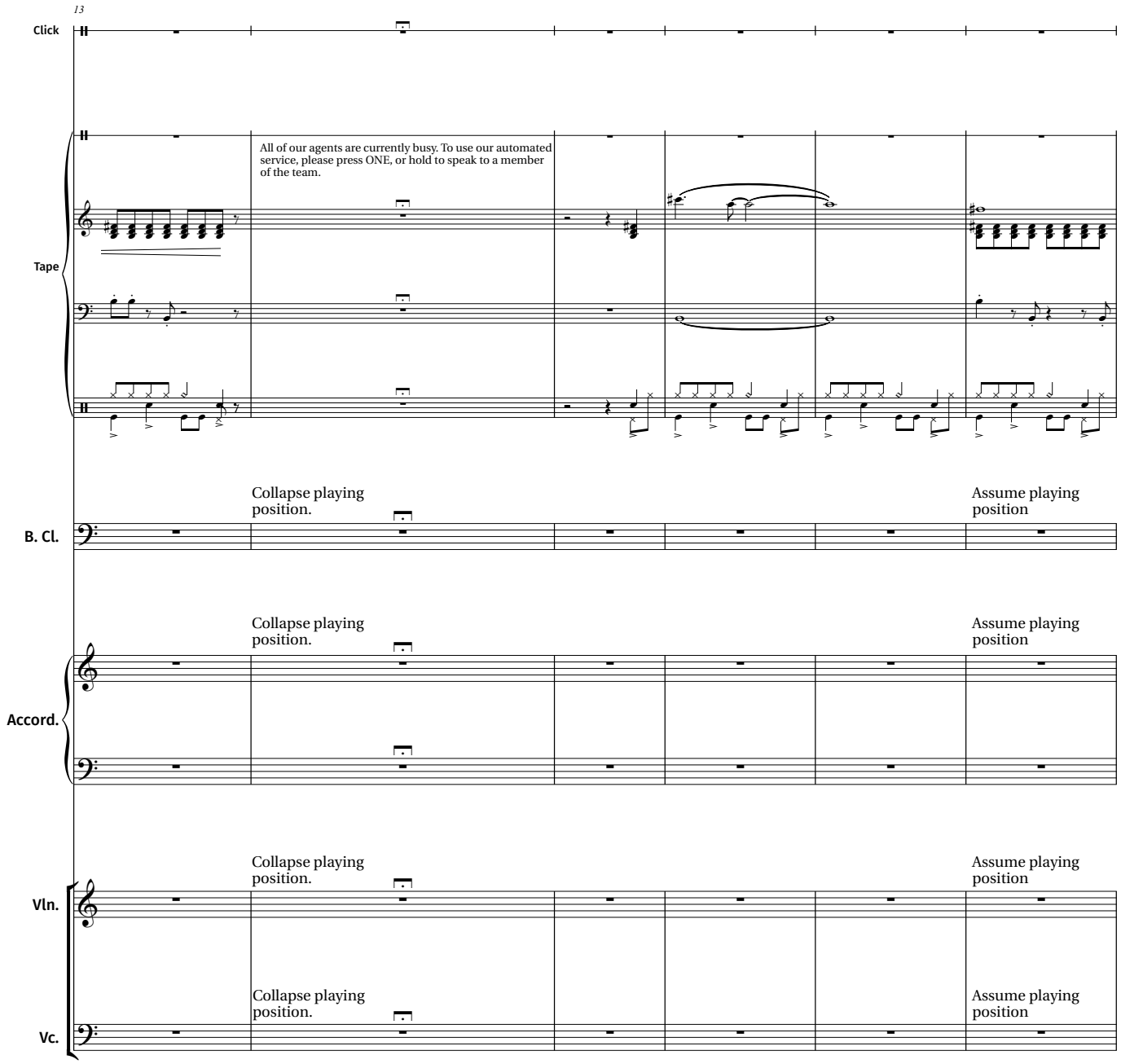

93
Glitch
Tape.
Cl.
Accord.
Vln.
Vc.

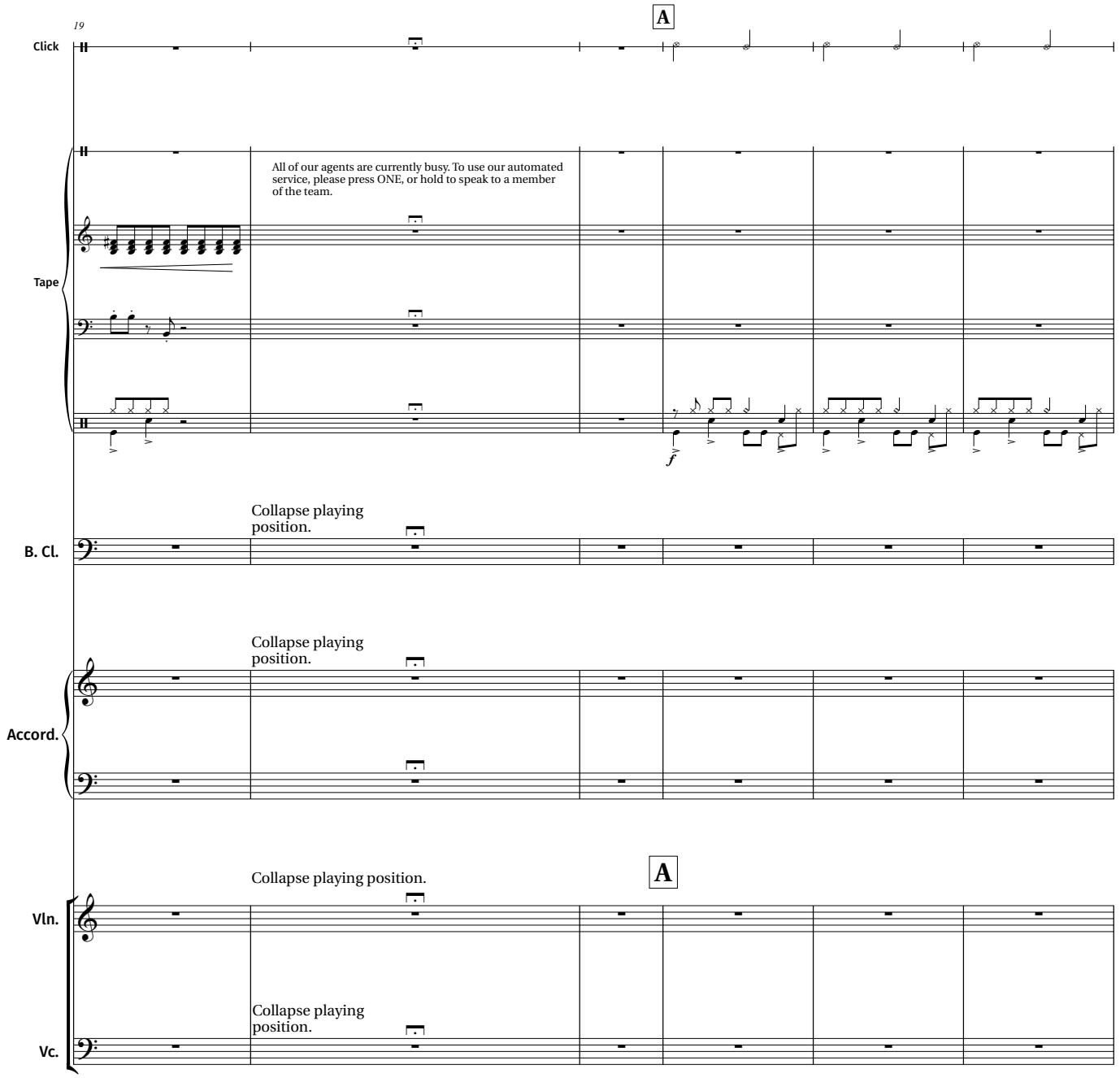

96
Glitch
Glitch
Tape.
TO BASS
CLARINET.
Cl.
Accord.
Vln.
pp
Vc.

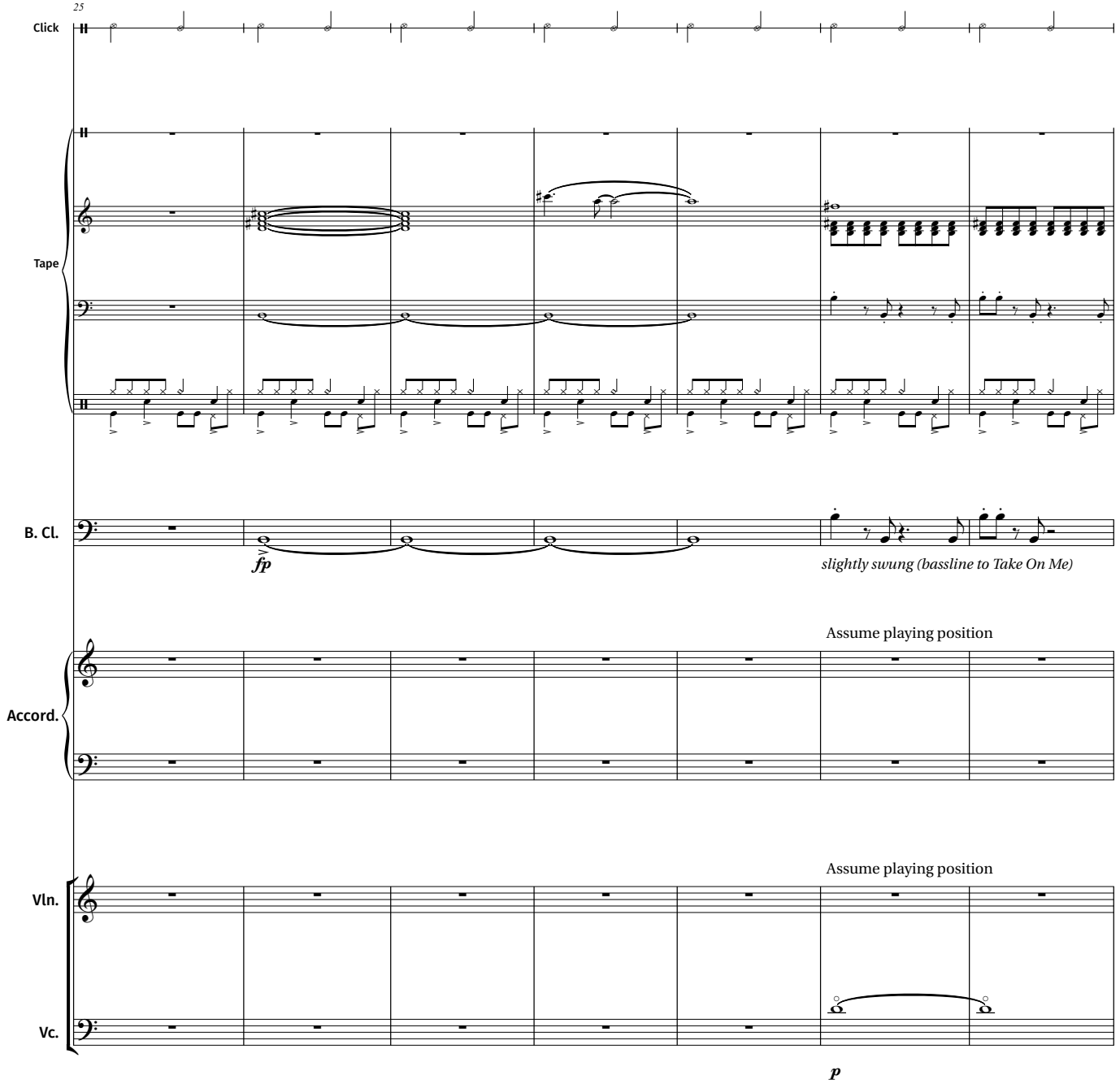
3. Compatibility issues

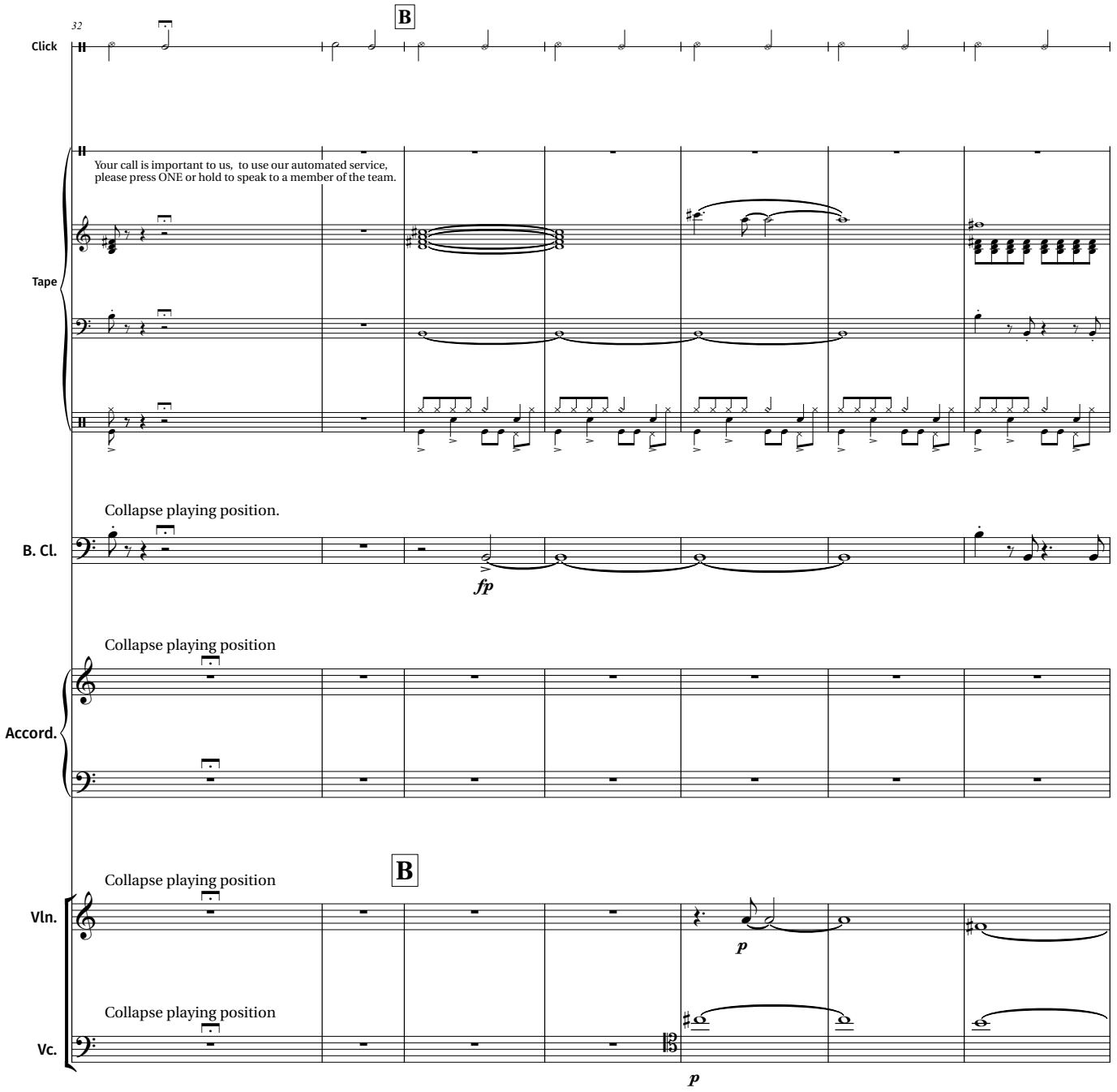


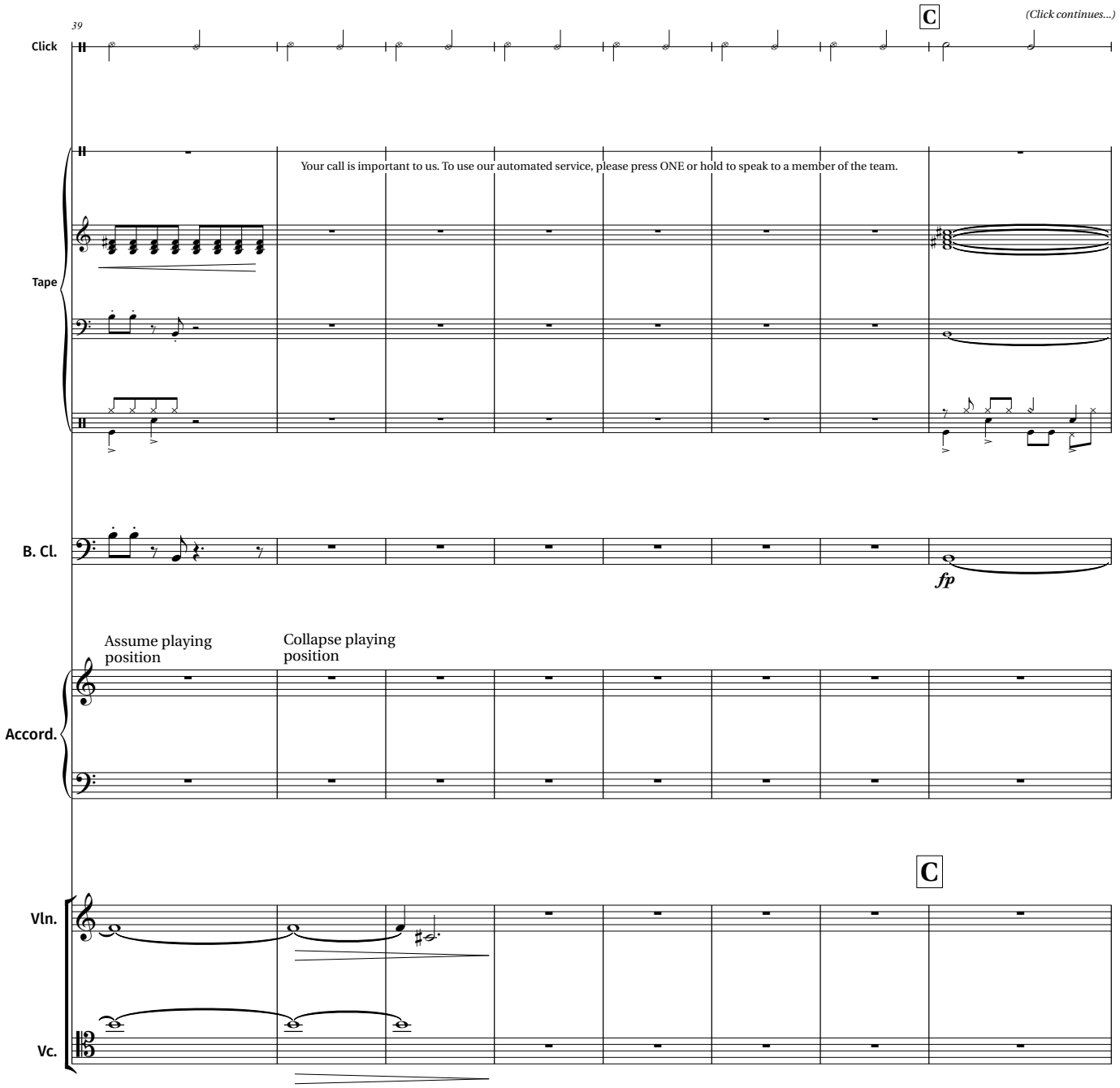

6
Click
Tape
SYNTH SOUND
BASS SYNTH SOUND
B. Cl.
Assume playing position
(some physical comedy)
Accord.
Assume playing position
(some physical comedy)
Vln.
Assume playing position
(some physical comedy)
Vc.
Assume playing position
(some physical comedy)

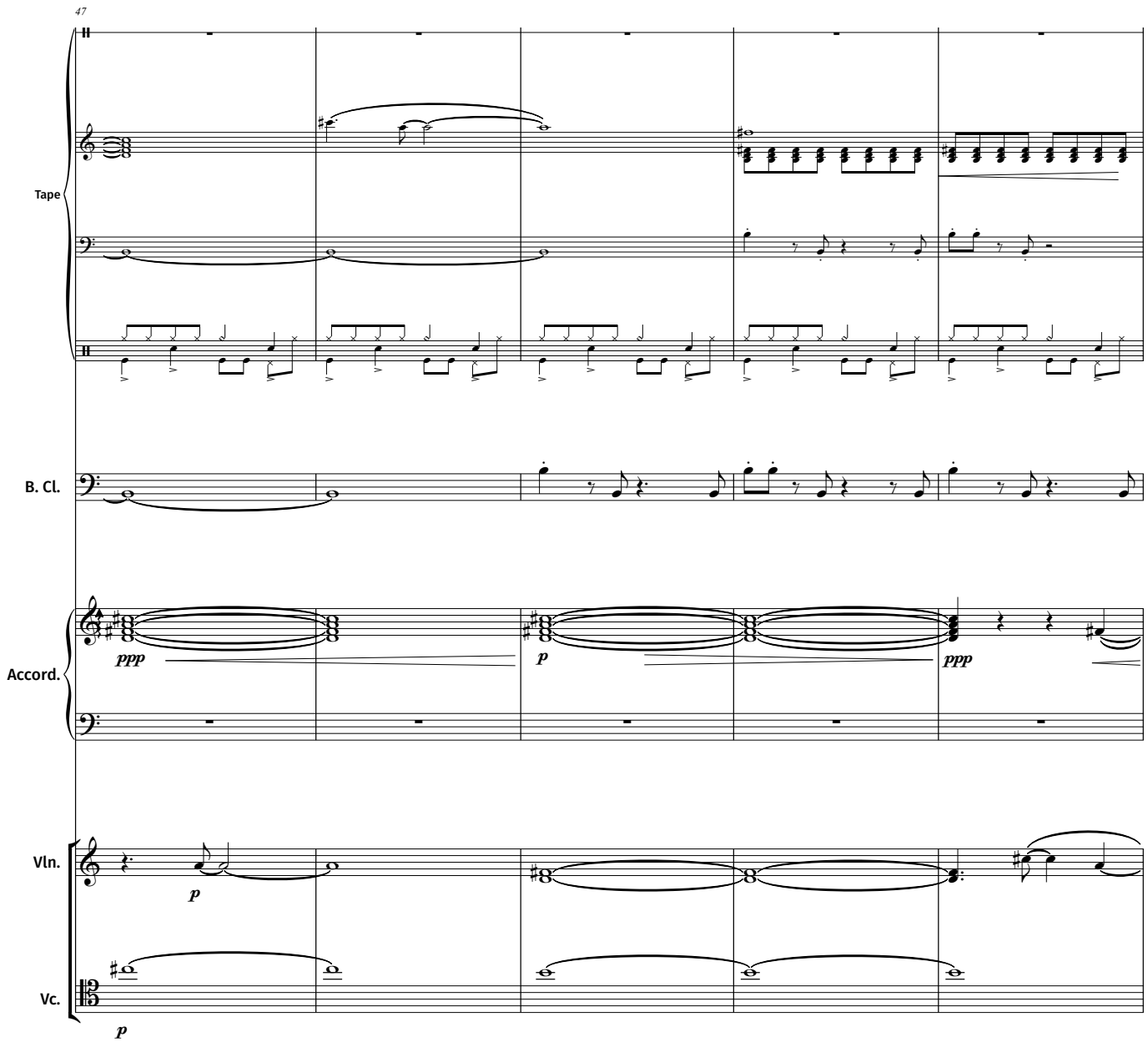

13
Click
Tape
All of our agents are currently busy. To use our automated service, please press ONE, or hold to speak to a member of the team.
B. Cl.
Collapse playing position.
Assume playing position
Accord.
Collapse playing position.
Assume playing position
Vln.
Collapse playing position.
Assume playing position
Vc.
Collapse playing position.
Assume playing position

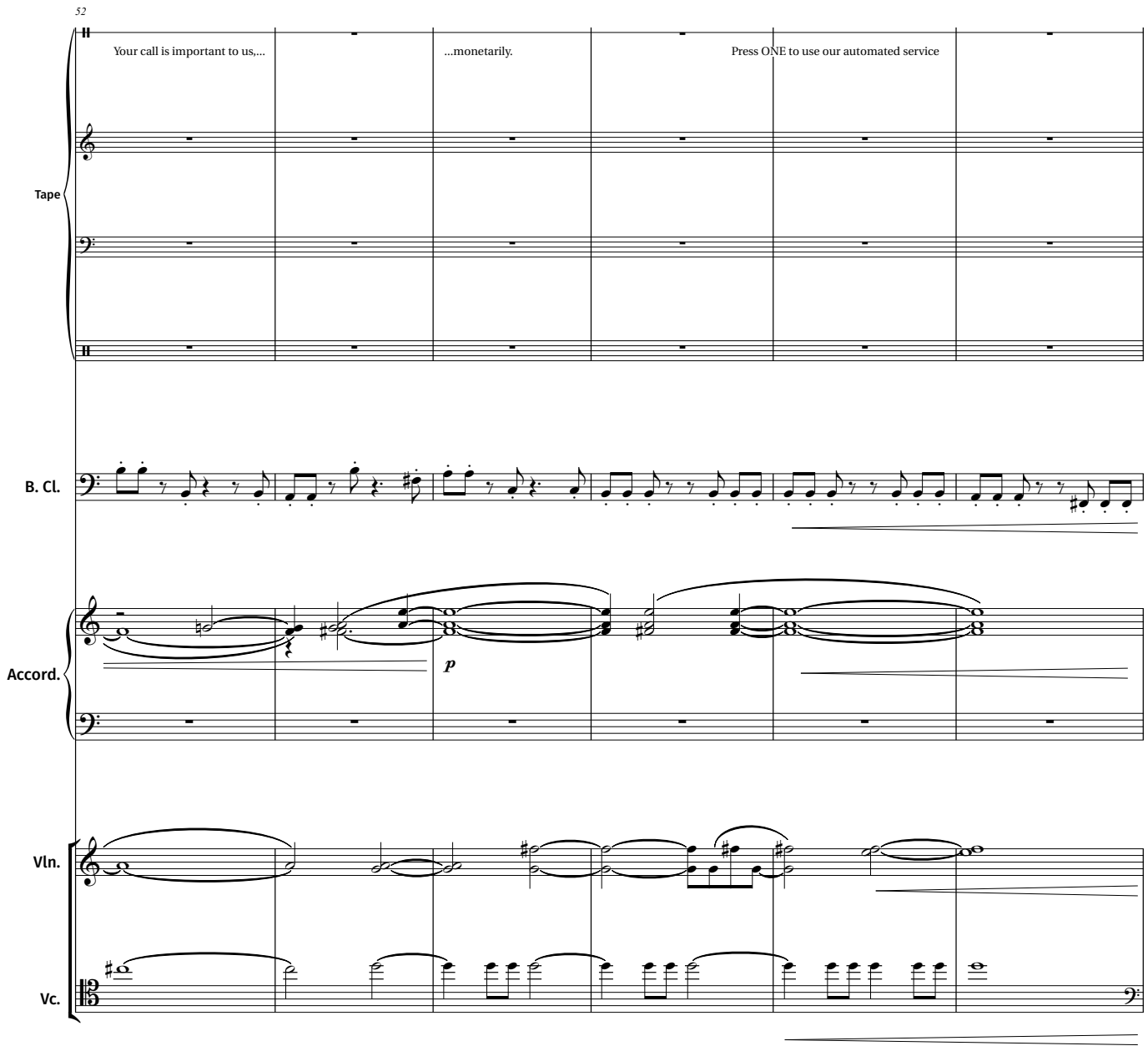

19
A
Click
All of our agents are currently busy. To use our automated service, please press ONE, or hold to speak to a member of the team.
Tape
f
Collapse playing position.
B. Cl.
Collapse playing position.
Accord.
Collapse playing position.
A
Vln.
Collapse playing position.
Vc.

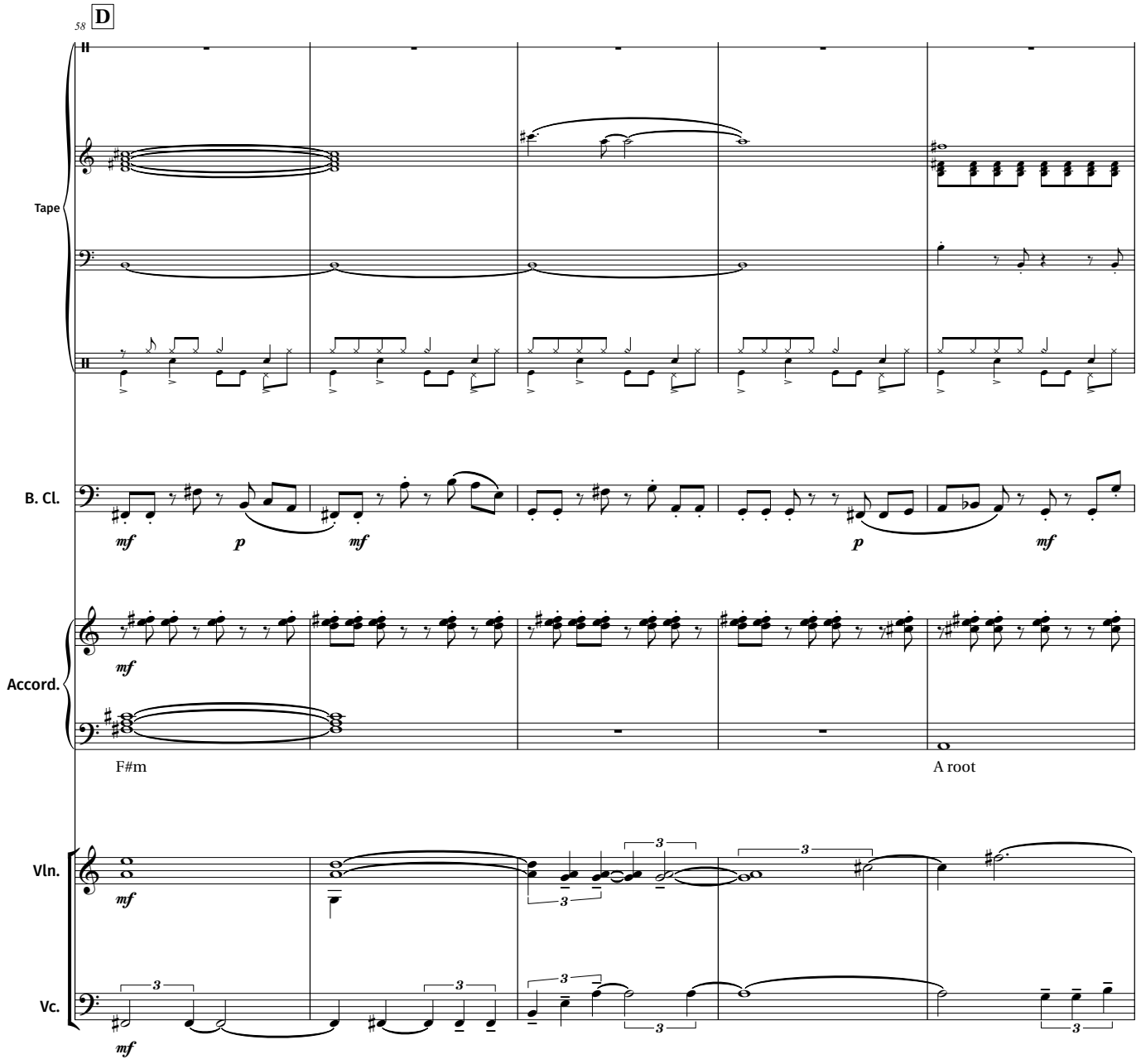

25
Click
Tape
B. Cl.
fp
slightly swung (bassline to Take On Me)
Assume playing position
Accord.
Assume playing position
Vln.
Vc.
p

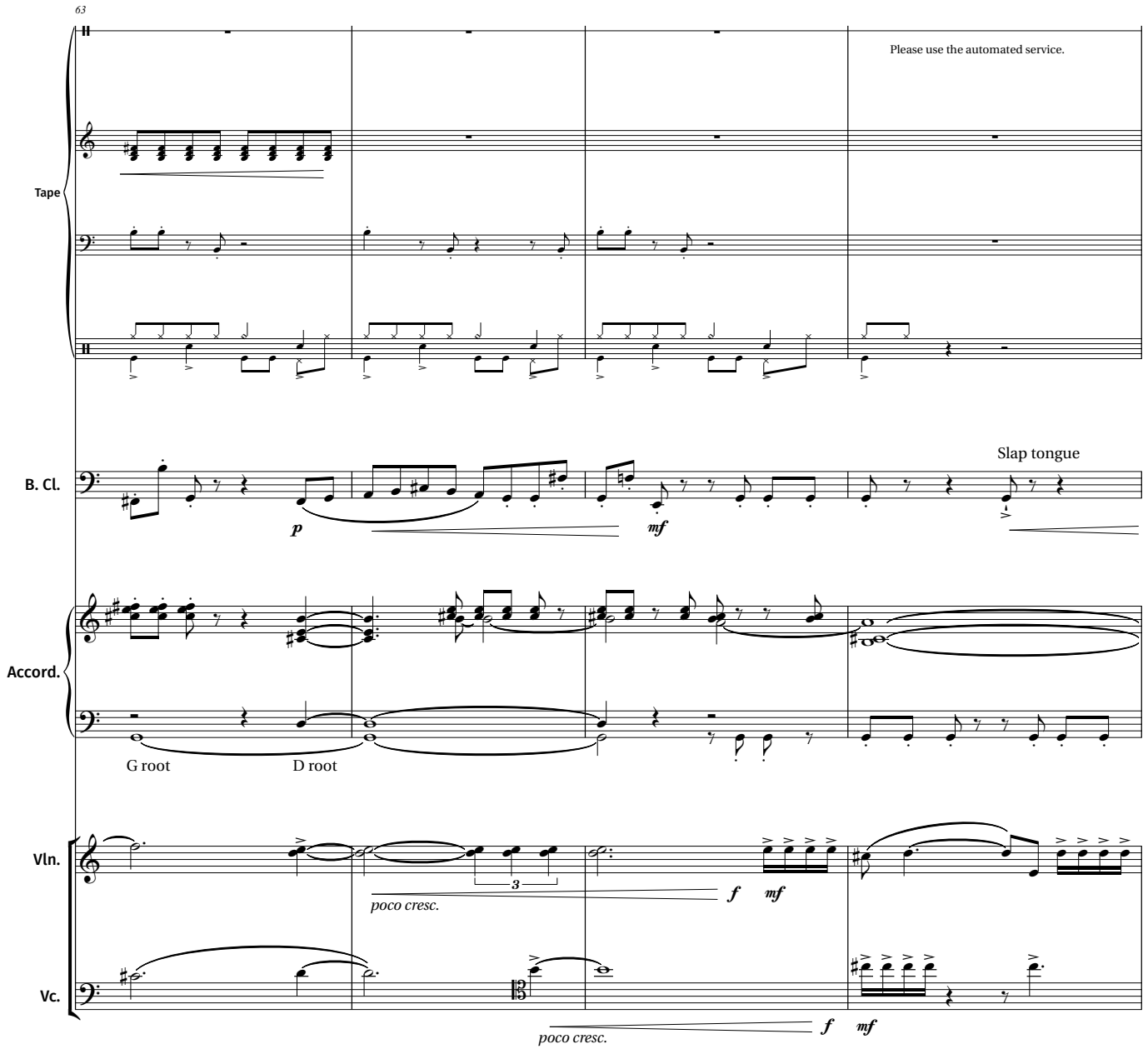

32
B
Click
Your call is important to us, to use our automated service, please press ONE or hold to speak to a member of the team.
Tape
Collapse playing position.
B. Cl.
fp
Collapse playing position
Accord.
B
Collapse playing position
Vln.
p
Collapse playing position
Vc.
p

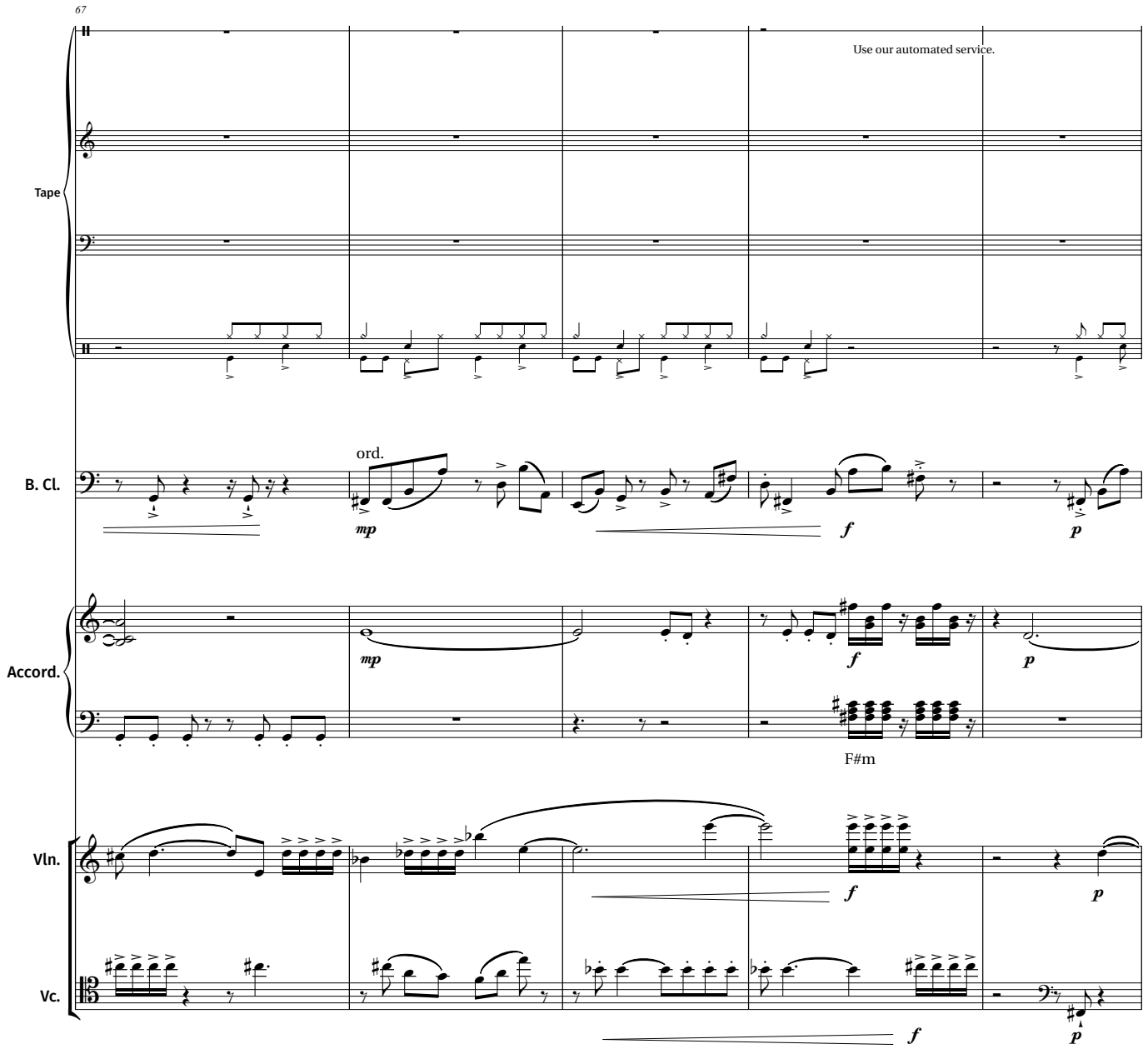

39
Click
C
(Click continues...)
Your call is important to us. To use our automated service, please press ONE or hold to speak to a member of the team.
Tape
B. Cl.
fp
Assume playing position
Collapse playing position
Accord.
C
Vln.
Vc.

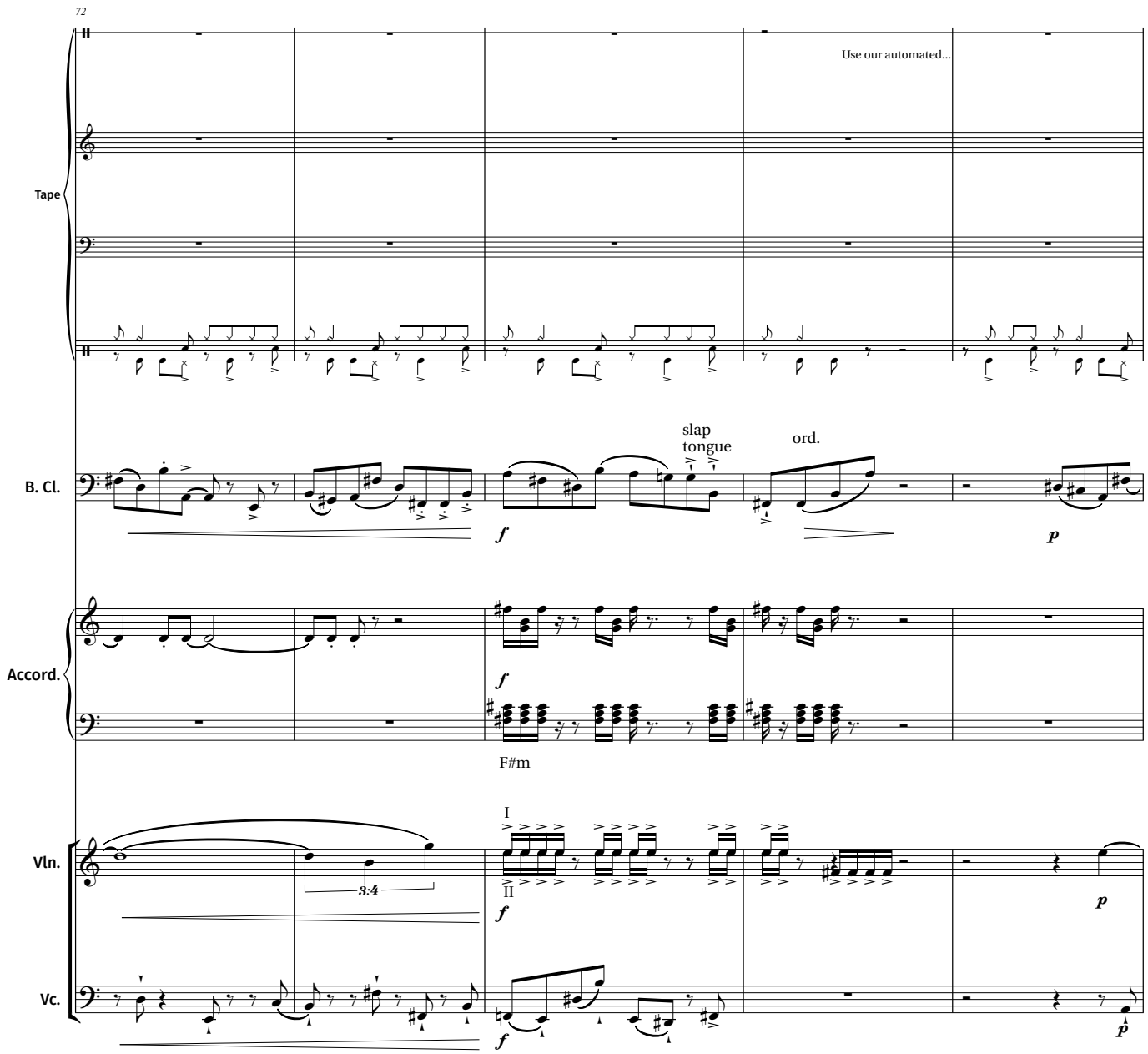

47
Tape
B. Cl.
Accord.
ppp
p
ppp
Vln.
p
Vc.
p

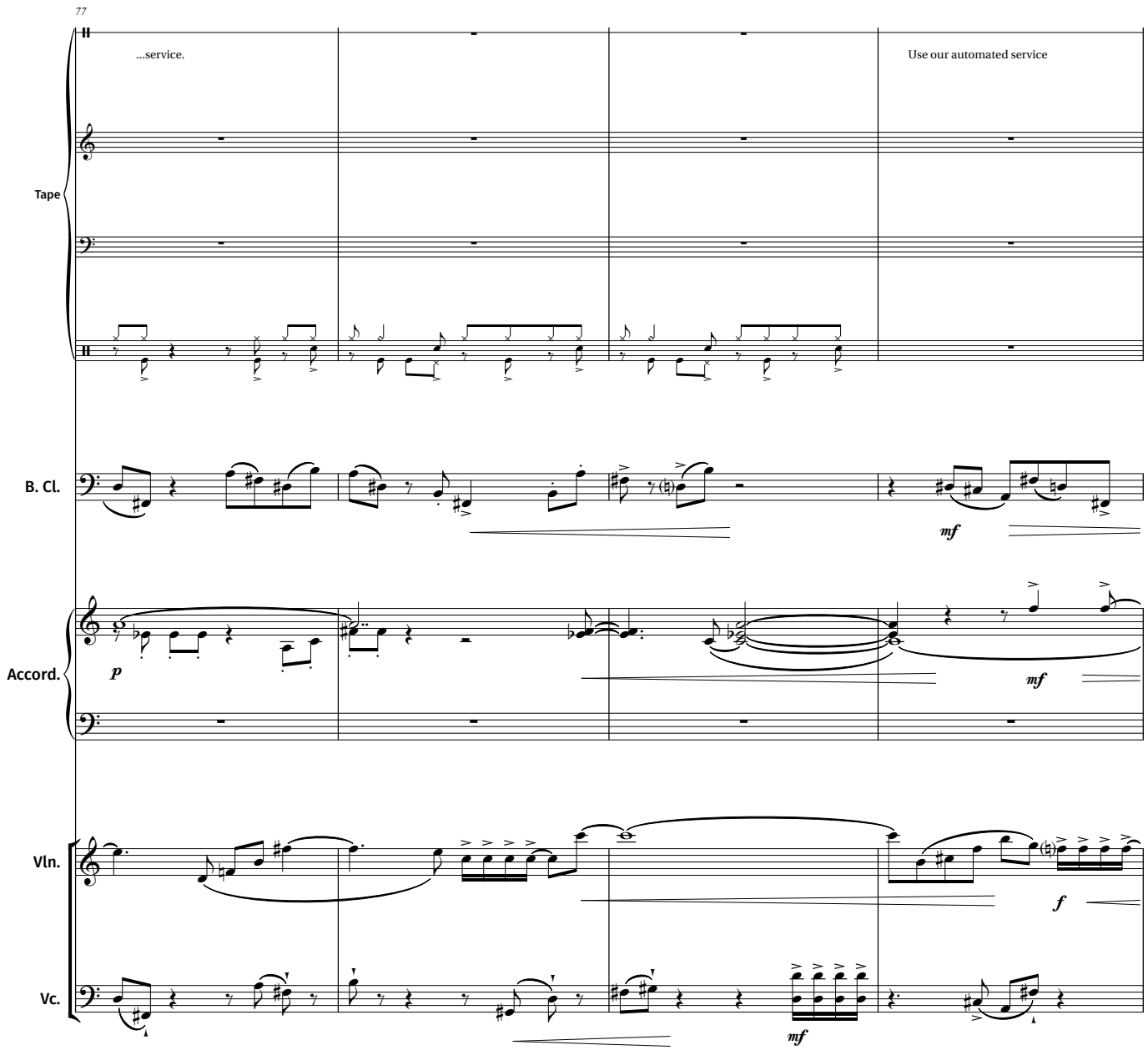

52
Your call is important to us,...
...monetarily.
Press ONE to use our automated service
Tape
B. Cl.
Accord.
p
Vln.
Vc.

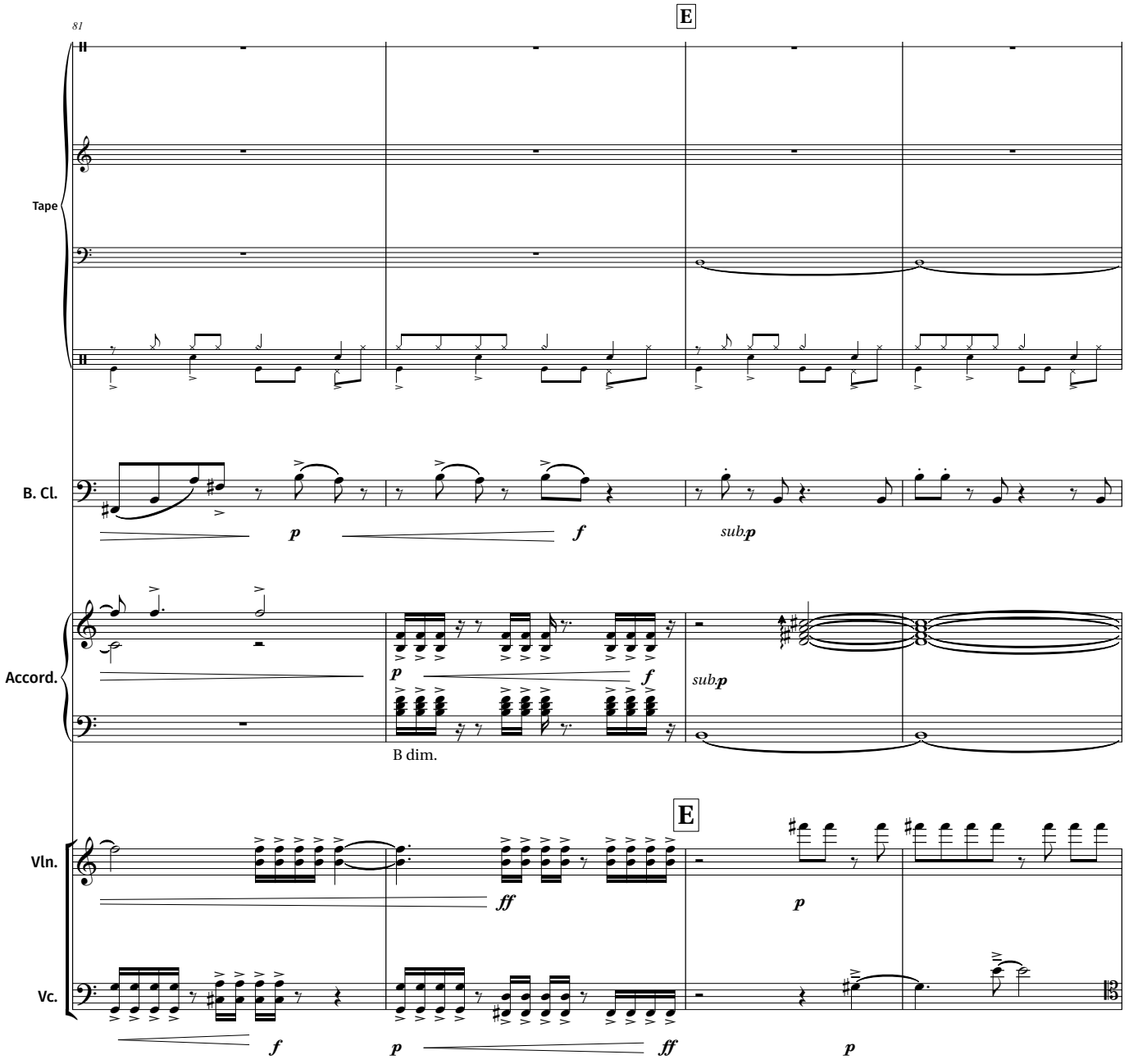

58
D
Tape
B. Cl.
mf
p
mf
p
mf
Accord.
mf
F#m
A root
Vln.
mf
Vc.
mf

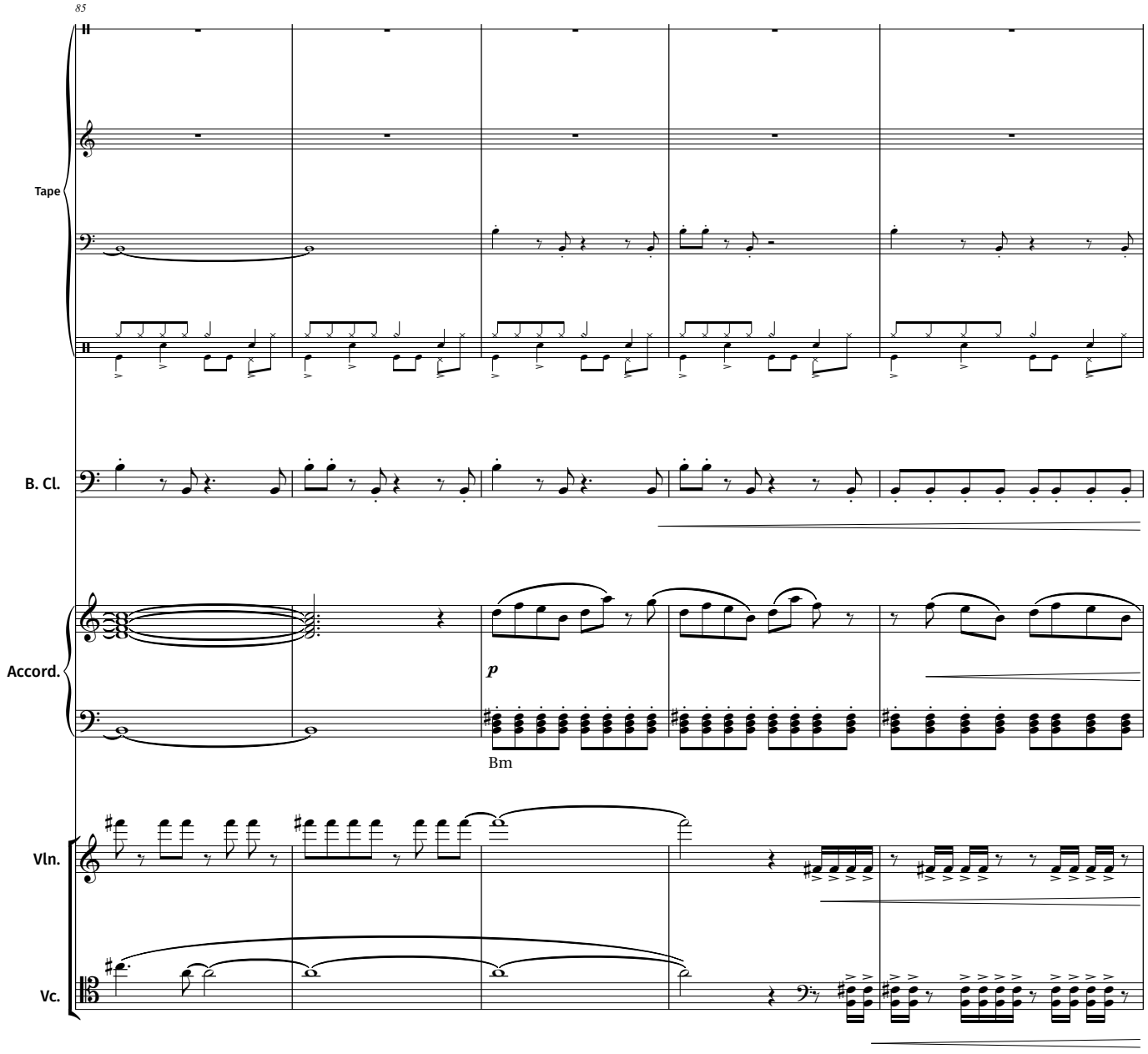

63
Please use the automated service.
Tape
B. Cl.
Slap tongue
p
mf
Accord.
G root
D root
Vln.
3
poco cresc.
f
mf
Vc.
poco cresc.
f
mf

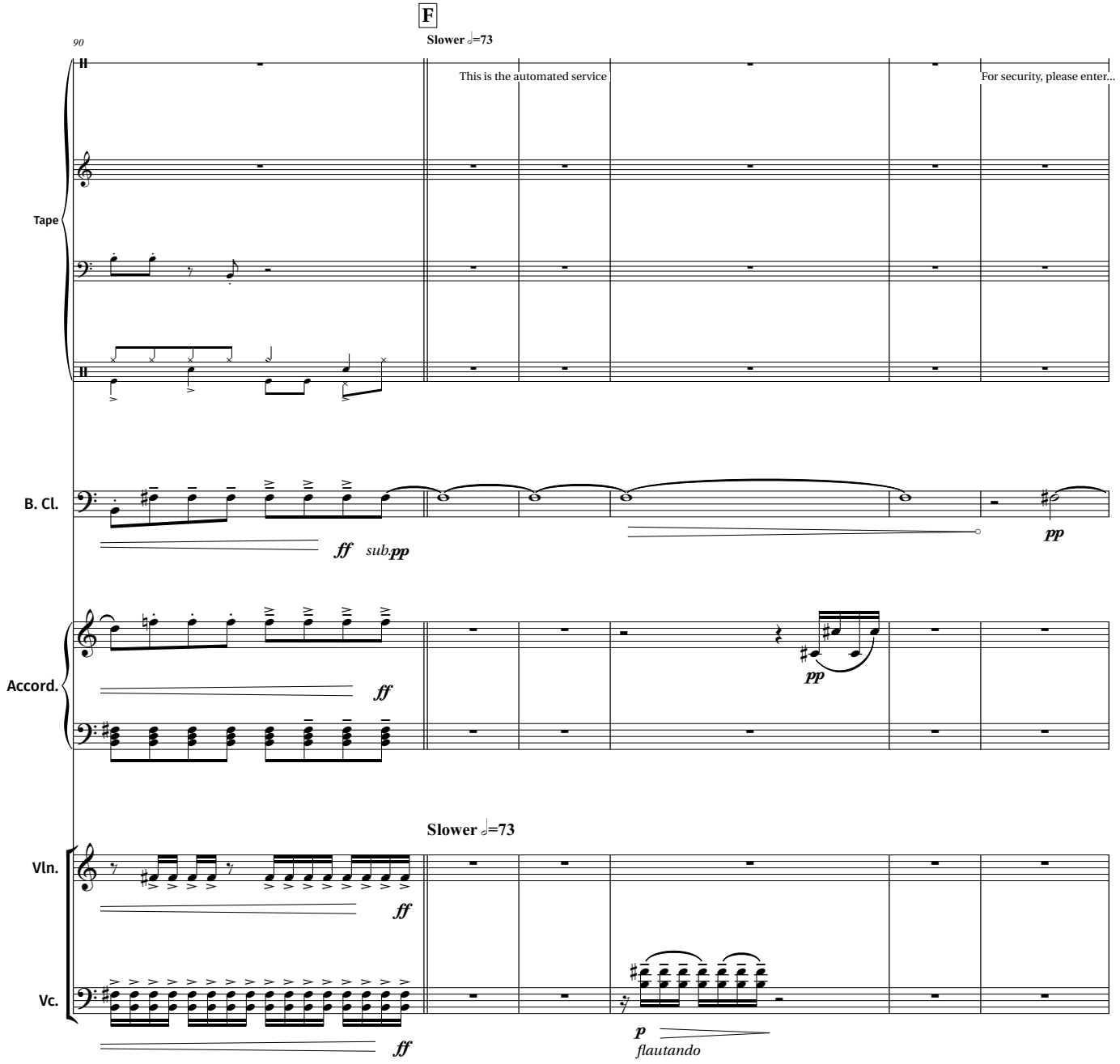

67
Use our automated service.
Tape
B. Cl.
ord.
mp
f
p
Accord.
mp
f
p
F#m
Vln.
f
p
Vc.
f
p

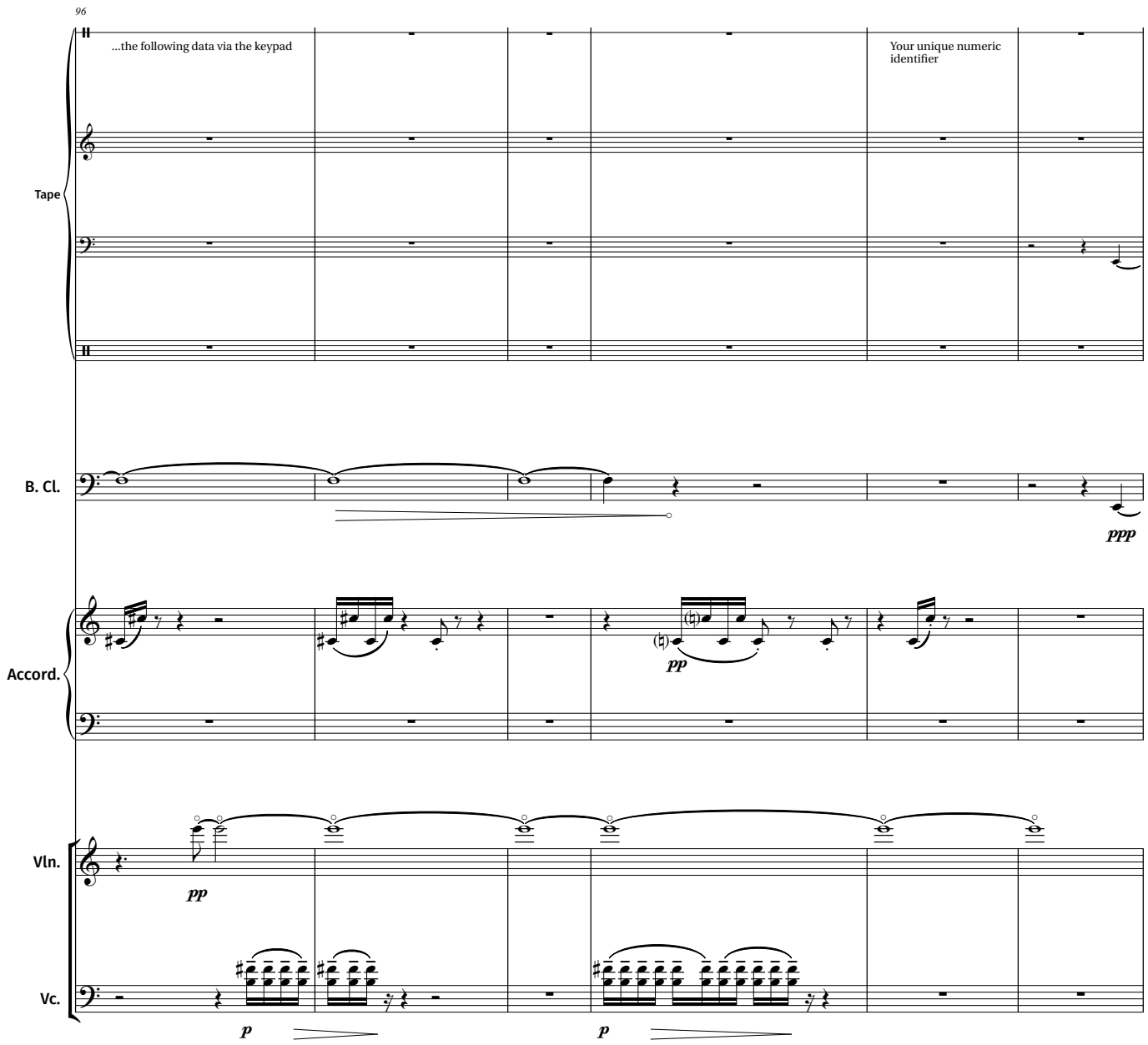

72
Use our automated...
Tape
B. Cl.
slap
tongue
ord.
f
p
Accord.
f
F#m
Vln.
I
II
3:4
f
p
Vc.
f
p

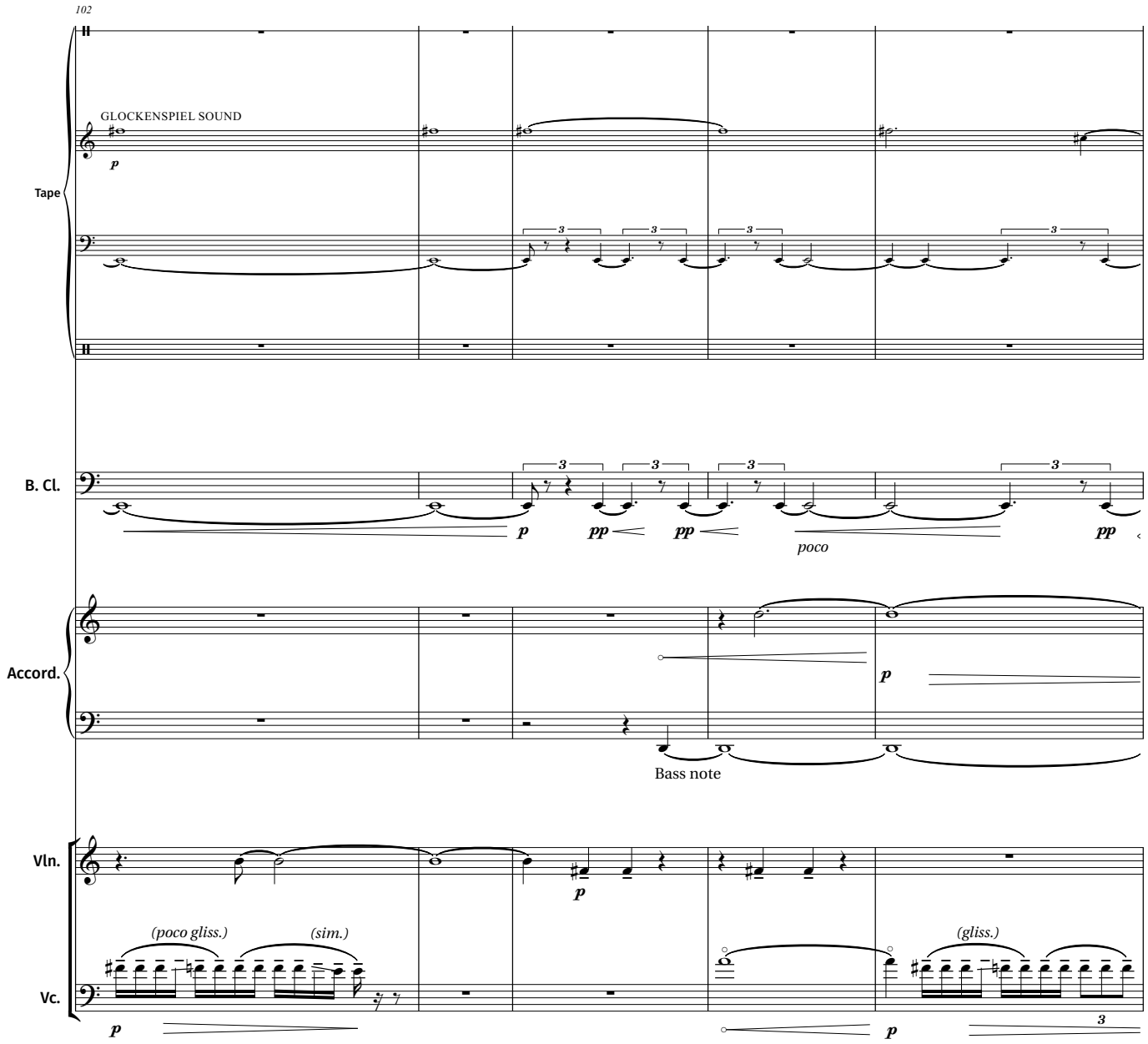

77
...service.
Use our automated service
Tape
B. Cl.
mf
Accord.
p
mf
Vln.
f
Vc.
mf

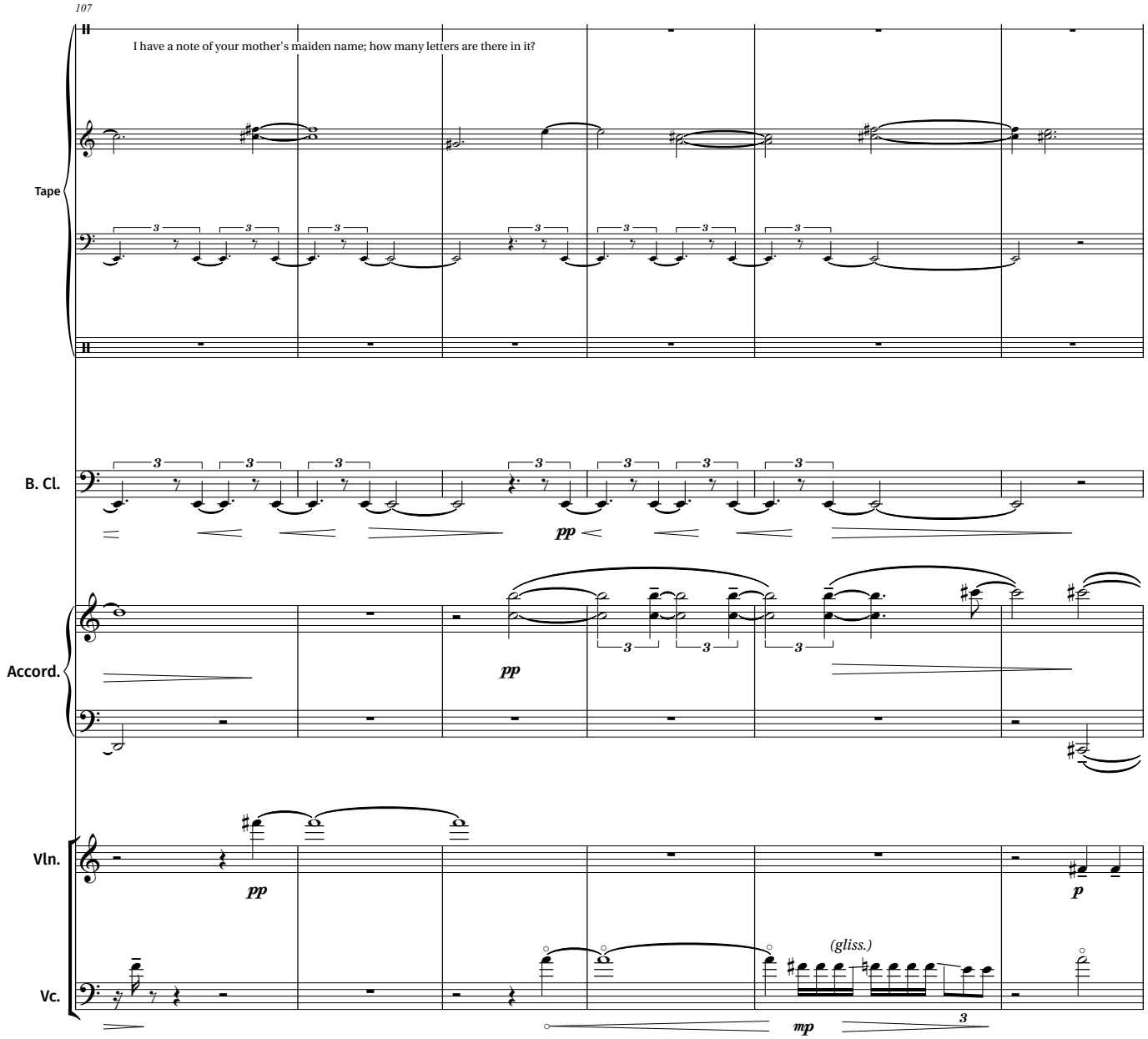

81
E
Tape
B. Cl.
p
f
sub.p
Accord.
p
f
sub.p
B dim.
E
Vln.
ff
p
Vc.
f
p
ff
p

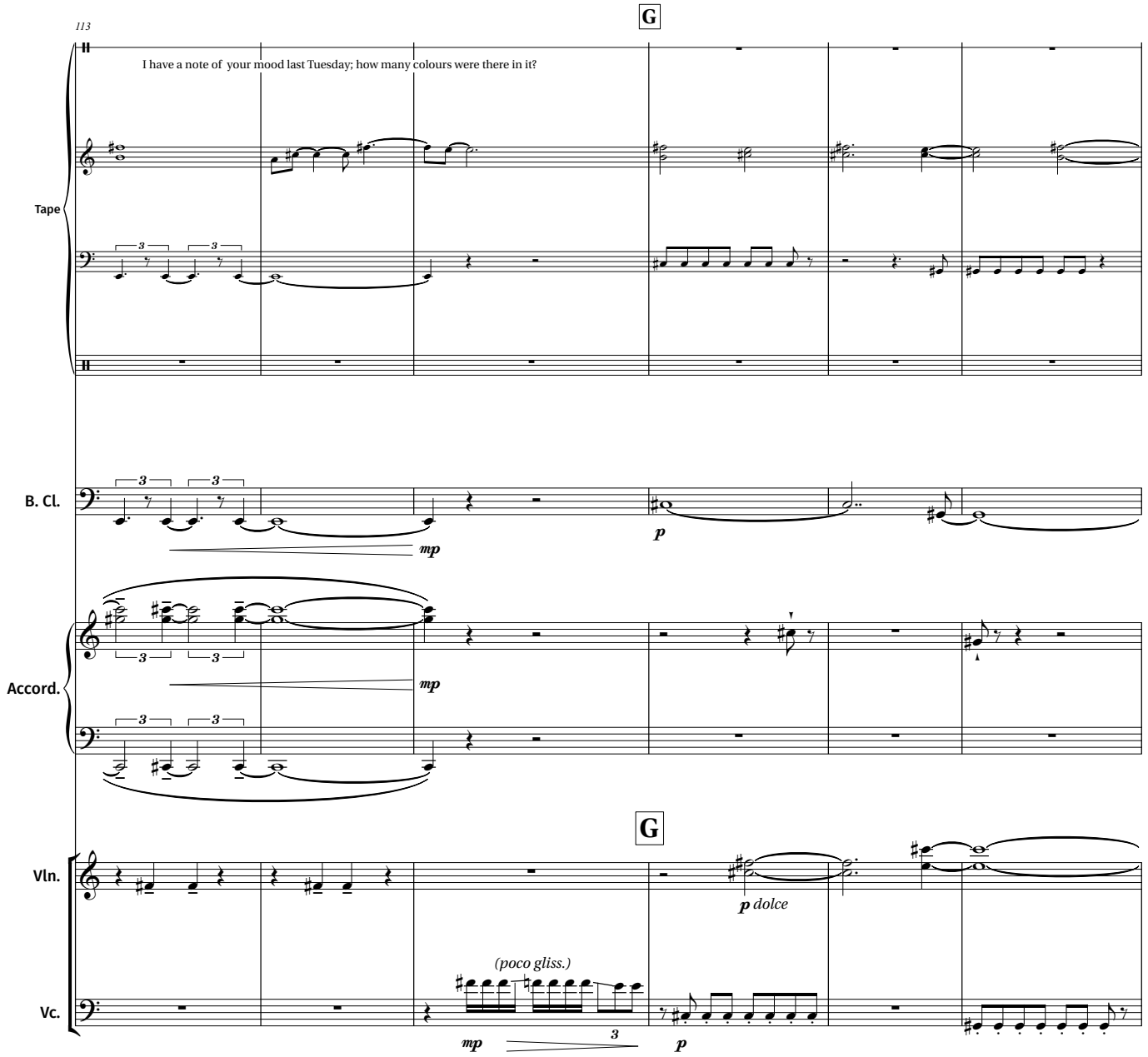

85
Tape
B. Cl.
Accord.
p
Bm
Vln.
Vc.

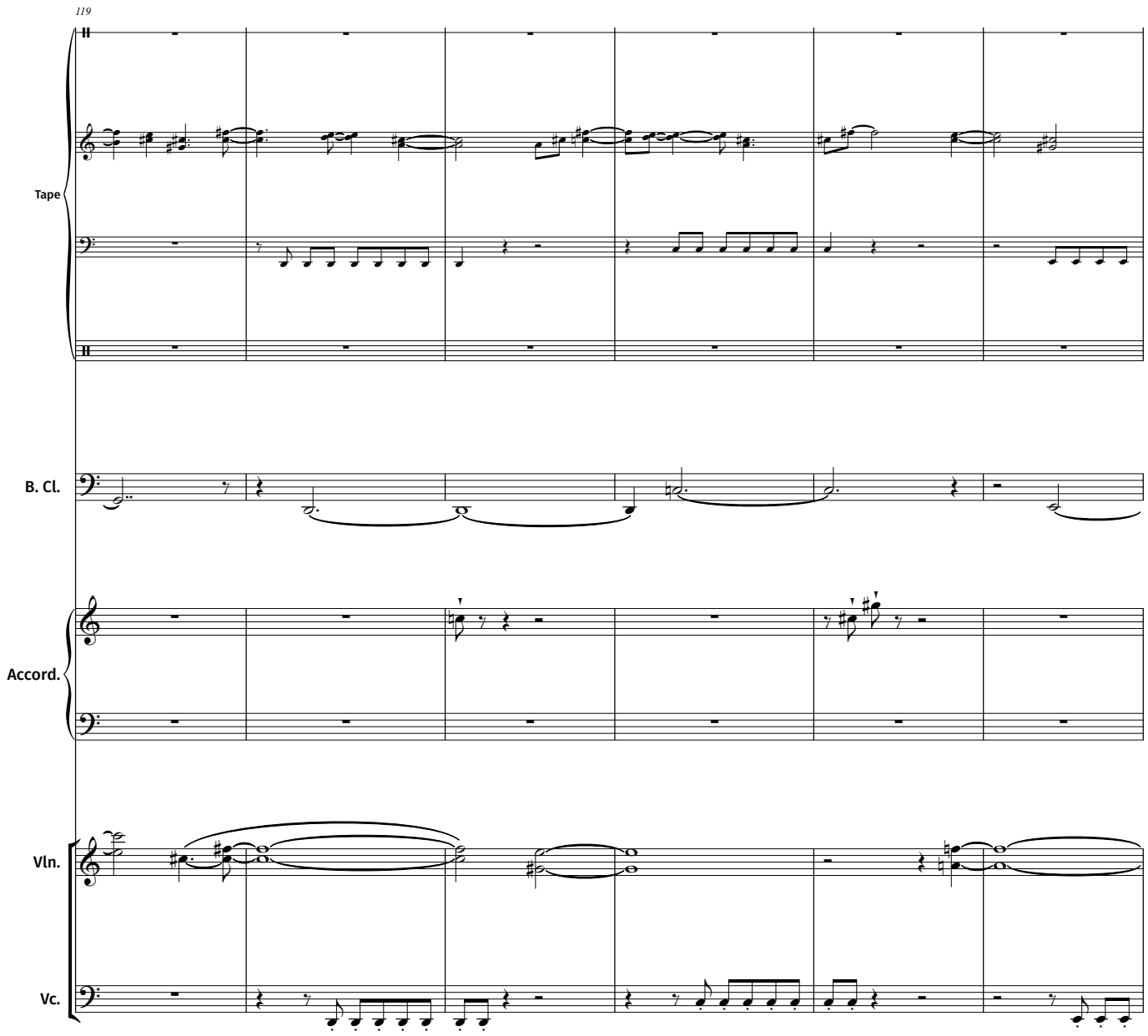

F
90
Slower ♩=73
This is the automated service
For security, please enter...
Tape
B. Cl.
ff
sub.pp
pp
Accord.
ff
pp
Slower ♩=73
Vln.
ff
Vc.
ff
p
flautando

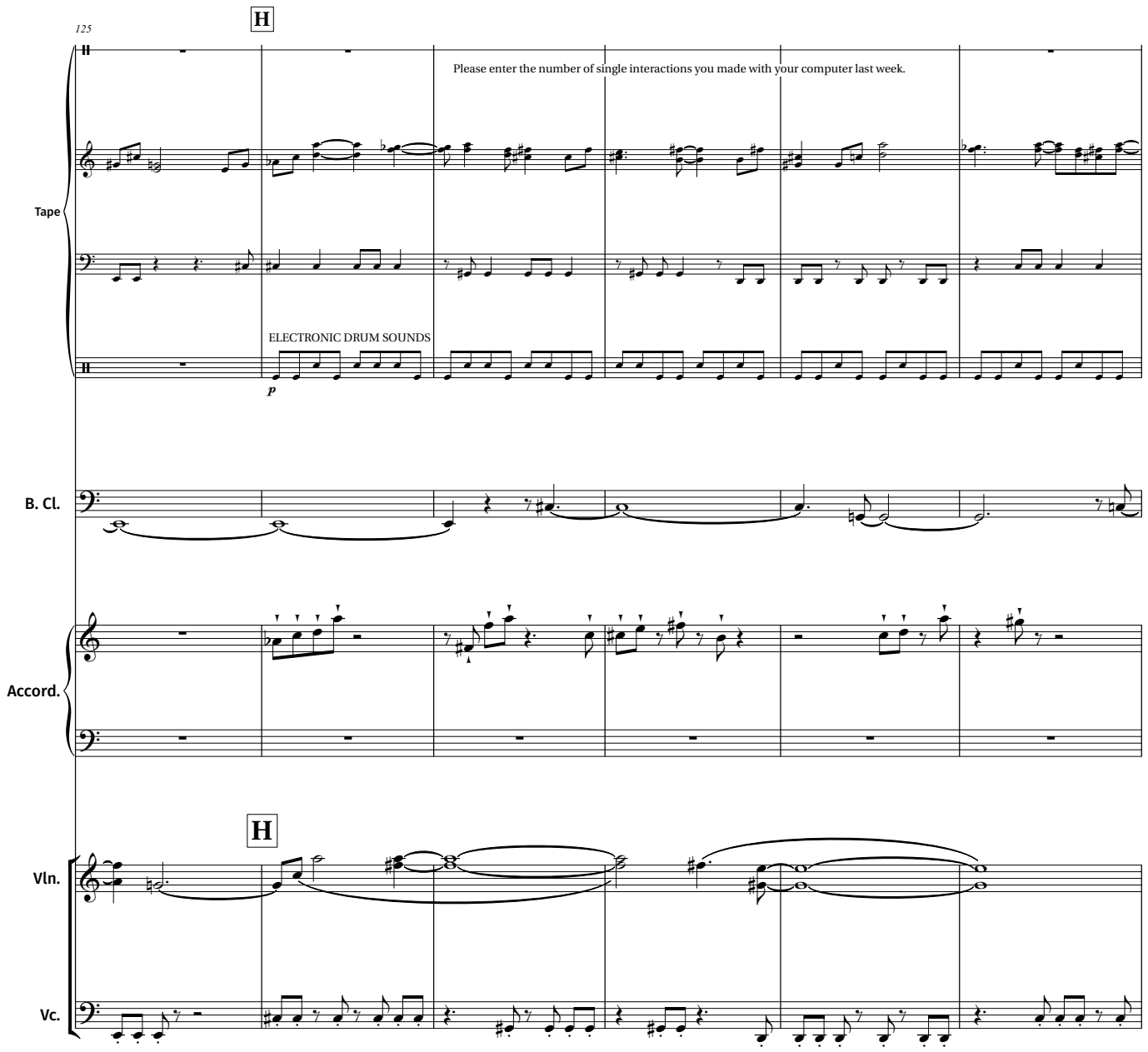

96
...the following data via the keypad
Your unique numeric identifier
Tape
B. Cl.
ppp
Accord.
pp
Vln.
pp
Vc.
p
p

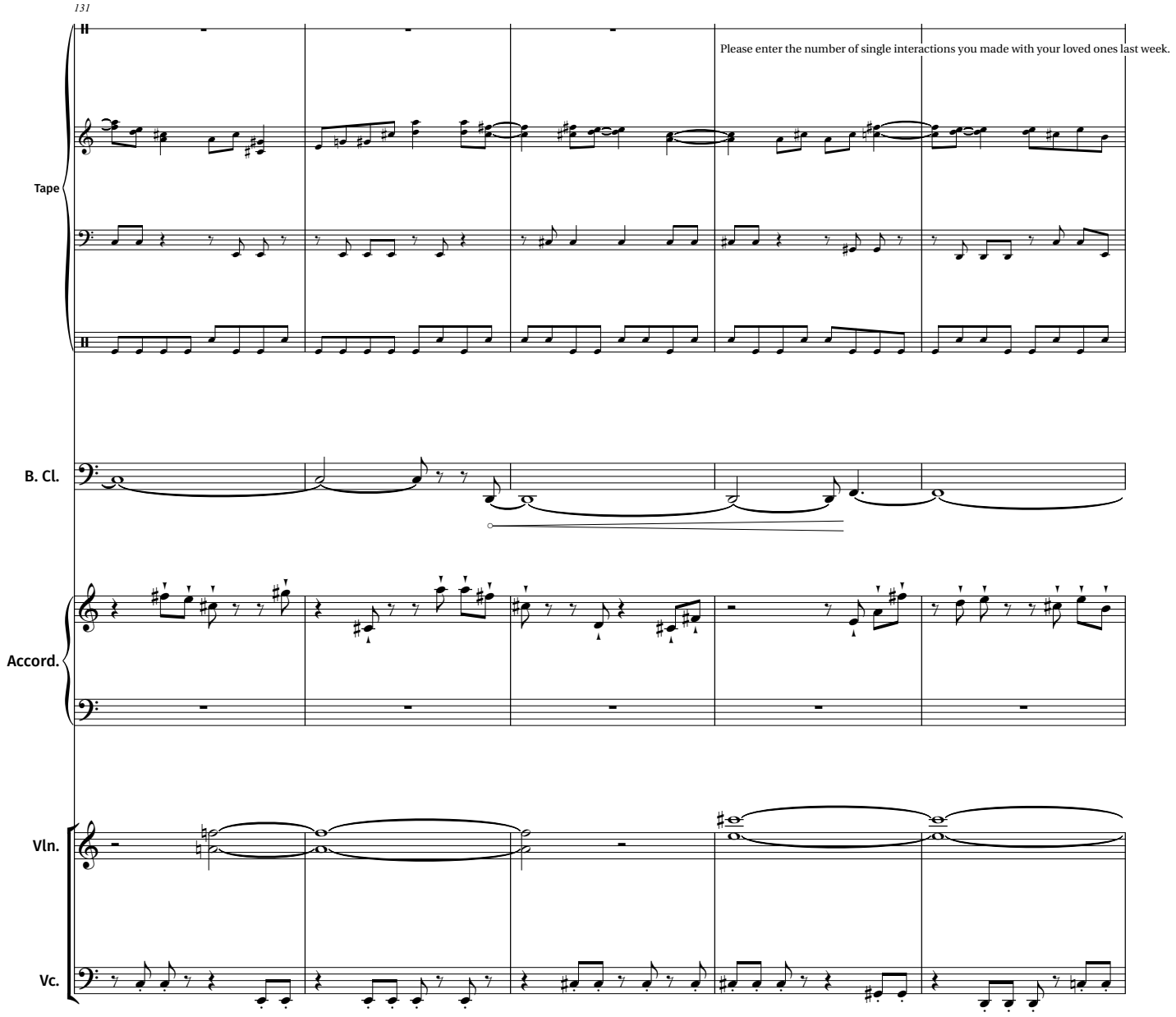

102
GLOCKENSPIEL SOUND
p
Tape
B. Cl.
p
pp
pp
poco
pp
Accord.
p
Bass note
Vln.
p
(poco gliss.)
(sim.)
(gliss.)
Vc.
p
p

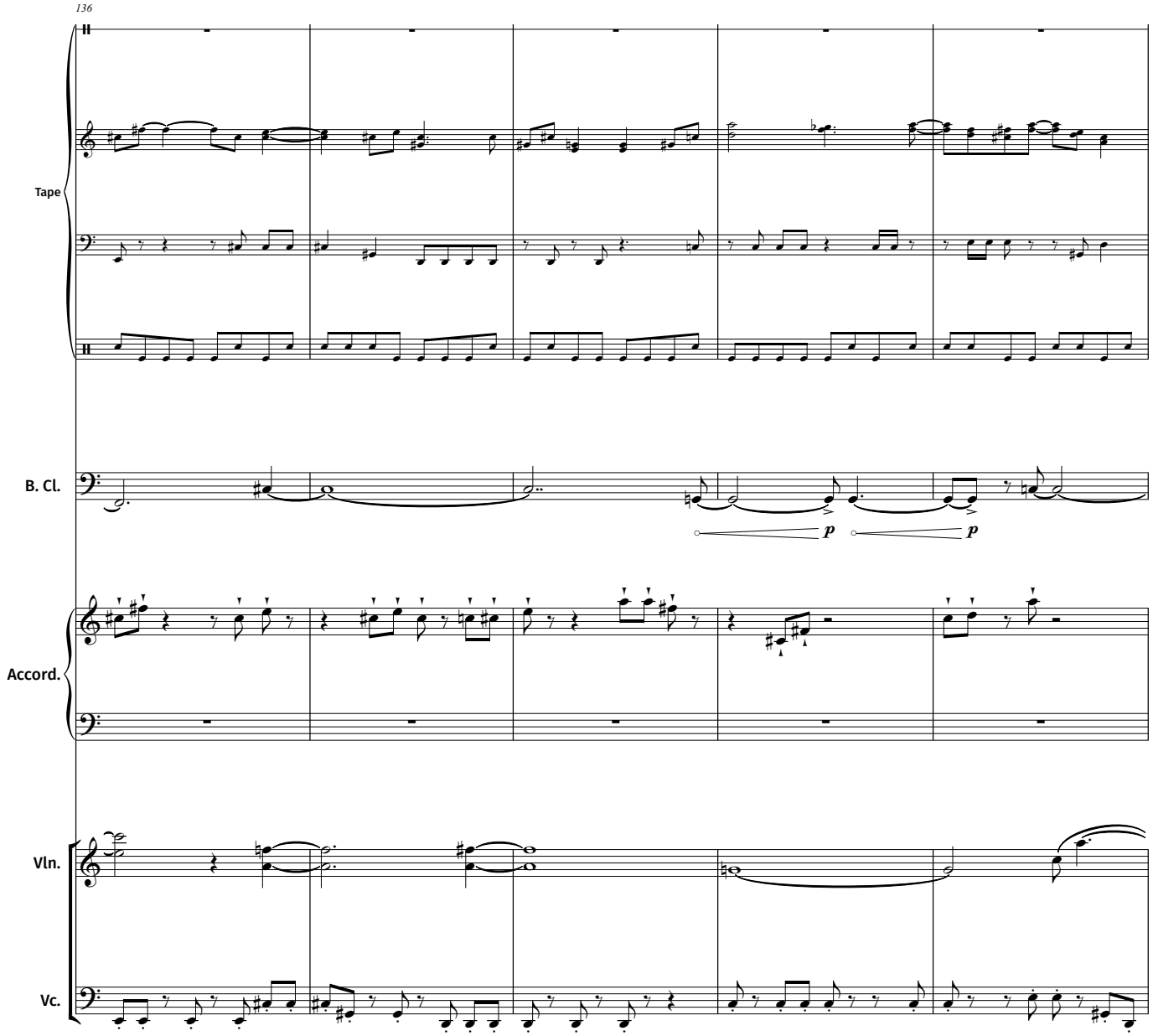

107
I have a note of your mother's maiden name; how many letters are there in it?
Tape
B. Cl.
pp
Accord.
pp
Vln.
pp
p
Vc.
(gliss.)
mp

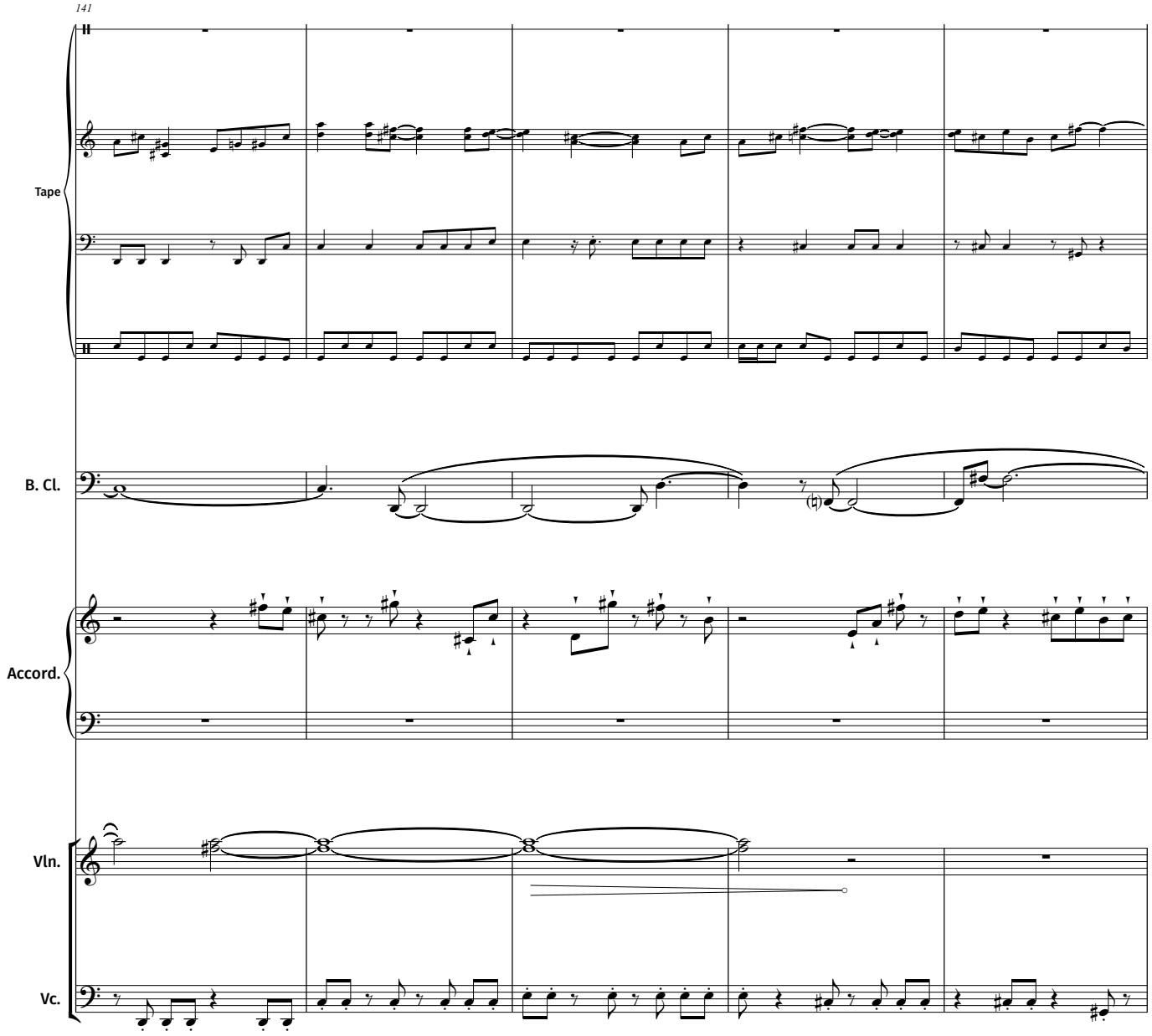

113
G
I have a note of your mood last Tuesday; how many colours were there in it?
Tape
B. Cl.
mp
p
Accord.
mp
G
Vln.
p dolce
(poco gliss.)
Vc.
mp
3
p

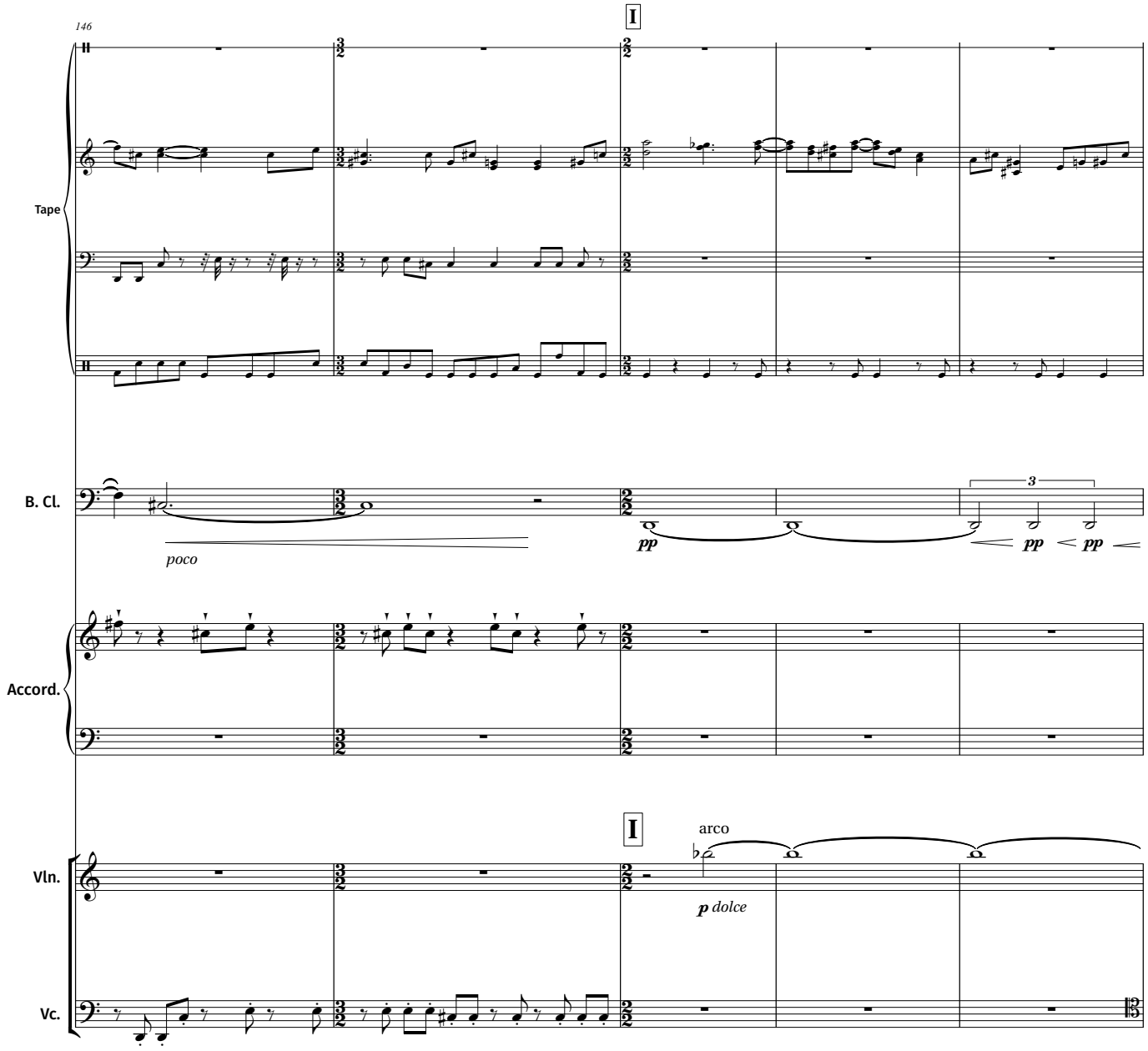

119
Tape
B. Cl.
Accord.
Vln.
Vc.

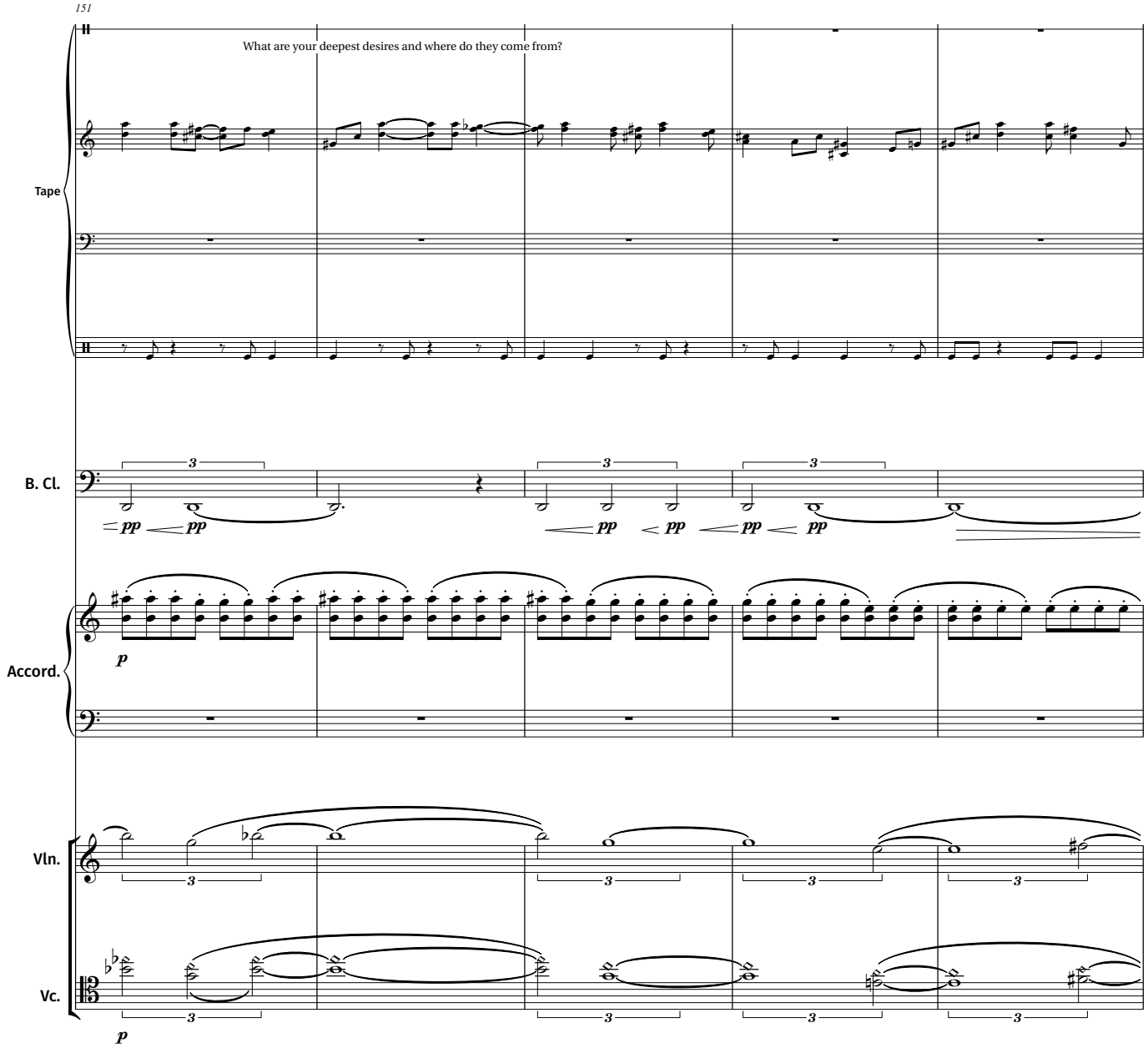

125
H
Please enter the number of single interactions you made with your computer last week.
Tape
ELECTRONIC DRUM SOUNDS
p
B. Cl.
Accord.
H
Vln.
Vc.

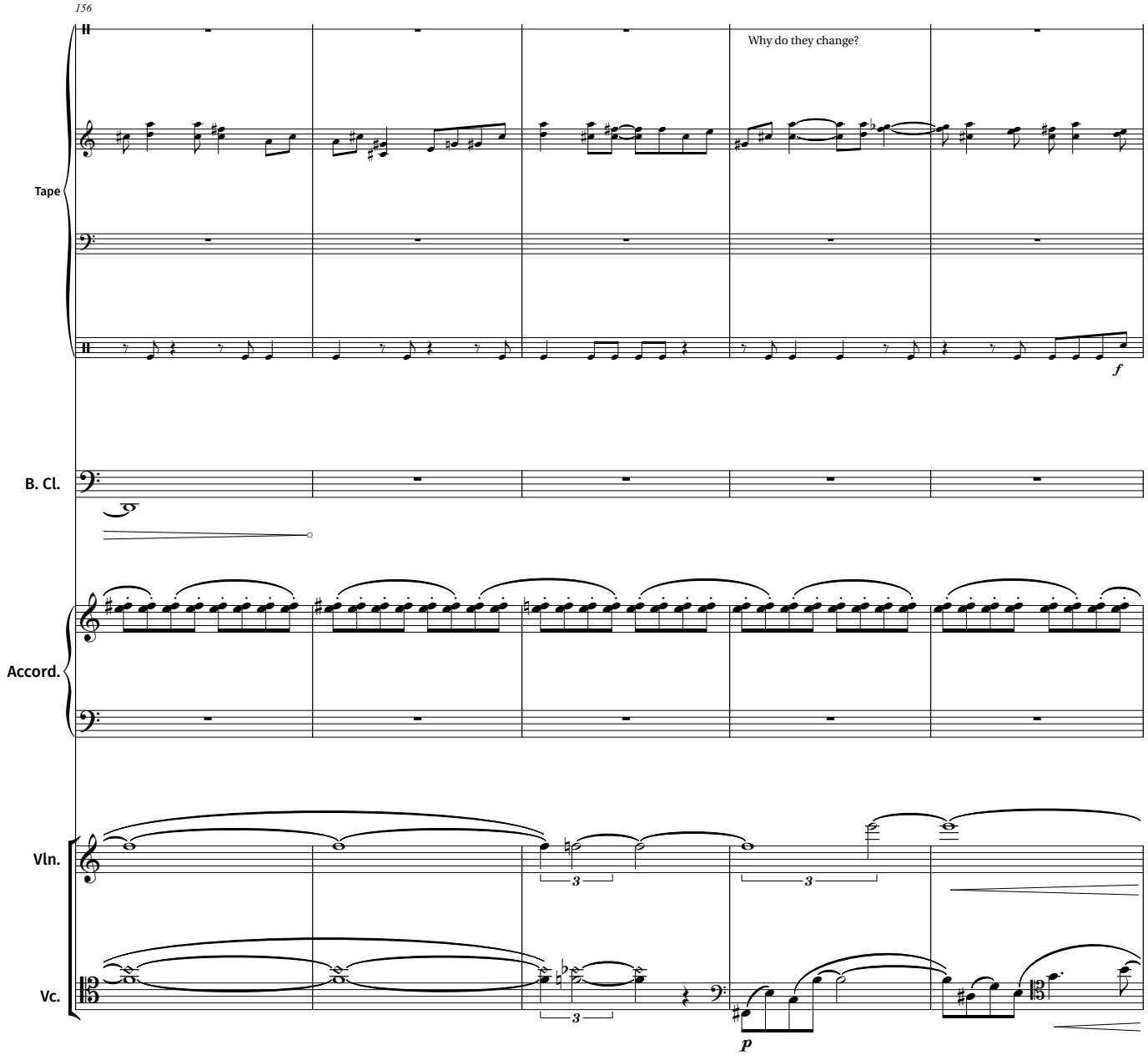

131
Please enter the number of single interactions you made with your loved ones last week.
Tape
B. Cl.
Accord.
Vln.
Vc.

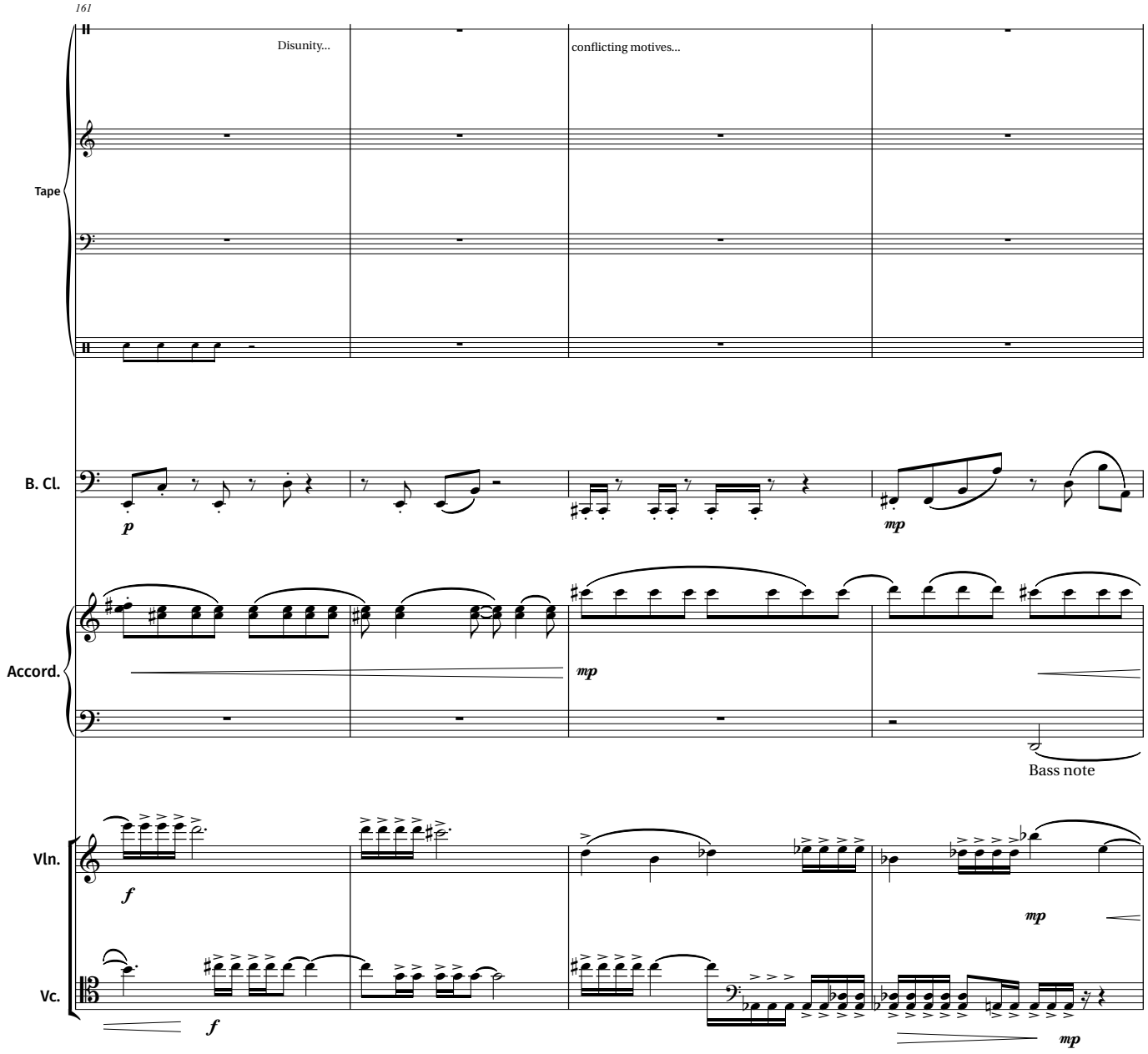

136
Tape
B. Cl.
p
p
Accord.
Vln.
Vc.

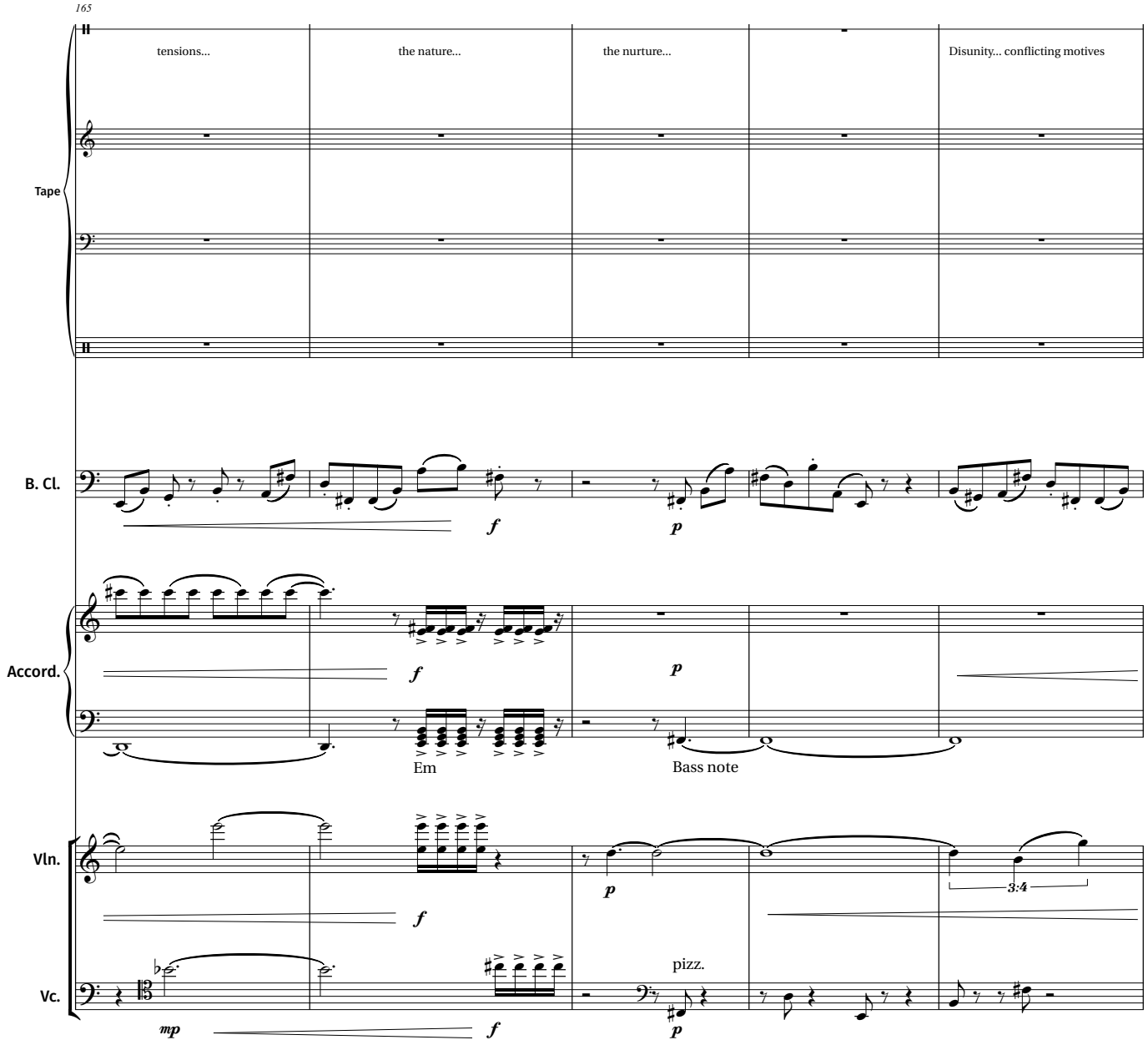

141
Tape
B. Cl.
Accord.
Vln.
Vc.

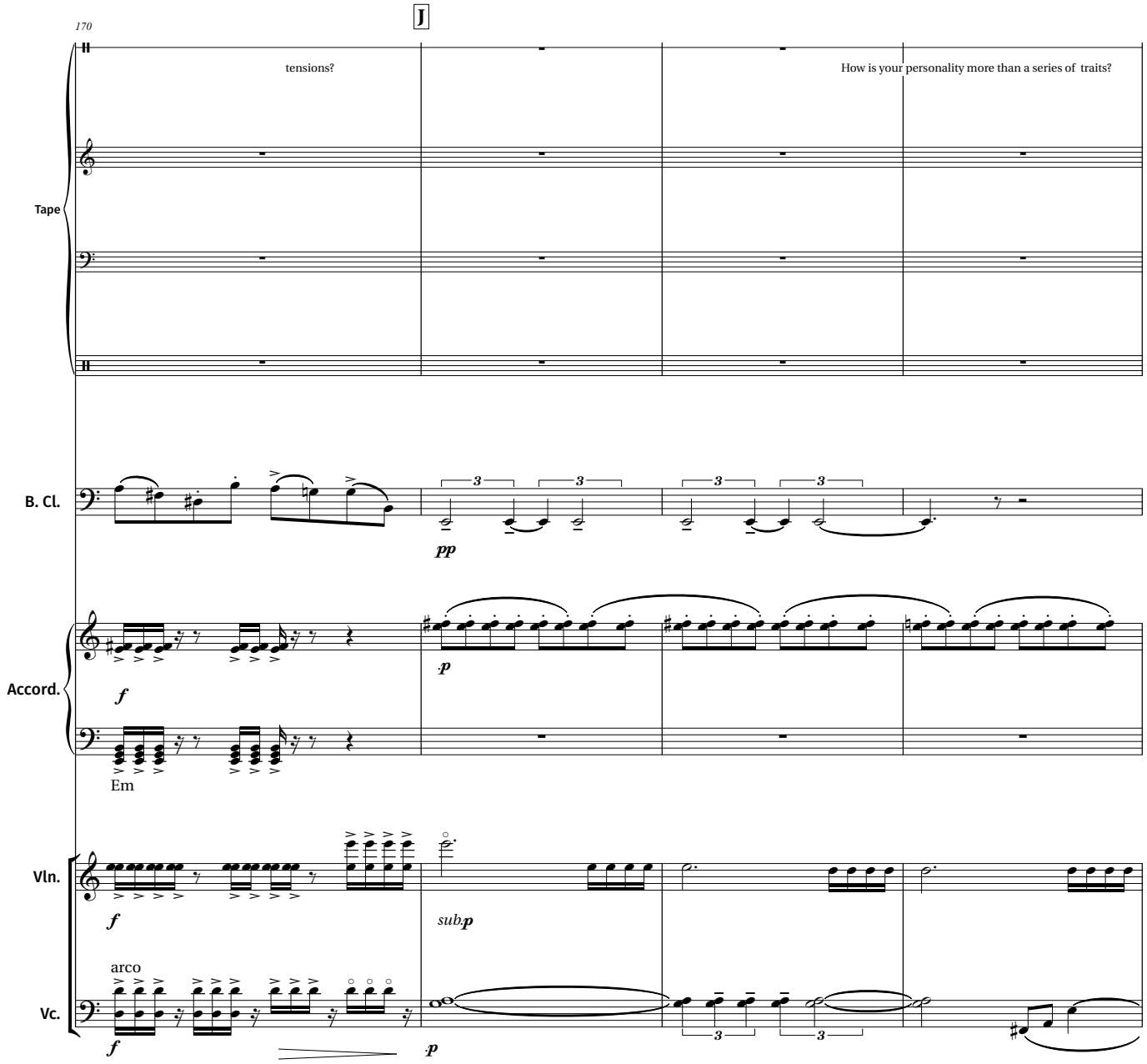

146
I
Tape
B. Cl.
poco
pp
3
pp
pp
Accord.
I
arco
Vln.
p dolce
Vc.

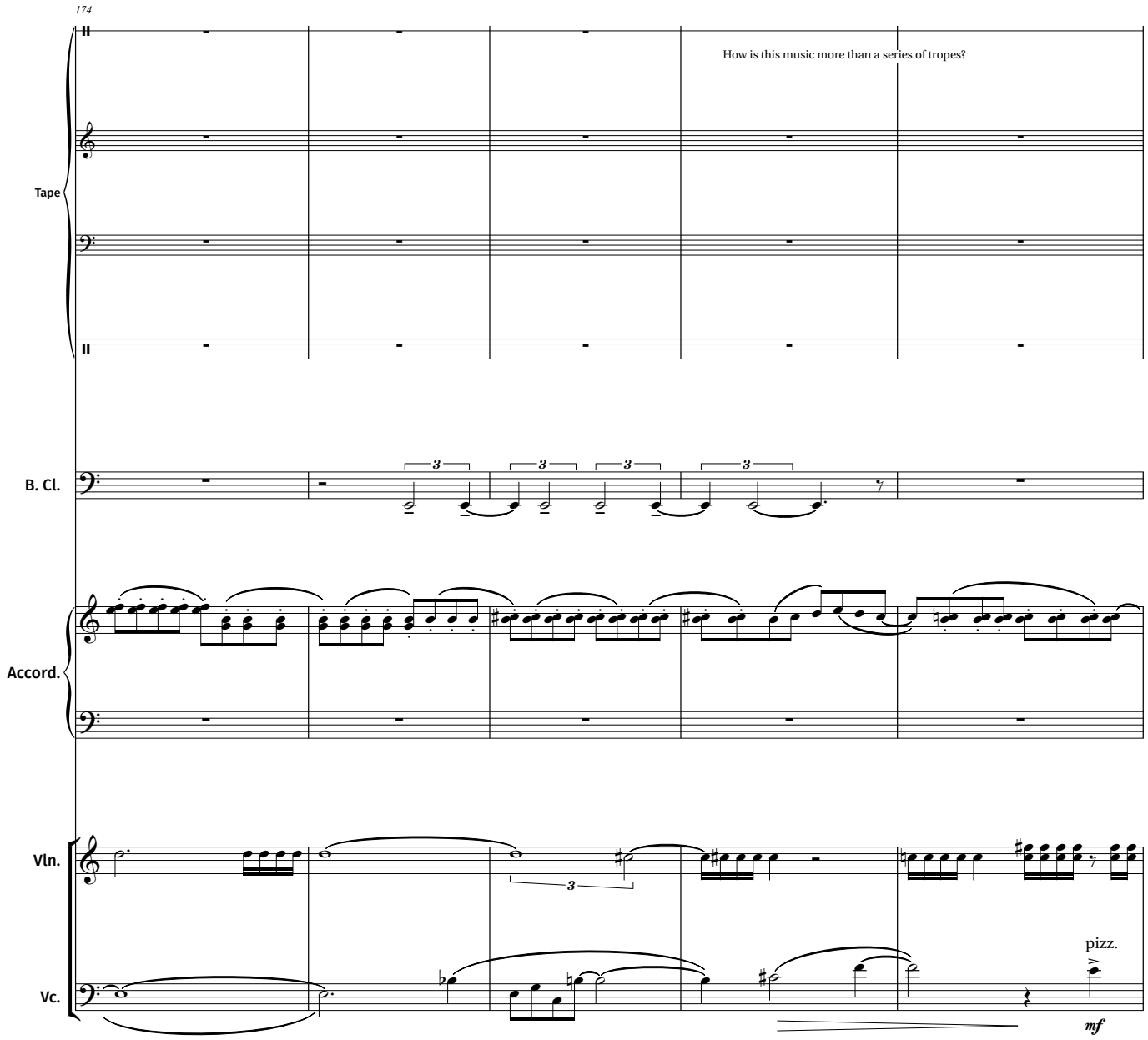

151
What are your deepest desires and where do they come from?
Tape
B. Cl.
Accord.
Vln.
Vc.
pp
p

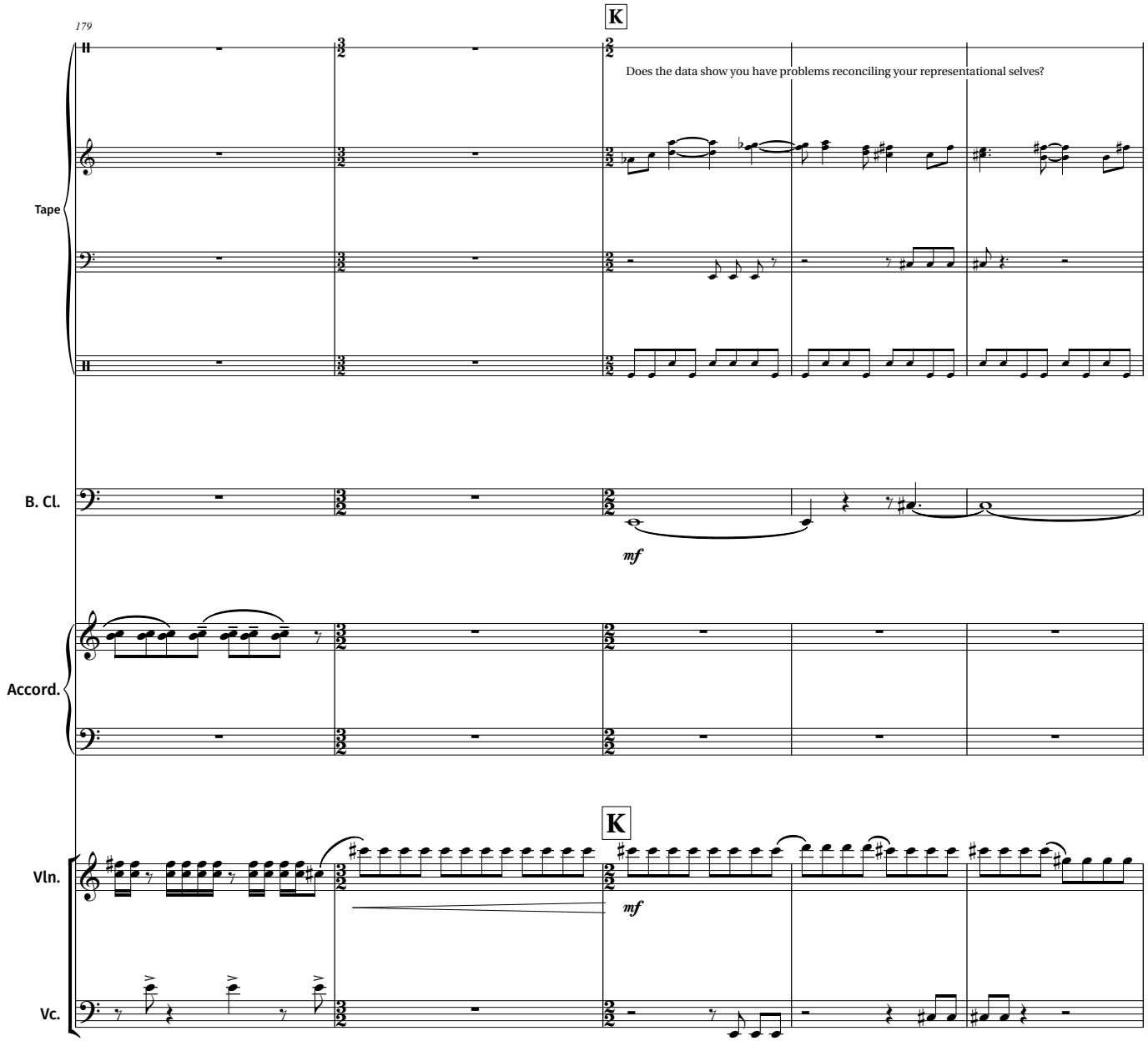

156
Why do they change?
Tape
B. Cl.
Accord.
Vln.
Vc.
f
p
3
3
3

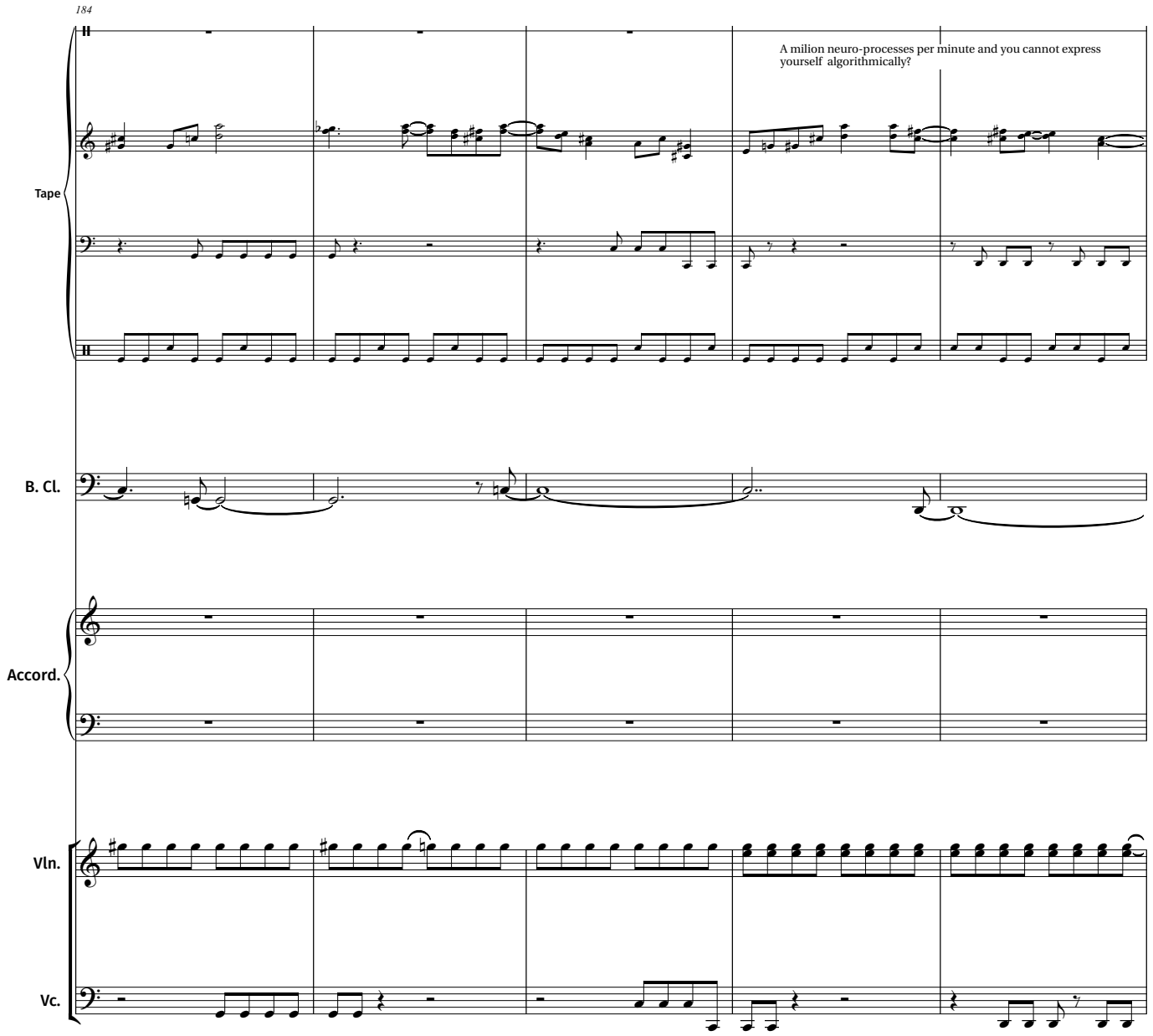

161
Disunity...
conflicting motives...
Tape
B. Cl.
p
mp
Accord.
mp
Bass note
Vln.
f
mp
Vc.
f
mp

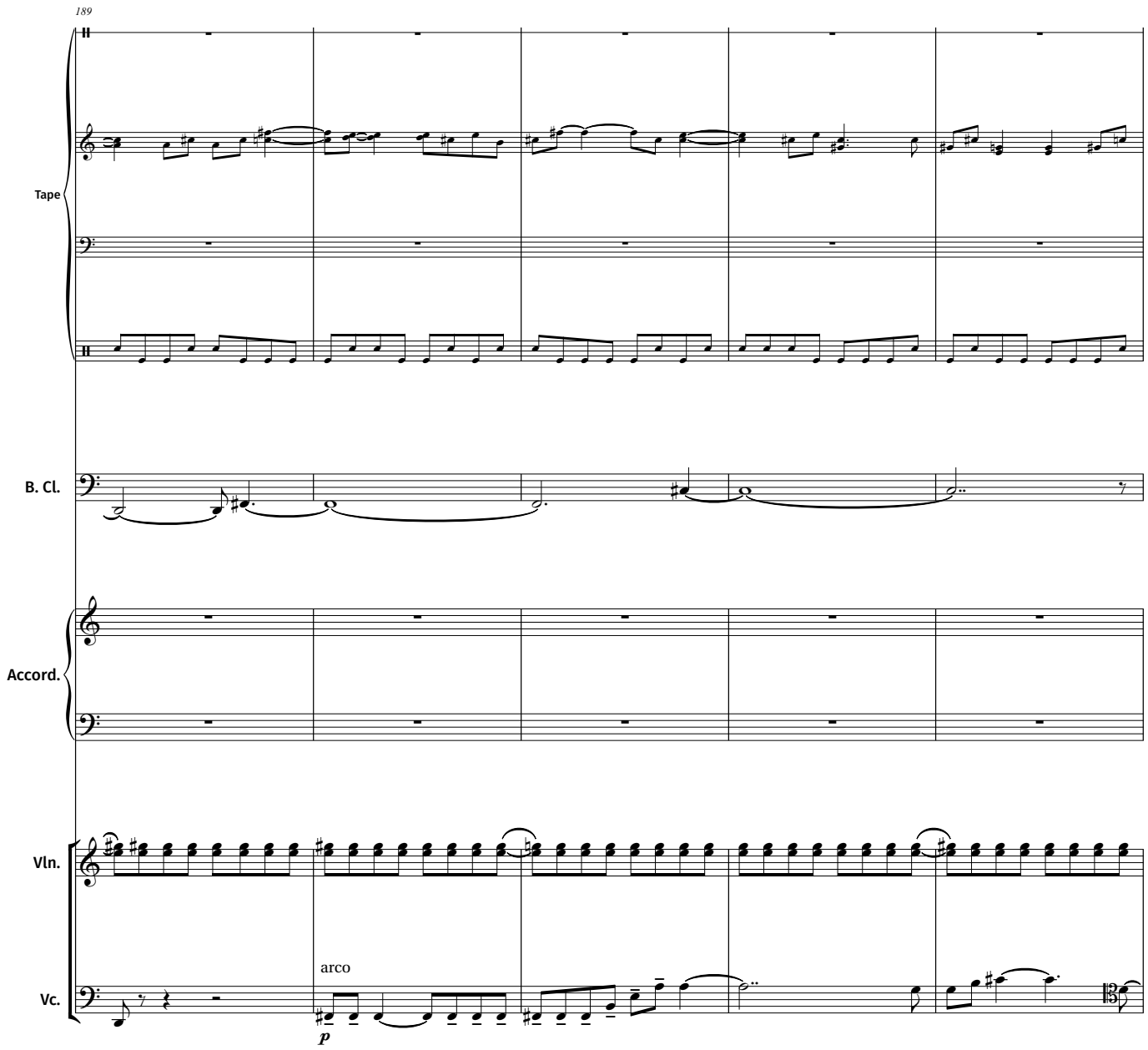

165
tensions...
the nature...
the nurture...
Disunity... conflicting motives
Tape
B. Cl.
Accord.
Vln.
Vc.
f
p
Em
Bass note
3:4
pizz.
mp

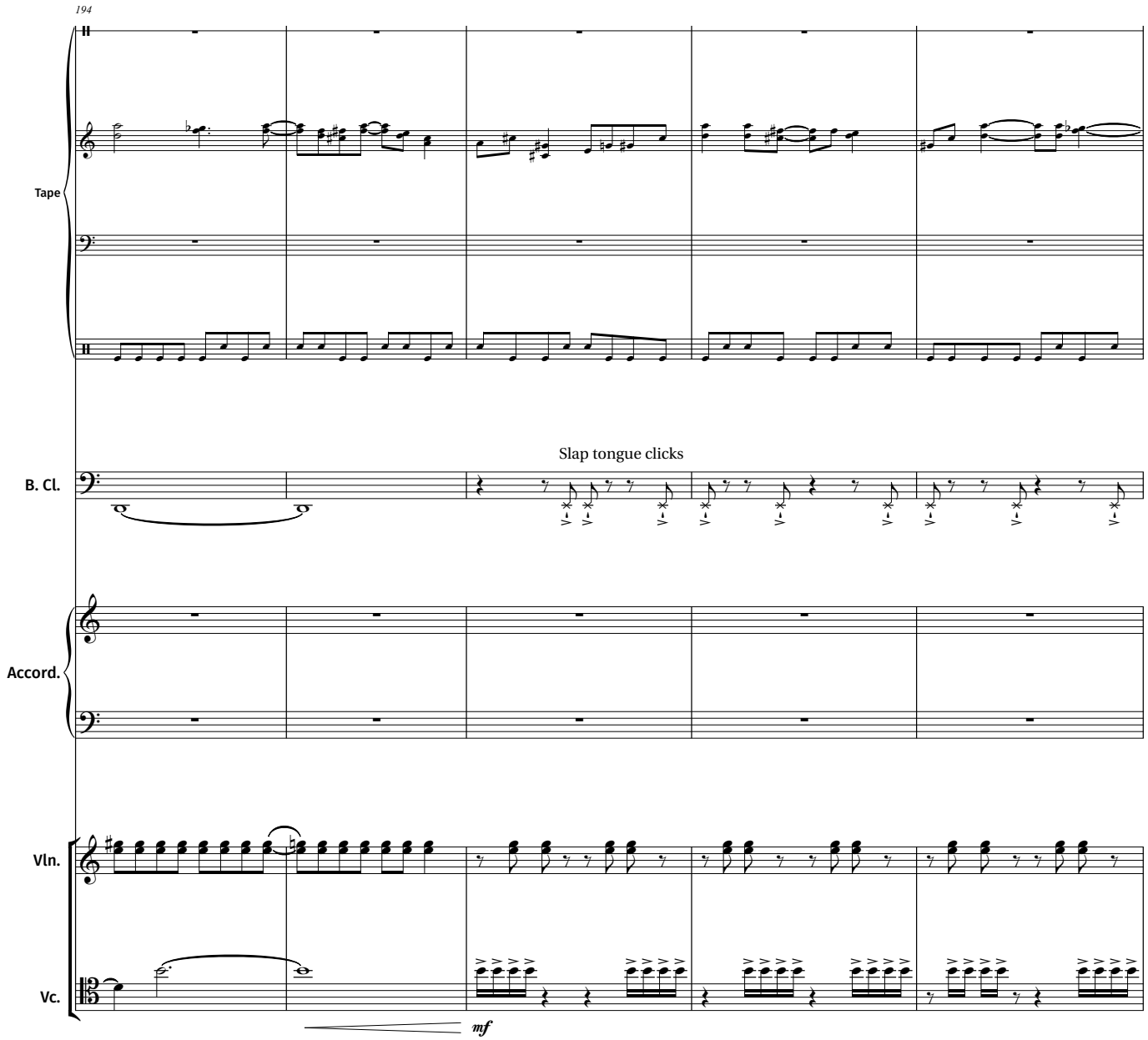

J
170
tensions?
How is your personality more than a series of traits?
Tape
B. Cl.
pp
Accord.
f
p
Em
Vln.
f
sub.p
arco
Vc.
f
p

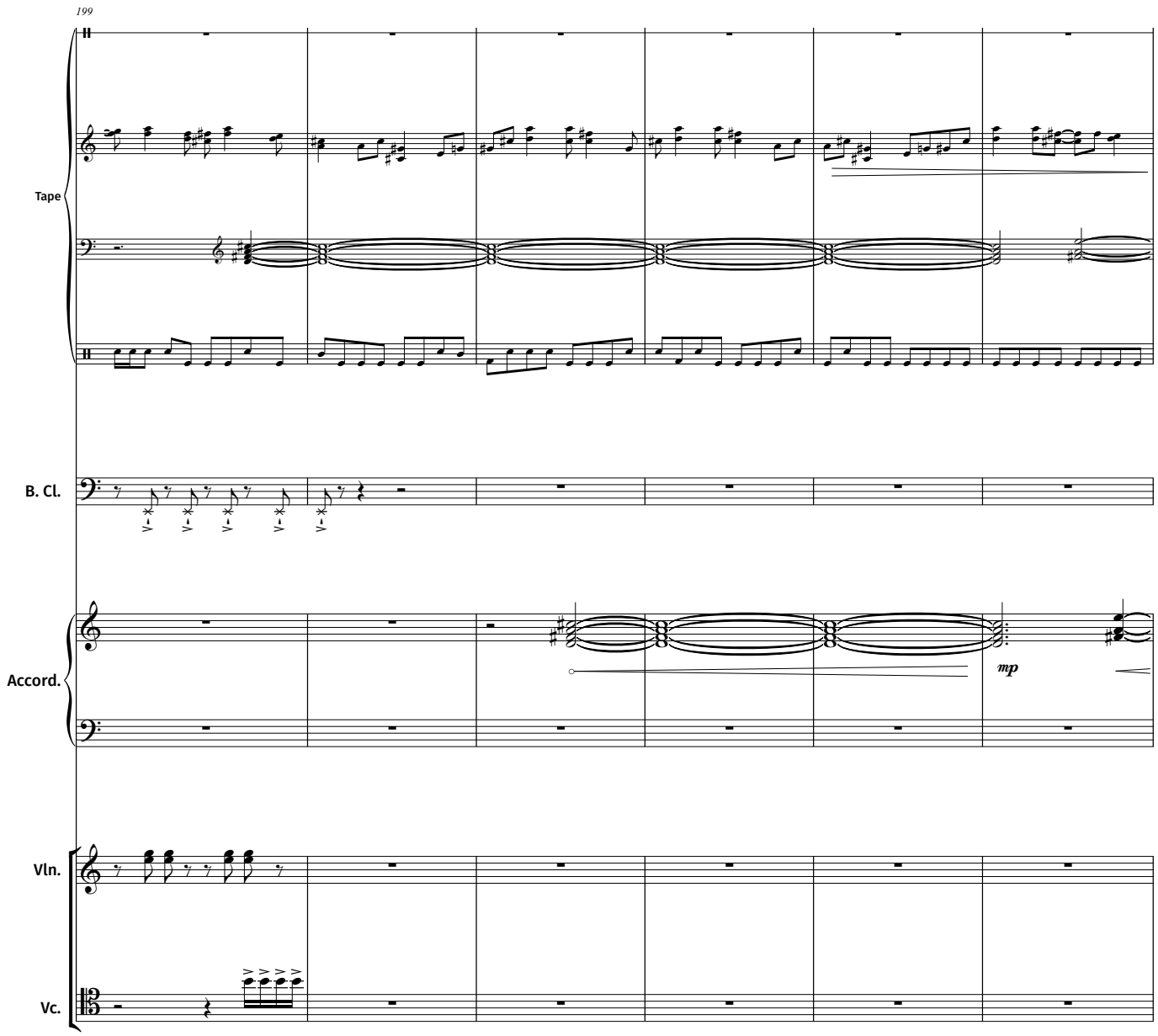

174
How is this music more than a series of tropes?
Tape
B. Cl.
Accord.
Vln.
Vc.
pizz.
mf

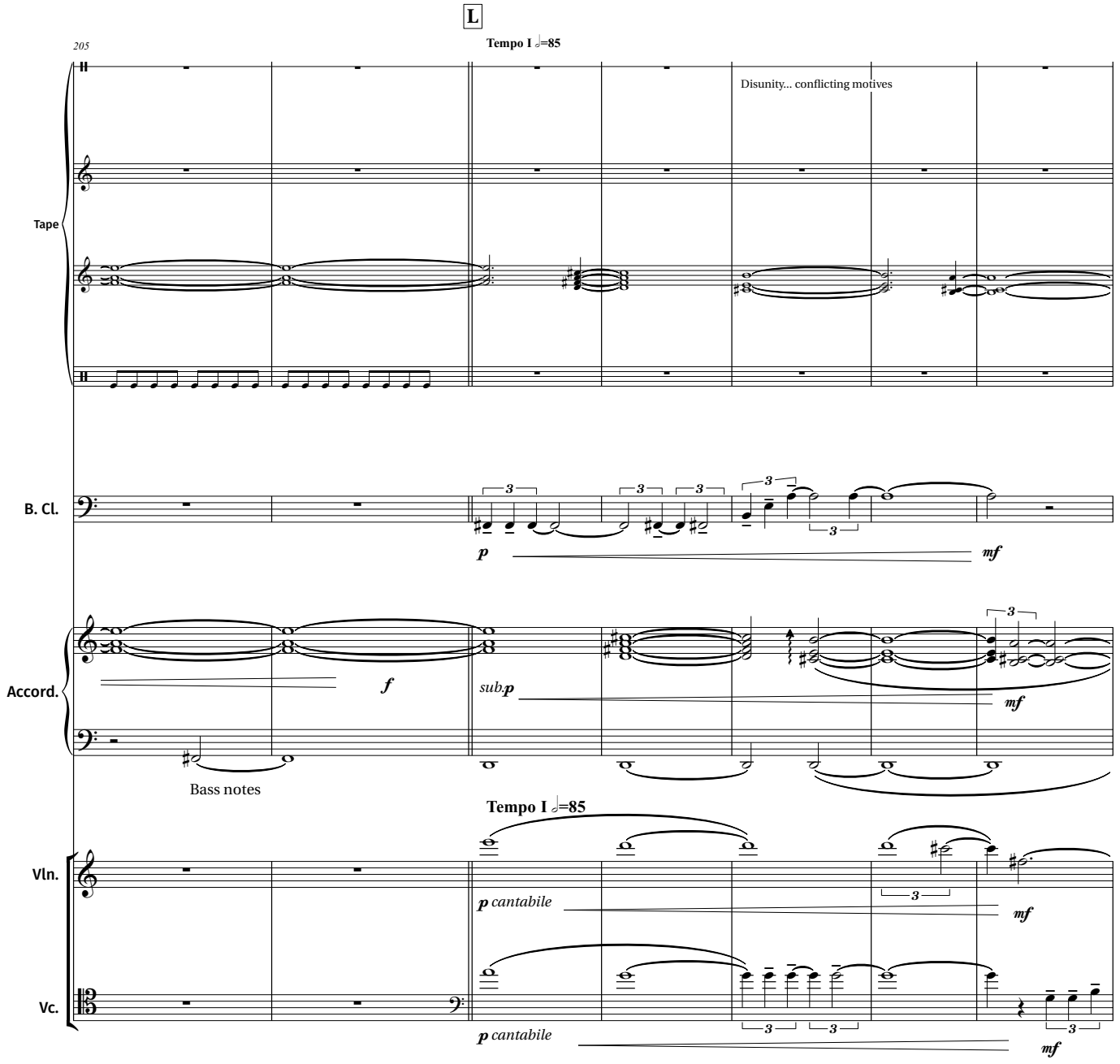

179
K
Does the data show you have problems reconciling your representational selves?
Tape
B. Cl.
mf
Accord.
K
Vln.
mf
Vc.

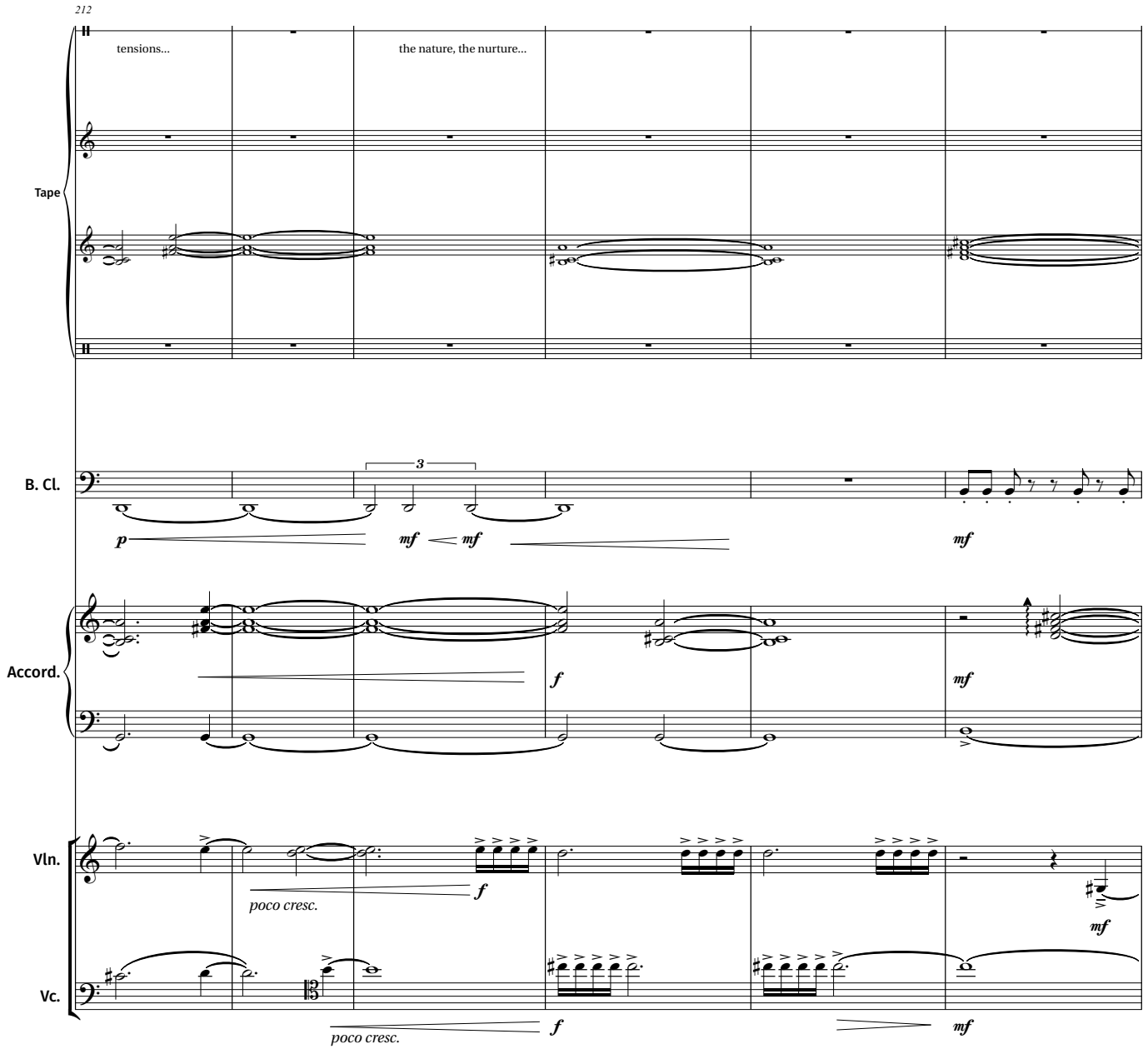

184
A milion neuro-processes per minute and you cannot express yourself algorithmically?
Tape
B. Cl.
Accord.
Vln.
Vc.

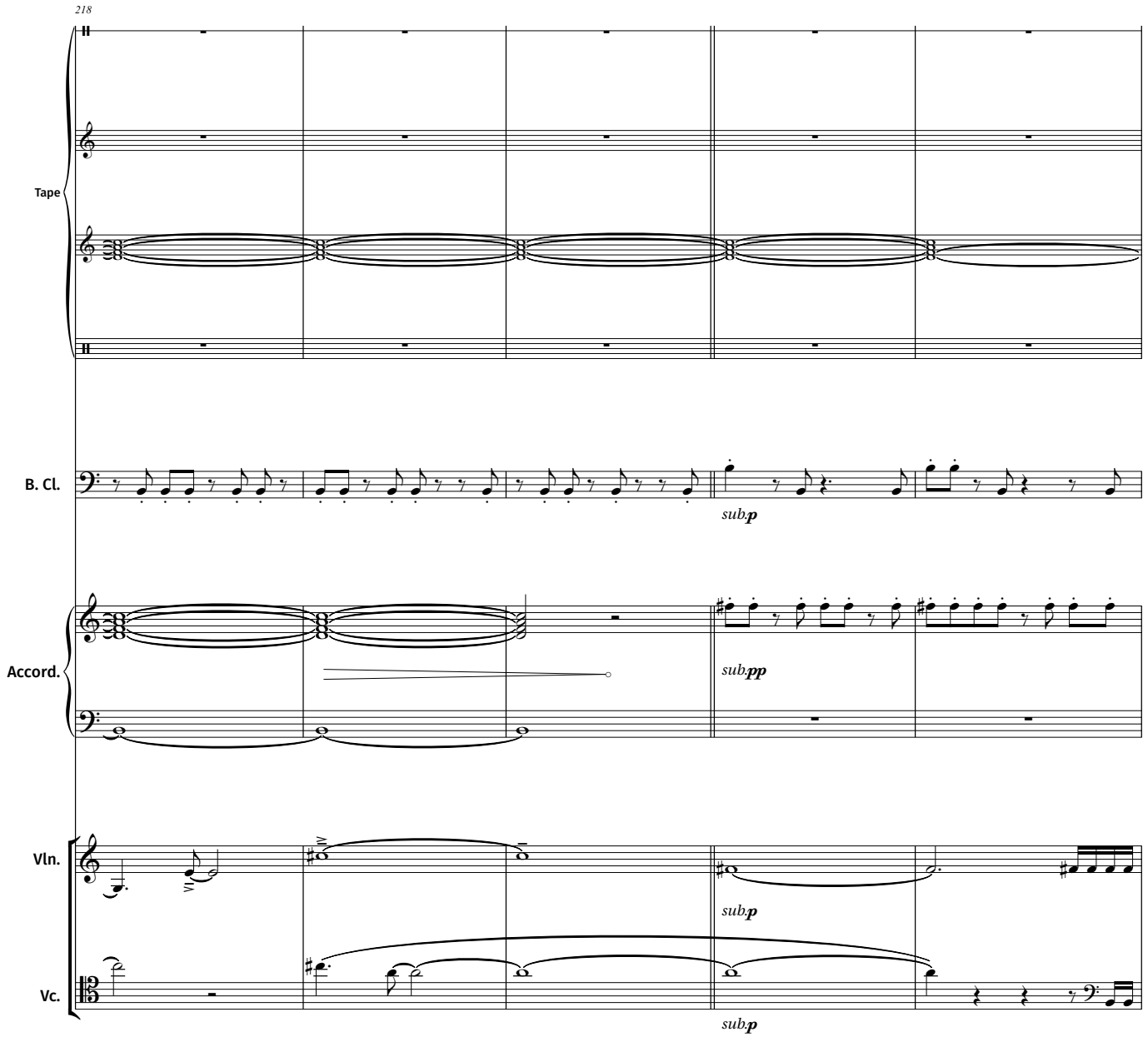

189
Tape
B. Cl.
Accord.
Vln.
Vc.
arco
p

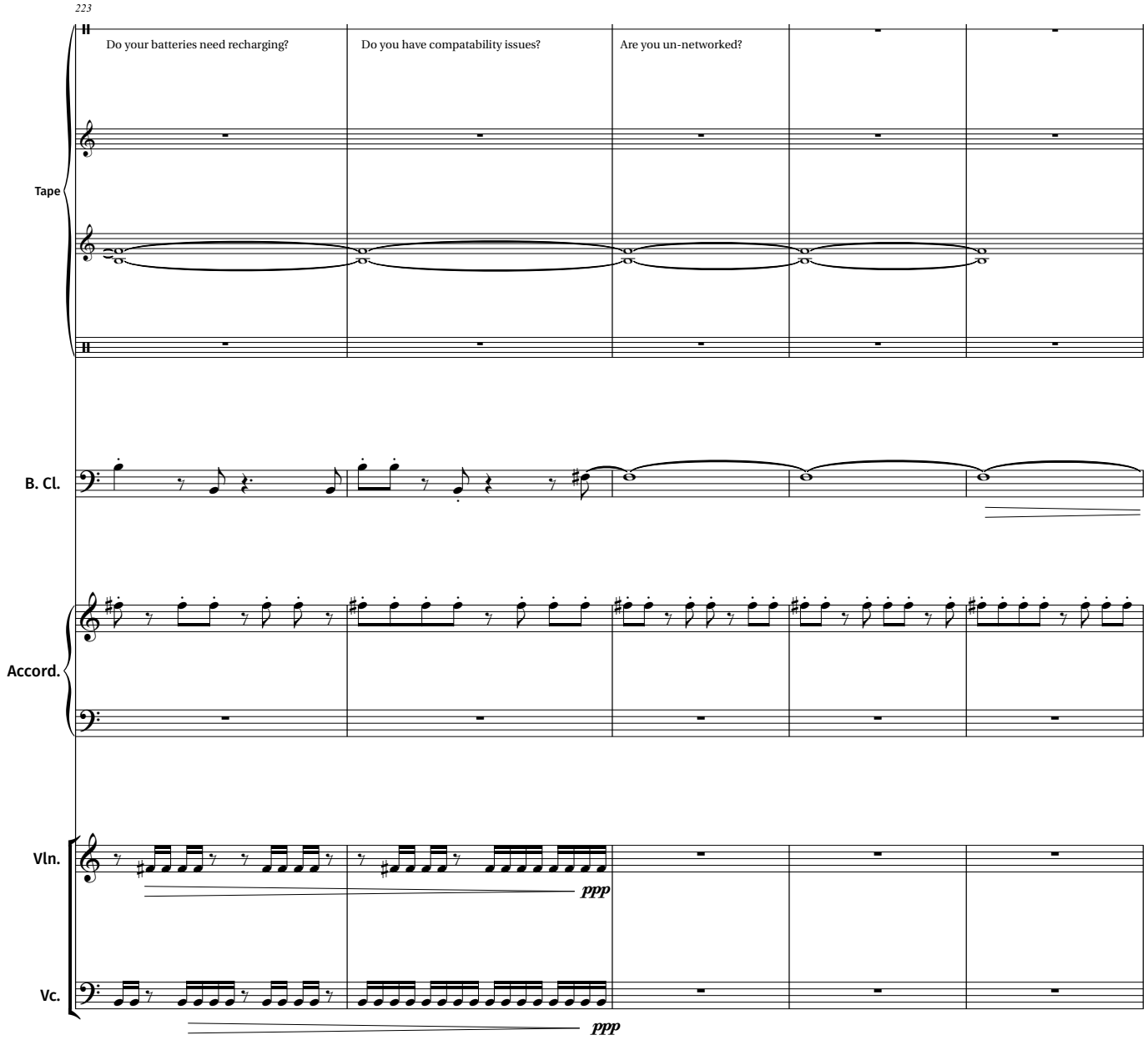

194
Tape
Slap tongue clicks
B. Cl.
Accord.
Vln.
Vc.
mf

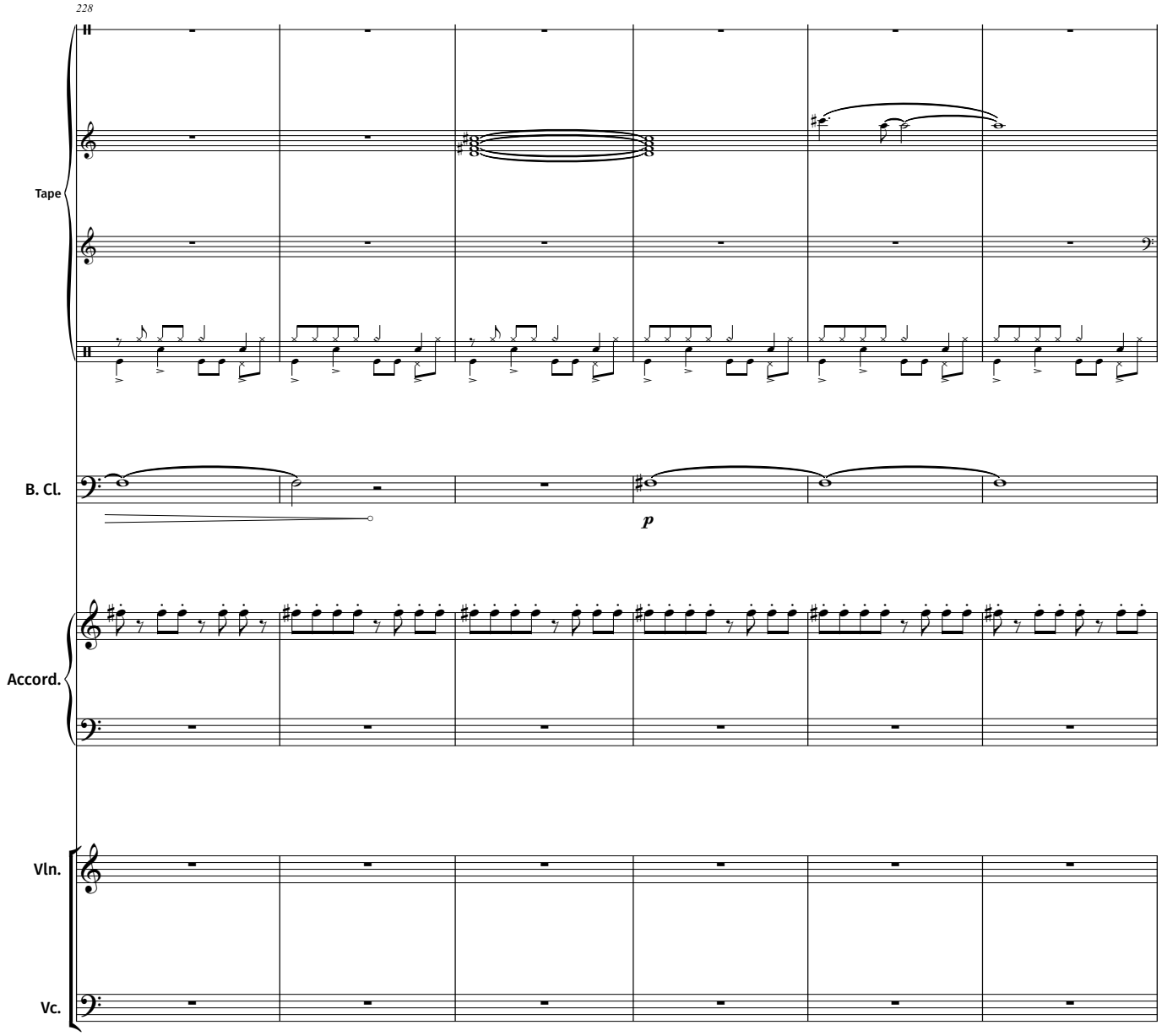

199
Tape
B. Cl.
Accord.
mp
Vln.
Vc.

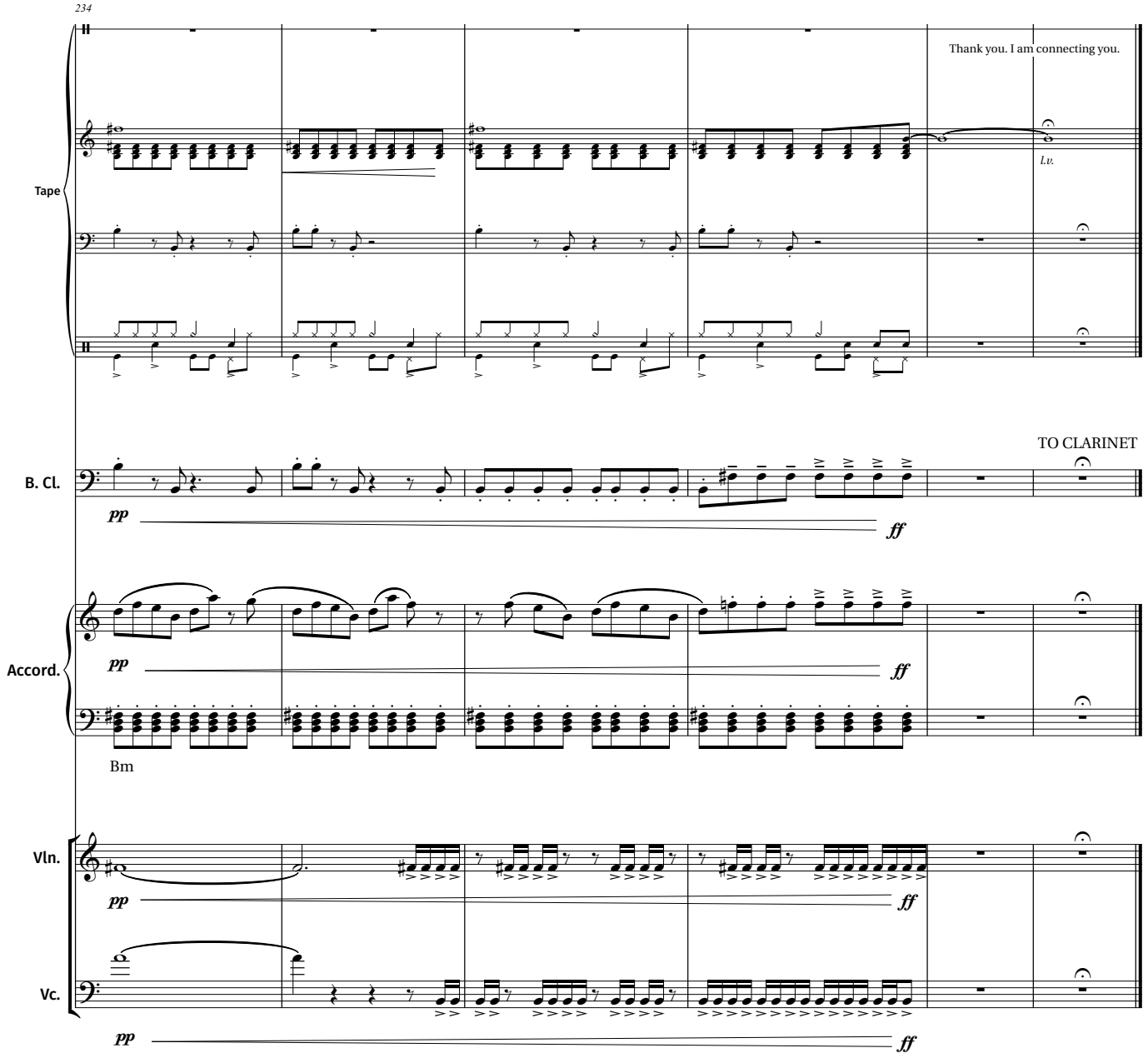

L
205
Tempo I 𝅗𝅥=85
Disunity... conflicting motives
Tape
B. Cl.
p
mf
Accord.
f
sub.p
mf
Bass notes
Tempo I 𝅗𝅥=85
Vln.
p cantabile
mf
Vc.
p cantabile
mf


212
tensions...
the nature, the nurture...
Tape
B. Cl.
3
p
mf
mf
mf
Accord.
f
mf
Vln.
poco cresc.
f
mf
Vc.
poco cresc.
f
mf

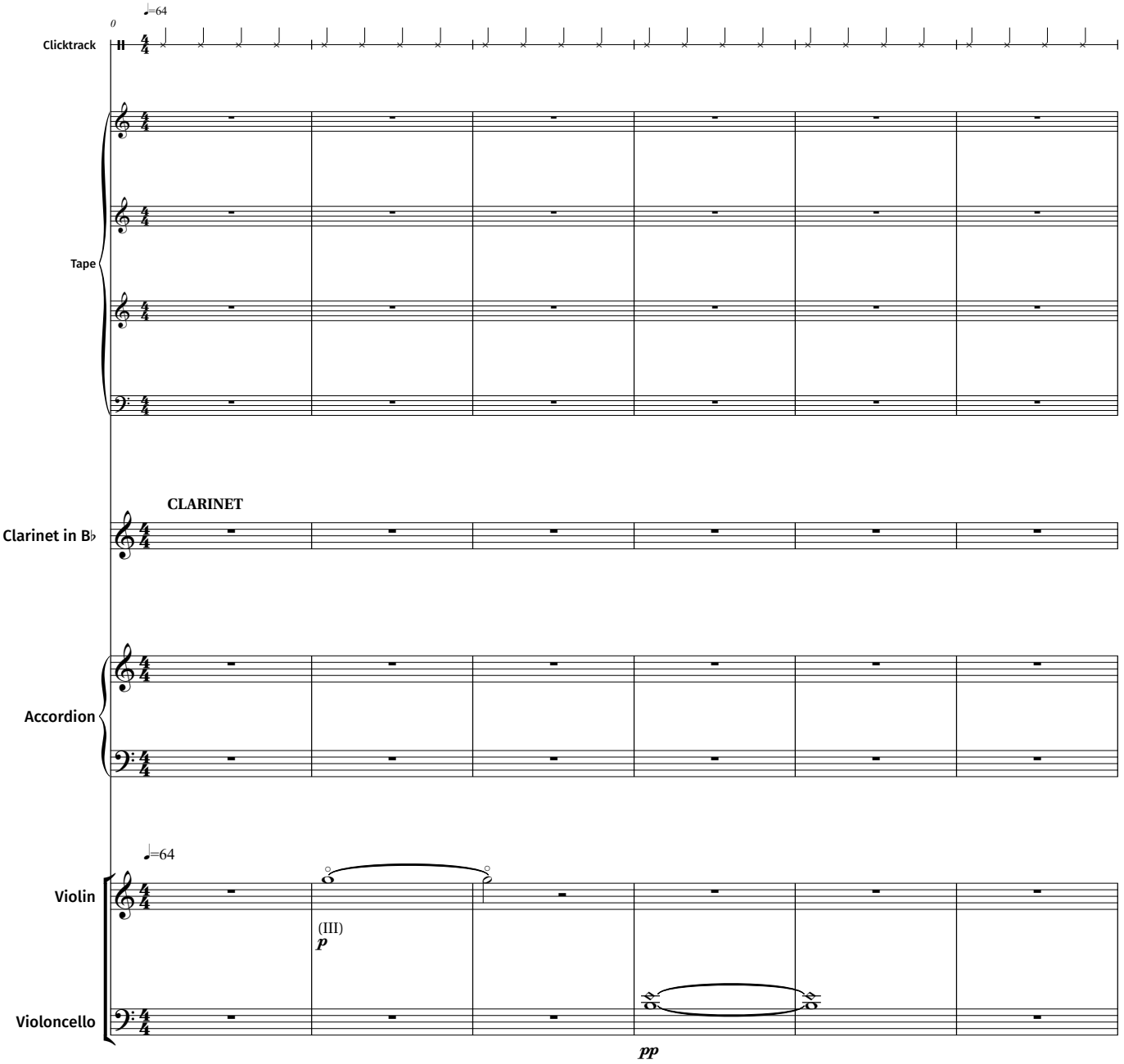

218
Tape
B. Cl.
sub.p
Accord.
sub.pp
Vln.
sub.p
Vc.
sub.p

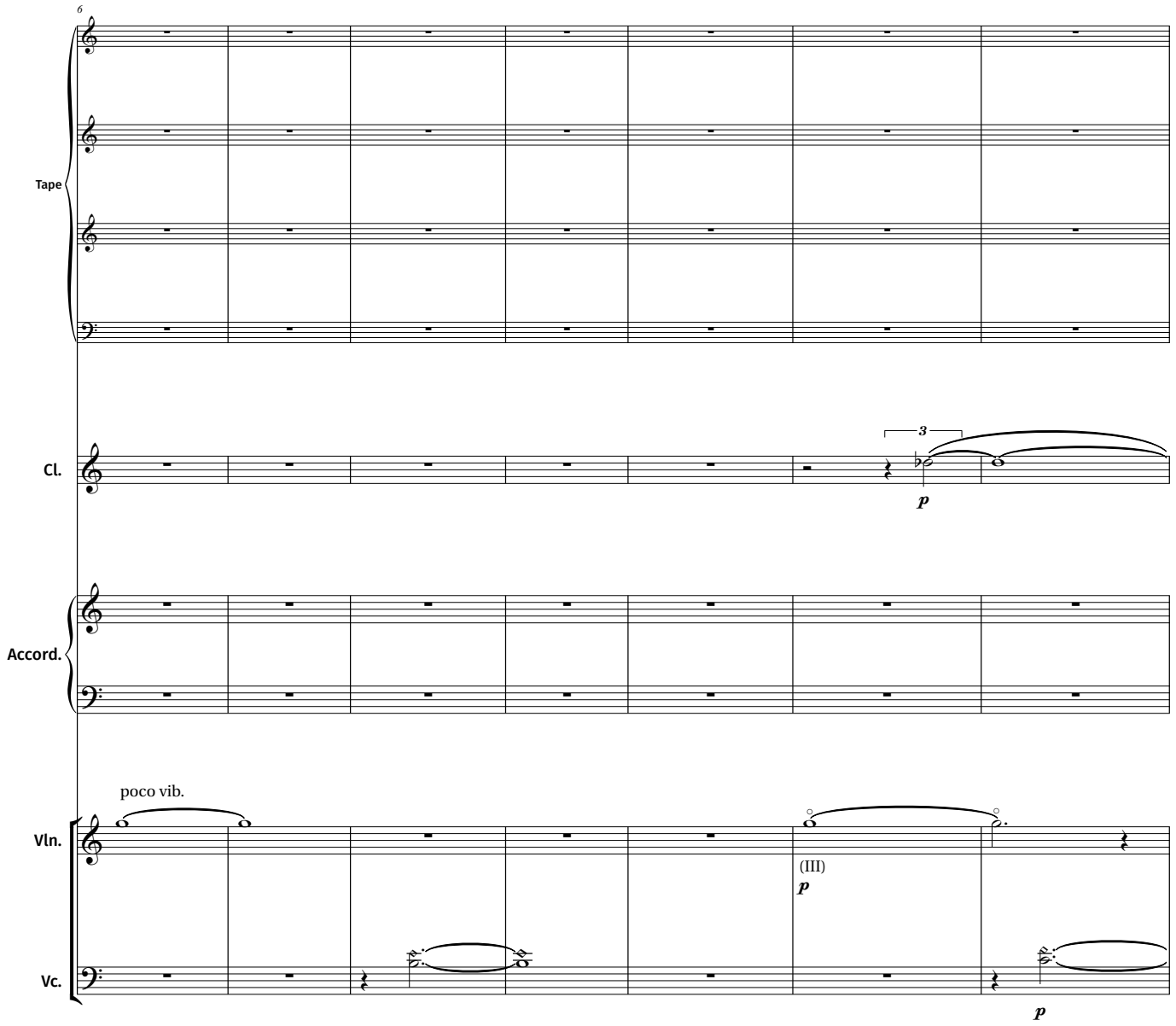

223
Do your batteries need recharging?
Do you have compatability issues?
Are you un-networked?
Tape
B. Cl.
Accord.
Vln.
ppp
Vc.
ppp

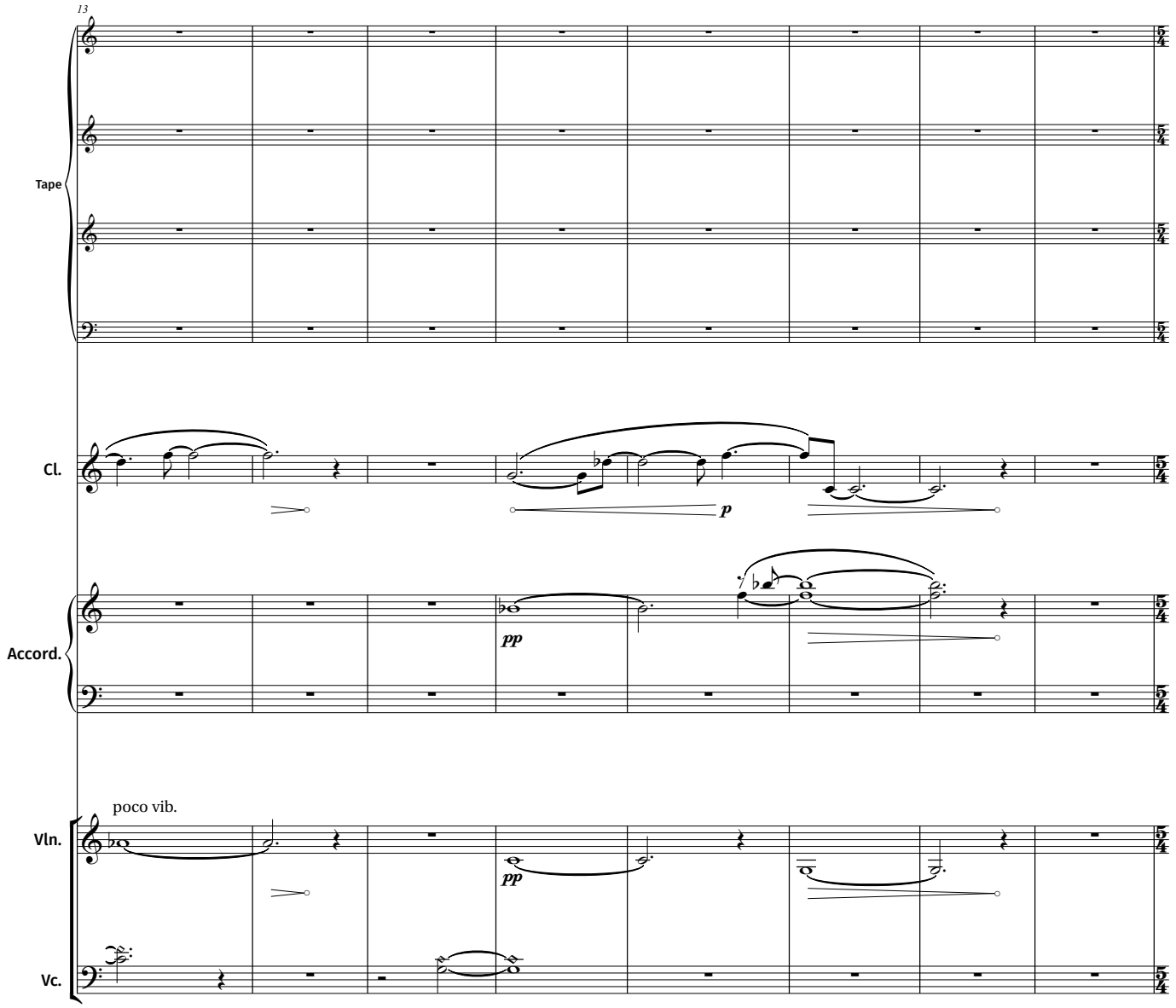

228
Tape
B. Cl.
p
Accord.
Vln.
Vc.

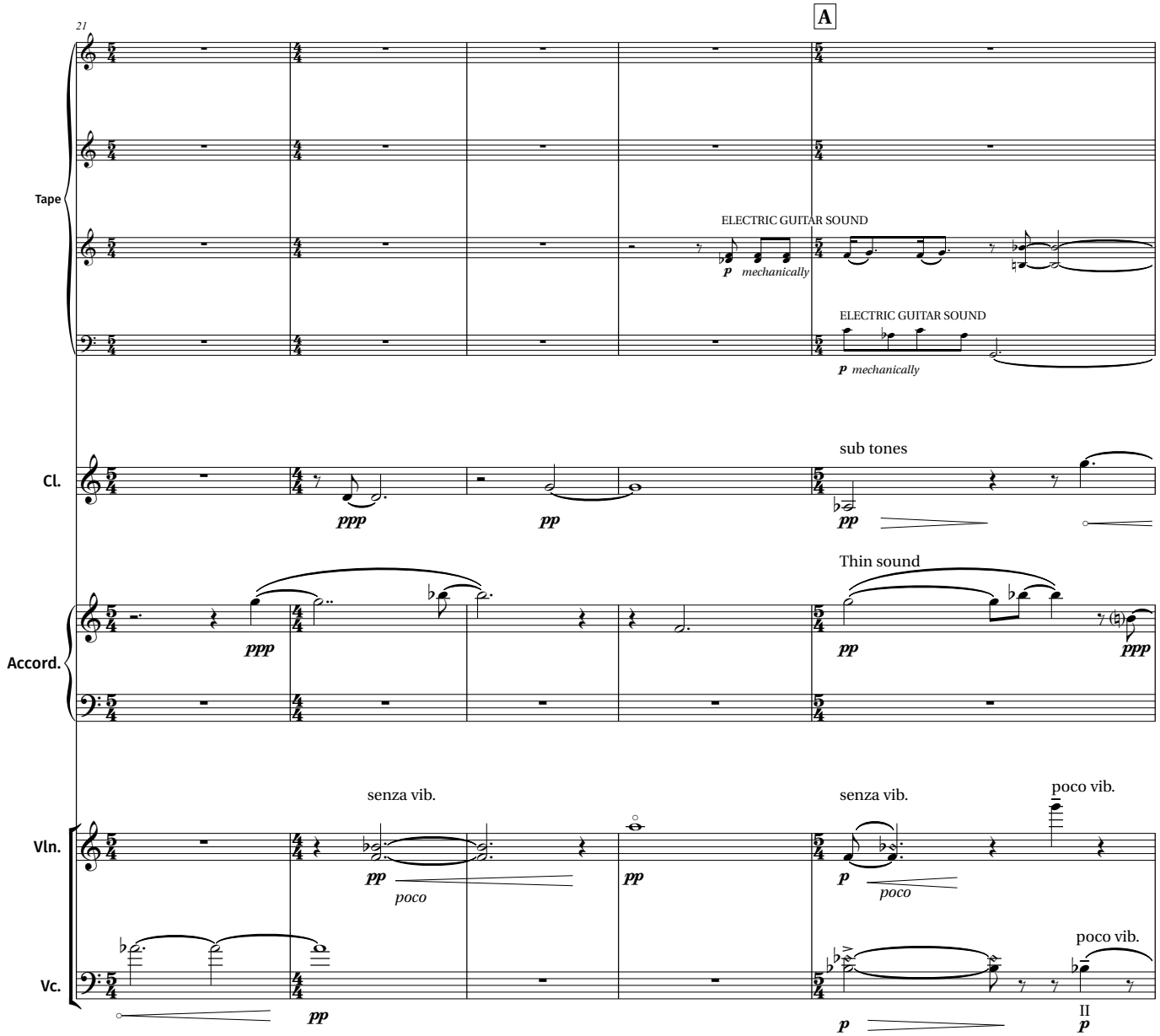

234
Thank you. I am connecting you.
Tape
l.v.
TO CLARINET
B. Cl.
pp
ff
Accord.
pp
ff
Bm
Vln.
pp
ff
Vc.
pp
ff

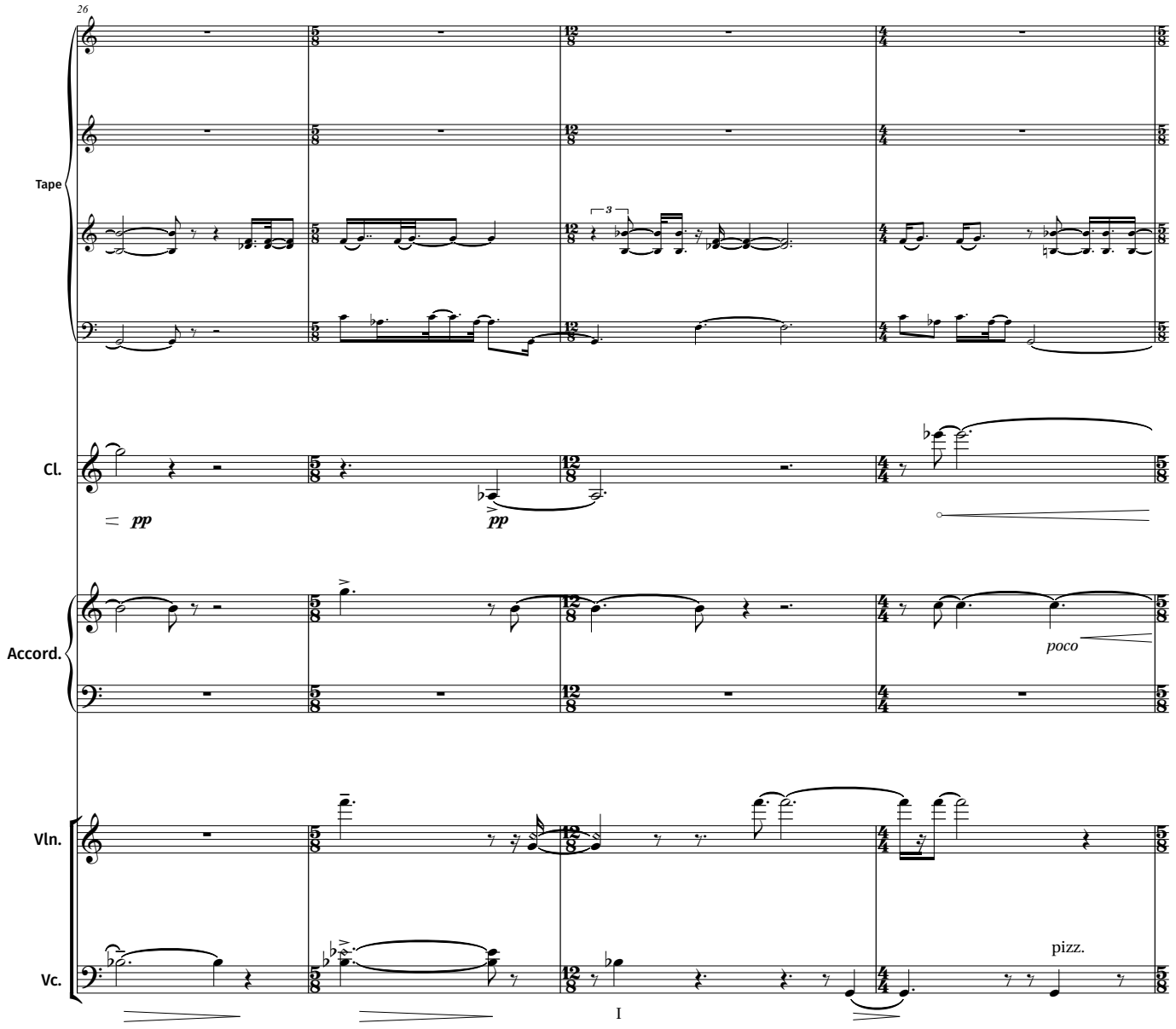
4. Instructions for curing the human heart

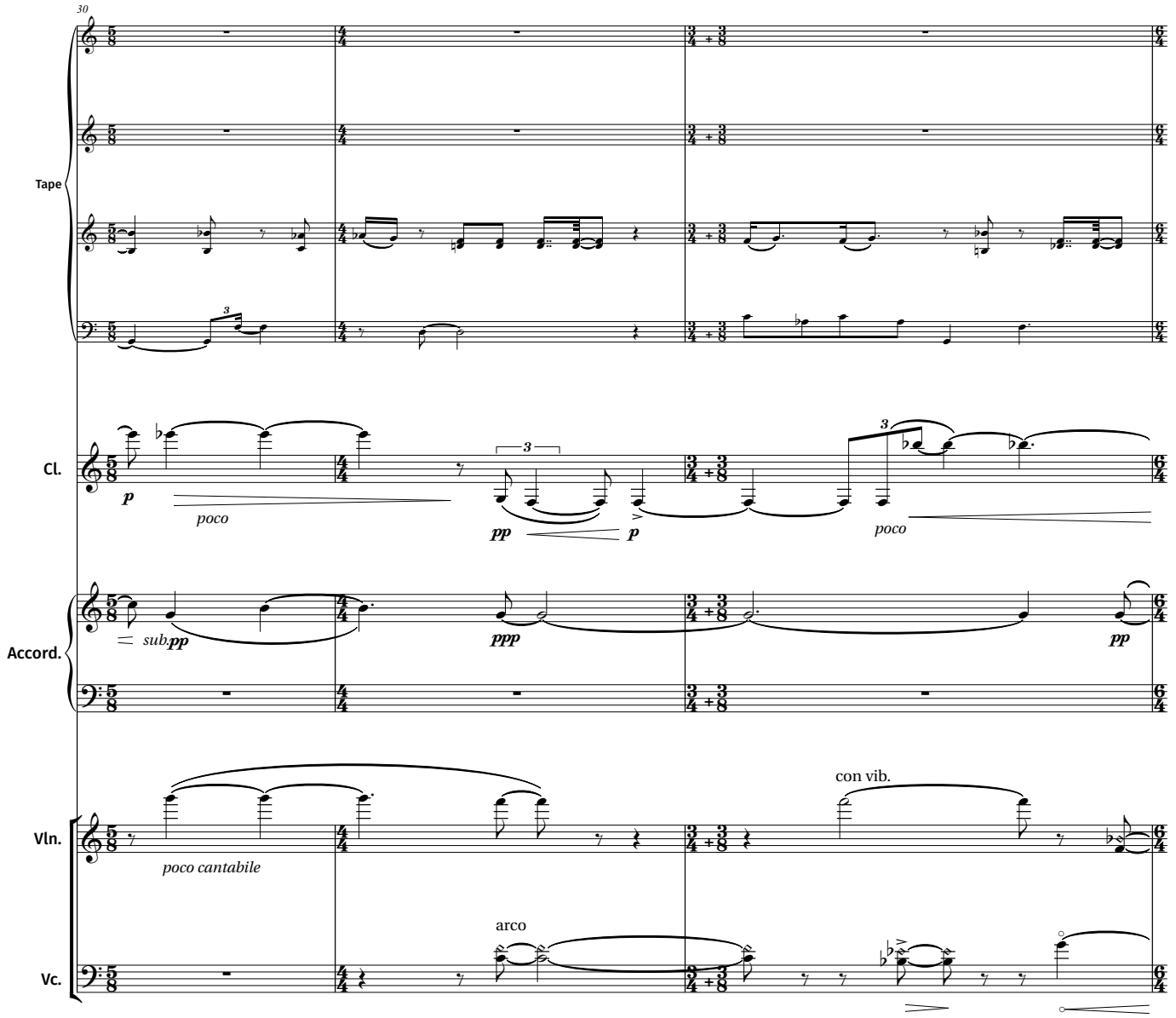


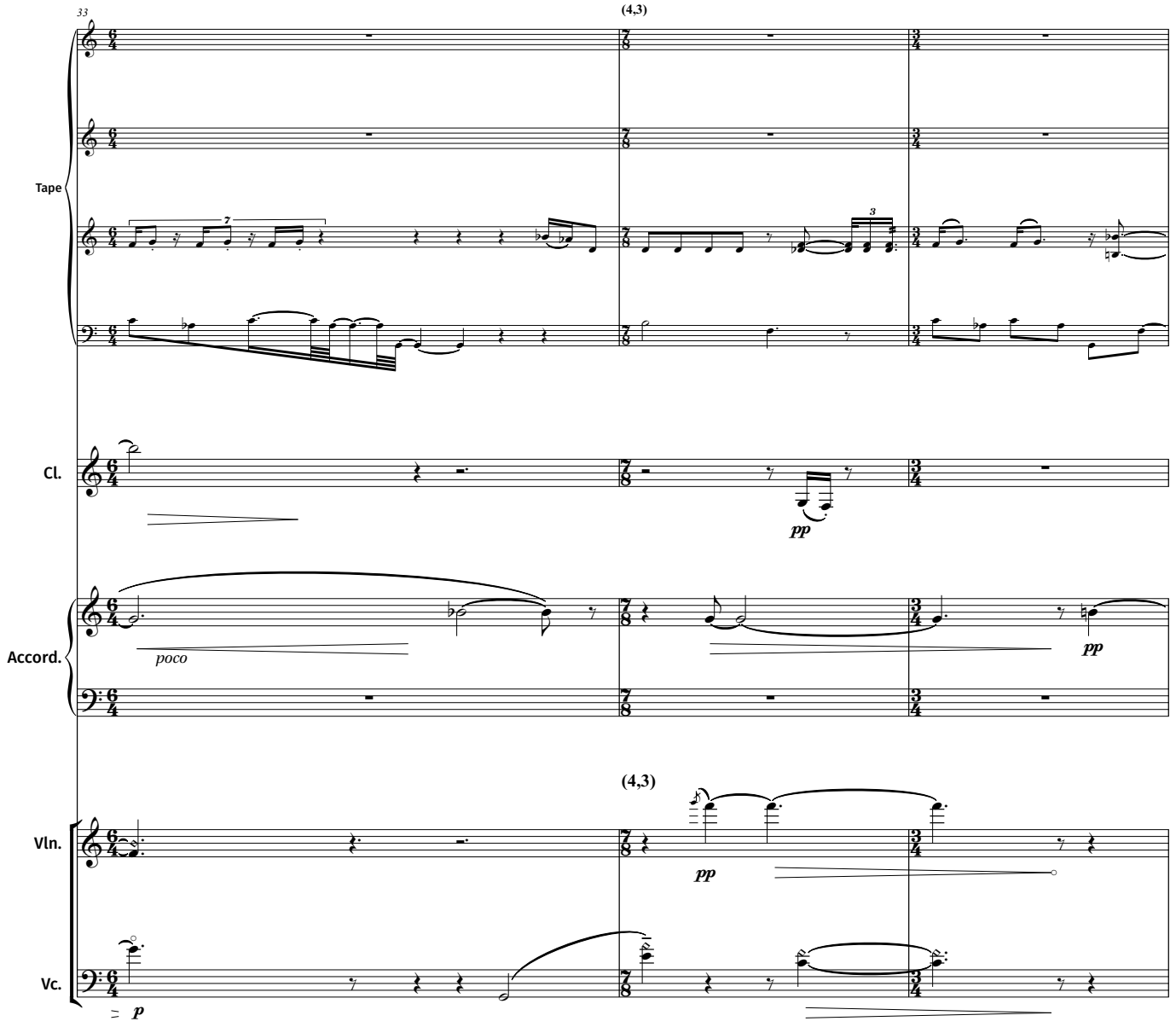

6
Tape
Cl.
3
p
Accord.
poco vib.
Vln.
(III)
p
Vc.
p

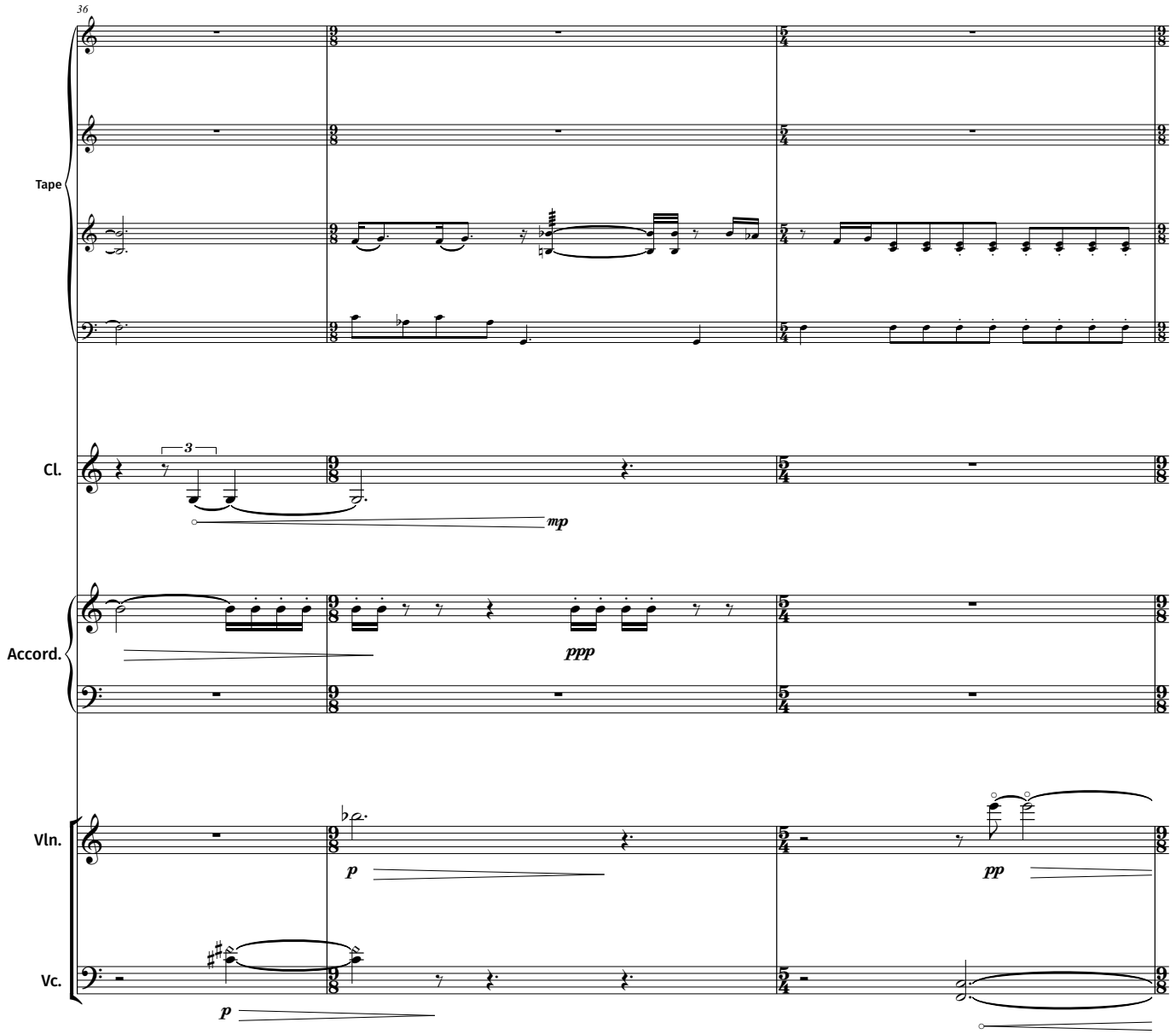

13
Tape
Cl.
p
Accord.
pp
poco vib.
Vln.
pp
Vc.

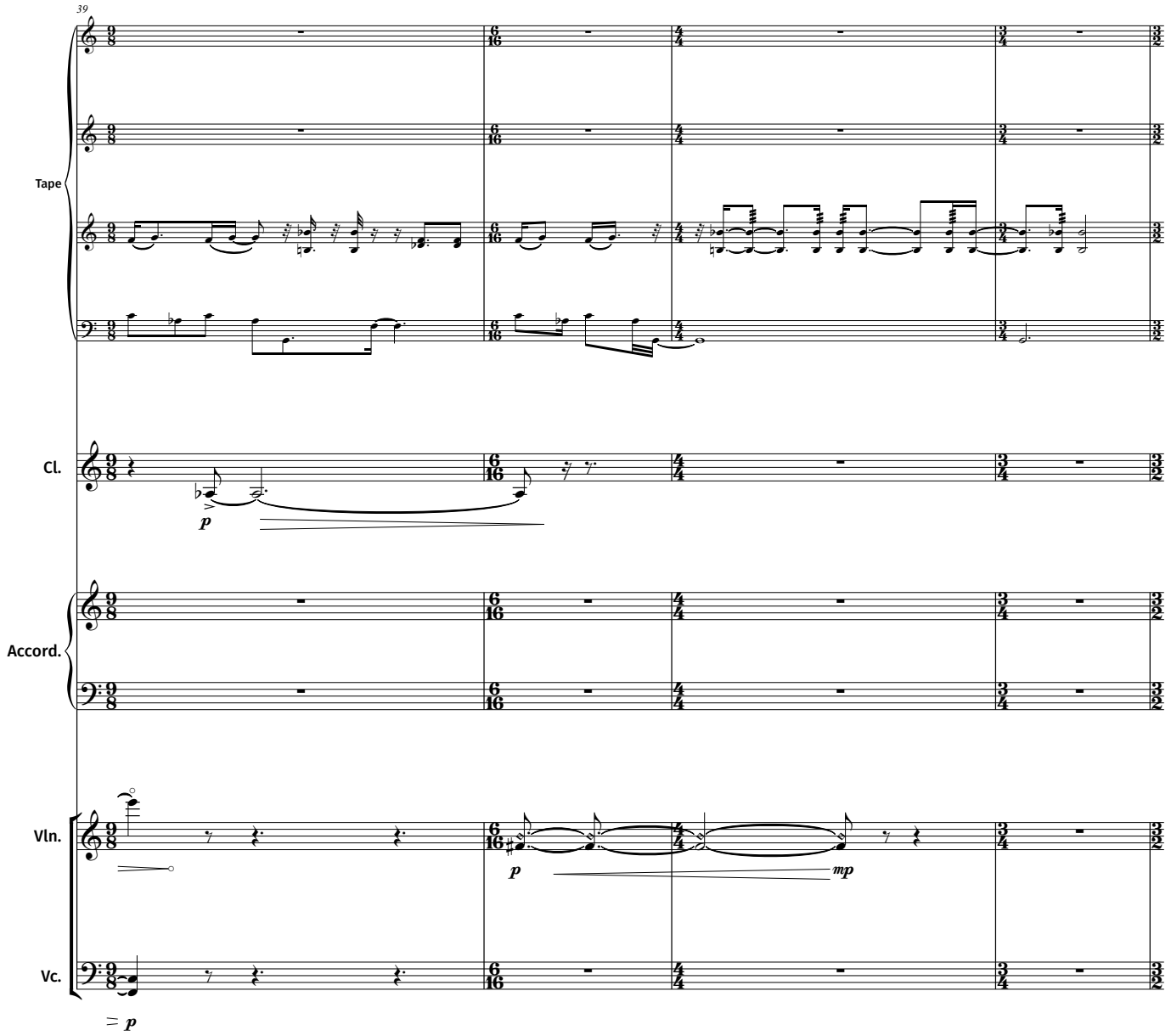

21
A
Tape
ELECTRIC GUITAR SOUND
p mechanically
ELECTRIC GUITAR SOUND
p mechanically
Cl.
sub tones
ppp
pp
pp
Accord.
Thin sound
ppp
pp
ppp
Vln.
senza vib.
pp
poco
pp
senza vib.
p
poco
poco vib.
Vc.
pp
p
poco vib.
II
p

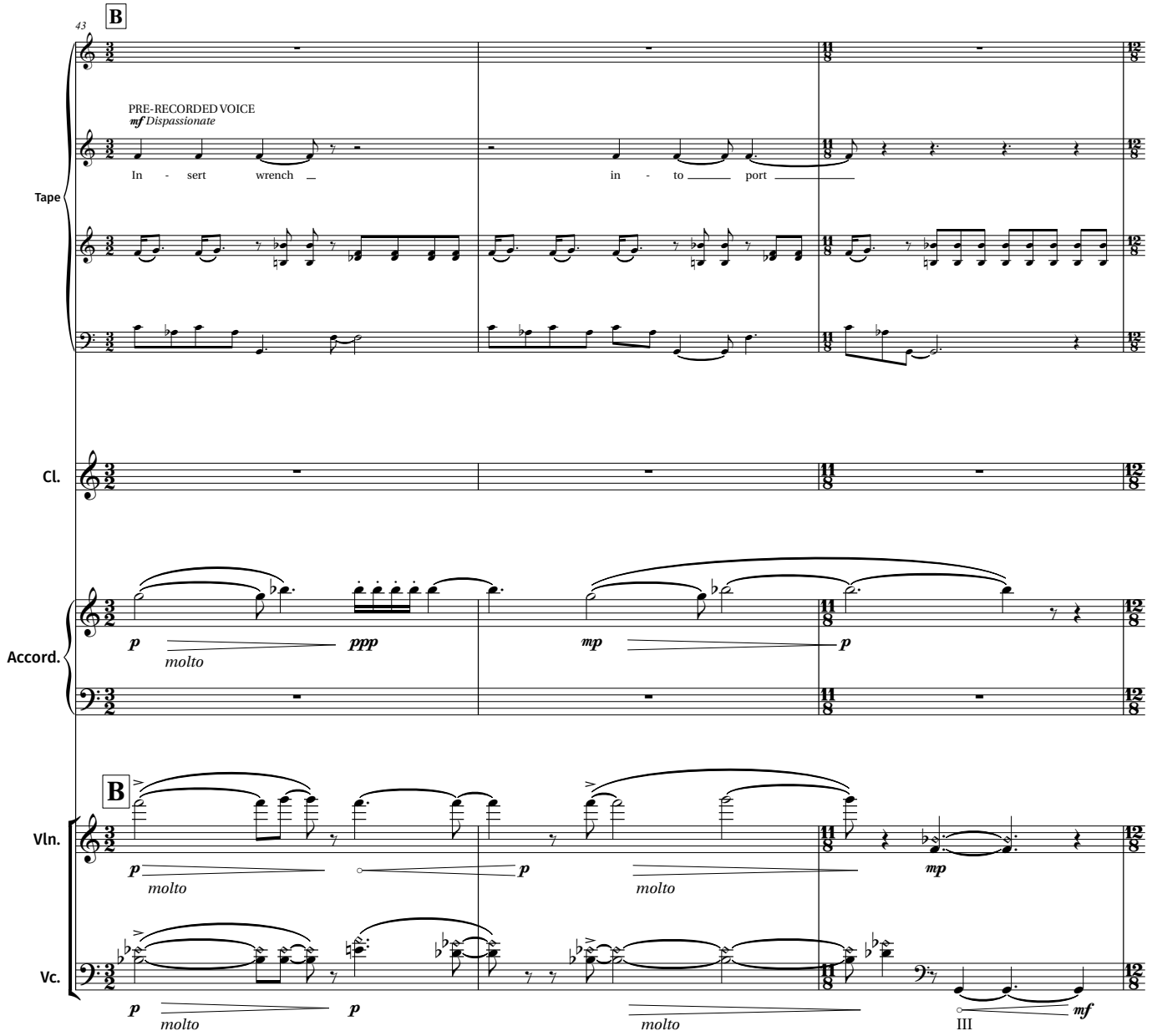

26
Tape
Cl.
pp
pp
Accord.
poco
Vln.
Vc.
pizz.
I

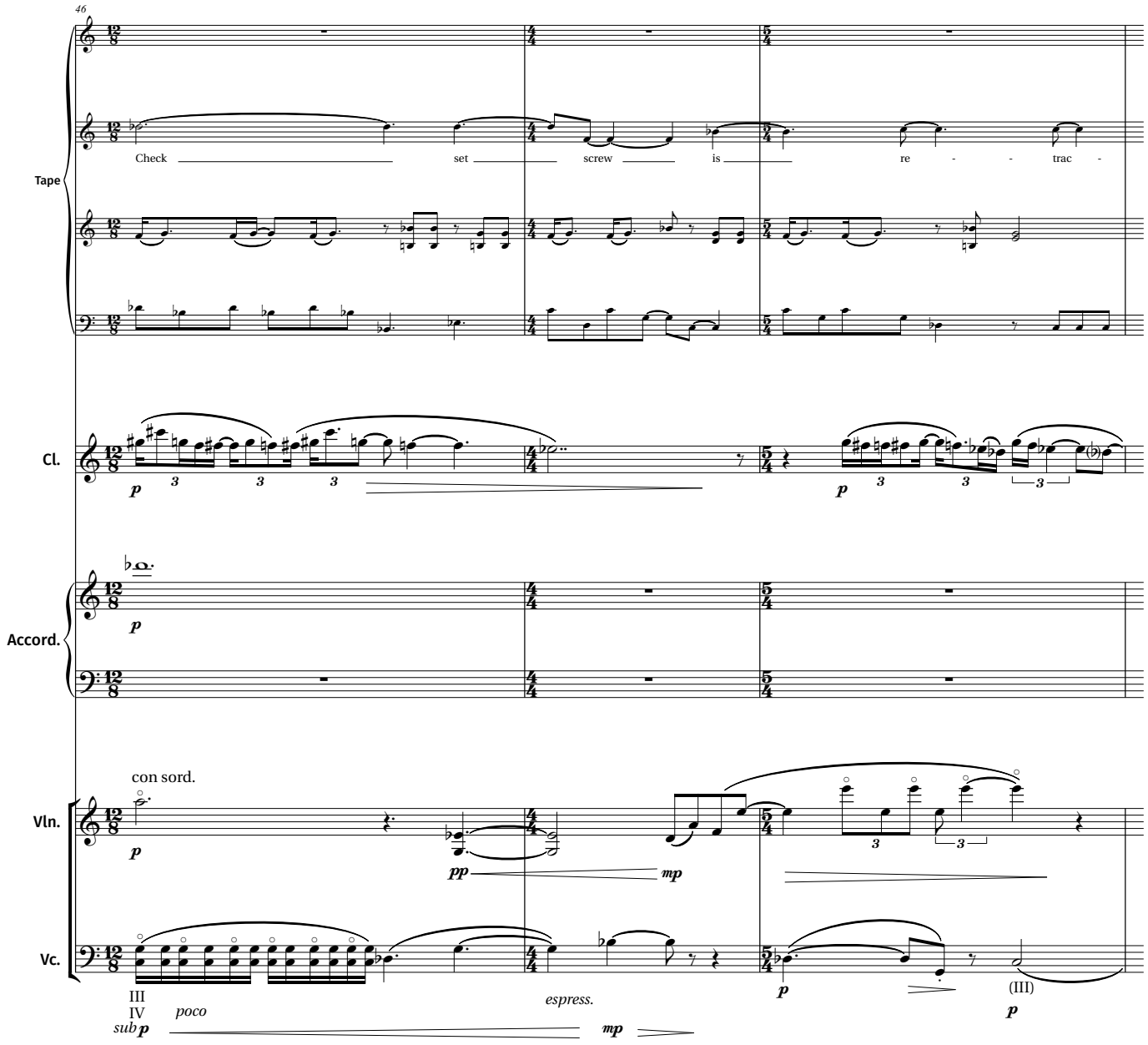

30
Tape
Cl.
p
poco
3
pp
p
3
poco
Accord.
sub.pp
ppp
pp
Vln.
poco cantabile
con vib.
Vc.
arco

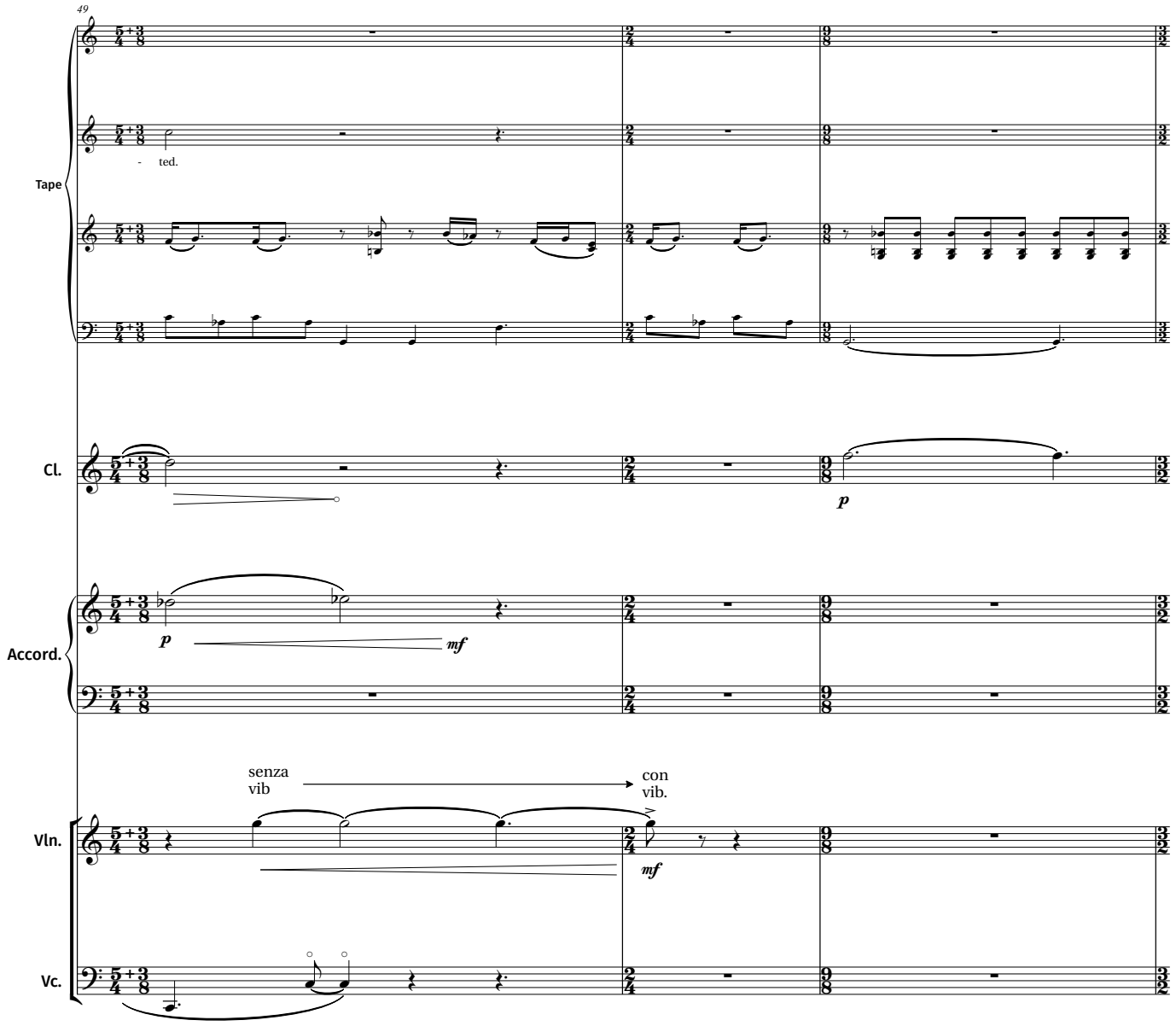

33
(4,3)
Tape
Cl.
pp
Accord.
poco
pp
(4,3)
Vln.
pp
Vc.
p

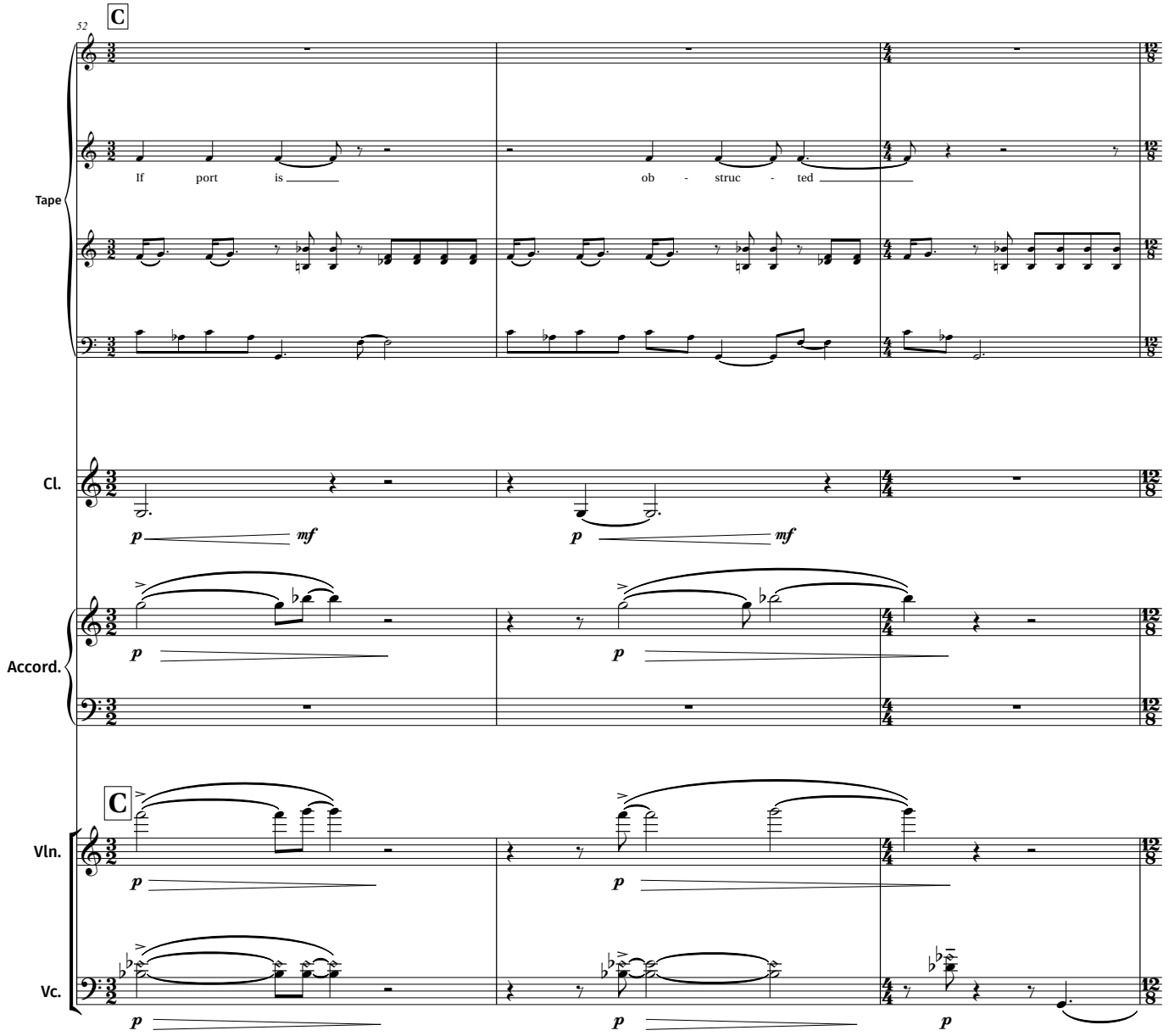

36
Tape
Cl.
3
mp
Accord.
ppp
Vln.
p
pp
Vc.
p

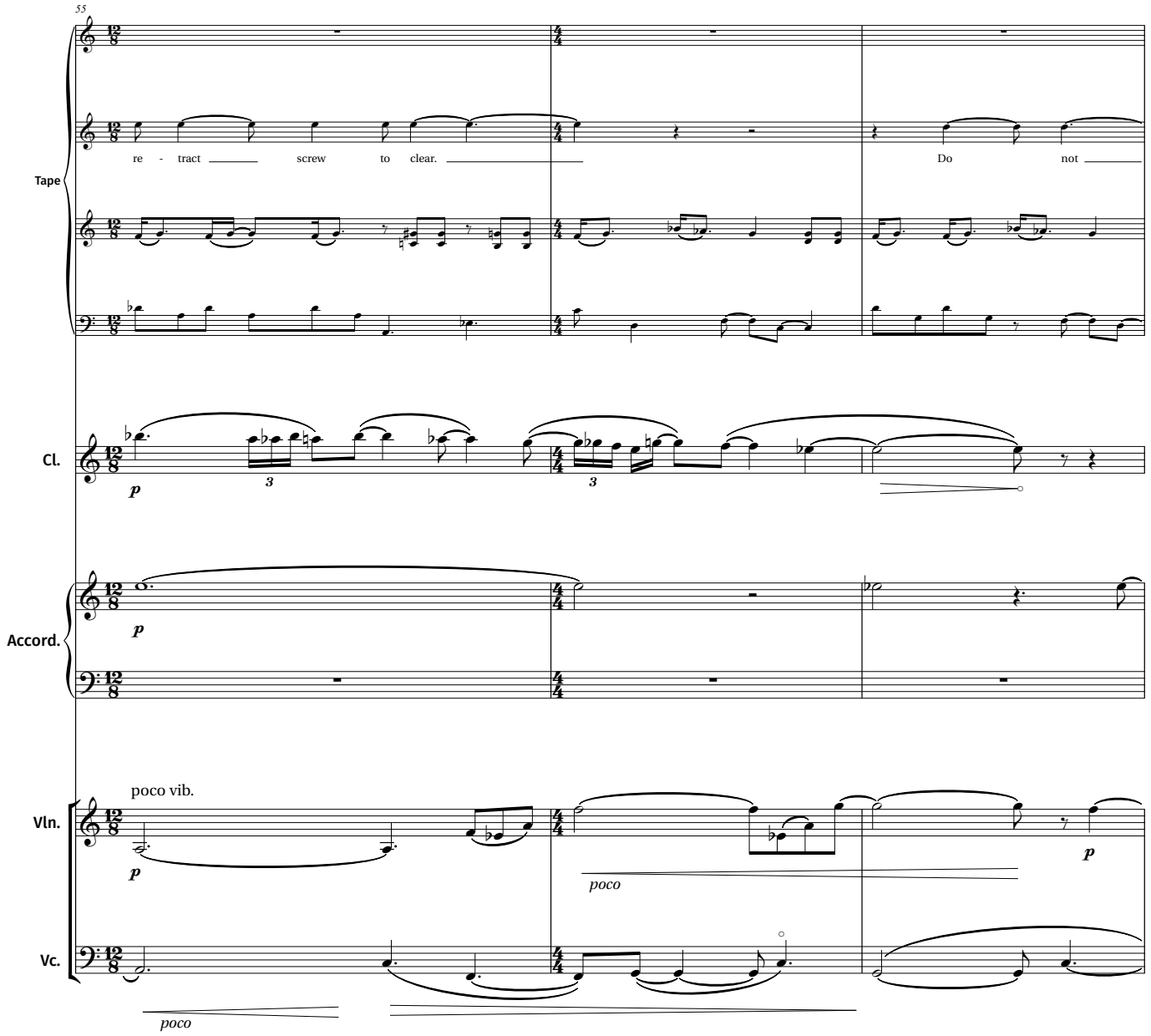

39
Tape
Cl.
p
Accord.
Vln.
p
mp
Vc.
= p

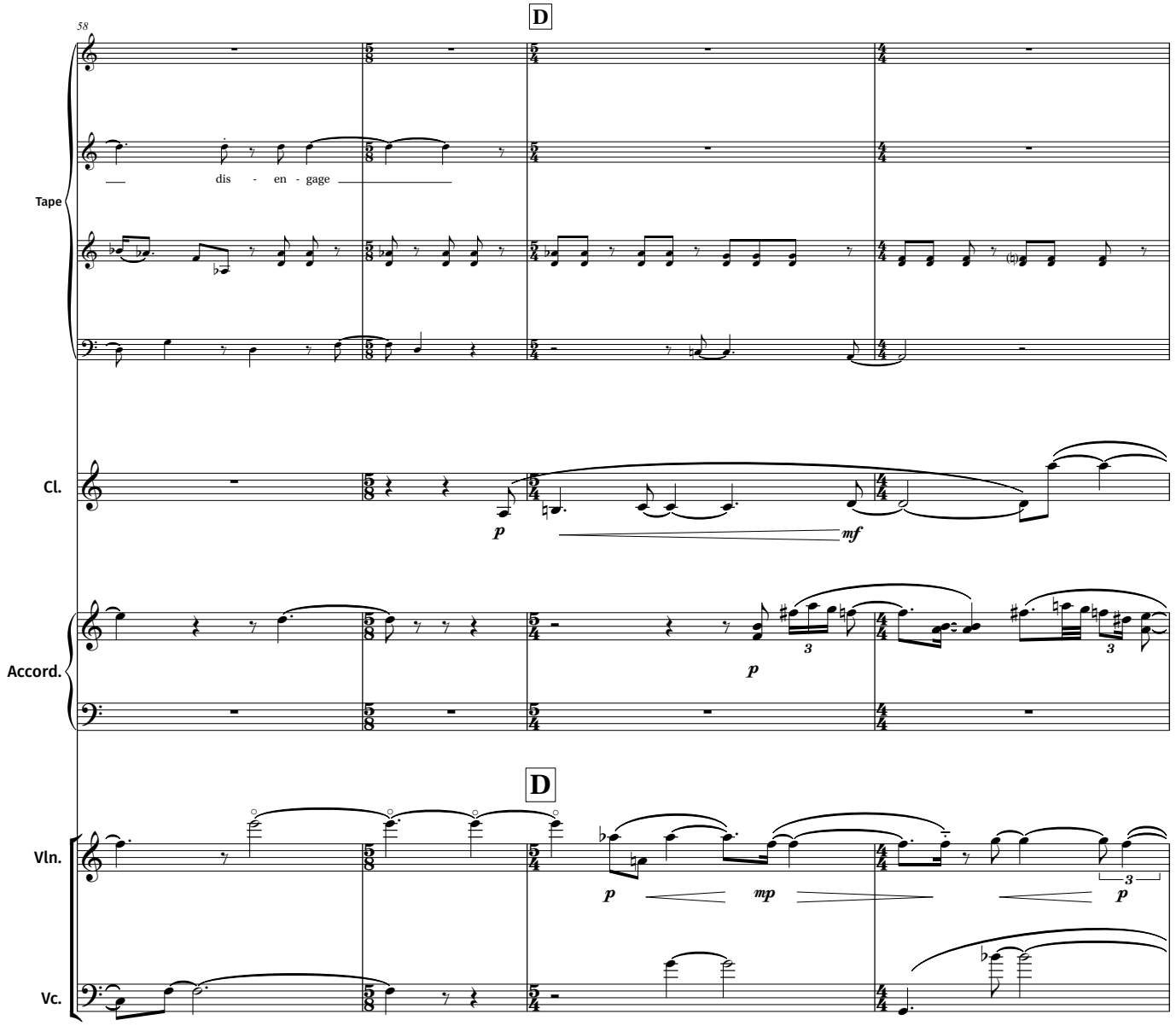

43
B
PRE-RECORDED VOICE
mf Dispassionate
In - sert wrench _ in - to _____ port _____
Tape
Cl.
Accord.
p molto ppp
mp p
B
Vln.
Vc.
p molto p
p molto
mp
p molto p
molto
III
mf

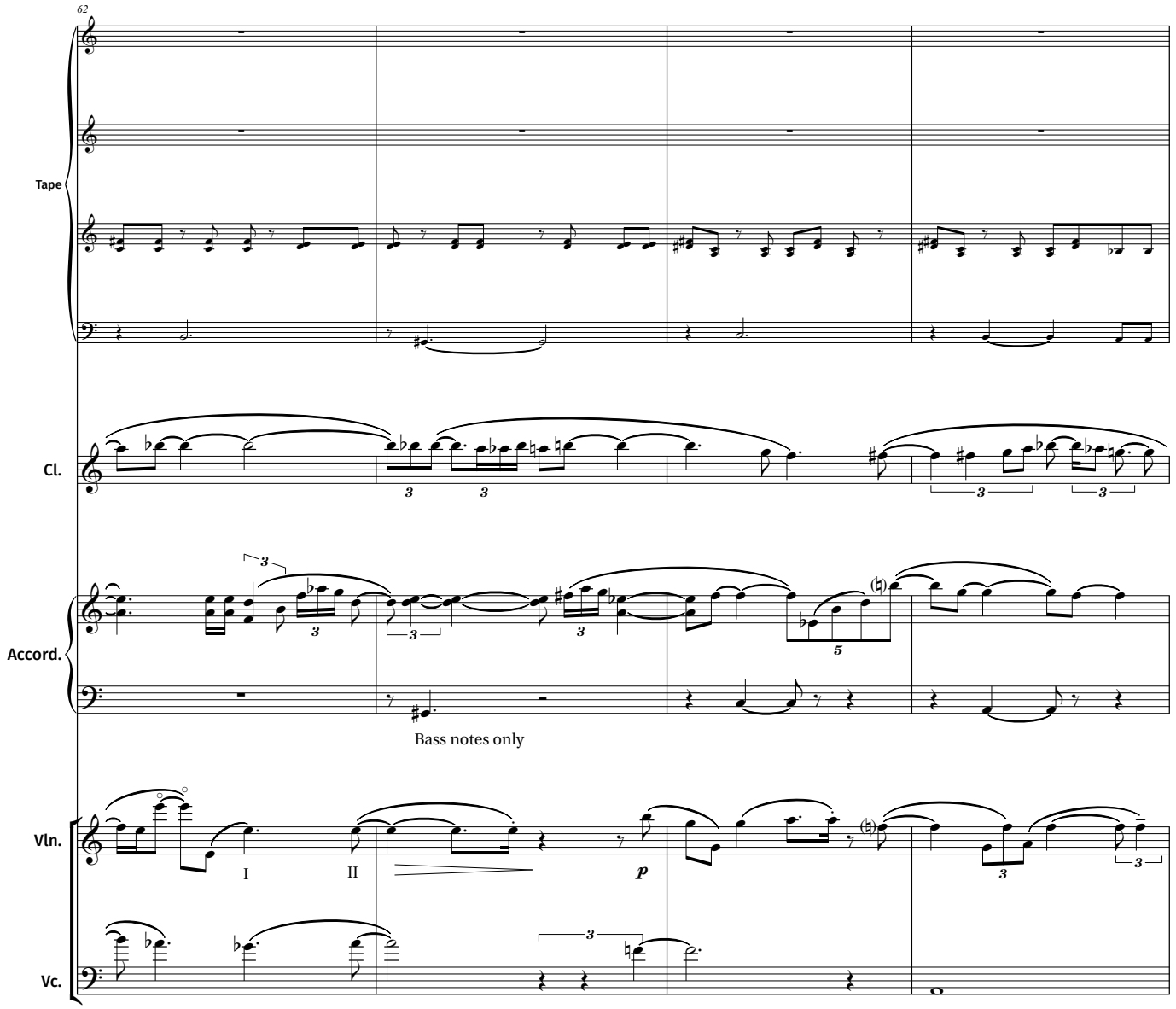

46
Tape
Check
set
screw
is
re - - trac -
Cl.
Accord.
Vln.
con sord.
Vc.
III
IV
sub
poco
espress.
(III)

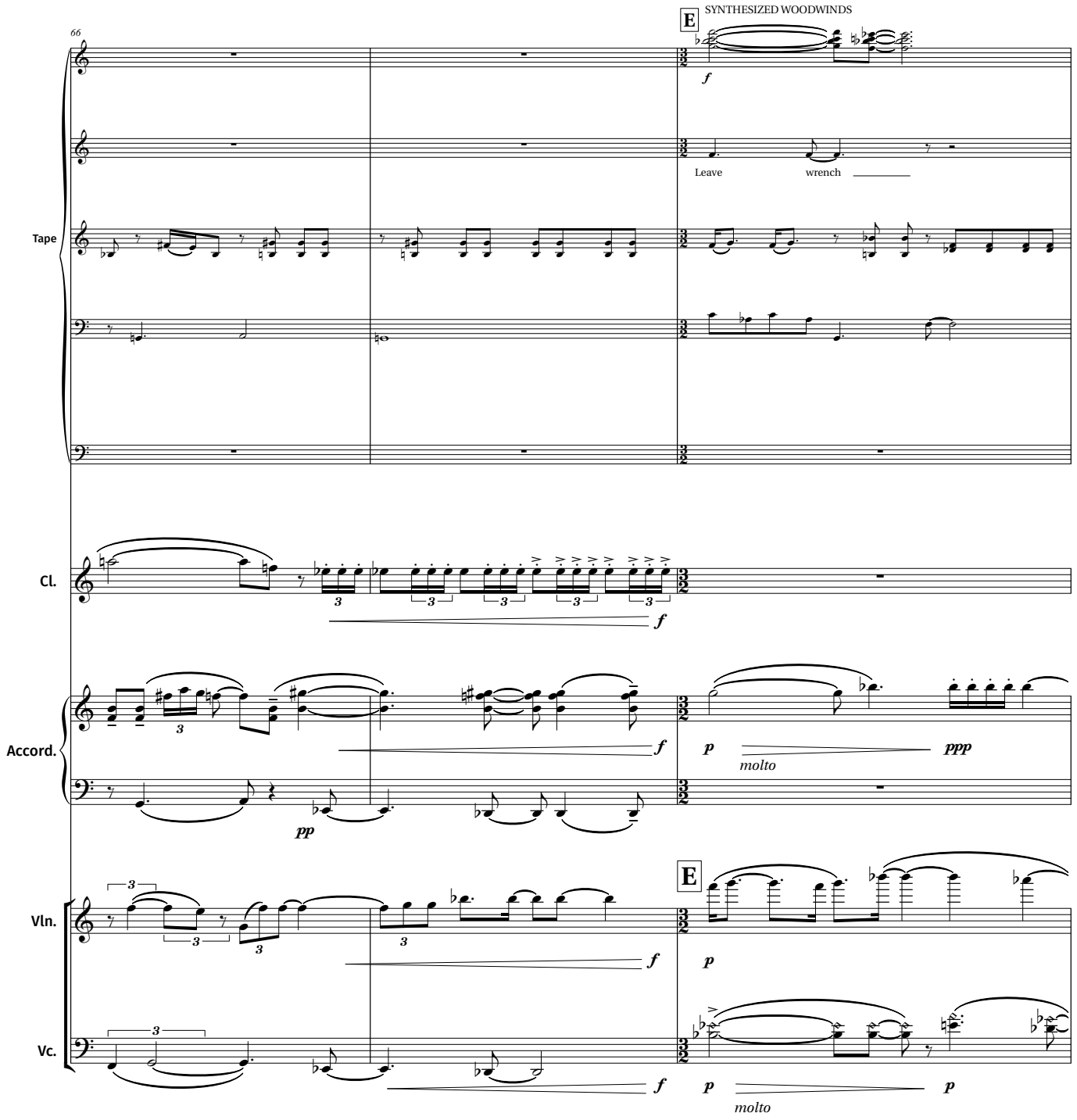

49
Tape
- ted.
Cl.
p
Accord.
p
mf
Vln.
senza
vib
con
vib.
mf
Vc.

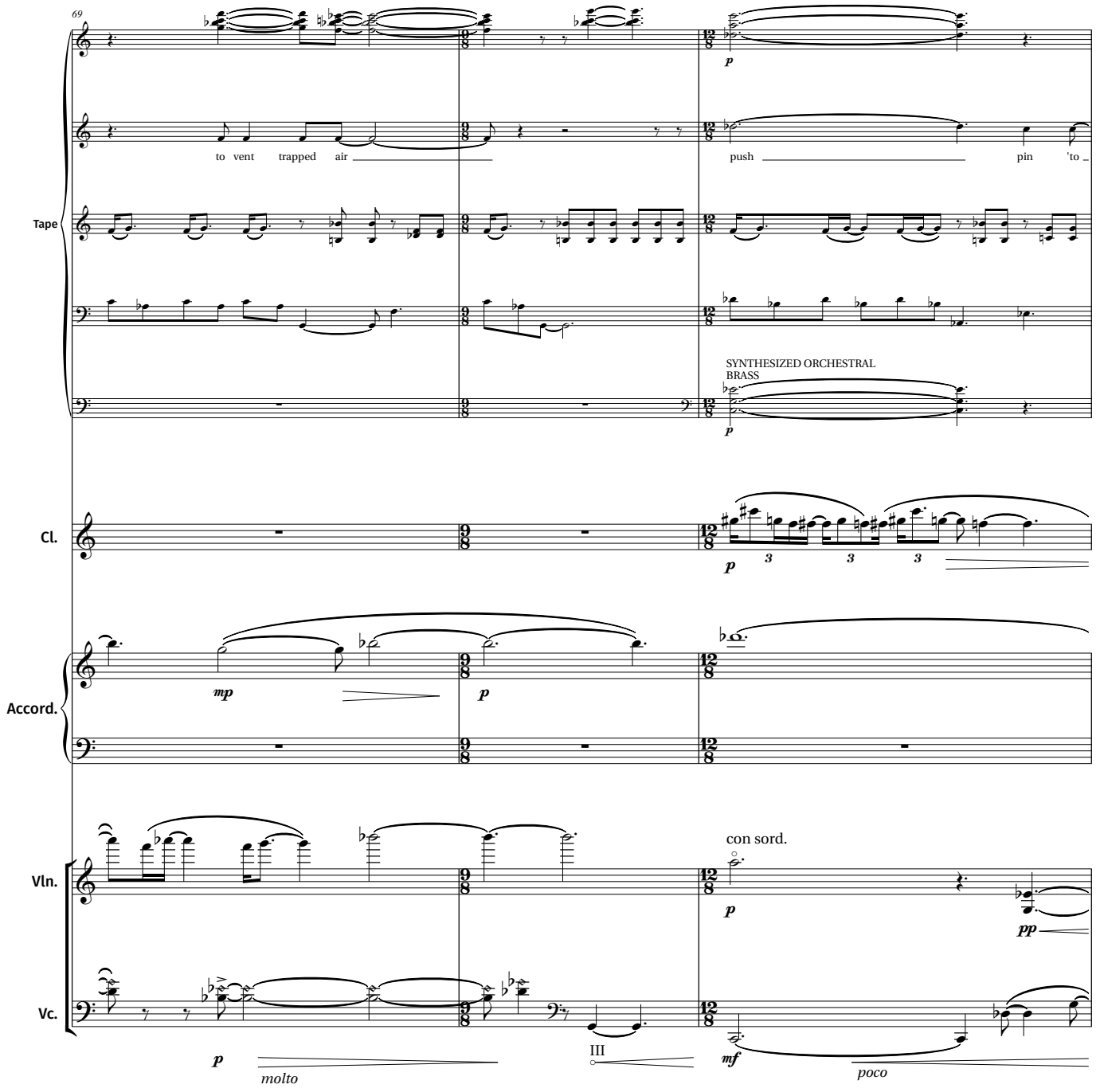

52
C
Tape
If port is
ob - struc - ted
Cl.
Accord.
Vln.
Vc.
p
mf

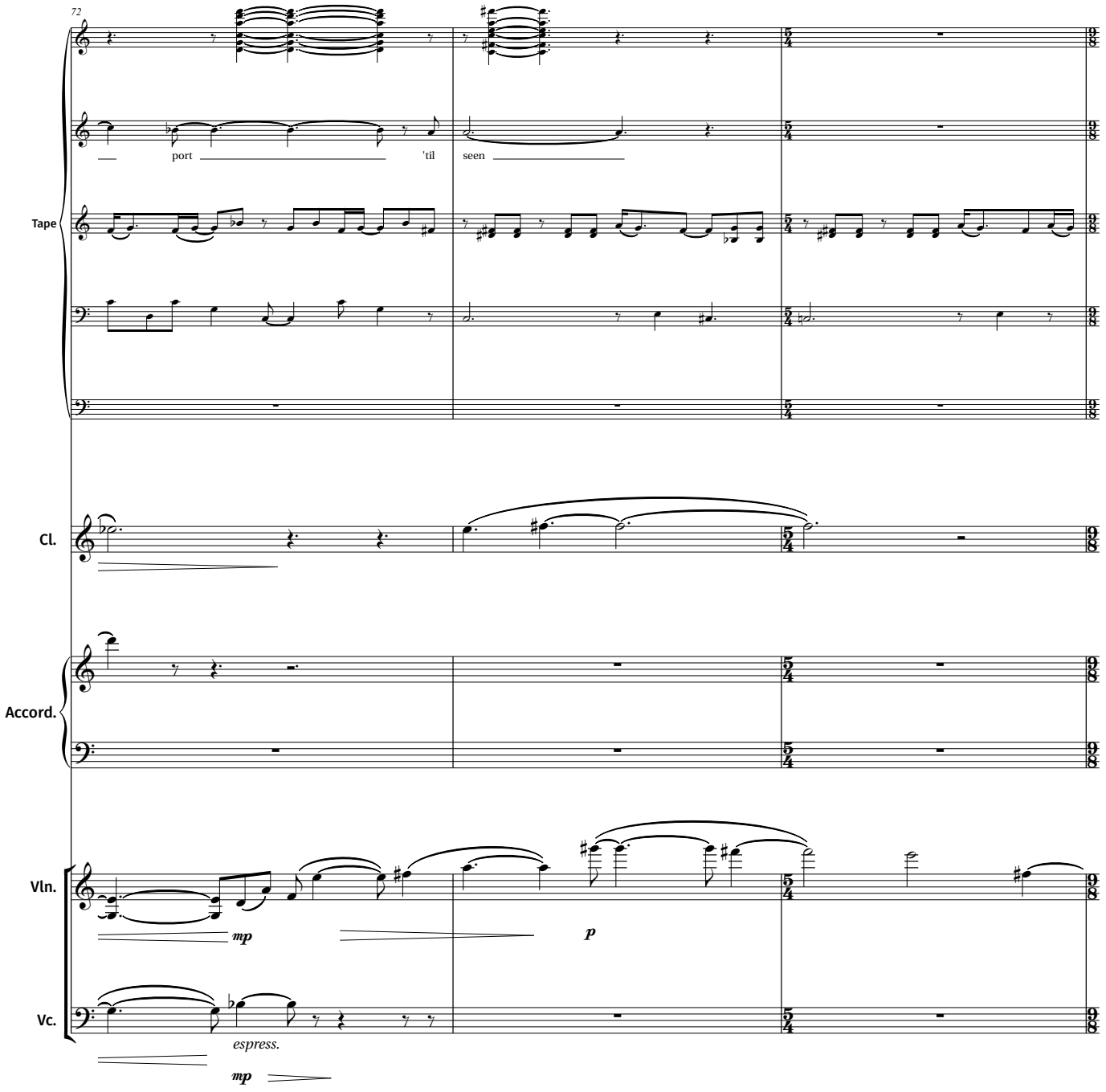

55
Tape
re - tract screw to clear.
Do not
Cl.
p
3
3
Accord.
p
poco vib.
Vln.
p
poco
p
Vc.
poco

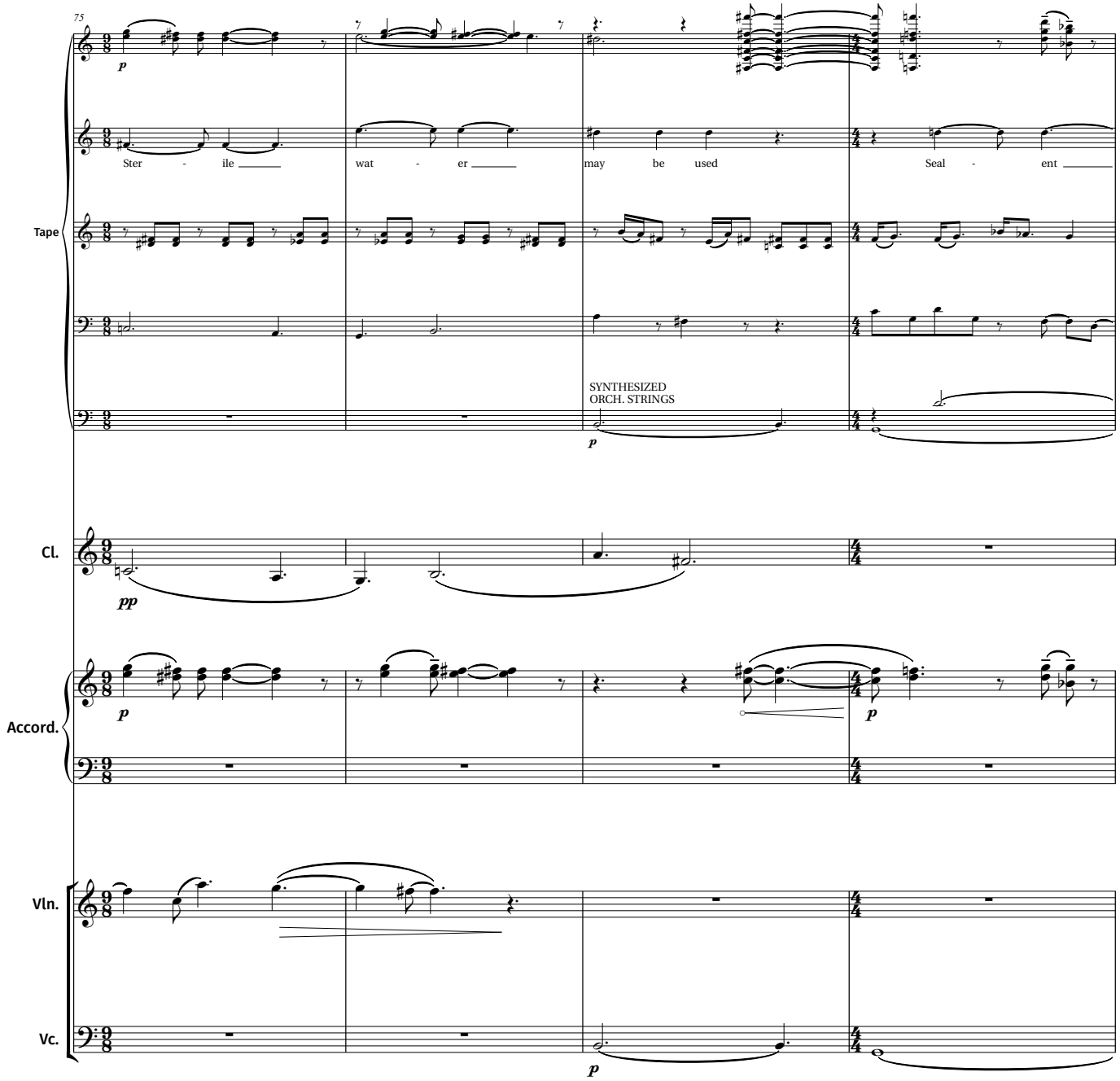

58
D
Tape
dis - en - gage
Cl.
p
mf
Accord.
3
p
3
D
Vln.
p
mp
3
p
Vc.

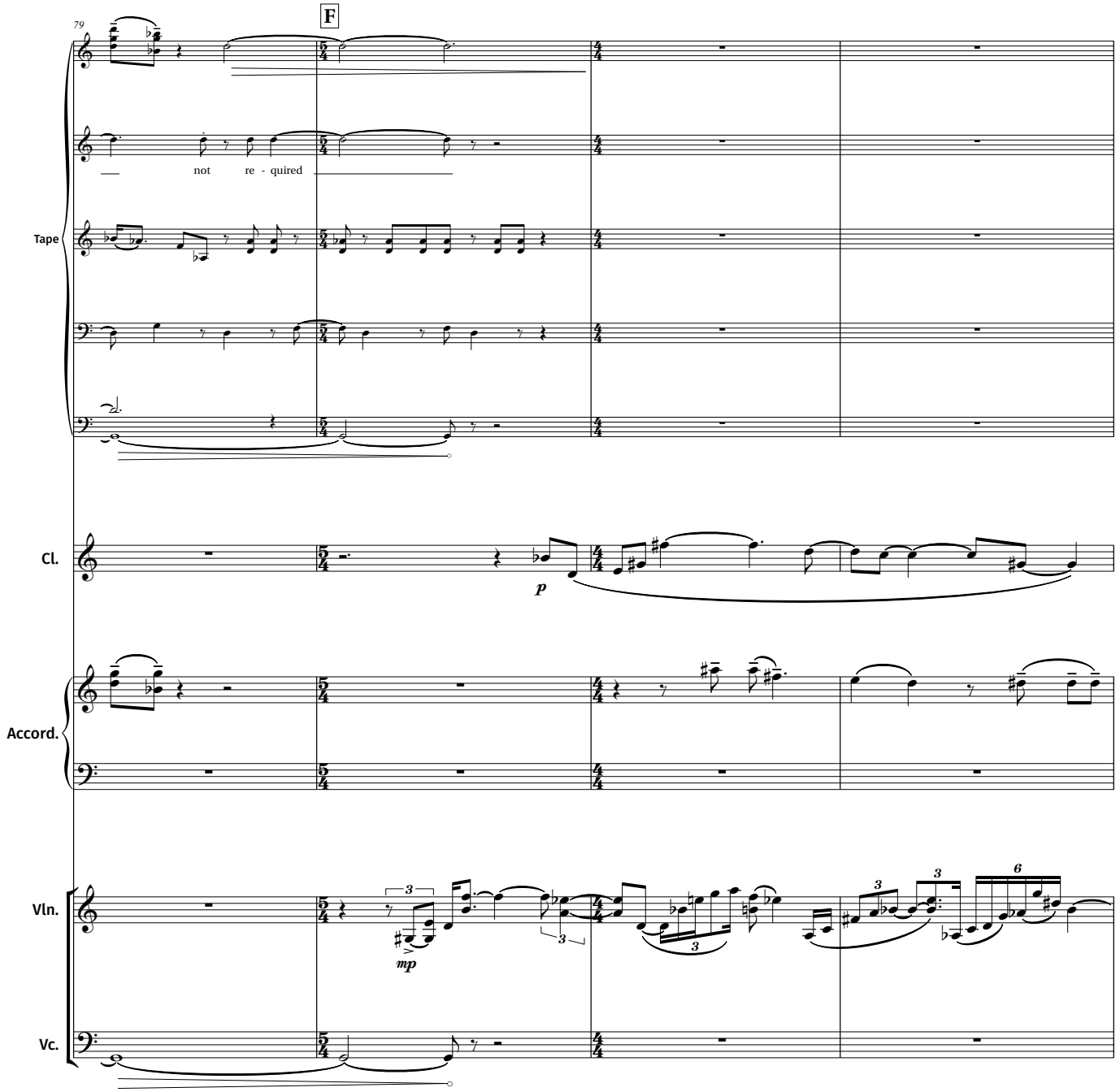

62
Tape
Cl.
Accord.
Bass notes only
Vln.
I
II
p
Vc.

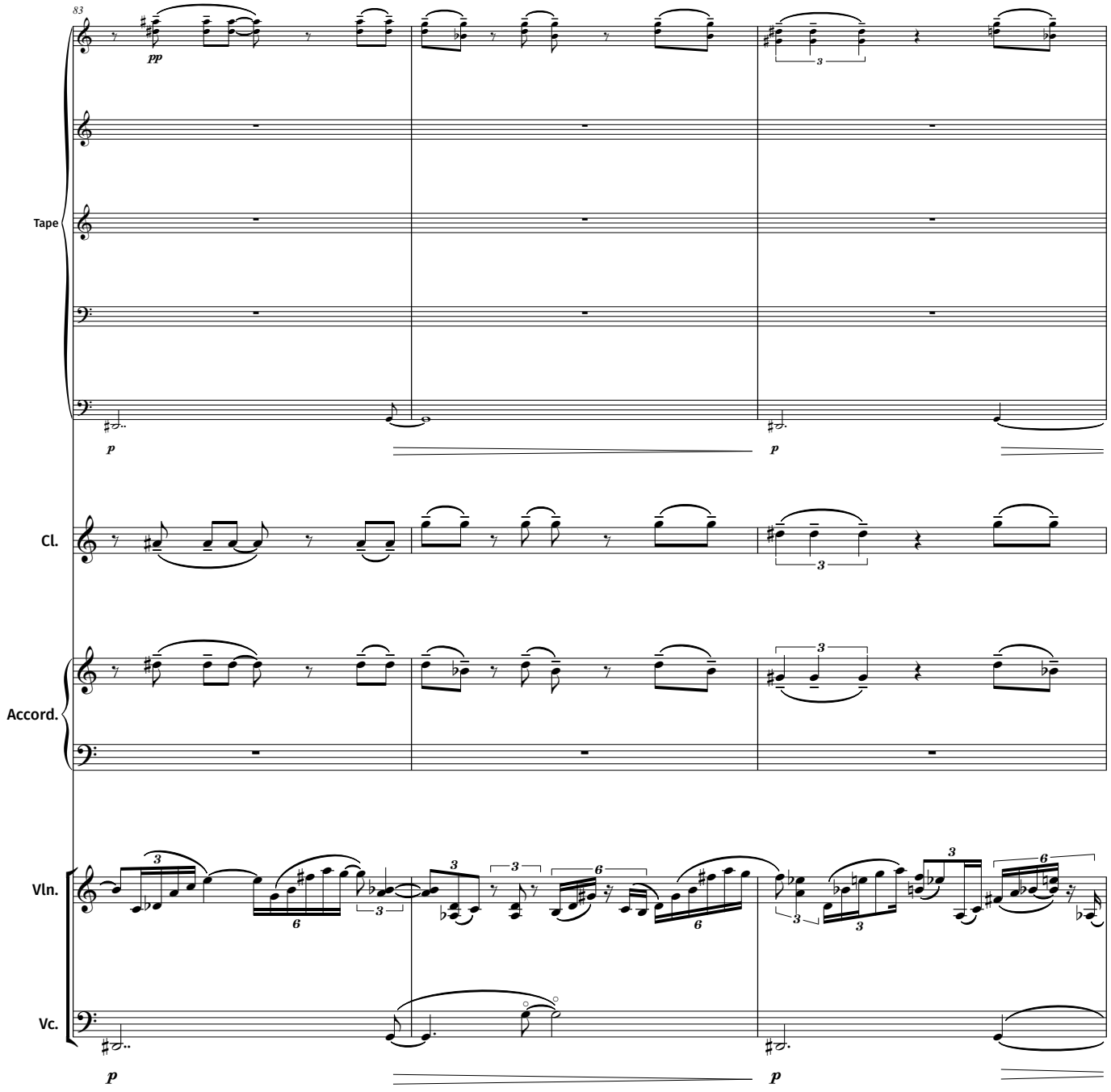

66
E
SYNTHESIZED WOODWINDS
Leave
wrench
Tape
Cl.
Accord.
molto
Vln.
Vc.
molto

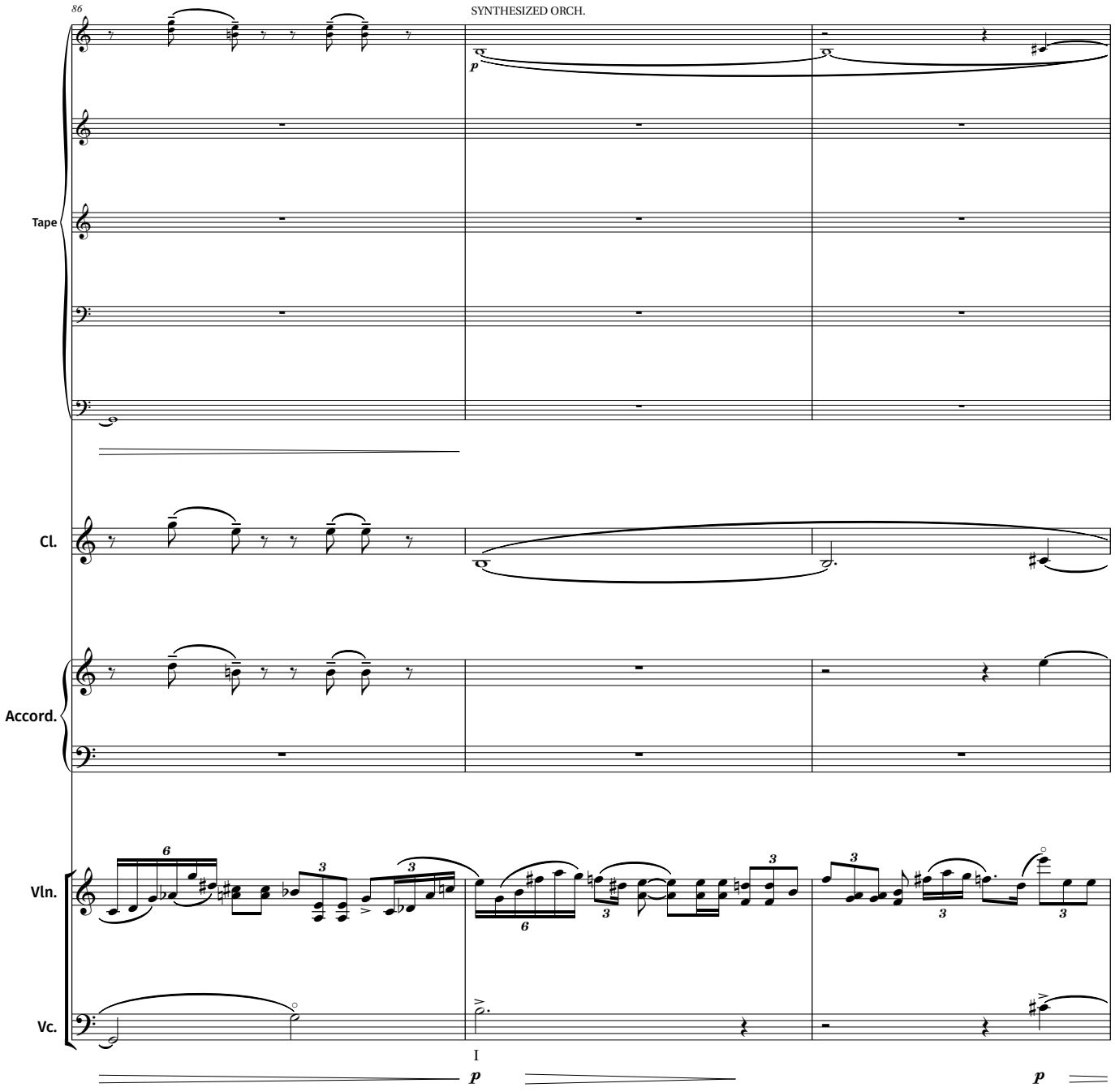

69
to vent trapped air
push pin 'to
SYNTHESIZED ORCHESTRAL BRASS
Tape
Cl.
Accord.
Vln.
Vc.
con sord.
molto
poco

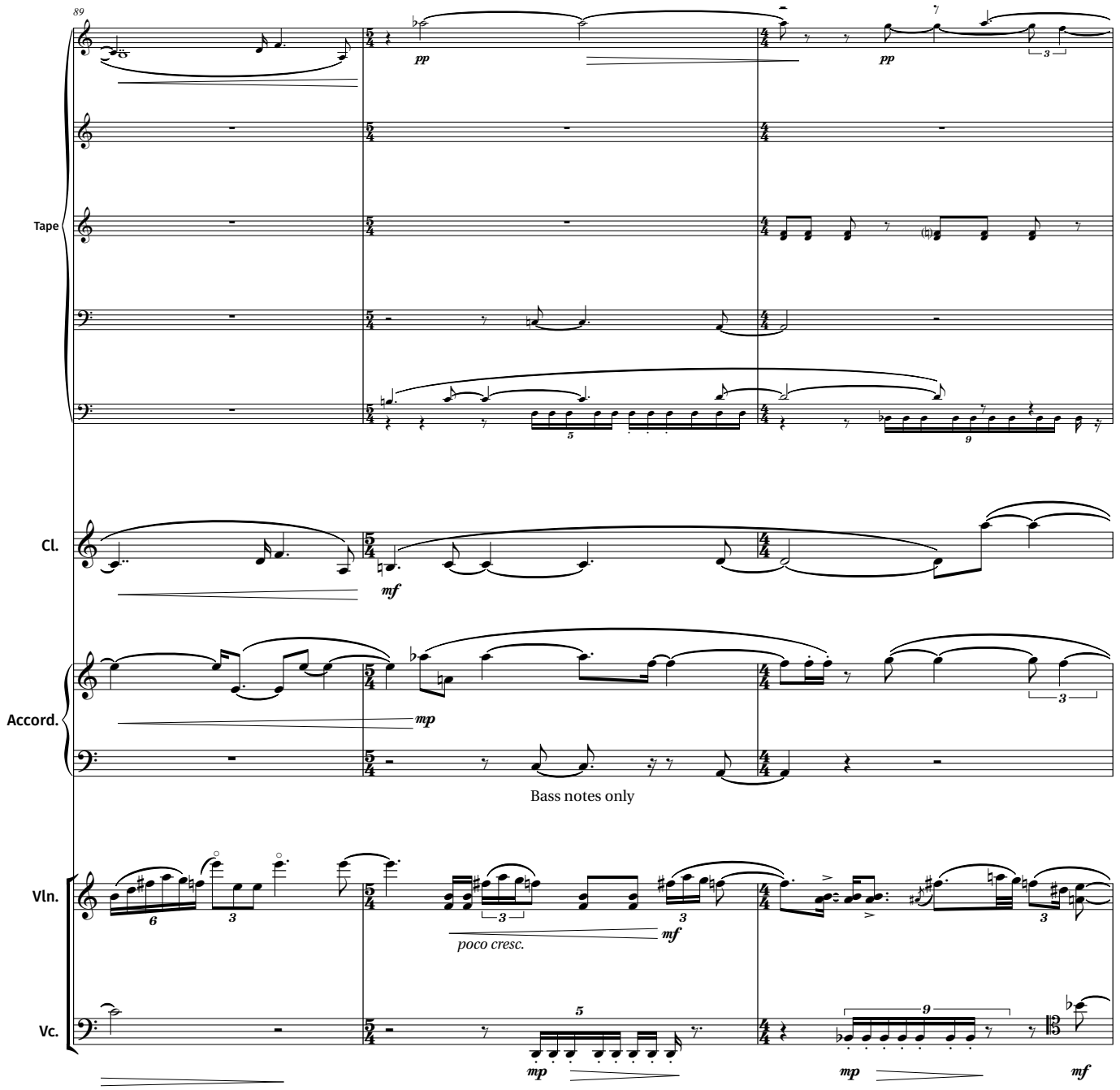

72
port
'til
seen
Tape
Cl.
Accord.
Vln.
Vc.
mp
p
espress.
mp

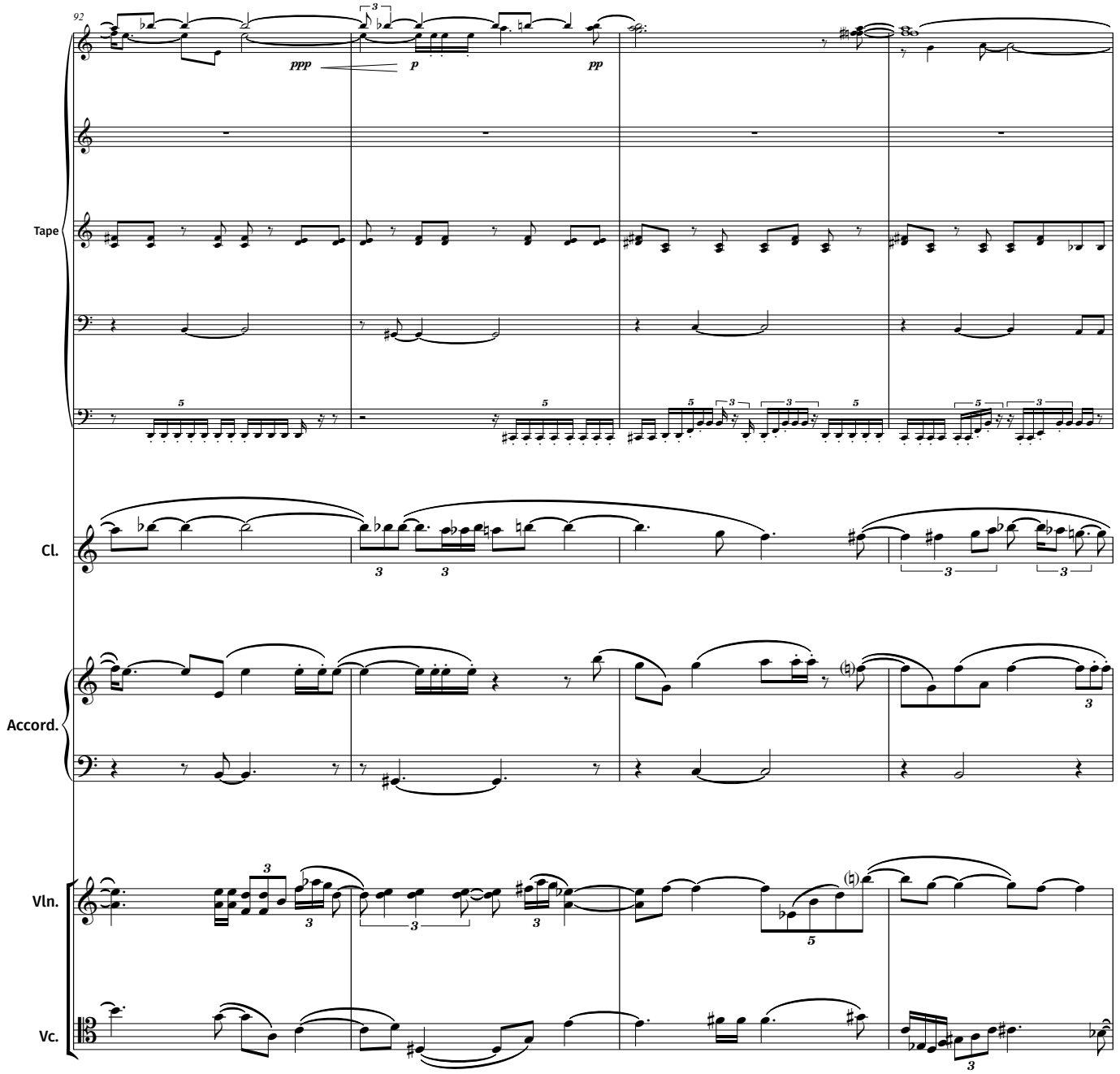

75
Tape
Ster - ile
wat - er
may be used
Seal - ent
SYNTHESIZED
ORCH. STRINGS
Cl.
Accord.
Vln.
Vc.

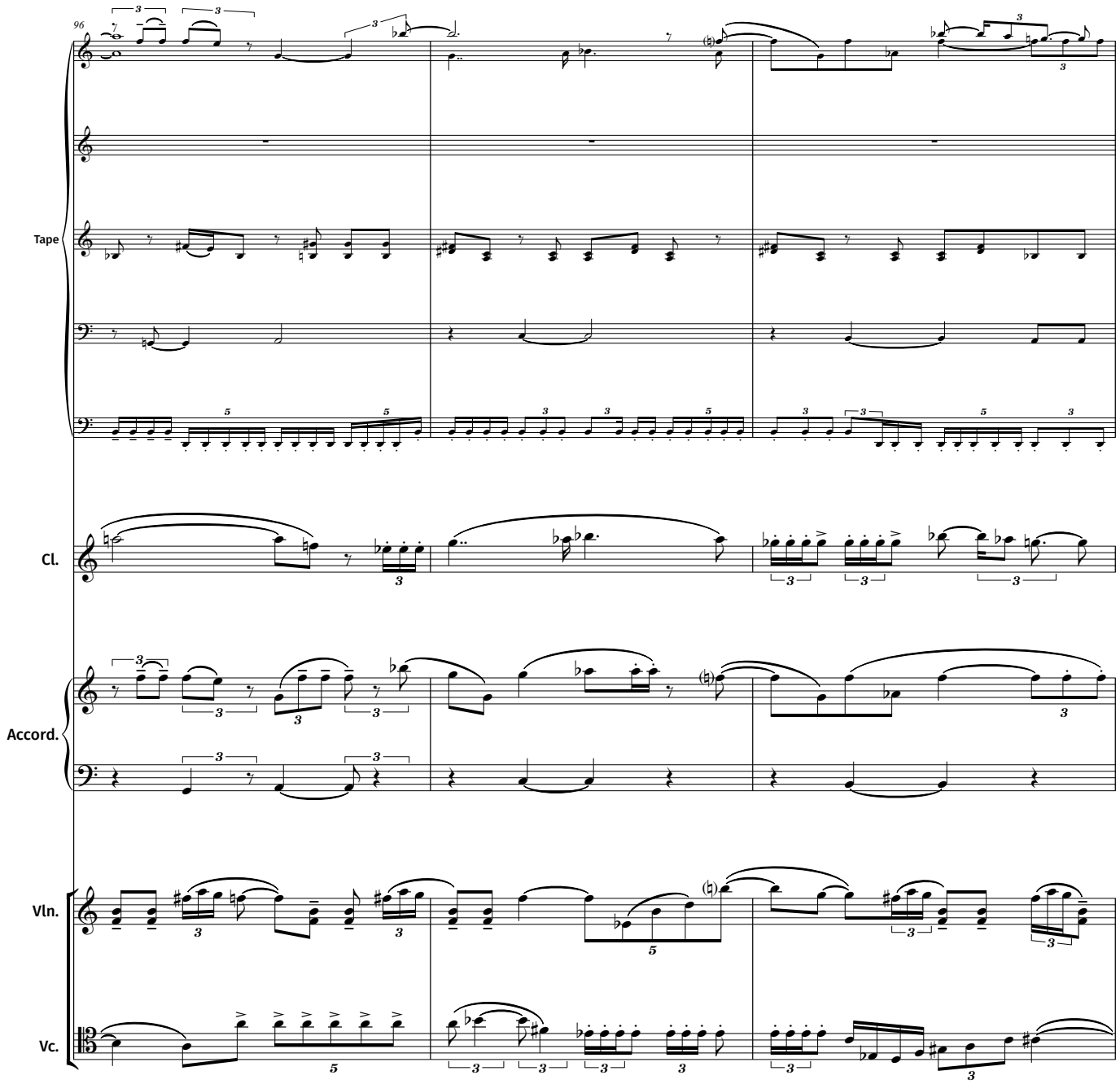

79
F
not re - quired
Tape
Cl.
p
Accord.
Vln.
mp
Vc.

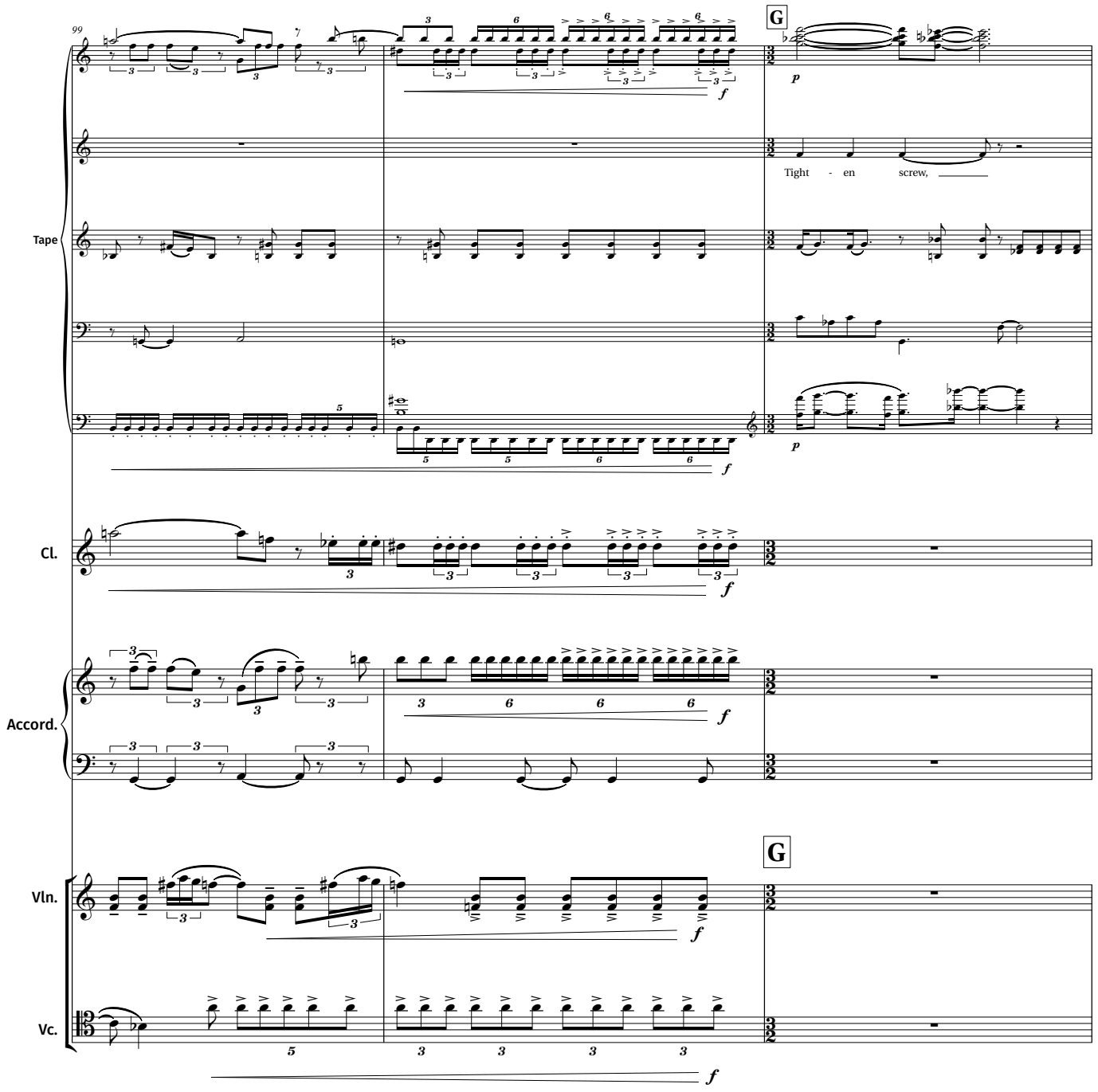

83
Tape
Cl.
Accord.
Vln.
Vc.

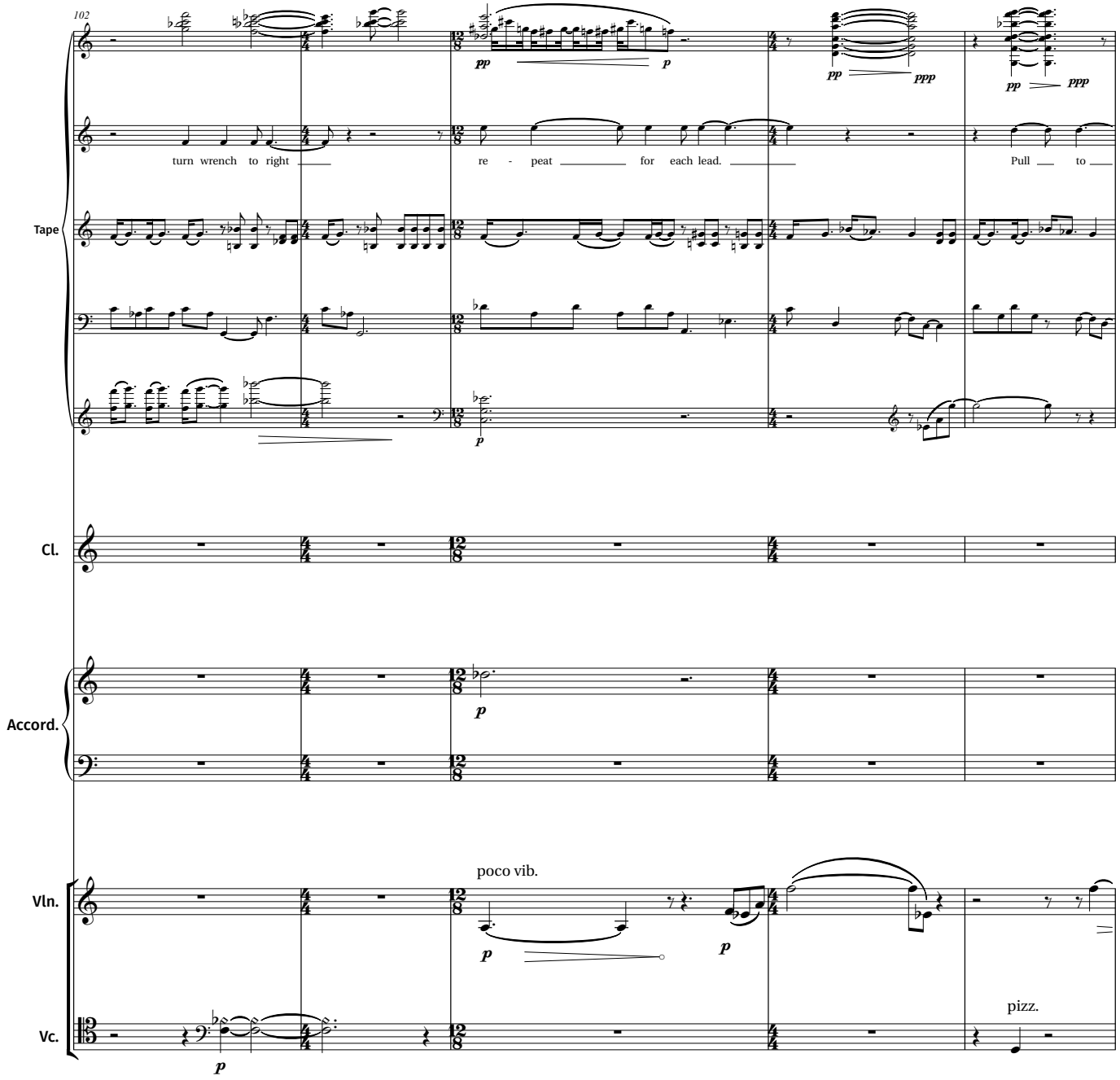

86
SYNTHESIZED ORCH.
Tape
Cl.
Accord.
Vln.
Vc.
I
p
p
p

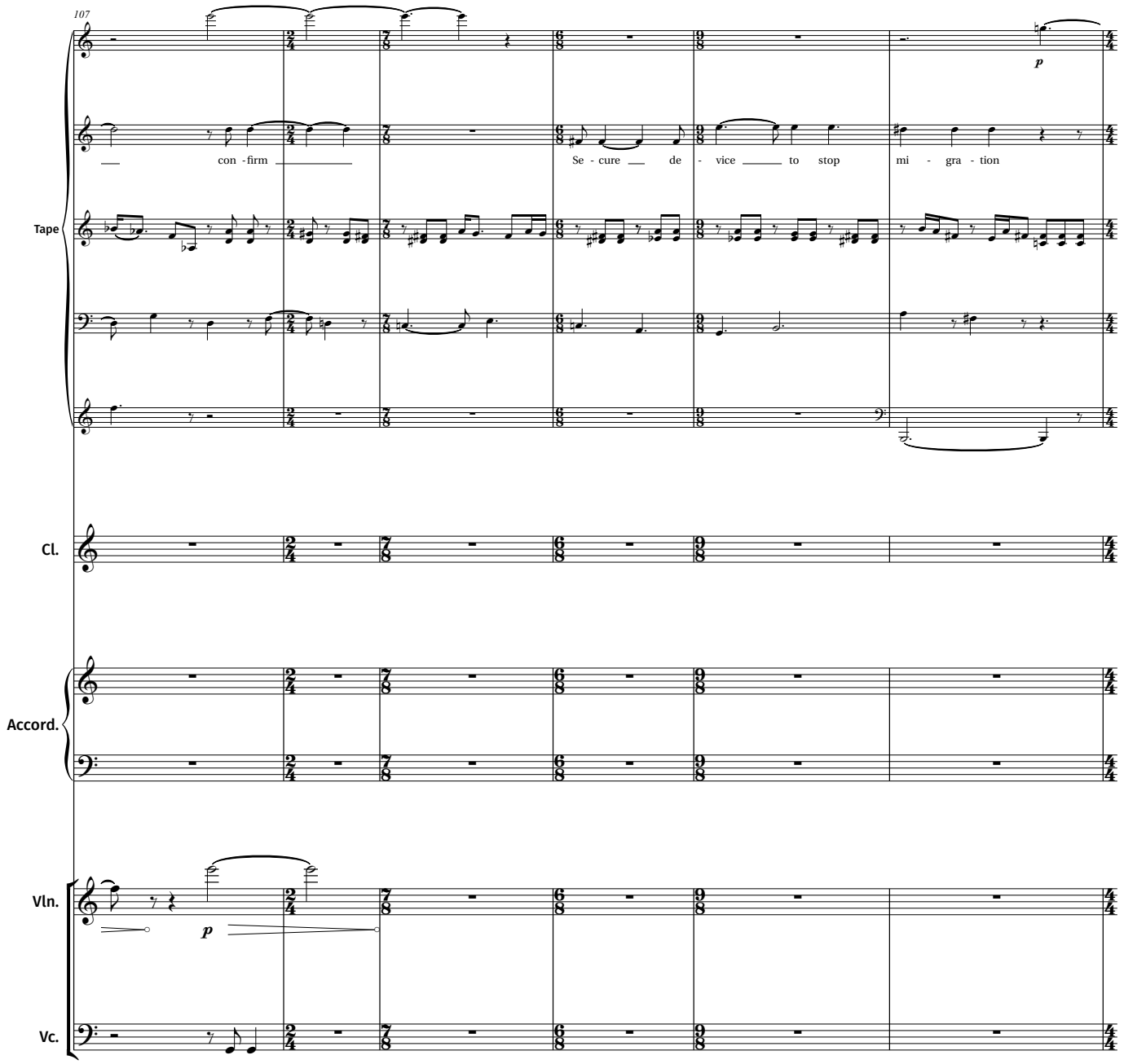

89
Tape
Cl.
Accord.
Bass notes only
Vln.
Vc.
pp
mf
mp
poco cresc.

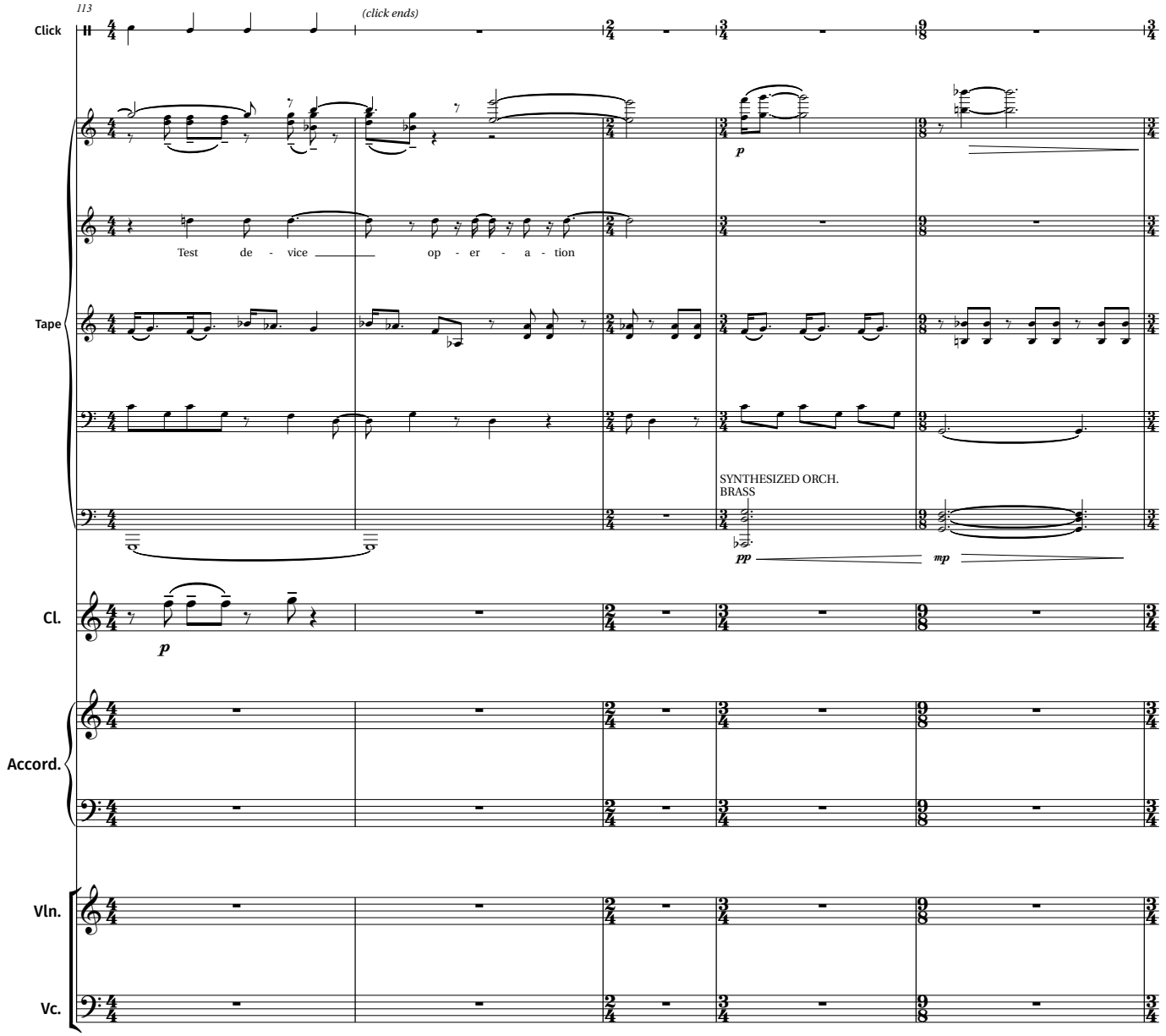

92
ppp
p
pp
Tape
Cl.
Accord.
Vln.
Vc.

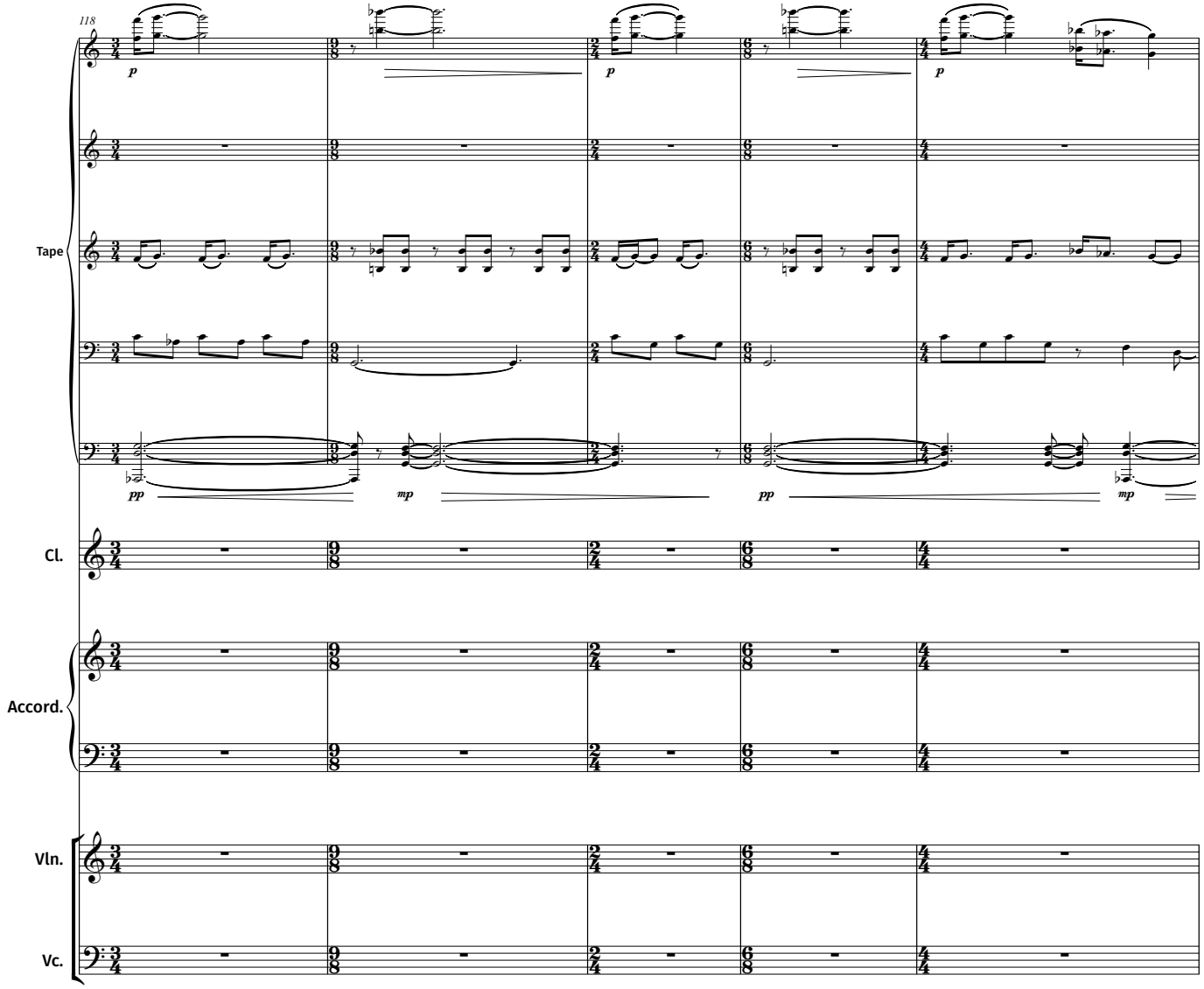

96
Tape
Cl.
Accord.
Vln.
Vc.

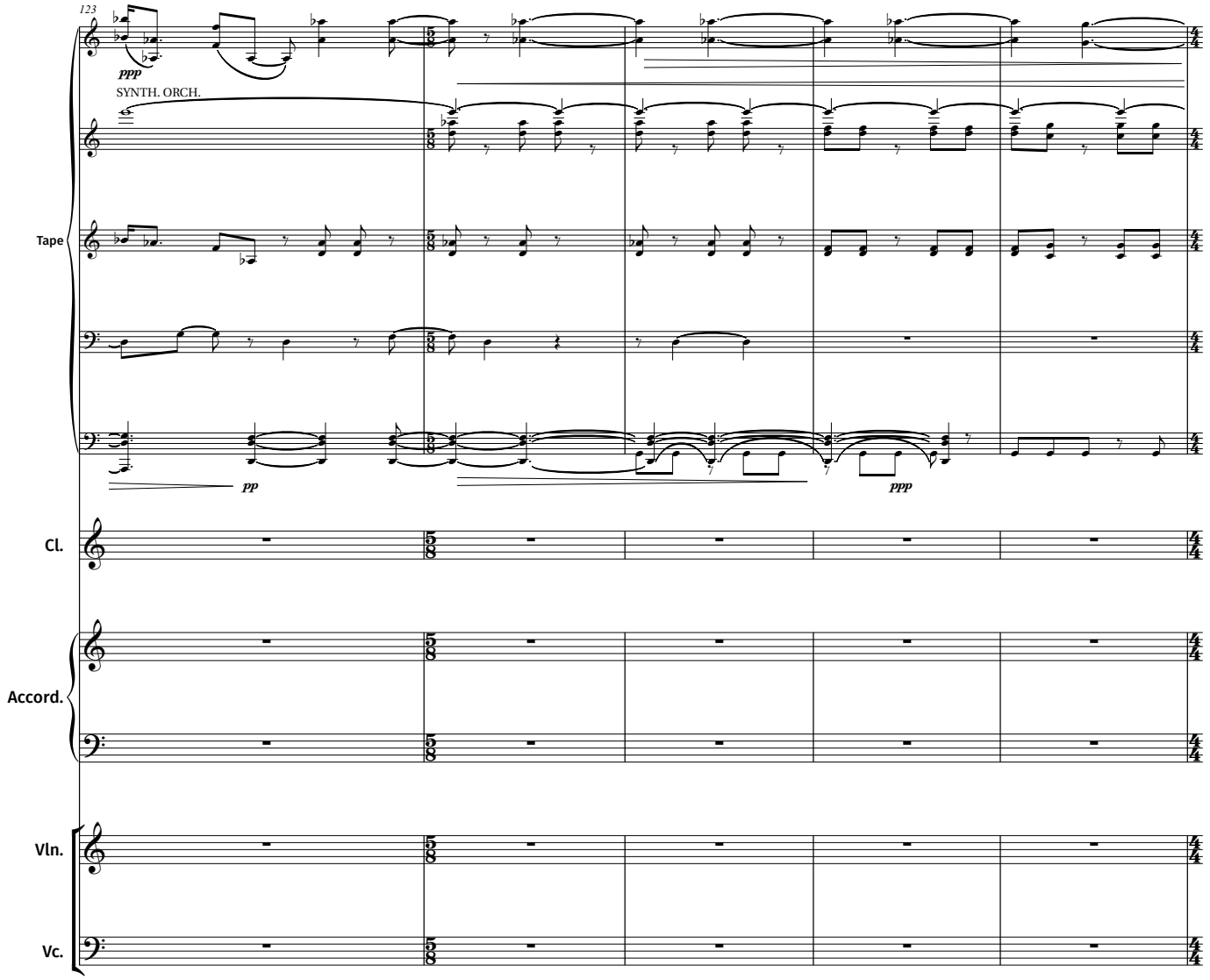

99
G
Tight - en screw,
Tape
Cl.
Accord.
G
Vln.
Vc.

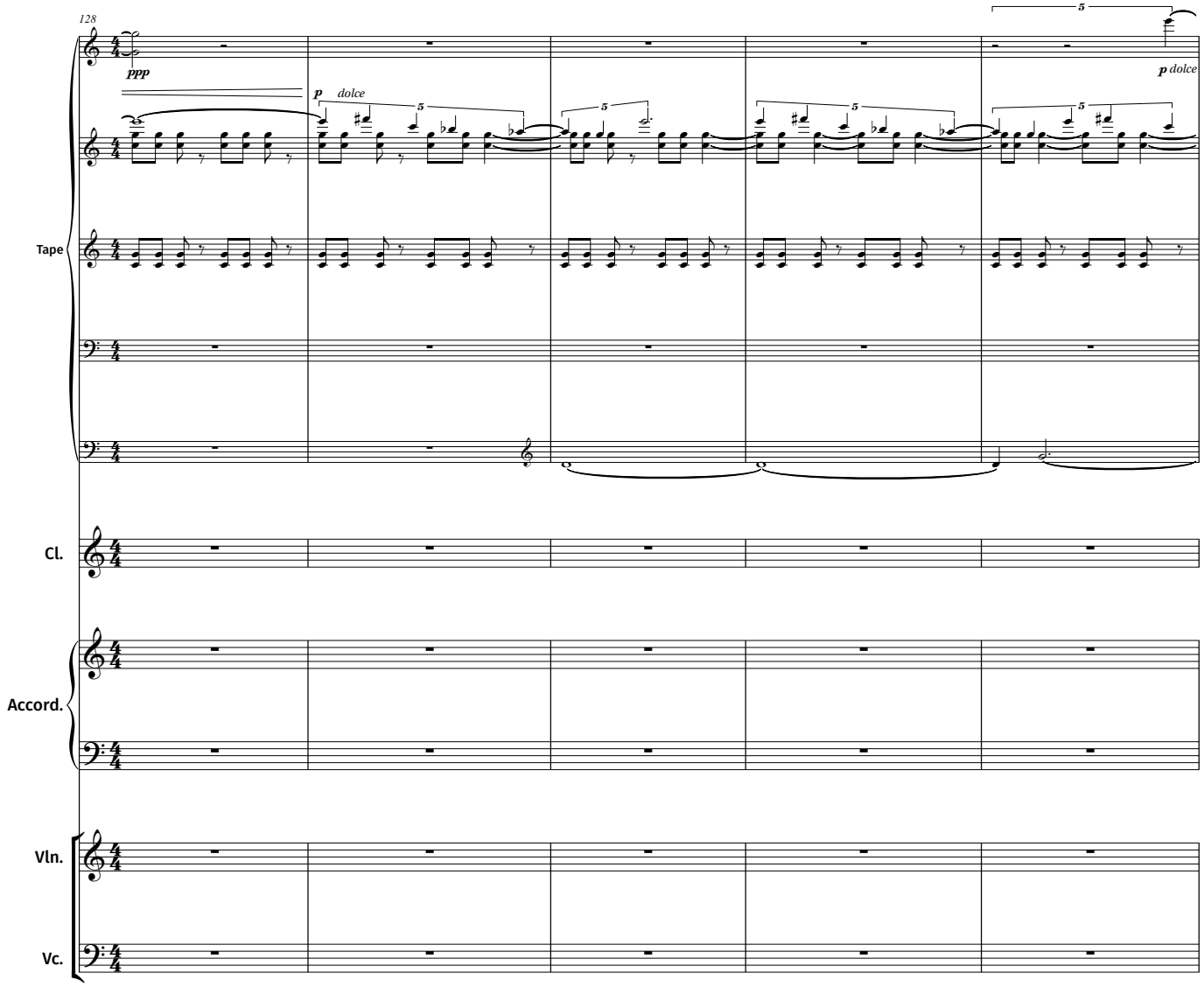

102
turn wrench to right
re - peat for each lead.
Pull to
Tape
Cl.
Accord.
poco vib.
Vln.
Vc.
pizz.

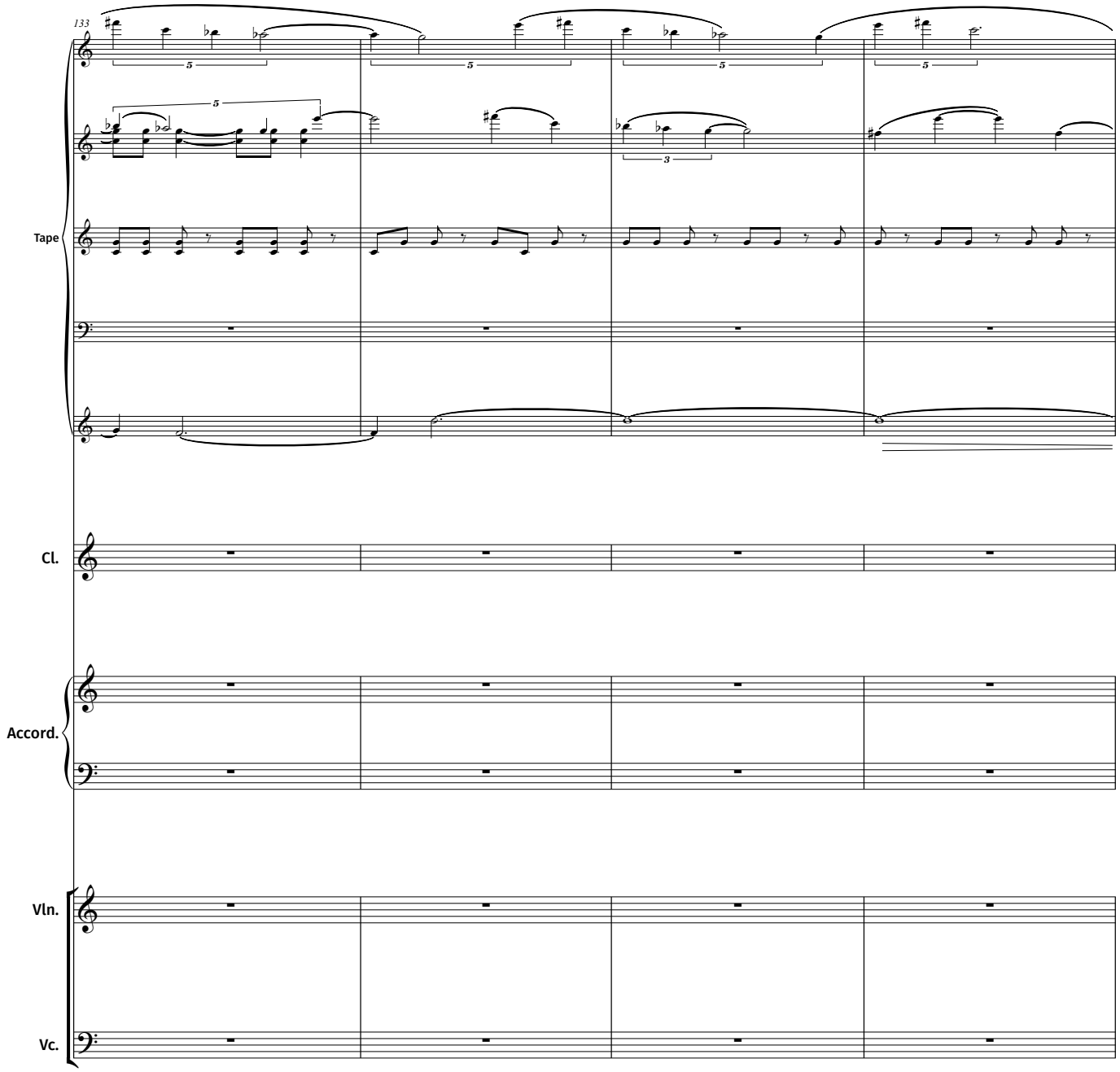

107
Tape
con - firm
Se - cure de - vice to stop mi - gra - tion
Cl.
Accord.
Vln.
Vc.

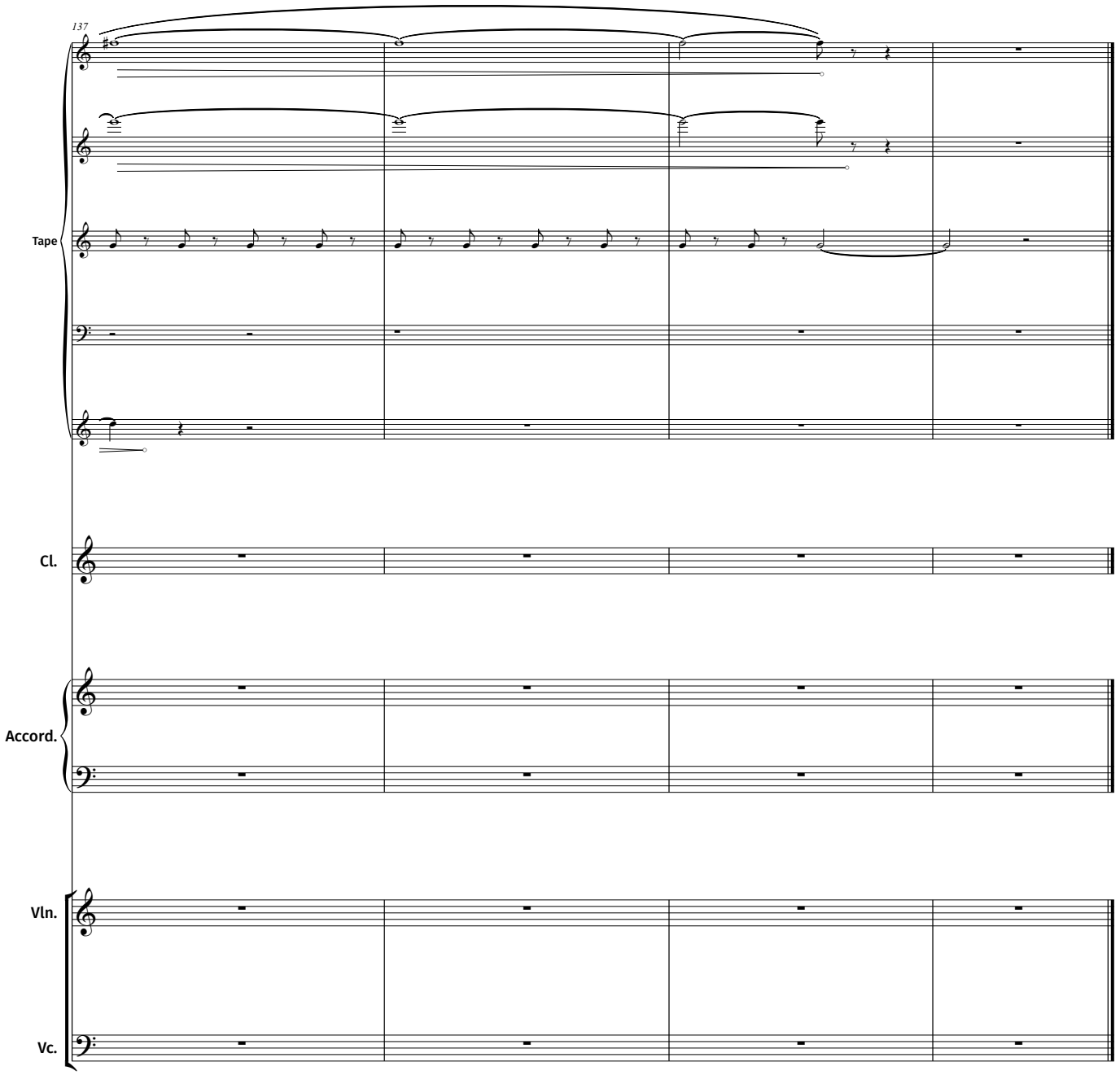

113
Click
(click ends)
Test de - vice op - er - a - tion
Tape
SYNTHESIZED ORCH.
BRASS
Cl.
Accord.
Vln.
Vc.


118
Tape
Cl.
Accord.
Vln.
Vc.


123
ppp
SYNTH. ORCH.
Tape
pp
ppp
Cl.
Accord.
Vln.
Vc.


128
ppp
p dolce
5
p dolce
Tape
Cl.
Accord.
Vln.
Vc.


133
Tape
Cl.
Accord.
Vln.
Vc.


137
Tape
Cl.
Accord.
Vln.
Vc.

Thomas Butler

Nightmusic

For solo violin.

Nightmusic (2012)

By Thomas Butler

For solo violin.

Duration: c.10 mins.

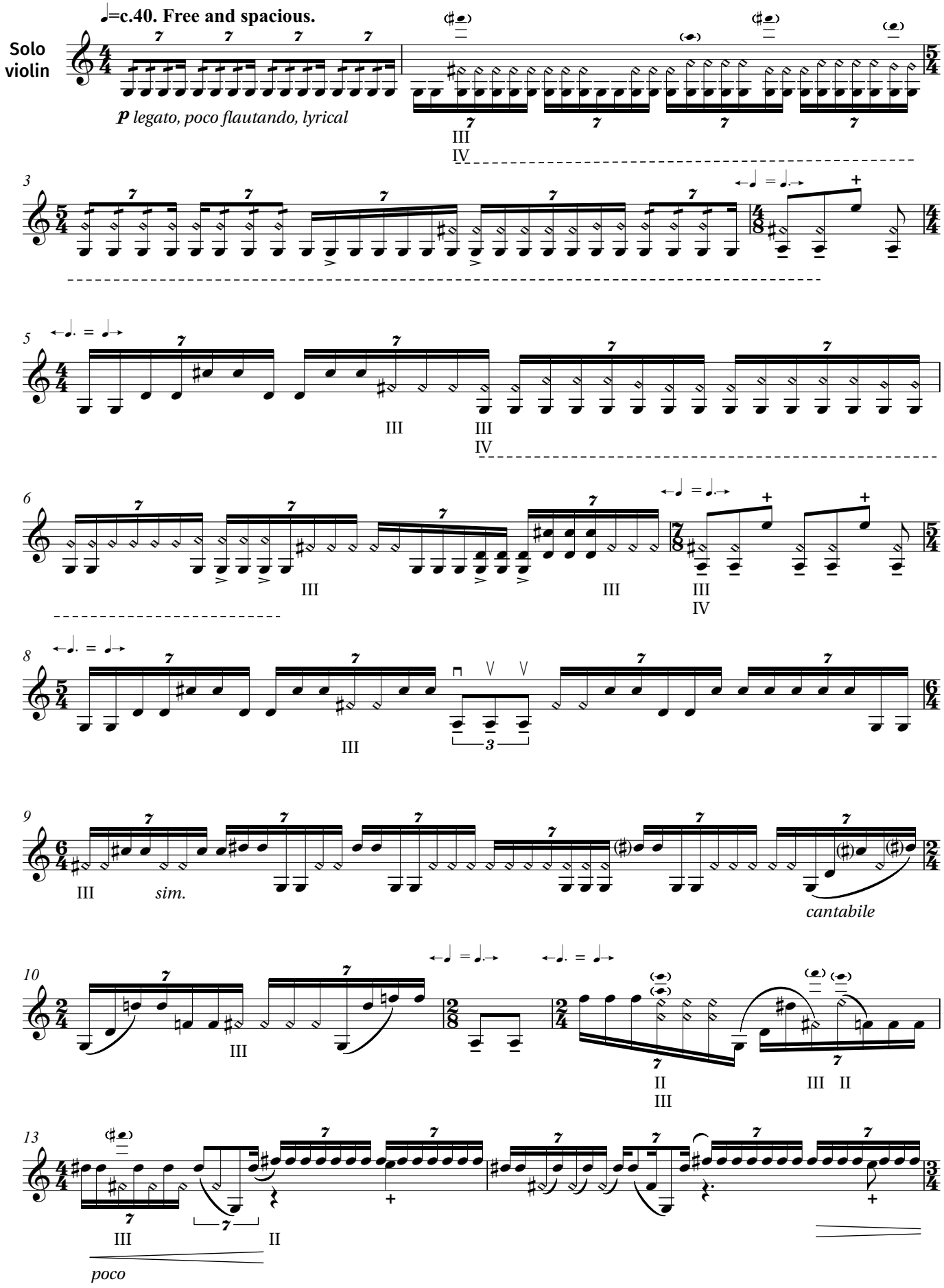
The first performance of this work was given by Darragh Morgan on 27th April 2012 at the Royal Conservatoire of Scotland, Glasgow.

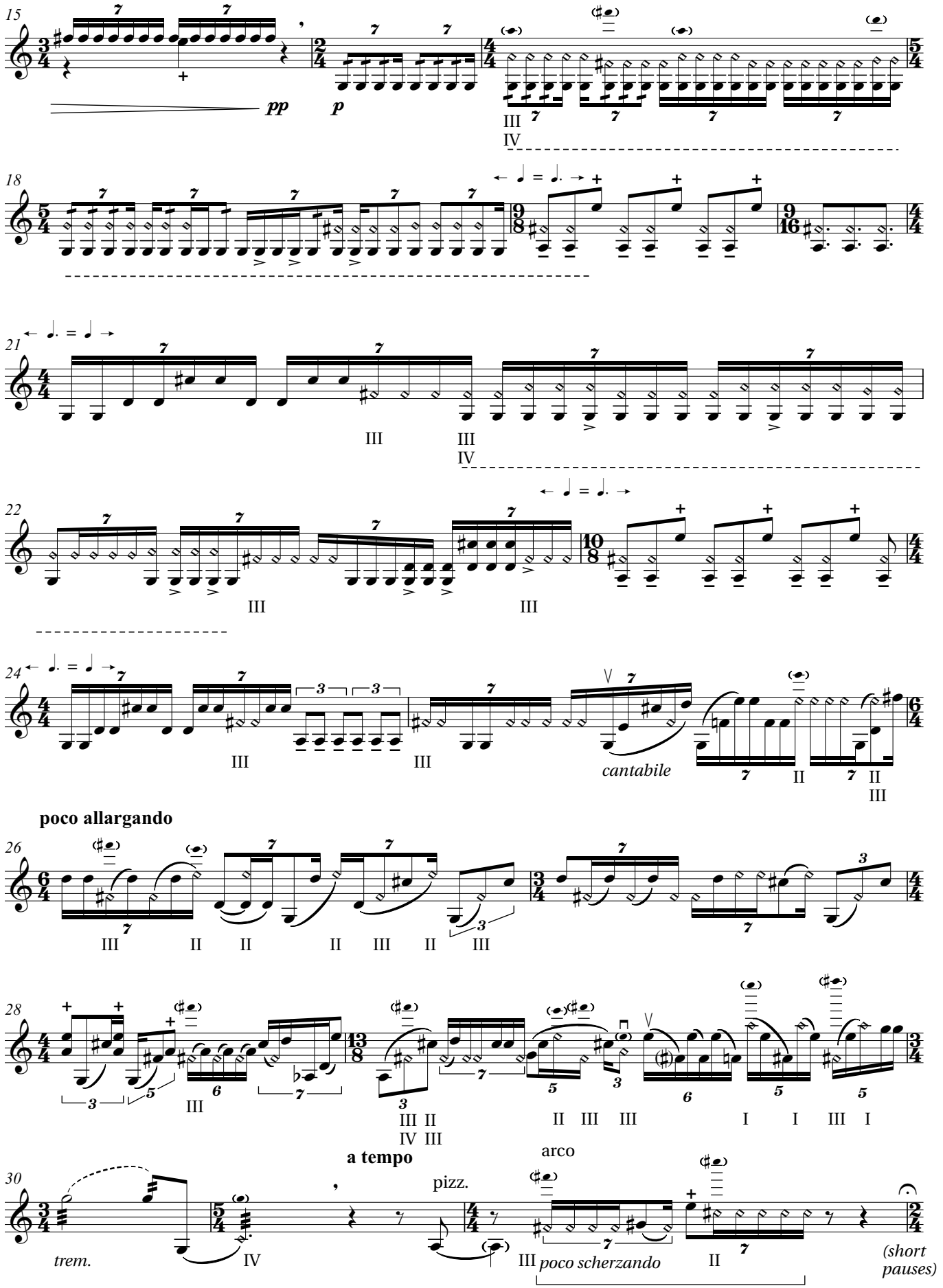
Harmonics

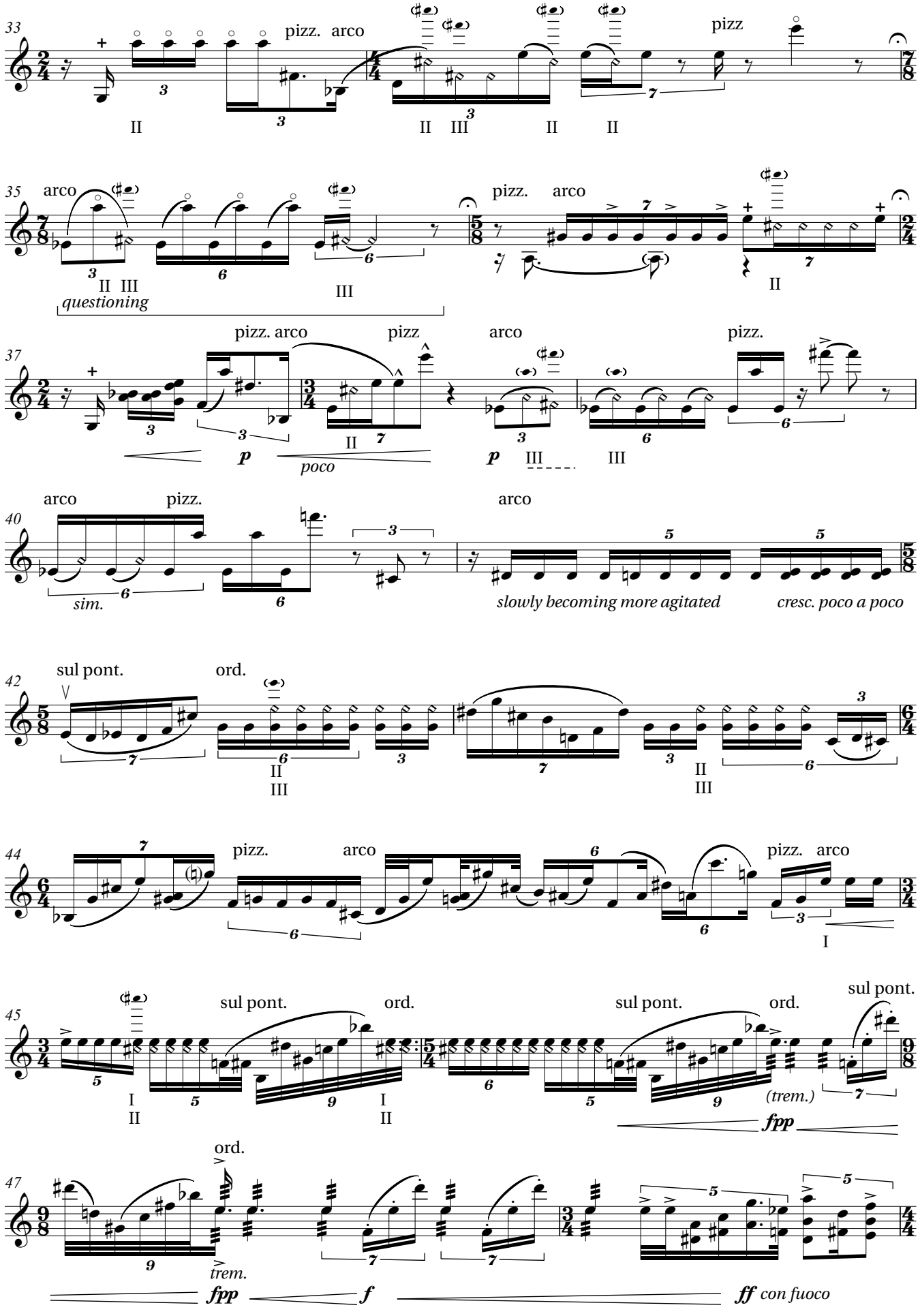
Harmonics (all natural) are represented by diamond noteheads and are notated at playing position (strings indicated with Roman numerals). Sounding pitches are indicated in brackets.

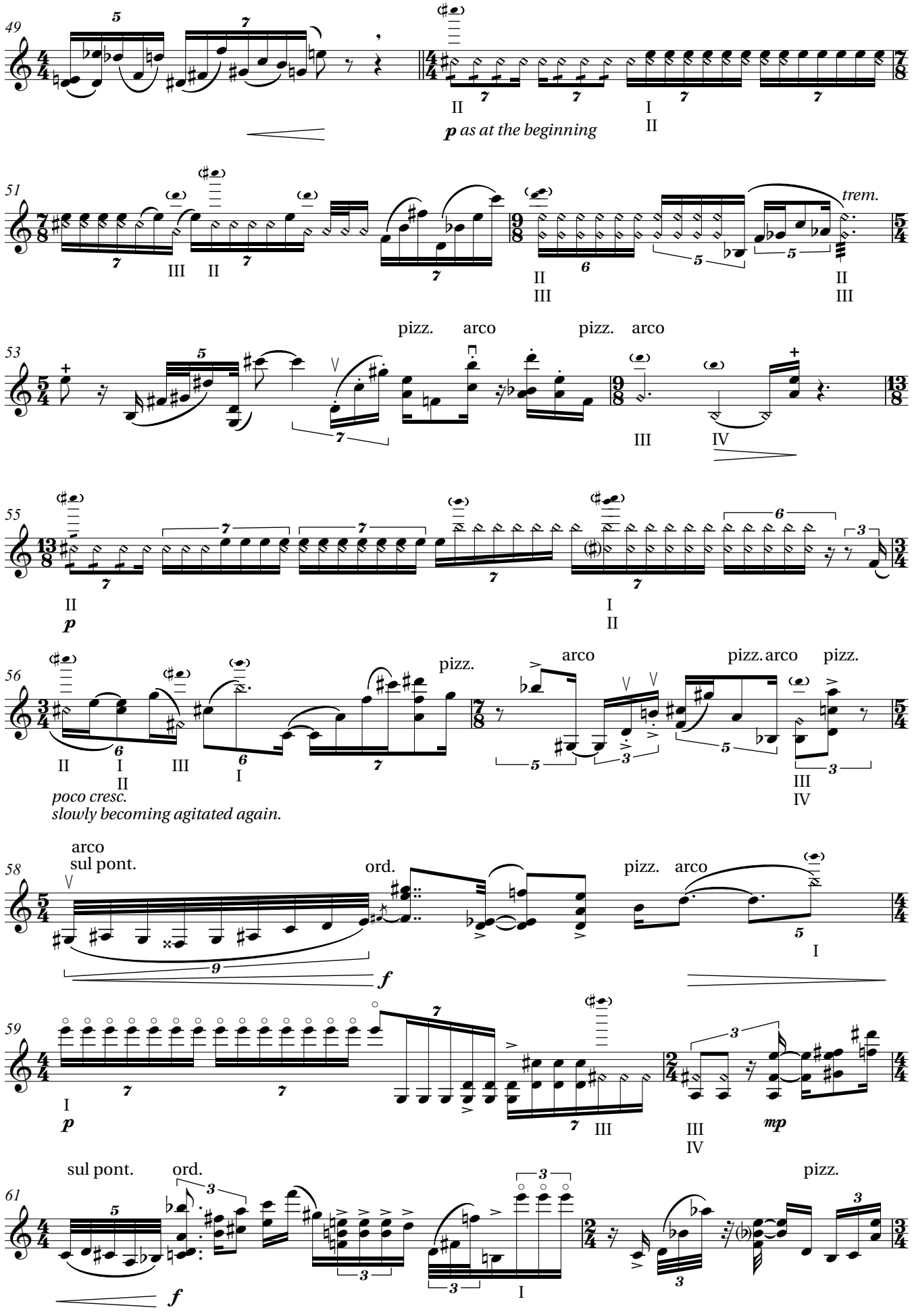
Nightmusic

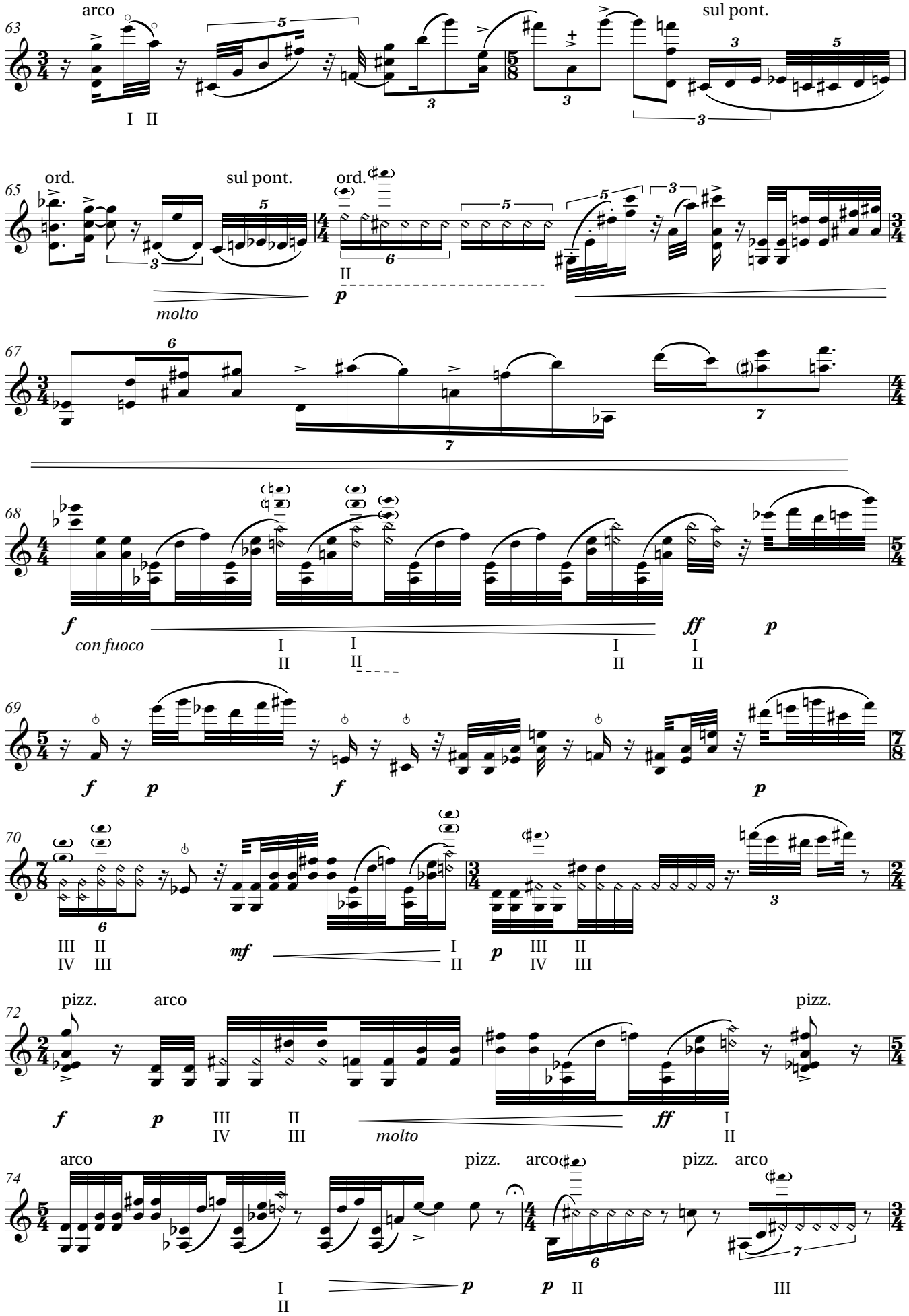
Thomas Butler

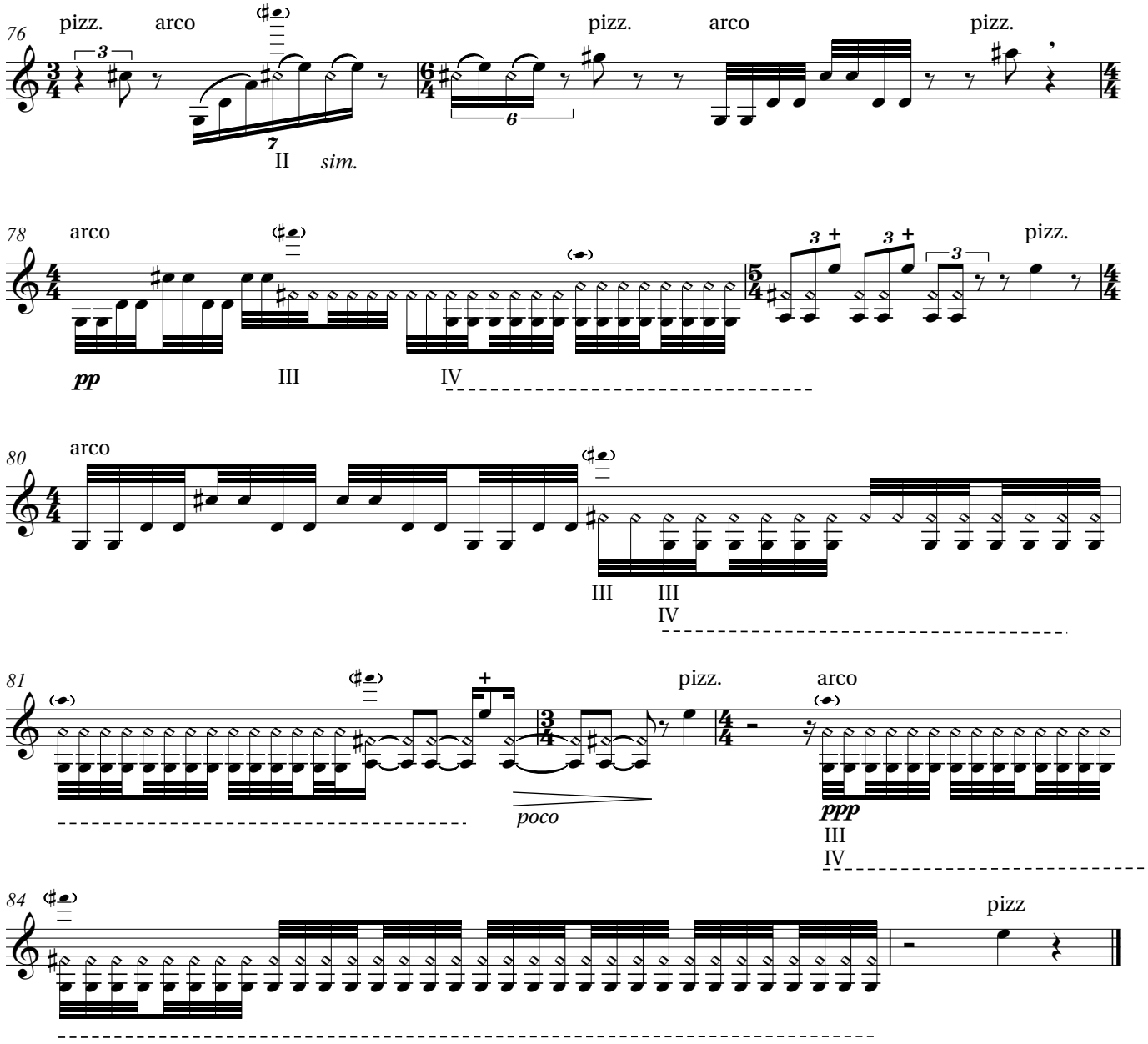



15
pp
p
III
IV
18
21
III
III
IV
22
III
III
24
III
III
cantabile
II
II
III
poco allargando
26
III
II
II
II
III
II
III
28
III
III II
IV III
II
III
III
I
I
III
I
a tempo
arco
30
trem.
IV
pizz.
III
poco scherzando
II
(short
pauses)


33
pizz.
arco
pizz
II
II III
II
II
35
arco
pizz.
arco
II III
III
II
questioning
37
pizz. arco
pizz
arco
pizz.
II
III
III
p
poco
p
40
arco
pizz.
arco
sim.
slowly becoming more agitated
cresc. poco a poco
42
sul pont.
ord.
II
III
II
III
44
pizz.
arco
pizz.
arco
I
45
sul pont.
ord.
sul pont.
ord.
sul pont.
I
II
I
II
(trem.)
fpp
47
ord.
trem.
fpp
f
ff con fuoco


49
II
I
II
p as at the beginning
51
III II
II
III
trem.
II
III
53
pizz. arco
pizz. arco
III
IV
55
II
p
I
II
56
pizz.
arco
pizz. arco
pizz.
II I III
II
I
III
IV
poco cresc.
slowly becoming agitated again.
58
arco
sul pont.
ord.
pizz. arco
f
I
59
I
p
III
III
IV
mp
61
sul pont.
ord.
pizz.
f
I


63
arco
sul pont.
I II
65
ord.
sul pont.
ord.
molto
II
p
67
7
68
f
con fuoco
ff
p
I
II
69
f
p
f
p
70
III
IV
II
III
mf
I
II
p
III
IV
II
III
72
pizz.
arco
pizz.
f
p
III
IV
II
III
molto
ff
I
II
74
arco
pizz.
arco
pizz.
arco
I
II
p
p
II
III


76
pizz.
arco
pizz.
arco
pizz.
II
sim.
78
arco
pizz.
pp
III
IV
80
arco
III
III
IV
81
pizz.
arco
poco
ppp
III
IV
84
pizz

Thomas Butler

Elbow Room

For amplified ensemble, pre-recorded sound, video and lighting.

Elbow Room (2014)

By Thomas Butler

For amplified ensemble, pre-recorded sound, video and lighting.

I. 1949
II. 1980
III. 2014

Score in C

Duration: 40 minutes

Commissioned by Red Note Ensemble and Sound and Music.

The first performance of this work was given by Red Note Ensemble, with Michal Jankowski (live sound) and Pete Searle (lighting), on 21st May 2014 at Summerhall, Edinburgh.

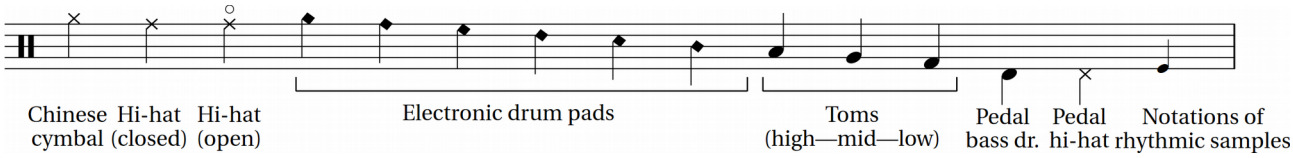
Instrumentation

Clarinet in B-flat, doubling Bass Clarinet in B-flat
Electric Guitar
Percussion (1 player):
    Vibraphone (requires two bows), Glockenspiel, Drum Kit [pedal bass drum, three toms (high, mid, low), hi-hat, Chinese cymbal, 6 electronic drum pads]
Synthesizer
Violin
Cello

The guitarist requires a whammy-bar, e-bow and the following FX pedals: distortion, reverb, delay, tremolo, octaver.

The ensemble play to clicktrack throughout.

Drum notation



Details of the sounds triggered by the electronic drum pads are to be found in the appendix to this score.

Sound projection

The pre-recorded audio material is in stereo and a third channel output is required for the clicktrack, which should be delivered to the performers via headphones. The ensemble is amplified throughout and, unless otherwise stated in the score, each instrument should be subtly panned so that the sound image corresponds to the stage plan (i.e. the violin is panned slightly left of centre, the synthesizer sightly right of centre, etc.). All projected sound should emanate from the stage area in front of the audience.

Video

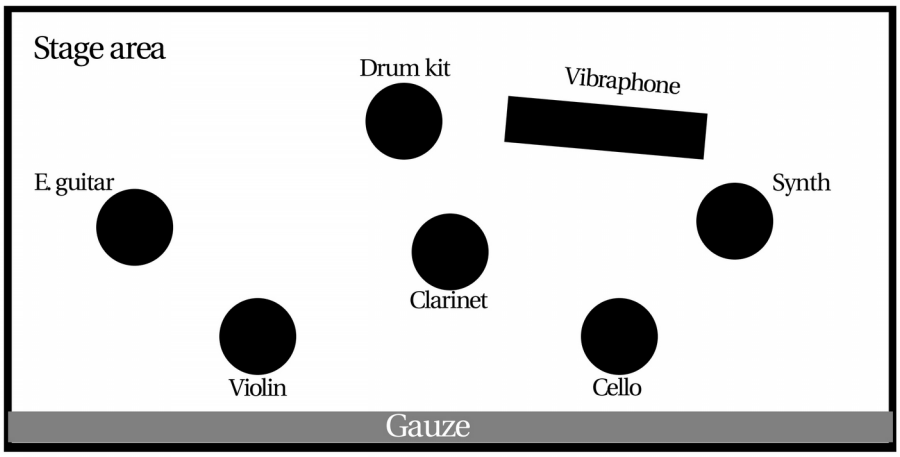
In addition to material shot by the composer, the video element of *Elbow Room* includes excerpts from *Glasgow Today and Tomorrow* (1949, directed by Erica Masters) and *Glasgow 1980* (1971, directed by Oscar Marzaroli). A license to show these films in public is required for each performance of *Elbow Room*. Licenses can be acquired from the Scottish Screen Archive at the National Library of Scotland (http://ssa.nls.uk).

Audio-visual material

Three .mp4 files – one per movement – provide all the projected audio-visual material for *Elbow Room*. Corresponding clicktracks are provided in .wav format (mono).

Stage plan / lighting / video projection

The video should be projected onto a gauze at the front of the stage area, behind which the ensemble are seated. The ensemble should be lit with basic dimmable white wash lighting which, along with the lit music stands, is controlled from the lighting desk. When the stage and stand lights are off the ensemble should not be visible to the audience. When the lights are on the audience should see both the ensemble and the video simultaneously. LX cues are included in the score.



Audience

Programme note

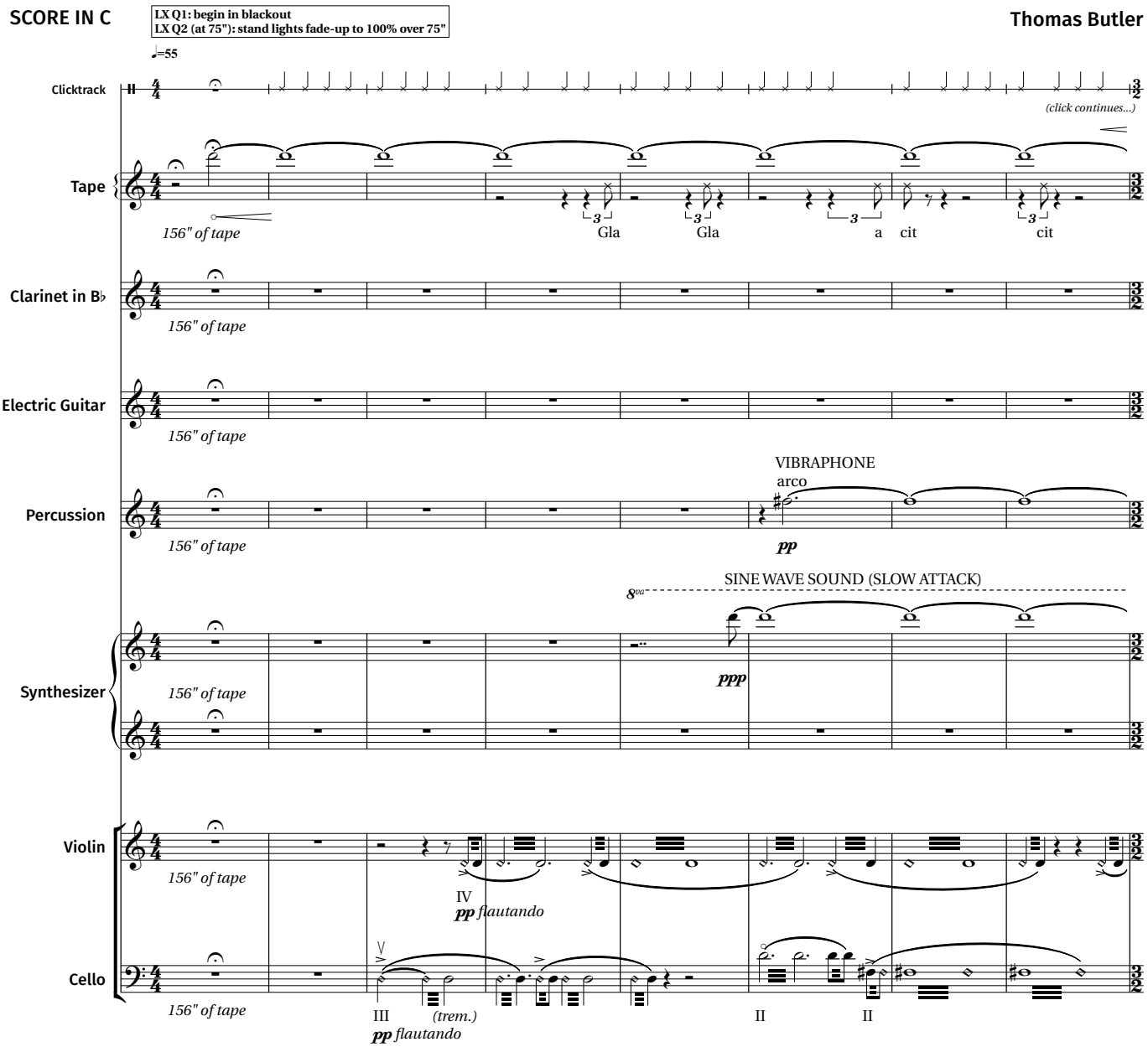
Elbow Room explores the psychogeography of cities: how we affect the city and how the city affects us. Through instrumental performance, location recordings and video, the piece tells the true story of the mid-twentieth century plan to demolish the city of Glasgow and replace it with a futuristic concrete utopia. The video incorporates extracts from the films *Glasgow Today and Tomorrow* (1949, directed by Erica Masters) and *Glasgow 1980* (1971, directed by Oscar Marzaroli) in addition to new footage filmed in 2014.

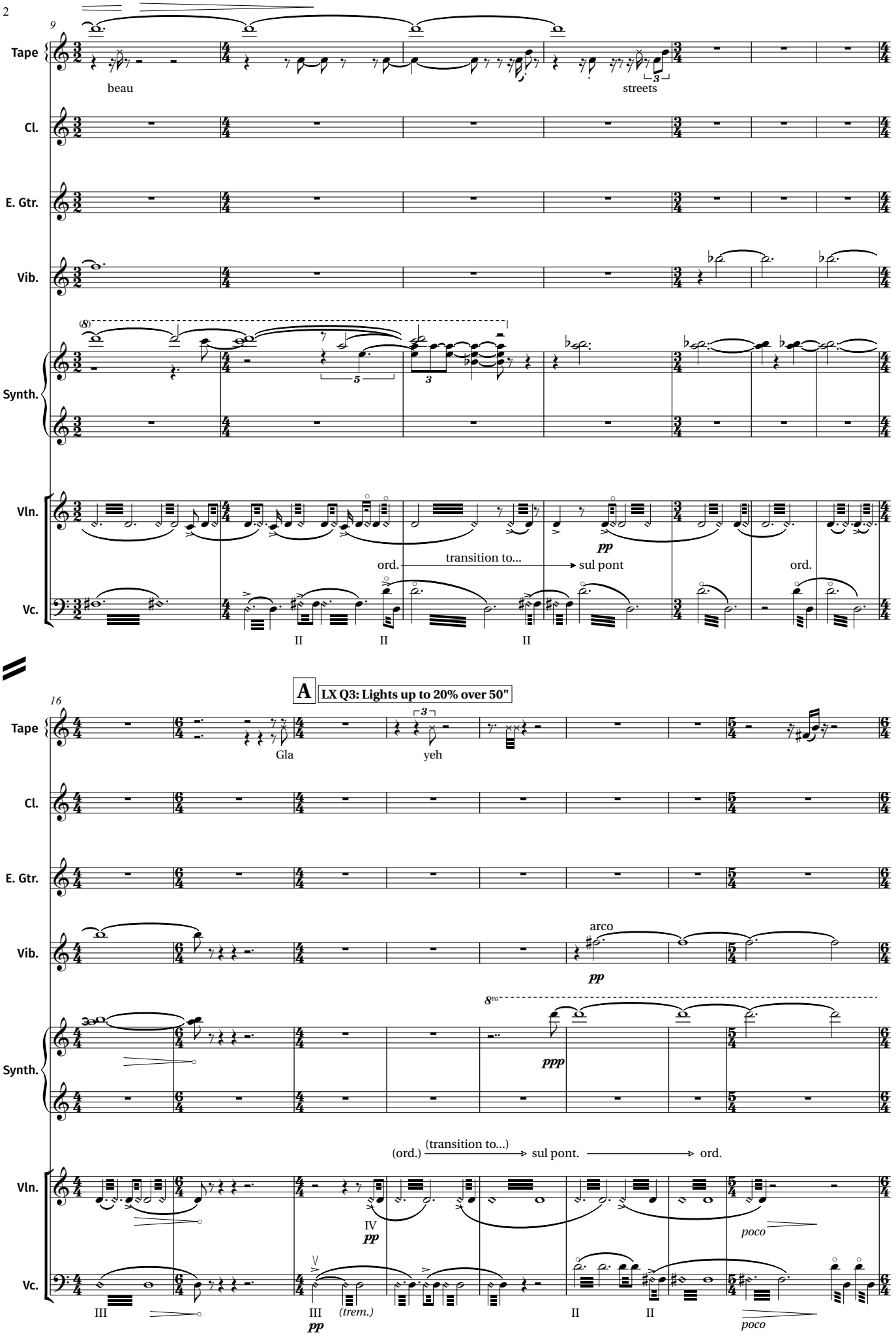
Elbow Room was the culmination of an 18 month residency with Red Note Ensemble as part of Sound and Music's Embedded scheme.

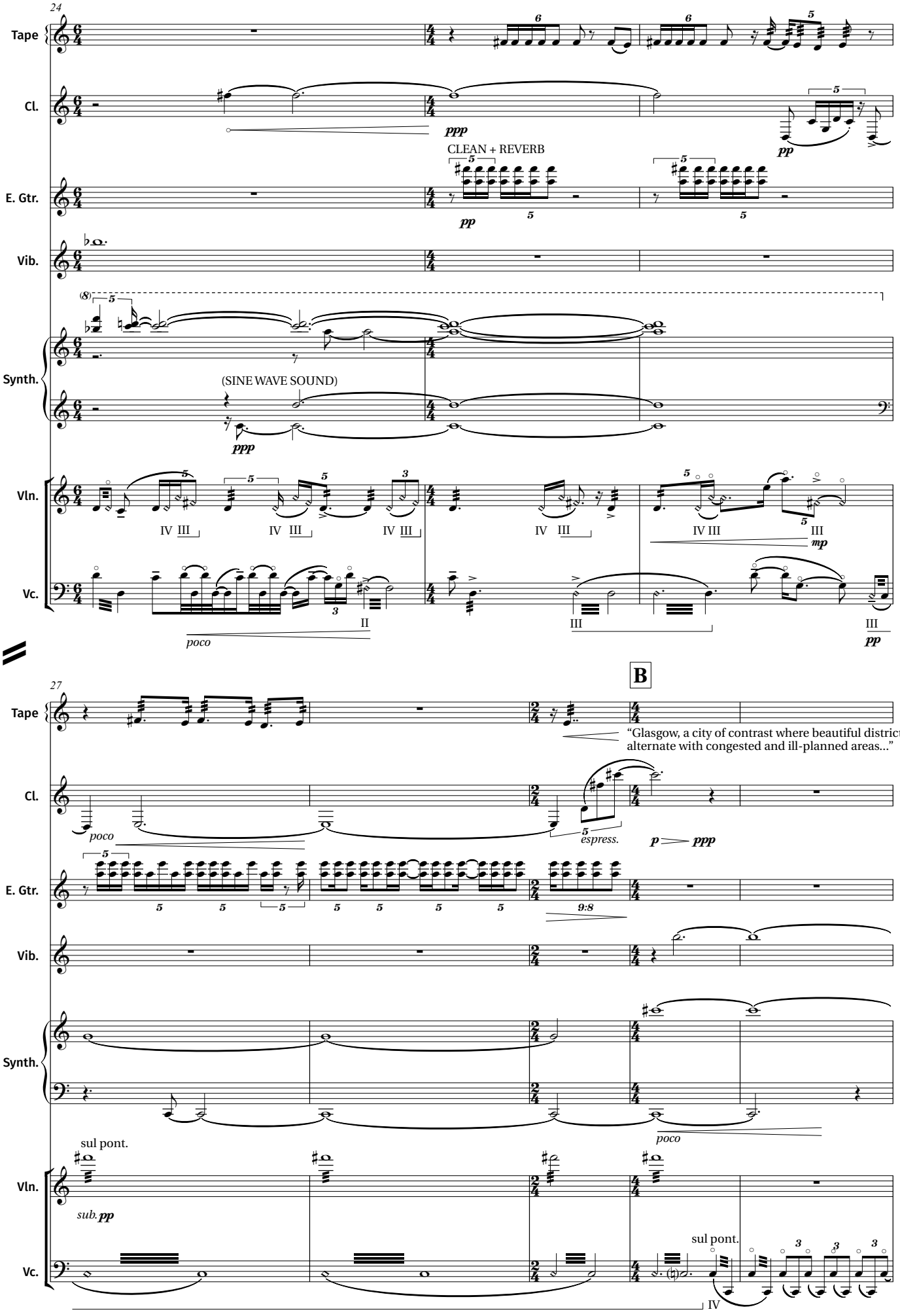
Commissioned by Red Note Ensemble and Sound and Music

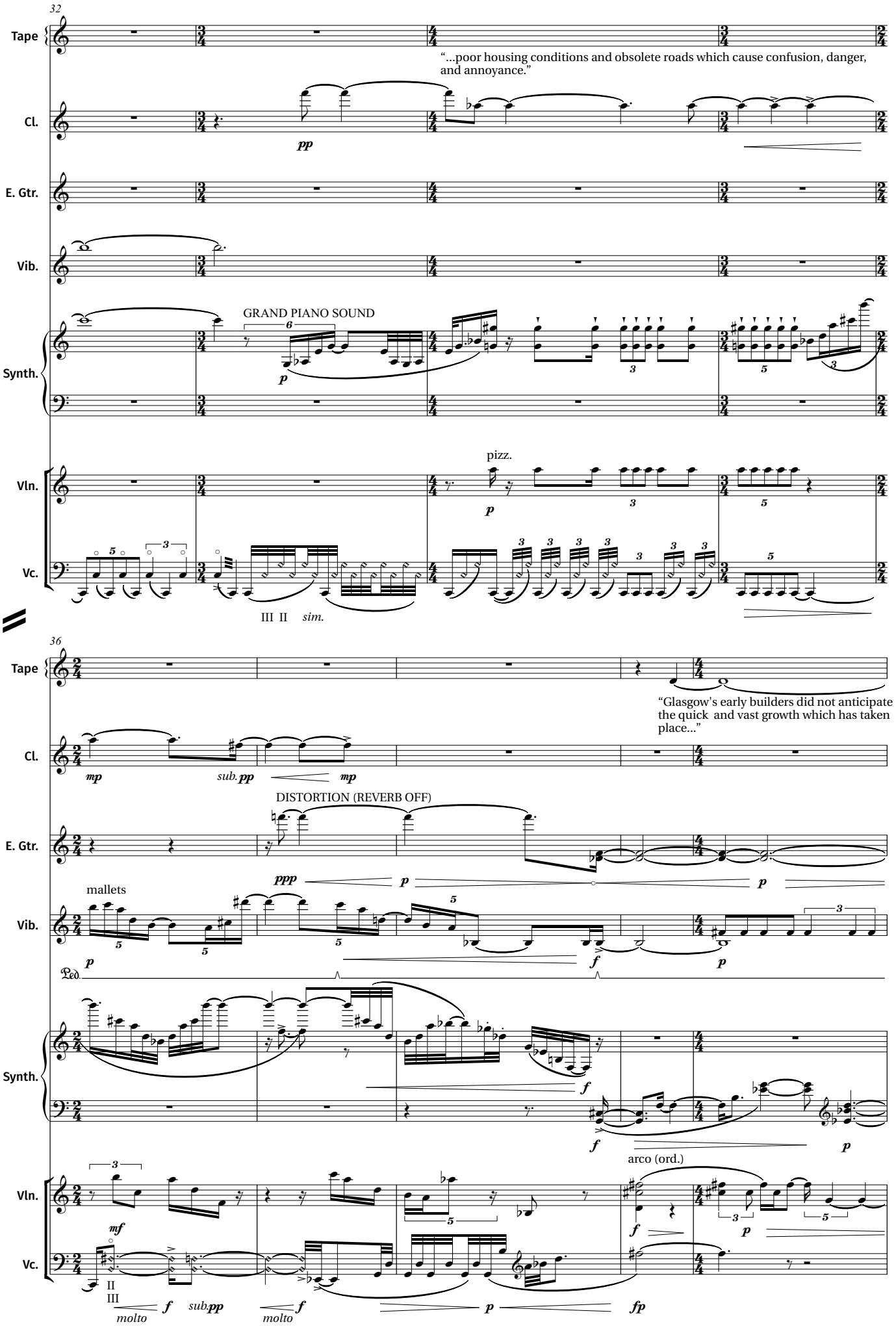
Elbow Room

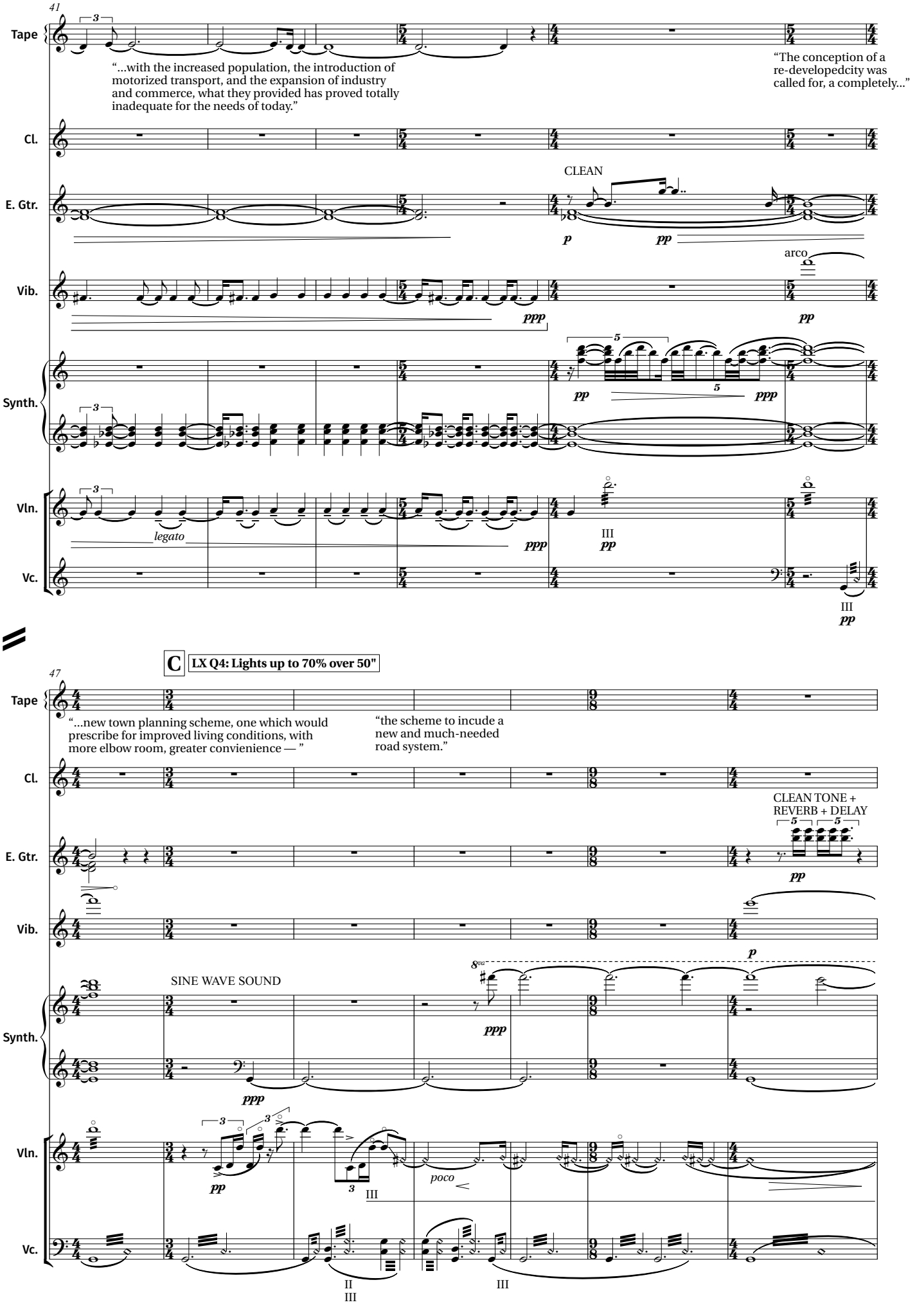
1. 1949

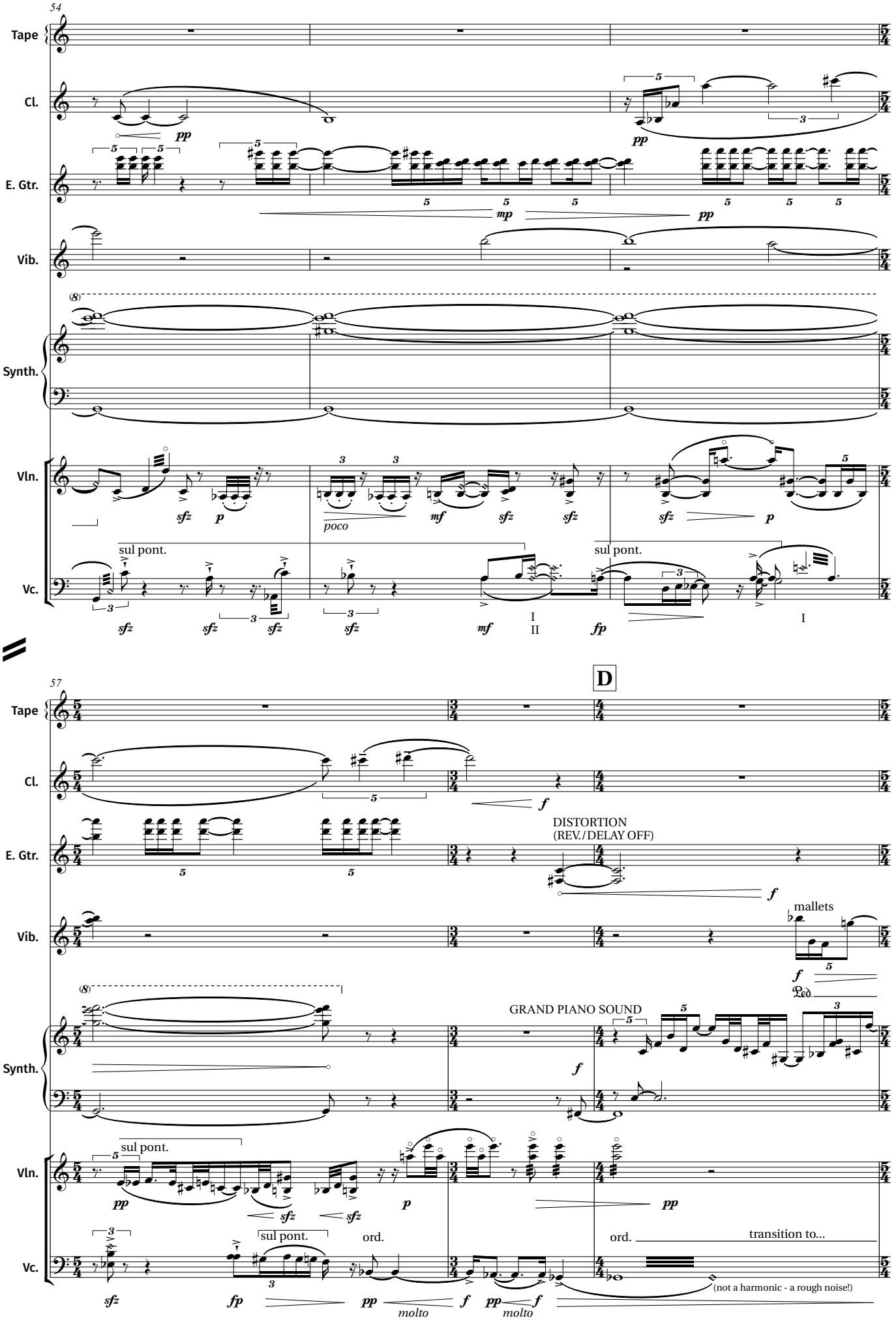


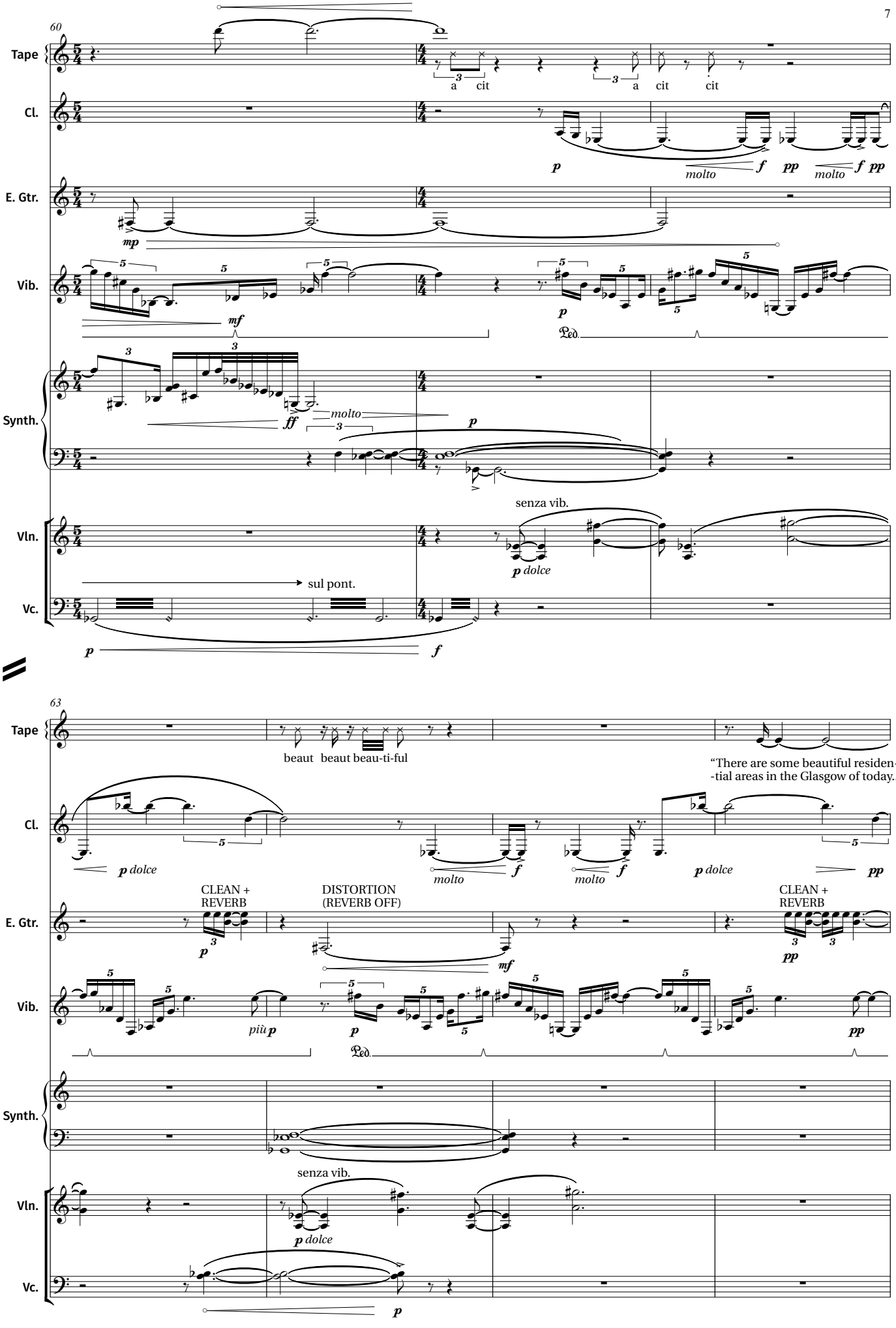

9
Tape
beau
streets
Cl.
E. Gtr.
Vib.
Synth.
Vln.
Vc.
ord.
transition to...
sul pont
ord.
pp
II
II
II
A
LX Q3: Lights up to 20% over 50"
16
Tape
Gla
yeh
Cl.
E. Gtr.
Vib.
arco
pp
Synth.
ppp
(ord.)
(transition to...)
sul pont.
ord.
Vln.
IV
pp
poco
Vc.
III
III
(trem.)
pp
II
II
poco

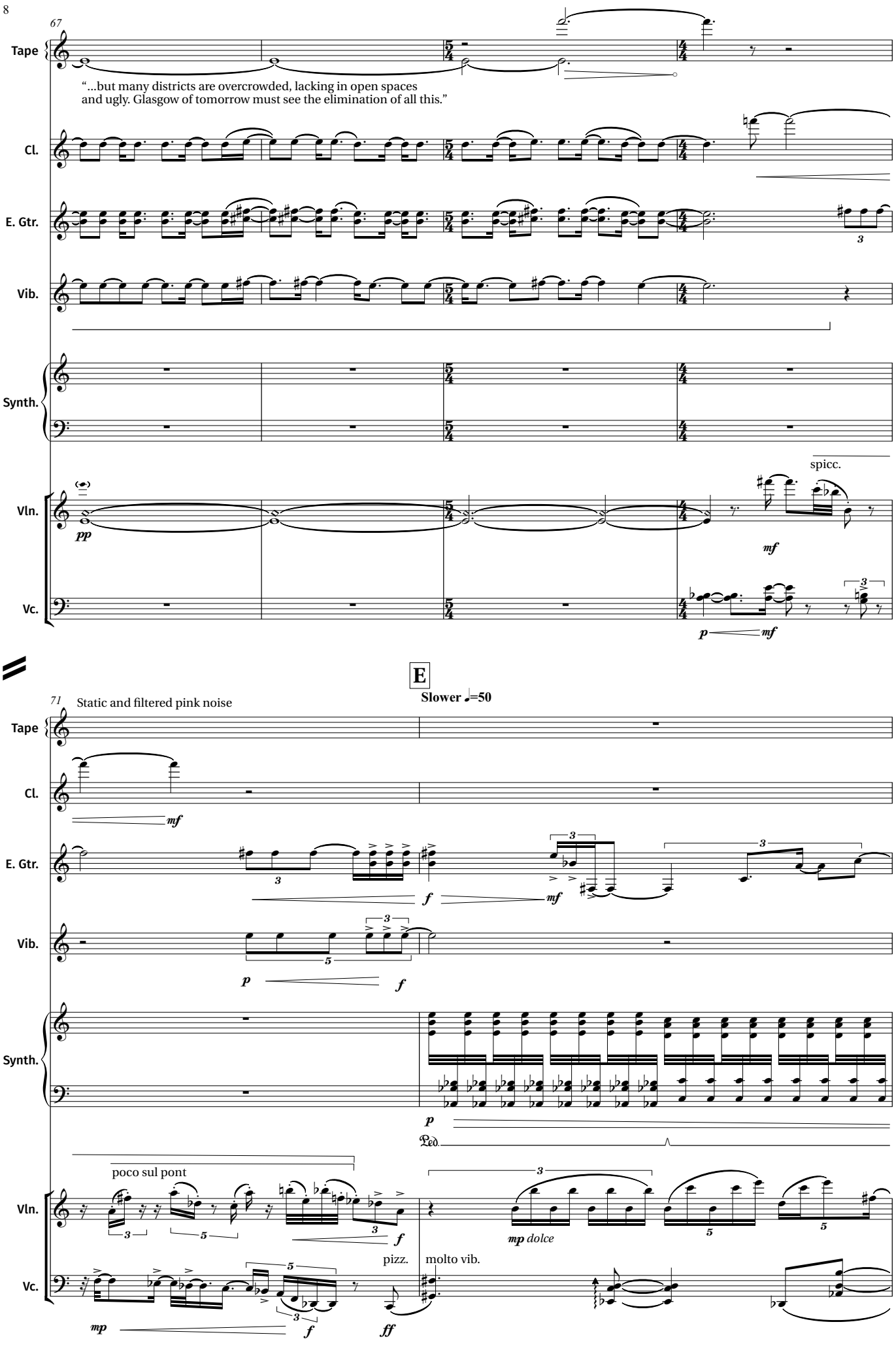

24
Tape
Cl.
E. Gtr.
Vib.
Synth.
Vln.
Vc.
ppp
pp
CLEAN + REVERB
(SINE WAVE SOUND)
IV III
II
III
poco
mp
27
B
"Glasgow, a city of contrast where beautiful districts alternate with congested and ill-planned areas..."
espress.
p ppp
9:8
sul pont.
sub. pp
IV

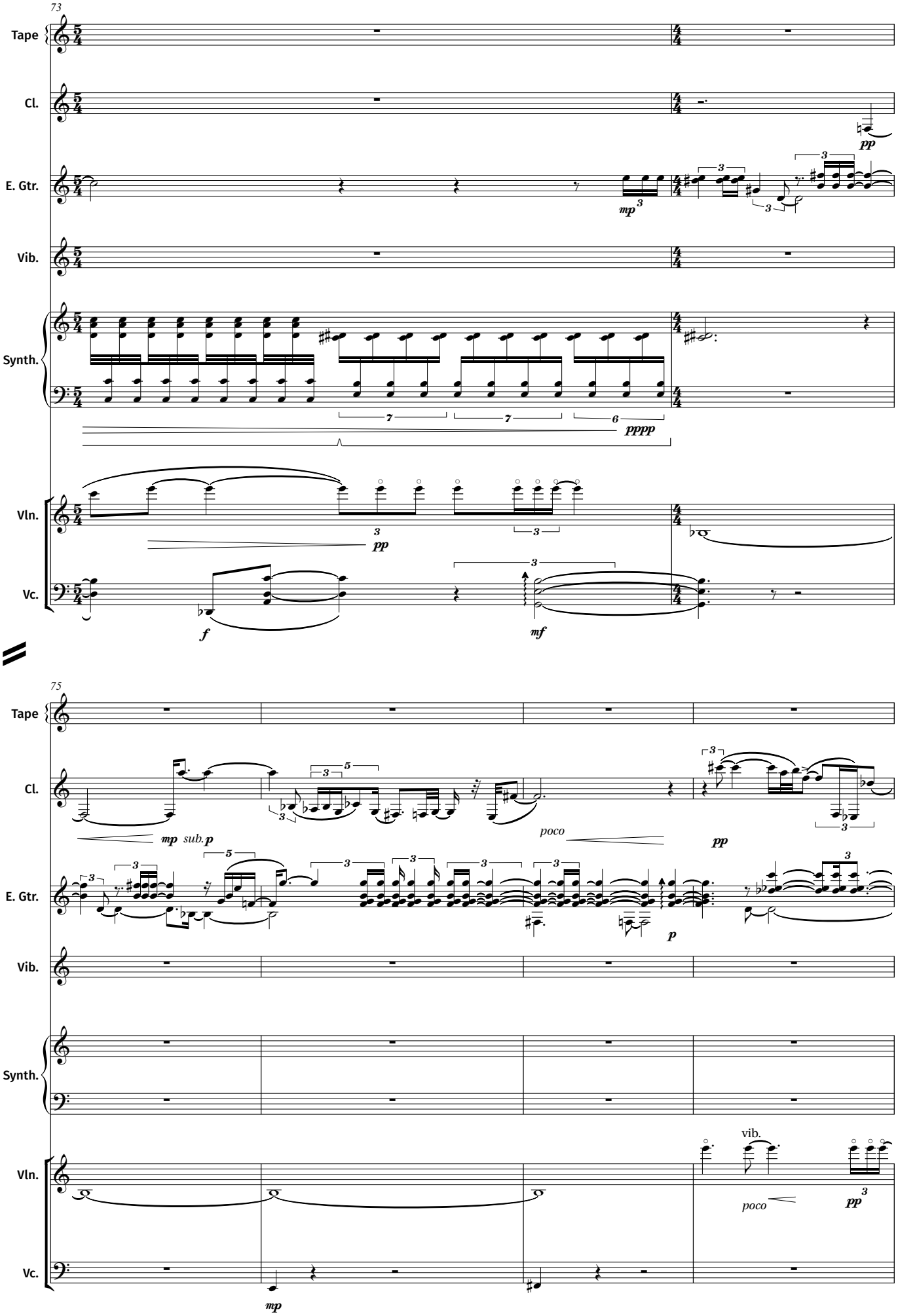

32
Tape
"...poor housing conditions and obsolete roads which cause confusion, danger, and annoyance."
Cl.
pp
E. Gtr.
Vib.
GRAND PIANO SOUND
Synth.
p
pizz.
Vln.
Vc.
III II sim.
36
Tape
"Glasgow's early builders did not anticipate the quick and vast growth which has taken place..."
Cl.
mp
sub. pp
mp
DISTORTION (REVERB OFF)
E. Gtr.
ppp
p
mallets
Vib.
Ped.
Synth.
f
arco (ord.)
Vln.
mf
Vc.
II
III
molto
sub. pp
molto
fp

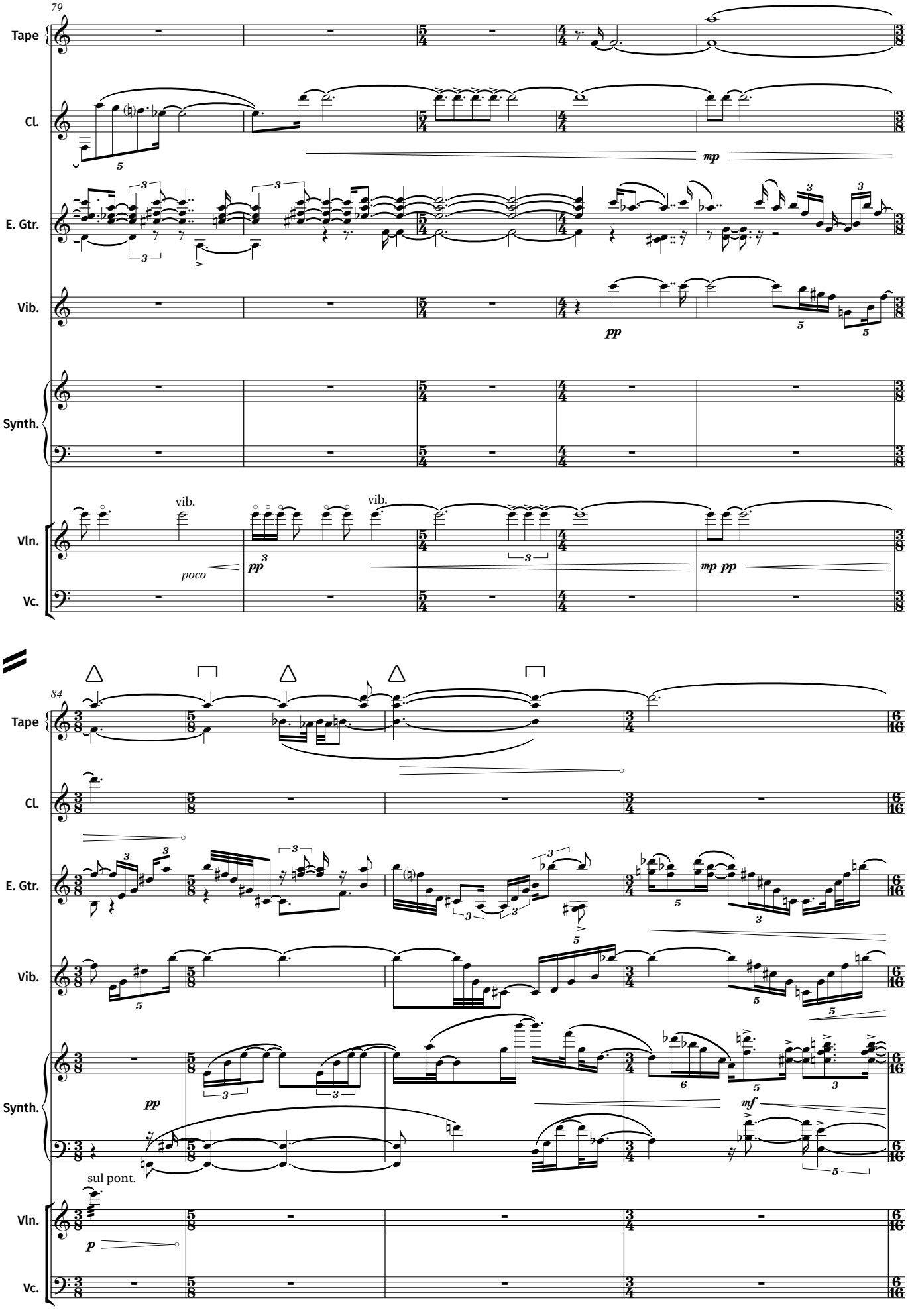

41
Tape
"...with the increased population, the introduction of motorized transport, and the expansion of industry and commerce, what they provided has proved totally inadequate for the needs of today."
"The conception of a re-developedcity was called for, a completely..."
Cl.
E. Gtr.
CLEAN
p
pp
Vib.
arco
ppp
pp
Synth.
pp
ppp
Vln.
legato
ppp
III
pp
Vc.
III
pp
C
LX Q4: Lights up to 70% over 50"
47
Tape
"...new town planning scheme, one which would prescribe for improved living conditions, with more elbow room, greater convienience — "
"the scheme to incude a new and much-needed road system."
Cl.
E. Gtr.
CLEAN TONE + REVERB + DELAY
pp
Vib.
p
SINE WAVE SOUND
Synth.
ppp
ppp
Vln.
pp
III
poco
Vc.
II
III
III


54
Tape
Cl.
E. Gtr.
Vib.
Synth.
Vln.
Vc.
sul pont.
poco
I
II
57
D
DISTORTION
(REV./DELAY OFF)
mallets
GRAND PIANO SOUND
ord.
transition to...
(not a harmonic - a rough noise!)
molto


60
Tape
a cit
a cit cit
Cl.
molto
molto
E. Gtr.
Vib.
Synth.
molto
Vln.
senza vib.
sul pont.
Vc.
63
Tape
beaut beaut beau-ti-ful
"There are some beautiful residen-
-tial areas in the Glasgow of today...
Cl.
molto
molto
E. Gtr.
CLEAN +
REVERB
DISTORTION
(REVERB OFF)
CLEAN +
REVERB
Vib.
più
Synth.
Vln.
senza vib.
Vc.


67
Tape
"...but many districts are overcrowded, lacking in open spaces
and ugly. Glasgow of tomorrow must see the elimination of all this."
Cl.
E. Gtr.
Vib.
Synth.
spicc.
Vln.
pp
mf
Vc.
p
mf
E
Slower ♩=50
71
Static and filtered pink noise
Tape
Cl.
mf
E. Gtr.
f
mf
Vib.
p
f
Synth.
p
Ped.
poco sul pont
Vln.
f
mp dolce
pizz.
molto vib.
Vc.
mp
f
ff


73
Tape
Cl.
E. Gtr.
Vib.
Synth.
Vln.
Vc.
pp
mp
pppp
f
mf
75
mp sub. p
poco
p
vib.
poco
pp
mp


79
Tape
Cl.
E. Gtr.
Vib.
Synth.
Vln.
Vc.
mp
pp
vib.
poco
pp
vib.
mp pp
84
Tape
Cl.
E. Gtr.
Vib.
Synth.
Vln.
Vc.
pp
mf
sul pont.
p

F

Più mosso (♩=60)

88

Tape

reversed voiceover

"...the construction of a tunnel..."

Cl.

E. Gtr.

DISTORTION

(whammy bar)

Vib.

Synth.

Vln.

arco

Vc.

91

Tape

"...Whiteinch on the north... ...element of the new road system..."

reversed voiceover

Cl.

E. Gtr.

(whammy vib.)

Vib.

SINE WAVE SOUND

Synth.

(ord.) → sul pont. →

Vln.

(ord.)

Vc.

LX Q5: lights fade to 5% over 20"

95

poco rall. Tempo 1. (♩=55)

Tape

"The plan for Glasgow of tomorrow is taking shape. The overcrowded and overdeveloped city will give place to a new and free-flowing city, laid-out in open manner. This is not just a plan on paper, it is one on which work has already started. The beginning of a new Glasgow..."

Cl.

(breathe when necessary)

pp

sempre ***ppp***

E. Gtr.

CLEAN

pp

Vib.

sempre ***ppp***

Synth.

pp

Vln.

sul tasto

pp

sempre ***ppp***

Vc.

sul pont.

sul tasto

pp

IV

sempre ***ppp***

102

Tape

"...in which is people can live and work in comfort, with amenity a primary consideration. There is much more to be done yet, but the new plan is underway. These scenes of part of the exhibition model indicate the vast plans which have been prepared to make Glasgow of today a new and better Glasgow of tomorrow."

Cl.

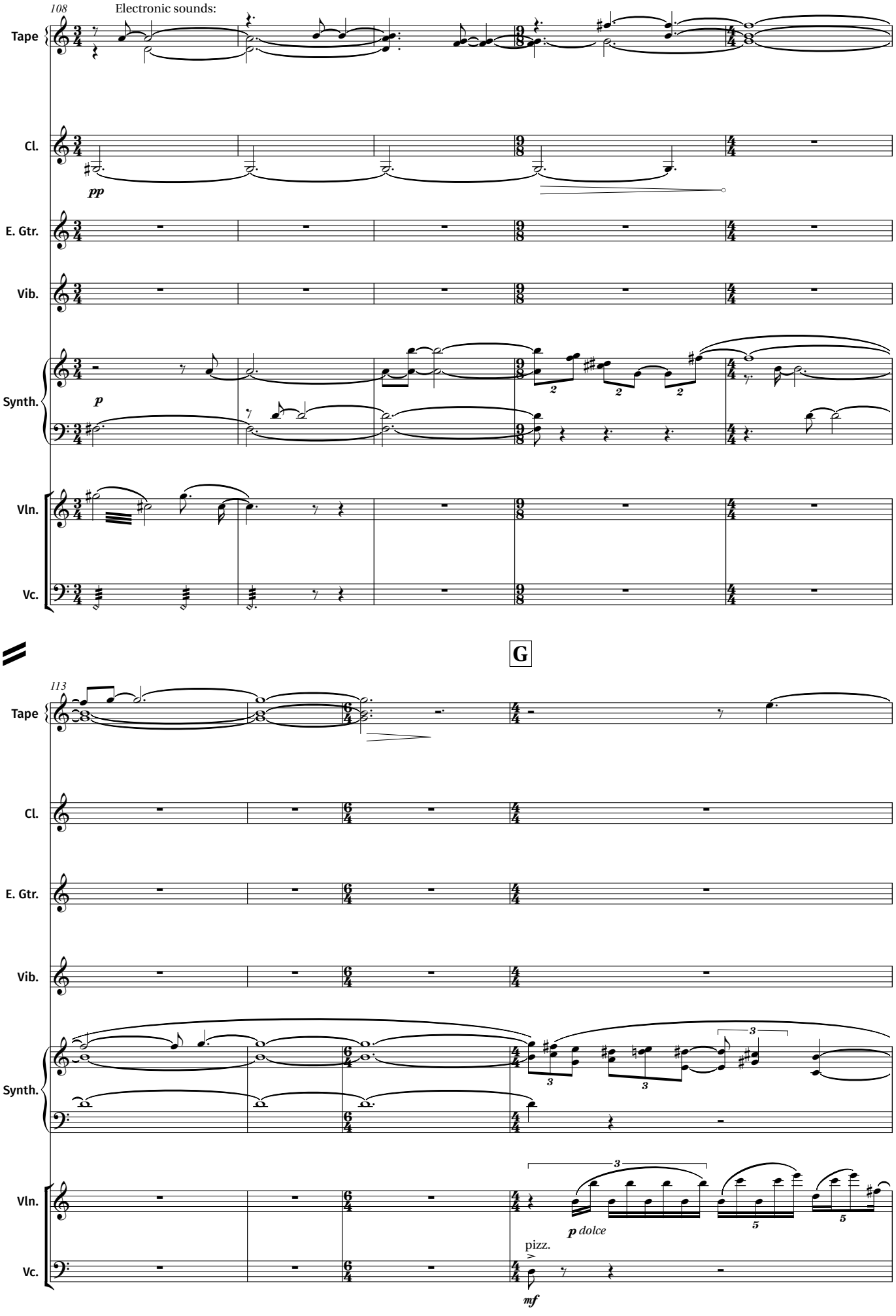
E. Gtr.

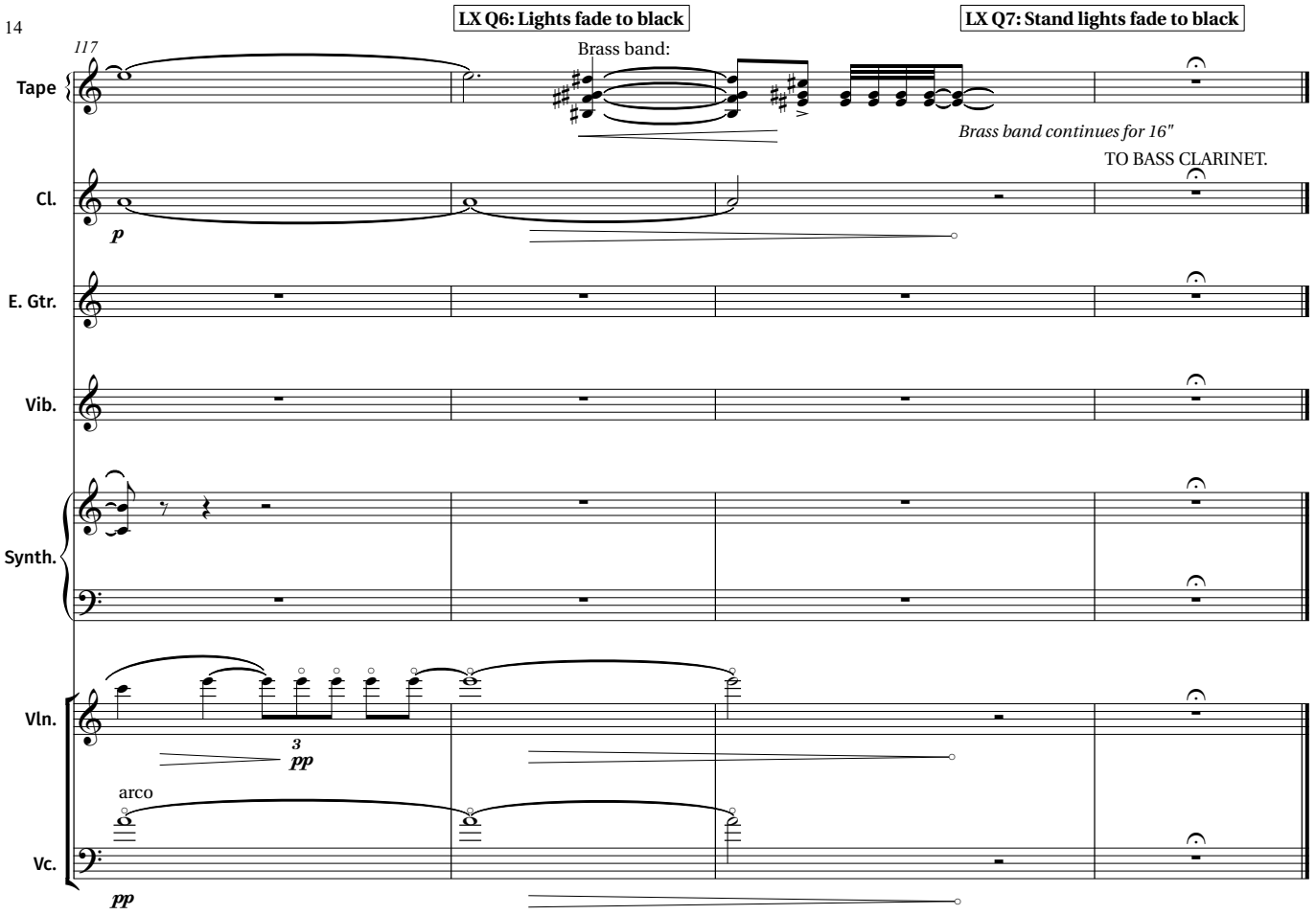
Vib.

Synth.

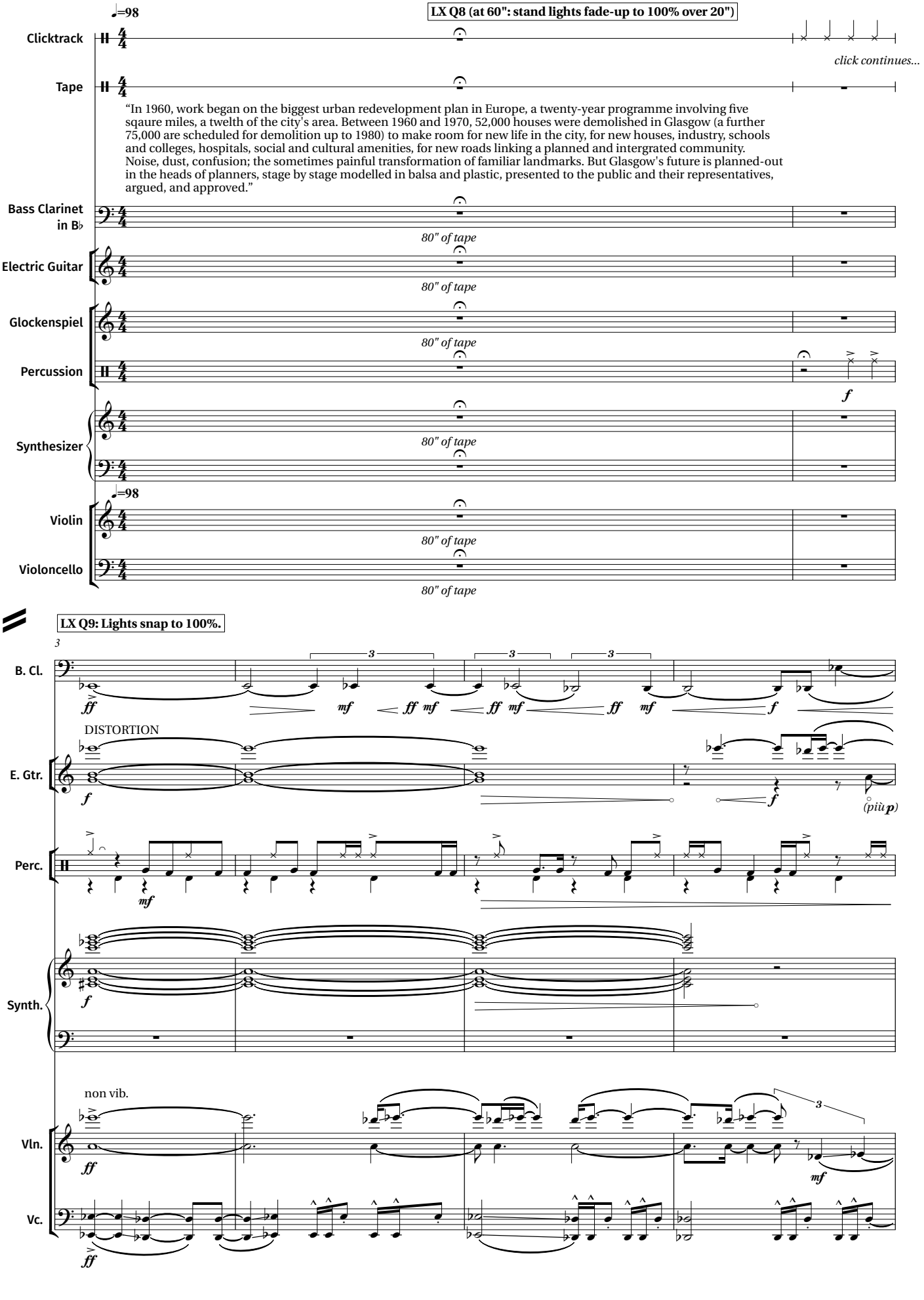
Vln.

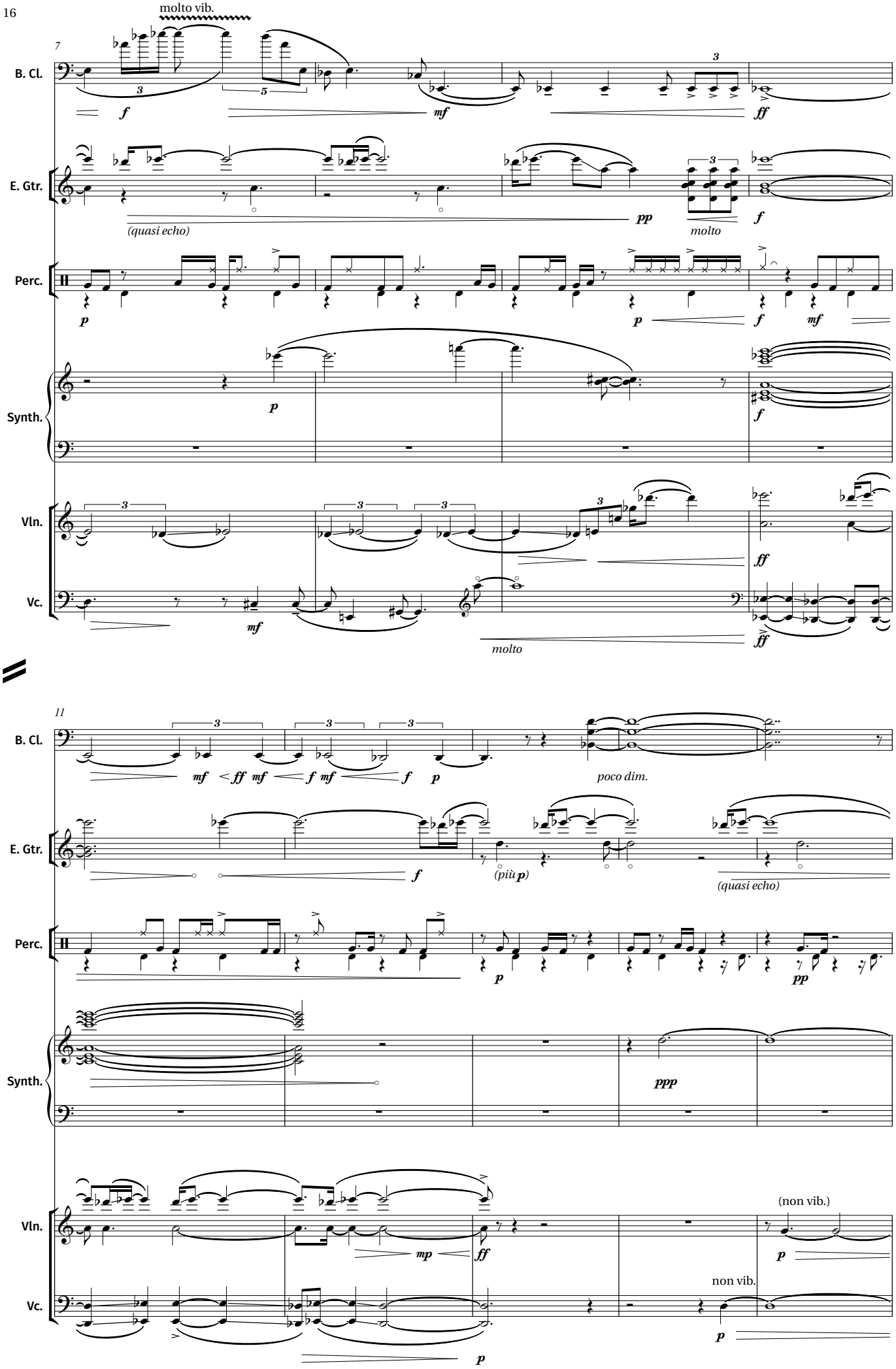
Vc.

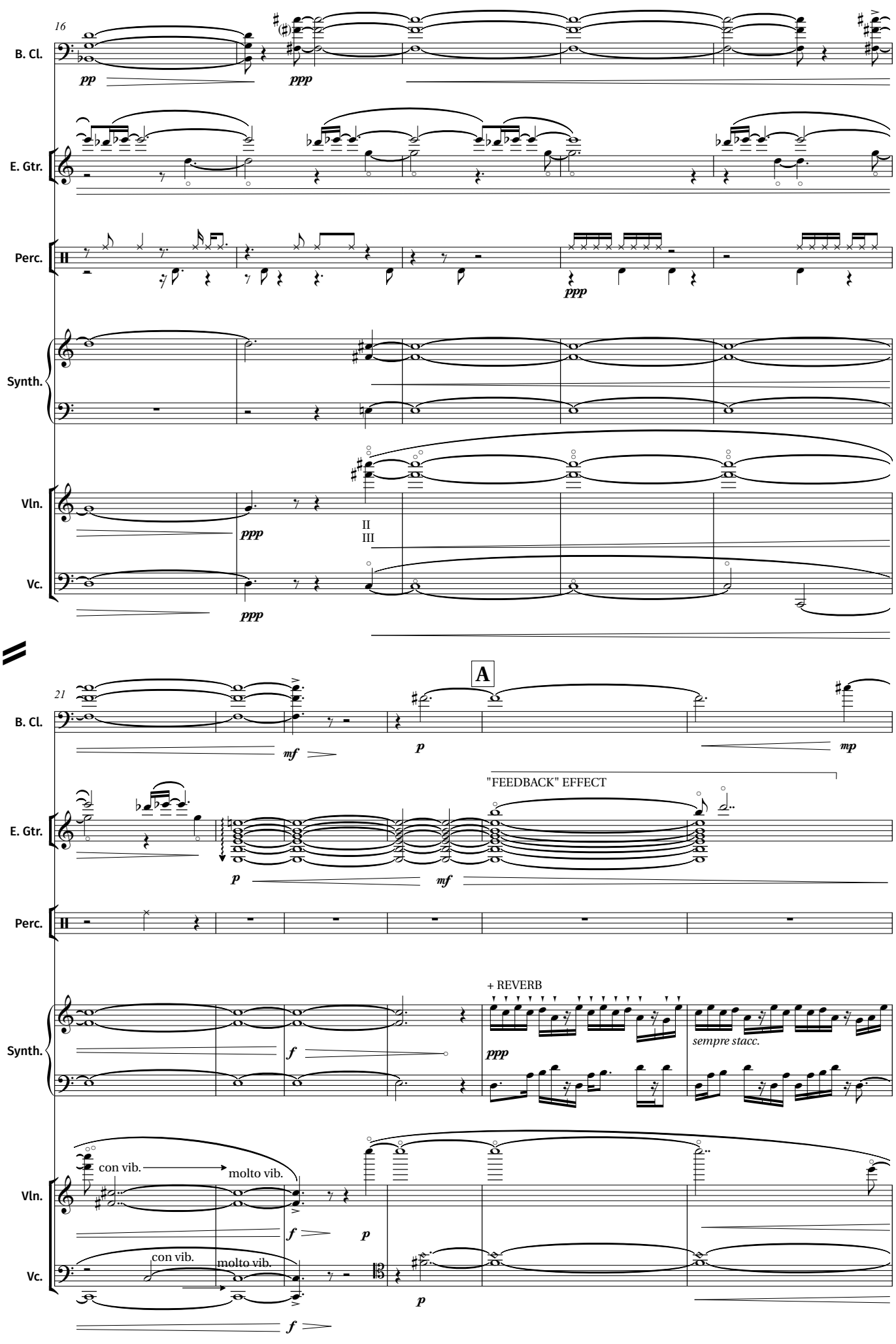

108
Electronic sounds:
Tape
Cl.
pp
E. Gtr.
Vib.
Synth.
p
Vln.
Vc.
G
113
Tape
Cl.
E. Gtr.
Vib.
Synth.
Vln.
p dolce
Vc.
pizz.
mf

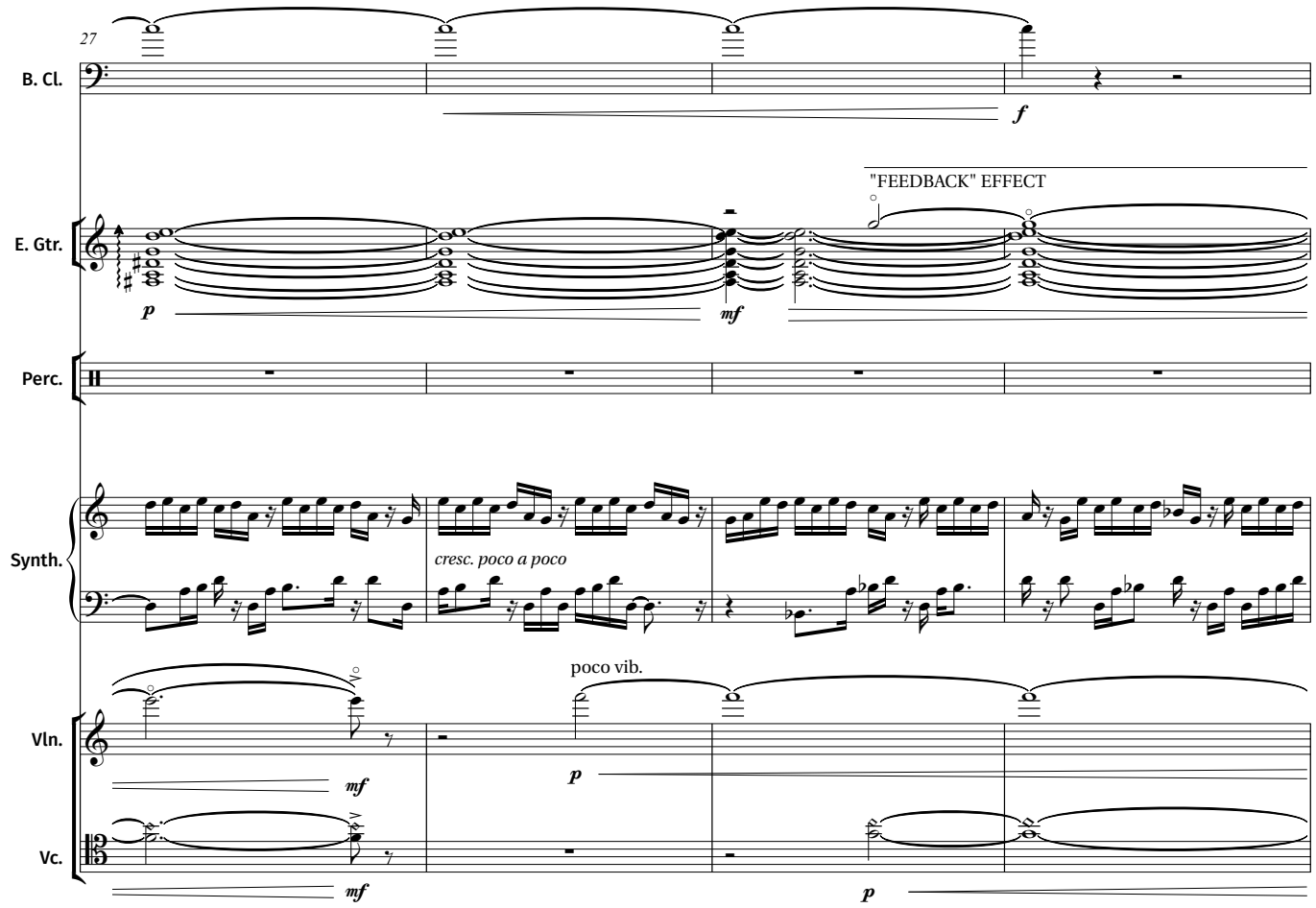

LX Q6: Lights fade to black
LX Q7: Stand lights fade to black
117
Brass band:
Tape
Brass band continues for 16"
TO BASS CLARINET.
Cl.
p
E. Gtr.
Vib.
Synth.
Vln.
3
pp
arco
Vc.
pp

II. 1980

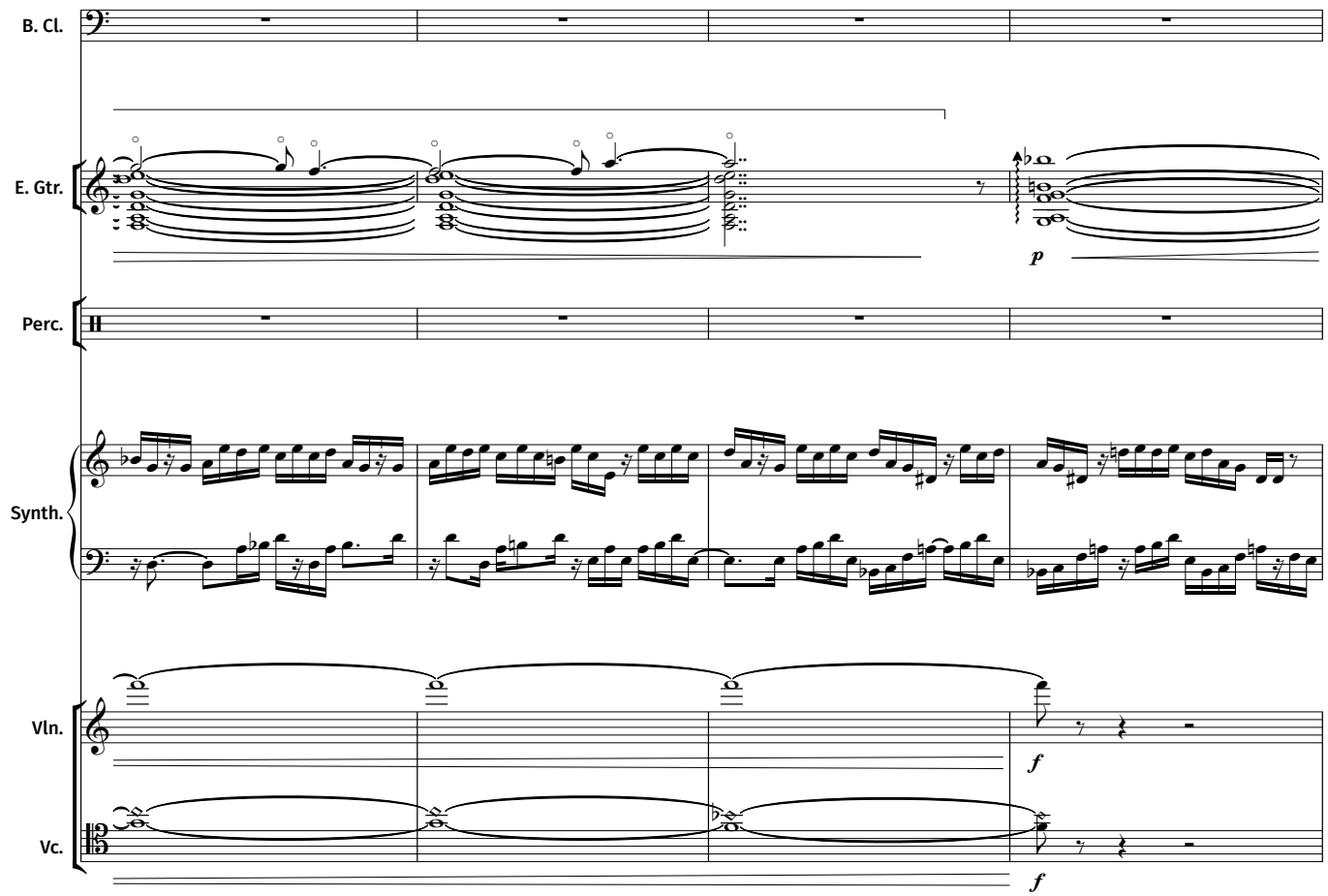

♩=98
LX Q8 (at 60": stand lights fade-up to 100% over 20")
Clicktrack
click continues...
Tape
"In 1960, work began on the biggest urban redevelopment plan in Europe, a twenty-year programme involving five sqaure miles, a twelth of the city's area. Between 1960 and 1970, 52,000 houses were demolished in Glasgow (a further 75,000 are scheduled for demolition up to 1980) to make room for new life in the city, for new houses, industry, schools and colleges, hospitals, social and cultural amenities, for new roads linking a planned and intergrated community. Noise, dust, confusion; the sometimes painful transformation of familiar landmarks. But Glasgow's future is planned-out in the heads of planners, stage by stage modelled in balsa and plastic, presented to the public and their representatives, argued, and approved."
Bass Clarinet in B♭
80" of tape
Electric Guitar
80" of tape
Glockenspiel
80" of tape
Percussion
f
Synthesizer
80" of tape
♩=98
Violin
80" of tape
Violoncello
80" of tape
LX Q9: Lights snap to 100%.
B. Cl.
DISTORTION
E. Gtr.
(più p)
Perc.
Synth.
non vib.
Vln.
Vc.

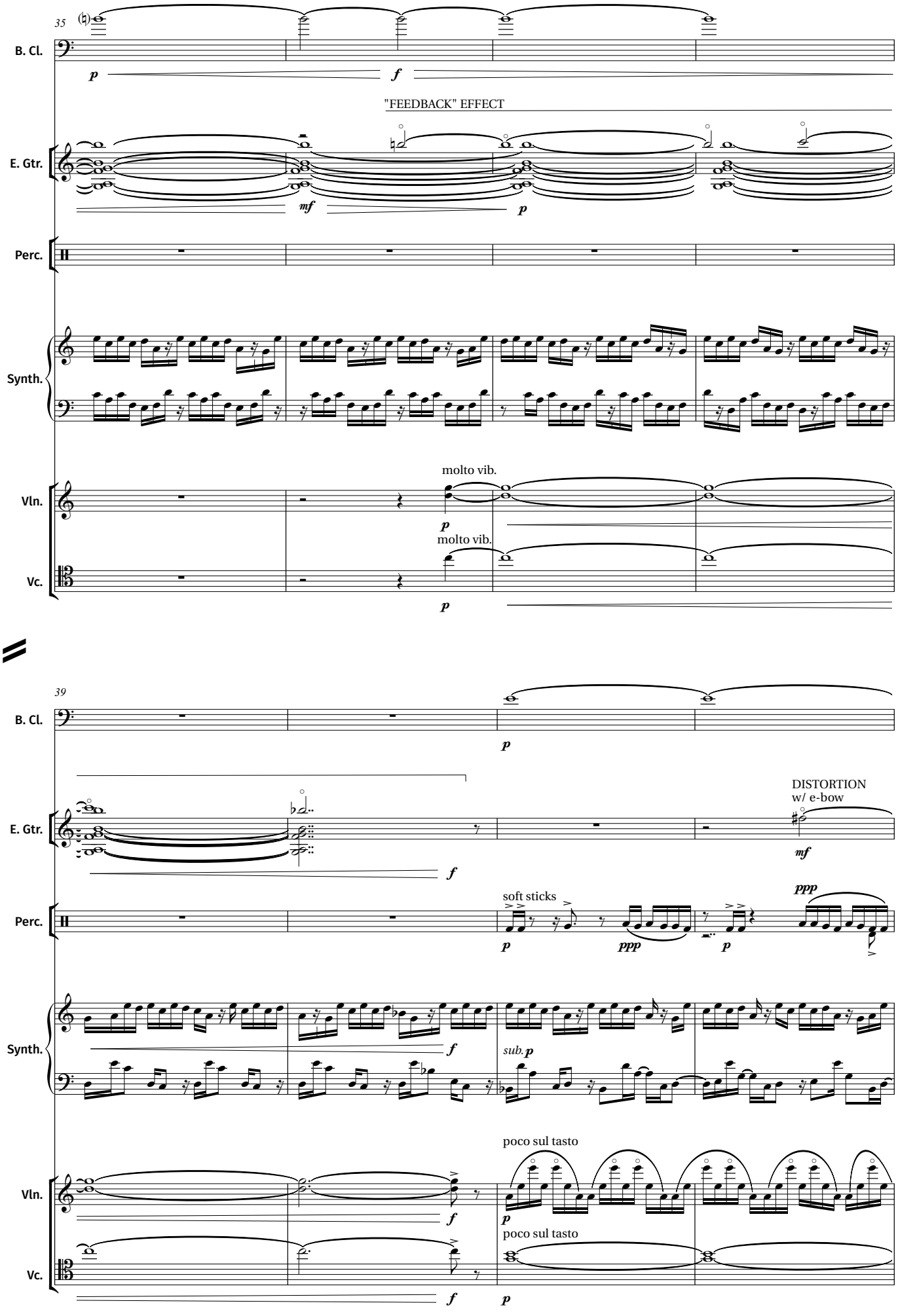

molto vib.
7
B. Cl.
E. Gtr.
(quasi echo)
molto
Perc.
Synth.
Vln.
Vc.
molto
11
poco dim.
(più p)
(quasi echo)
ppp
(non vib.)
non vib.

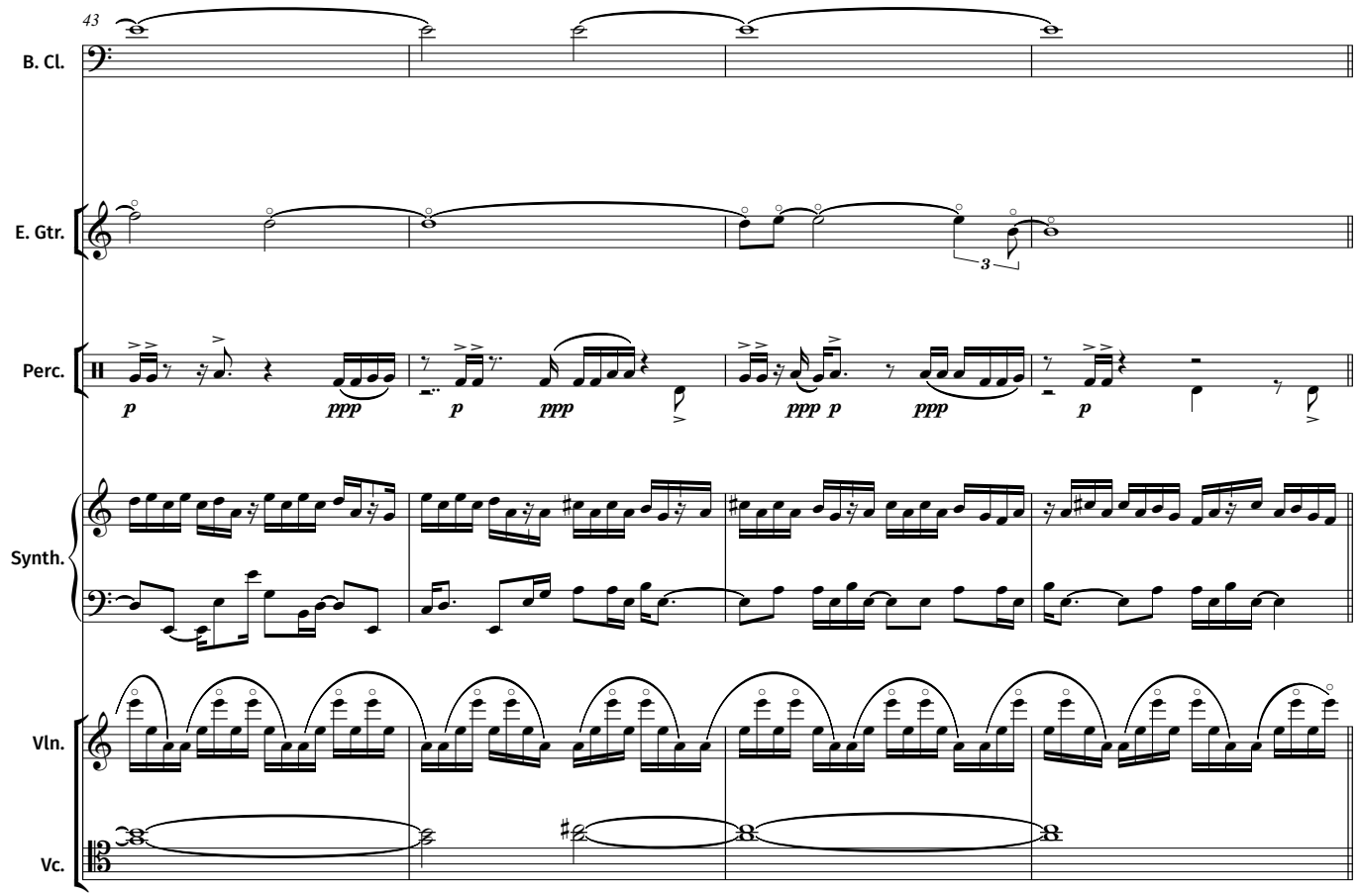

16
B. Cl.
pp
ppp
E. Gtr.
Perc.
ppp
Synth.
Vln.
ppp
II
III
Vc.
ppp
21
A
B. Cl.
mf
p
mp
"FEEDBACK" EFFECT
E. Gtr.
p
mf
Perc.
+ REVERB
Synth.
f
ppp
sempre stacc.
con vib.
molto vib.
Vln.
f
p
con vib.
molto vib.
Vc.
p
f

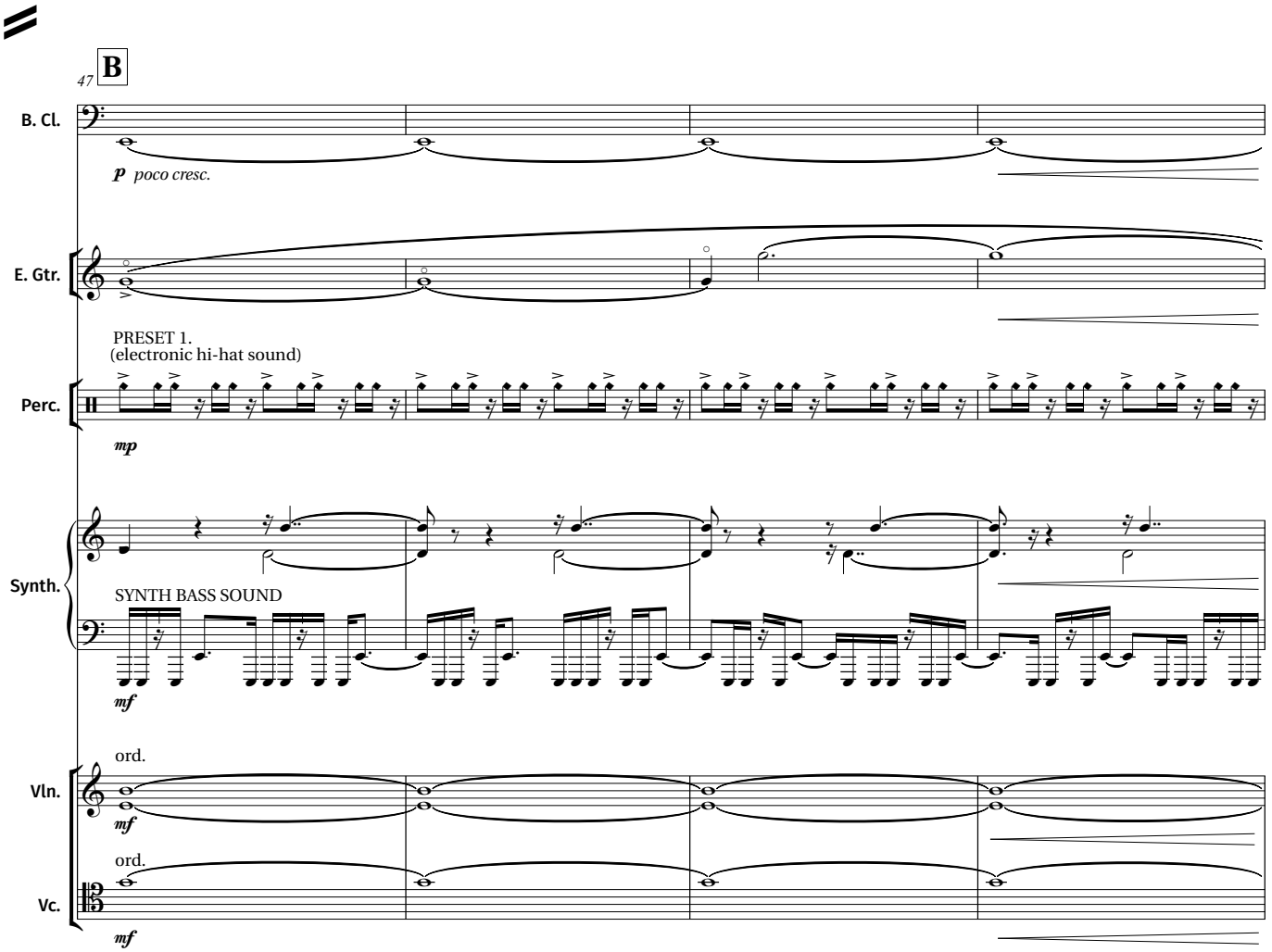


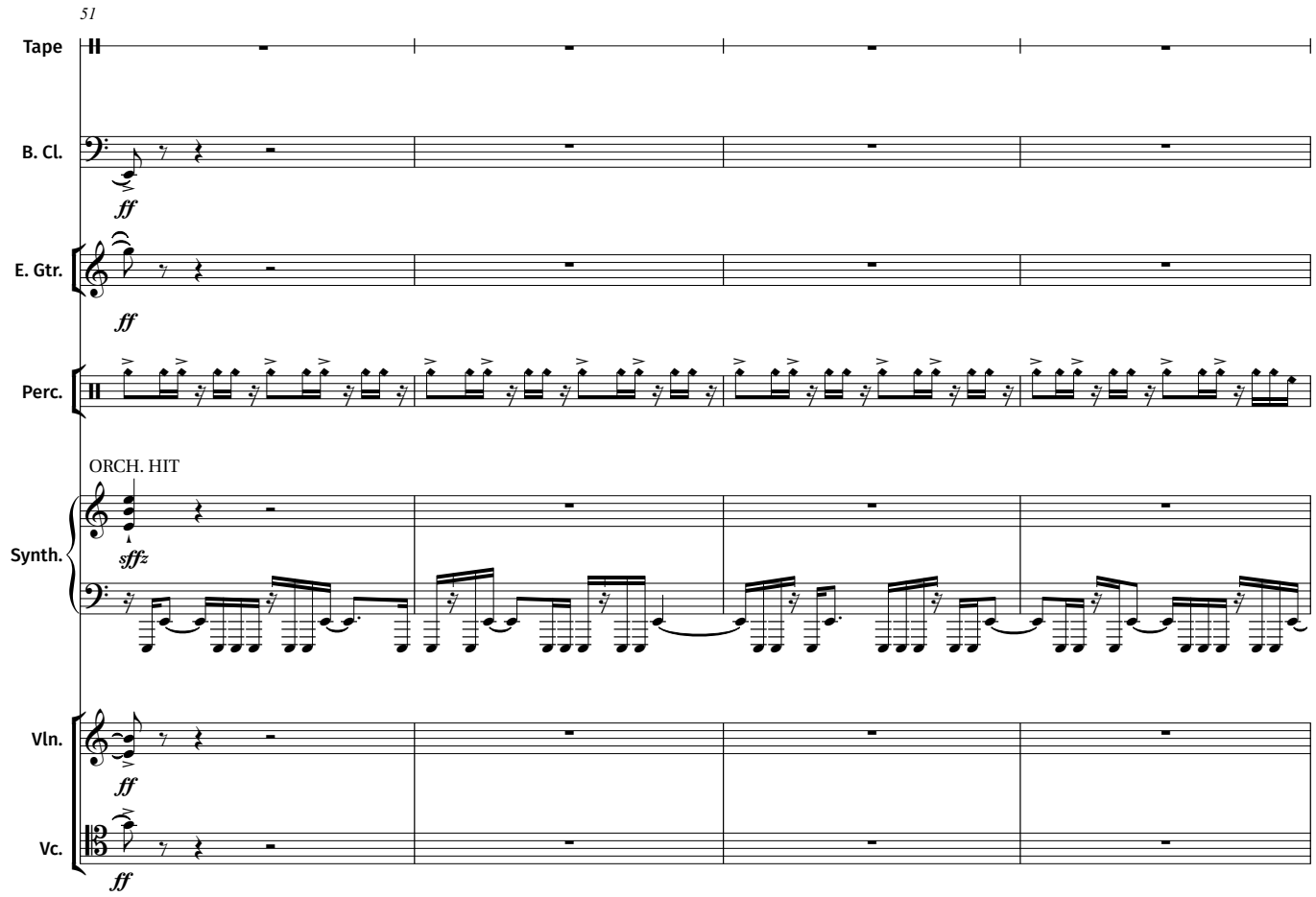
LX Q10: Lights fade to 10% over 15".

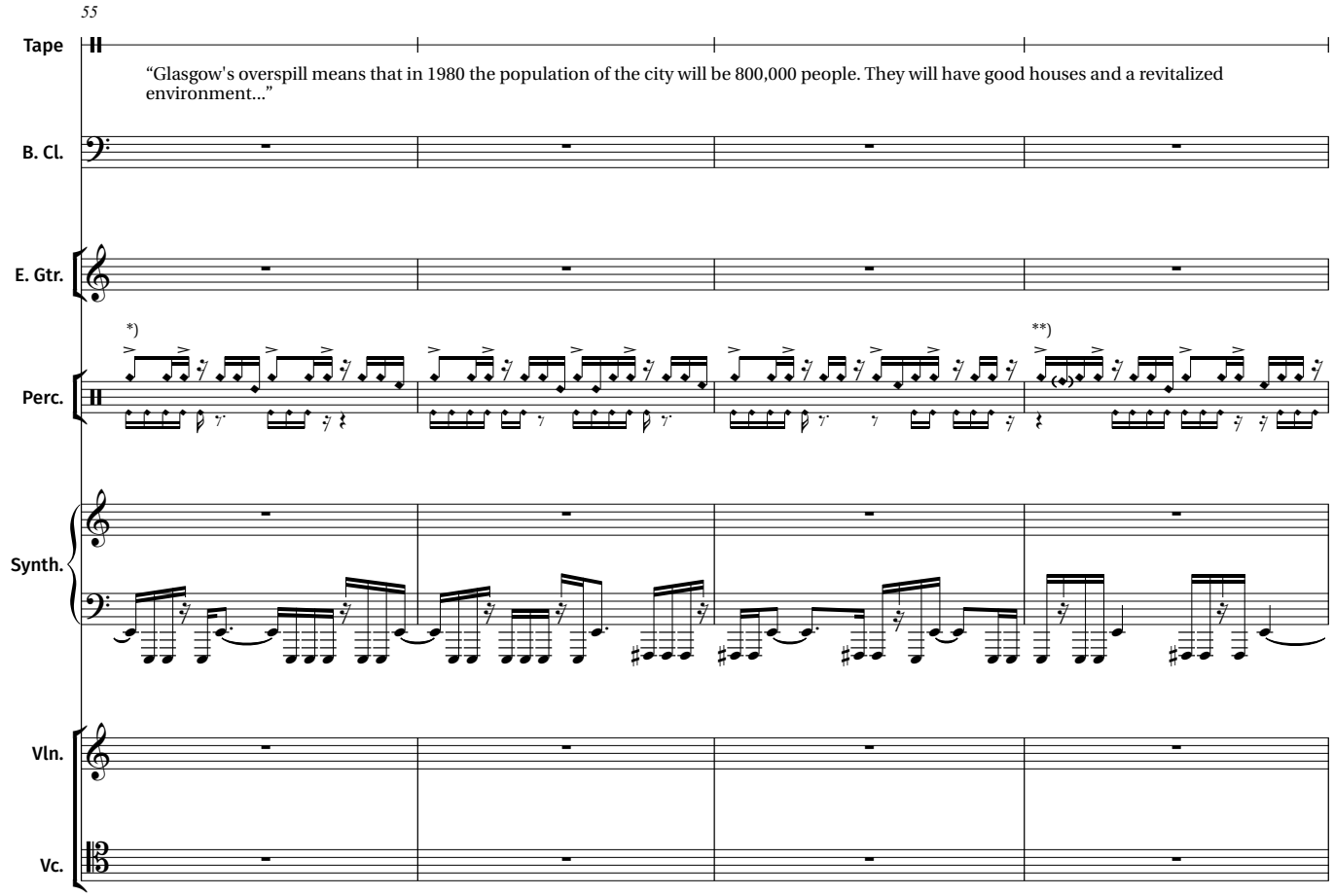



35
B. Cl.
p
f
"FEEDBACK" EFFECT
E. Gtr.
mf
p
Perc.
Synth.
molto vib.
Vln.
p
molto vib.
Vc.
p
39
B. Cl.
p
DISTORTION
w/ e-bow
E. Gtr.
f
mf
soft sticks
Perc.
p
ppp
p
ppp
Synth.
f
sub. p
poco sul tasto
Vln.
f
p
poco sul tasto
Vc.
f
p

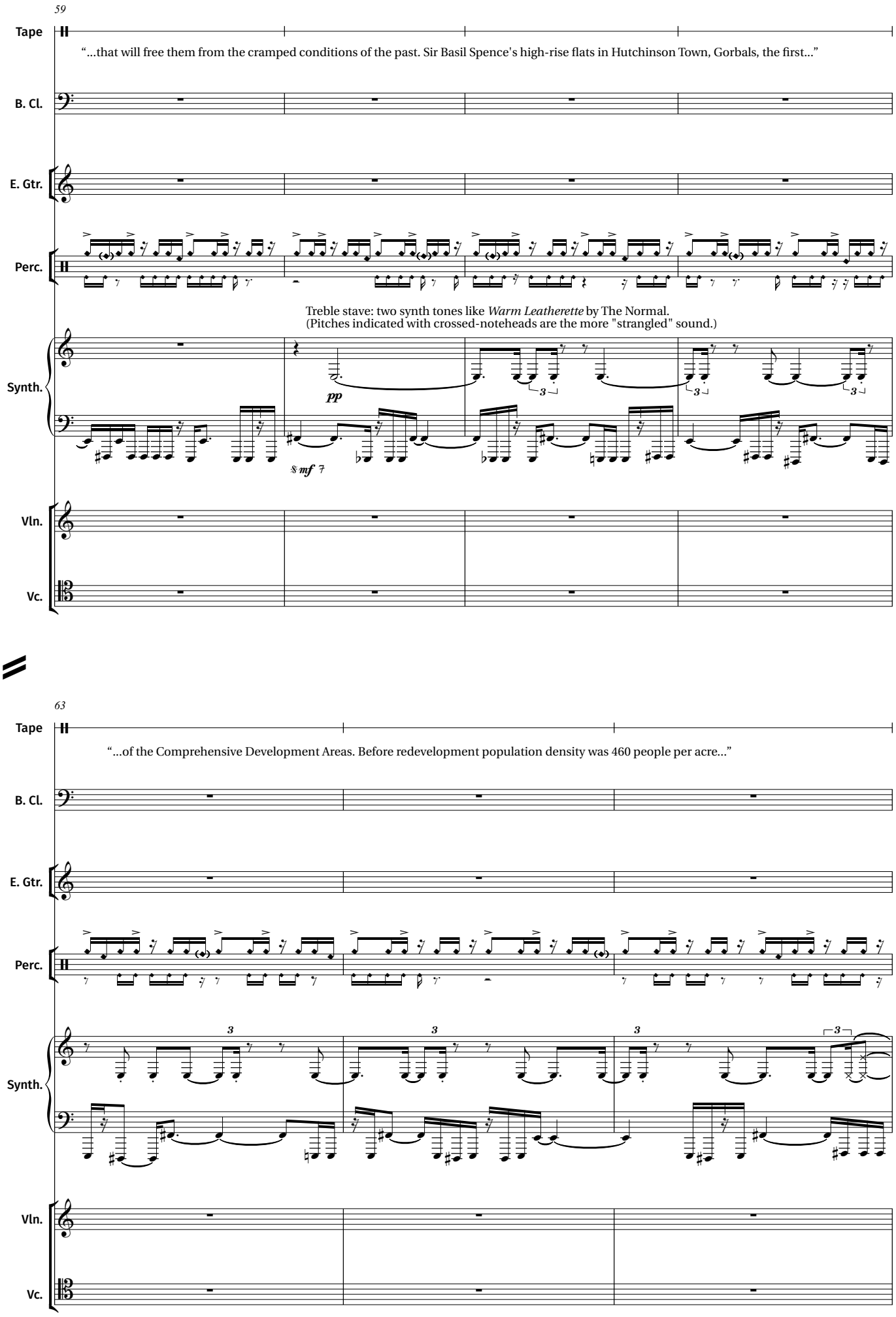

43
B. Cl.
E. Gtr.
3
Perc.
p
ppp
p
ppp
ppp p
ppp
p
Synth.
Vln.
Vc.

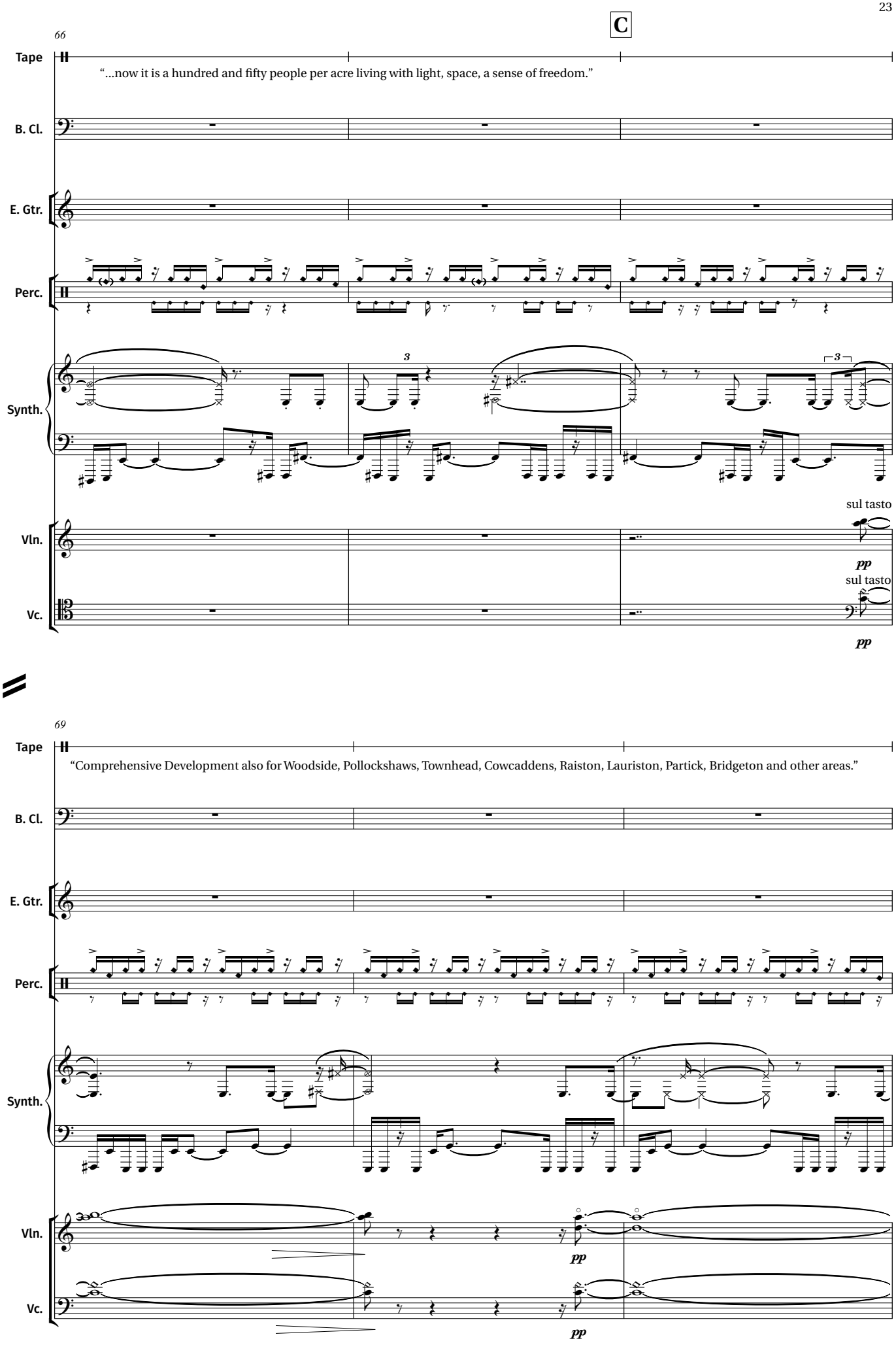

47
B
B. Cl.
p poco cresc.
E. Gtr.
PRESET 1.
(electronic hi-hat sound)
Perc.
mp
Synth.
SYNTH BASS SOUND
mf
ord.
Vln.
mf
ord.
Vc.
mf

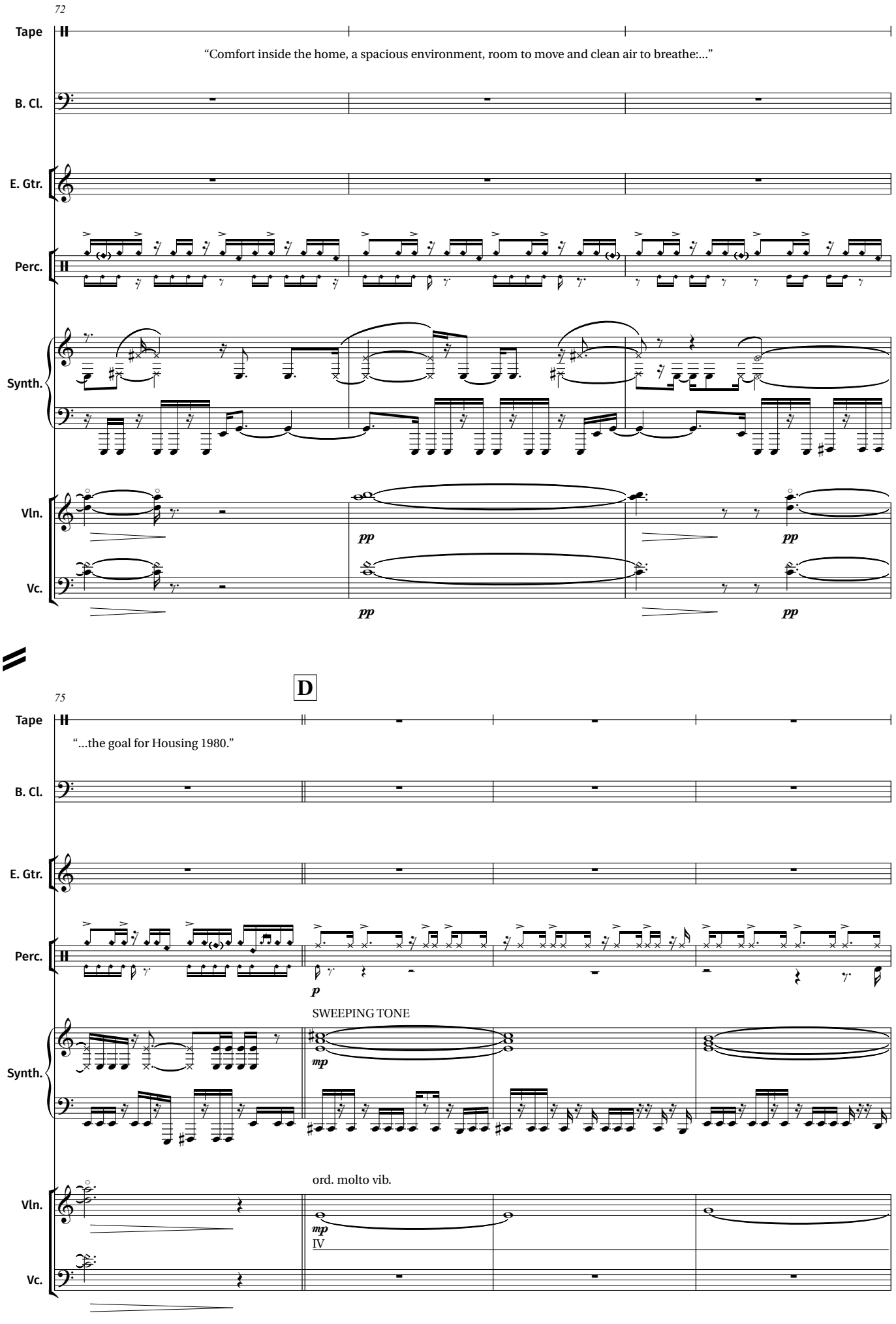


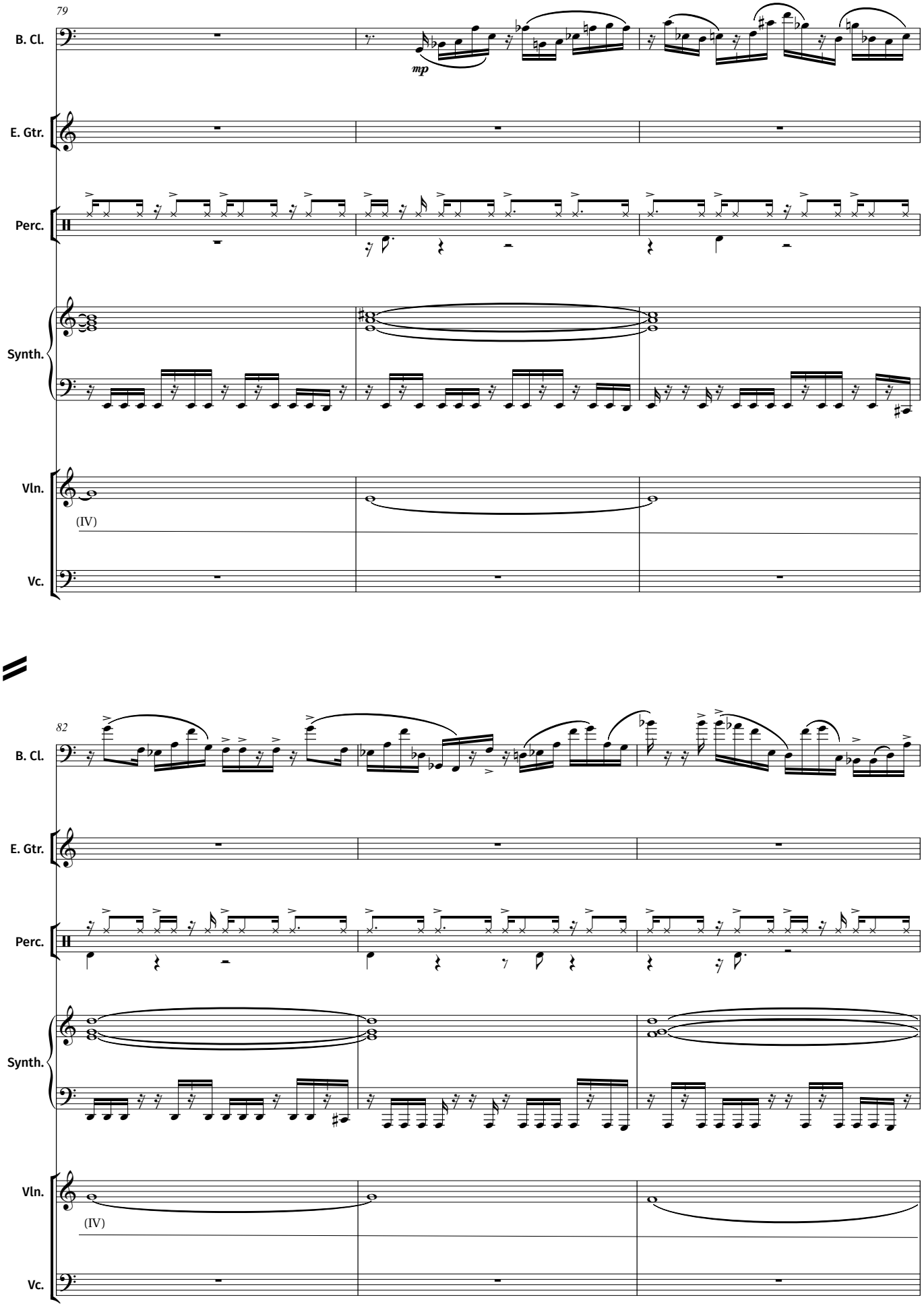


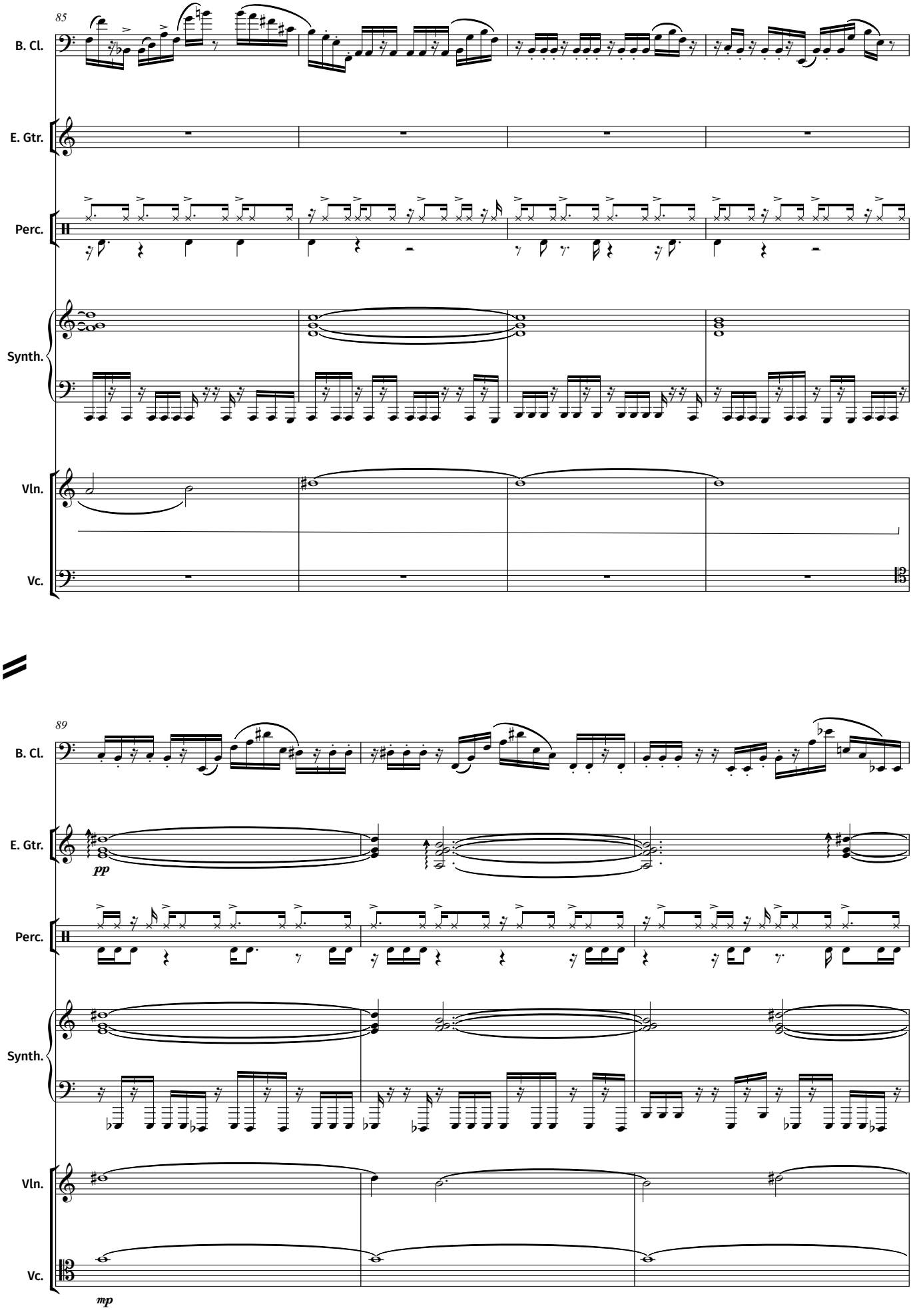
*) Small noteheads on lowest line indicate the rhythms of samples triggered on the drum machine by the player.
**) Bracketed noteheads indicate a sample that begins with a rest (i.e. there will be no immediate sound).

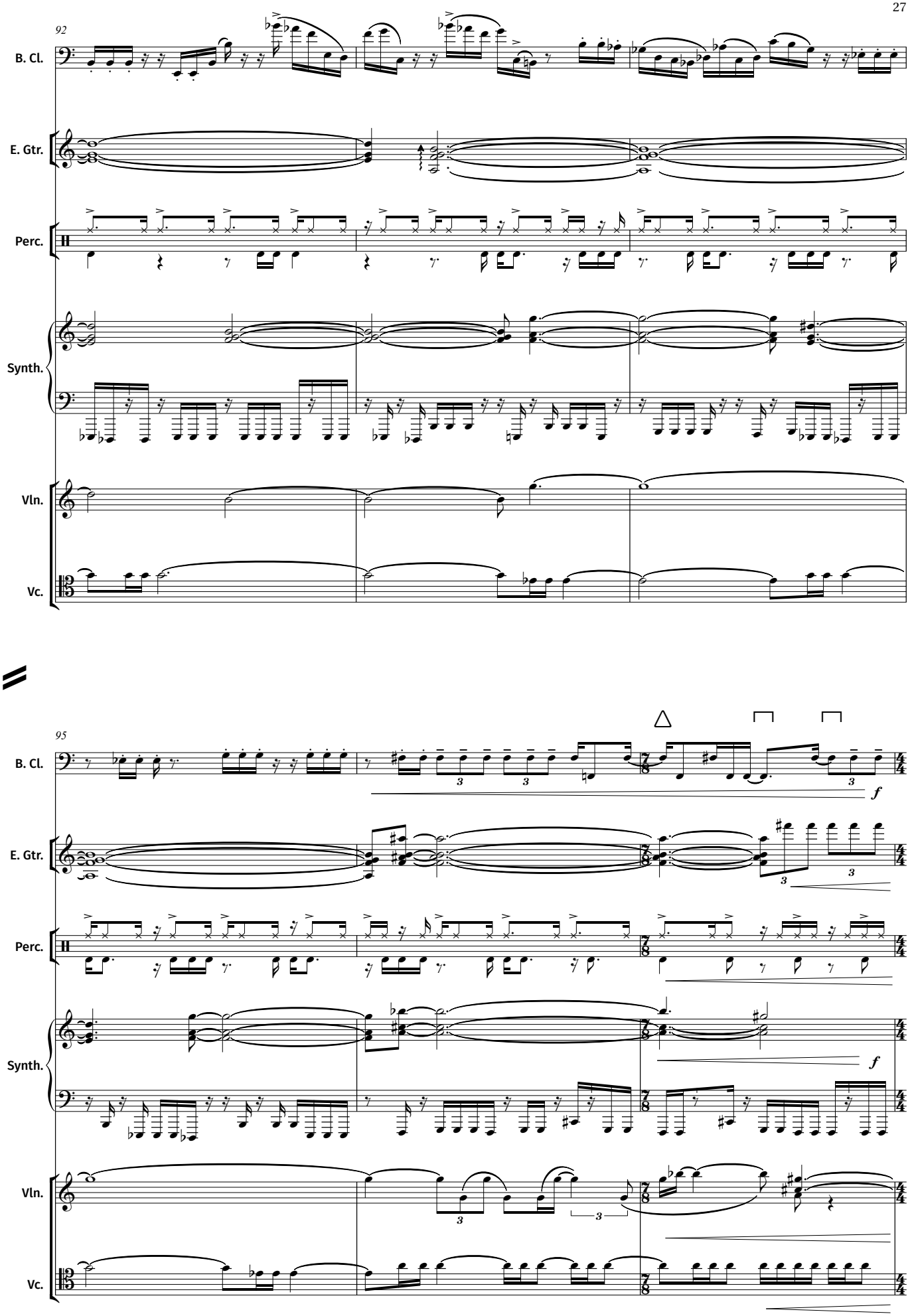

59
Tape
"...that will free them from the cramped conditions of the past. Sir Basil Spence's high-rise flats in Hutchinson Town, Gorbals, the first..."
B. Cl.
E. Gtr.
Perc.
Treble stave: two synth tones like *Warm Leatherette* by The Normal.
(Pitches indicated with crossed-noteheads are the more "strangled" sound.)
Synth.
pp
8 mf
Vln.
Vc.
63
Tape
"...of the Comprehensive Development Areas. Before redevelopment population density was 460 people per acre..."
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.

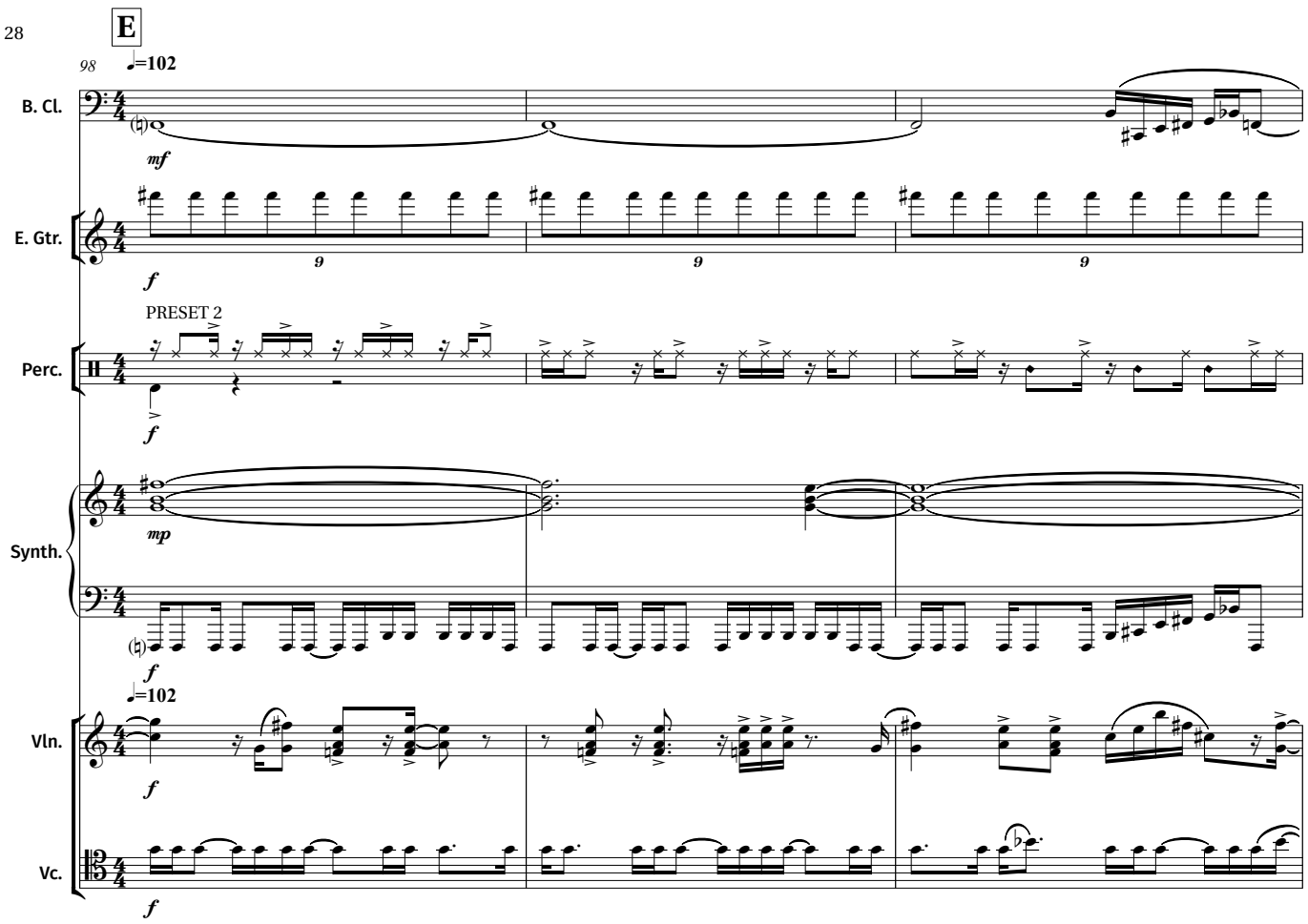

C
66
Tape
"...now it is a hundred and fifty people per acre living with light, space, a sense of freedom."
B. Cl.
E. Gtr.
Perc.
Synth.
3
3
Vln.
sul tasto
pp
Vc.
sul tasto
pp
69
Tape
"Comprehensive Development also for Woodside, Pollockshaws, Townhead, Cowcaddens, Raiston, Lauriston, Partick, Bridgeton and other areas."
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
pp
Vc.
pp

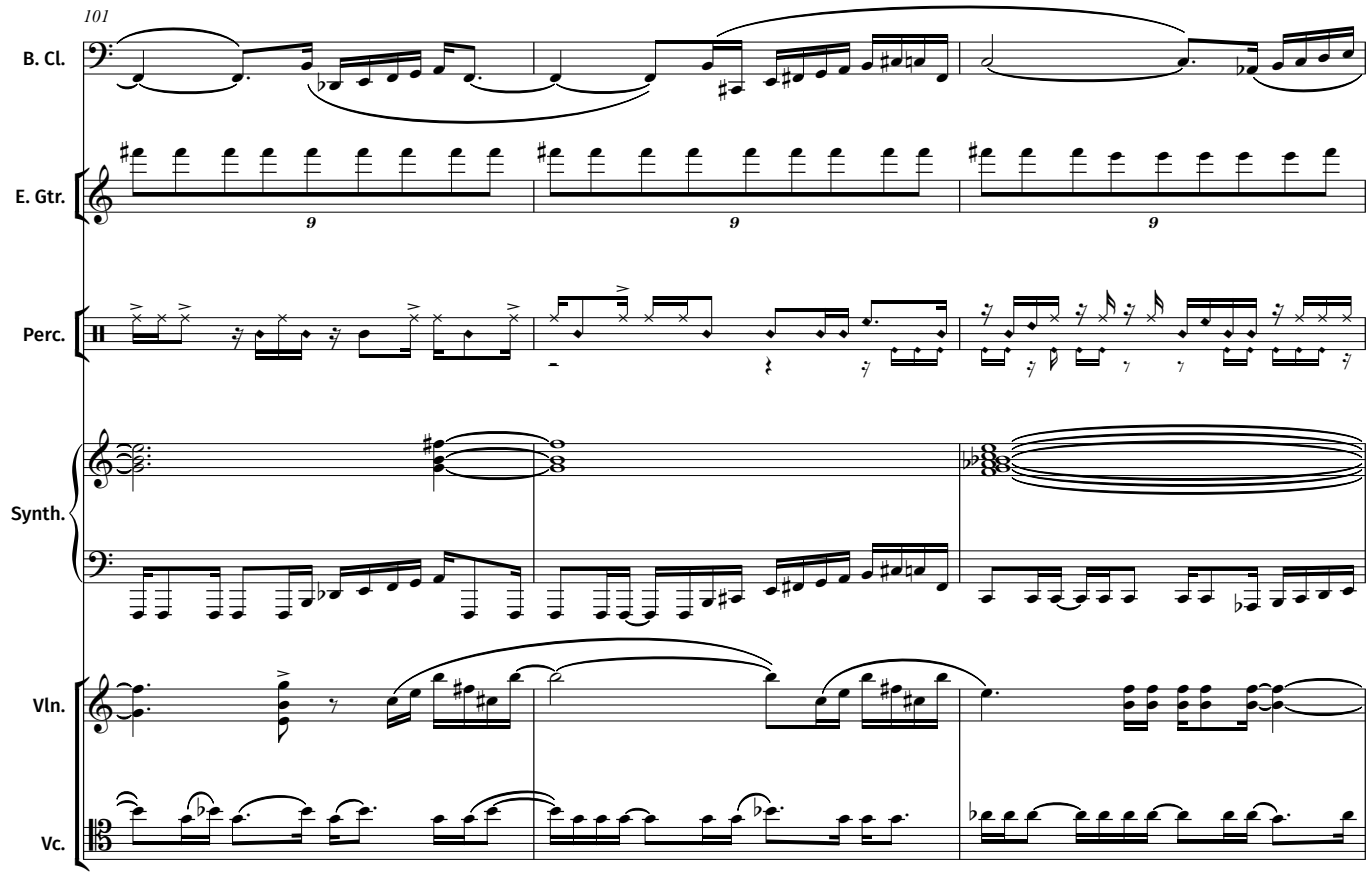

72
Tape
"Comfort inside the home, a spacious environment, room to move and clean air to breathe:..."
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
pp
pp
pp
pp
D
75
Tape
"...the goal for Housing 1980."
B. Cl.
E. Gtr.
Perc.
p
SWEEPING TONE
Synth.
mp
ord. molto vib.
Vln.
mp
IV
Vc.

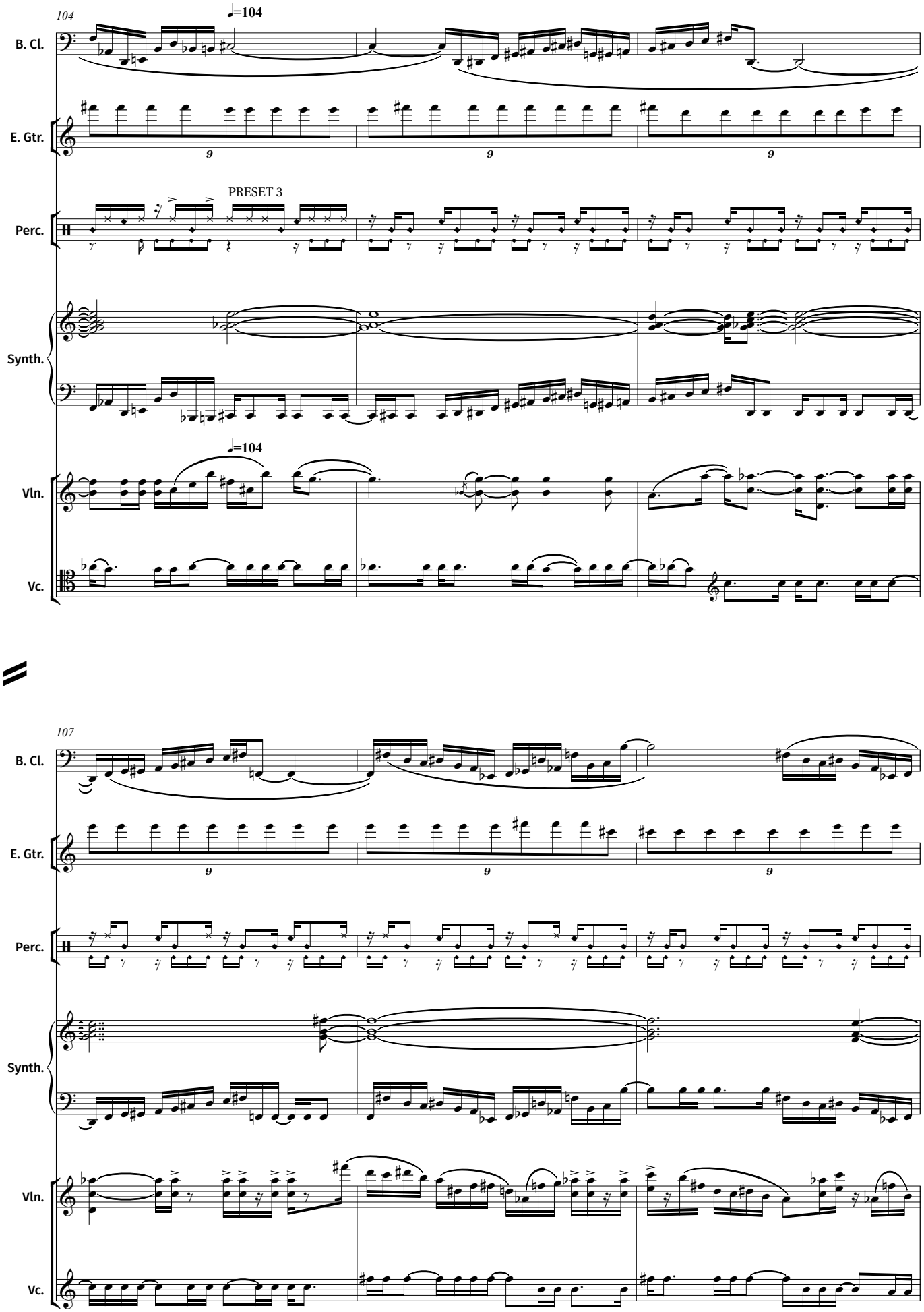

79
B. Cl.
mp
E. Gtr.
Perc.
Synth.
Vln.
(IV)
Vc.
82
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
(IV)
Vc.

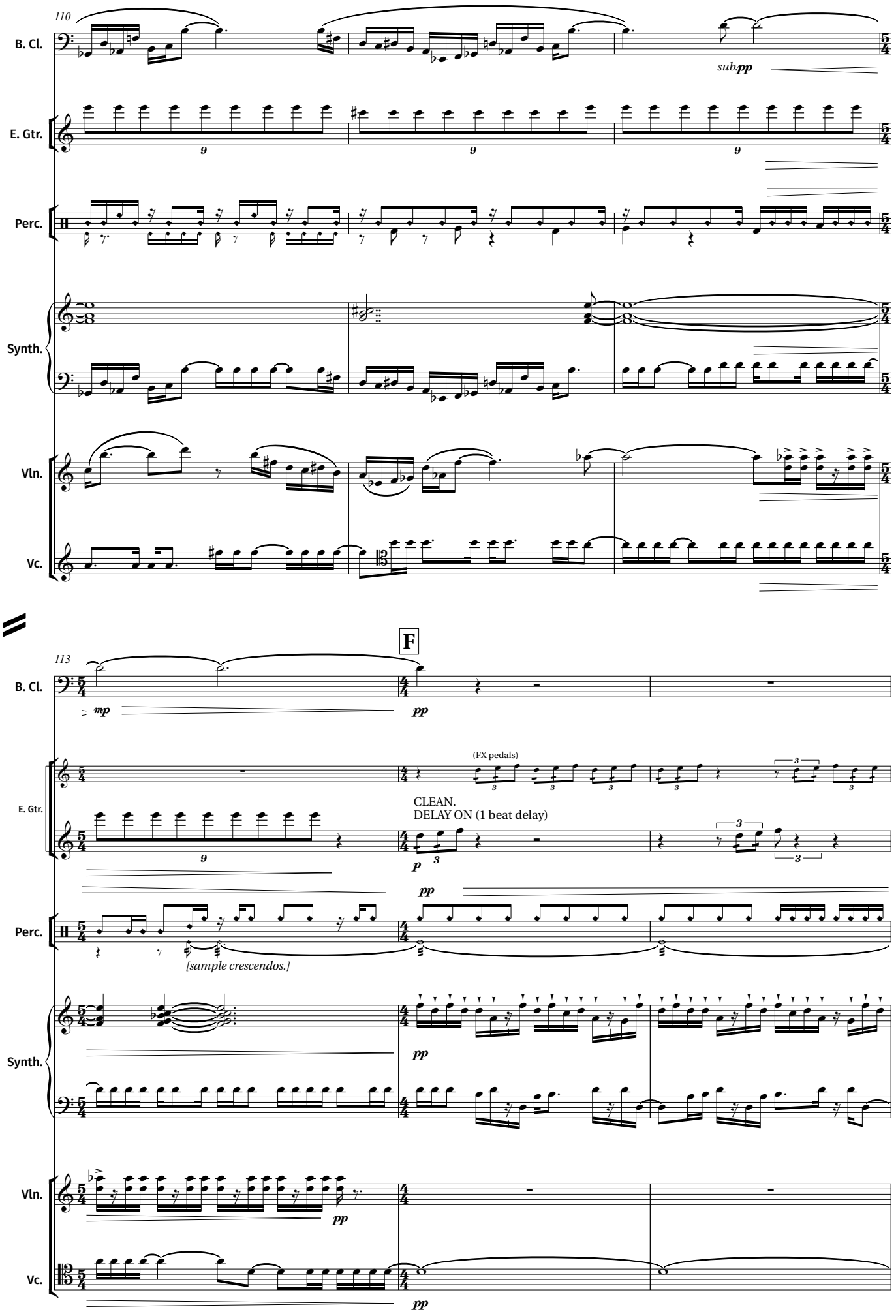

85
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
89
B. Cl.
E. Gtr.
pp
Perc.
Synth.
Vln.
Vc.
mp

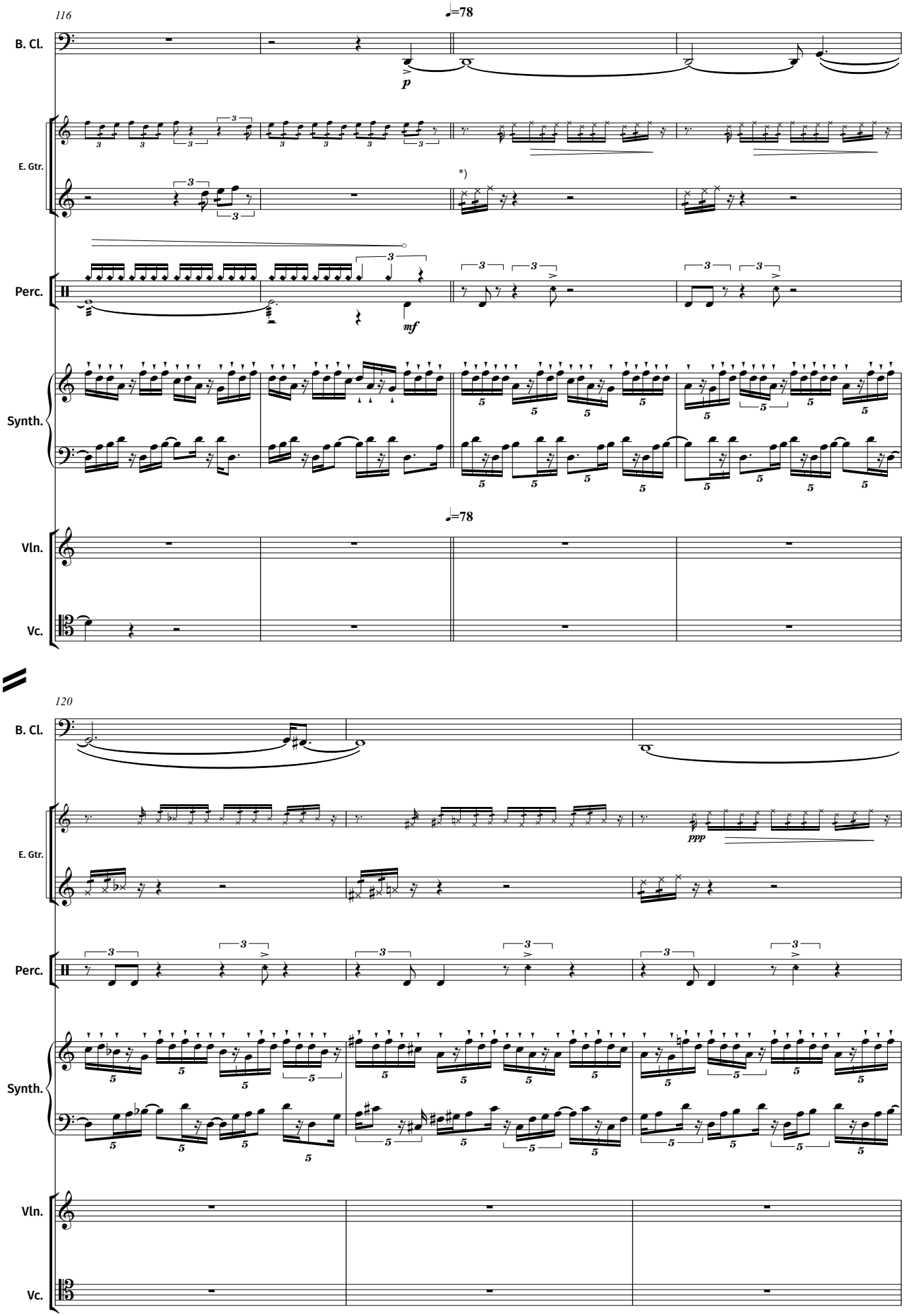

92
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
95
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
f
f


E
98
♩=102
B. Cl.
mf
E. Gtr.
f
PRESET 2
Perc.
f
Synth.
mp
f
♩=102
Vln.
f
Vc.
f

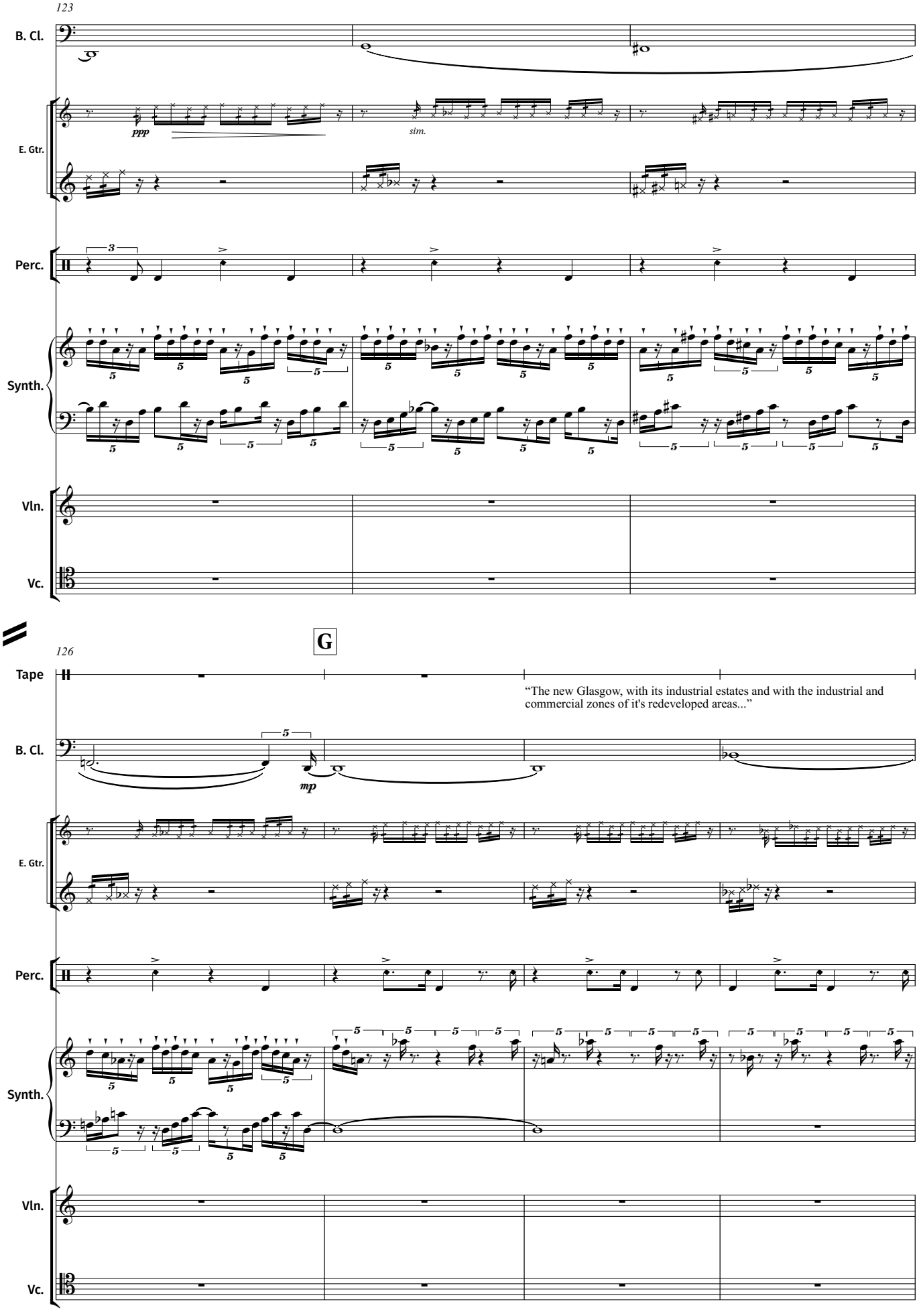

101
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.

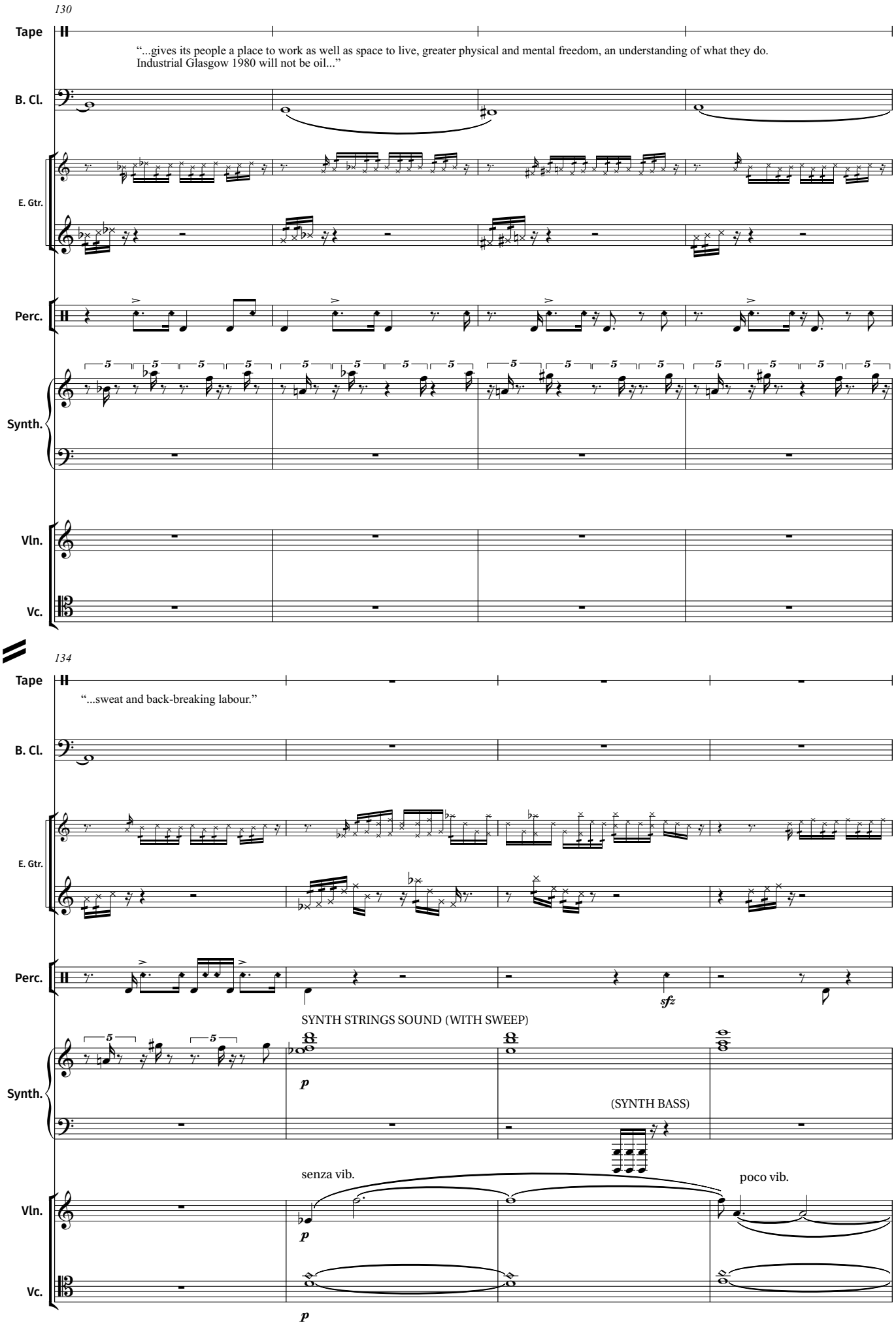

104
♩=104
B. Cl.
E. Gtr.
9
9
9
PRESET 3
Perc.
Synth.
♩=104
Vln.
Vc.
107
B. Cl.
E. Gtr.
9
9
9
Perc.
Synth.
Vln.
Vc.

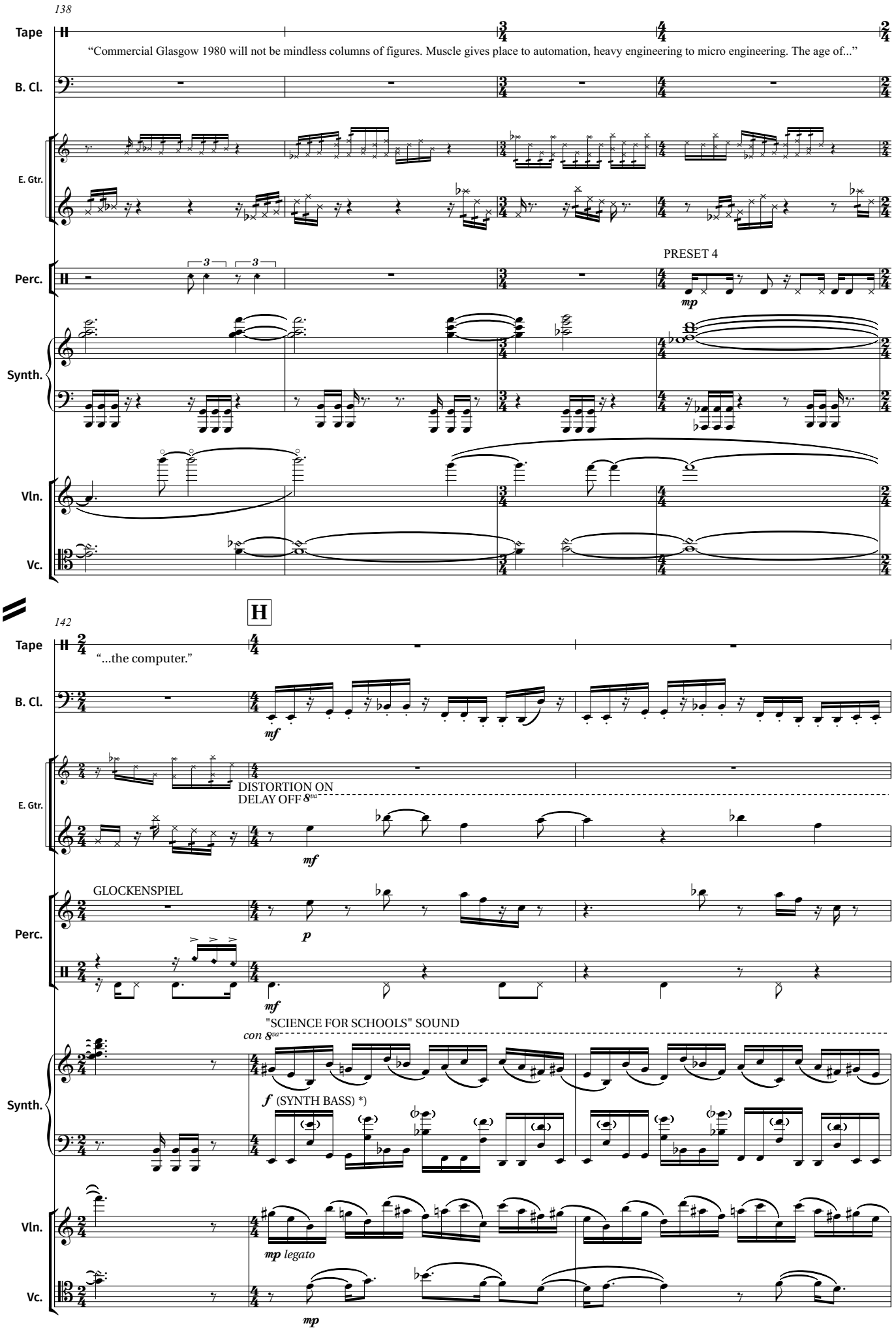

110
B. Cl.
sub.pp
E. Gtr.
Perc.
Synth.
Vln.
Vc.
F
113
mp
pp
(FX pedals)
CLEAN.
DELAY ON (1 beat delay)
[sample crescendos.]



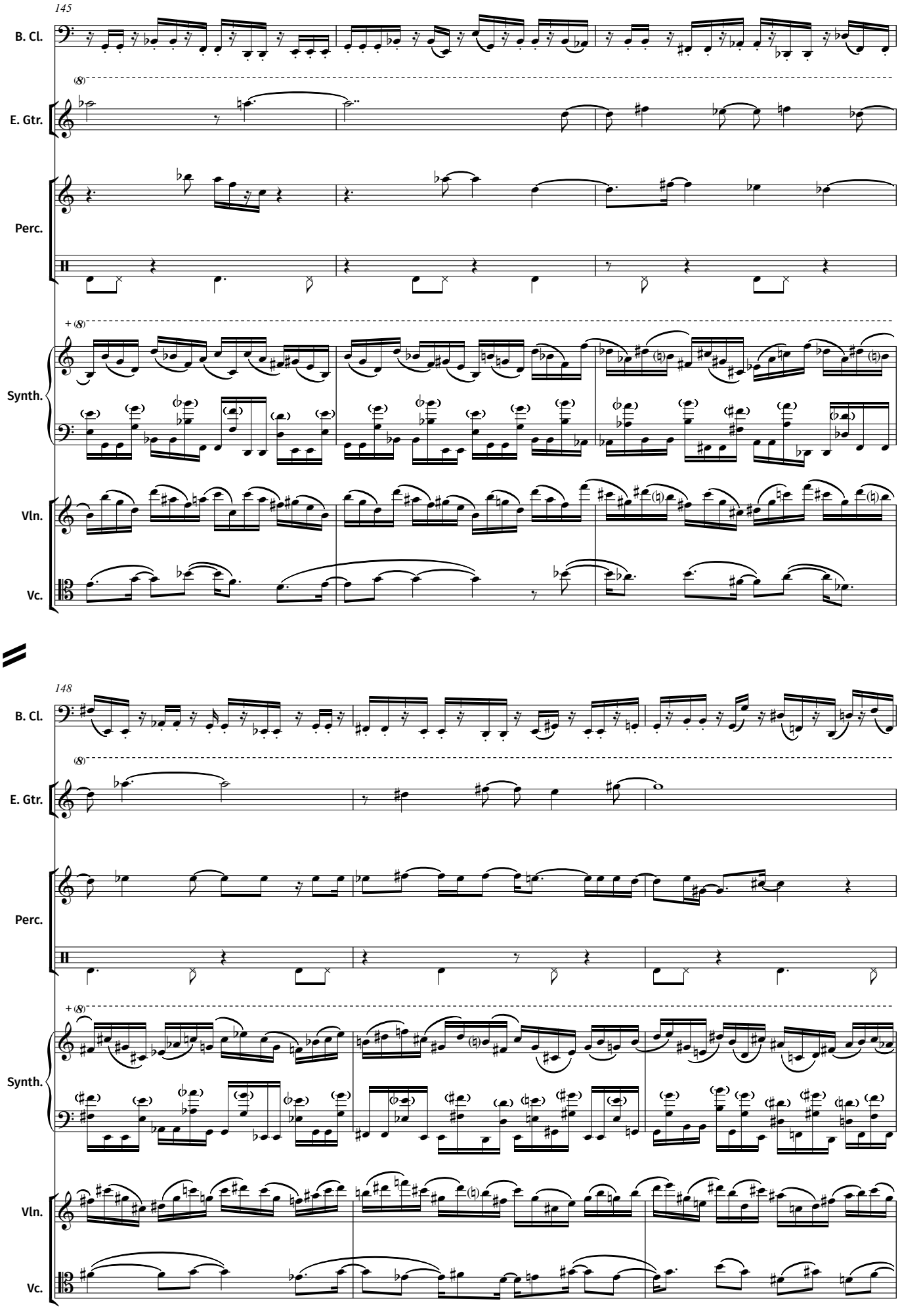
*) Crossed noteheads (electric guitar) indicate palm-muting.

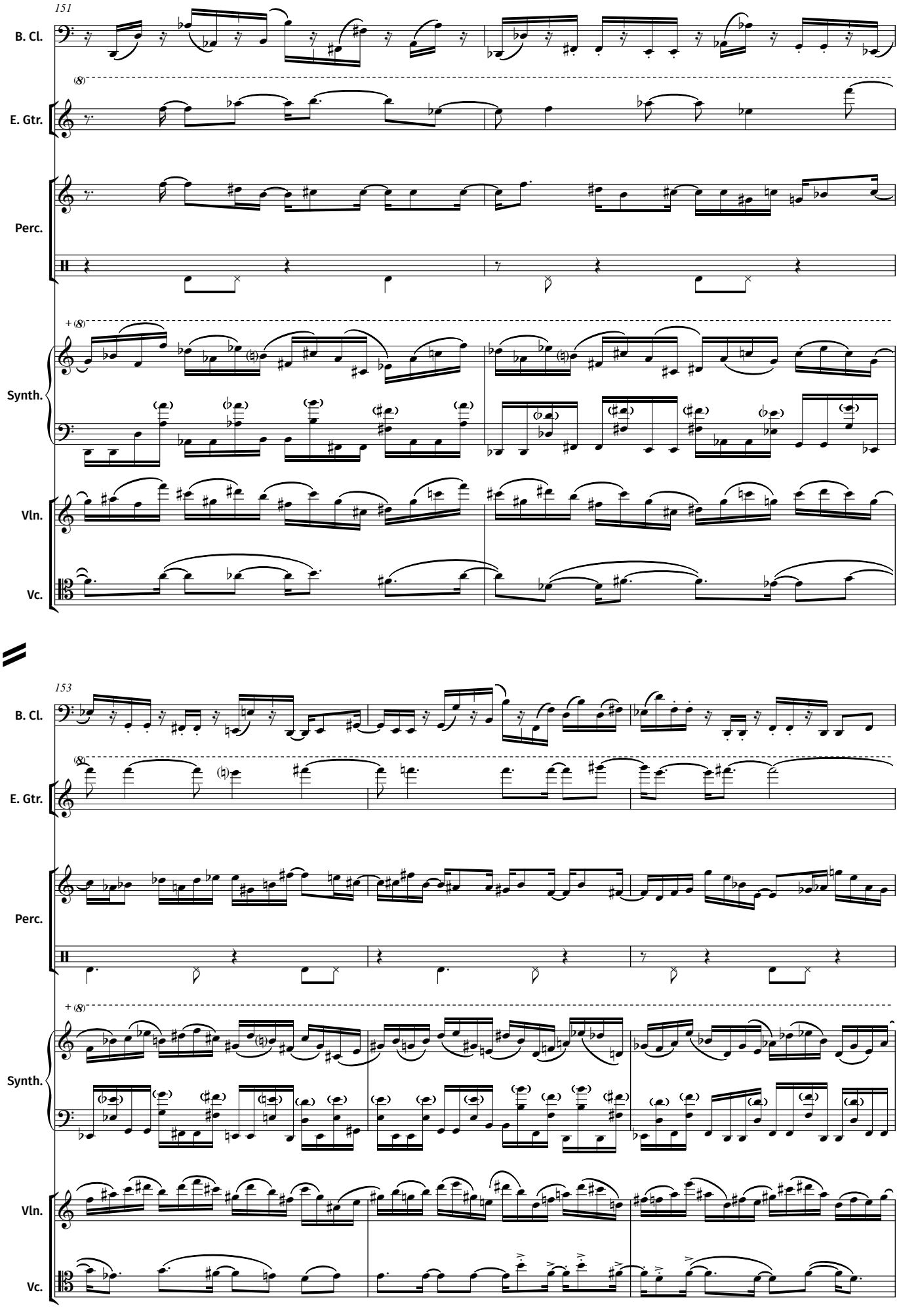

123
B. Cl.
E. Gtr.
ppp
sim.
Perc.
Synth.
Vln.
Vc.
G
126
Tape
"The new Glasgow, with its industrial estates and with the industrial and commercial zones of it's redeveloped areas..."
mp

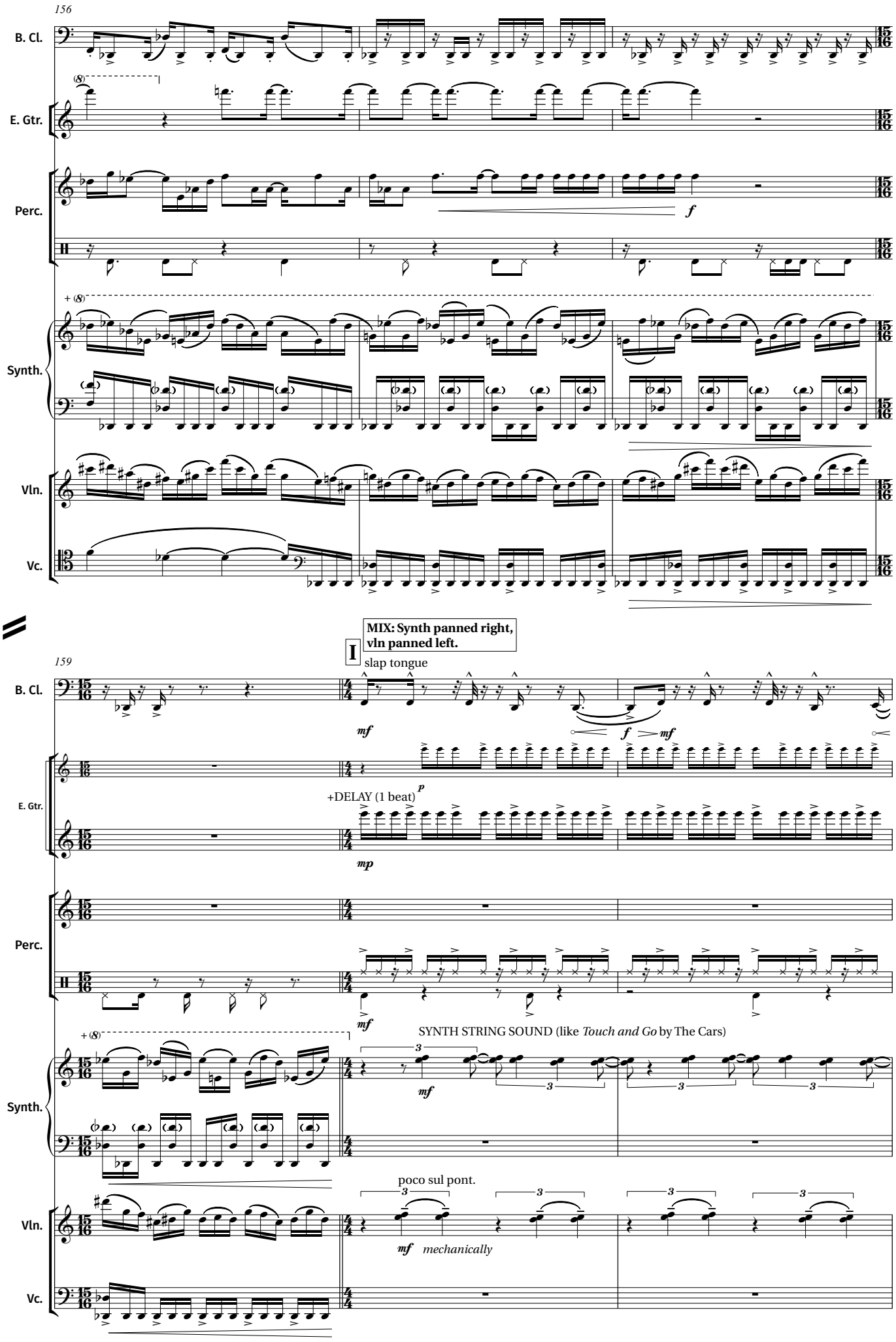

130
Tape
"...gives its people a place to work as well as space to live, greater physical and mental freedom, an understanding of what they do.
Industrial Glasgow 1980 will not be oil..."
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
134
Tape
"...sweat and back-breaking labour."
B. Cl.
E. Gtr.
Perc.
sfz
SYNTH STRINGS SOUND (WITH SWEEP)
Synth.
p
(SYNTH BASS)
senza vib.
poco vib.
Vln.
p
Vc.
p

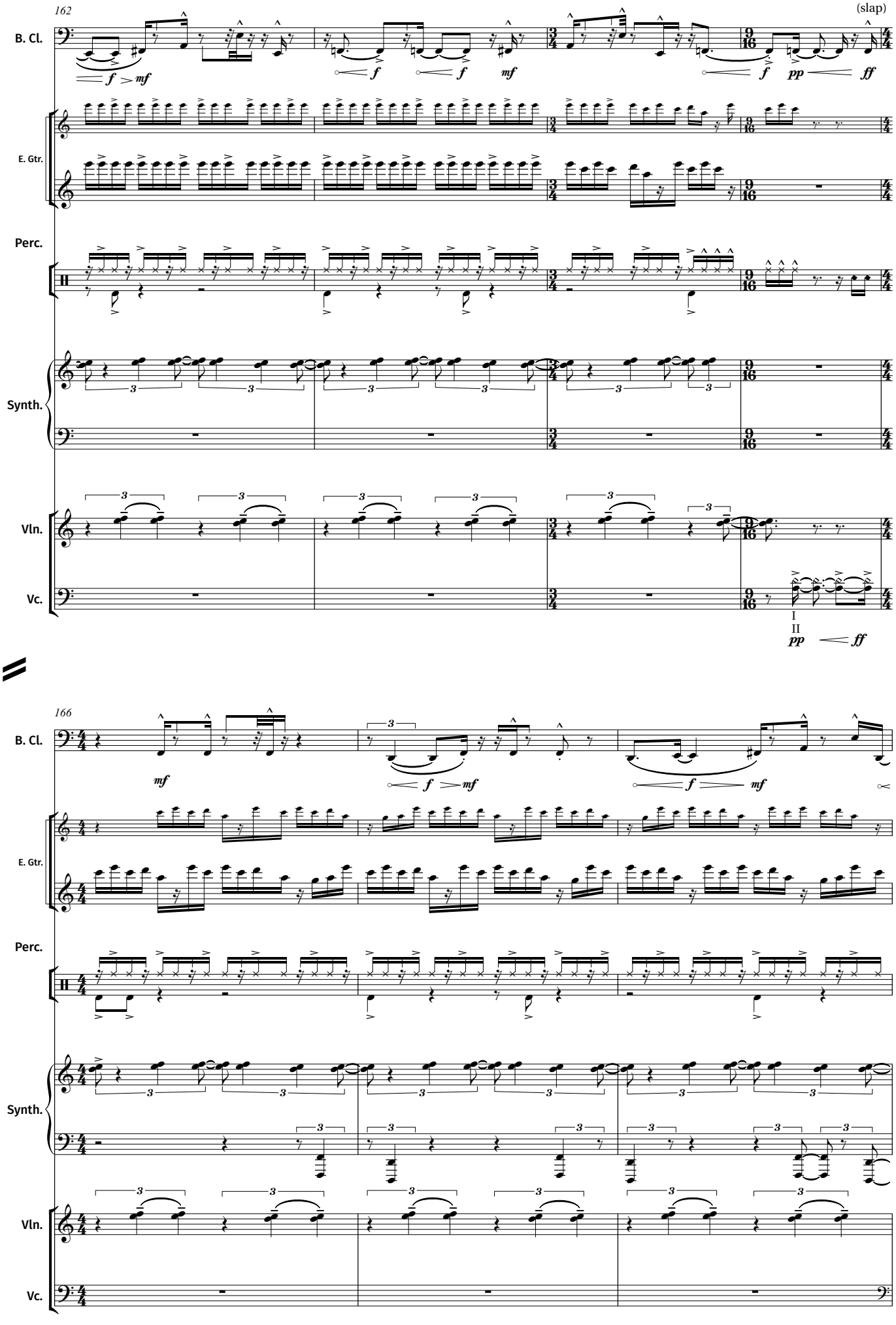


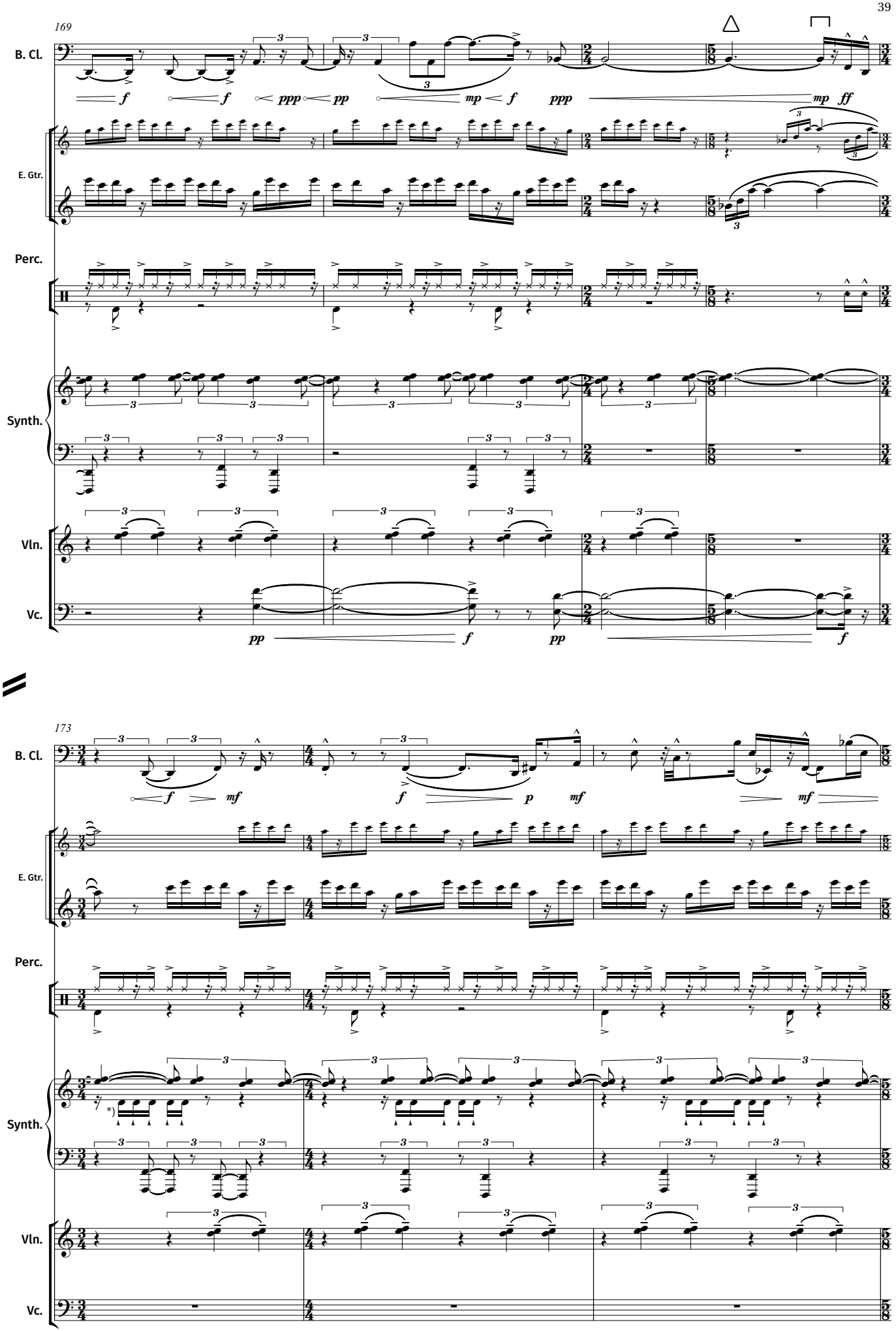
*) The synthesizer should be programmed to play the *con 8va* (treble stave) automatically and sound the bracketed notes (bass clef) when the lower note is played.


145
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
148
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.

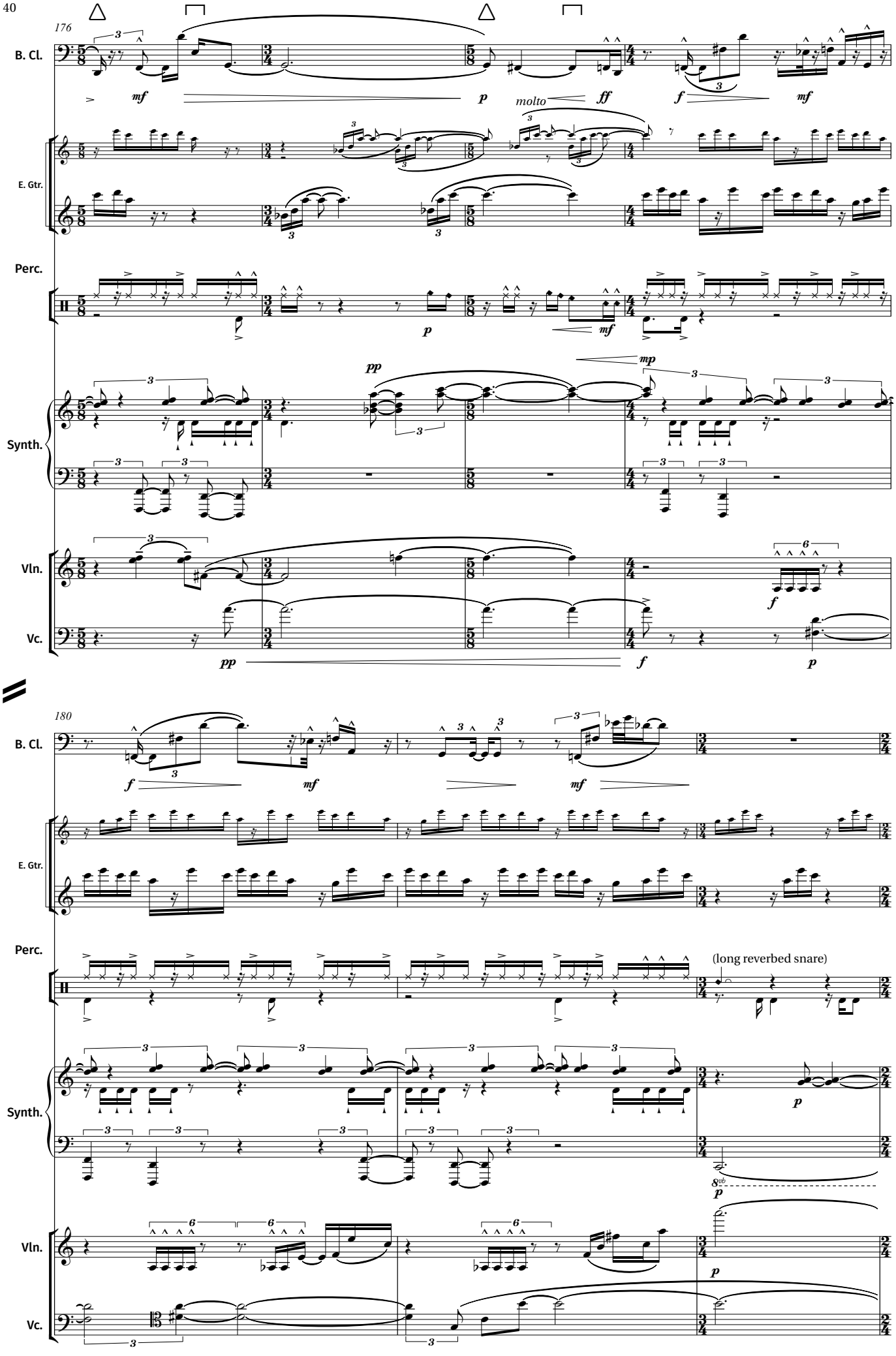

151
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
153
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.

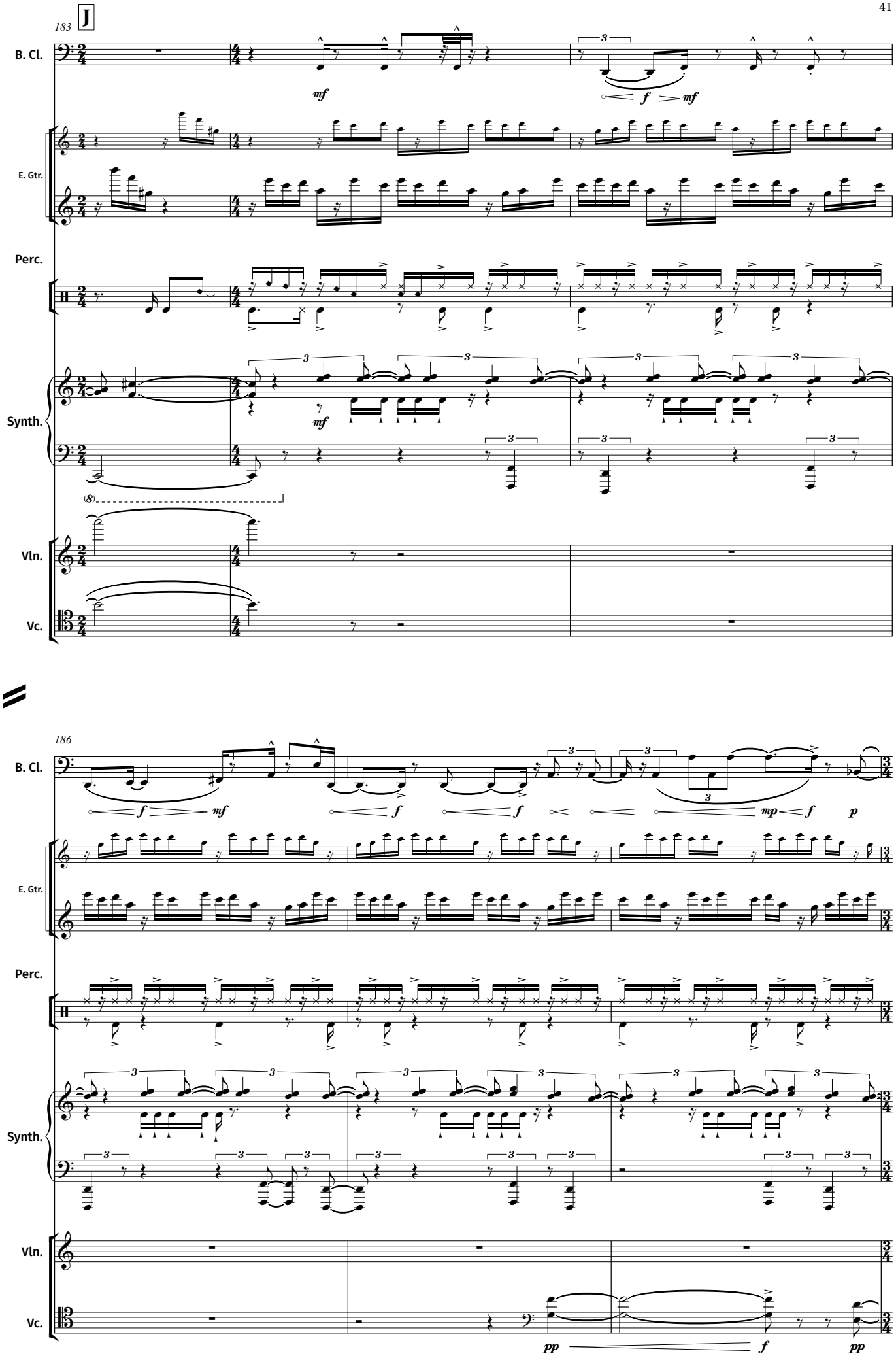

156
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
(8)
+ (8)
f
MIX: Synth panned right, vln panned left.
I
159
slap tongue
mf
f
mf
p
+DELAY (1 beat)
mp
SYNTH STRING SOUND (like Touch and Go by The Cars)
poco sul pont.
mechanically

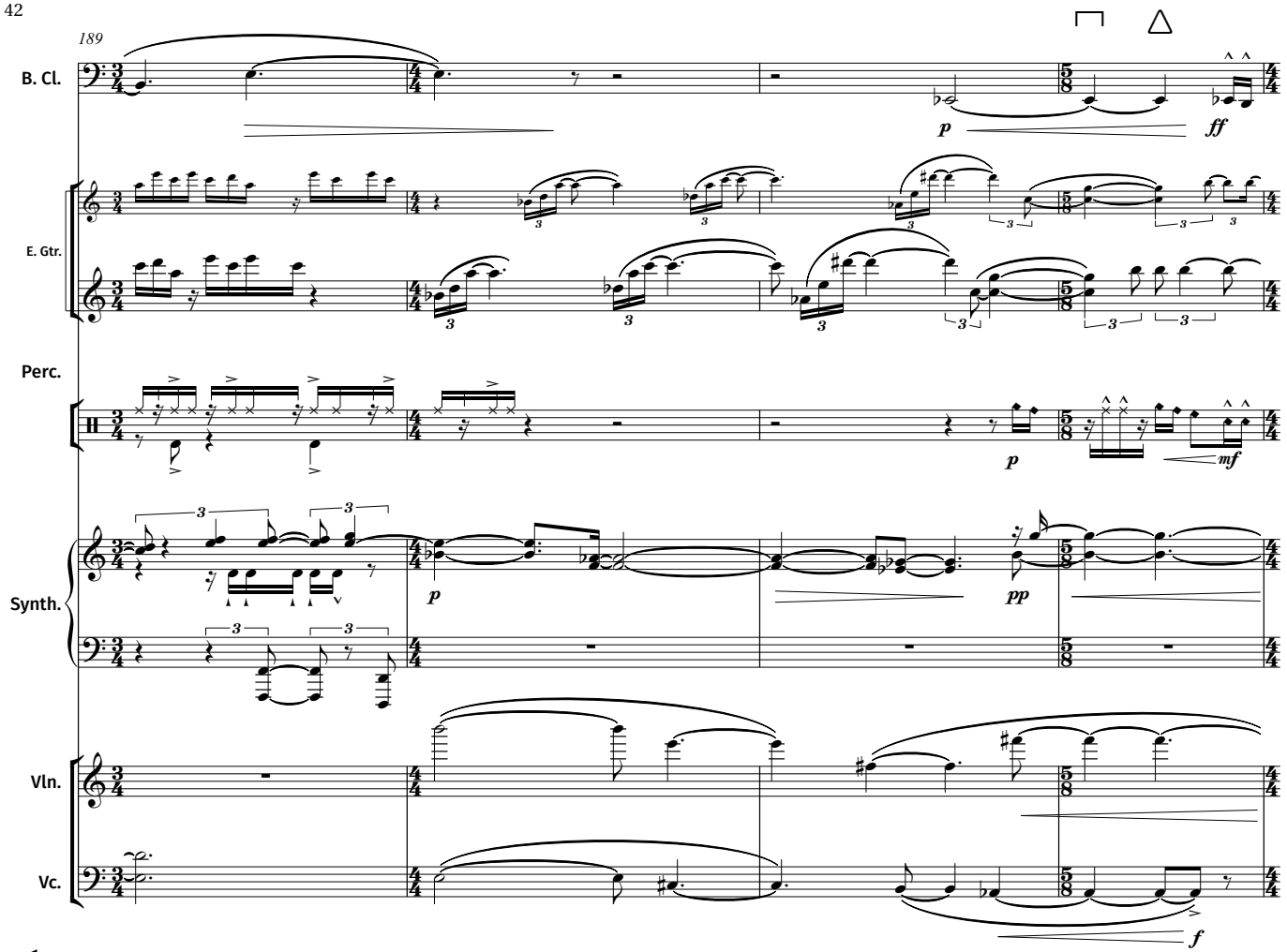

162
(slap)
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
I
II
166

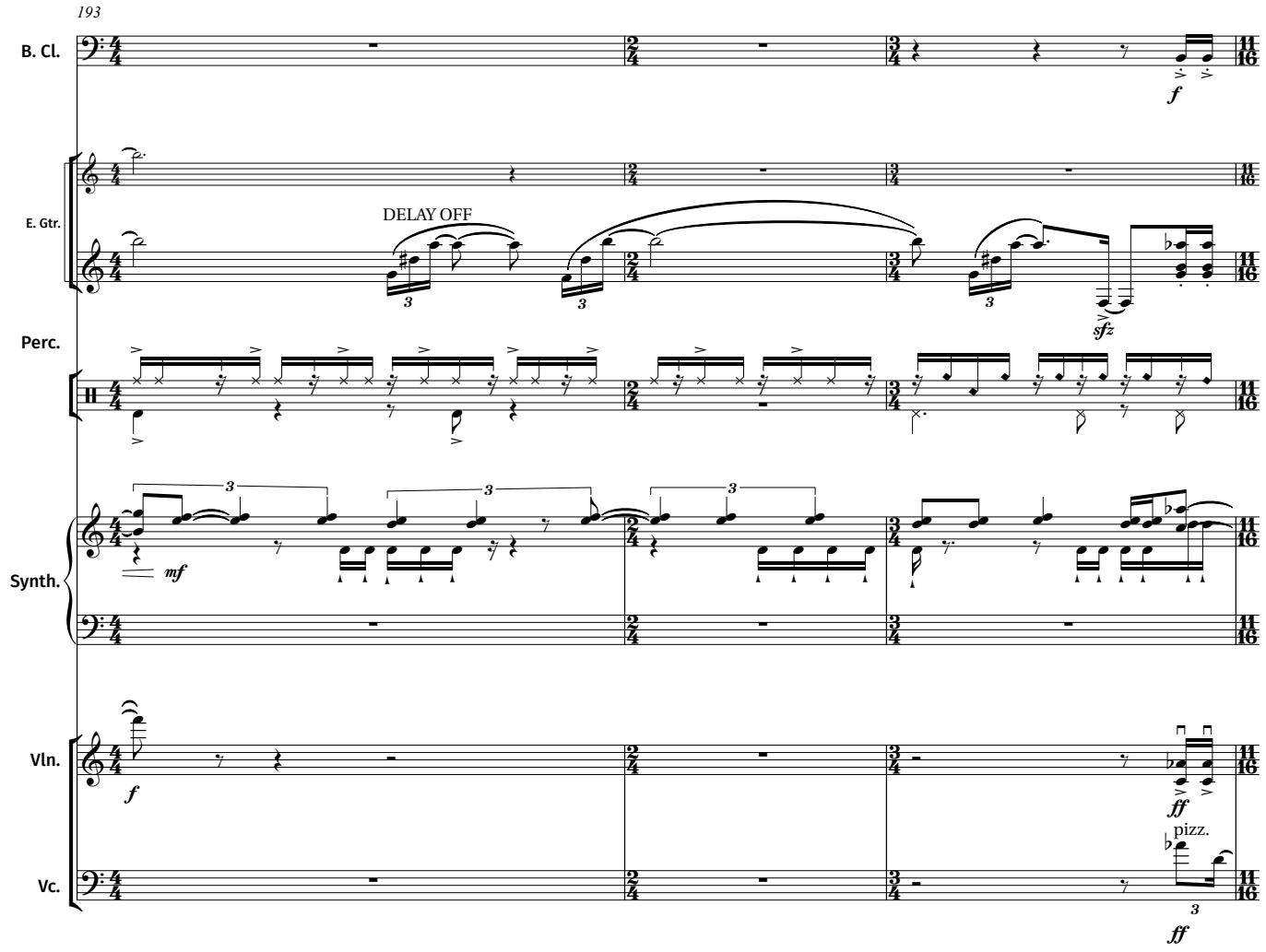


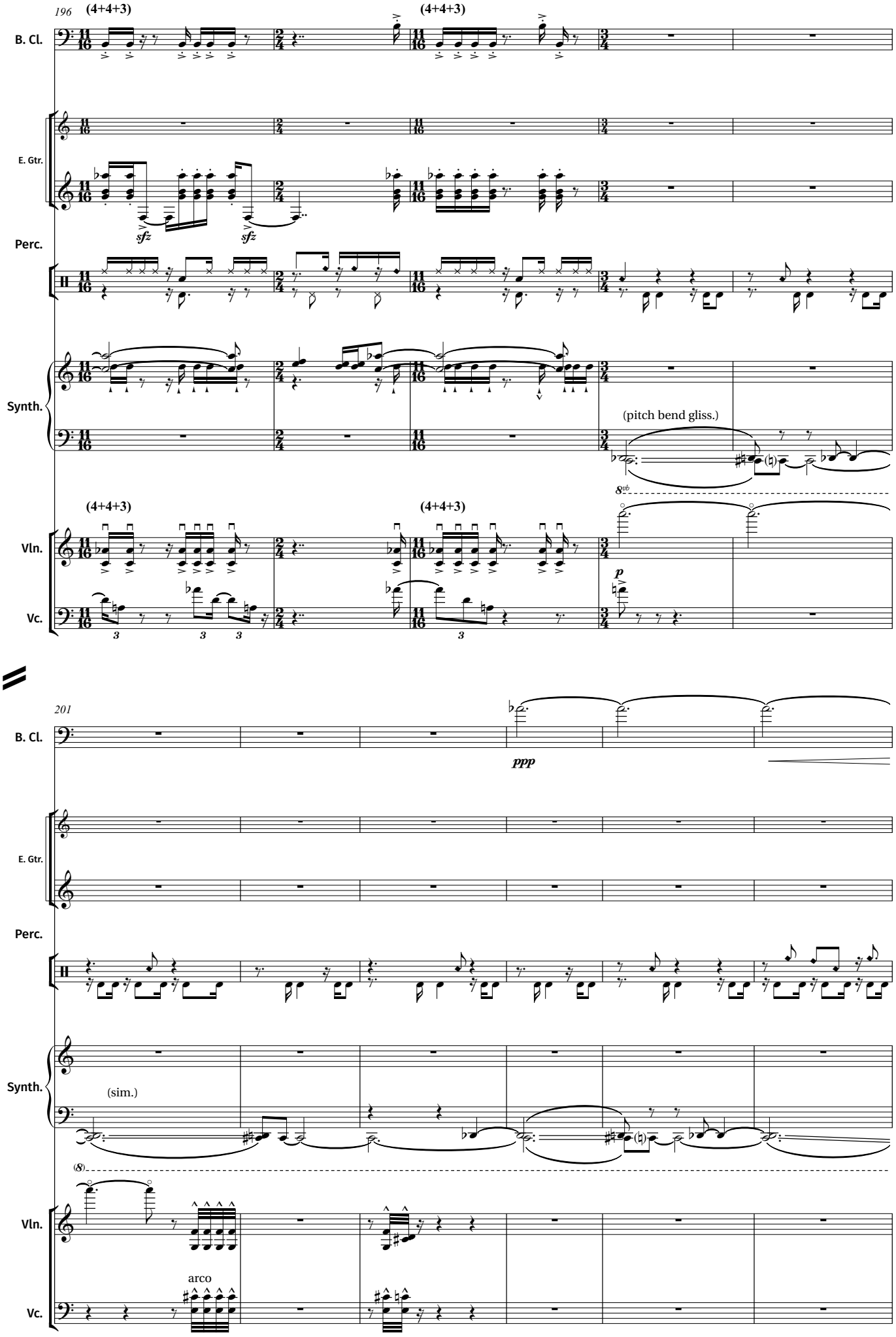
*) The synth should be programmed in order to play this pitch with a key that is in reach of the right hand.

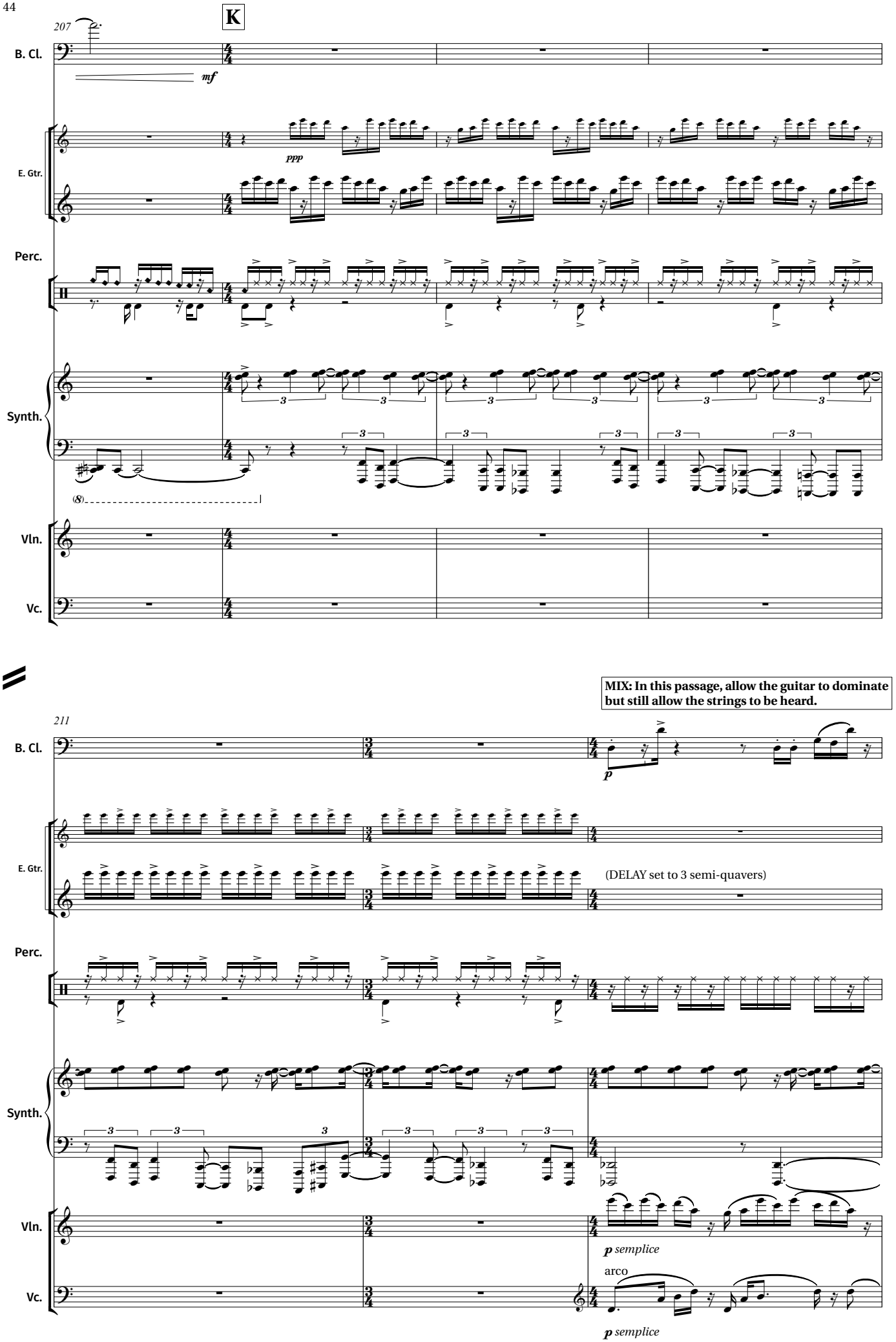

176
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
molto
180
(long reverbed snare)

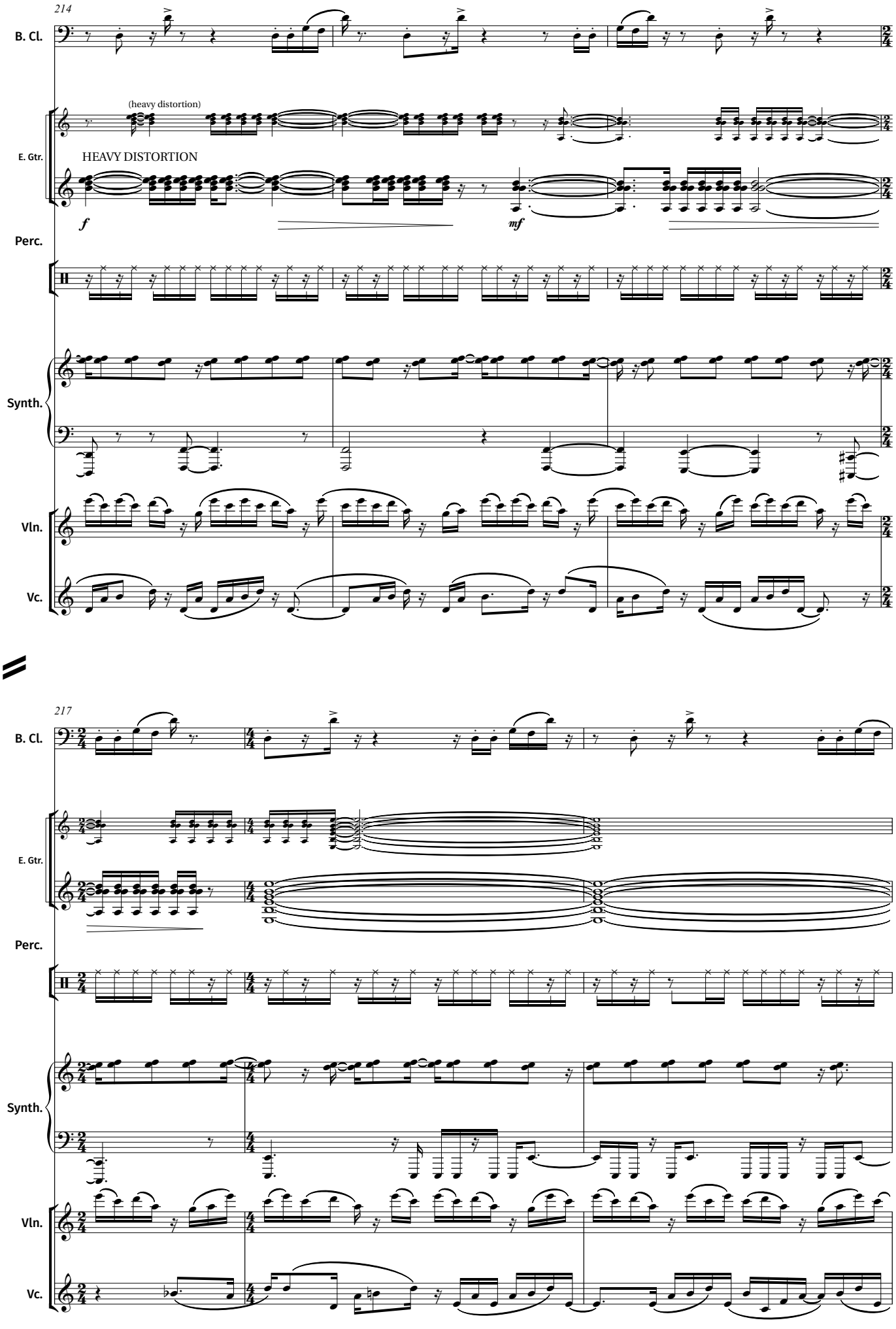

183
J
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
mf
f
mf
186
mp
p
pp

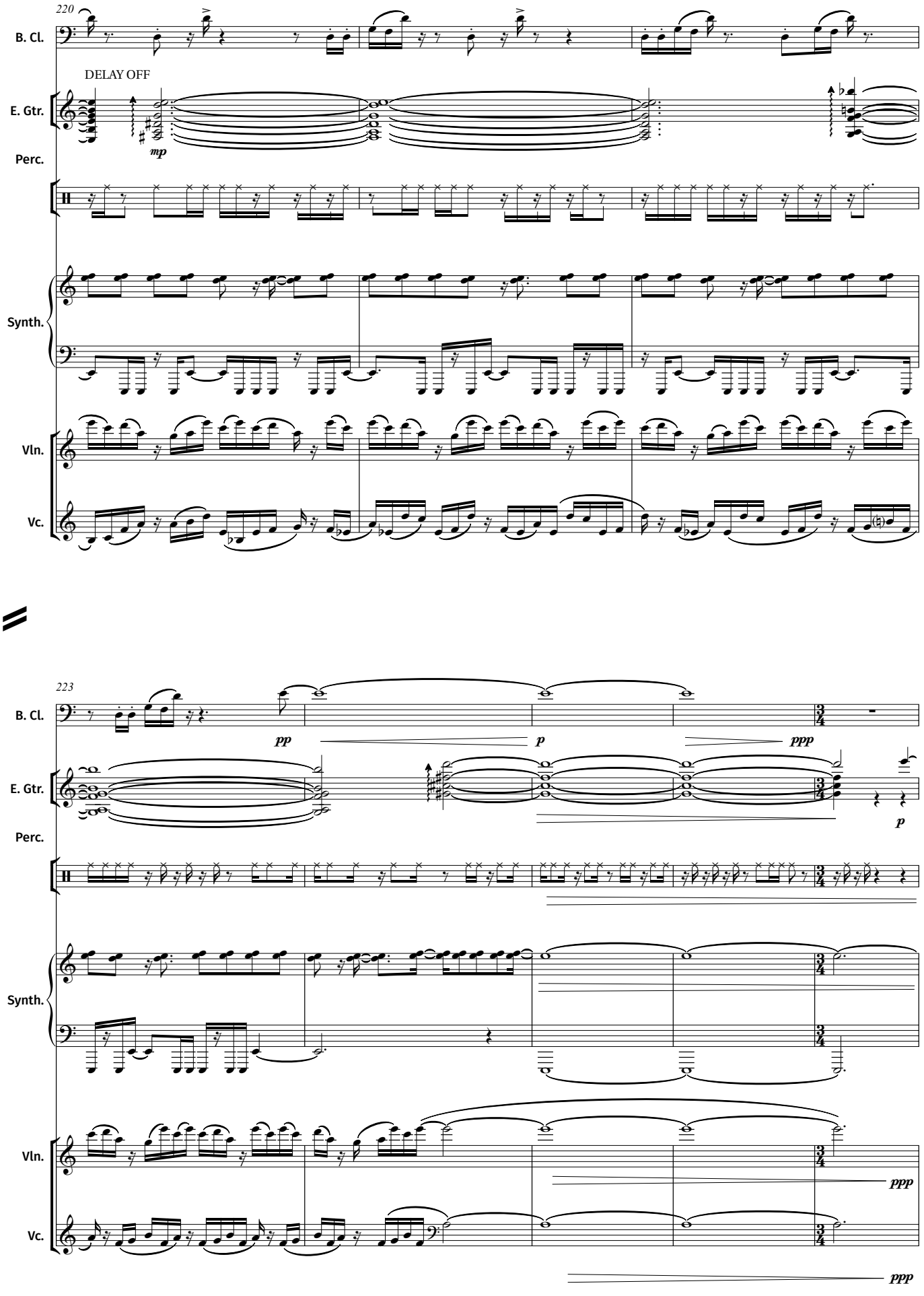

189
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
p
ff
mf
pp
f


193
B. Cl.
E. Gtr.
DELAY OFF
Perc.
Synth.
Vln.
Vc.
f
sfz
mf
ff
pizz.


196
(4+4+3)
(4+4+3)
B. Cl.
E. Gtr.
sfz
sfz
Perc.
Synth.
(pitch bend gliss.)
8vb
(4+4+3)
(4+4+3)
Vln.
Vc.
p
201
B. Cl.
ppp
E. Gtr.
Perc.
Synth.
(sim.)
(8)
Vln.
arco
Vc.


K
207
B. Cl.
mf
E. Gtr.
ppp
Perc.
Synth.
(8)
Vln.
Vc.
MIX: In this passage, allow the guitar to dominate but still allow the strings to be heard.
211
B. Cl.
p
E. Gtr.
(DELAY set to 3 semi-quavers)
Perc.
Synth.
Vln.
p semplice
arco
Vc.
p semplice


214
B. Cl.
(heavy distortion)
E. Gtr.
HEAVY DISTORTION
f
mf
Perc.
Synth.
Vln.
Vc.
217
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.


220
B. Cl.
DELAY OFF
E. Gtr.
mp
Perc.
Synth.
Vln.
Vc.
223
B. Cl.
pp
p
ppp
E. Gtr.
p
Perc.
Synth.
Vln.
ppp
Vc.
ppp

L

228

B. Cl.

E. Gtr.

Perc.

Synth.

Vln.

Vc.

pp

ppp

p

ppp

p

MIX: Synth and vln pans back to original positions.

232

B. Cl.

E. Gtr.

Perc.

Synth.

Vln.

Vc.

pp

pp

ppp

ppp

236

B. Cl.

E. Gtr.

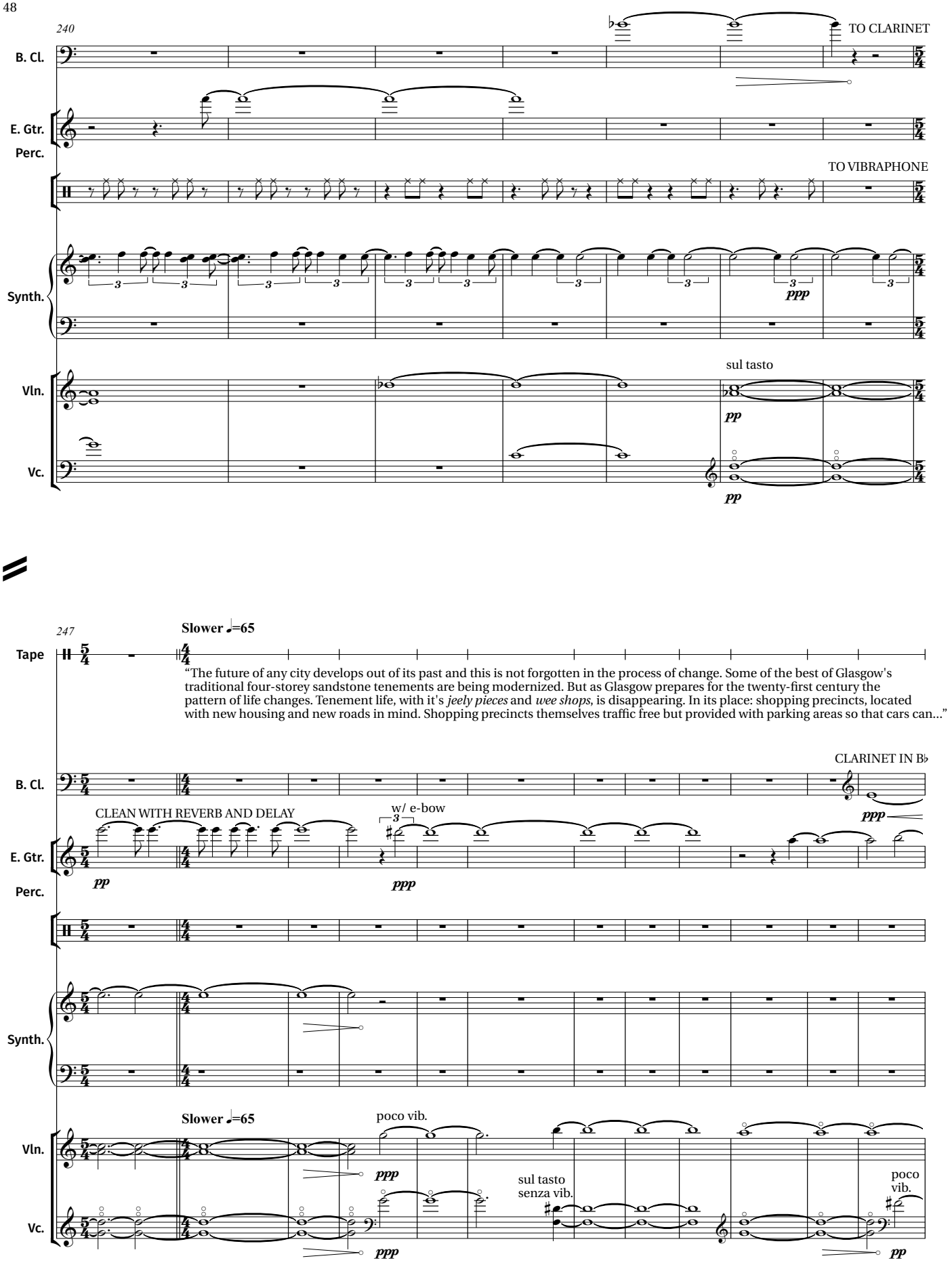
Perc.

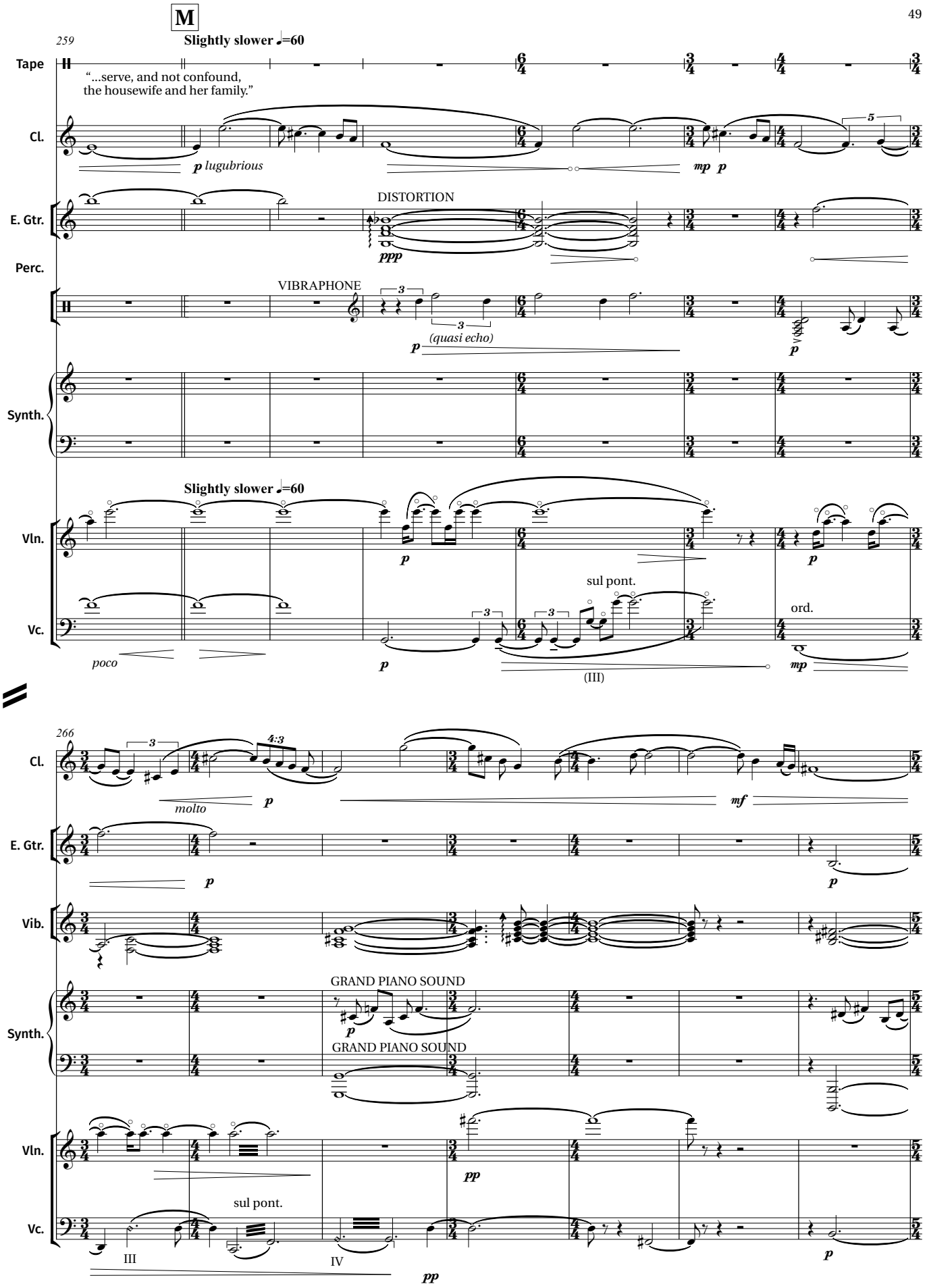
Synth.

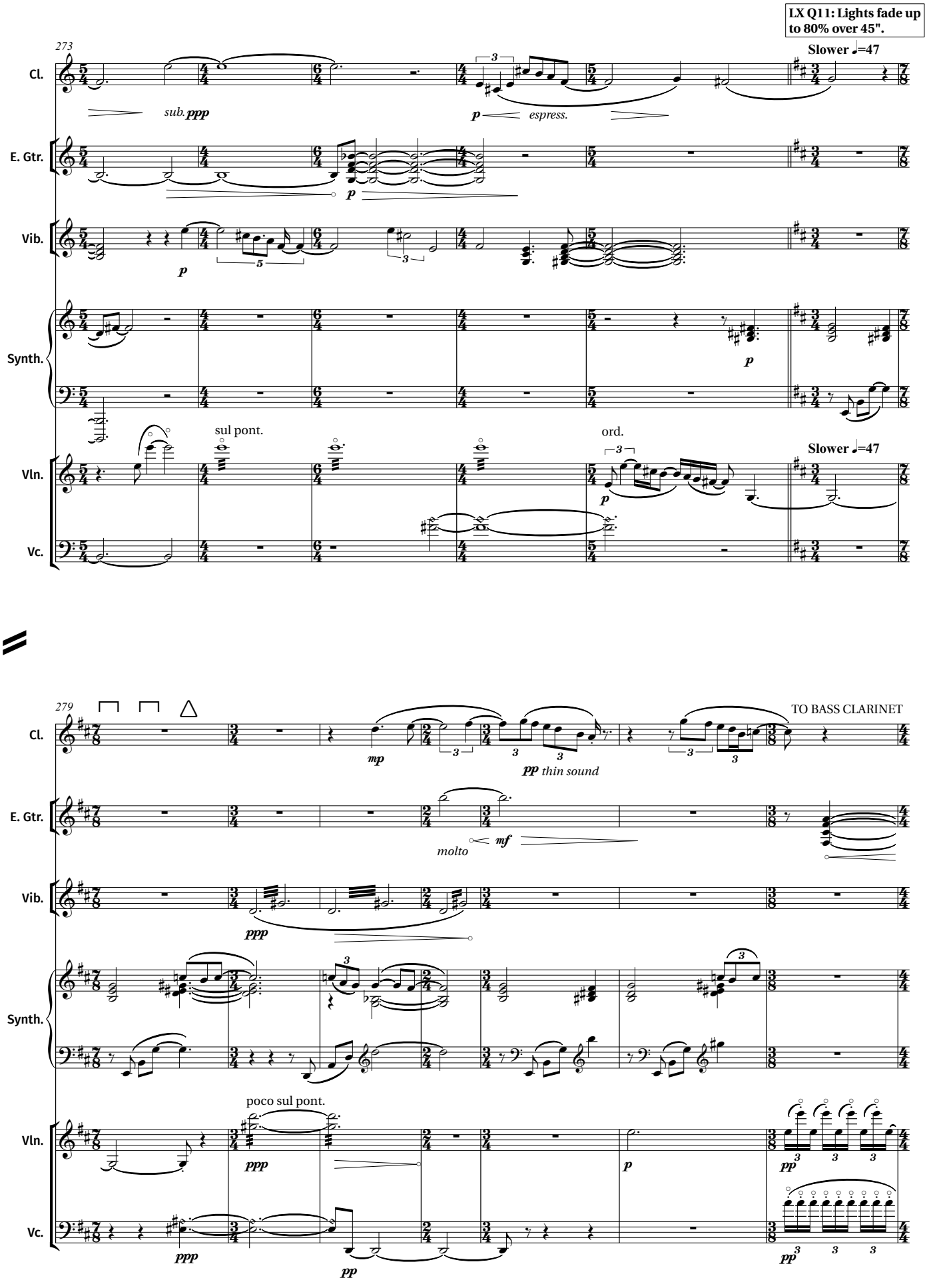
Vln.

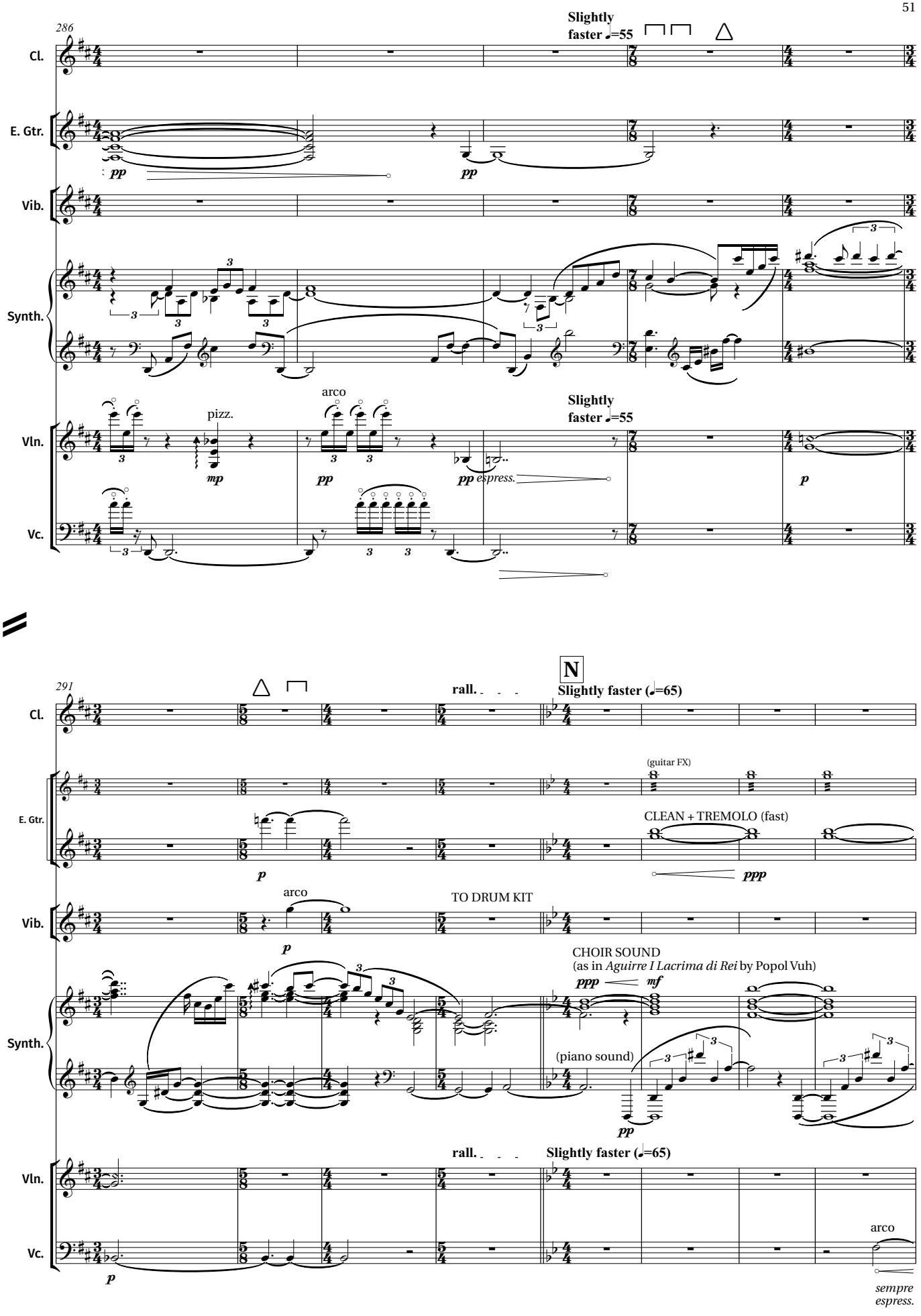
Vc.

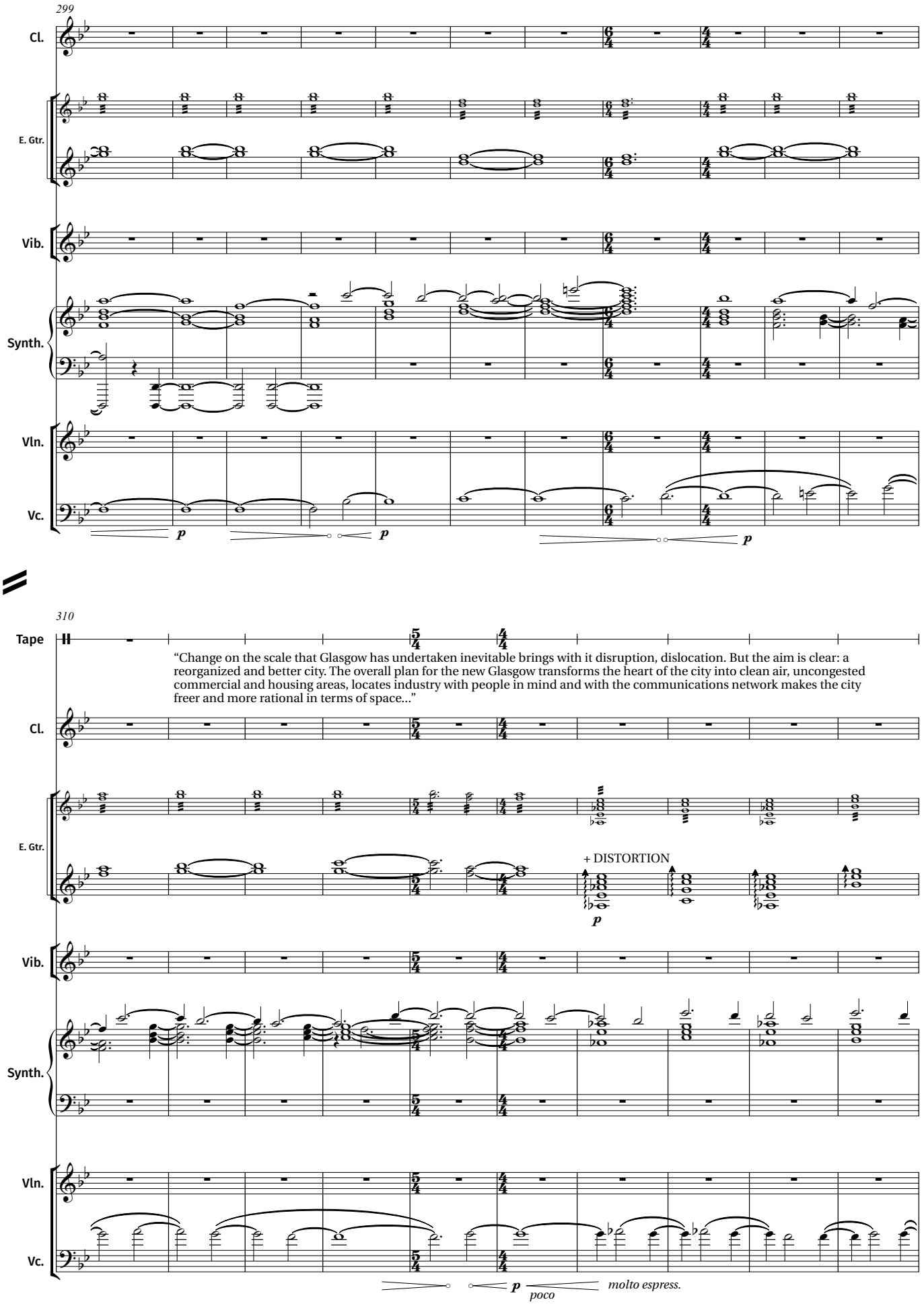
ppp


240
TO CLARINET
B. Cl.
E. Gtr.
Perc.
TO VIBRAPHONE
Synth.
ppp
Vln.
sul tasto
pp
Vc.
pp
247
Slower ♩=65
Tape
"The future of any city develops out of its past and this is not forgotten in the process of change. Some of the best of Glasgow's traditional four-storey sandstone tenements are being modernized. But as Glasgow prepares for the twenty-first century the pattern of life changes. Tenement life, with it's jeely pieces and wee shops, is disappearing. In its place: shopping precincts, located with new housing and new roads in mind. Shopping precincts themselves traffic free but provided with parking areas so that cars can..."
CLARINET IN B♭
B. Cl.
ppp
CLEAN WITH REVERB AND DELAY
w/ e-bow
E. Gtr.
pp
ppp
Perc.
Synth.
Slower ♩=65
poco vib.
Vln.
ppp
sul tasto
senza vib.
poco
vib.
Vc.
ppp
pp


M
259
Slightly slower ♩=60
Tape
"...serve, and not confound,
the housewife and her family."
Cl.
p lugubrious
mp p
E. Gtr.
DISTORTION
ppp
Perc.
VIBRAPHONE
(quasi echo)
p
Synth.
Slightly slower ♩=60
Vln.
Vc.
poco
sul pont.
ord.
(III)
266
molto
mf
GRAND PIANO SOUND
GRAND PIANO SOUND
pp
sul pont.
III
IV


LX Q11: Lights fade up to 80% over 45".
273
Cl.
E. Gtr.
Vib.
Synth.
Vln.
Vc.
Slower ♩=47
sub. ppp
p
espress.
sul pont.
ord.
279
TO BASS CLARINET
mp
pp thin sound
molto
mf
ppp
poco sul pont.


286
Slightly faster ♩=55
Cl.
E. Gtr.
pp
pp
Vib.
Synth.
arco
pizz.
Slightly faster ♩=55
Vln.
mp
pp
pp espress.
p
Vc.
291
rall.
N
Slightly faster (♩=65)
(guitar FX)
CLEAN + TREMOLO (fast)
ppp
p
arco
TO DRUM KIT
CHOIR SOUND
(as in Aguirre I Lacrima di Rei by Popol Vuh)
ppp
mf
(piano sound)
pp
rall.
Slightly faster (♩=65)
arco
p
sempre espress.


299
Cl.
E. Gtr.
Vib.
Synth.
Vln.
Vc.
p
p
p
310
Tape
"Change on the scale that Glasgow has undertaken inevitable brings with it disruption, dislocation. But the aim is clear: a reorganized and better city. The overall plan for the new Glasgow transforms the heart of the city into clean air, uncongested commercial and housing areas, locates industry with people in mind and with the communications network makes the city freer and more rational in terms of space..."
Cl.
E. Gtr.
+ DISTORTION
p
Vib.
Synth.
Vln.
Vc.
p
poco
molto espress.

LX Q12: Lights fade to 10% over 10".

320

poco rall. Faster ♩=78

O

Tape

"...more compact and efficient in terms of time."

Cl.

E. Gtr.

TREMOLO OFF

Vib.

Synth.

SYNTH BASS SOUND

mf

poco rall. Faster ♩=78

Vln.

Vc.

p

326

Cl.

E. Gtr.

CLEAN

mf

Vib.

DRUM KIT
PRESET 5

f

VOX HUMANA SOUND
(as in *Airlane* by Gary Numan)

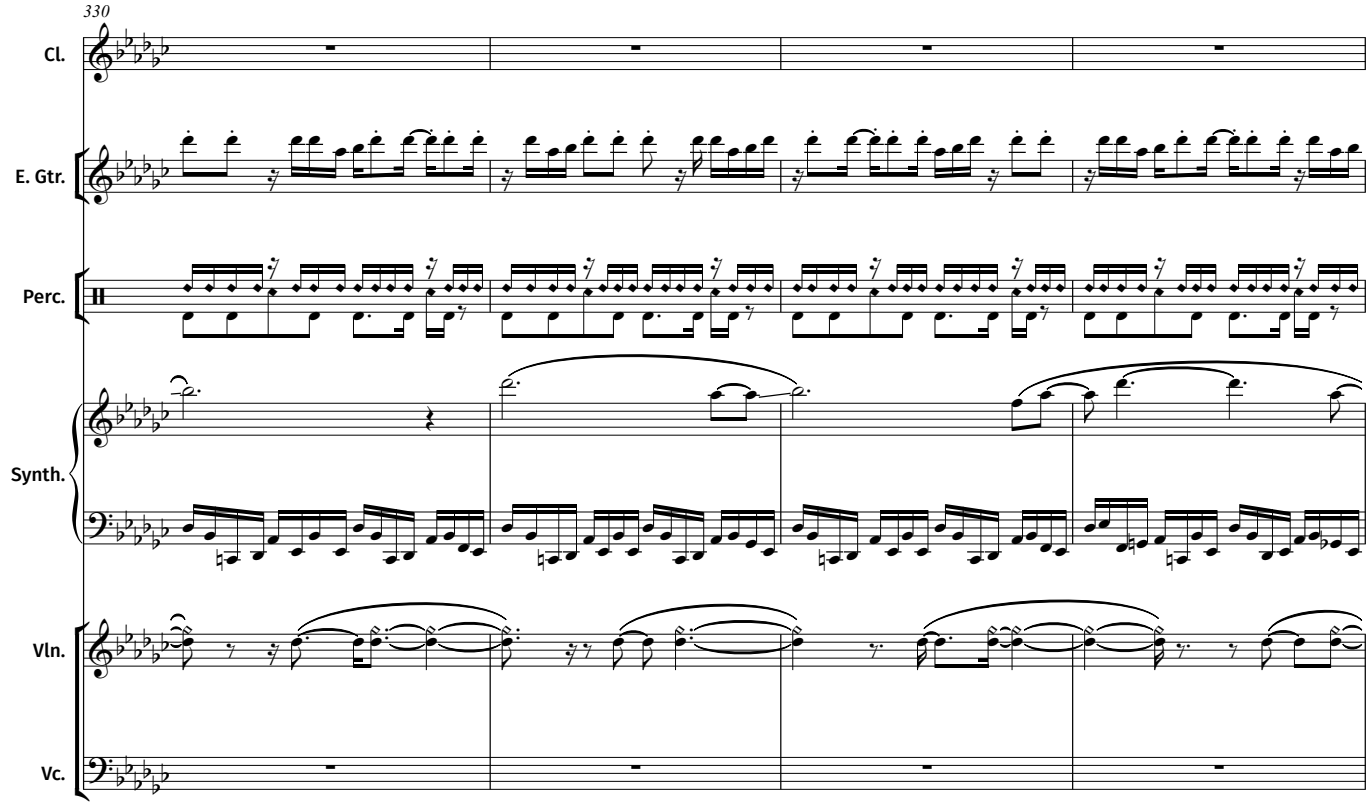
Synth.

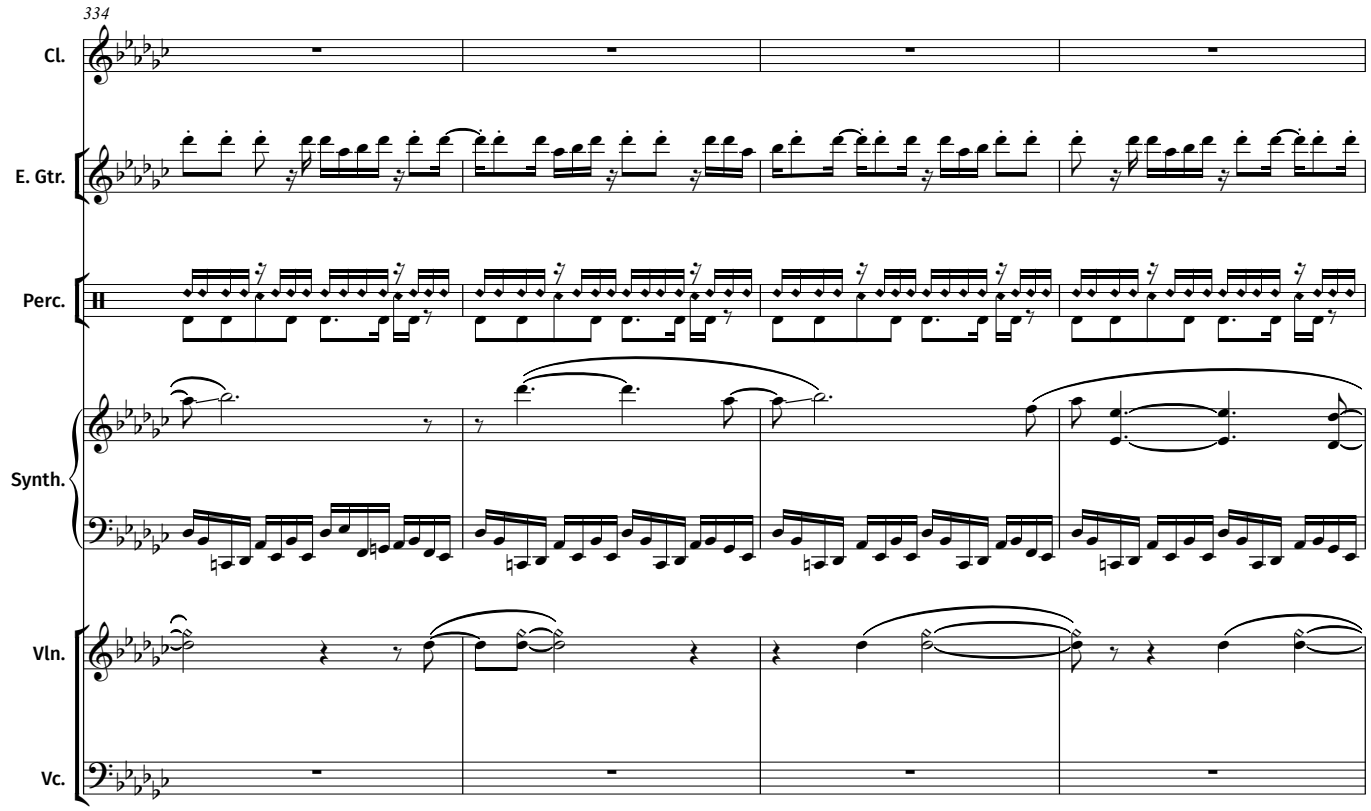
mf

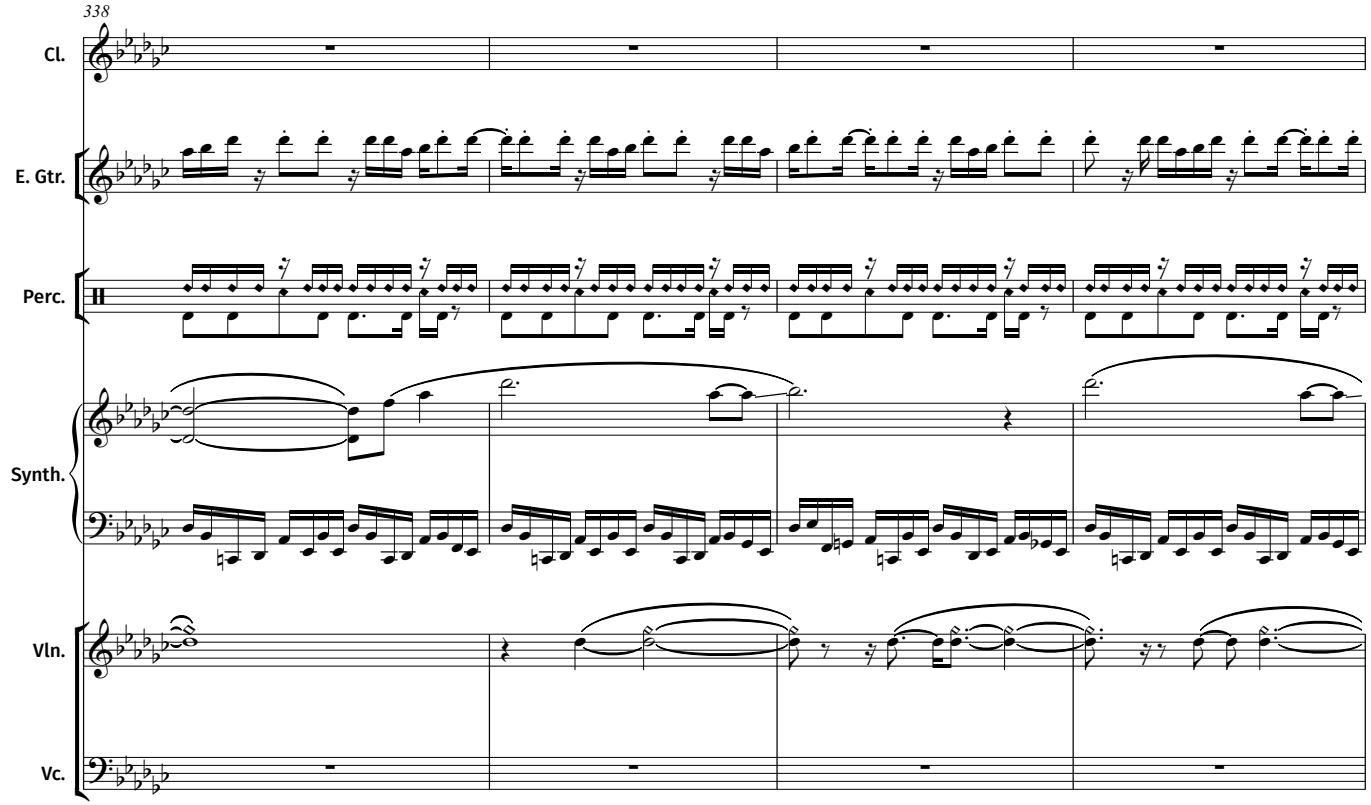
Vln.

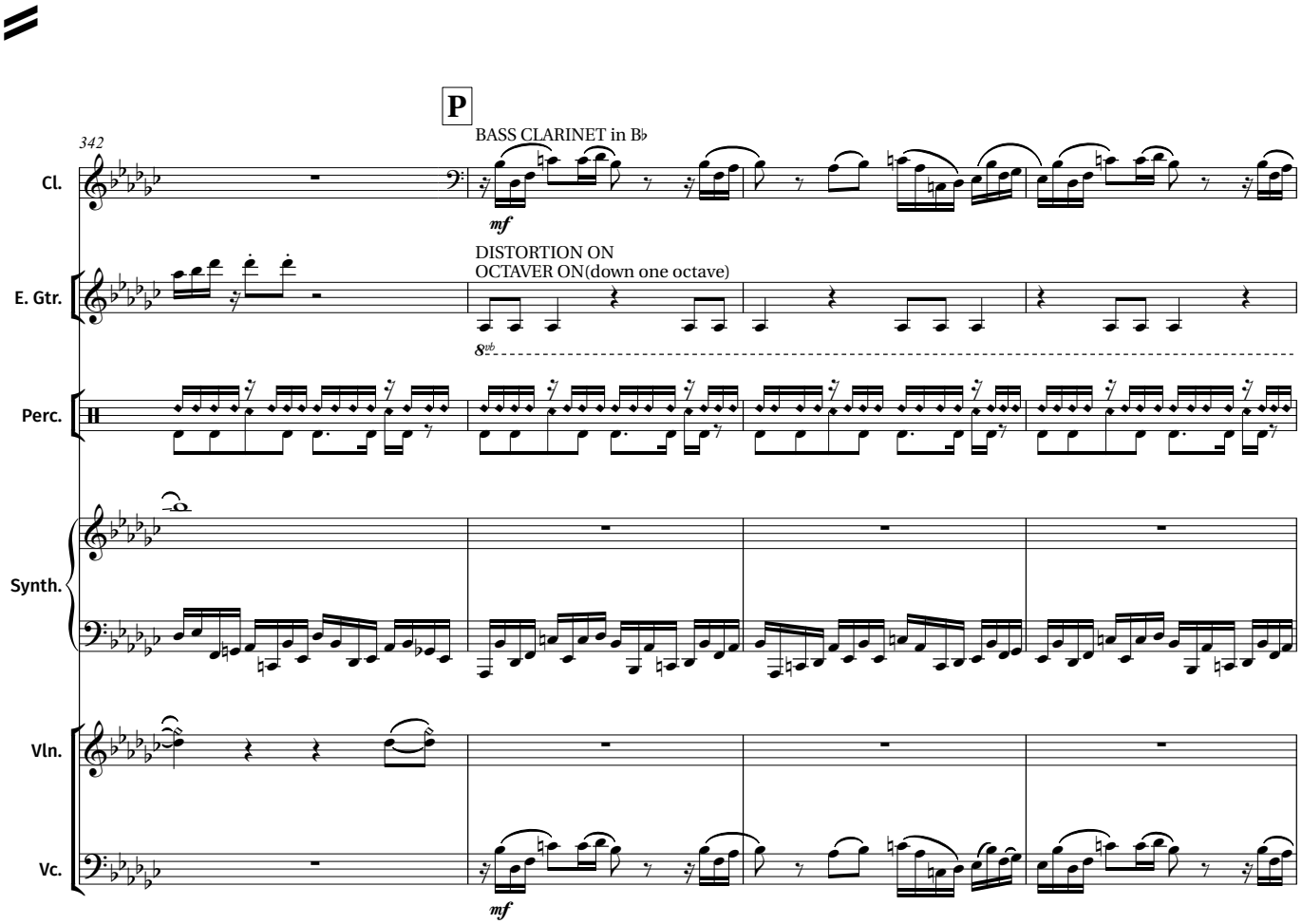
mp

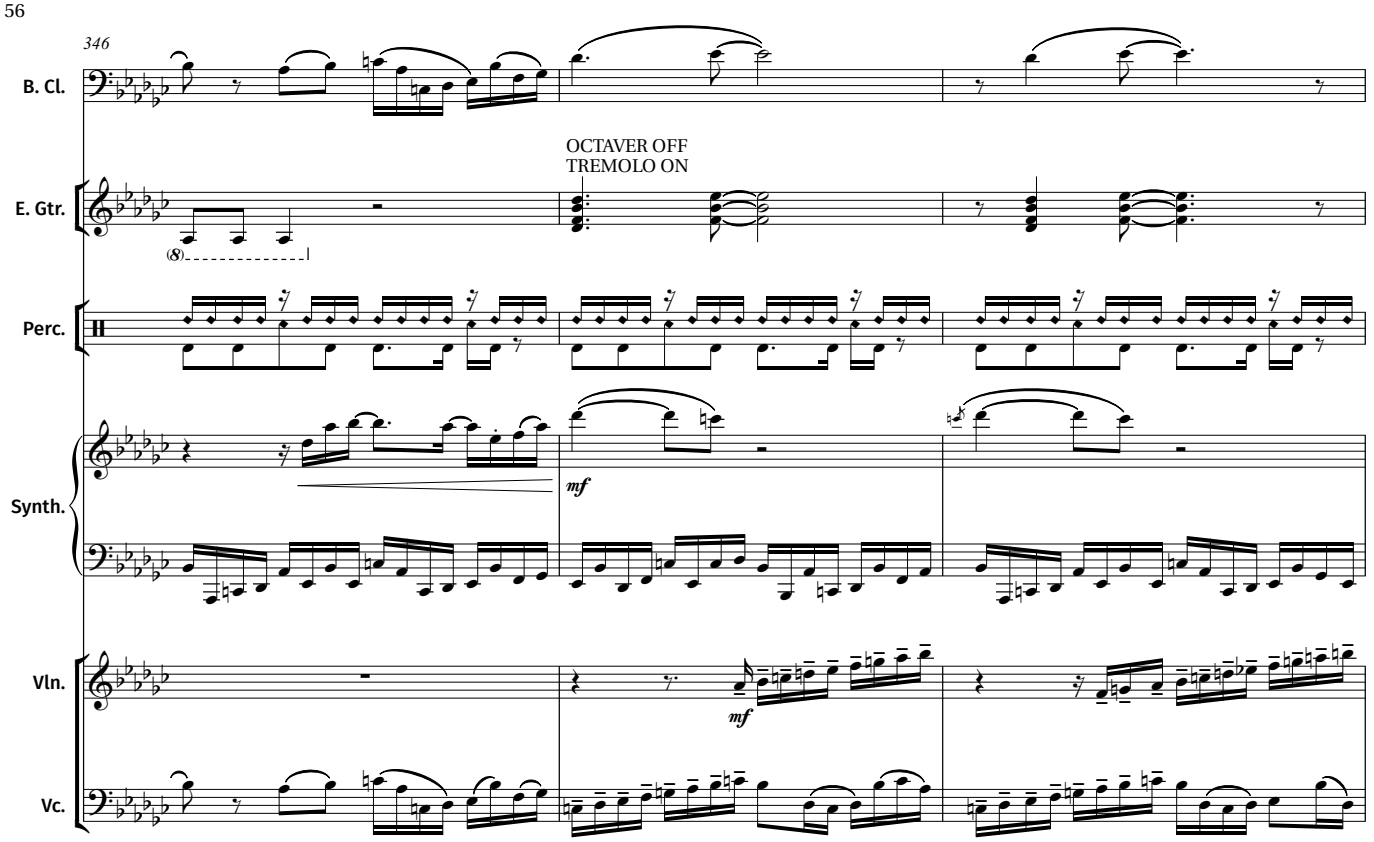
Vc.

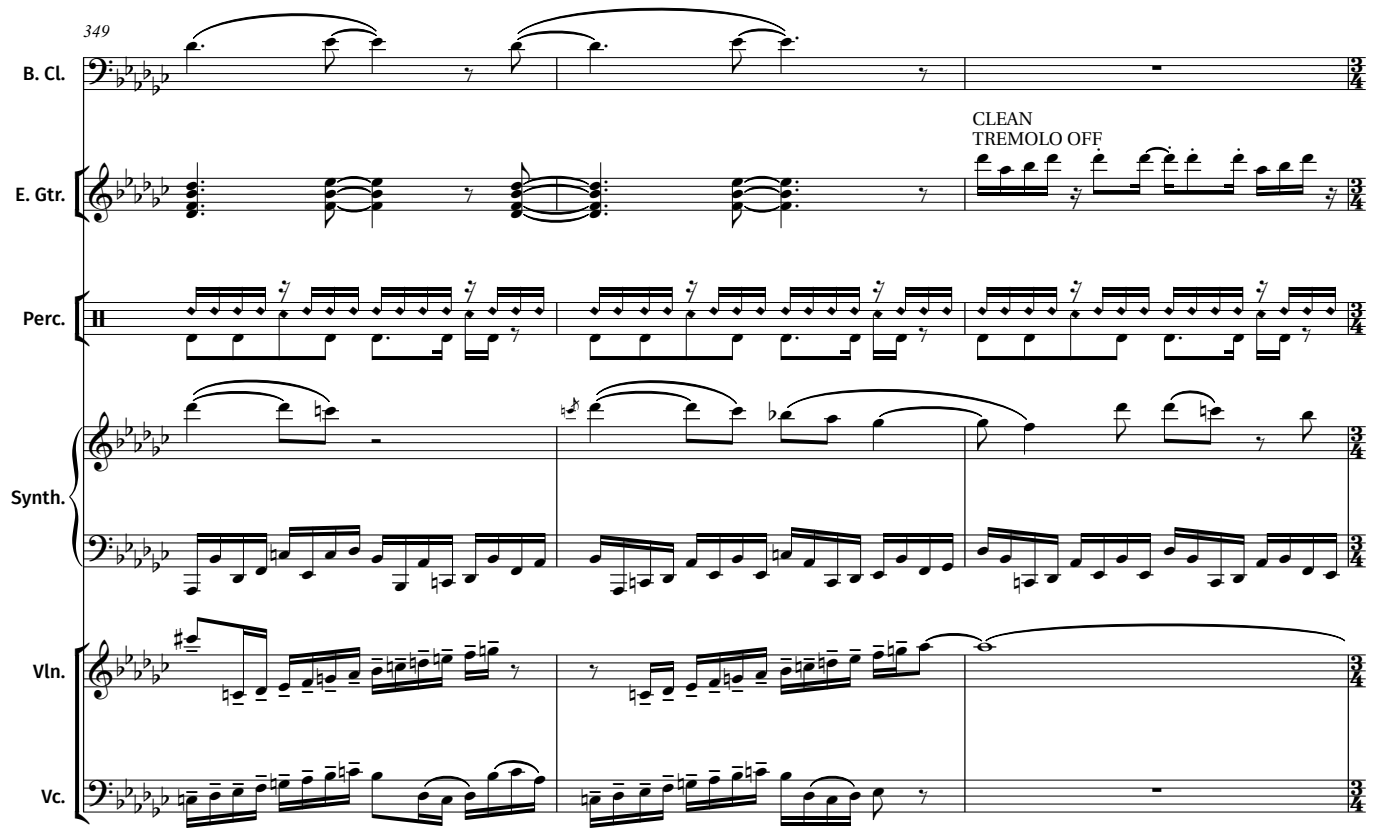

330
Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.

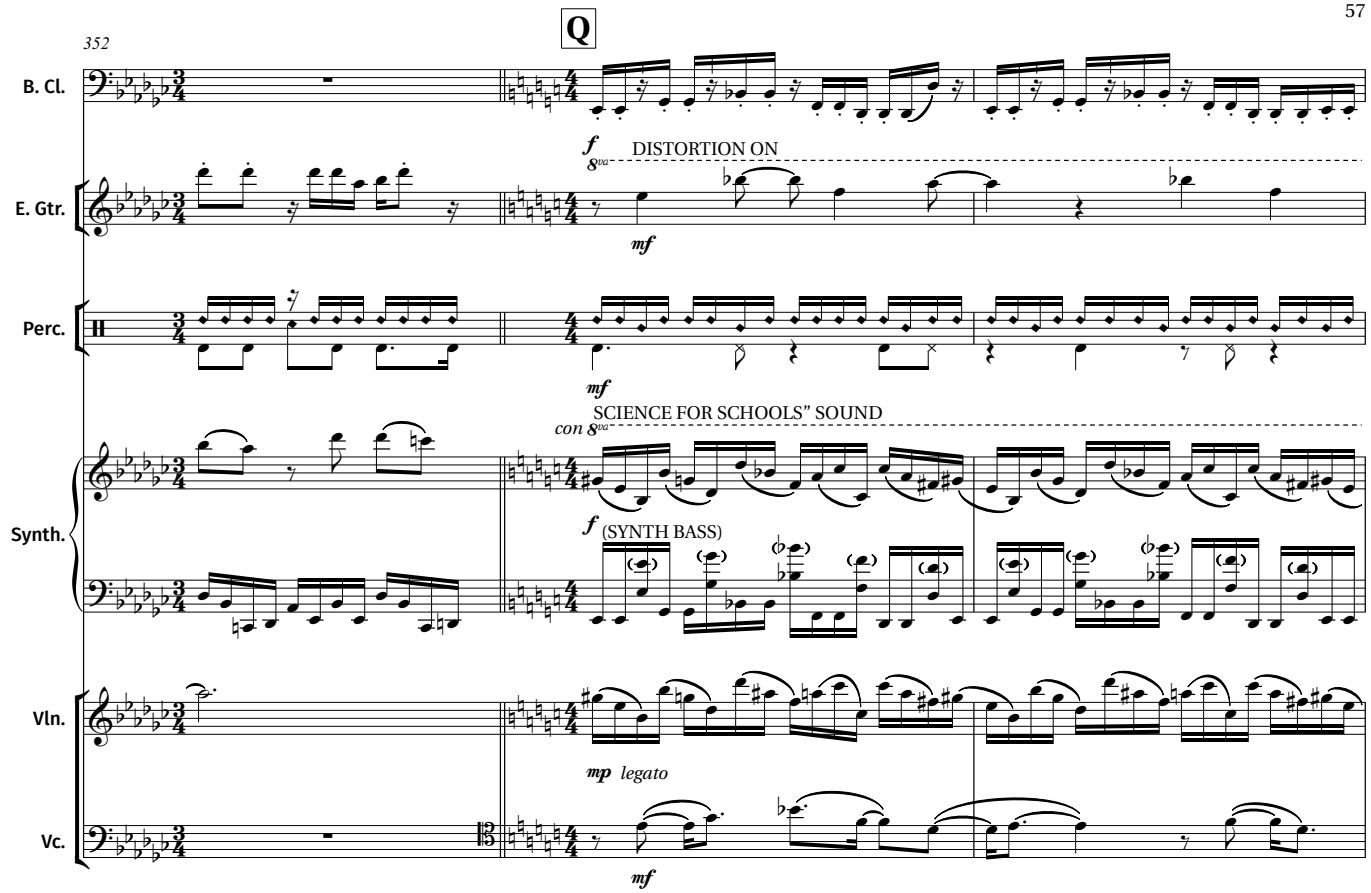

334
Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.

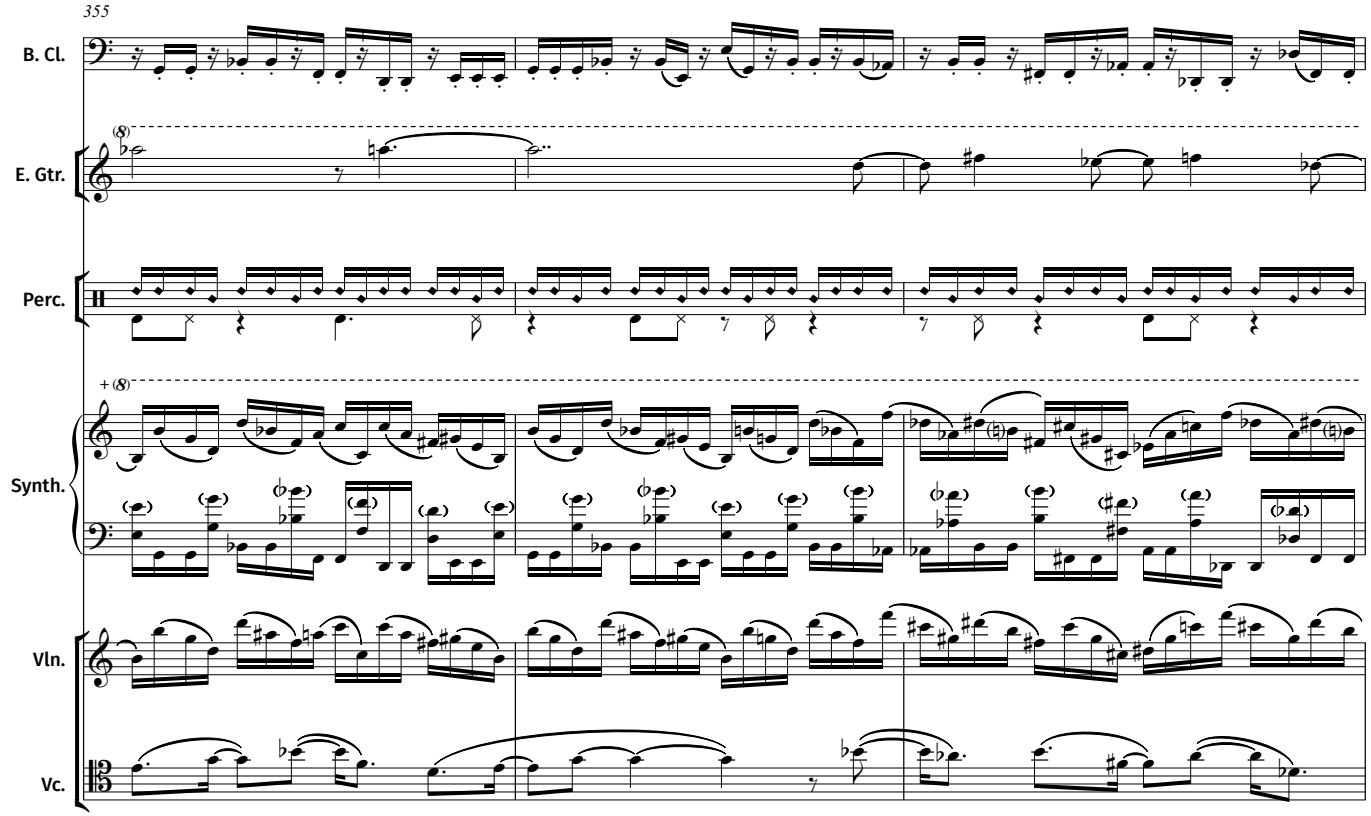

338
Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.

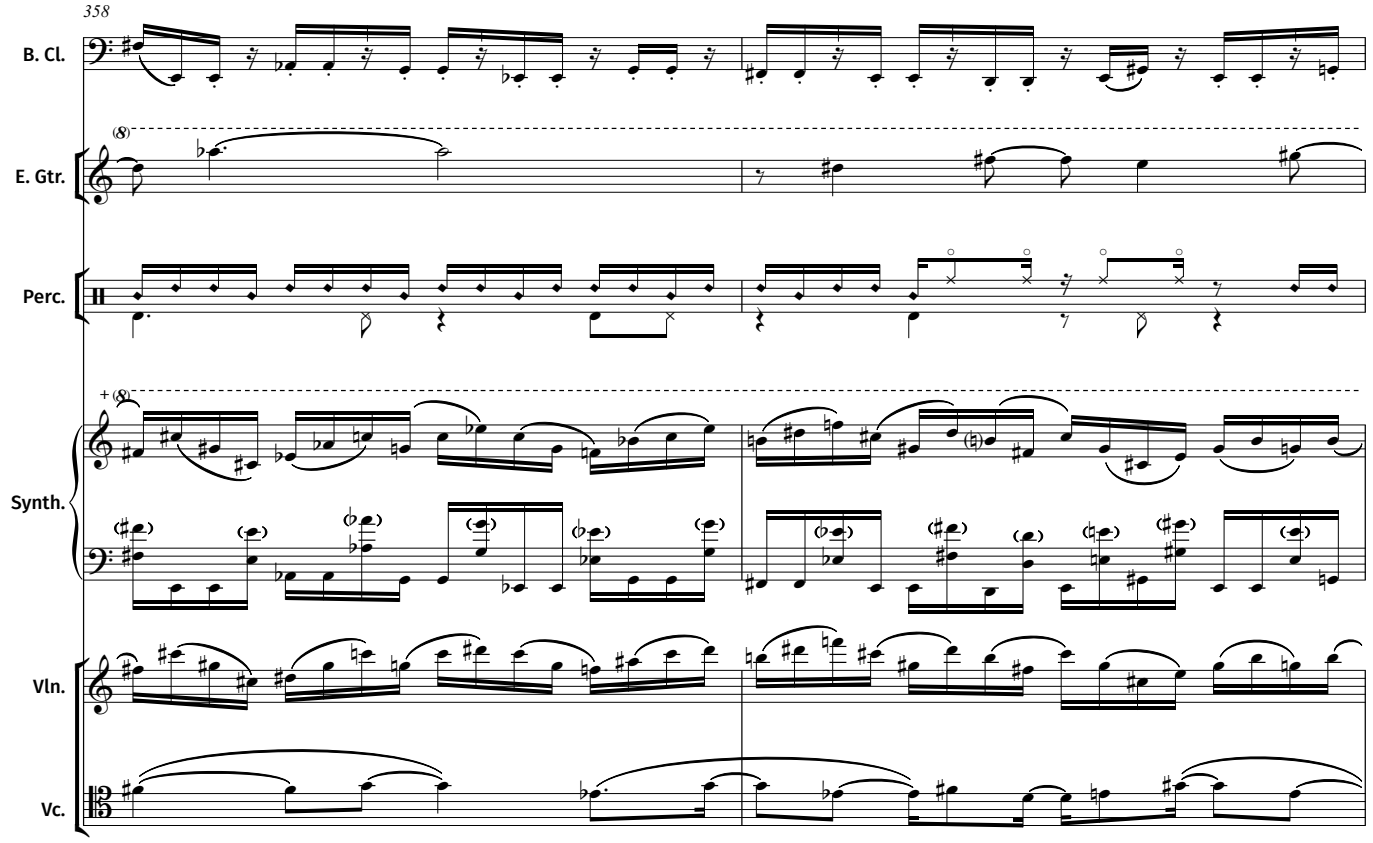

P
BASS CLARINET in B♭
342
Cl.
mf
DISTORTION ON
OCTAVER ON(down one octave)
E. Gtr.
8vb
Perc.
Synth.
Vln.
Vc.
mf

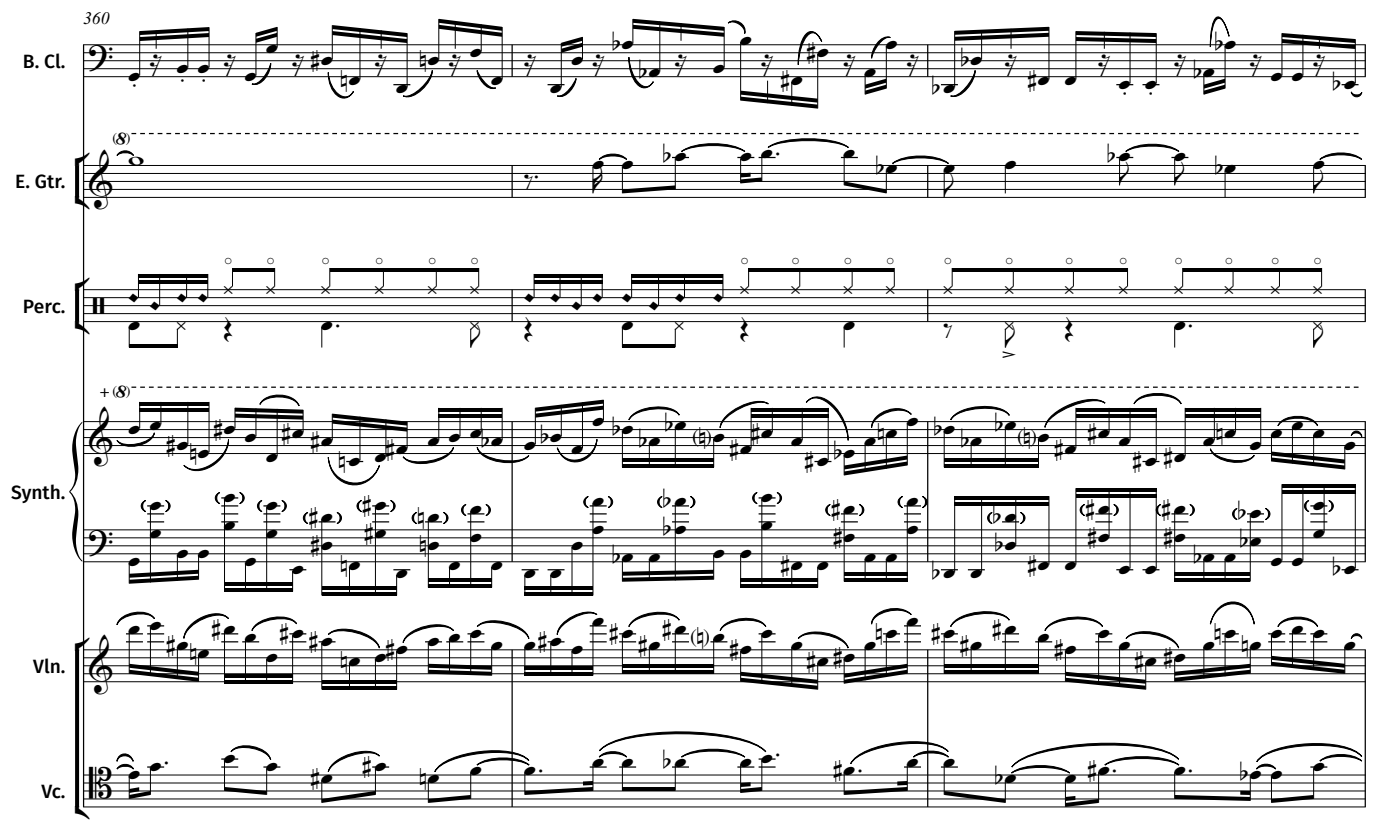

346
B. Cl.
OCTAVER OFF
TREMOLO ON
E. Gtr.
(8)
Perc.
Synth.
mf
Vln.
mf
Vc.

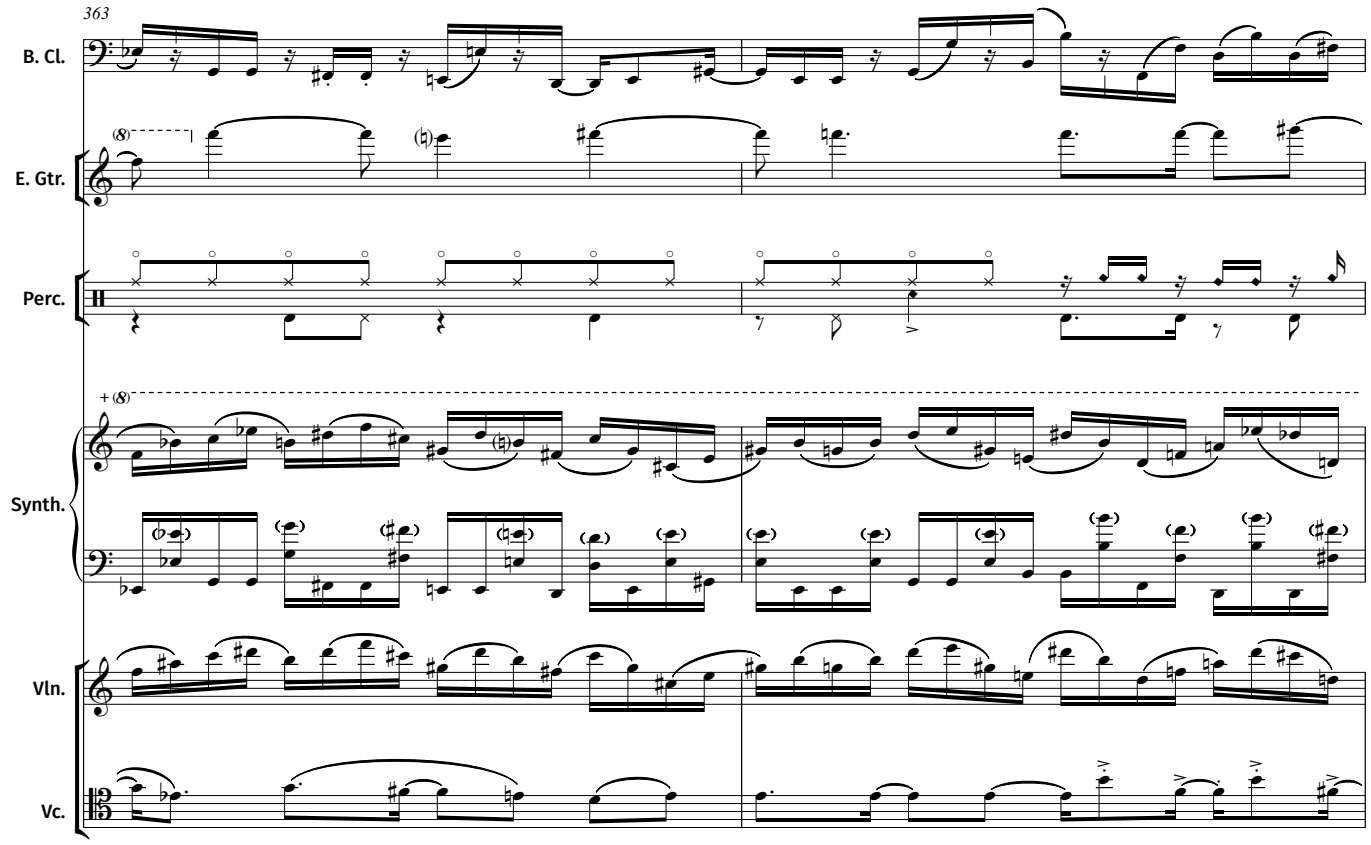

349
B. Cl.
CLEAN
TREMOLO OFF
E. Gtr.
Perc.
Synth.
Vln.
Vc.

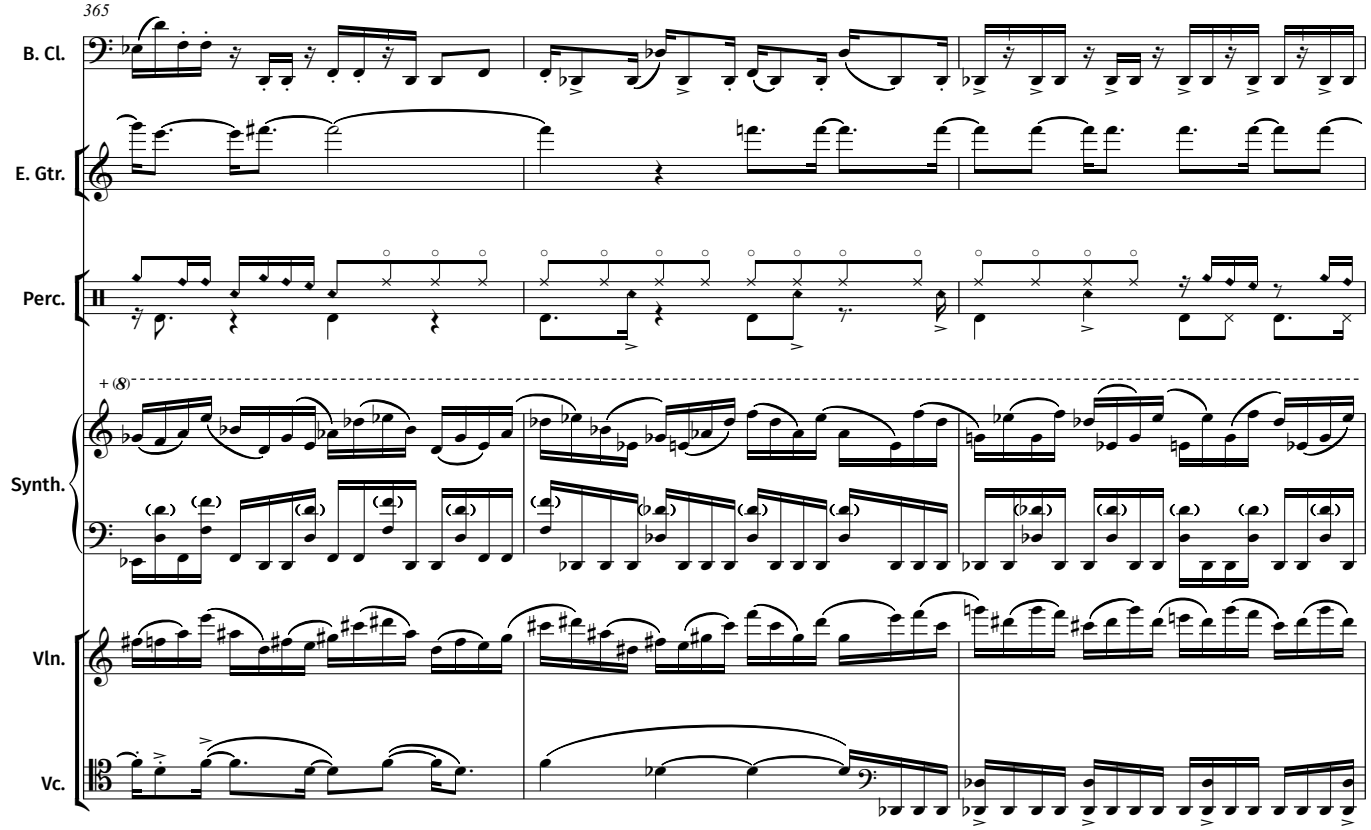

Q
352
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
f
8va
DISTORTION ON
mf
mf
SCIENCE FOR SCHOOLS" SOUND
con 8va
f
(SYNTH BASS)
mp legato
mf


355
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.
(8)
+ (8)


358
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.

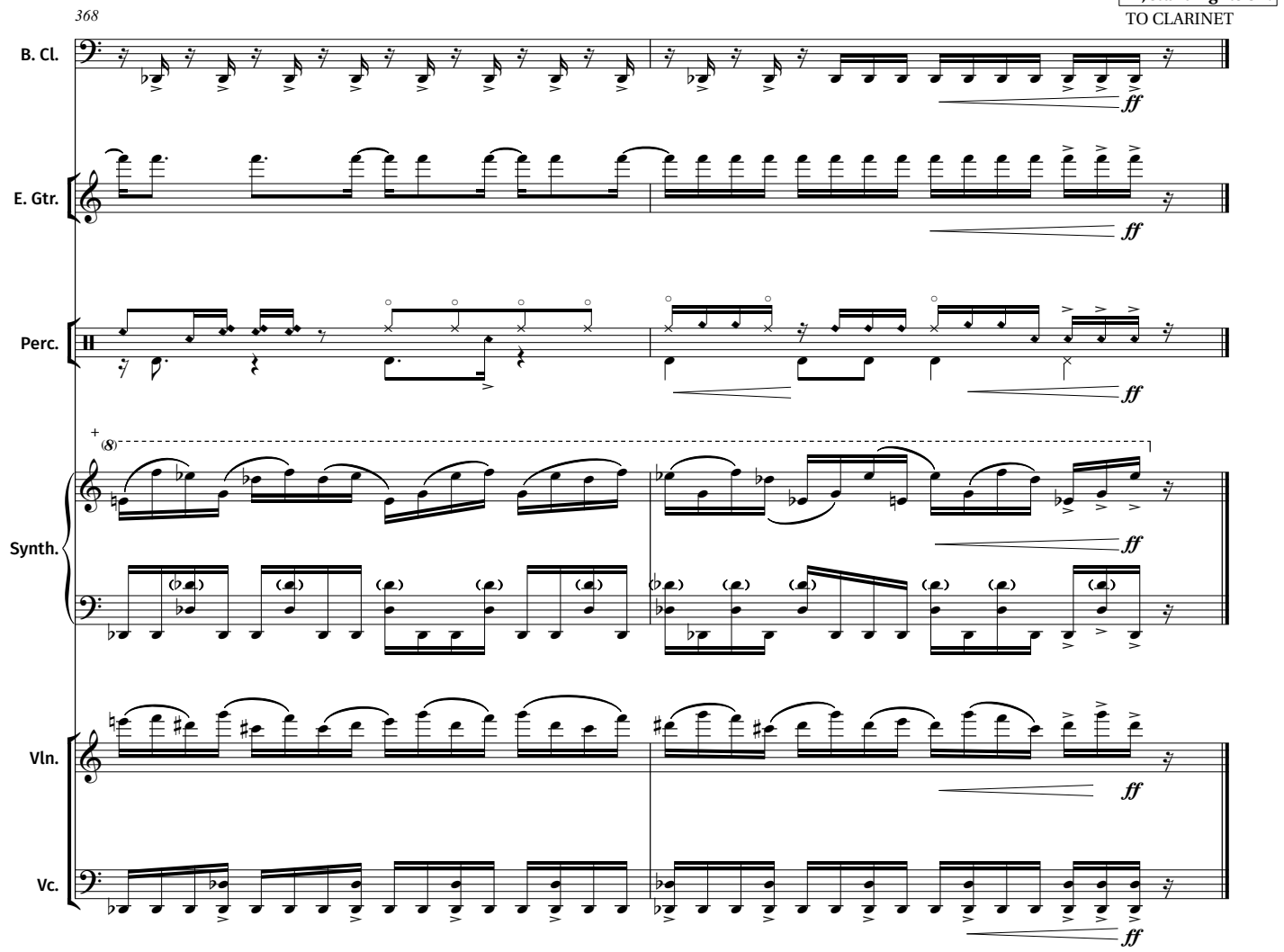

360
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.


363
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.

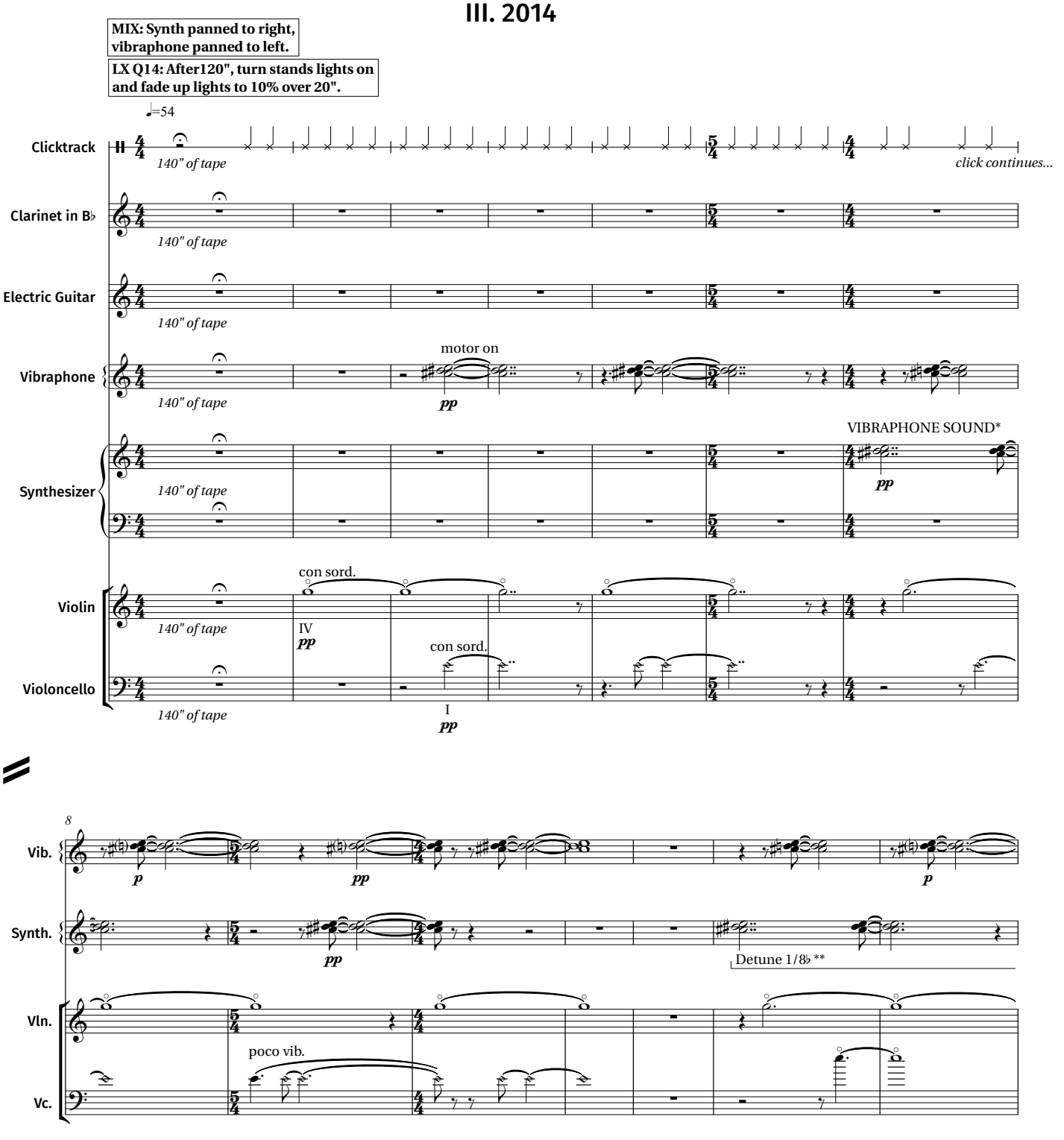

365
B. Cl.
E. Gtr.
Perc.
Synth.
Vln.
Vc.

LX Q13: Lights fade to off over 1", stand lights off.

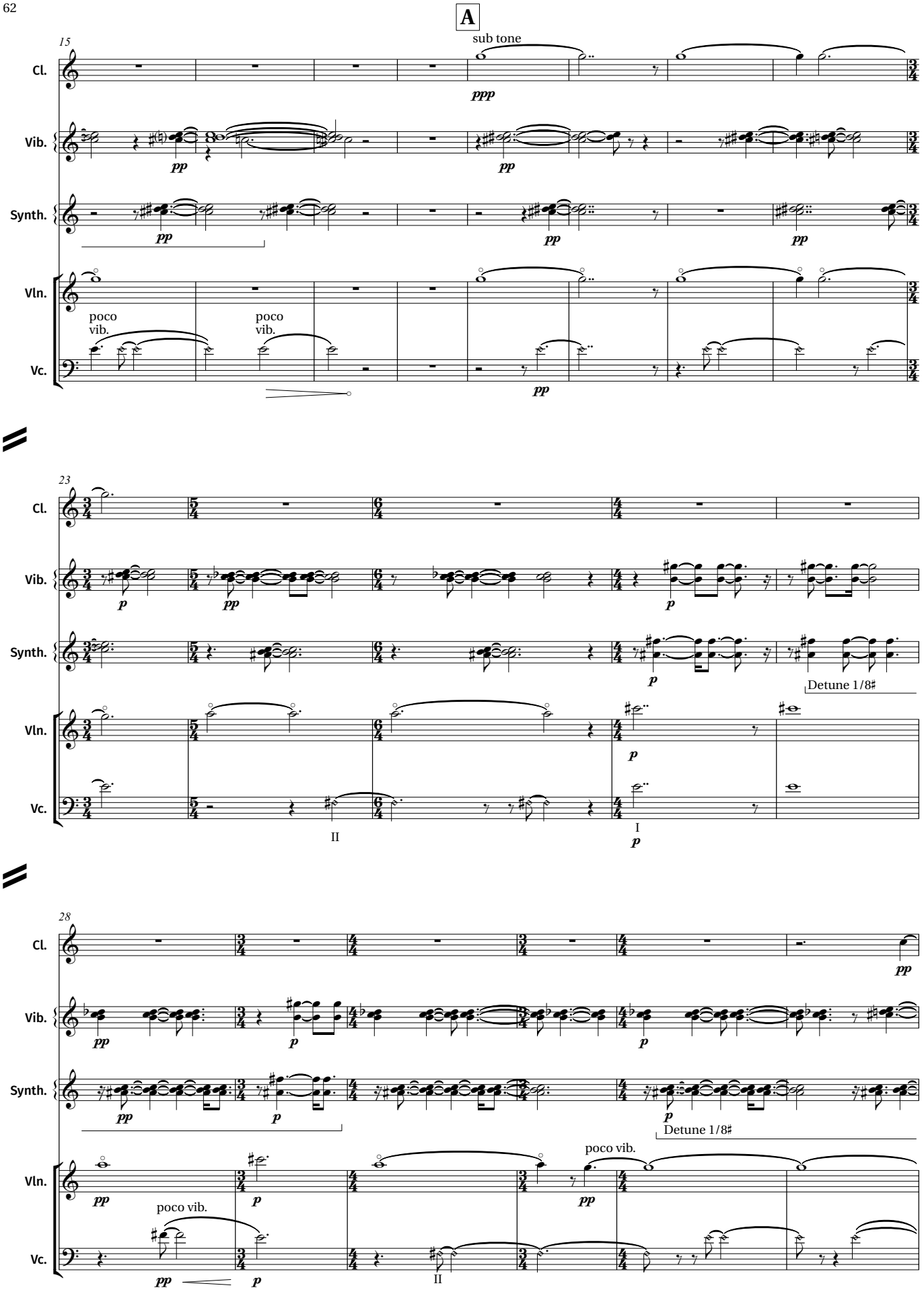
TO CLARINET

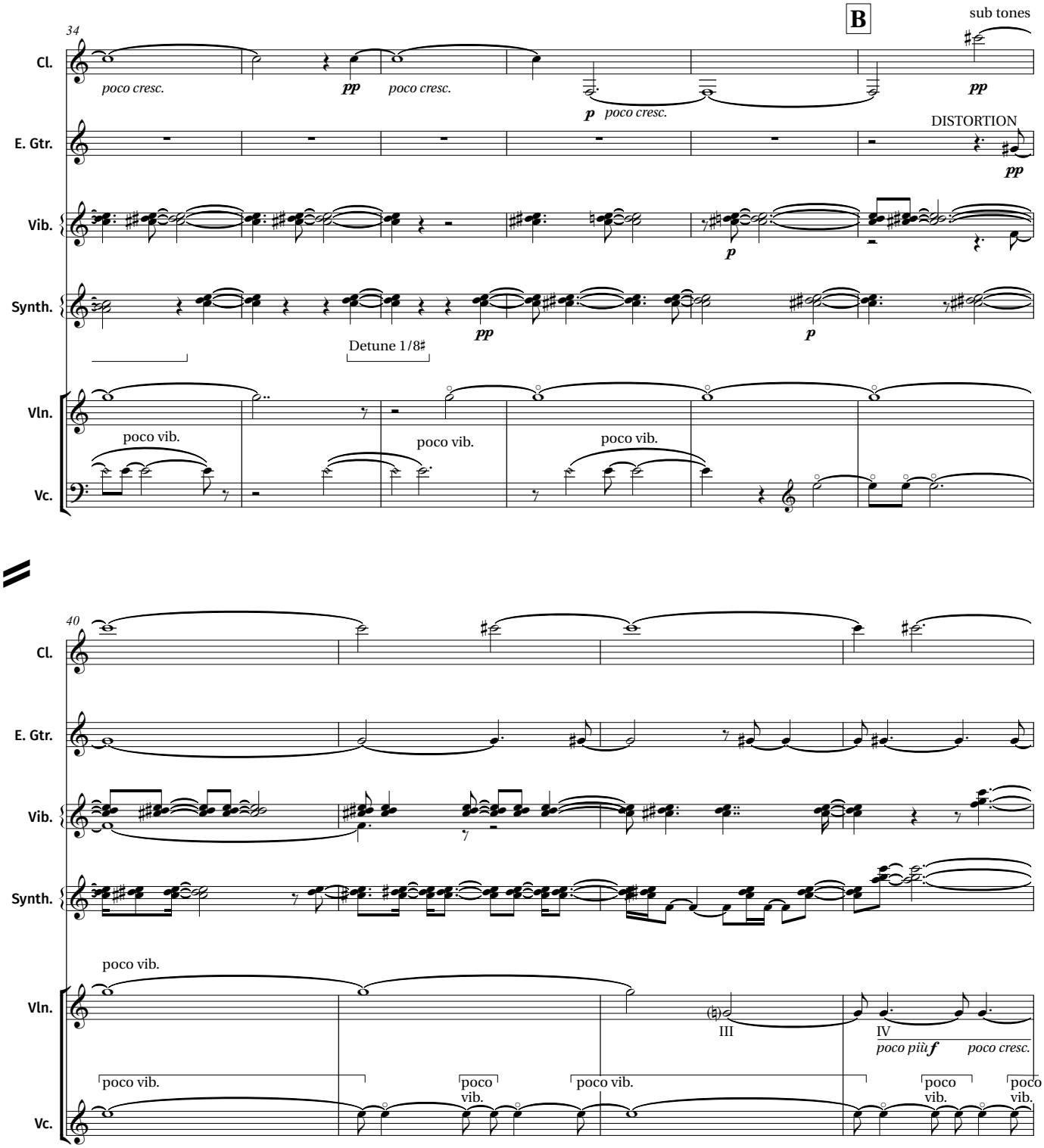


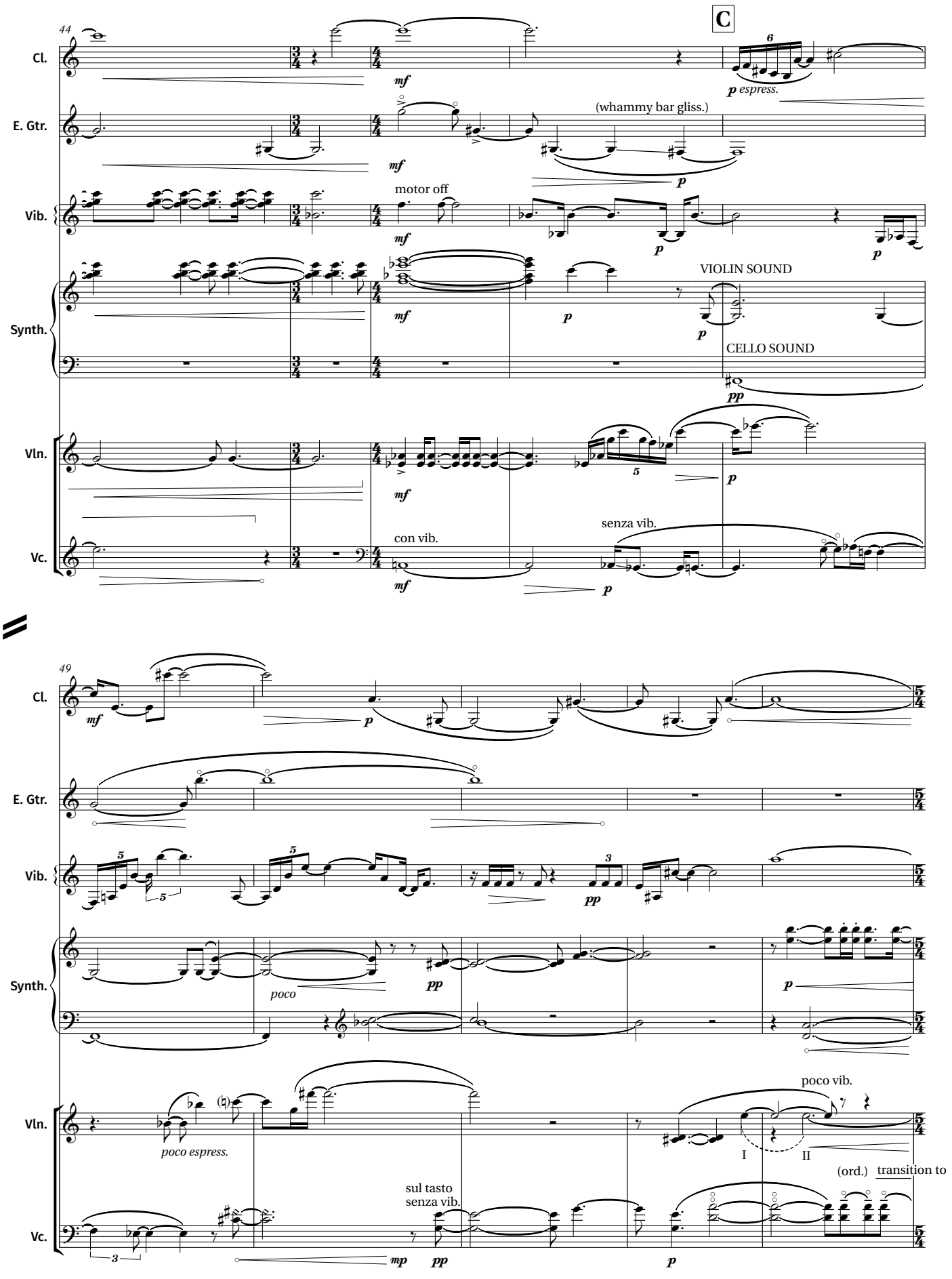
III. 2014

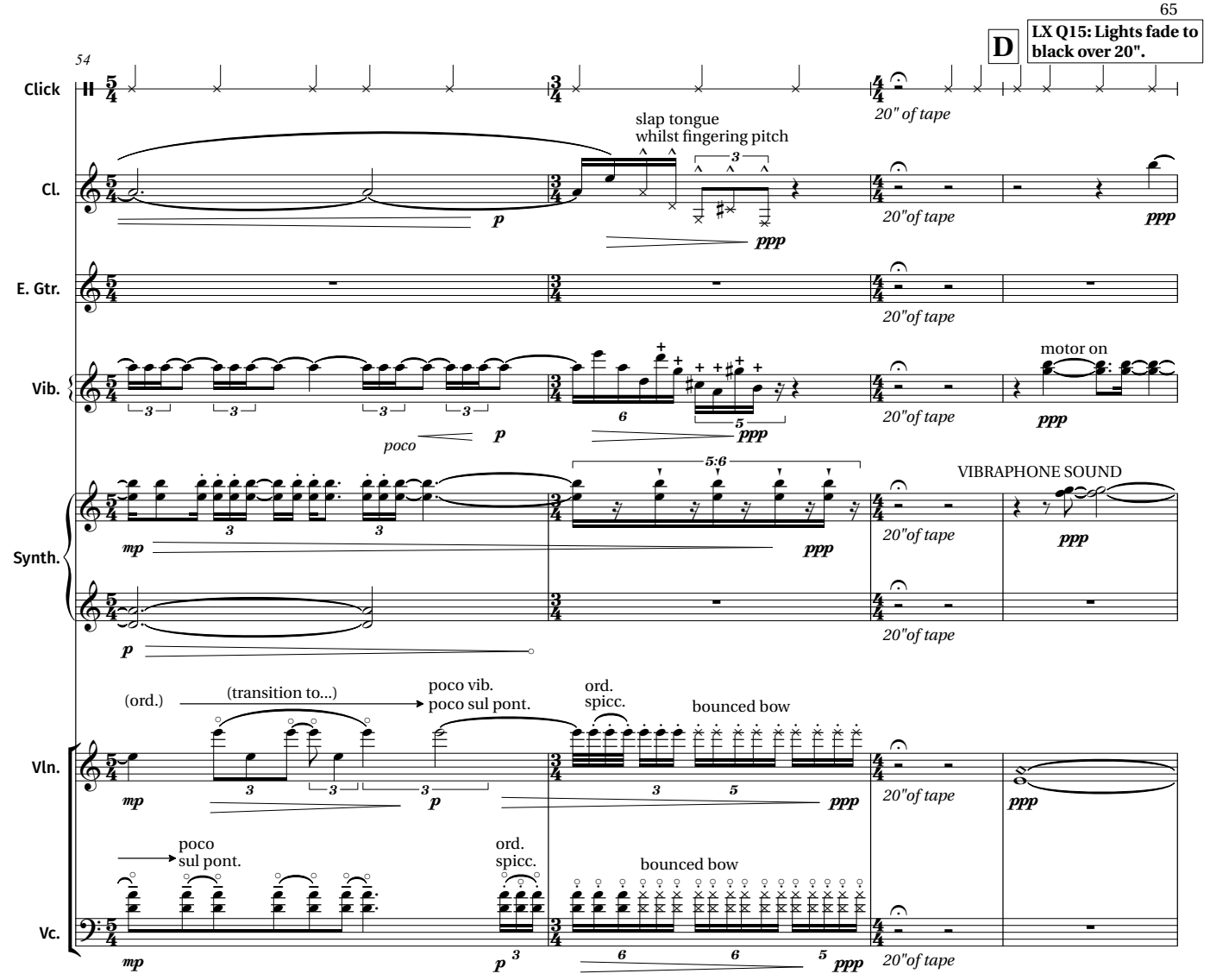


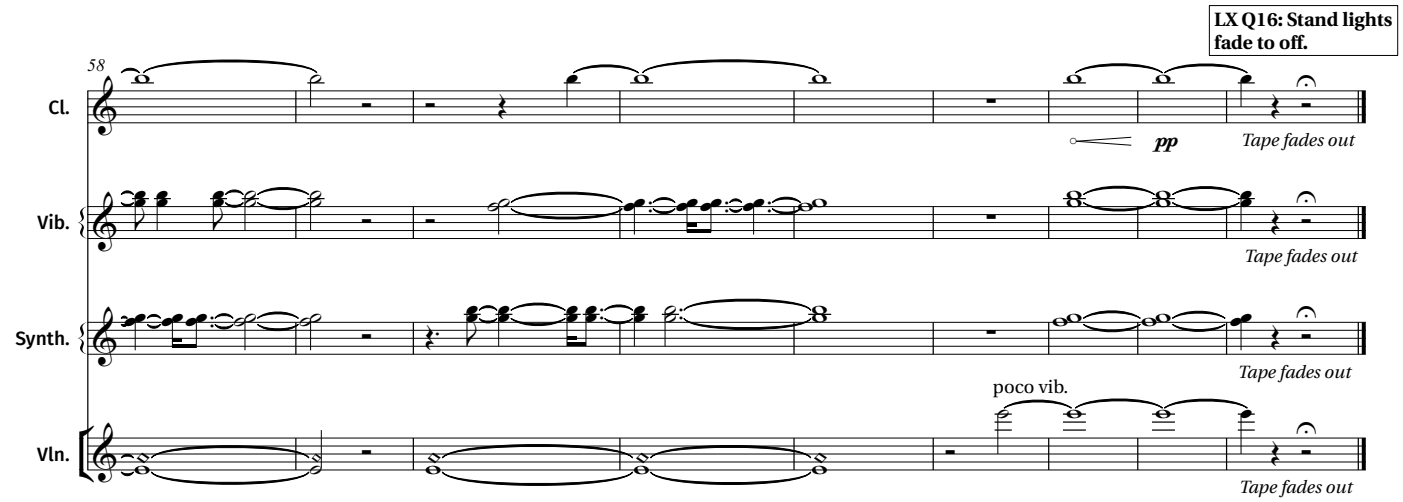
*) The synthesized vibraphone sound should be as similar as possible to that of the real vibraphone.
**) Detune 1/8 tone flat/sharp (as indicated) using the pitch wheel.


A
15
sub tone
Cl.
Vib.
Synth.
Vln.
Vc.
poco vib.
poco vib.
23
Detune 1/8♯
II
I
28
poco vib.
poco vib.
Detune 1/8♯
II


34
B
sub tones
Cl.
poco cresc.
pp
poco cresc.
p
poco cresc.
pp
E. Gtr.
DISTORTION
pp
Vib.
p
Synth.
pp
p
Detune 1/8♯
Vln.
poco vib.
poco vib.
poco vib.
Vc.
40
Cl.
E. Gtr.
Vib.
Synth.
poco vib.
Vln.
III
IV
poco più f
poco cresc.
poco vib.
poco vib.
poco vib.
poco vib.
poco vib.
Vc.


44
C
Cl.
E. Gtr.
Vib.
Synth.
Vln.
Vc.
mf
p espress.
(whammy bar gliss.)
motor off
VIOLIN SOUND
CELLO SOUND
pp
con vib.
senza vib.
49
poco
poco espress.
sul tasto
senza vib.
poco vib.
I
II
(ord.)
transition to
mp

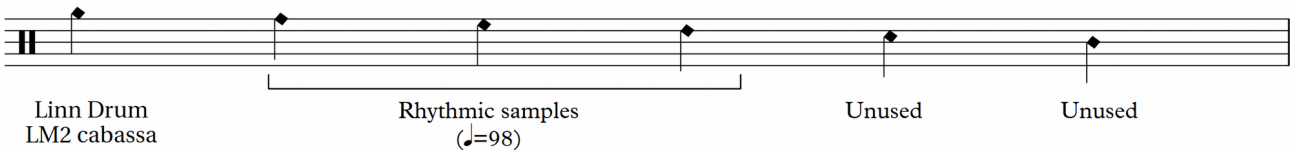

D
LX Q15: Lights fade to black over 20".
54
Click
Cl.
E. Gtr.
Vib.
Synth.
Vln.
Vc.
20" of tape
slap tongue
whilst fingering pitch
20"of tape
motor on
poco
VIBRAPHONE SOUND
(ord.)
(transition to...)
poco vib.
poco sul pont.
ord.
spicc.
bounced bow
poco
sul pont.
ord.
spicc.
bounced bow


LX Q16: Stand lights fade to off.
58
Cl.
Vib.
Synth.
Vln.
Tape fades out
poco vib.

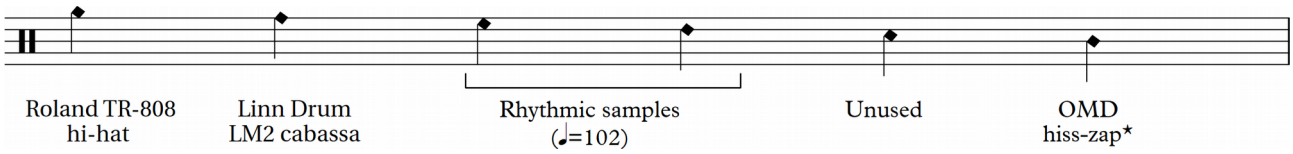
Appendix: list of samples for electronic drum pads

The electronic drum pads require five sets of percussion samples. These samples are provided in .wav format and comprise the following sounds:

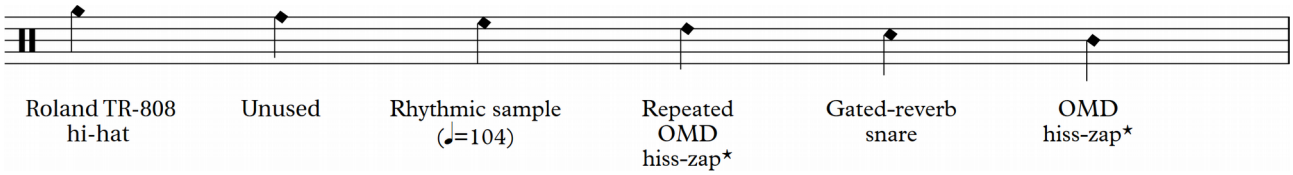
PRESET 1



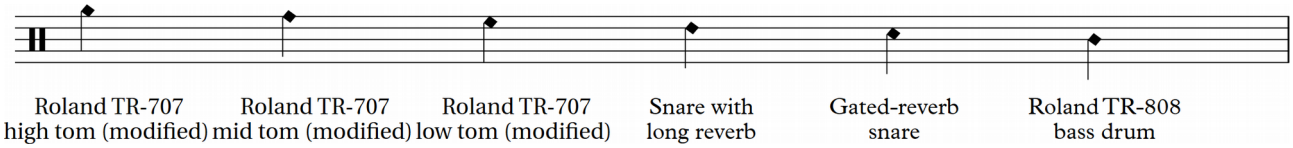
PRESET 2



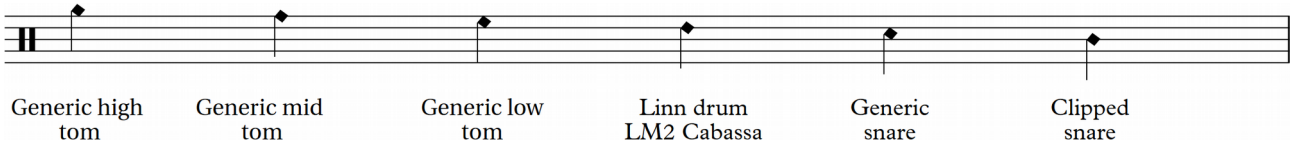
PRESET 3



PRESET 4



PRESET 5



* These sounds have been sampled from *Electricity* by Orchestral Manoeuvres in the Dark (A. McCluskey and P. Humphreys, 1980).

Rhythmic samples are fully notated in the score.