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UNIVERSITY OF CALIFORNIA, SAN DIEGO

Phenomena and Phoenix

A dissertation submitted in partial satisfaction of the requirement of the degree of Doctor of Philosophy

in

Music

by

Benjamin James Sabey

Committee in charge:

Professor Roger Reynolds, Chair
Professor Richard Grush
Professor Richard Moore
Professor Miller Puckette
Professor Shahrokh Yadegari

2009

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Chair

2009

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VITA

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Composition Teachers:

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-**Winner of Juventas! 2008-09 Call for Scores** 11/08: Piano solo, *Quaking Aspen,* selected for inclusion in the Juventas! winter concert series
-**Royaumont Prize** 8/07**:** Full scholarship and expenses paid to attend the Voix Nouvelles Composition Session 2008 at Royaumont, France including studies with Brian Ferneyhough and performance by Neue Vocalsolisten Stuttgart
-**Fellow, with full scholarship, Domaine Forget**, 8/07 studies with François Paris and Denys Boulianne and performance by Le Nouvel Ensemble Moderne
-**Fellow, Composers Conference at Wellesley College**, 7/06 studies with Mario Davidovsky and Kurt Rhode
-**Fellow, June in Buffalo**, 6/05 including master classes with Brian Ferneyhough, Christopher Rouse and Alvin Lucier
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-**Assistantship from the University of California, San Diego**, September 2002-Present
-**Fellow, Aspen Music Festival and School**, private studies with George Tsontakis, Summer 2002

-**First Prize: Vera Hinckley Mayhew Composition Contest**, 2002

Commissions:

-**Thomas Nee Commission from the La Jolla Symphony** 9/08**:** For a new orchestra piece to be performed under the direction of Steven Schick in the winter of 2009.

- Flutist Reiko Manabe: *Arc Flicker* for solo flute, completed Feb. 2008

- **Violinist Felix Olshofka:** *Phoenix* for violin and computer, projected completion: Spring 2008

- **The Kenners: Eric Wubbels, piano and Eliot Gattegno, saxophone** projected completion: 2008 or 2009

- Harpsichordist Takae Ohnishi projected completion: 2008 or 2009

- **Del Mar College Concert Band** projected completion: 2010

Future Projects:

- *New Work* 2008 or 2009, for the New York Miniaturist Ensemble
- *New Work* 2008 or 2009, for the Gina Ryan percussion duo
- *New Work* 2008 or 2009, for guitarist Pablo Gomez

Works List with Performances:

-***Phoenix*** for violin and computer, 12'
Spring 2009, **Felix Olshofka**, violin, **Benjamin Sabey**, computer, San Diego

-***Phrygian Winter*** for harpsichord, 7'
April 2009, **Takae Ohnishi**, San Diego

-***Quaking Aspen*** for piano solo, 7'
2/09 **Mark Polesky**, The Loft, La Jolla
12/08 **Julia Carey**
- Kaji Aso Studios, Boston Massachusetts
- The Lilypad, Cambridge Massachusetts
4/06, **Mark Polesky**, UCSD Studio A, San Diego

-***Tern: Solo for Three Flutes*** 12'
11/08, (multiple performances), **Areon Flutes**: Jill Heinke, Kassey LeBow, Tamara Maddaford, Amelia Vitarelli, San Francisco, California

1/05, **John Fonville, Kathleen Gallagher and Reiko Manabe**, flutes, Benjamin Sabey, conductor, San Diego

-***Aquamarine*** for vocal trio with crotales, 9'

9/13/08, **Neue Vocalsolisten Stuttgart**, Royaumont Abbey, Paris France

-***Arc Flicker*** for solo flute, 7'

12/07, **Reiko Manabe**, San Diego

-***Phenomena*** for chamber orchestra, 17'

8/07, **Le Nouvel Ensemble Moderne, Lorraine Vaillancourt conductor**, Francoys-Bernier Hall, Domaine Forget, Quebec

5/07, **UCSD Graduate Student Orchestra, Benjamin Sabey conductor**,

San Diego

-***Owl*** for string quartet, 10'

2/07, **The Arditti String Quartet**, San Diego

-***Inner Atmospheres*** for sextet, 16'

8/06, **Tara O'Connor, flutes, Jean Kopperud, clarinet, Dominic Donato, percussion, Christopher Oldfather, piano, Laura Frautchi, violin, Emanuel Feldman, cello, Efrain Guigui, conductor**, Jewett Auditorium, Wellesley Massachusetts

-***Unknown Atmospheres*** for clarinet, piano, violin and cello, 16'

5/06, **The Antares Ensemble**, San Diego

-***Depth of Field*** for clarinet solo, 7'

4/06, **Anthony Burr**, San Diego

-***Spirit Matter: duo for flute, clarinet, violin and cello***, 10'

6/05, **New York New Music Ensemble, James Baker, conductor**, Baird Recital Hall, Buffalo New York

-***Time: a Meditation*** for high voice and soprano saxophone

4/05, **Mimmi Fulmer, voice, Les Thimming, saxophone**, Madison,
Wisconsin

-***Watercolor*** for mixed choir

6/04, UCSD Studio A, San Diego

-***Focus Canon*** for guitar and percussion

1/04, **Pablo Gomez, guitar, Gustavo Aguilar, percussion**, San Diego

-***Sentient Sea*** for 10 players

8/03, **UCSD graduate student ensemble, Rand Steiger conductor**, San Diego

-***Blur*** for clarinet and piano

1/03, **Anthony Burr, clarinet, John Mark Harris, piano**, San Diego

-***Tern***, for flute and guitar
9/02, Aspen Music Festival, Harris Concert Hall, Aspen Colorado

-***Mysterious Underwater Creatures*** for mixed choir
4/02, BYU vocal student choir, Benjamin Sabey conductor, Madsen Recital Hall

-***Sentient Forest*** for orchestra
4/02, BYU student orchestra, Benjamin Sabey conductor, Madsen Recital Hall

-***Observing Nature*** for winds and percussion
4/02, BYU, Benjamin Sabey conductor, Madsen Recital Hall

-***Cooling Fantasy*** for piano solo
4/02, BYU, Madsen Recital Hall

-***Questions/Answers?*** for string quartet
4/02, BYU, Madsen Recital Hall

-***Among the Mushrooms*** for orchestra
4/02, BYU symphony orchestra, Kory Katseanes conductor

-***0,1,2,3*** for timpani, bassoon and clarinet
2001, BYU

-***An Organism*** for percussion duo
2001, BYU

-***Short Piece for Cello***
2000, BYU

-***The Hanging Sky*** for medium voice and piano
2000, BYU

-***Stopping by Woods*** for mixed choir and piano
1999, Ricks college choir, Benjamin Sabey conductor

-***I Sit Beside the Fire*** for medium voice and piano
1999, Ricks college, Benjamin Sabey baritone

-***Odds and Eights*** for piano
1999, Ricks College, Benjamin Sabey, piano

- ***Among the Mushrooms*** for piano
1999, Ricks College, Benjamin Sabey, piano

-***Trolls March*** for piano
1999, Ricks College, Benjamin Sabey, piano

ABSTRACT OF THE DISSERTATION

Phenomena and Phoenix

by

Benjamin James Sabey

Doctor of Philosophy in Music

University of California, San Diego, 2009

Professor Roger Reynolds, Chair

This dissertation contains an explanation of my aesthetic orientation and working methods as a composer with regard to my efforts to create "sensuous" musical experience. It also contains two scores: *Phenomena* for chamber orchestra (2007) and *Phoenix* for violin solo with interactive computer (2009).

Sensuousness in My Music:

An Analysis of *Phenomena* and *Phoenix*

Benjamin Sabey

Throughout my development as a composer, I have sought to create certain kinds of musical experience. From the beginning I have imagined sounds that are blurry, distant and evocative. I have imagined communicating feelings and appealing to intuition. I have desired to create sensuous music. What the term "sensuous" means and how I hope to create that kind of experience will be the topic of this paper.

The Oxford American Dictionary defines the word sensuous as "relating to or affecting the senses rather than the intellect," and further states that it implies, "gratification of the senses for the sake of aesthetic pleasure, or delight in the color, sound or form of something." [1] The way music can affect, "the senses *rather* than the intellect," is what makes it exciting, mysterious and challenging. In fact, I experience all music as sensuous in this way but music that has been composed

[1] This dictionary also includes the following interesting discussion, "The words **sensual** and **sensuous** are frequently used interchangeably to mean 'gratifying the senses,' esp. in the sexual sense. Strictly speaking this goes against a traditional distinction, by which **sensuous** is a more neutral term, meaning 'relating to the senses rather than the intellect,' *(: swimming is a beautiful sensuous experience)*, while **sensual** relates to gratification of the senses esp. sexually *(: a sensual massage)*. In fact, the word **sensuous** is thought to have been invented by John Milton (1641) in a deliberate attempt to avoid the sexual overtones of **sensual**. In practice, the connotations are such that it is difficult to use **sensuous** in Milton's sense. While traditionalists struggle to maintain a distinction, the evidence suggests that the neutral use of **sensuous** is rare in modern English."

from an alternative orientation, full of ideas and statements, provides less sensuous experience. I admire and appreciate much of it and enjoy encountering a brilliant concept or observing a fascinating development, but in the end, it is not "my music".

Ultimately, it is the challenge of working in a medium that can be mysterious and intuitive that compels me to persevere as a composer. Toru Takemitsu observed that, "a single strum of the strings or even one pluck is too complex, too complete in itself to admit any theory"[2], and admonishes simply that, "music is something to be listened to not explained."[3] In a culture awash with scientific arrogance, music stands as a constant reminder that knowledge, understanding and communication are not necessarily dependent on direct and repeatable observation. Music could even be considered an object lesson in Zen Buddhism (among other great spiritual traditions), which teaches that, "the ultimate truth of life and of things generally is to be intuitively and not conceptually grasped."[4]

Even though music inhabits a mysterious and intuitive realm, apart from intellect, a great deal of technical facility must be developed and a detailed and thorough plan must be created and implemented, if it is to be ideally realized. Writing music is like building a car in the dark. One knows what it should look like and how it should behave but one has to grope a lot to be willing to try and to err over and over. Painstakingly and patiently, parts must be fabricated, then assembled and linked using various tools and methods. These processes and techniques can be explained by the composer or deduced by the theorist down to the last detail, but in a piece that "works" the whole is always greater than the sum of its parts. The mystique of the Corvette cannot be experienced by reading the

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[2] Toru Takemitsu, *Confronting Silence,* Fallen Leaf Press, 1995. pg. 27
[3] *Ibid.* pg. 51
[4] Daisetz T. Suzuki, *Zen and Japanese Culture,* MJF Books, 1959. pg. 168

owner's manual and the wings of *Victory of Samothrace* do not appear to be, as they in fact are, huge slabs of stone.

Figure 1: Winged Victory of Samothrace

The following will explain, in so far as this is possible, what tools and methods I have developed for writing "sensuous music". Sensuousness in music can operate on two levels: 1) the sensory or physical and 2) the emotional or intuitive. These are separable types of experience and call for different types of musical material for their realization. Whether both types can successfully inhabit the same piece is a question that I have yet to fully answer and much of the trial and error alluded to has addressed this issue. Sensory sensuousness entails deriving aesthetic pleasure from the sensation provided by a stimulus or environment. For example, lying in the cool grass next to a babbling brook and

feeling the breeze and watching the clouds pass over head, is a very sensuous experience on the sensory level. On the emotional level, sensuousness takes the form of feelings without clear ideas attached to them. It is the ease and power with which music can communicate in these ways that sets it apart from other forms of art.

When I compose, I experience the conception of a new piece in my mind. I think about the kind of piece I want to write, bearing the instrumentation in mind, and at some point, it appears almost instantaneously. By "appears" I mean that I have a clear feeling or mental image of the piece, or more specifically, how the piece will sound. That is the easy part, as well as the most mysterious. At this point the arduous process of composition begins because while I know how the piece "sounds", I don't yet know how it begins, how it continues and how it ends. From the beginning the whole piece is there but still exists outside of time and space. The fact that I am able to experience this is one of the two conditions that make it possible for me to be a composer. The other is my willingness to attempt to translate this ethereal image into symbolic musical notation. This difficult process of translation involves bringing the mental image into the physical realm by generating musical materials, which are dictated by the image. These include harmonic progressions, melodies, collections of timbres and textures, etc. Translation also involves bringing the image into the realm of time by laying out the right form to contain it. Although the mental image has no material and exists out of time, it nevertheless requires, for its realization, specific materials and structures. In the following, I will explain some of the tools and strategies I have developed to accomplish this task of translation and I will show their operation through analyses of two recent pieces: *Phenomena* for chamber orchestra and *Phoenix* for violin and live computer interaction.

Very often, and in the case of both of these pieces, one of the conditions that the generative image dictates causes a bipartite, categorical division of musical

material. The image causes me to picture a musical **entity** entering and interacting with a musical **environment**. **Entity** material arouses emotional sensuousness**. Environment** material evokes the sensory type. In the pieces mentioned, the **entity** material was composed first as stand-alone solo pieces, which were then placed within an **environment**. In the case of *Phenomena* a five-minute piano solo was composed first. This constituted the **entity** while the rest of the ensemble plays the role of the **environment** into which it enters. In *Phoenix*, the violin part is the **entity** while the electronics are the **environment**.

As the name implies, **entity** material is analogous to intelligent or purposeful action. As I compose, I imagine that a character is introduced on a stage where I watch its actions and interactions with its environment. However, I do not think of this "character" as "saying" anything. Rather it communicates through feelings. Its actions are experienced sensuously on an emotional level rather than observed and interpreted by the intellect.

How does **entity** communicate feelings? At its foundation, it operates by accessing acculturation and/or providing habituation and then acting on those conditions. Encountering something familiar produces a characteristic emotional response, while encountering something foreign or unexpected produces a different one. Music theorist David Huron argues that emotions play an important role in the biologically adaptive ability to anticipate future events. While his theory is complex and I am not fully qualified to explain or comment on it, let it suffice to simply observe that strong emotional reactions can occur when predictions are incorrect. In matters of survival, these are very unpleasant but in the context of appreciating art, where one perceives oneself to be safe, these responses can be experienced as pleasant, even compelling. Huron posits that this contrast – where a *failure* in an important survival mechanism is perceived as *pleasant* – is fundamental to the richness of the emotional responses music elicits.[5]

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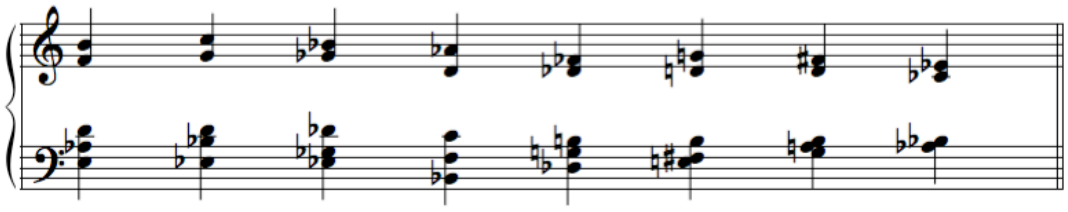
[5] David Huron, *Sweet Anticipation,* MIT Press, 2007. See chapter 8, for example.

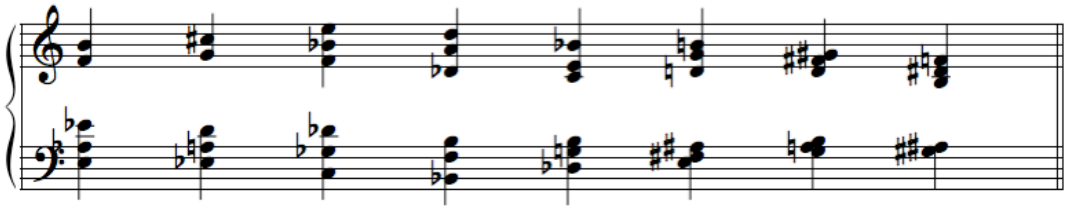
My mode of dealing with harmony stems from a conviction about the foundational importance and influence of tonality in western culture. The habituation caused by an all-pervasive tonal music constitutes the default paradigm and context within which any harmonic event is understood and interpreted. The western ear compares everything to tonality. If this is so, it follows that harmonic events that share characteristics in common with tonality will have a certain salience due to familiarity. If handled properly, they can reward the listener, in a sense, with positive emotions resulting for correct prediction. Since tertiary structures (harmonies built from thirds) are so familiar and expected from tonal habituation, they provide a strong context within which anything else that happens in the music may be understood. For example, where a tertiary structure is placed together with "non-chord" tones, these stand out in sharp relief. Tertiary structures can confer on an otherwise densely chromatic texture a sense of euphoniousness. They may be buried quite deeply under chromatic harmony and dense orchestration and still decisively color the experience. For these reasons, I always base harmonic **entity** material on tertiary structures.

The examples below show the basic harmonic material of *Phenomena*.

First Draft:



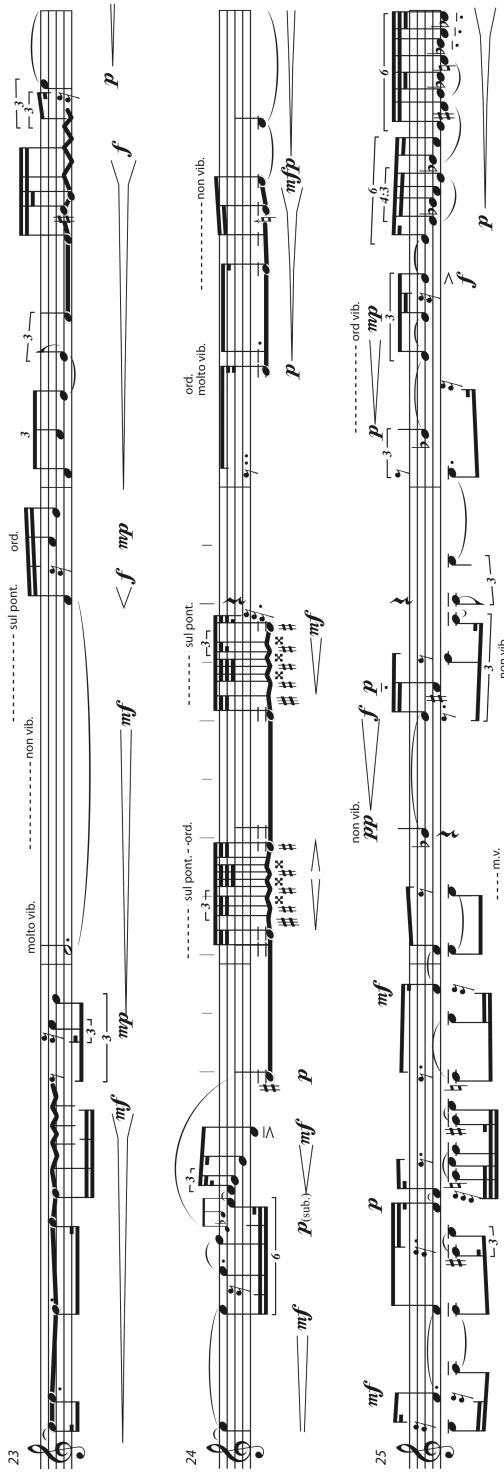
Second Draft:



Once the initial conception of the piece was made, the "first draft" harmony was composed, before anything else. It can be seen that all of these chords exhibit tertiary structure with a few non-chord tones. In the second draft, more non-chord tones were added and some of the chord tones were adjusted by a half step. These alterations stand out against the tertiary foundation of the chords. For me, imparting a "spicy" flavor to the harmony.

This collection of sonorities also exhibits a jazz-like harmonic progression that further helps the solo piano work, which underlies *Phenomena,* attain **entity** status. It is not assumed that a listener anticipates the next chord in the sequence as he or she would in a classic tonal setting but there is, I believe, a logic to their arrangement which is sensed in retrospect with each successive chord. This intuitively sensed logic of harmonic progression provides the **entity** with an implicit form of purposeful action, resulting in emotional sensuousness.

Within the realm of melody, a similar principle applies. The positing of a relatively stable ground provides a context against which deviations acquire meaning and flavor. Here, the ground evolves out of a redundancy that develops within the unfolding of the piece, rather than from a priori acculturation. Melody demands this shift in strategy because familiar melodies are wedded to their respective styles. Tonal harmony is not so weighed down in this way, having been employed in a myriad of styles throughout history. When the Beatles play a dominant chord, we expect the tonic to follow just as we do in a Bach Chorale even though the melodies thus accompanied are so foreign to each other stylistically. Of course familiar (which is to say habituated) melodic behavior could provide strong context for effective deviation and associated surprise, but the kind of information communicated by this mode of interaction would be too explicit and thus out of character for my **entity** concept. It would inevitably appear to be commentary on something outside of the piece, something that is well understood. My concern is that this could lead to an intellectual experience rather than the distinct sensuous experience intended here. In the following excerpt from the score of *Phoenix*, the method for building and breaking redundancy in melody becomes clear.


23
molto vib.
sul pont.
non vib.
ord.
24
sul pont.
sul pont.-ord.
ord.
molto vib.
non vib.
25
non vib.
ord vib.
non vib.
m.v.

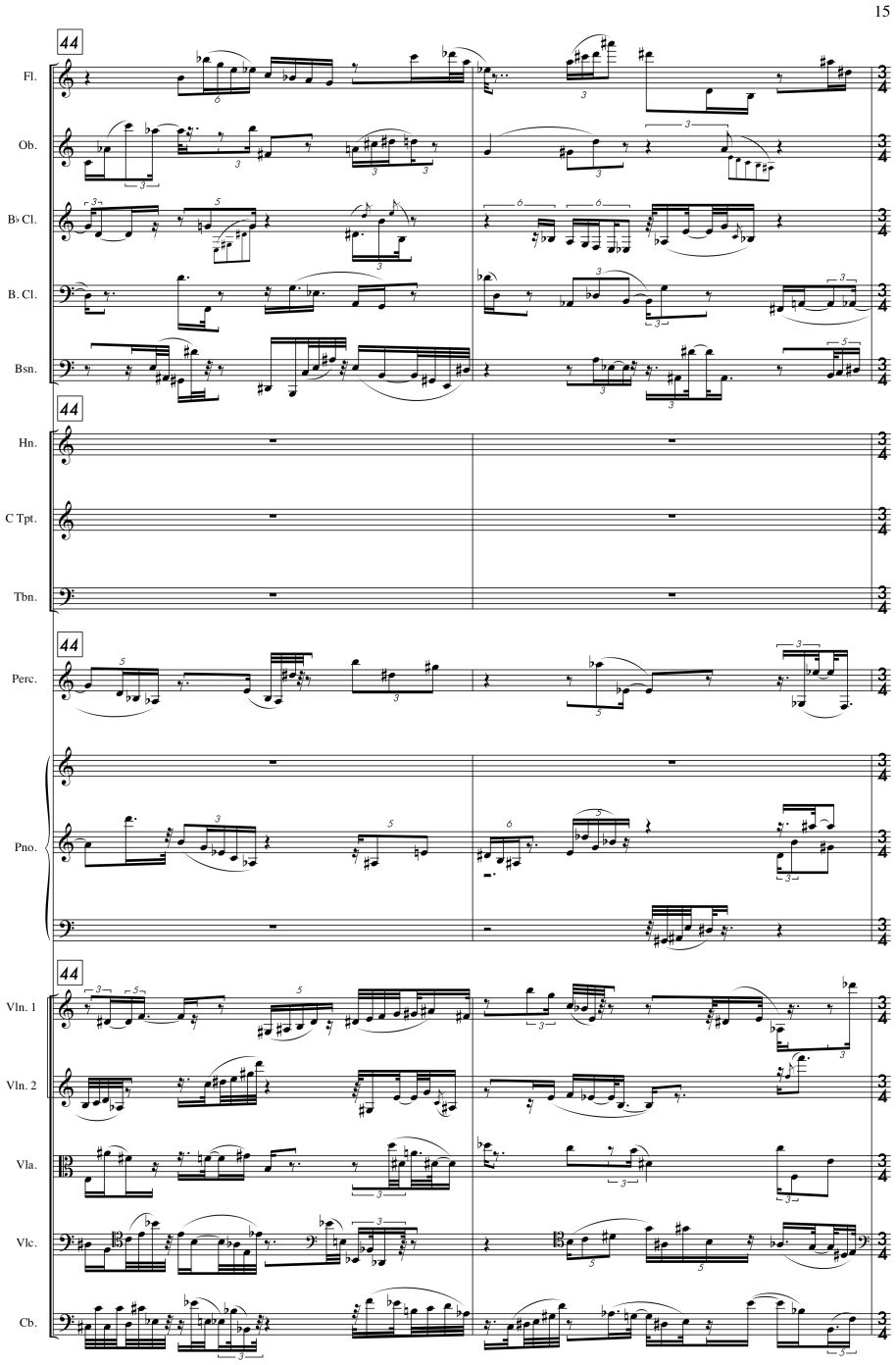
The first system presents the pitches C and F (with slight ornamental variation) for a significant duration such that the E appearing at the very end of this system feels like a new element. In the second system and the first measure of the third, two new pitch centers are emphasized: F and certain pitches in and around the vicinity of A. The appearance of the B flat in the second measure of the third system again feels like a foreign or spicy element in its register. This kind of melodic behavior may be easily observed throughout the score. Each outlying pitch carries with it a distinctive flavor that I hope one experiences more than one understands. Thus communication again occurs on the emotional level.

In additional to this, the melody becomes continuously faster and more active as time passes. This large-scale melodic process allows the listener to predict the future development with some amount of certainty. It invites the listener to engage. Once this acceptance is achieved, the possibility of creating events that are experienced on an emotionally sensuous level comes into play. The listener senses that a climax is coming but s/he does not know when or exactly how it will occur. Each twist and turn in the path can arouse emotional communication. This situation is, in fact, not dissimilar to tonal music in which the ultimate resolution to the tonic is anticipated while the artistry occurs in how this resolution is delayed.

With regard to the dimensions of timbre and texture, the **entity** relies upon conventional playing techniques and clear orchestration to ensure that it stands apart from **environment** material, which is by design unstable. While the considerations with **entity** material are relatively straightforward as regards the specification of timbre and texture, they become more complex and engaging in their deployment within the **environment**.

Environment material seeks to envelope the listener with a sensuous experience of sound. This is attempted by creating situations that are both

unfamiliar and non-directional so that acculturation, habituation, memory and expectation are all distanced. In the case of *Phenomena*, one method I used to create a sensuous texture involved (quite literally) cutting the piano solo into a hundred small snippets, each comprising not more than three or four beats. I then reshuffled these and assigned them as I wished to the ensemble the instruments. The result can be seen in the following excerpt from the score.

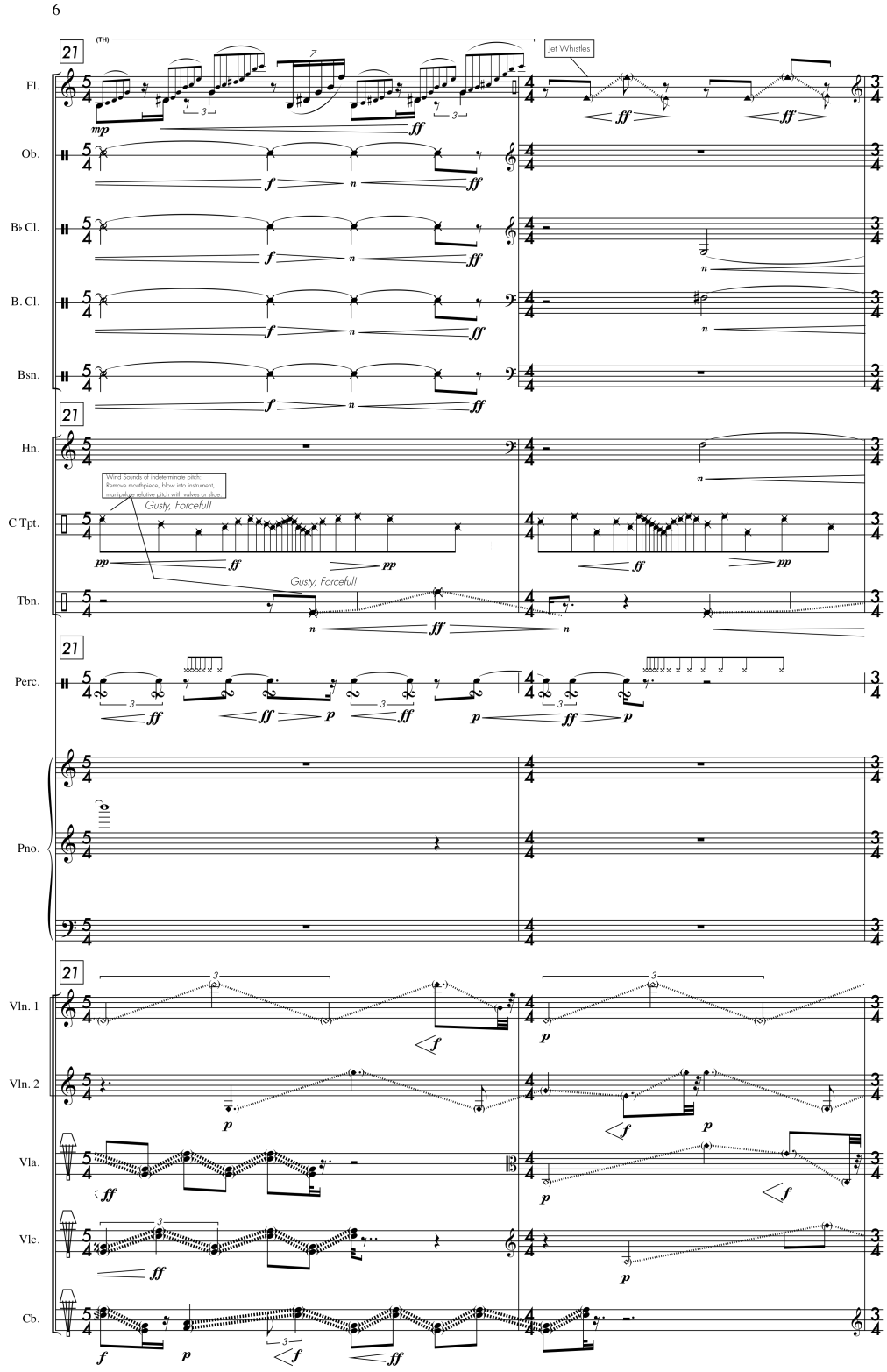


Each instrument plays its series of snippets quietly so that they cannot stand out. This method ensures an inexplicit texture, and also that any directionality or seemingly volitional relationship among pitches and harmonies is undercut.

Psycho-acoustician Albert Bergman explores a concept he calls “auditory scene analysis”: a mechanism whereby the brain attempts to parse the complex and intertwined patterns of sonic vibrations that reach the ear into streams and to assign these to the events in the physical surroundings that produce them. **Environment** material seeks to inhibit the auditory scene analysis function of the intellect by providing too much or too indistinct information as is shown in the example above. When the listener cannot label the sounds and does not perceive direction or experience expectation s/he is invited to perceive the sounds as purely sensuous experience.

Environment material is often produced without reliance on pitch since pitch suggests the perception of something concrete, which would likely belong more to **entity** material. An example of this can be heard at one point in *Phenomena* when the members of the ensemble are simply snapping their fingers and clicking their tongues producing a rain-like effect.

Where pitch does occur in **environment** material, it is either static or fleeting. By far the more common in my work, the later evanescent treatment can be seen in the following example:

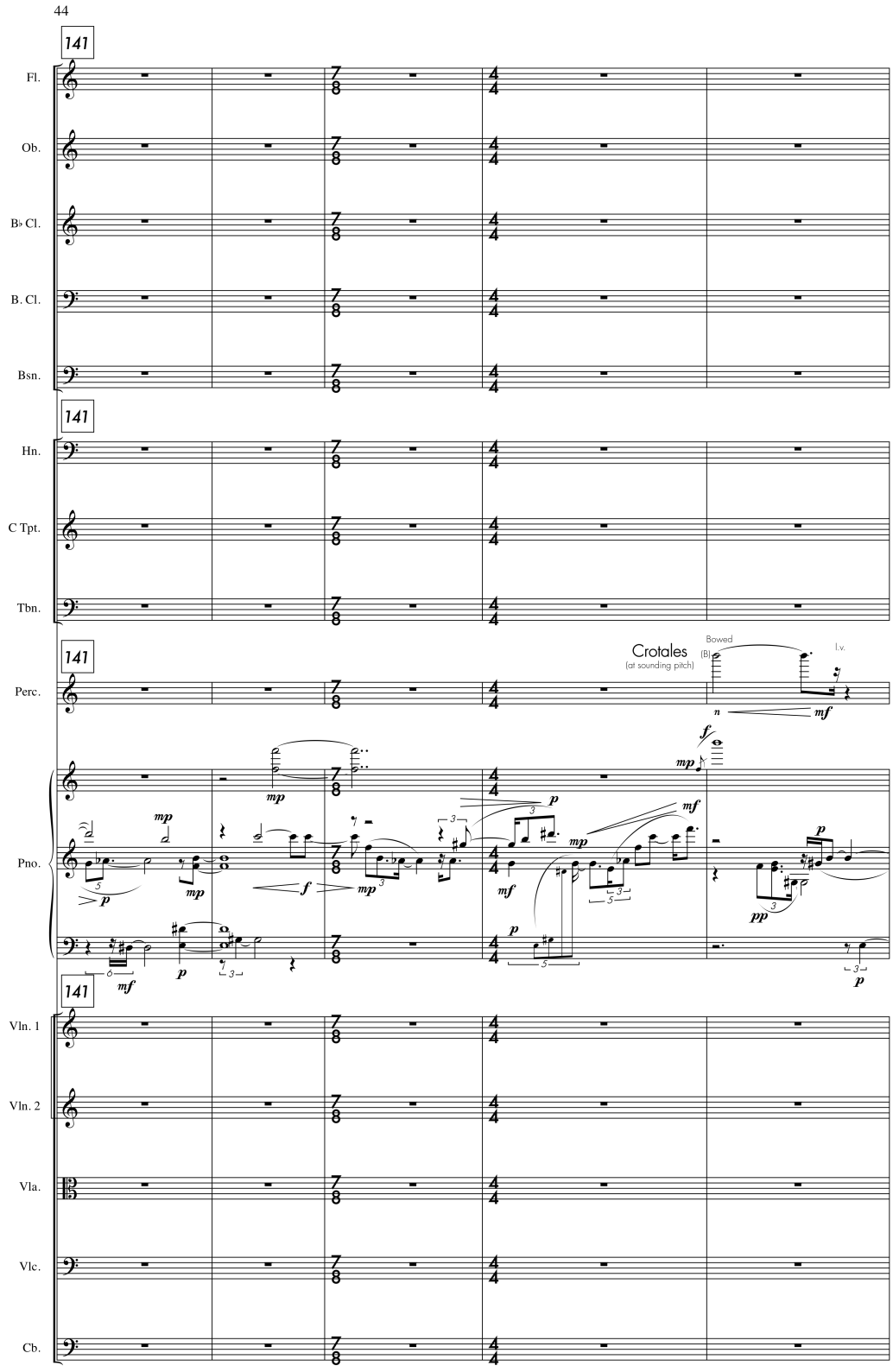

6
21
(TH)
Jet Whistles
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
Wind Sounds of indeterminate pitch:
Remove mouthpiece, blow into instrument,
manipulate relative pitch with valves or slide.
Gusty, Forcefull
C Tpt.
Gusty, Forcefull
Tbn.
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

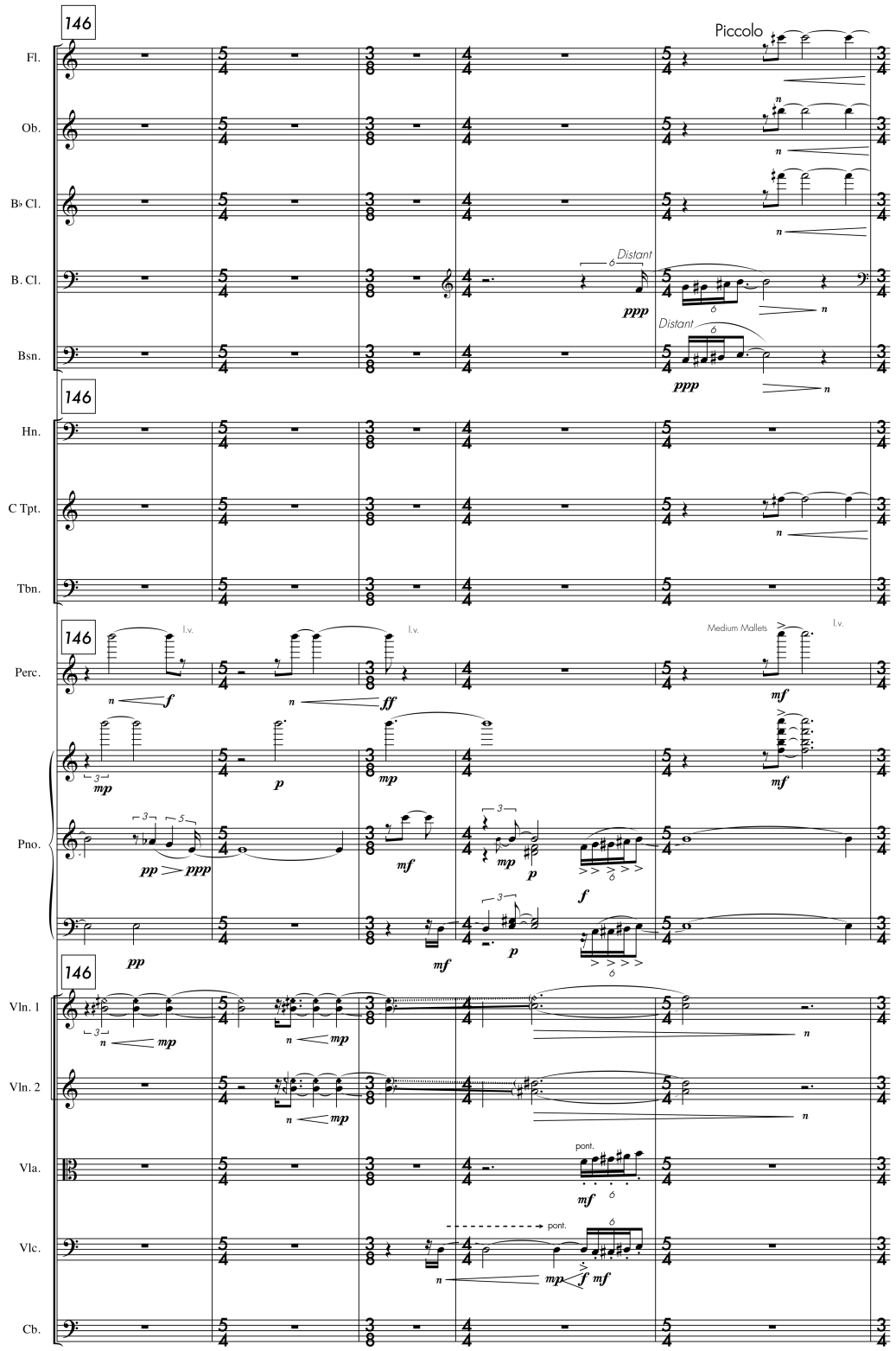
In the flute part, grace-note figurations and jet whistles do produce pitches but these pass so quickly and are so varied that they are perceived on a gestural level rather than a melodic or harmonic level. The glissandos in the strings are of two varieties. The diamond note-heads represent harmonic finger pressure and the light dotted lines, finger glissandos. The normal note-heads with the thick dotted-line glissandos and the clef that looks like a fingerboard, indicate a col-legno playing in which the bow (or doweling rod in this case) moves along the length of the string, rather than across as is normal. These techniques produce glissando gestures with minimal and extremely fleeting pitch accompanied by noise. The brass players are instructed to remove their mouthpieces and blow into the tubing from a short distance while fingering grace-note figurations. Here again some sense of gestural contour is produced but with very little explicit pitch information. To add even more noise to the texture, the percussionist busies himself with pouring rice on the bass drum as the winds blow into or at their instruments, producing wind-like noise. There is no logical progression here, but there is an abundance of activity.

Indistinct texture and the perception of motion or gesture caused by glissandos and quick figurations each produce sensory sensuousness but in different ways. In the case of the former, the effect depends on a lack of a certain kind of concrete information while the later works through inviting a certain "physical" experience of the sound. This last point accords with a theory of Arnie Cox's called the "mimetic hypothesis". It basically states that we experience music at least partially through the process of imagining that we are performing the sounds we hear with or within our own bodies. In the case of a conventional melodic line, he finds that many people "sub-vocalize" as they listen. This means that they imagine producing the pitches, which activates some incipient tension or motion in the vocal mechanism. Where the musical content is less pitched based and exhibits fast and wide-ranging gestures, I speculate that the listener experiences a sense of motion or incipient energy in other parts of their bodies

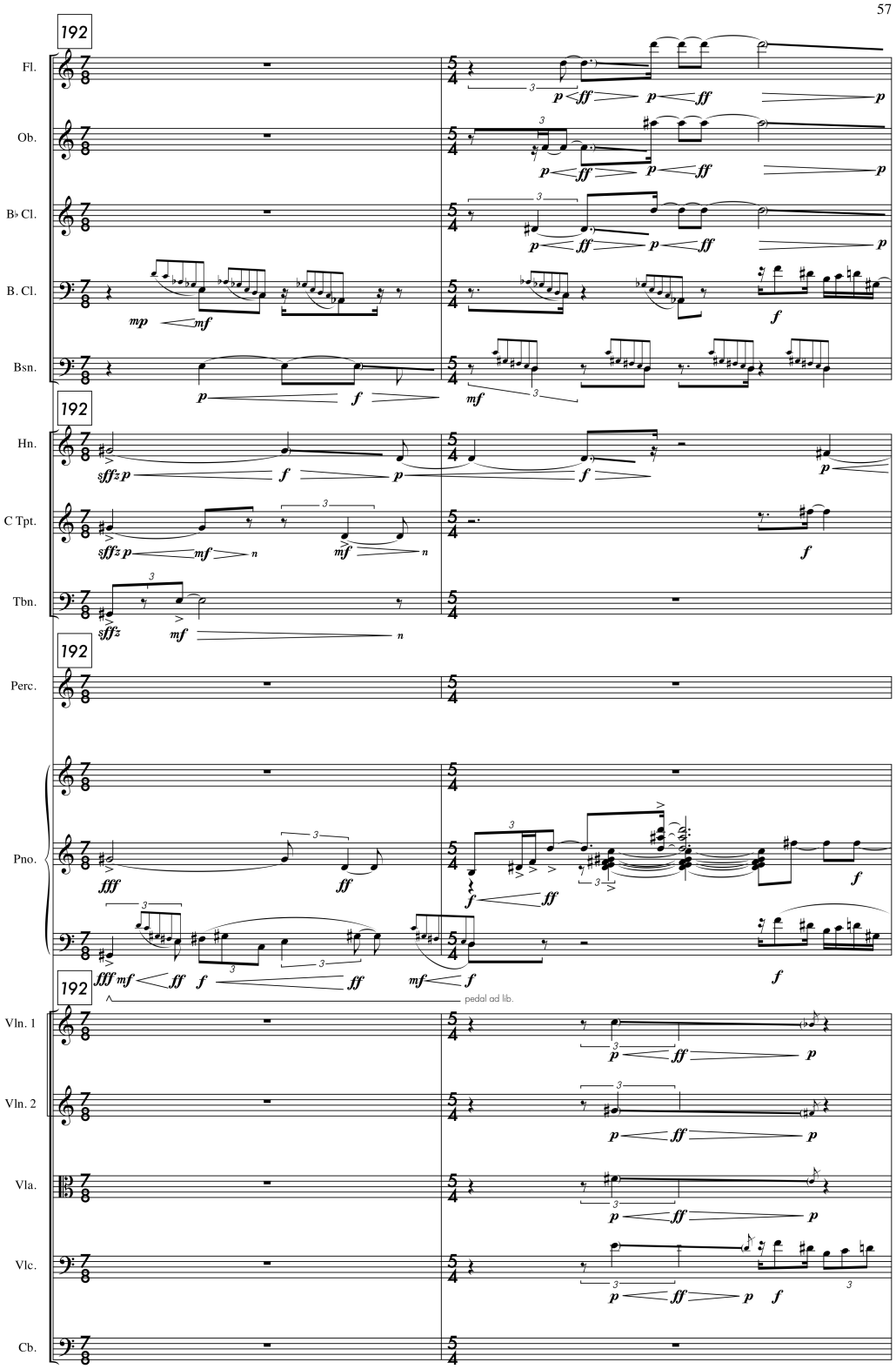
that accords with the speed and motion of the gesture. Thus **environment** material seeks to overwhelm the scene analyzer and engage the body to create sensuous experience.

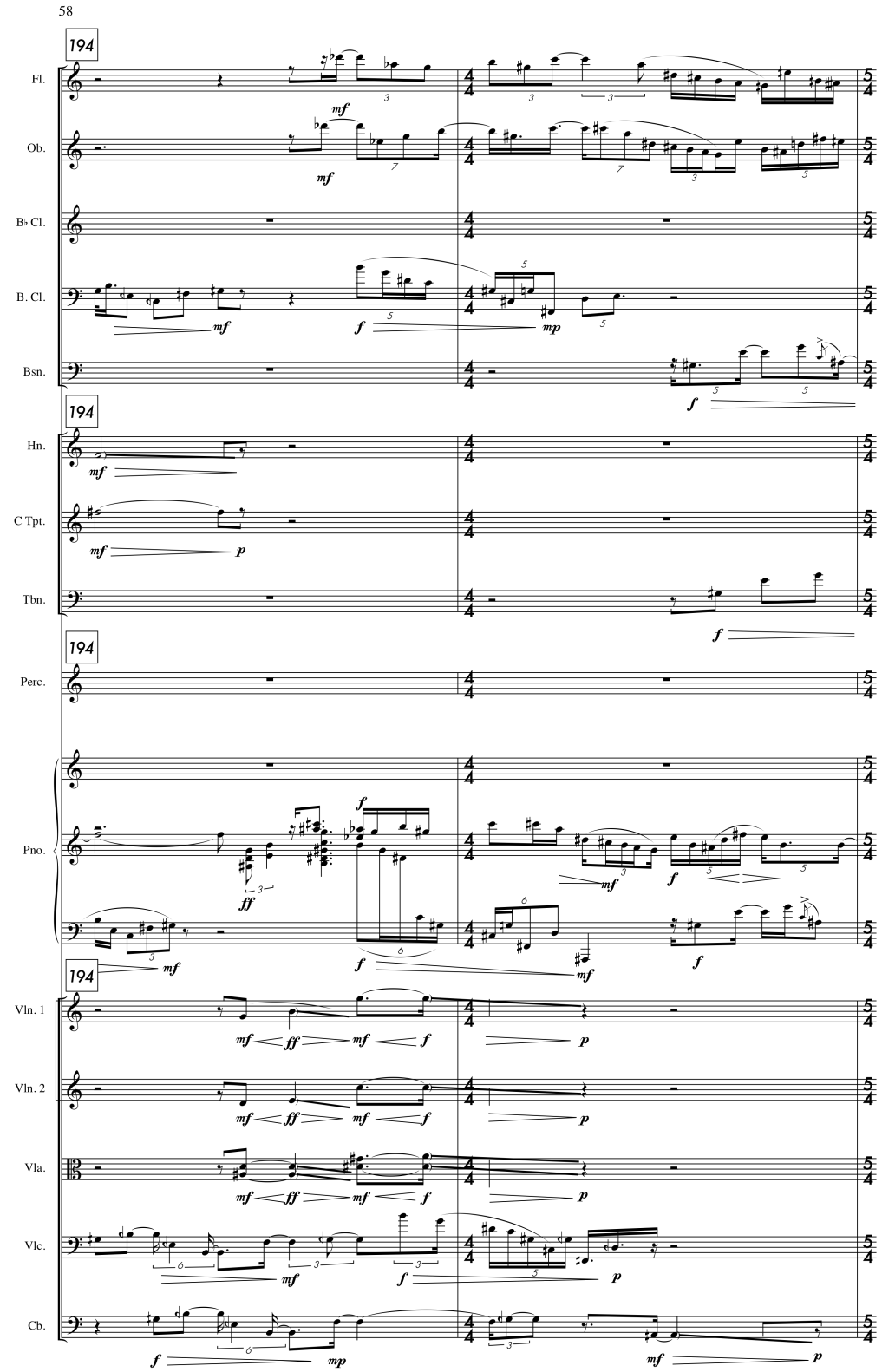
Entity and **environment** materials do not, of course, exist in isolation but interact with and contextualize each other during the course of a piece. In the case of *Phenomena,* the **environment** takes on an extensive role. The first two thirds of the piece constitute an evolution within the **environment** from noisy, richly textured and chaotic behaviors such as those mentioned above through to more pitch-based, melodic, but still blurry gestures, finally culminating in a series of dense sonorities. These suddenly give way to the timbral, melodic and harmonic clarity of the piano solo **entity**. This very long preparation, lasting about two-thirds of the eighteen minutes of the pieces, creates a fairly well defined world that the piano enters and inhabits. Once the **entity** makes an unequivocal appearance, the **environment** recedes but also takes on an interactive role. This can be seen in the following example where the orchestra provides "echoes" of the piano material as if stimulated by the **entity**.

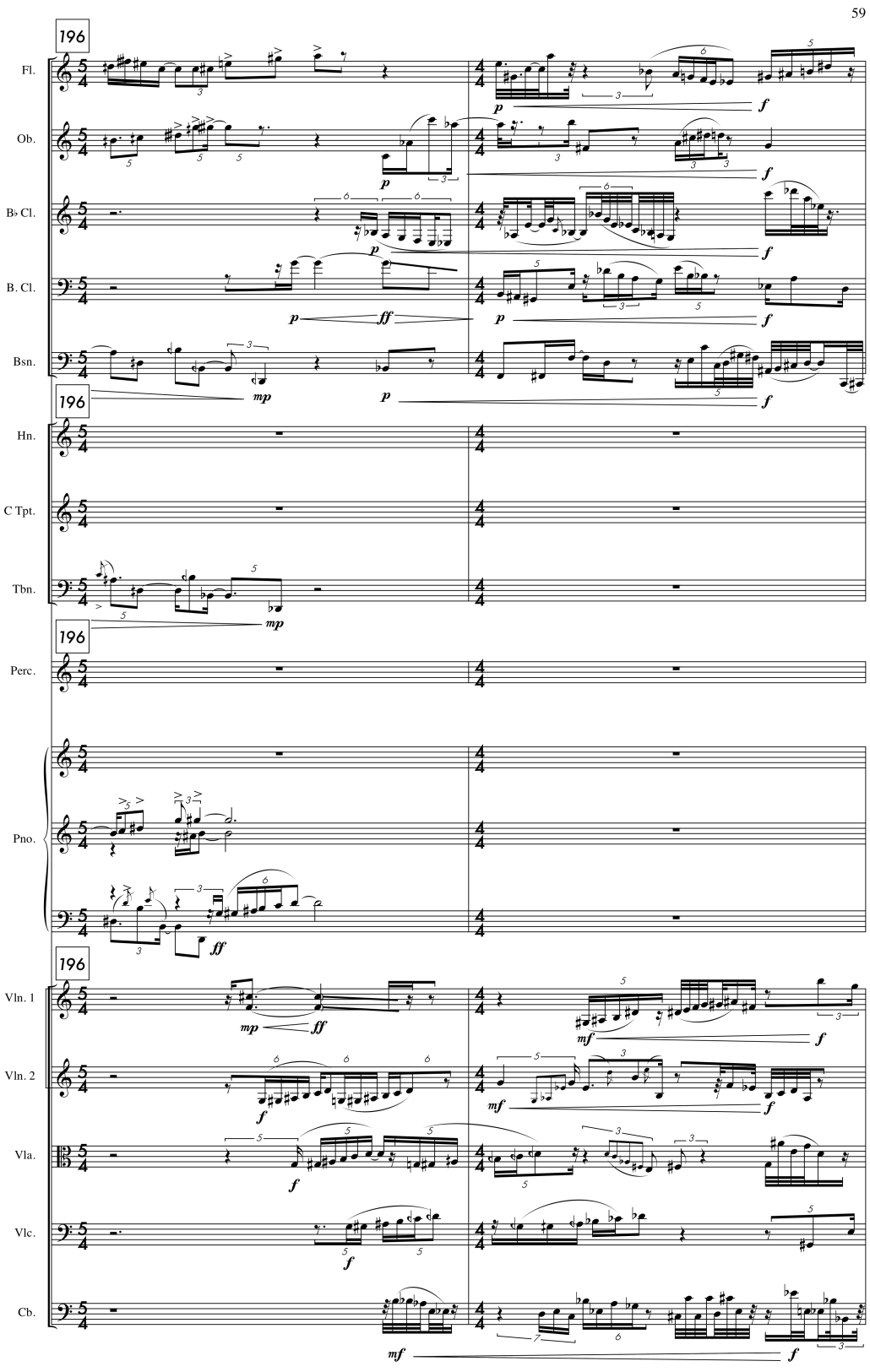

44
141
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
141
Hn.
C Tpt.
Tbn.
141
Perc.
Crotales
(at sounding pitch)
Bowed
l.v.
Pno.
141
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

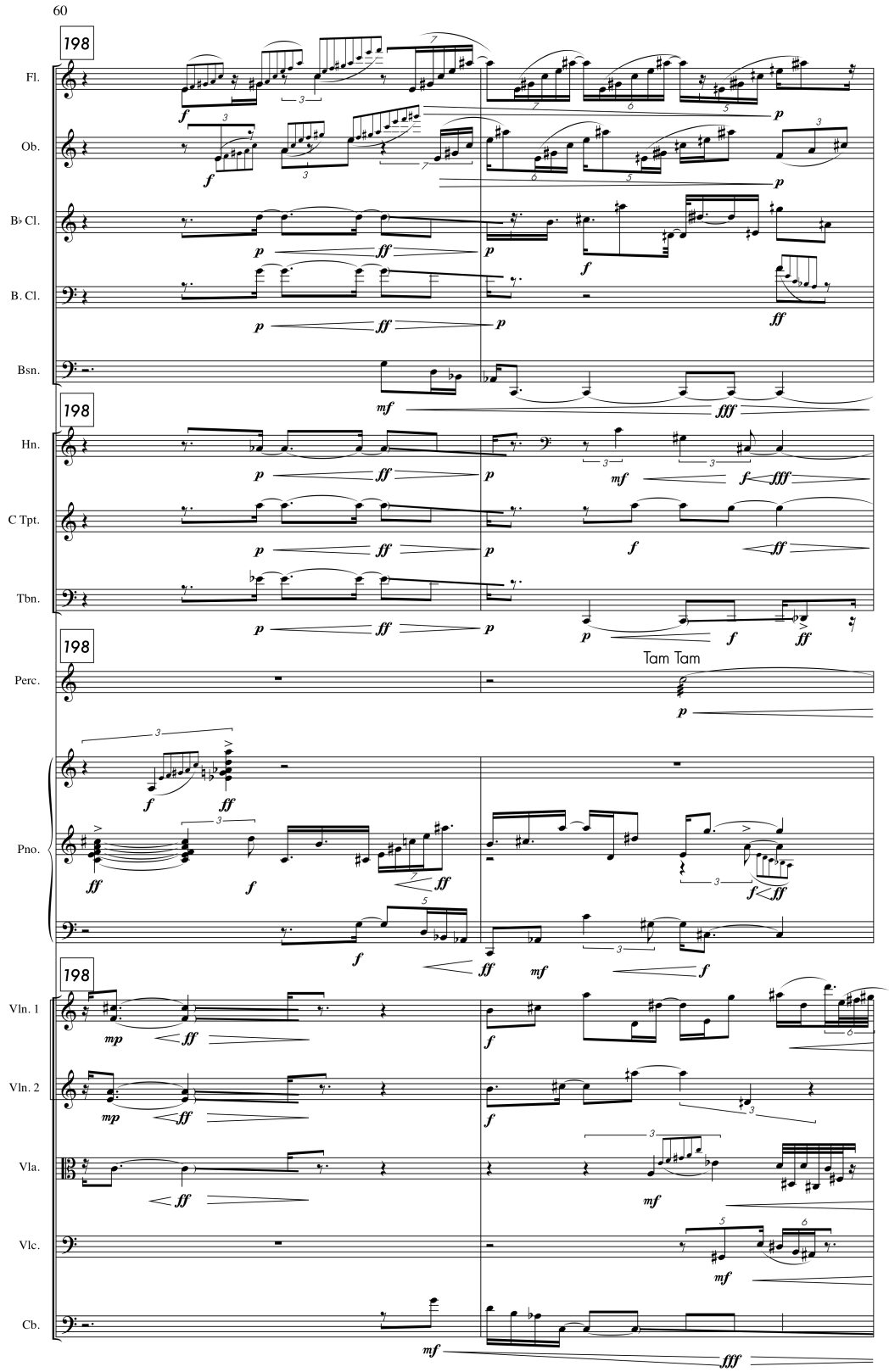

146
Piccolo
Fl.
Ob.
B♭ Cl.
B. Cl.
Distant
ppp
Distant
ppp
Bsn.
146
Hn.
C Tpt.
Tbn.
146
l.v.
l.v.
Medium Mallets
l.v.
Perc.
f
ff
mf
mp
p
mp
mf
Pno.
pp
ppp
mf
mp
p
f
pp
mf
p
146
Vln. 1
mp
mp
Vln. 2
mp
pont.
Vla.
mf
pont.
Vlc.
mp
f
mf
Cb.

Later the **environment** returns to a more active role but still lead by and deriving material from the piano. In the following excerpt from the score, it can be observed that the ensemble derives all of its gestural and pitch content from the solo and repeats it back immediately almost as though emulating digital delay lines. After emerging gradually from the evaporating **environment,** the **entity** actually regenerates it, then becomes lost within it again. This kind of thinking plays an important role in the violin and electronics piece as will be shown later.


57
192
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
pedal ad lib.


58
194
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
194
Hn.
C Tpt.
Tbn.
194
Perc.
Pno.
194
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.


59
196
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
196
Hn.
C Tpt.
Tbn.
196
Perc.
Pno.
196
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.


60
198
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
198
Hn.
C Tpt.
Tbn.
198
Perc.
Tam Tam
Pno.
198
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

In *Phoenix*, the relationship of the **environment** to the **entity** takes a much simpler and more straightforward form but does so in a way that I have thought a great deal about. The violin solo constitutes the **entity** while the electronics plays the role of **environment**. The nature of this relationship attempts to express a particular idealistic approach to the use of electronics with live performance.

As I have written, in my qualifying exam, one of the issues with electronic music is a problem inherent in auditory scene analysis. According to Bregman, the goal of the inner scene analyzer is to assign the complex of sonic vibrations that reach the ear to the events in the environment that produced them. In the case of electronic music, there are no instantiating events, in the moment, only "disembodied" sounds. While it cannot be denied that thrusting the mental scene analyzer into this "weightless" situation is potentially engaging, I feel that this presents serious obstacles to the creation of compelling music. In many less successful pieces of electronic music, I have the impression that I am watching an illusionist perform a series of tricks. I know that there are causal relationships between the actions and the results but I am not privy to them. All of the energy required to produce the sounds lies hidden inside electrical wiring, fluctuating magnetic fields and invisibly vibrating speaker cones. This is opposed to the kinetic energy observed in the movements of a violin bow or the breathing of a flutist. In speaker-disseminated music, I feel that I am being held at a distance and if the results seem to be produced without effort, I have difficulty caring about them.

After carefully studying a number of pieces with electronics that seem in one way or another to effectively address this issue, I have developed my own approach to solving this fascinating problem. Morton Feldman has said, "The problem of music, of course, is that it is, by its very nature, a public art. That is, it must be played before we can hear it. One beats the drum, then hears the sound…One can't just imagine sound as an abstraction, as not being related to someone pounding the piano or beating a drum. To play is the thing. This is the

reality of music." While one certainly *can* imagine sound as an abstraction, I have desired to write music with electronics in which the illusion of causality that he refers to exists; an electronic music that is "performed". This kind of music is rare in serious art circles but is very common in popular music with its ubiquitous electric guitars. No one thinks of electric guitar music as "electronic music" because of the way that it is performed. The listener watches the performer make the sounds. Vision and sound are wedded. I have strived to accomplish this situation in *Phoenix*.[6]

Simply stated, the goal of the piece is to put the performer in complete control of the electronic sounds through his or her normal playing techniques and to allow for the possibility that this relationship is perceived by the audience as an (at least quasi-) kinetic, causal relationship. The electronic sounds are made up of live and instantaneously responsive processing of the detected signal. The **environment** material, then, plays a somewhat less decisive role in this piece than it did in *Phenomena*. It functions essentially to transform the violin such that it becomes a different type of instrument and one with new capabilities. This could be seen as a compromise of the potential role of **environment** material as deployed in *Phenomena,* but it is one made consciously in an effort to achieve the causal relation that I have always missed in electronic music. Following is a detailed description of how the **environment** functions both technically and perceptually to create sensuous, experience.

The computer "patch", prepared in Max/MSP, processes the signal essentially in three ways.[7] At the heart of the patch is a Max "object" called *fiddle*

---

[6] Incidentally, the image of Jimi Hendrix burning his guitar on stage has floated in the background of my mind throughout the process of writing the piece.

[7] Max works by providing a huge series of "objects" that do various things to audio signal or that make various kinds of calculations. These objects can be hooked to each other using "patch cords" to build, from scratch, patches of limitless scope and complexity.

which continuously reports amplitude, pitch and also detects attacks (among other things). For the first live process used in the piece, a quiet flickering noise occurs when *fiddle's* amplitude envelope follower reports relatively low intensity levels. This flickering fades out as the amplitude of the live violin increases. So normal playing at a medium dynamic level does not excite the process. The speed of the flickering is also controlled by amplitude. It speeds up and intensifies with increased dynamic level. The flicker effect is created by feeding a very long reverberation into a frequency shifter whose frequency is dependent on the amplitude of the signal. The following table portrays the evolution of frequency values over time. The x-axis represents amplitude level, the y-axis, frequency. As amplitude increases the frequency values increase as well, but in a very non-linear way that emphasizes and variegates the flickering behavior.

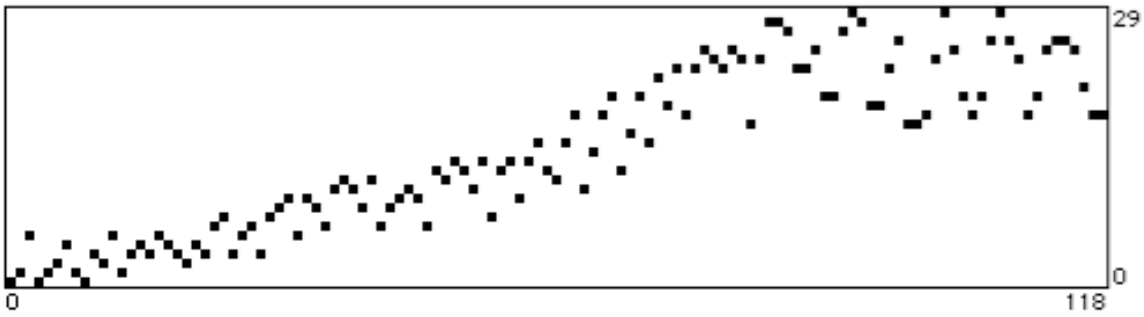
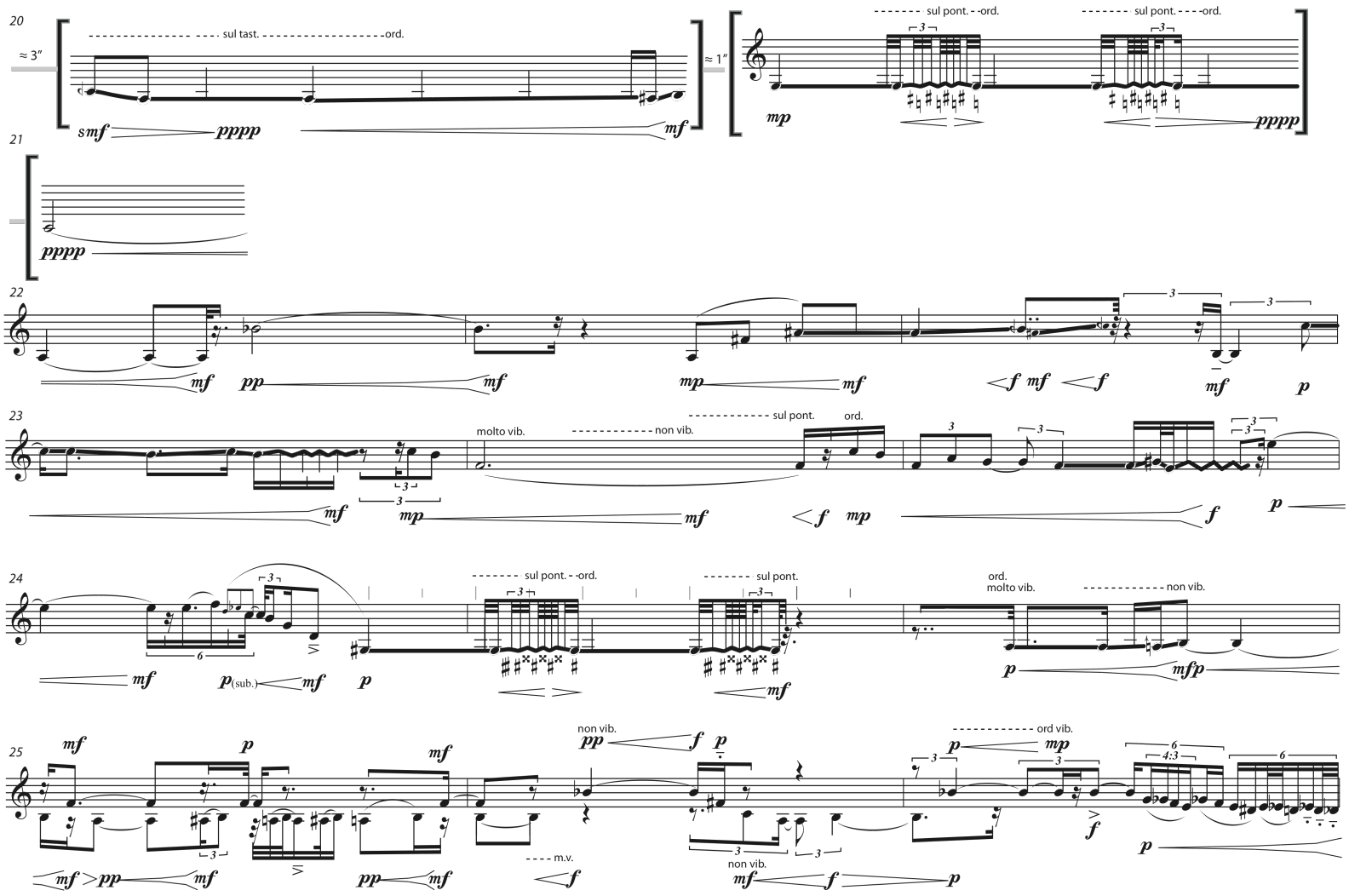


Figure 2: Table controlling flicker behavior

This process produces an effect that I feel is sensuous. Its behavior follows certain perceivable patterns but its precise frequency and the exact speed of its flicker is constantly in flux. In addition, it occurs mainly as the violinist plays wild glissando and fast tremolo material but with very little finger and bow pressure. In fact the violinist uses two bows to play the piece. One is without rosin, so that pitch cannot be easily elicited from the instrument, which instead produces quiet, noisy sounds. In these sections of the piece there is very little concrete information to which the intellect could respond.

A second process involves a pair of pitch shifters that diverge slightly from the input signal (the pitch being played by the violinist). The shadowy expansion, both above and below the performers pitch, expands, as the violinist plays louder. This effect occurs when the signal is fairly loud and when a single pitch is held. Thus it comes into play mostly with the long crescendos on a single pitch that dominate the beginning of the piece. Each of these events starts in a distant background of flickering sound and emerges gradually. As the pitch-shifted versions of the signal gradually diverge from the performed center, the sound becomes thicker. It produces beating effects and acquires more dissonance, as the performers intensity rises. This process culminates in an exponential crescendo to a *slightly* uncomfortable amplitude, as through screaming. The extreme dynamic range that these events cover also relies on a gain level detector controlled by the amplitude of the input signal. The gain, of course, increases as the violinist plays louder. These events are intended to produce a visceral experience, perhaps evoking the impression that the sound of the violin is approaching the listener in an aggressive way. Here is an example of a type of material that inhabits an ambiguous middle ground between **entity** and **environment**. While there is stable pitch information, it is perhaps too static and timbrally complicated to communicate in the emotionally sensuous way described above. As the piece progresses however, the successive performed pitch events become shorter and occur with increasing speed such that they begin to coalesce into melody. As they do so, the pitch shifter becomes less operative because it is programmed to work only with longer durations. At some point, then, the **entity** emerges from the **environment** and begins to "act" and "communicate" directly through increasingly melodic behavior. The following example shows a section in which this occurs.


20
≈ 3″
sul tast.
ord.
smf
pppp
mf
≈ 1″
sul pont.
ord.
sul pont.
ord.
mp
pppp
21
pppp
22
mf
pp
mf
mp
mf
f
mf
f
mf
p
23
molto vib.
non vib.
sul pont.
ord.
mf
mp
mf
f
mp
f
p
24
mf
p(sub.)
mf
p
sul pont.
ord.
sul pont.
mf
ord.
molto vib.
non vib.
p
mfp
25
mf
p
mf
mf
pp
mf
pp
mf
non vib.
pp
f
p
m.v.
f
non vib.
mf
f
p
ord vib.
p
mp
f
p

The third process that occurs in *Phoenix* takes the form of a series of delay lines by which copies of the original performed signal are played back in quick succession following closely after the live violin. These delay lines become activated when the patch detects a sufficient number of attacks, as reported by the *fiddle* object, and when these occur within a short enough time frame. In other words, as the live signal becomes more and more active, the patch adds slightly delayed copies of the live performers events in order to create ever more chaotic clouds of activity. If the violinist rests, the delay lines are gradually attenuated. The example below shows this part of the patch, which I call the local attack accumulator. As more attacks are fed in, the number in the box at the top goes up and the blue sliders, which control the gain of each line, are turned up in succession. When the violinist rests, the boxed number gradually decreases and the lines are turned down successively in reverse order. At "8" the first two delay lines are at full gain while the second and third are proportionally less present.

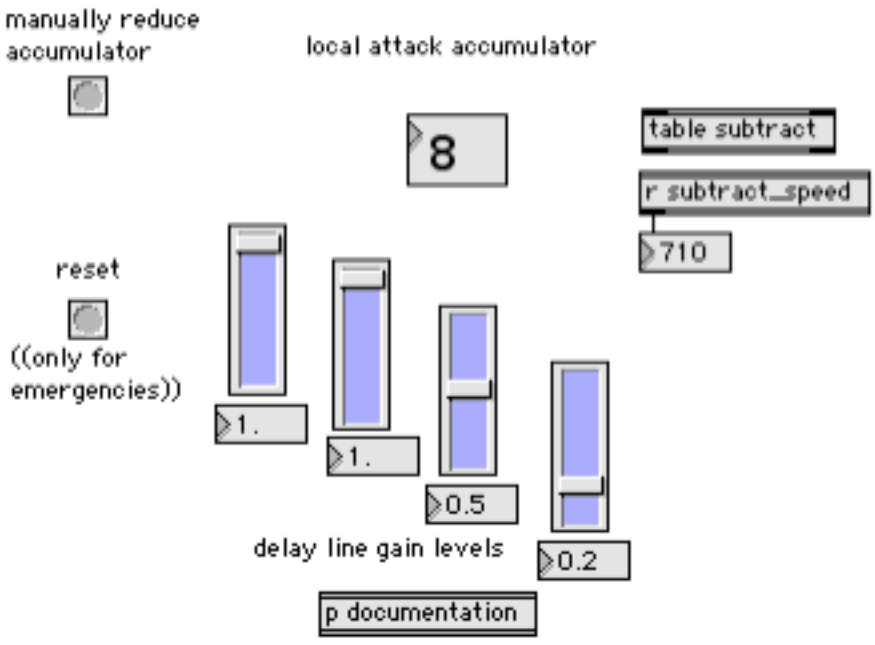
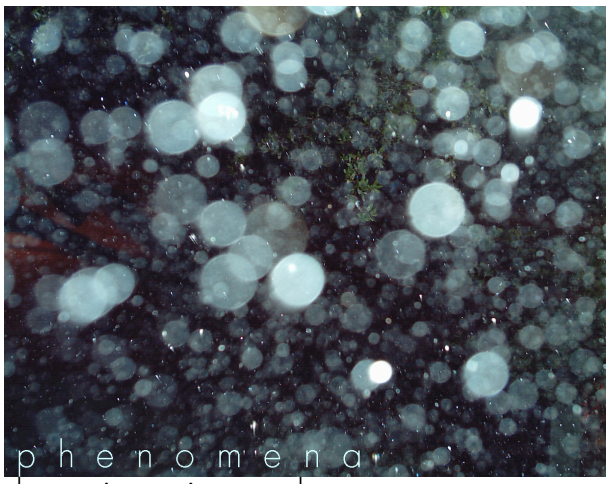


Figure 3: Local attack accumulator

This mechanism shares similarities to physical systems, such as violins, for example, into which energy must be fed up to a certain minimum level in order to excite the system and set it in vibration. If the stimulus stops, the system returns to a state of rest. It was very important in the realization of this piece that this kind of causal and kinetic energy transfer with which we are all familiar in the physical world, be simulated by the electronics for the piece. The electronic effects aspire to create a visceral experience. As the delay lines add more and more information to the texture, and as out auditory scene analyzer becomes confounded, the **environment** overtakes the **entity.** Hopefully, the listener becomes swept away by the overwhelming level of information and sheer volume into a purely sensuous experience of motion and contour.

Music excites us because of its potential to provide pure experience. Other forms of art rely upon objects, words, scenes, scenarios. Music need not partake of such concrete, heavy material. Ideally, music could even leave ideas behind to soar into a stratosphere of pure emotion and sensation. Striving for this goal involves carefully weighing the information presented in the music, testing it for contaminants that might drag it down to earth, then mixing it to right alchemical balances. Once thus painstakingly prepared, in the ignition of a performance, it hopefully can culminate, viscerally and emotionally.


phenomena
benjamin sabey

phenomena

Performance Notes:

Score is written as sounding except for the piccolo and contrabass which sound an octave higher and lower respectively.

Instrumentation:

Flute, Piccolo
Oboe
Clarinet in Bb
Bass Clarinet
Bassoon

Horn in F
Trumpet in C
Trombone

Percussion:
Vibraphone, Tam Tam, 2 Bass Drums (prepare Bass Drum II by pouring at least 2 cups of rice onto the surface), 1 Large Timpano, Sizzle Cymbal, Small Suspended Cymbal, Medium Cymbal (to be placed on Bass Drum II at measure 29), 3 Large Cymbals (one suspended, one placed on the Timpano from the beginning, one to be placed on Bass Drum II at measure 29), Crotales (Choose 5 that are not otherwise needed to be placed on Bass Drum II at measure 37), Large Domed (nipple) Gong, Tubular Bells, Piano (four-hands).
Piano

Violin 1
Violin 2
Viola
Cello
Contrabass
String players use a .5 inch thick, 2 foot long wooden rod beginning at measure 20.

Staves and Clefs:

The Single-Line Staff with percussion clef is for sounds without pitch.

The Three-Line Staff with rectangular clef is for sounds of indefinite pitch. These sounds will often have a lot of noise and/or will produce unpredictable pitches.

This clef is a diagram of the tailpiece, bridge, strings, fingerboard and nut of the string instruments. When used with a three-line staff, the top line of the staff represents the bridge and the bottom line the nut.

Distant vs. Present:

The markings, "Distant" and "Present" should be understood as an attempt to create a sense of vast space.

"Distant" playing should be sotto voce, or barely audible to the audience. Since actual distant sounds are characterized by a certain diffuse or blurry definition, this effect should also be simulated by a lack of articulation, slurred playing and diffuse timbre (i.e. breathy playing, the muted effect of sul tasto, etc., etc.). Where there are other instruments playing, the dynamic level of "Distant" playing may be increased so that it remains barely audible.

"Present" playing is normal playing and may include some quiet material. However, it should always be distinguished from "Distant" playing through a greater precision of articulation and timbre.

Conductor's Notes:

Although the music from measures 34 through 102 is madeup of widely various and continuously changing playing techniques the goal is for the ensemble to balance and fuse into a single, rich and complex texture. The resulting effect should be like rain or rustling leaves or a babbling brook. Passages marked "Present" or "Solo" should stand out against this complex background.

From measure 55 through measure 125, multiple instruments often play a slightly different version of the same melodic line simultaneously. The goal is that these groups fuse into a single line which will create a blurry effect. Each member of a group should therefore strive to blend with the others in that group by matching dynamic level and timbre and by playing very legato.

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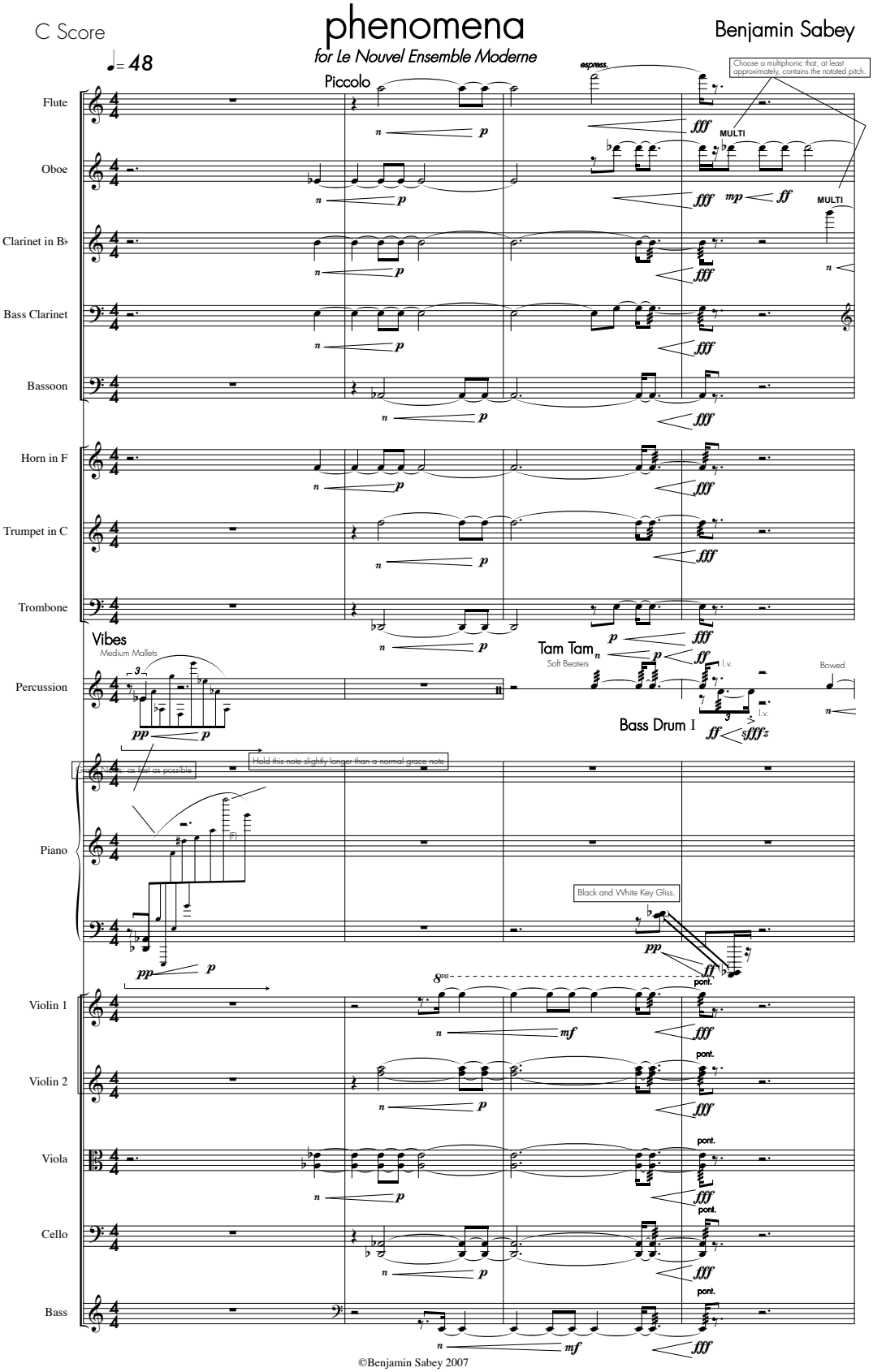

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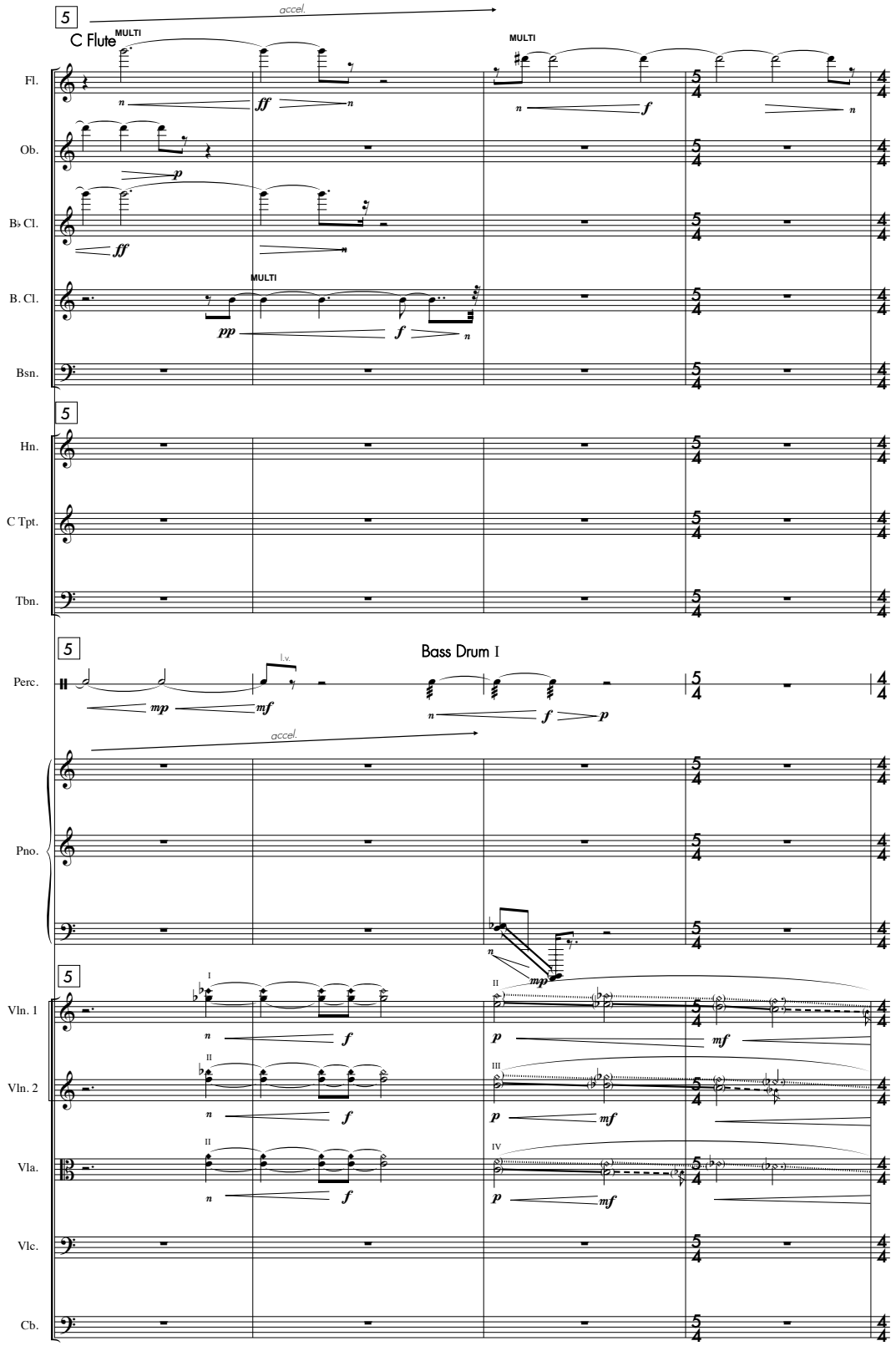
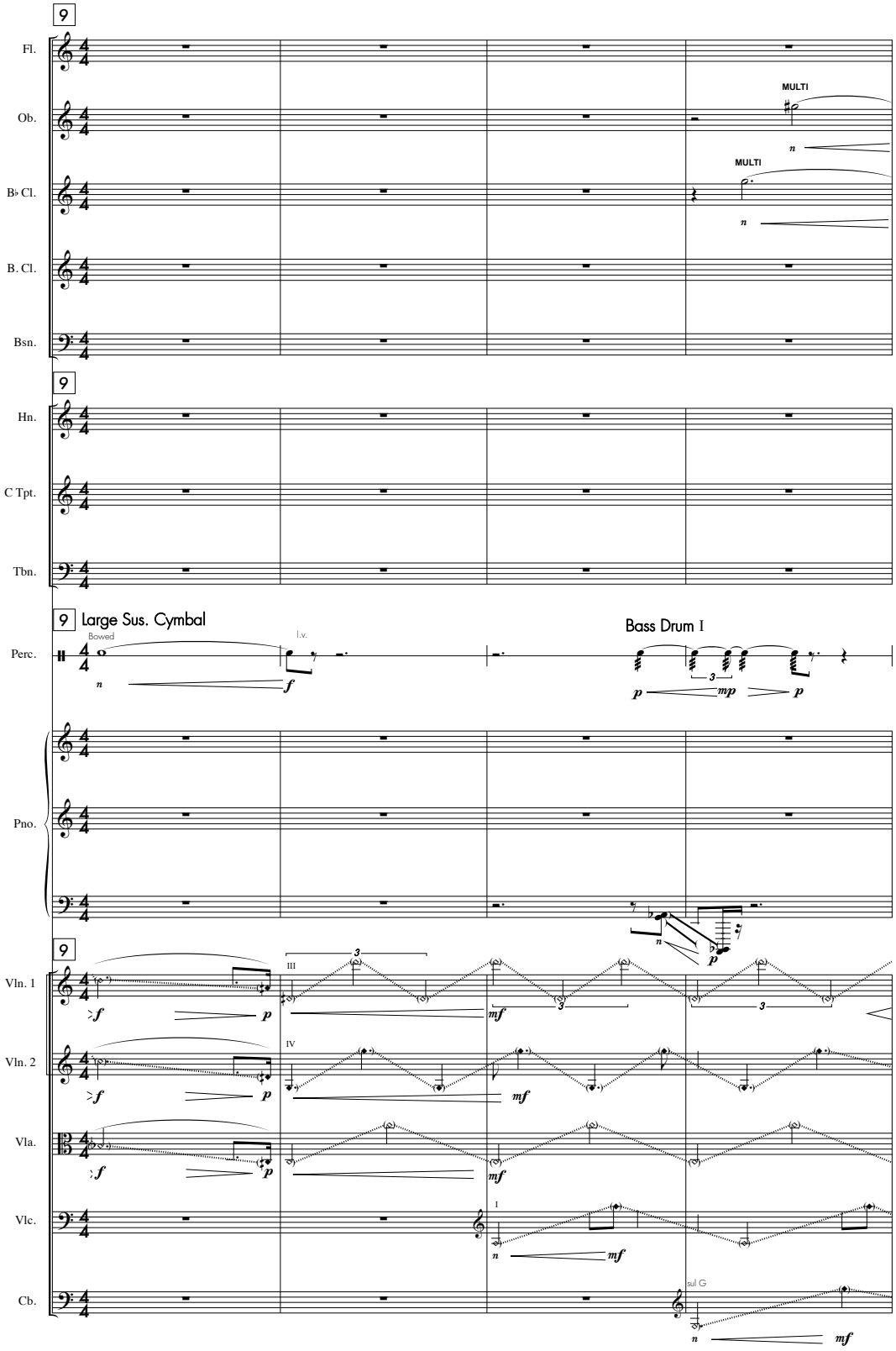
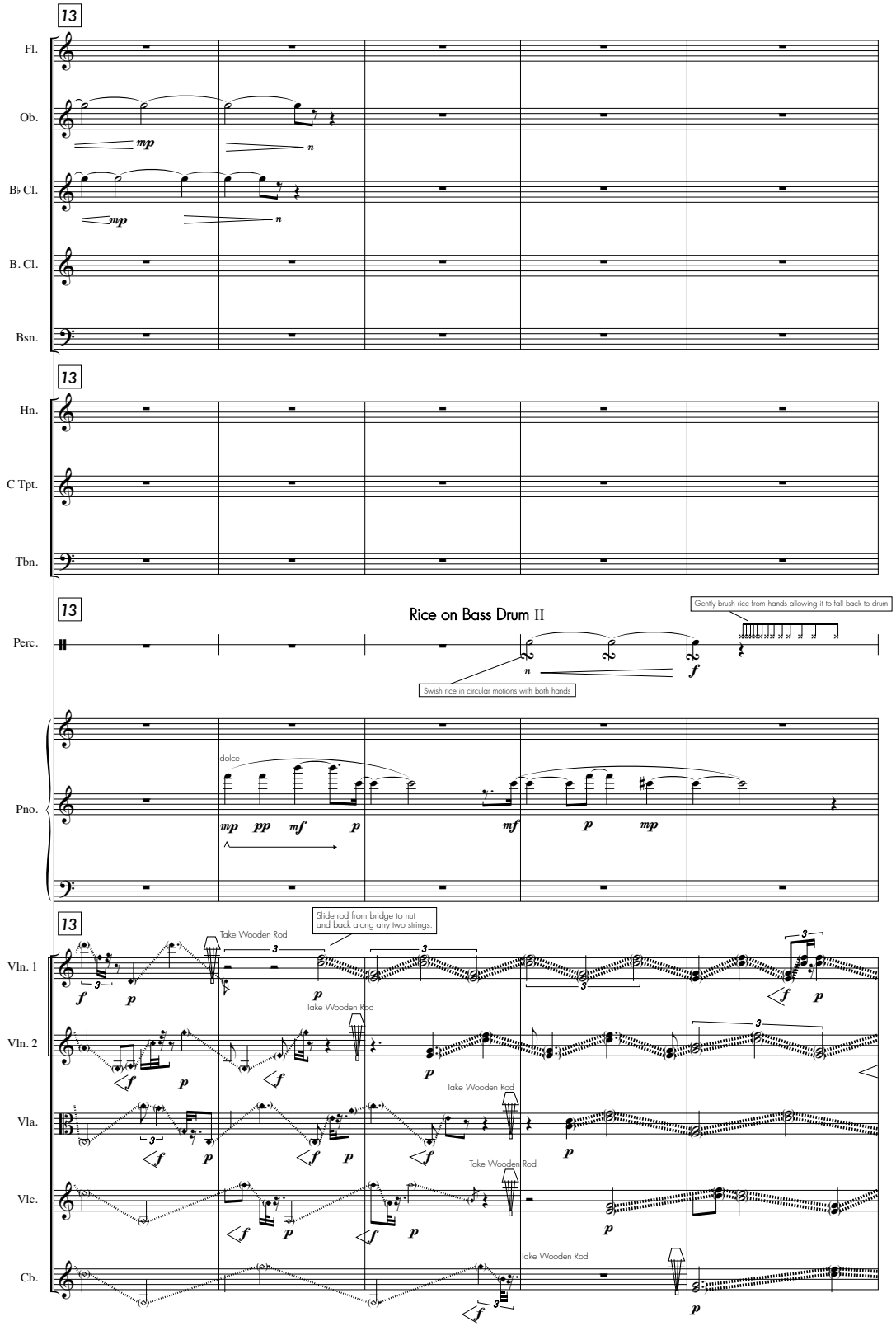
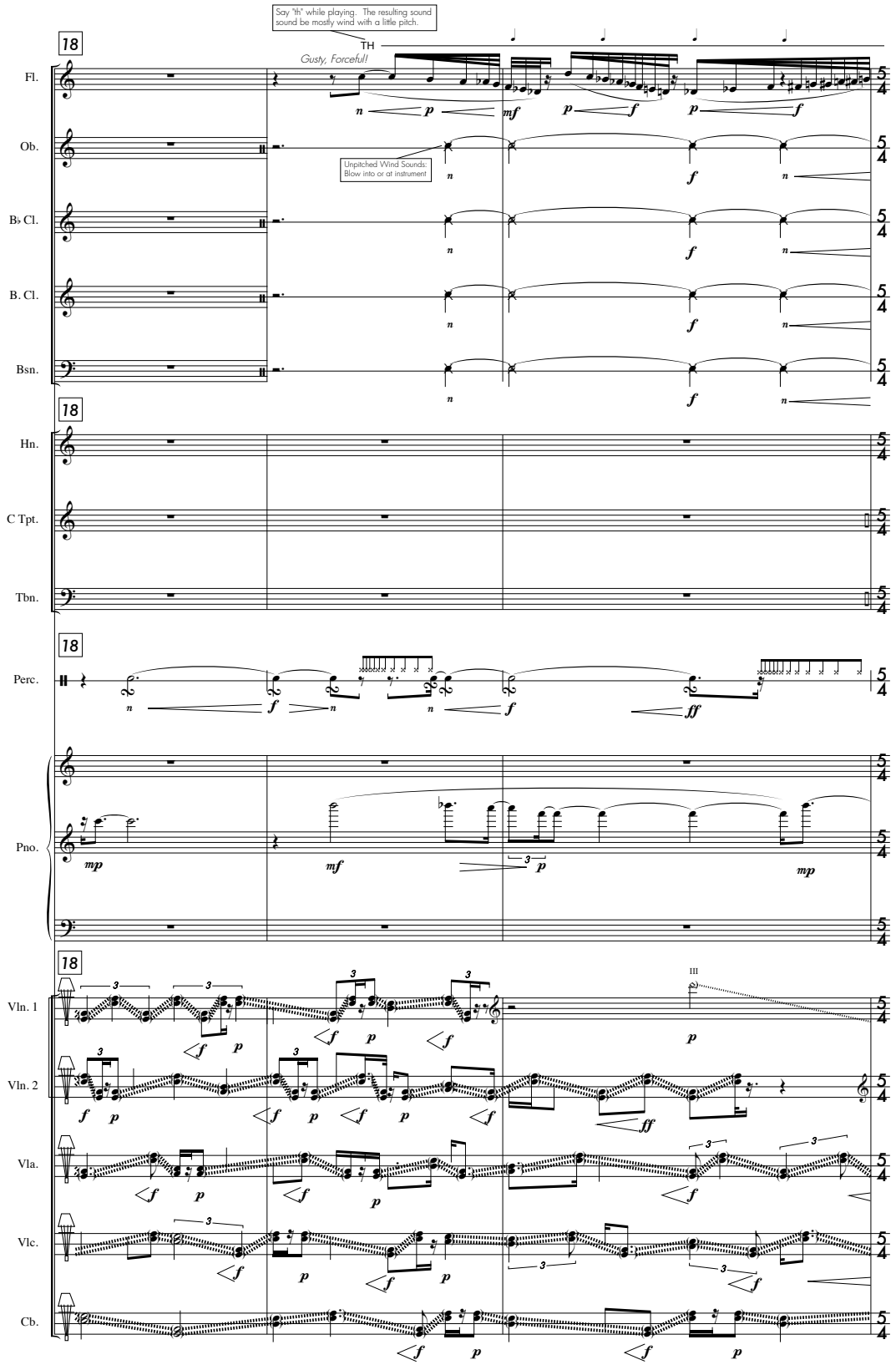
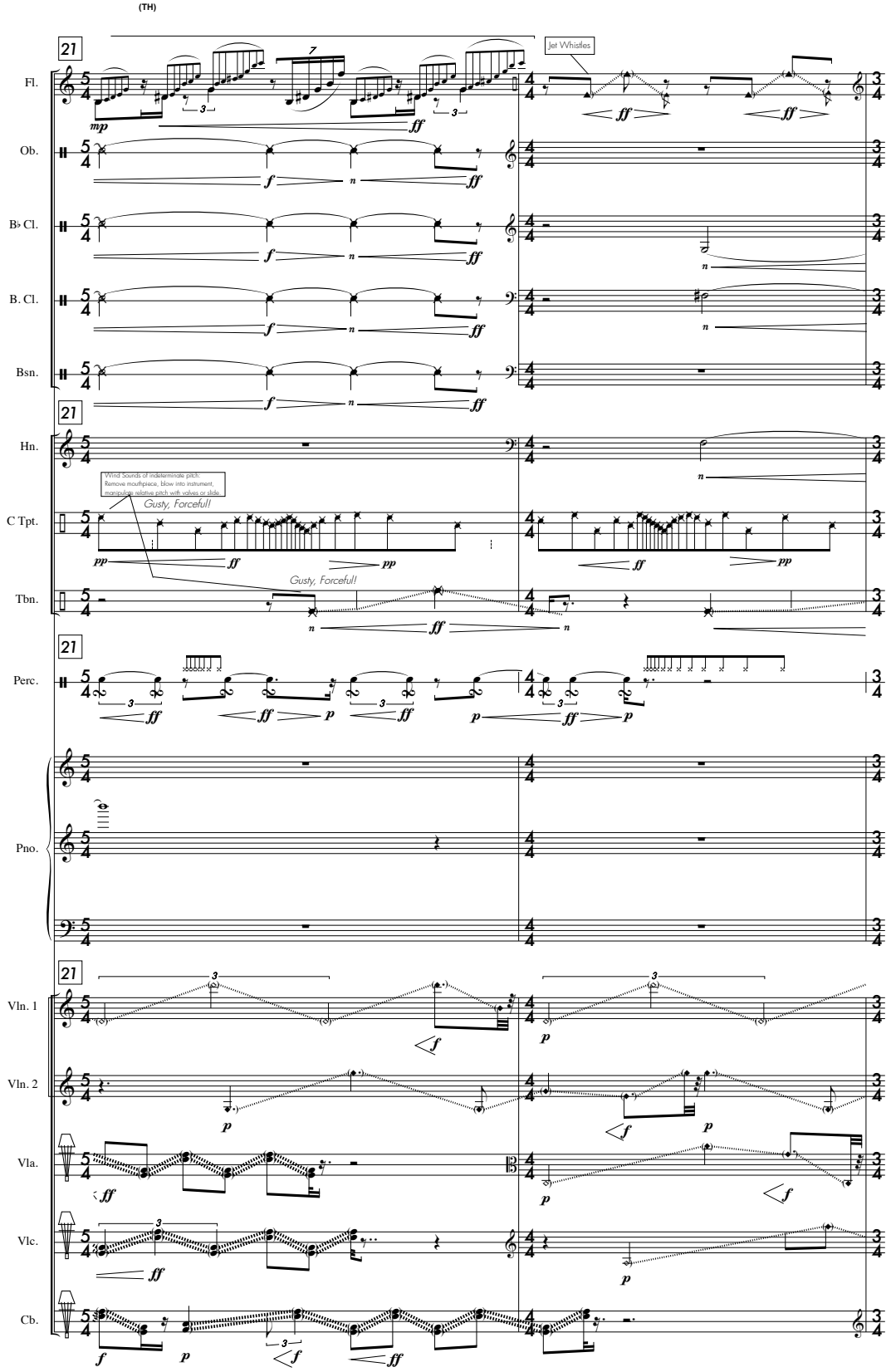
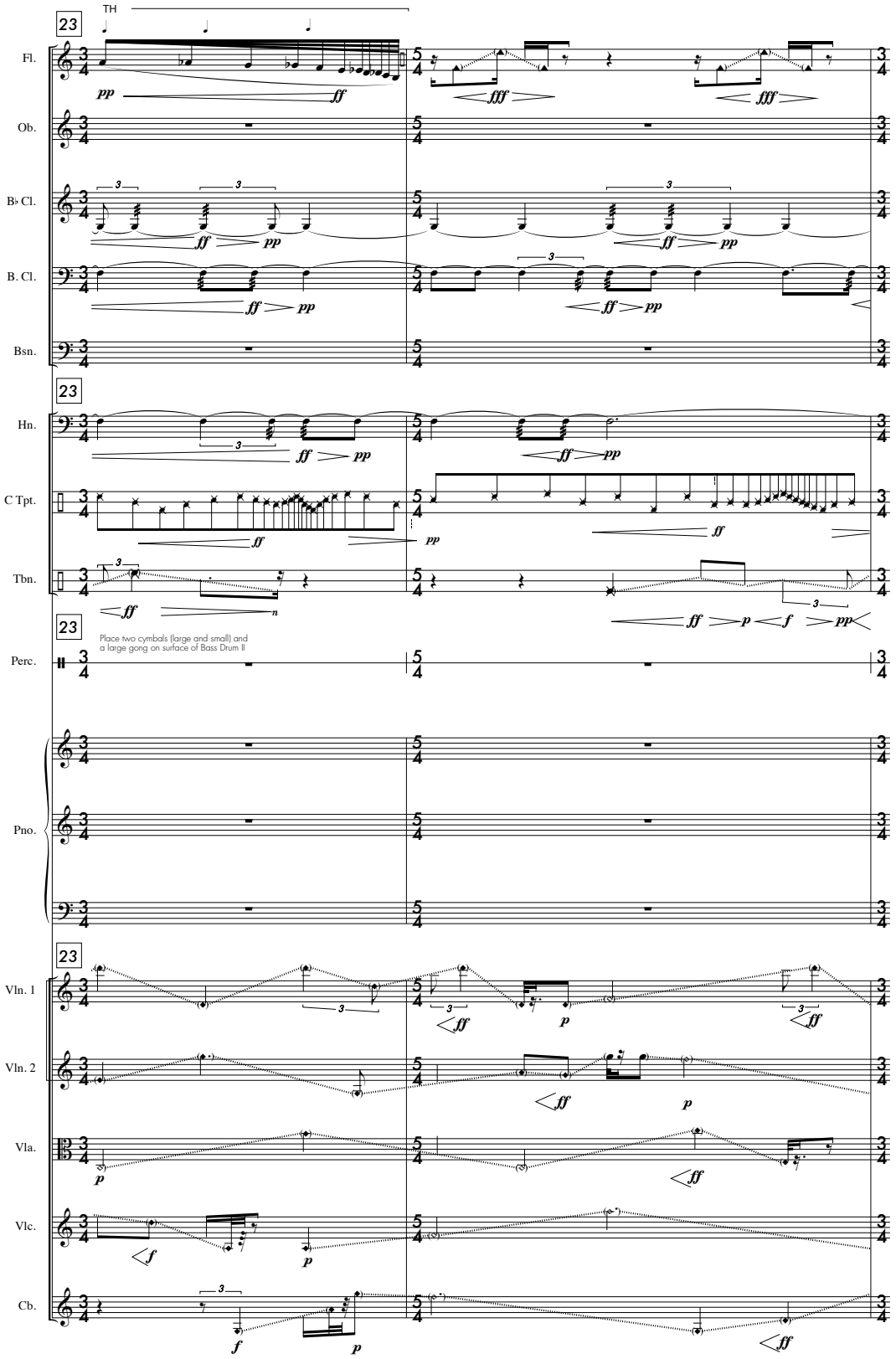

5
accel.
C Flute
MULTI
MULTI
Fl.
Ob.
B♭ Cl.
B. Cl.
MULTI
Bsn.
5
Hn.
C Tpt.
Tbn.
5
l.v.
Bass Drum I
Perc.
accel.
Pno.
5
I
II
III
IV
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

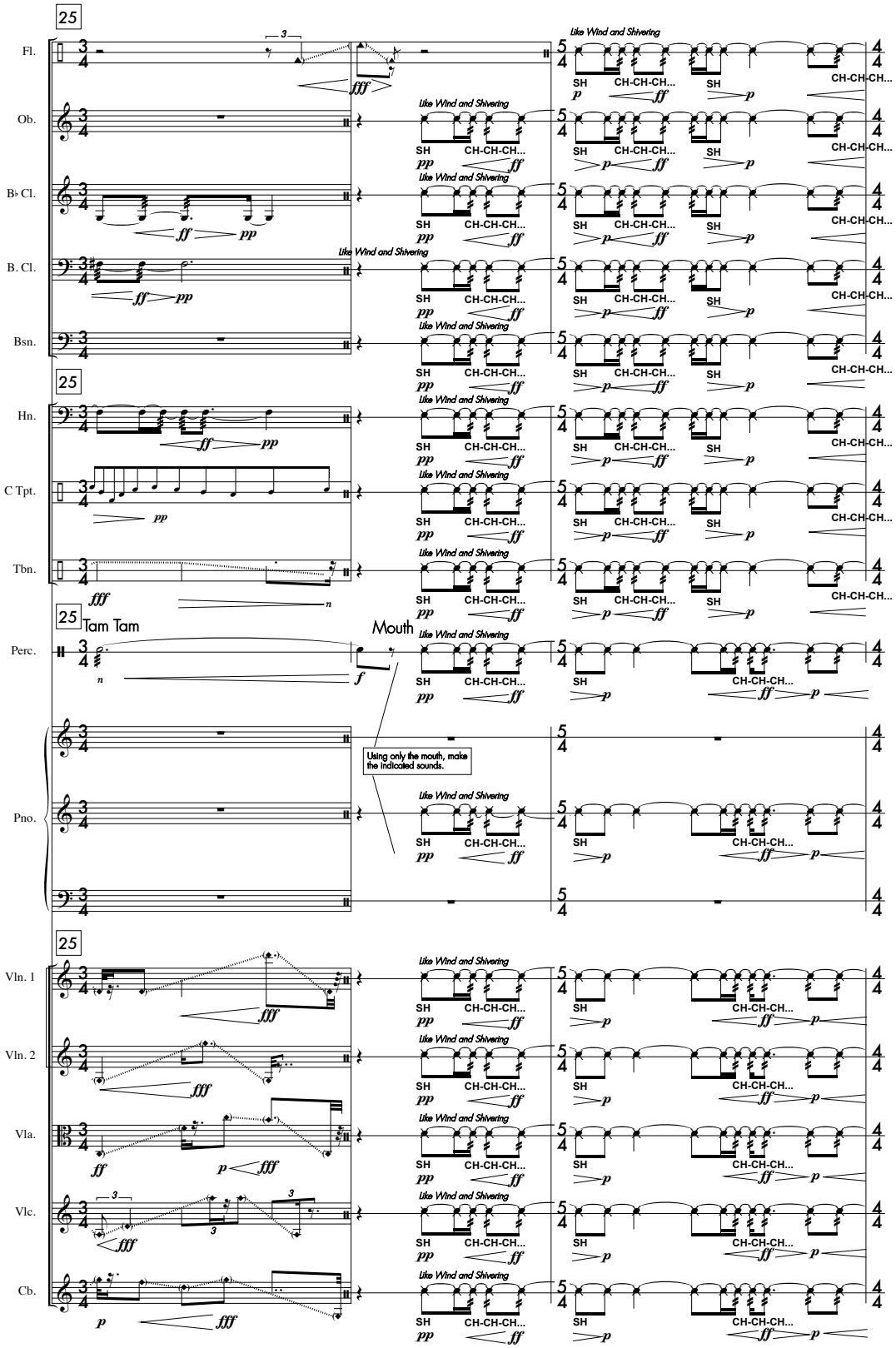

9
Fl.
Ob.
MULTI
B♭ Cl.
MULTI
B. Cl.
Bsn.
9
Hn.
C Tpt.
Tbn.
9
Large Sus. Cymbal
Bowed
l.v.
Perc.
Bass Drum I
Pno.
9
III
IV
Vln. 1
Vln. 2
Vla.
I
Vlc.
sul G
Cb.

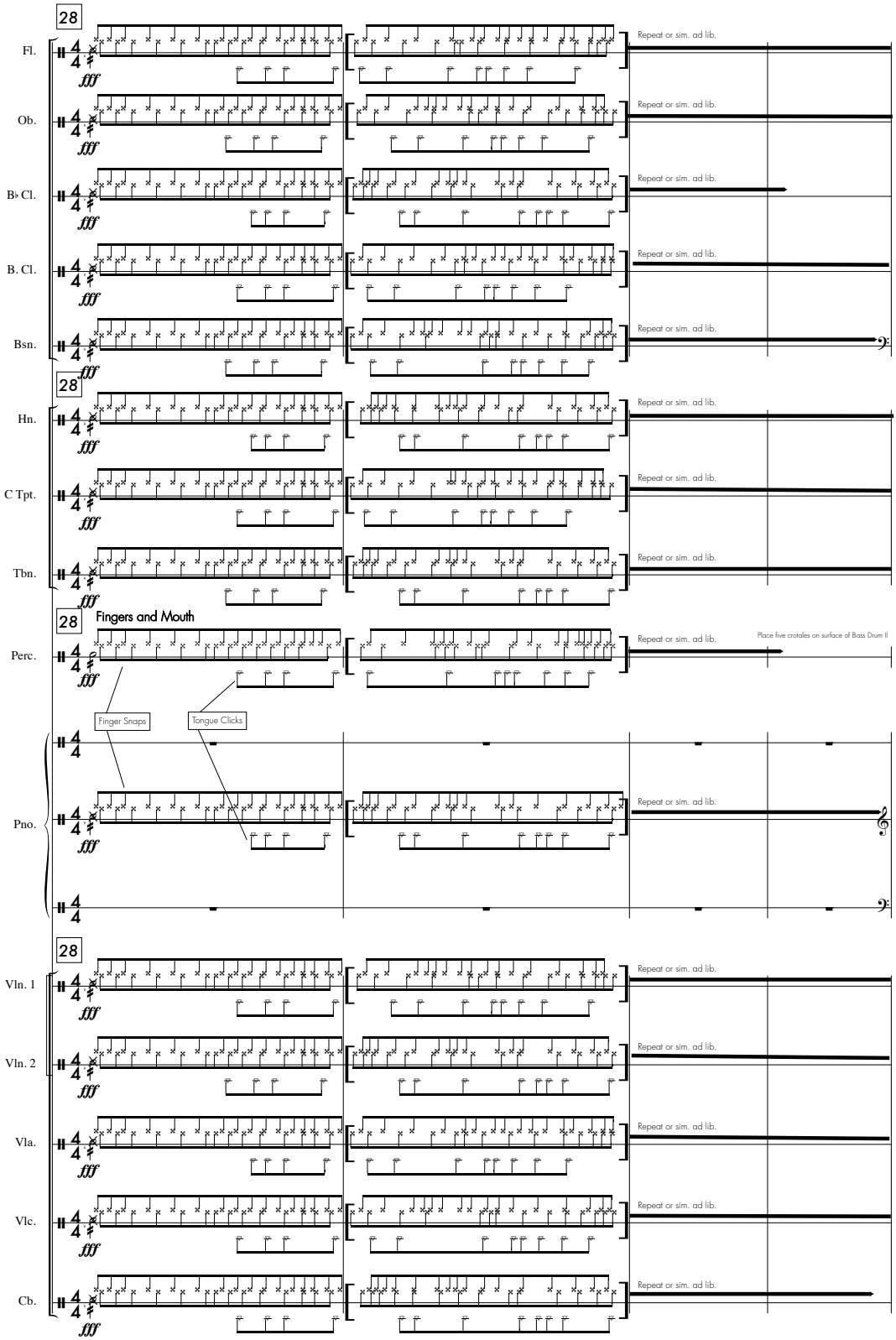

13
Fl.
Ob.
mp
n
B♭ Cl.
mp
n
B. Cl.
Bsn.
13
Hn.
C Tpt.
Tbn.
13
Rice on Bass Drum II
Gently brush rice from hands allowing it to fall back to drum
Perc.
n
f
Swish rice in circular motions with both hands
dolce
Pno.
mp pp mf p
mf p mp
13
Slide rod from bridge to nut and back along any two strings.
Take Wooden Rod
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
f p
3

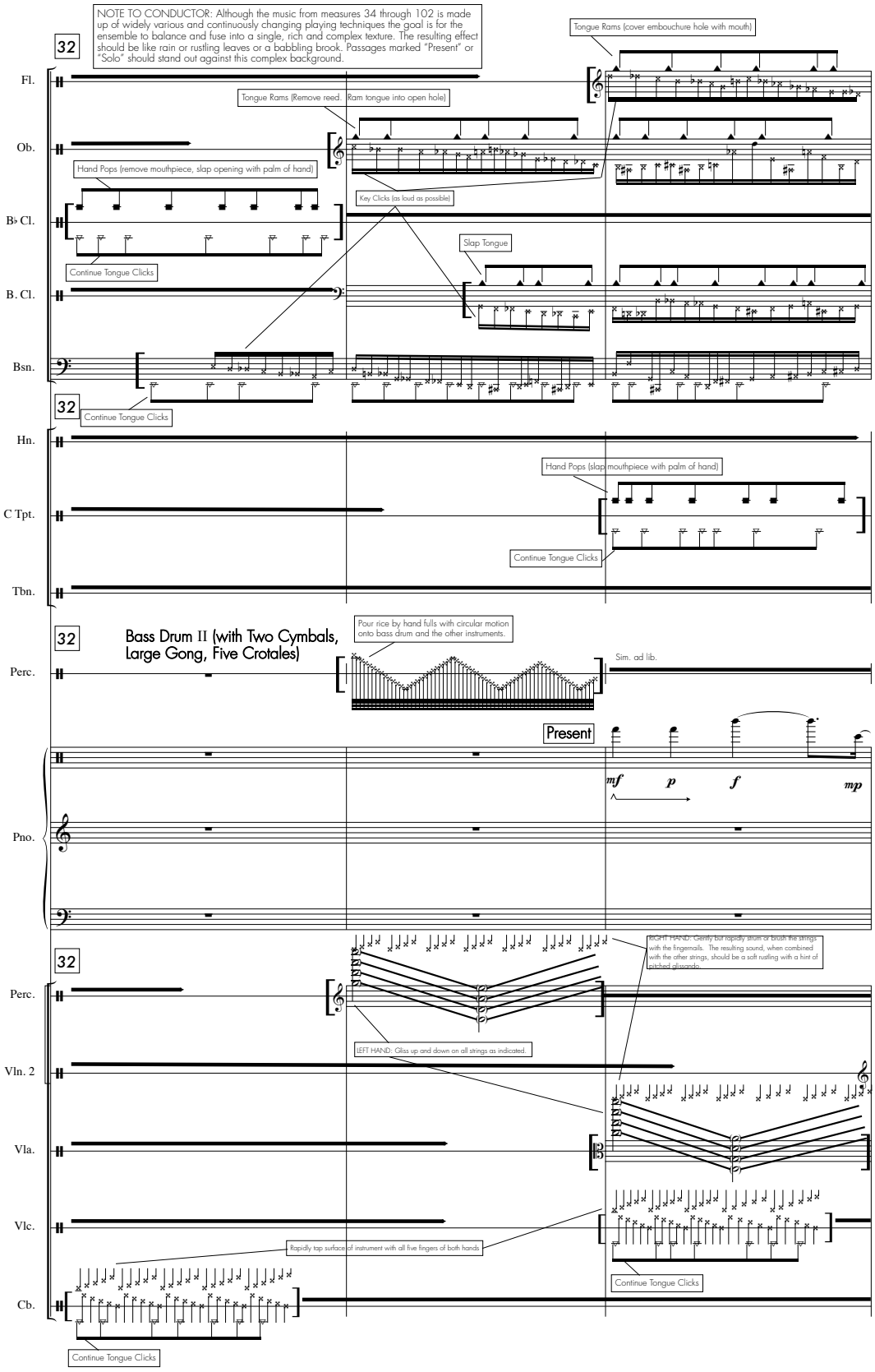

Say "th" while playing. The resulting sound sound be mostly wind with a little pitch.
TH
Gusty, Forceful!
Unpitched Wind Sounds: Blow into or at instrument
18
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

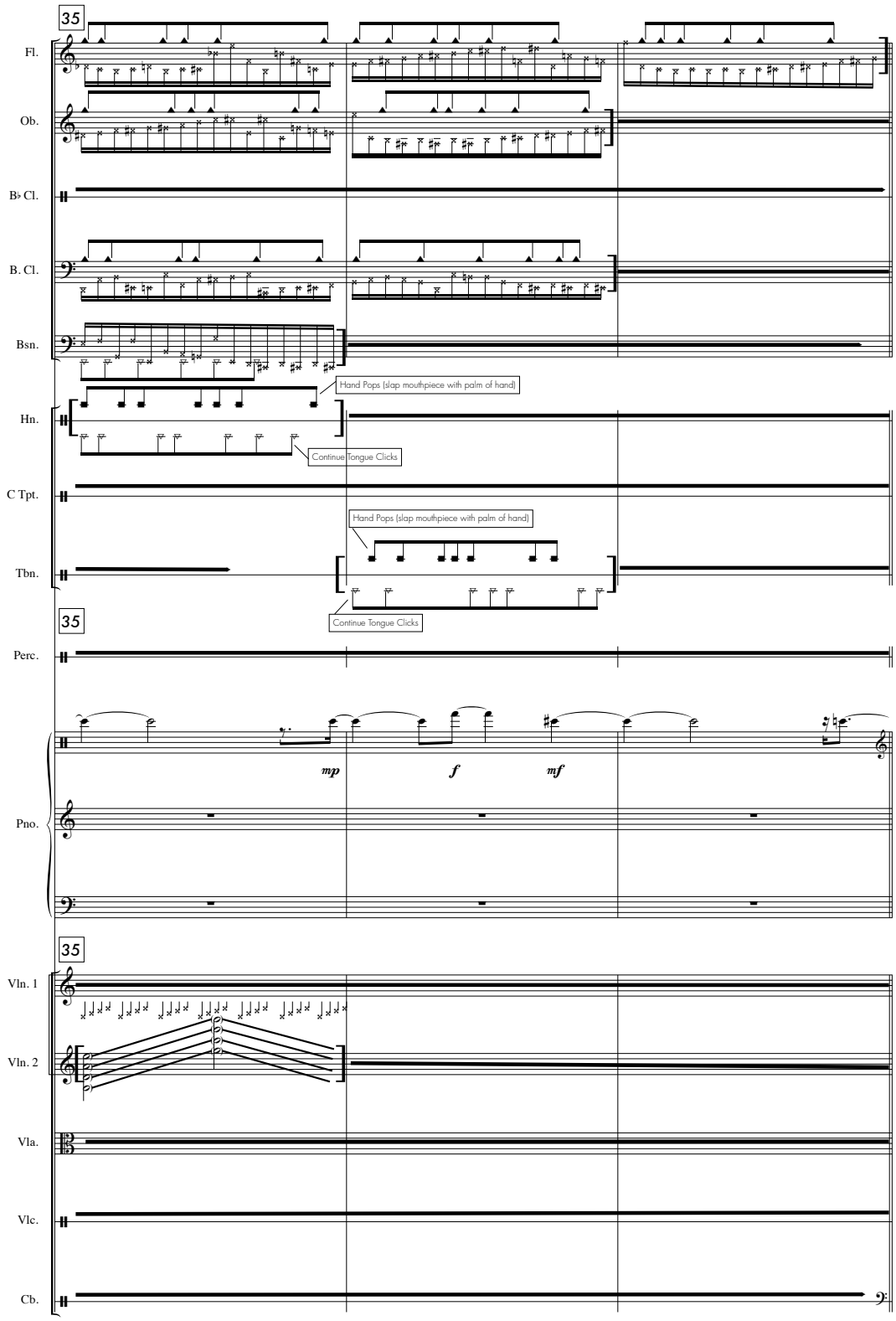

(TH)
21
Jet Whistles
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
Wind sounds of indeterminate pitch:
Remove mouthpiece, blow into instrument,
manipulate relative pitch with valves or slide.
Gusty, Forceful!
C Tpt.
Gusty, Forceful!
Tbn.
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

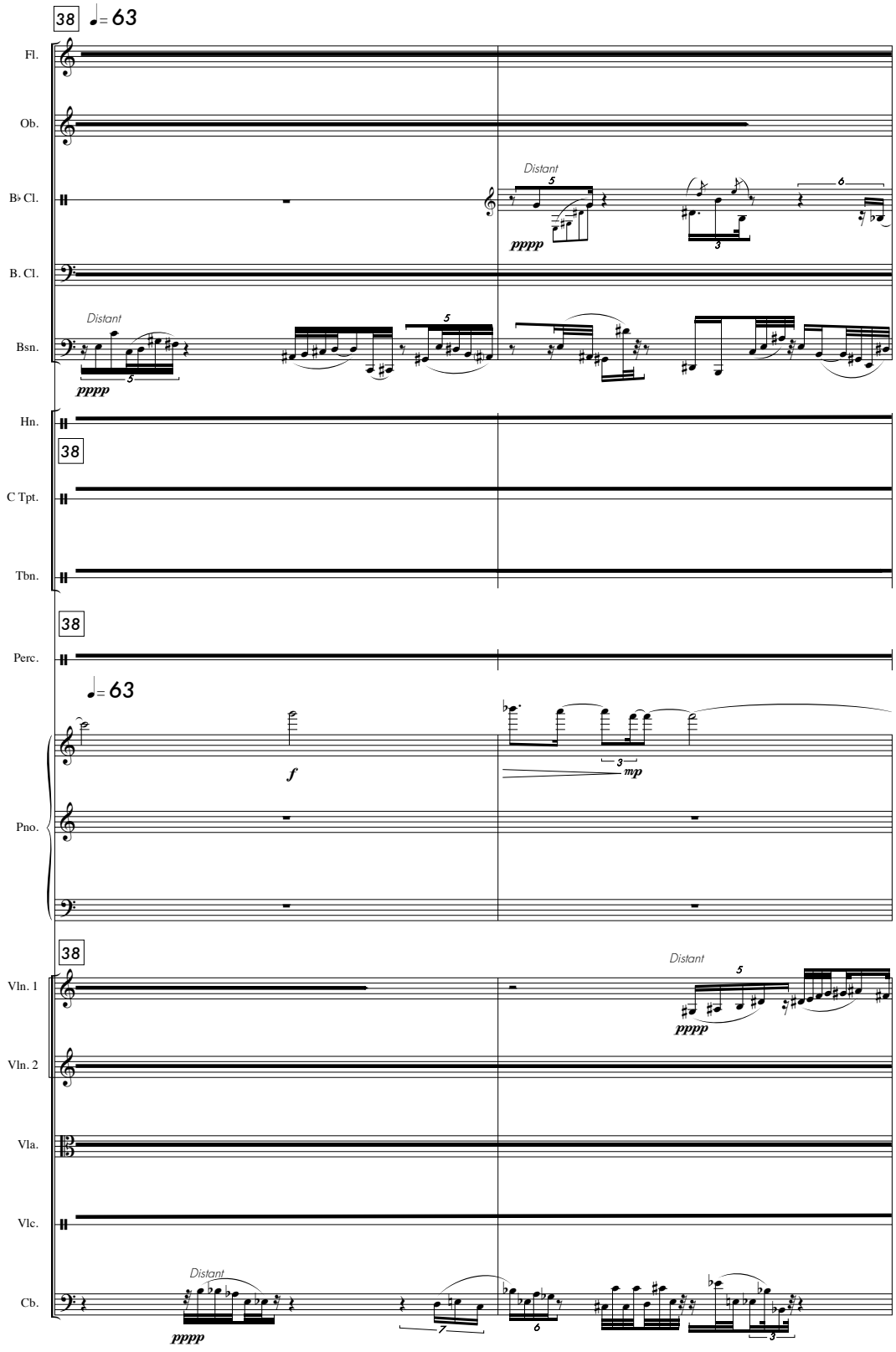

TH
23
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Perc.
Place two cymbals (large and small) and a large gong on surface of Bass Drum II
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

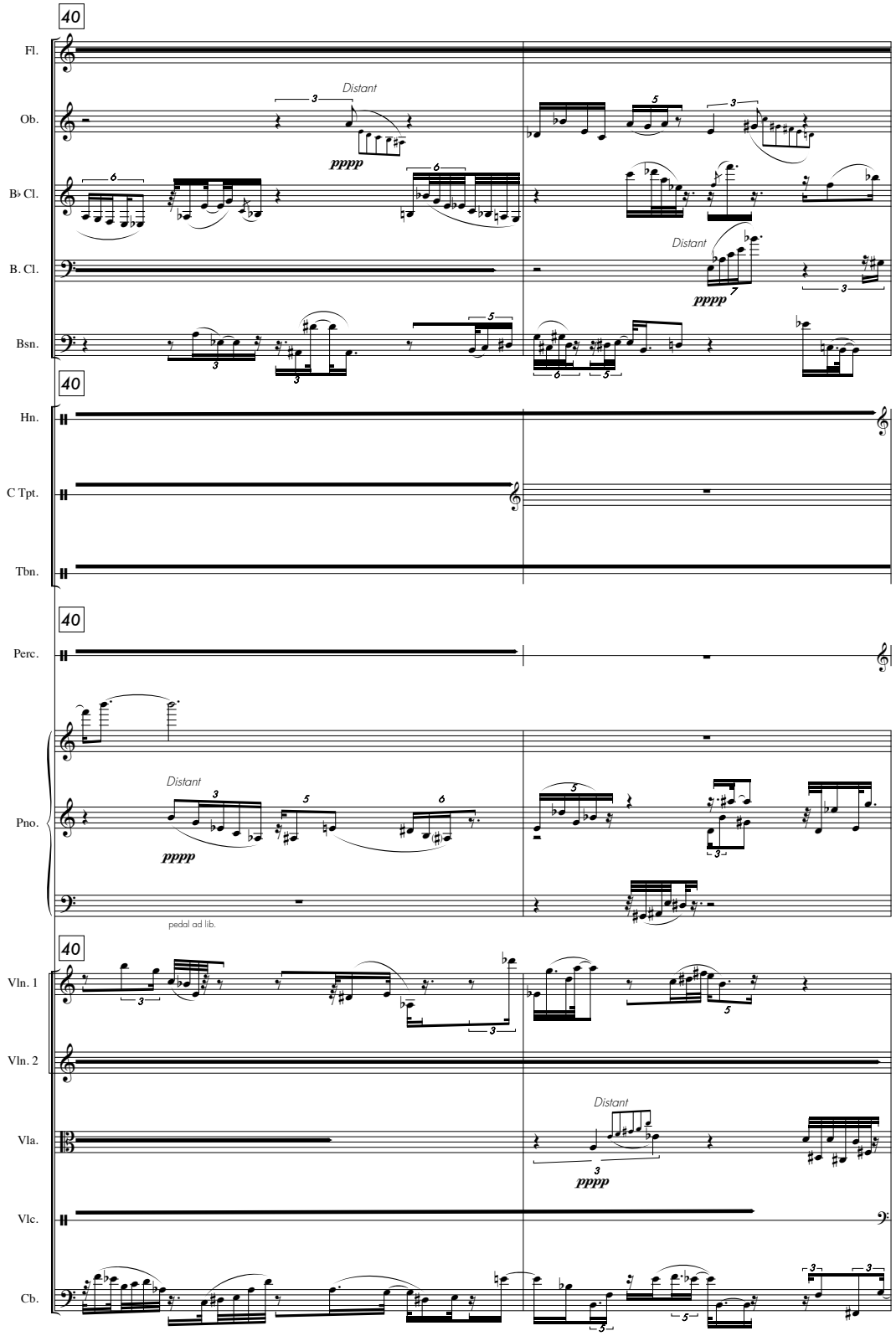

25
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Tam Tam
Perc.
Mouth
Using only the mouth, make the indicated sounds.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
Like Wind and Shivering
SH
CH-CH-CH...

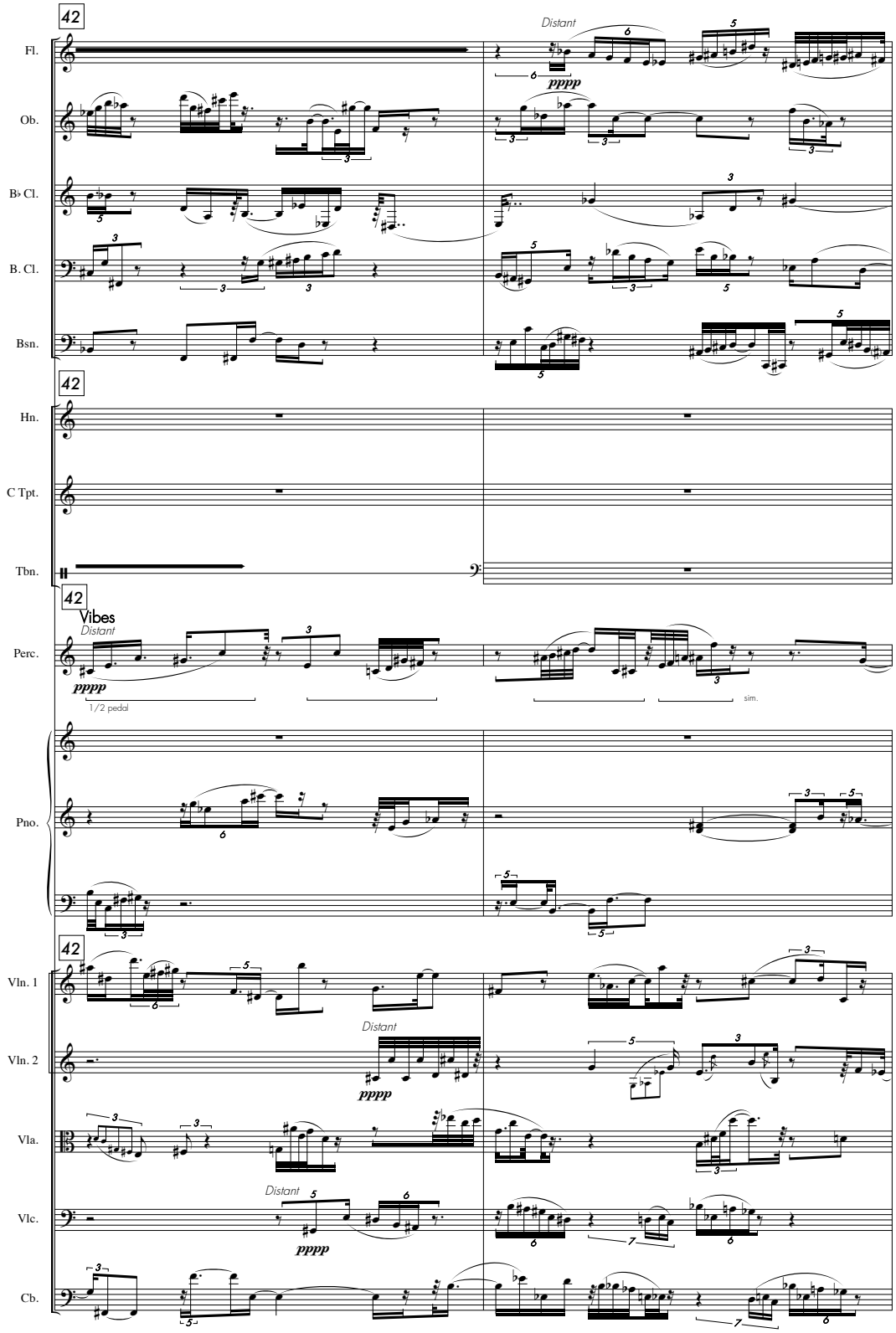

28
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Repeat or sim. ad lib.
fff
28
Hn.
C Tpt.
Tbn.
28
Fingers and Mouth
Perc.
Place five crotales on surface of Bass Drum II
Finger Snaps
Tongue Clicks
Pno.
28
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

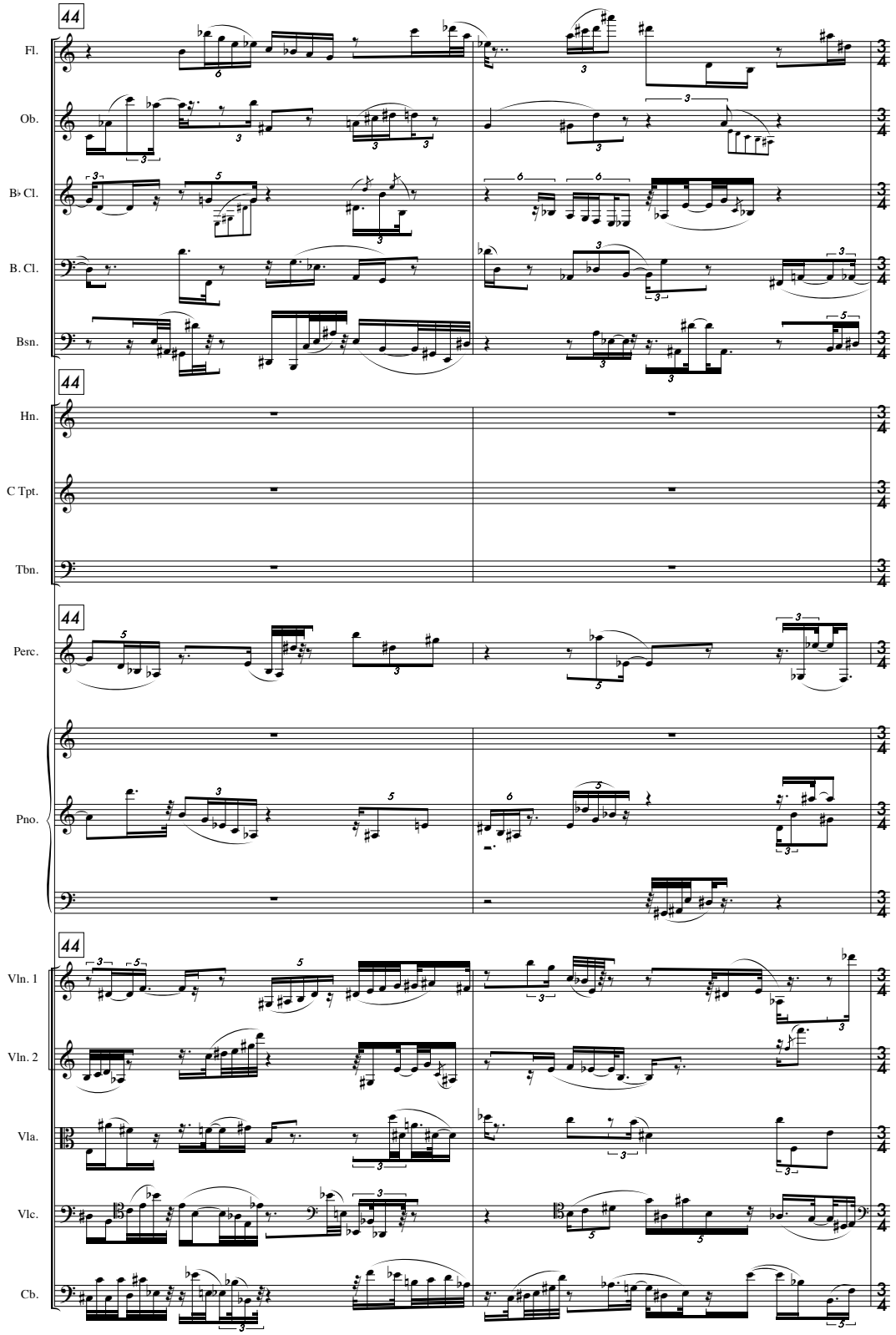

NOTE TO CONDUCTOR: Although the music from measures 34 through 102 is made up of widely various and continuously changing playing techniques the goal is for the ensemble to balance and fuse into a single, rich and complex texture. The resulting effect should be like rain or rustling leaves or a babbling brook. Passages marked "Present" or "Solo" should stand out against this complex background.
32
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Perc.
Pno.
Vln. 2
Vla.
Vlc.
Cb.
Tongue Rams (cover embouchure hole with mouth)
Tongue Rams (Remove reed. Ram tongue into open hole)
Hand Pops (remove mouthpiece, slap opening with palm of hand)
Key Clicks (as loud as possible)
Slap Tongue
Continue Tongue Clicks
Hand Pops (slap mouthpiece with palm of hand)
Bass Drum II (with Two Cymbals, Large Gong, Five Crotales)
Pour rice by hand fulls with circular motion onto bass drum and the other instruments.
Sim. ad lib.
Present
mf
p
f
mp
RIGHT HAND: Gently but rapidly strum or brush the strings with the fingernails. The resulting sound, when combined with the other strings, should be a soft rustling with a hint of pitched glissando.
LEFT HAND: Gliss up and down on all strings as indicated.
Rapidly tap surface of instrument with all five fingers of both hands

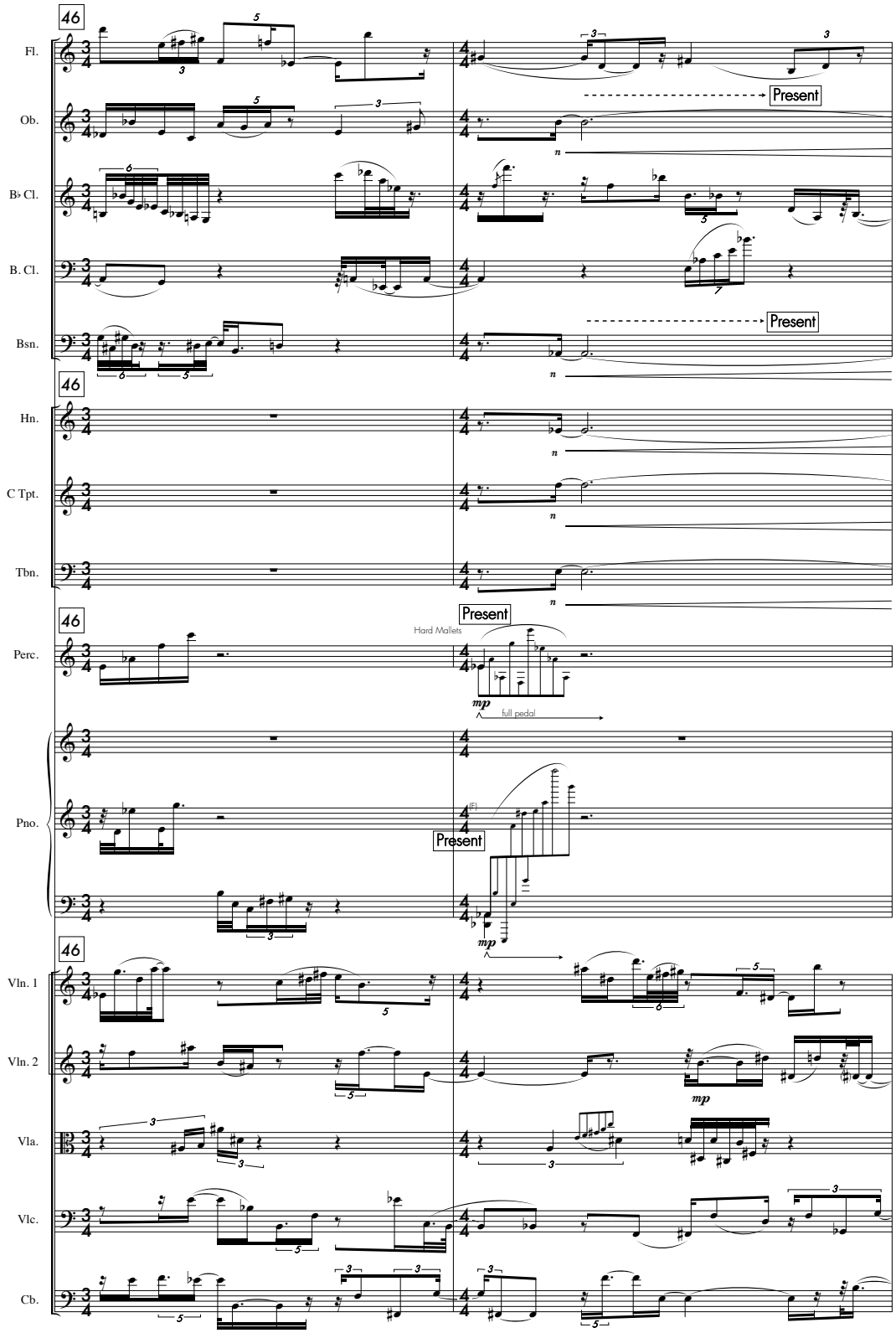

35
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hand Pops (slap mouthpiece with palm of hand)
Hn.
Continue Tongue Clicks
C Tpt.
Hand Pops (slap mouthpiece with palm of hand)
Tbn.
Continue Tongue Clicks
35
Perc.
mp
f
mf
Pno.
35
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

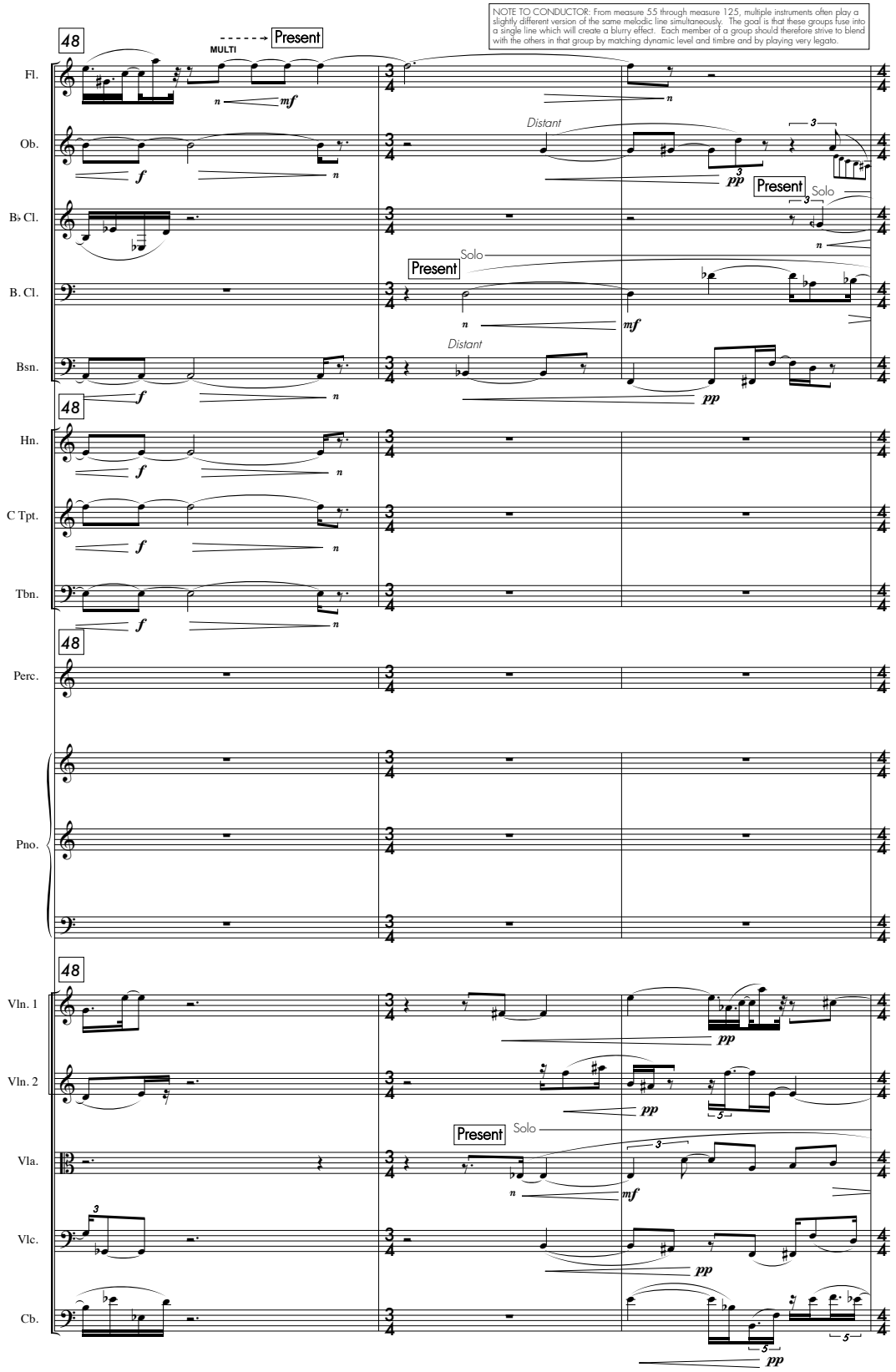

38
♩= 63
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Distant
pppp
Hn.
38
C Tpt.
Tbn.
38
Perc.
♩= 63
Pno.
f
mp
38
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
Distant
pppp

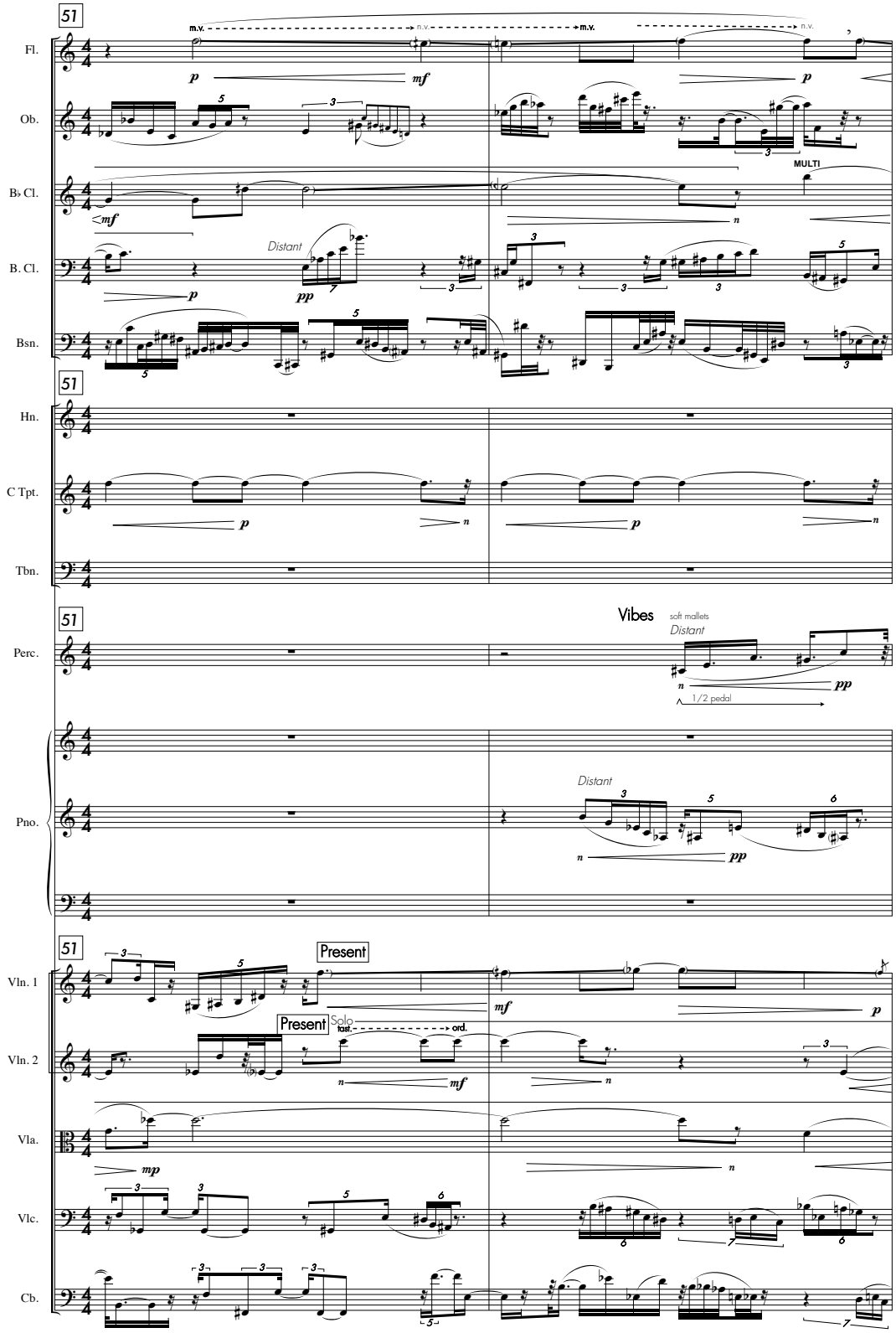

40
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Distant
pppp
Distant
pppp
40
Hn.
C Tpt.
Tbn.
40
Perc.
Pno.
Distant
pppp
pedal ad lib.
40
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
Distant
pppp

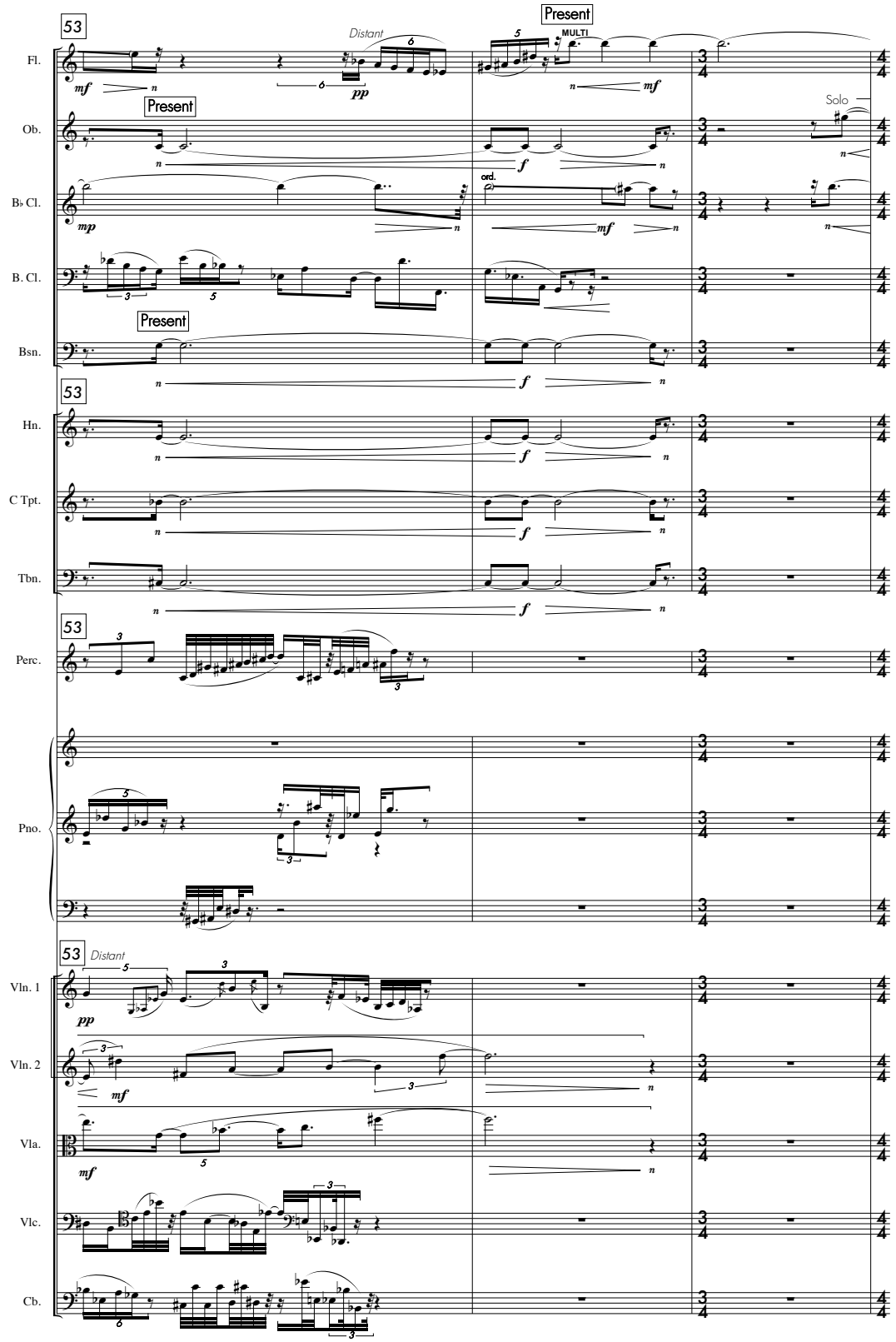

42
Distant
pppp
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
42
Hn.
C Tpt.
Tbn.
42
Vibes
Distant
Perc.
pppp
1/2 pedal
sim.
Pno.
42
Vln. 1
Distant
Vln. 2
pppp
Vla.
Distant
Vlc.
pppp
Cb.

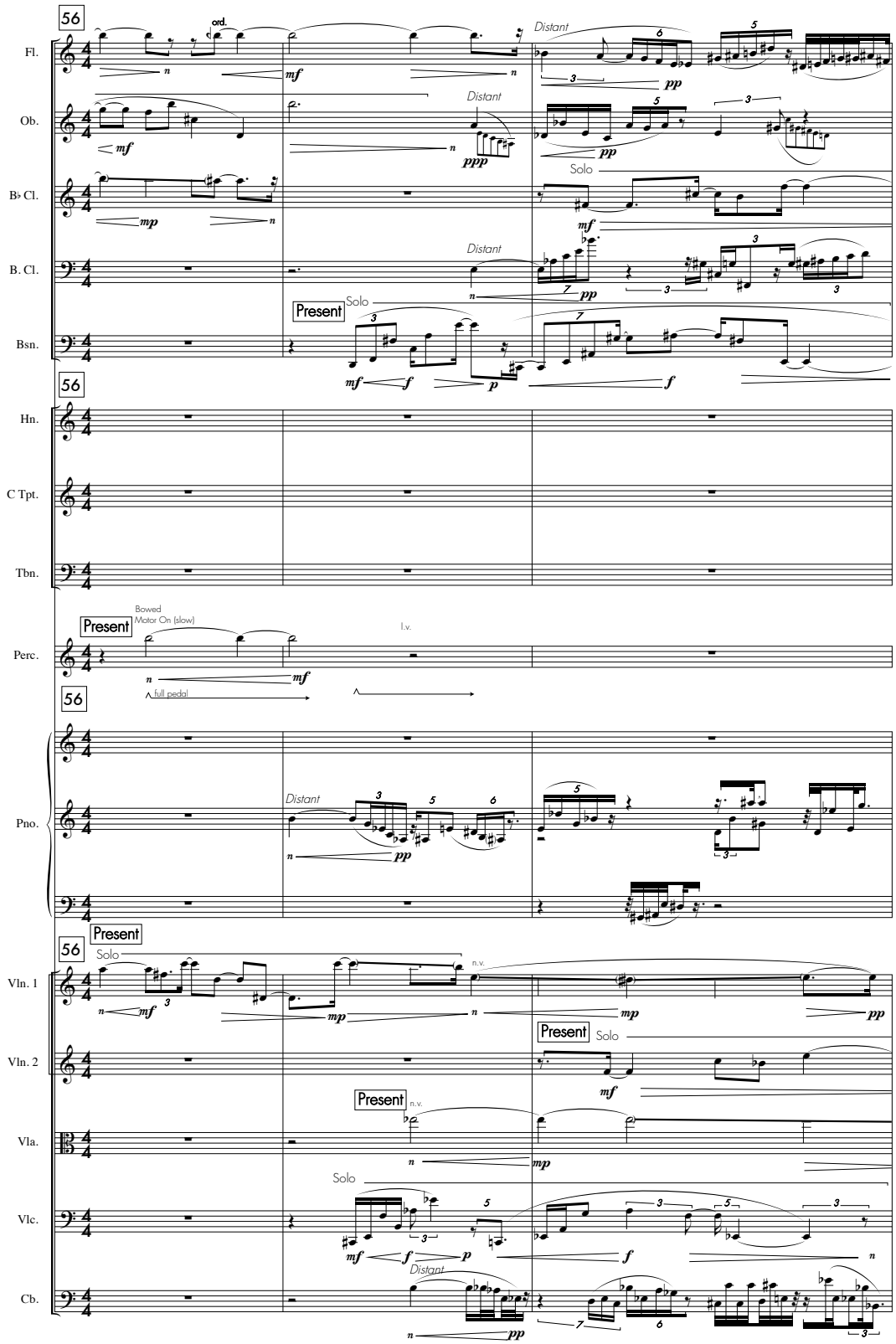

44
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
44
Hn.
C Tpt.
Tbn.
44
Perc.
Pno.
44
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

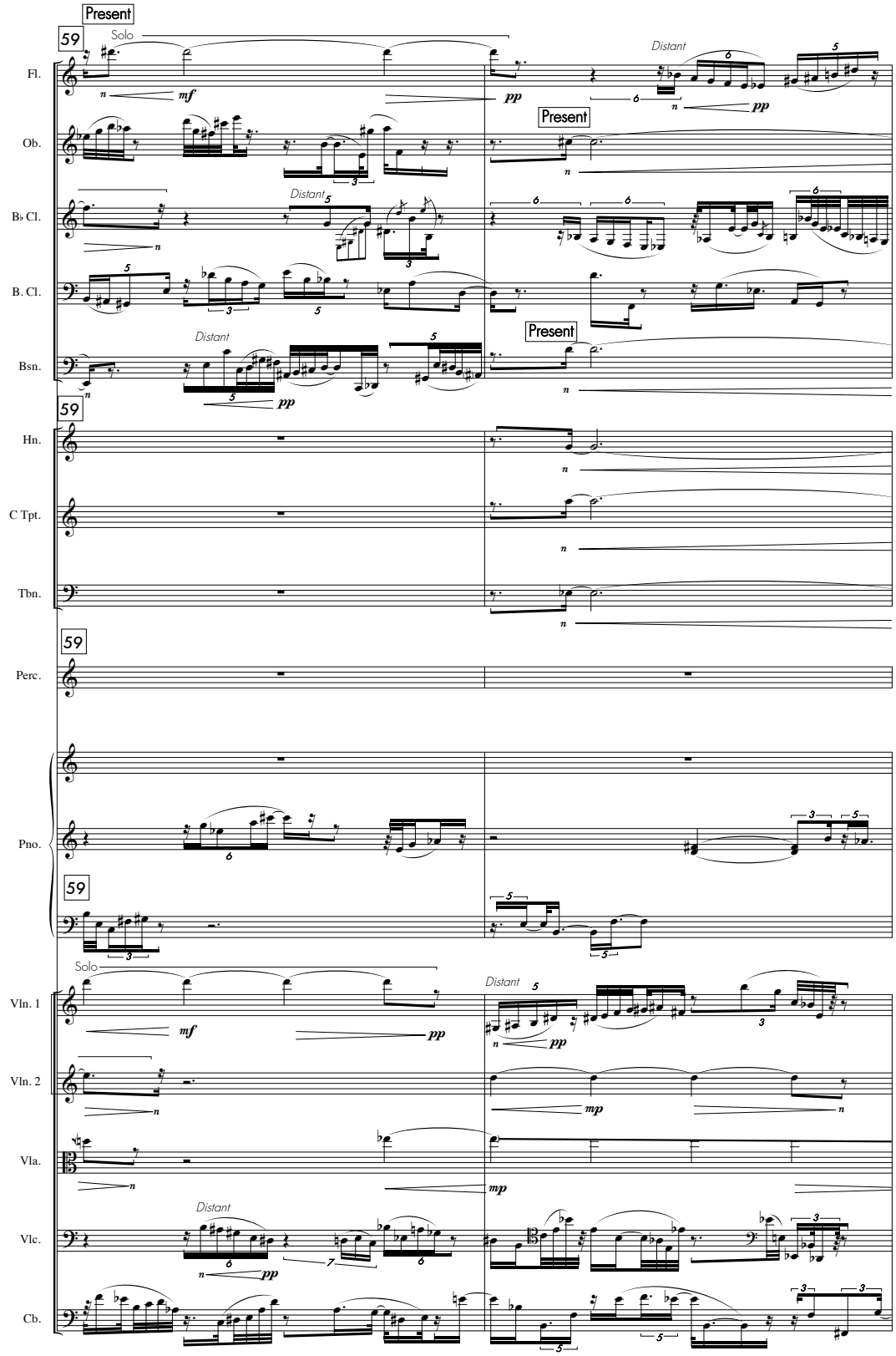

46
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Present
Hn.
C Tpt.
Tbn.
Perc.
Hard Mallets
mp
full pedal
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

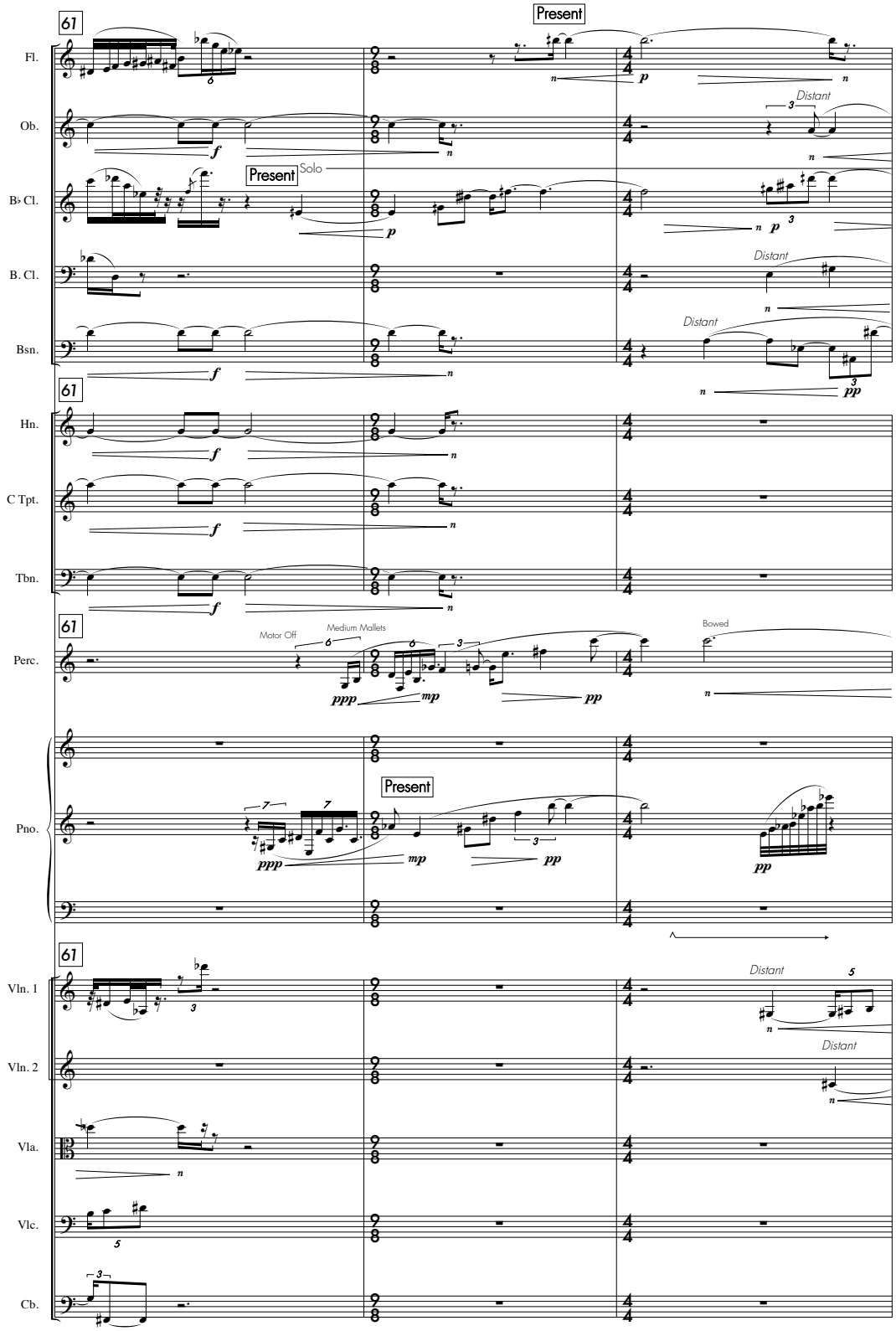

NOTE TO CONDUCTOR: From measure 55 through measure 125, multiple instruments often play a slightly different version of the same melodic line simultaneously. The goal is that these groups fuse into a single line which will create a blurry effect. Each member of a group should therefore strive to blend with the others in that group by matching dynamic level and timbre and by playing very legato.
48
MULTI
Present
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
Distant
Solo
mf
pp
f

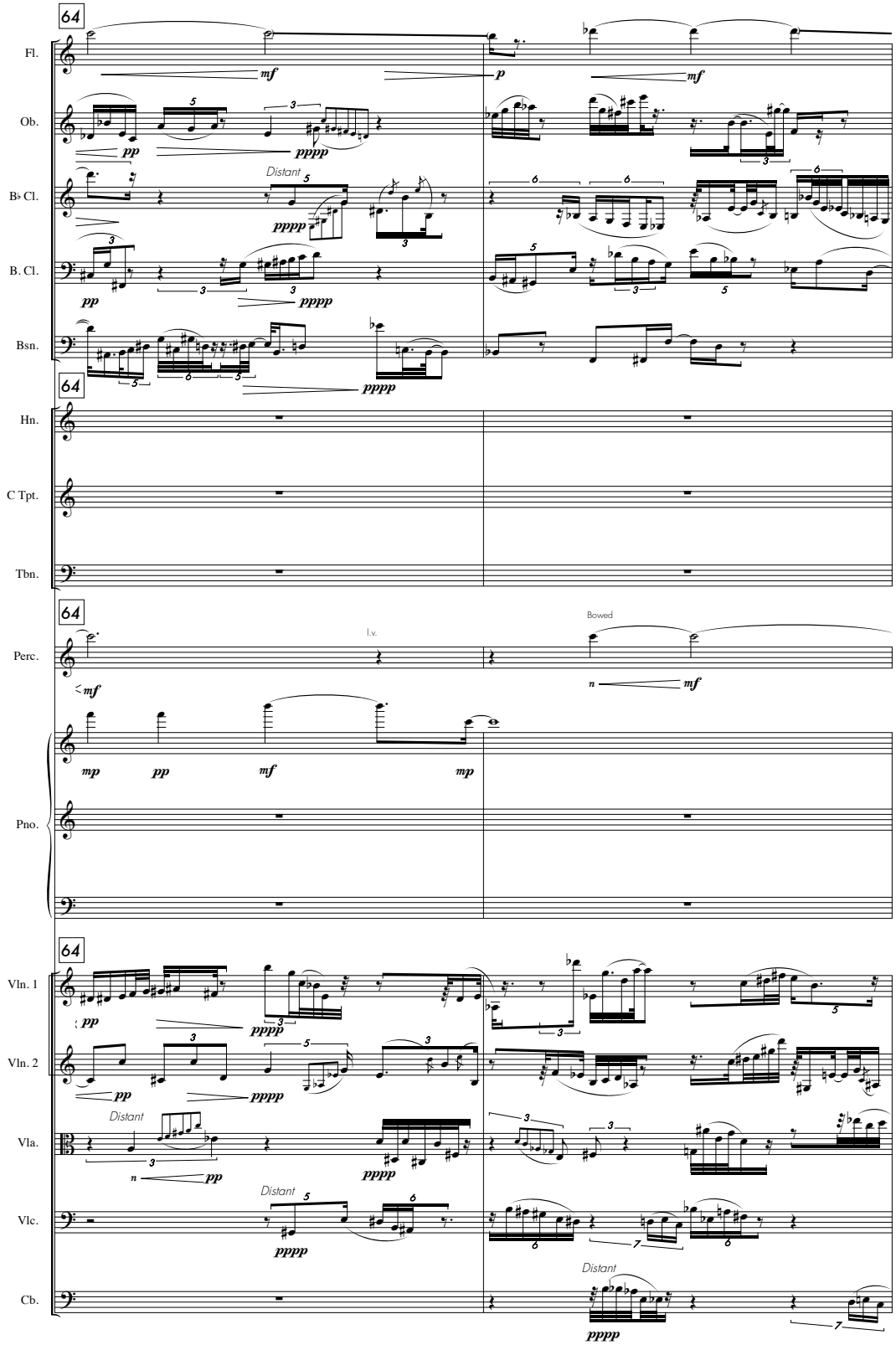

51
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
m.v.
n.v.
MULTI
Distant
Vibes
soft mallets
1/2 pedal
Present
Solo
fast.
ord.

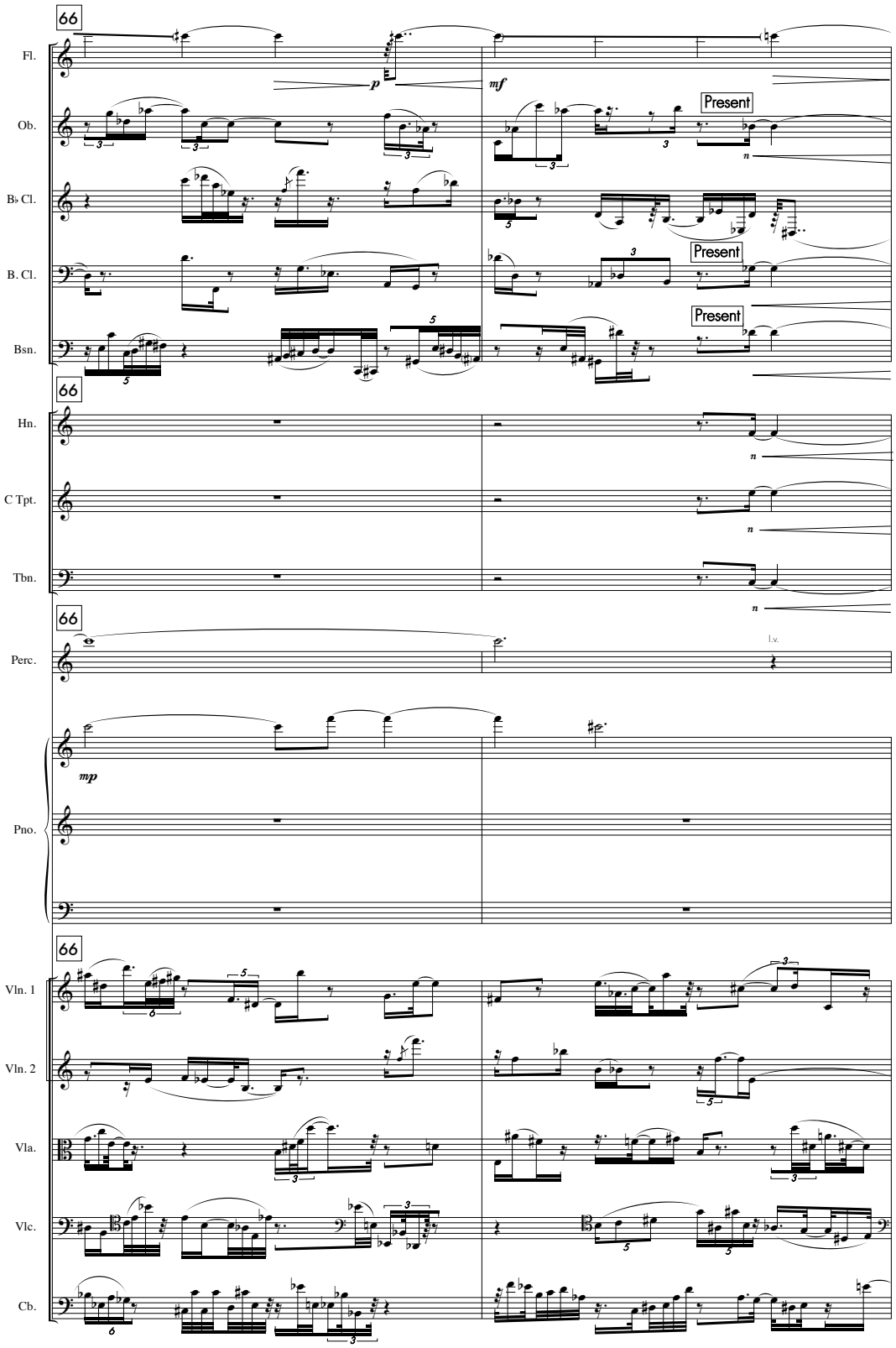

53
Distant
Present
MULTI
Present
Solo
ord.
Present
53
53
53
Distant
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

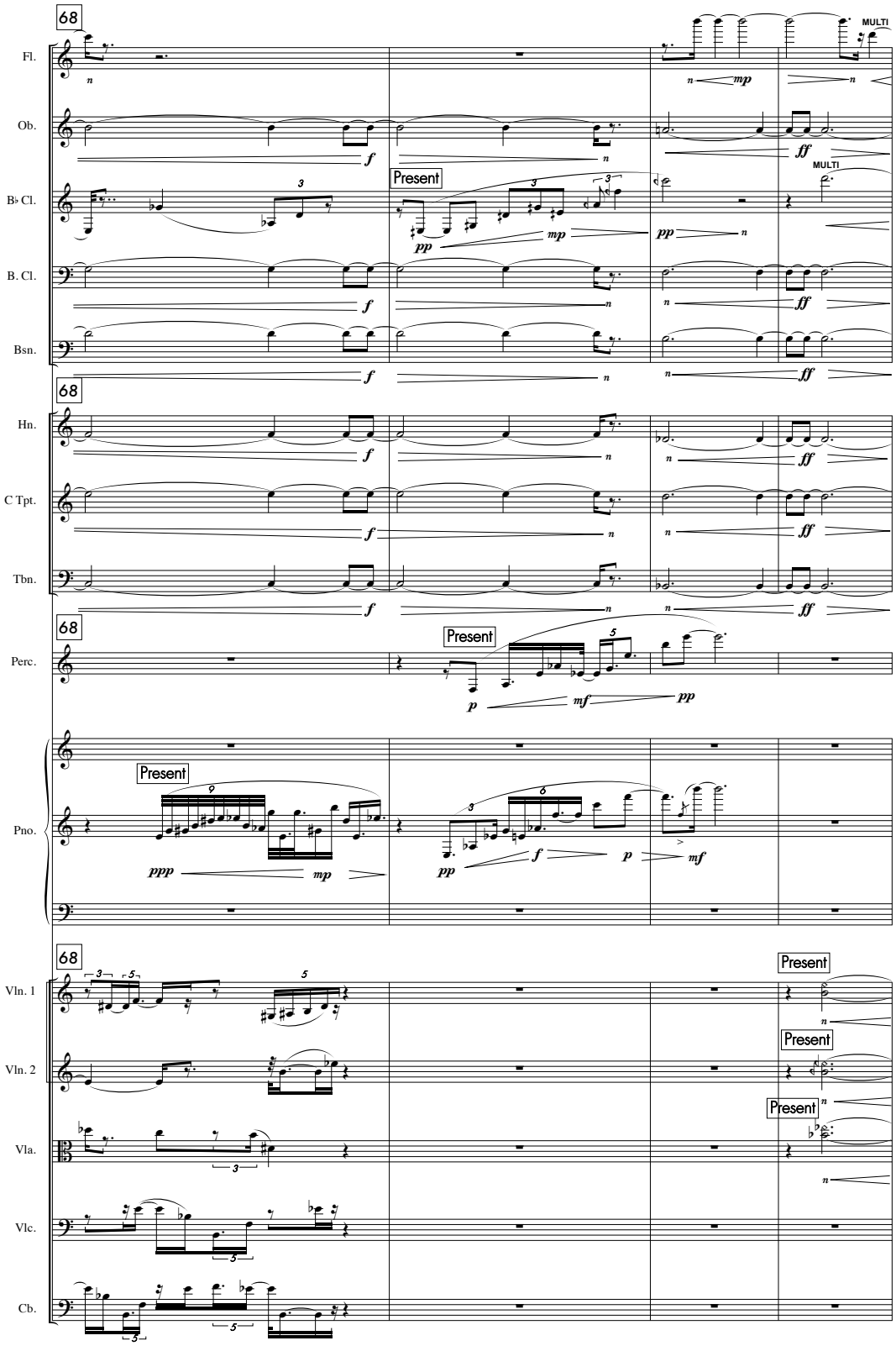

56
Fl.
ord.
Distant
Ob.
Distant
B♭ Cl.
Solo
B. Cl.
Distant
Present
Solo
Bsn.
56
Hn.
C Tpt.
Tbn.
Present
Bowed
Motor On (slow)
l.v.
Perc.
full pedal
56
Distant
Pno.
56
Present
Solo
n.v.
Vln. 1
Present
Solo
Vln. 2
Present
n.v.
Vla.
Solo
Vlc.
Distant
Cb.

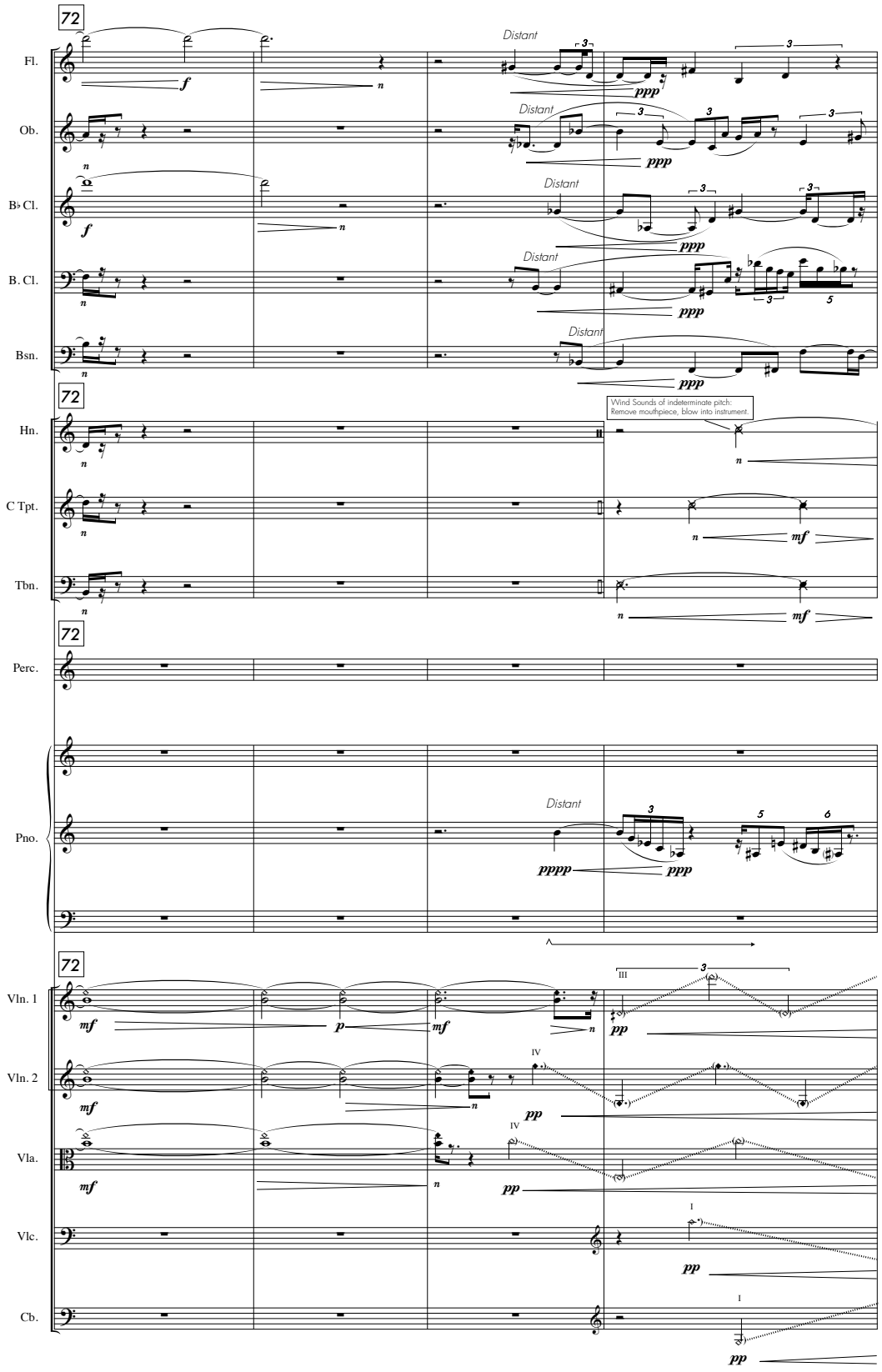

Present
59
Solo
Distant
Present
Distant
Present
Distant
Solo
Distant
Distant
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
mf
pp
mp

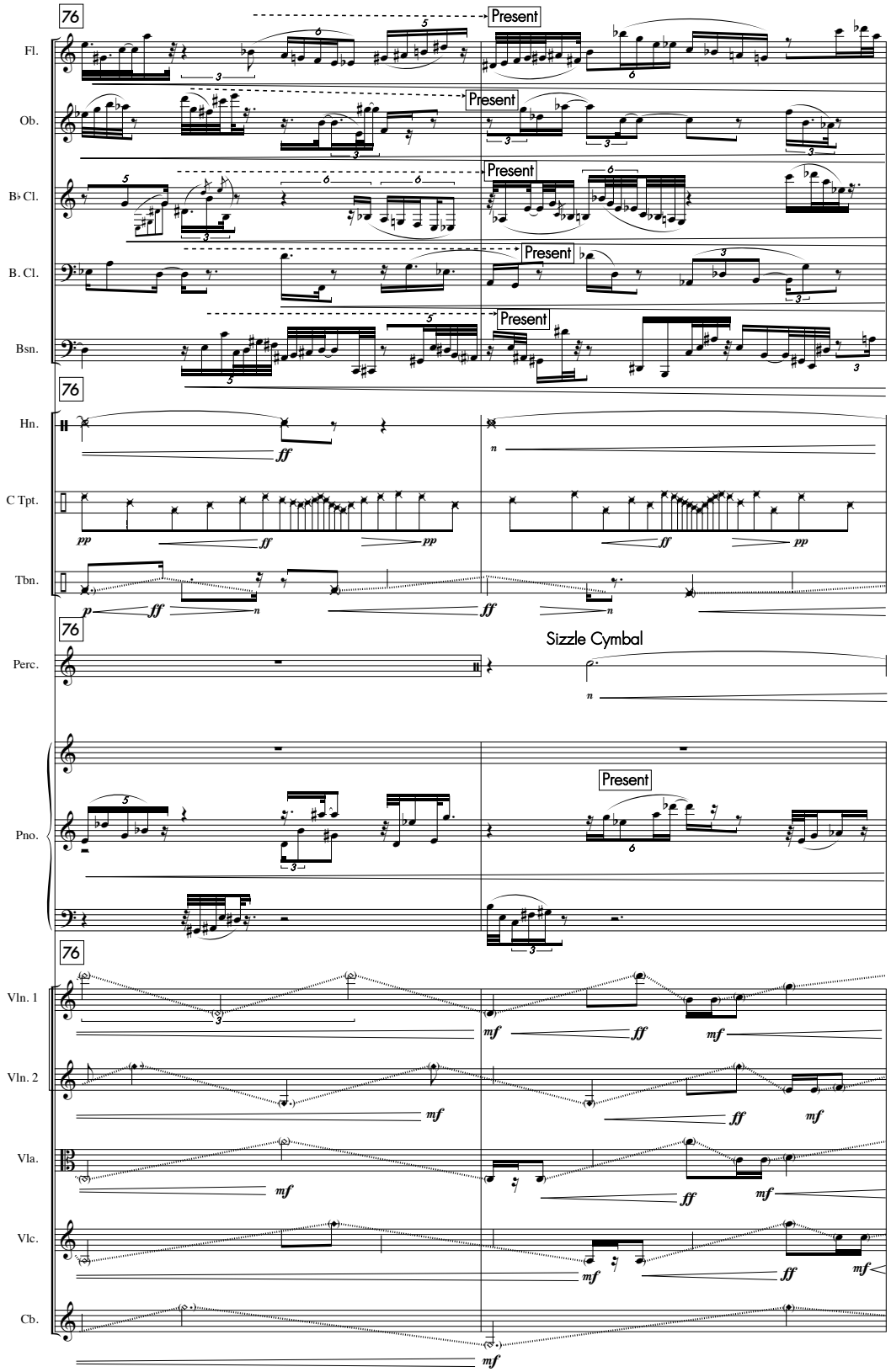

61
Present
Fl.
Ob.
B♭ Cl.
Solo
B. Cl.
Bsn.
Distant
Hn.
C Tpt.
Tbn.
Perc.
Motor Off
Medium Mallets
Bowed
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

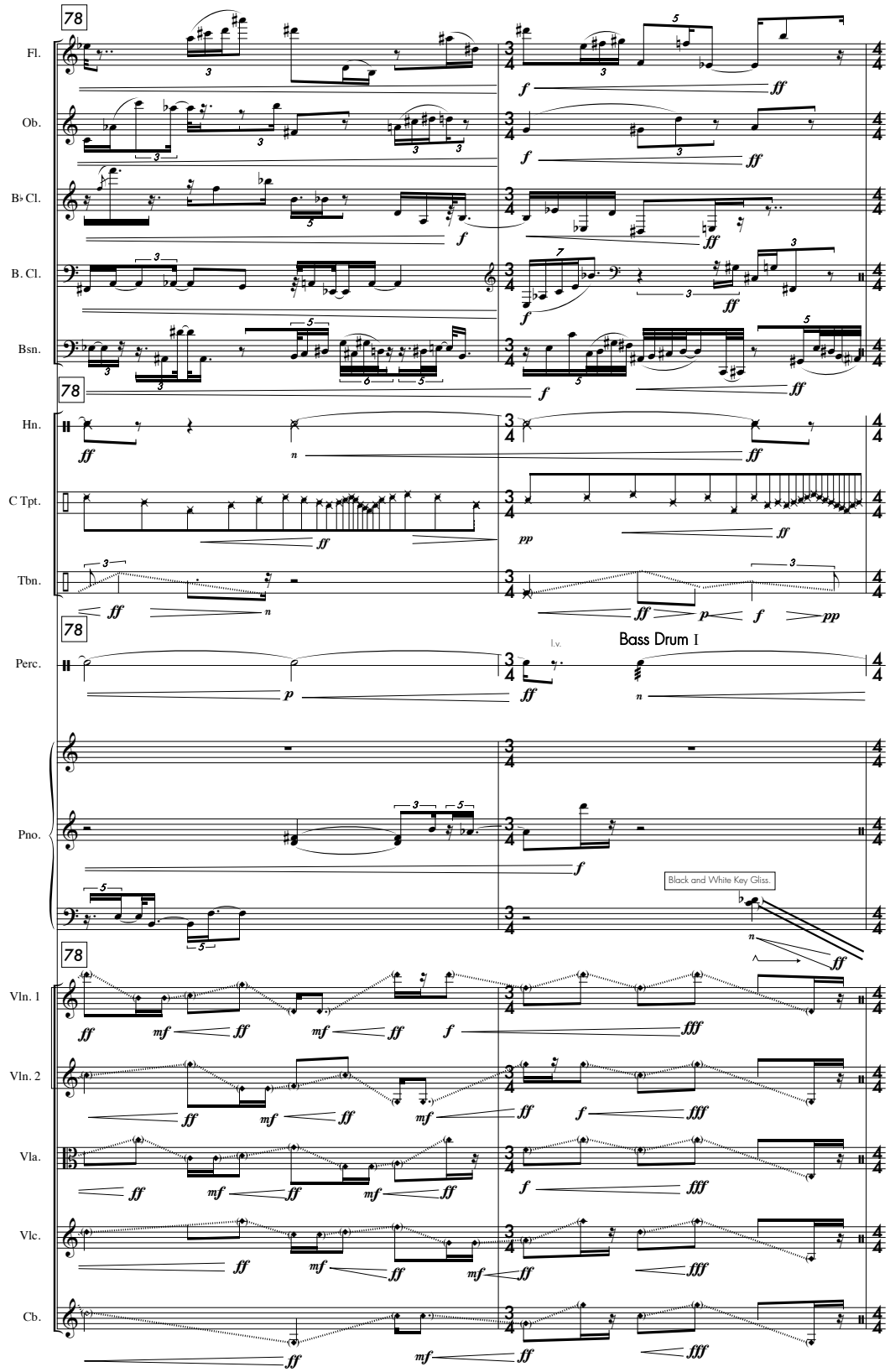

64
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
64
Hn.
C Tpt.
Tbn.
64
Perc.
Pno.
64
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
Distant
l.v.
Bowed

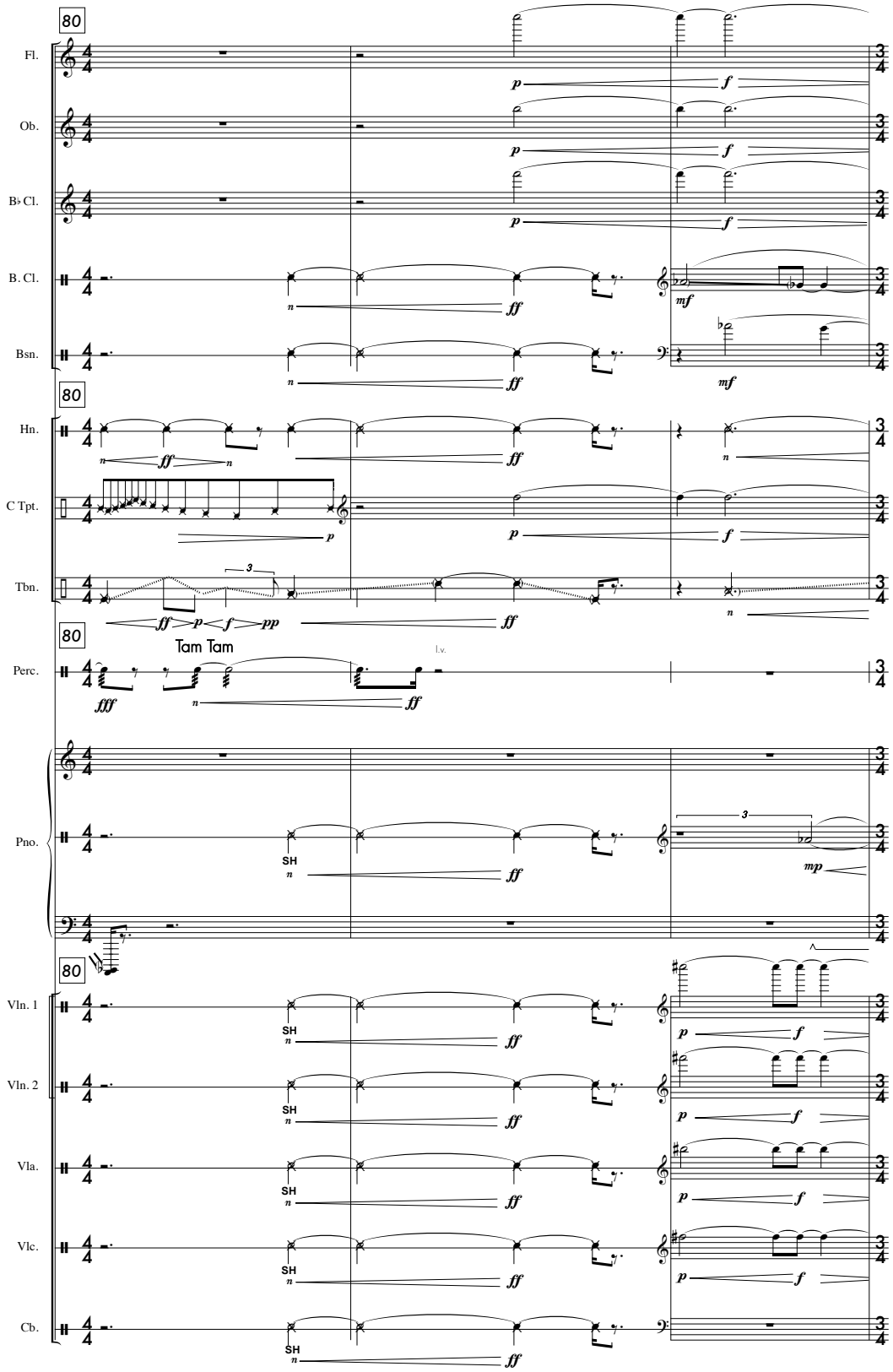

66
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Present
Present
Present
Hn.
C Tpt.
Tbn.
Perc.
l.v.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

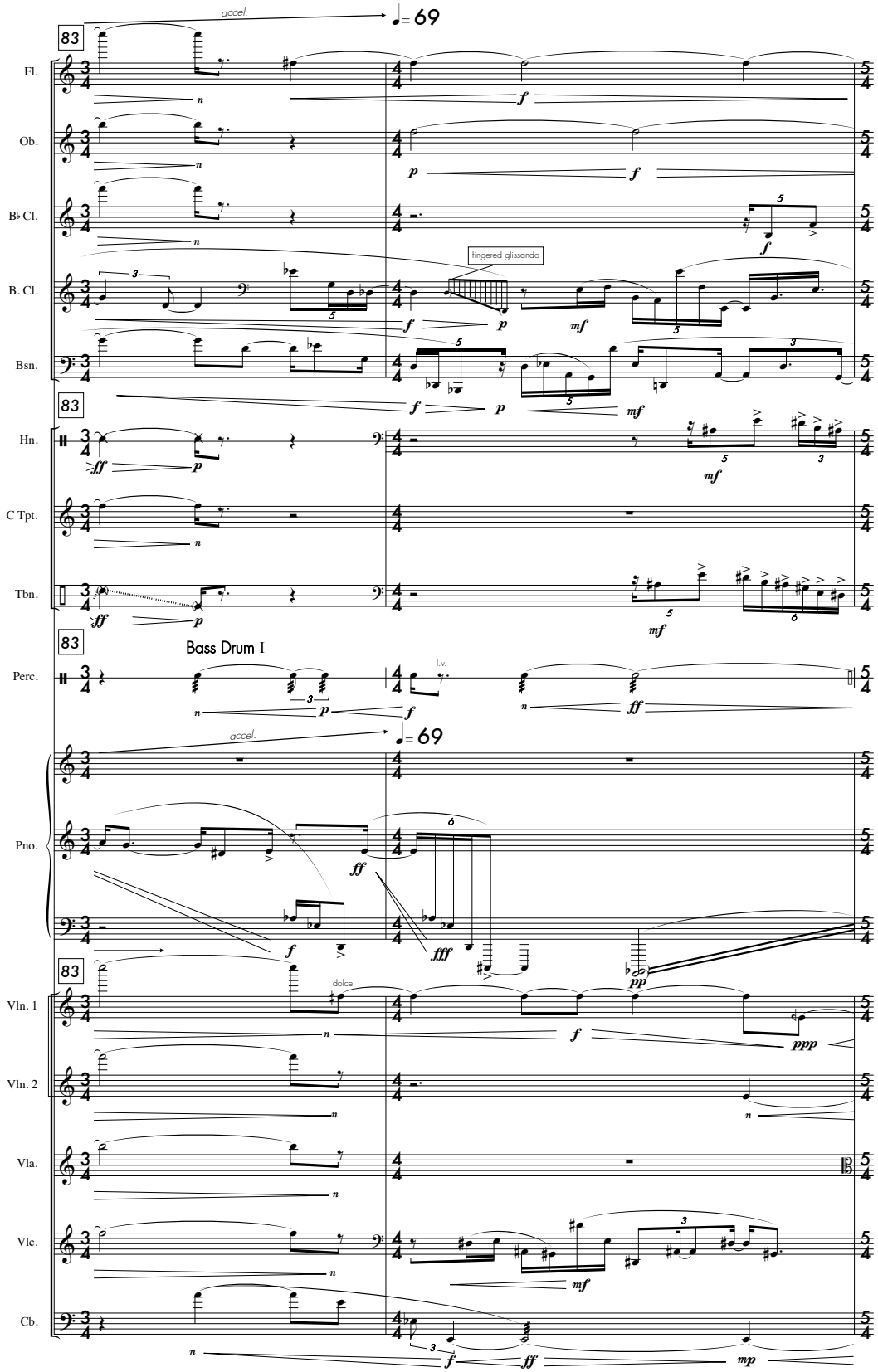

68
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Present
MULTI
68
Hn.
C Tpt.
Tbn.
68
Perc.
Present
68
Pno.
Present
68
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
Present
Present
Present

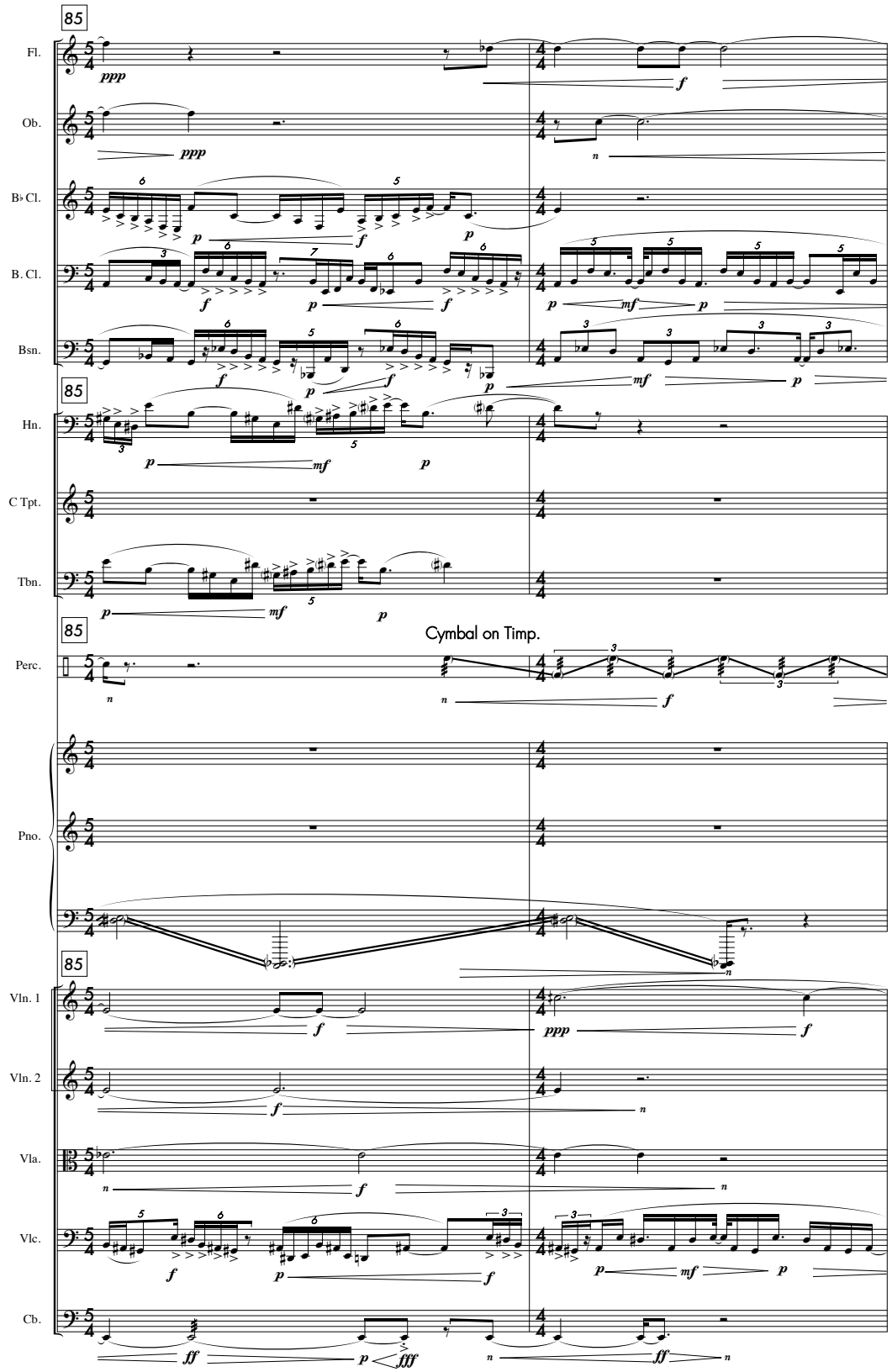

72
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Distant
Hn.
C Tpt.
Tbn.
Wind Sounds of indeterminate pitch:
Remove mouthpiece, blow into instrument.
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

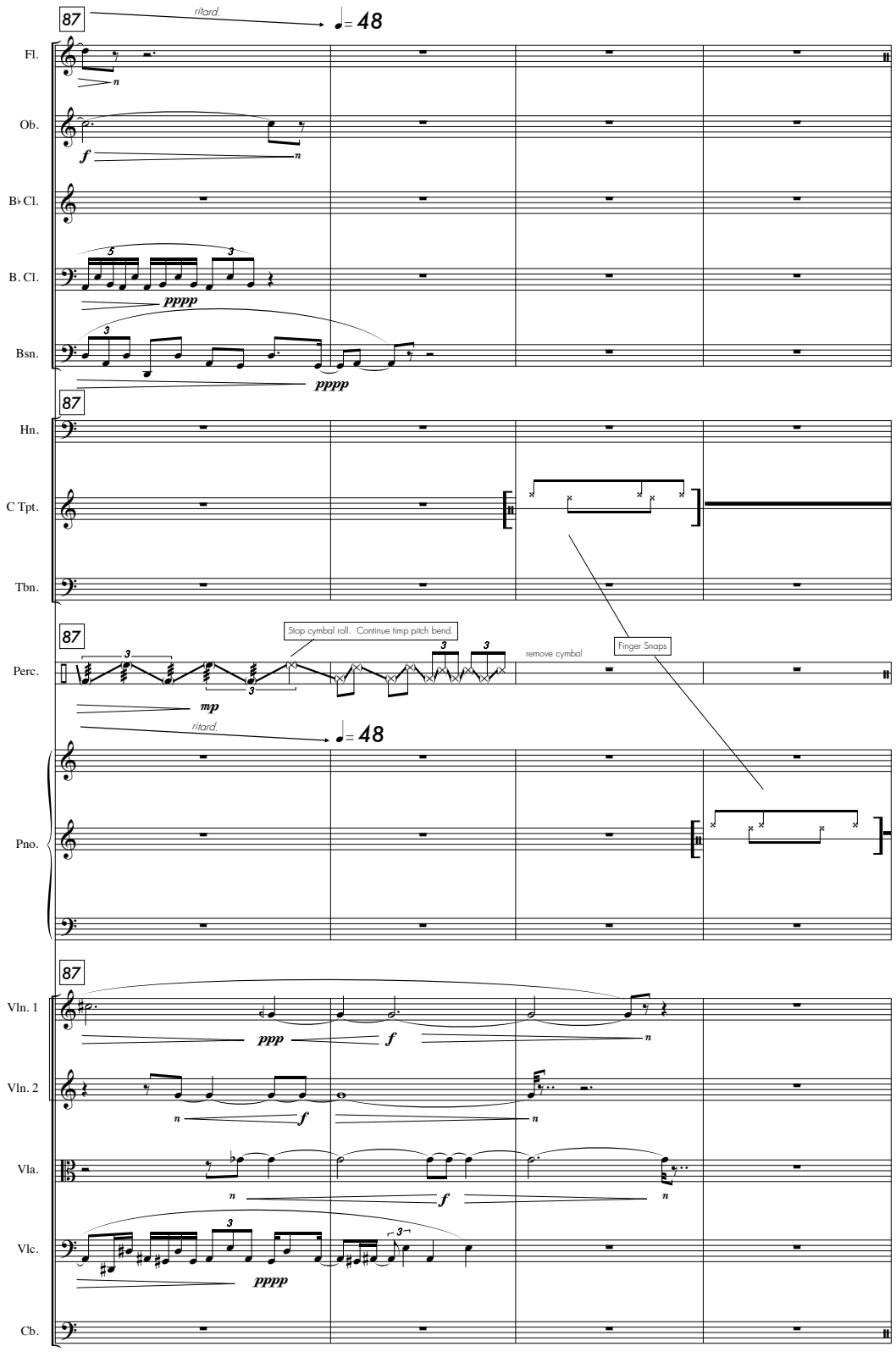

76
Present
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Sizzle Cymbal
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

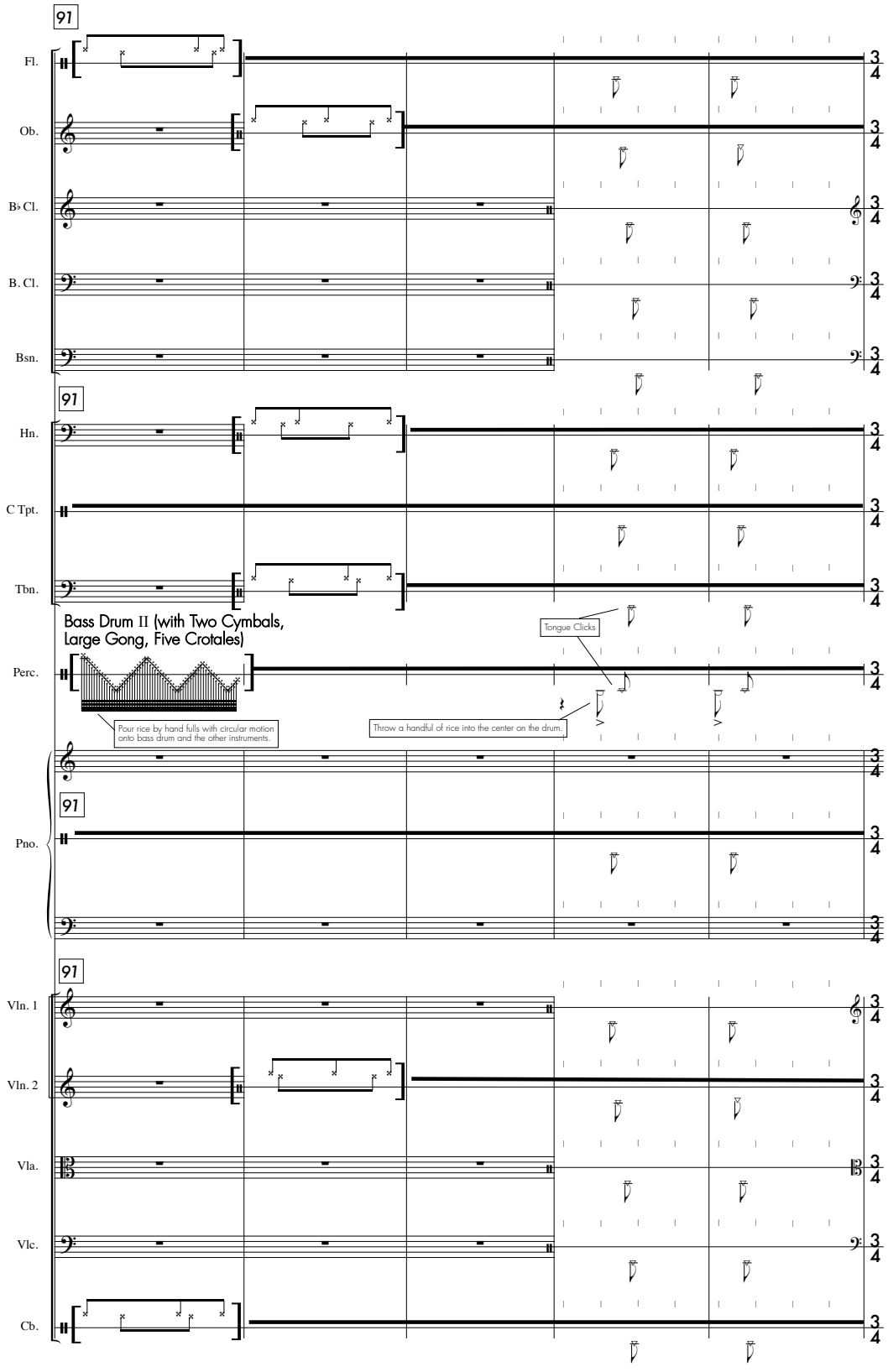

78
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
78
Hn.
C Tpt.
Tbn.
78
l.v.
Bass Drum I
Perc.
Pno.
Black and White Key Gliss.
78
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

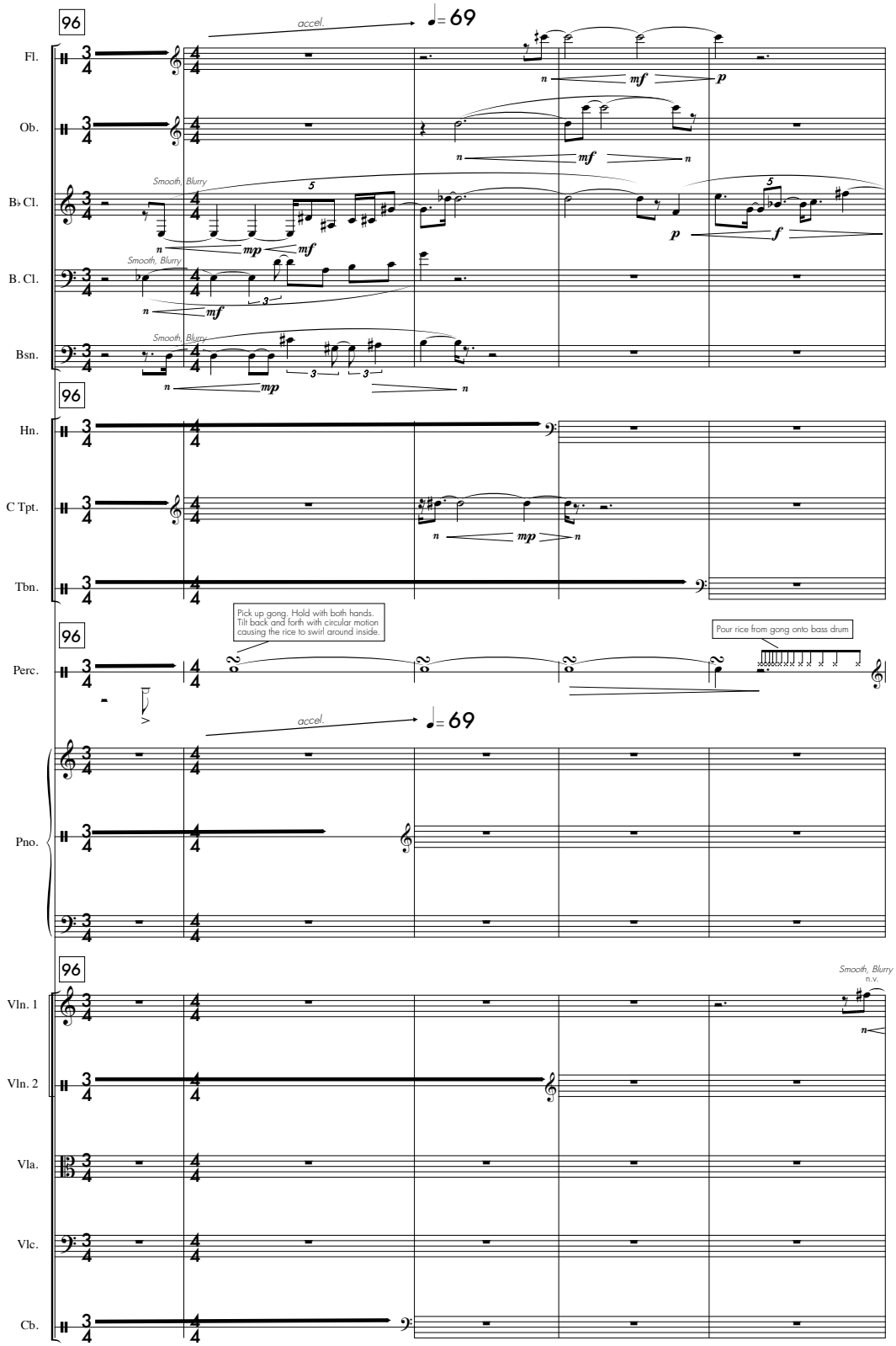

80
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
80
Hn.
C Tpt.
Tbn.
80
Tam Tam
l.v.
Perc.
Pno.
SH
80
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
SH

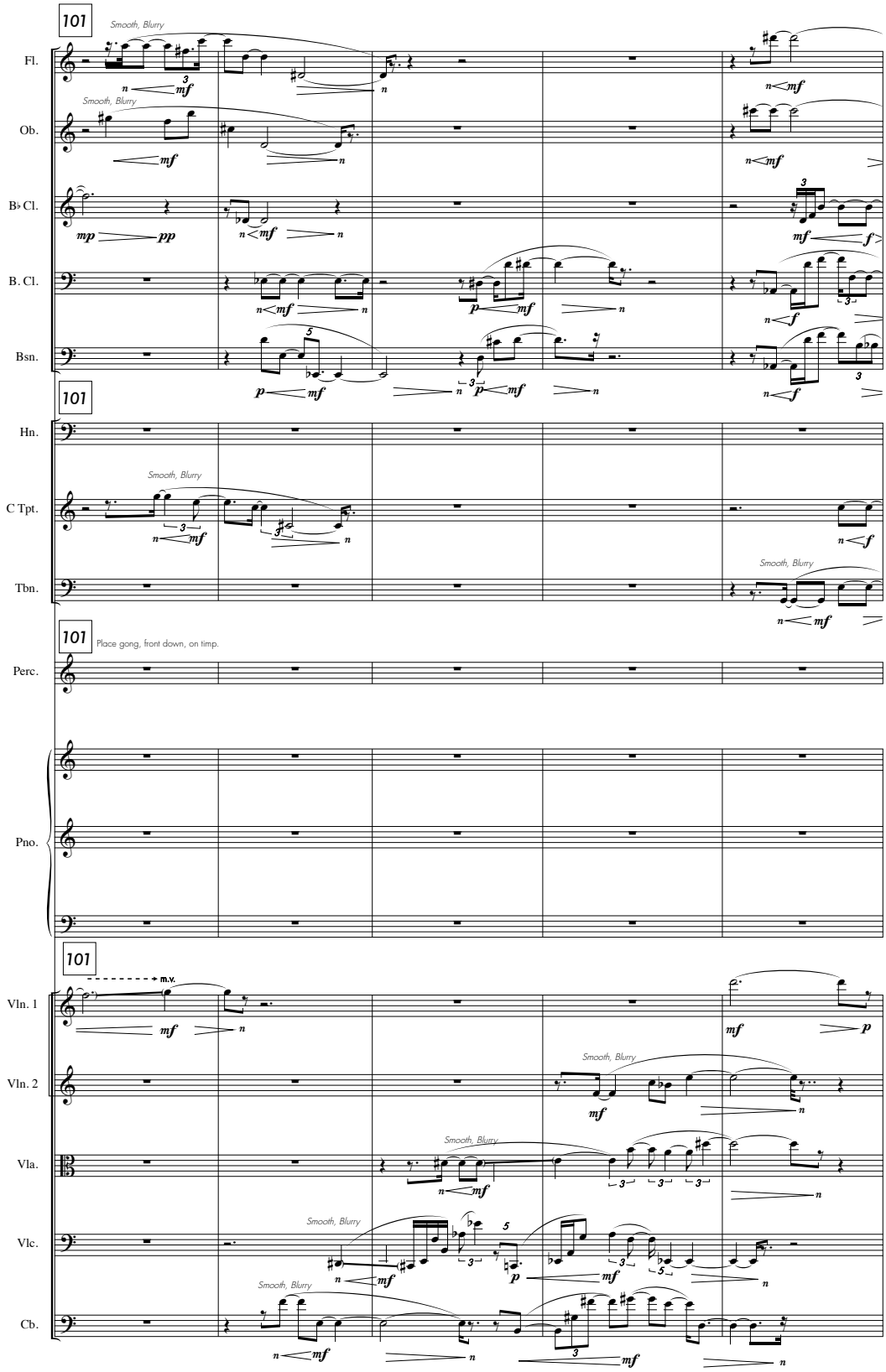

accel.
♩= 69
83
Fl.
Ob.
B♭ Cl.
B. Cl.
fingered glissando
Bsn.
Hn.
C Tpt.
Tbn.
Bass Drum I
Perc.
l.v.
Pno.
dolce
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

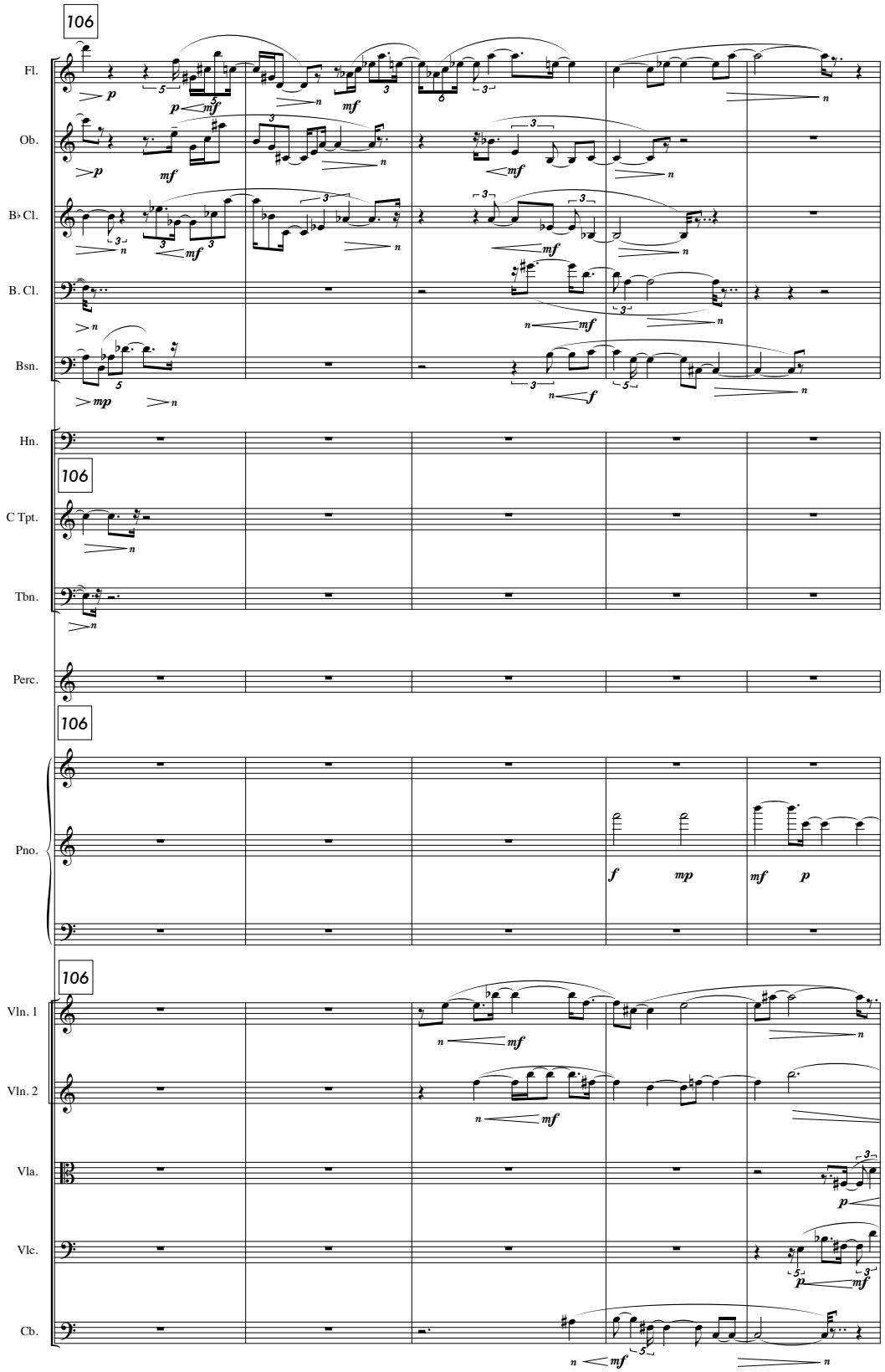

85
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
85
Hn.
C Tpt.
Tbn.
85
Cymbal on Timp.
Perc.
Pno.
85
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

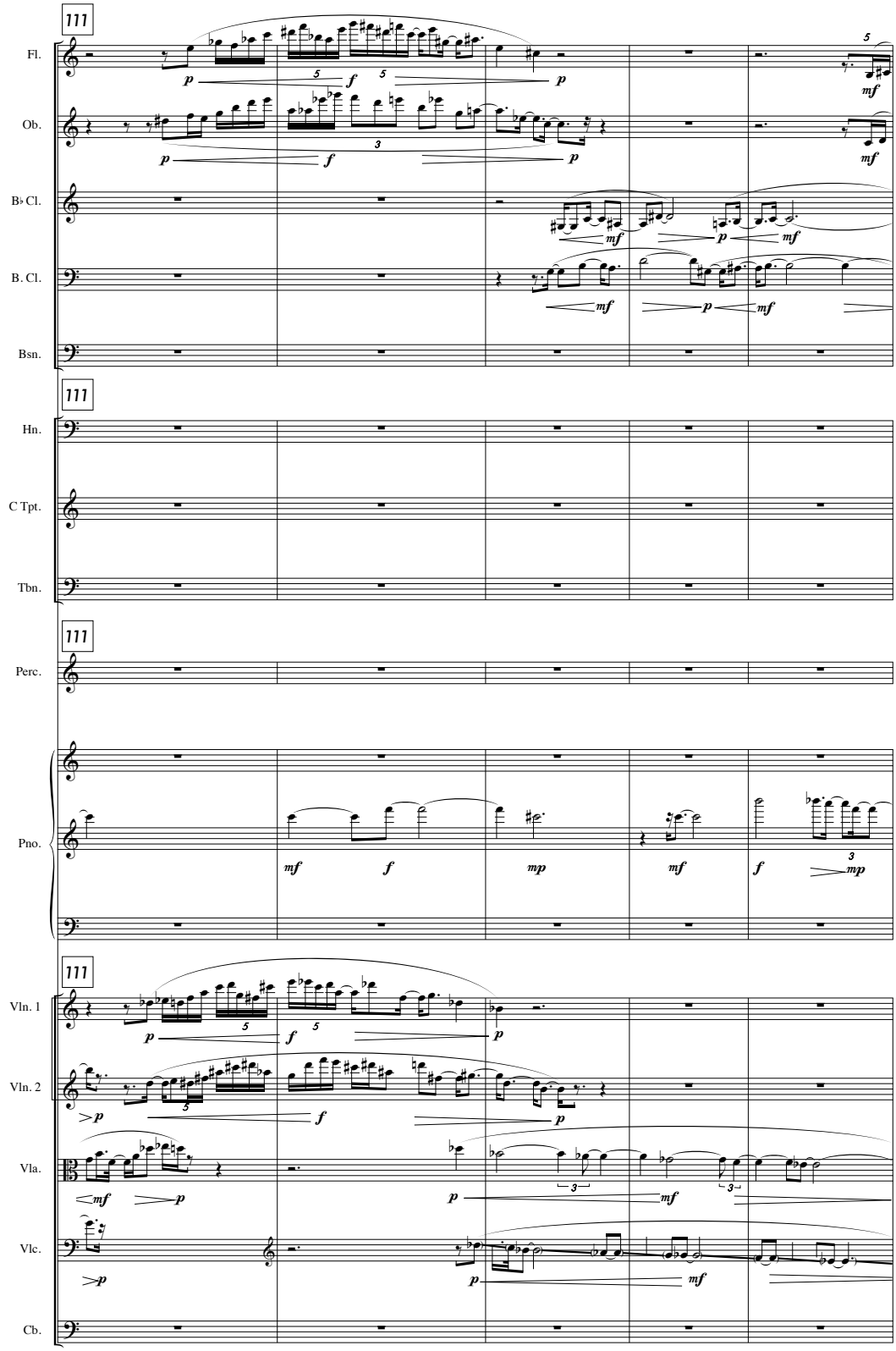

87
ritard.
♩= 48
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
pppp
pppp
87
Hn.
C Tpt.
Tbn.
87
Stop cymbal roll. Continue timp pitch bend.
remove cymbal
Finger Snaps
Perc.
mp
ritard.
♩= 48
Pno.
87
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
ppp
f
f
f
pppp

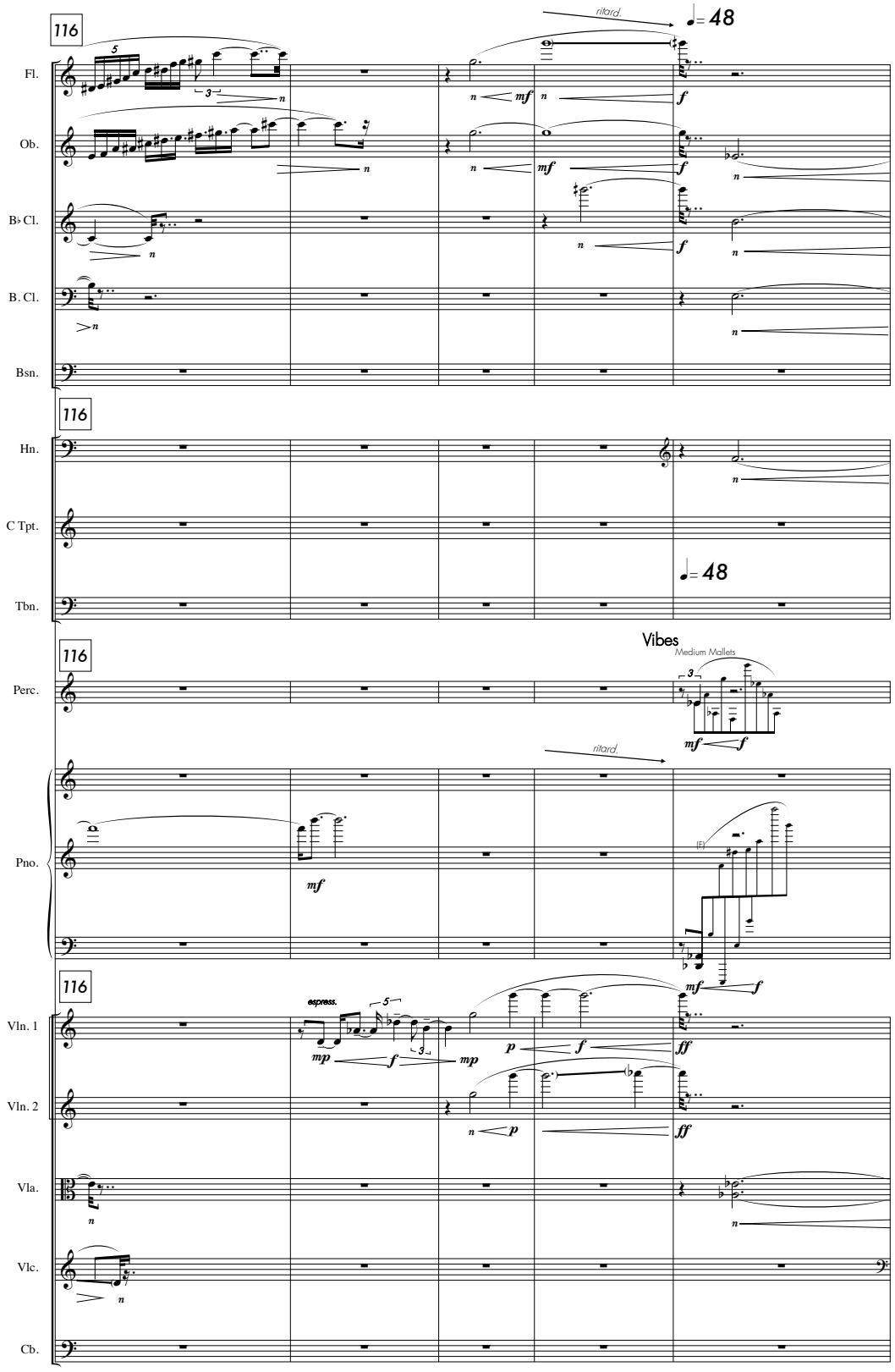

91
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
91
Hn.
C Tpt.
Tbn.
Bass Drum II (with Two Cymbals, Large Gong, Five Crotales)
Tongue Clicks
Perc.
Pour rice by hand fulls with circular motion onto bass drum and the other instruments.
Throw a handful of rice into the center on the drum.
91
Pno.
91
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
3/4

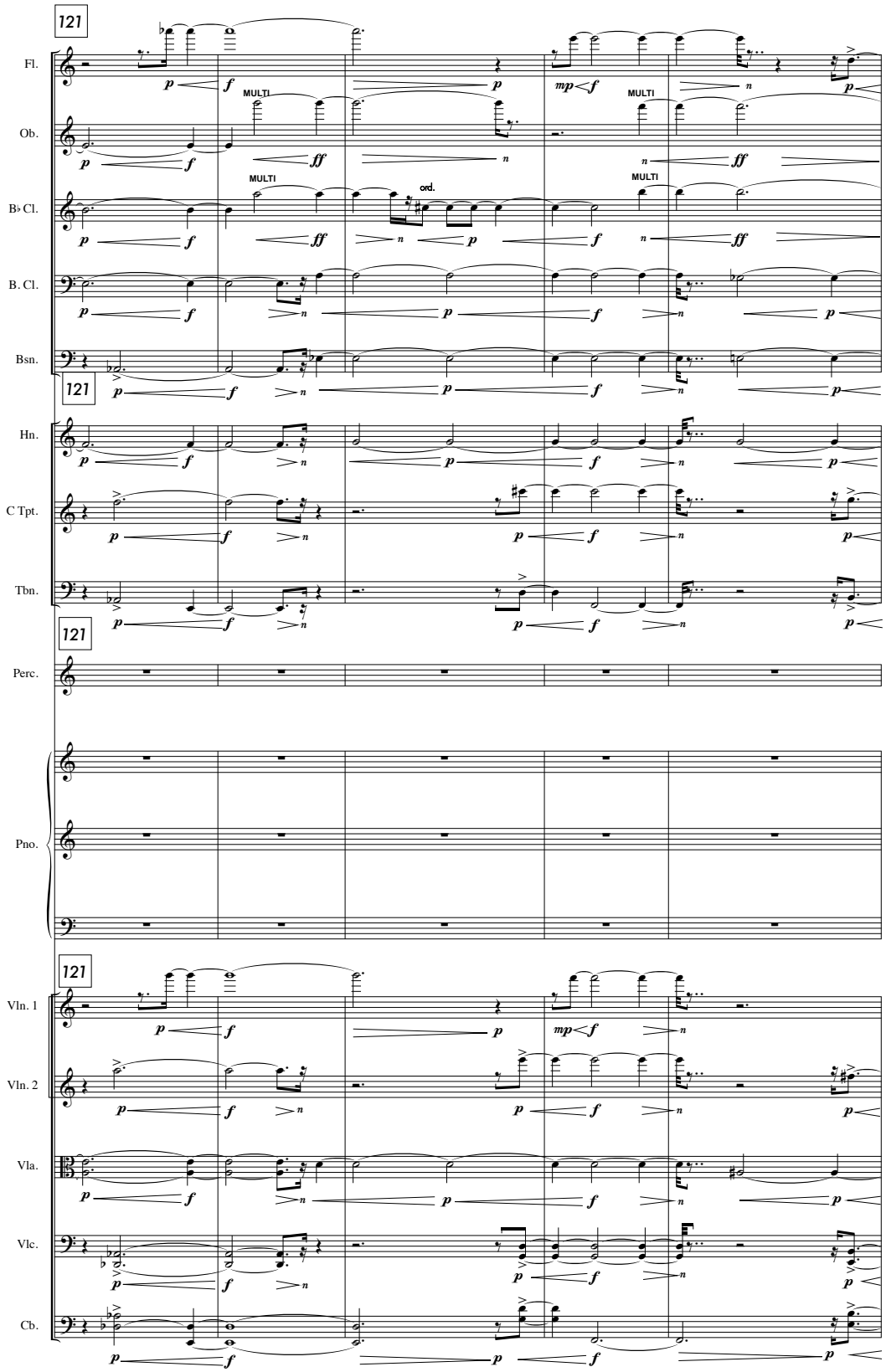

96
accel.
♩= 69
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Smooth, Blurry
Hn.
C Tpt.
Tbn.
Perc.
Pick up gong. Hold with both hands. Tilt back and forth with circular motion causing the rice to swirl around inside.
Pour rice from gong onto bass drum
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
n.v.

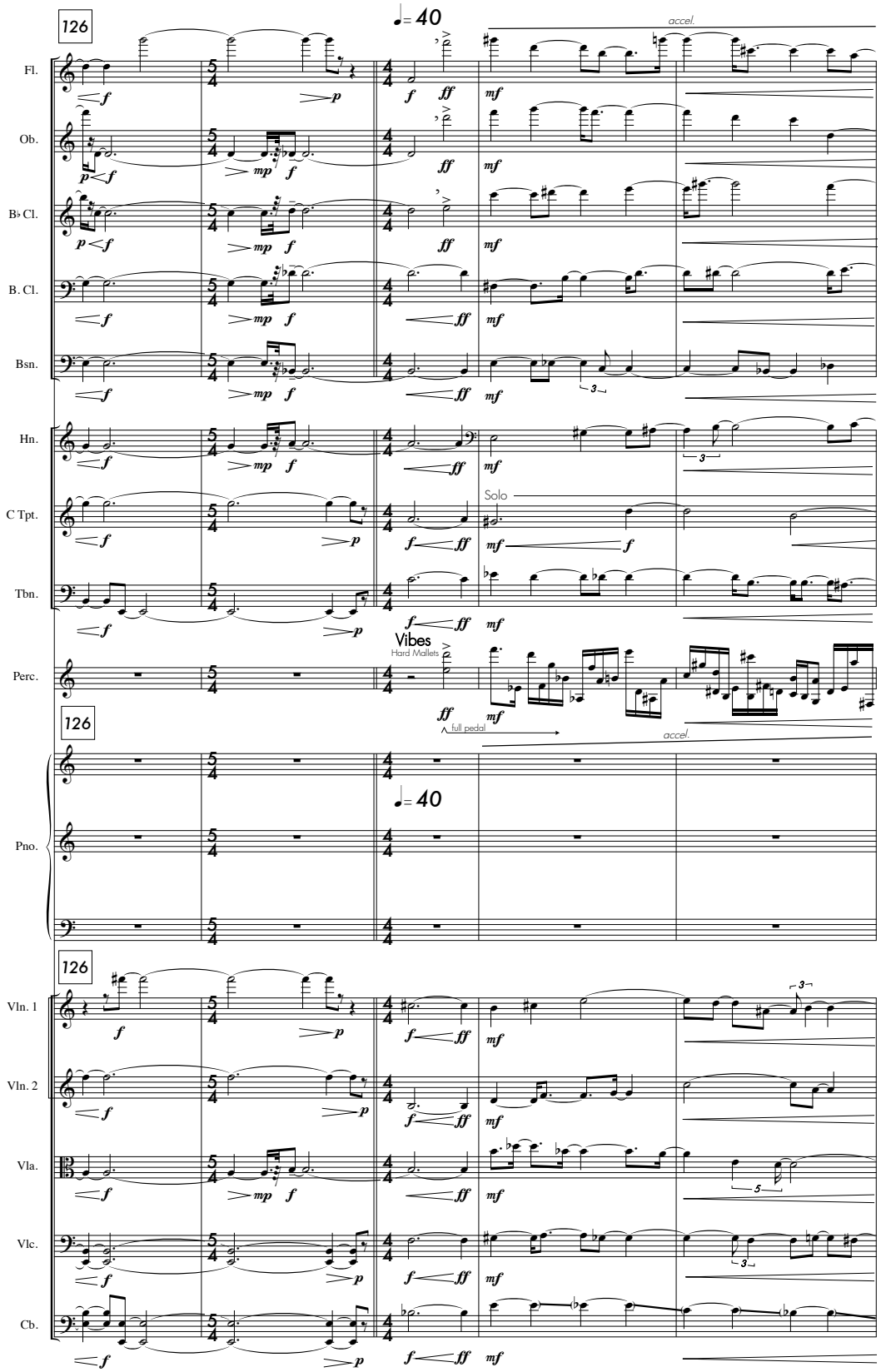

101
Smooth, Blurry
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Place gong, front down, on timp.
Perc.
Pno.
m.v.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

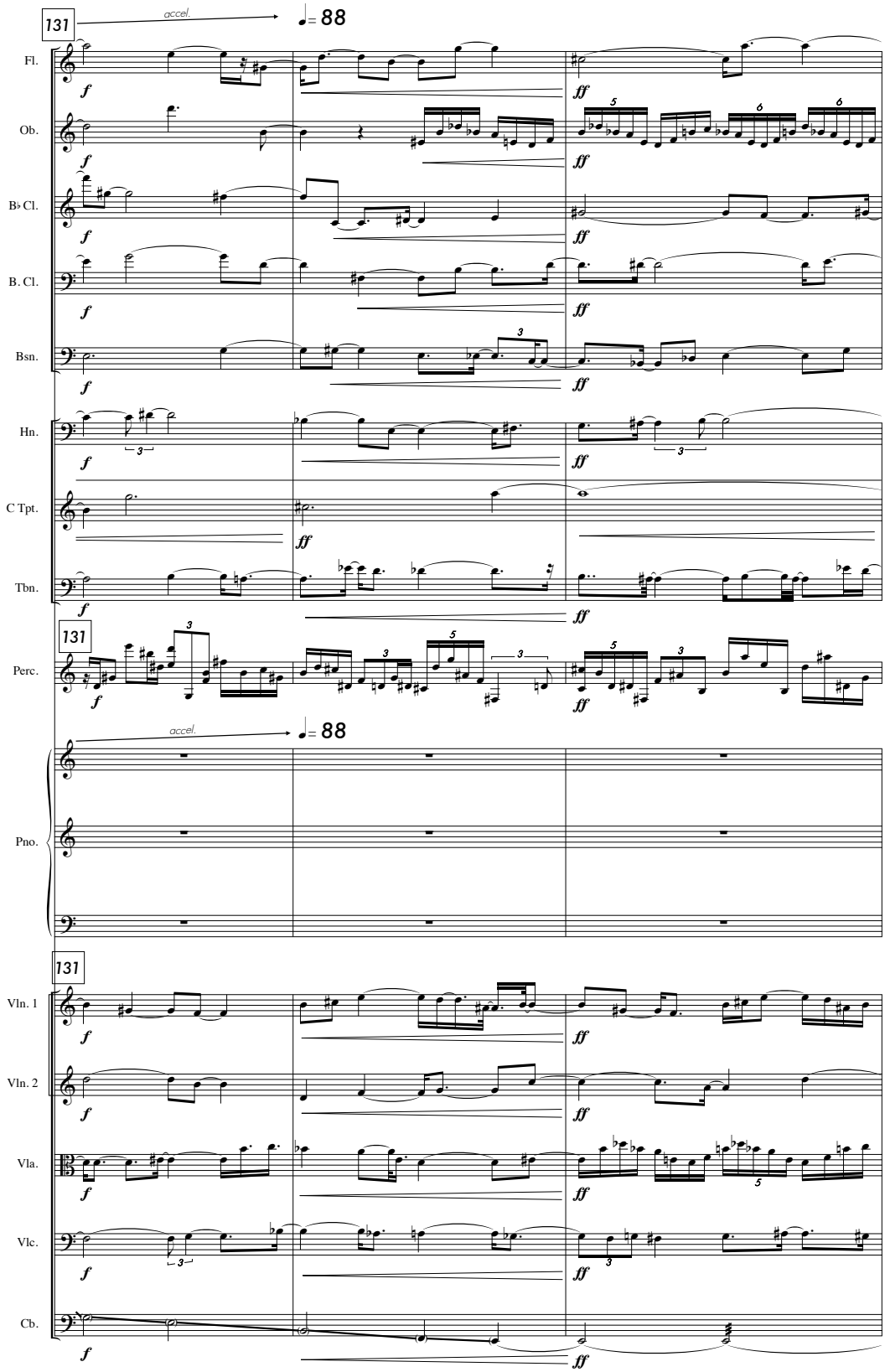

106
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
106
C Tpt.
Tbn.
Perc.
106
Pno.
106
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

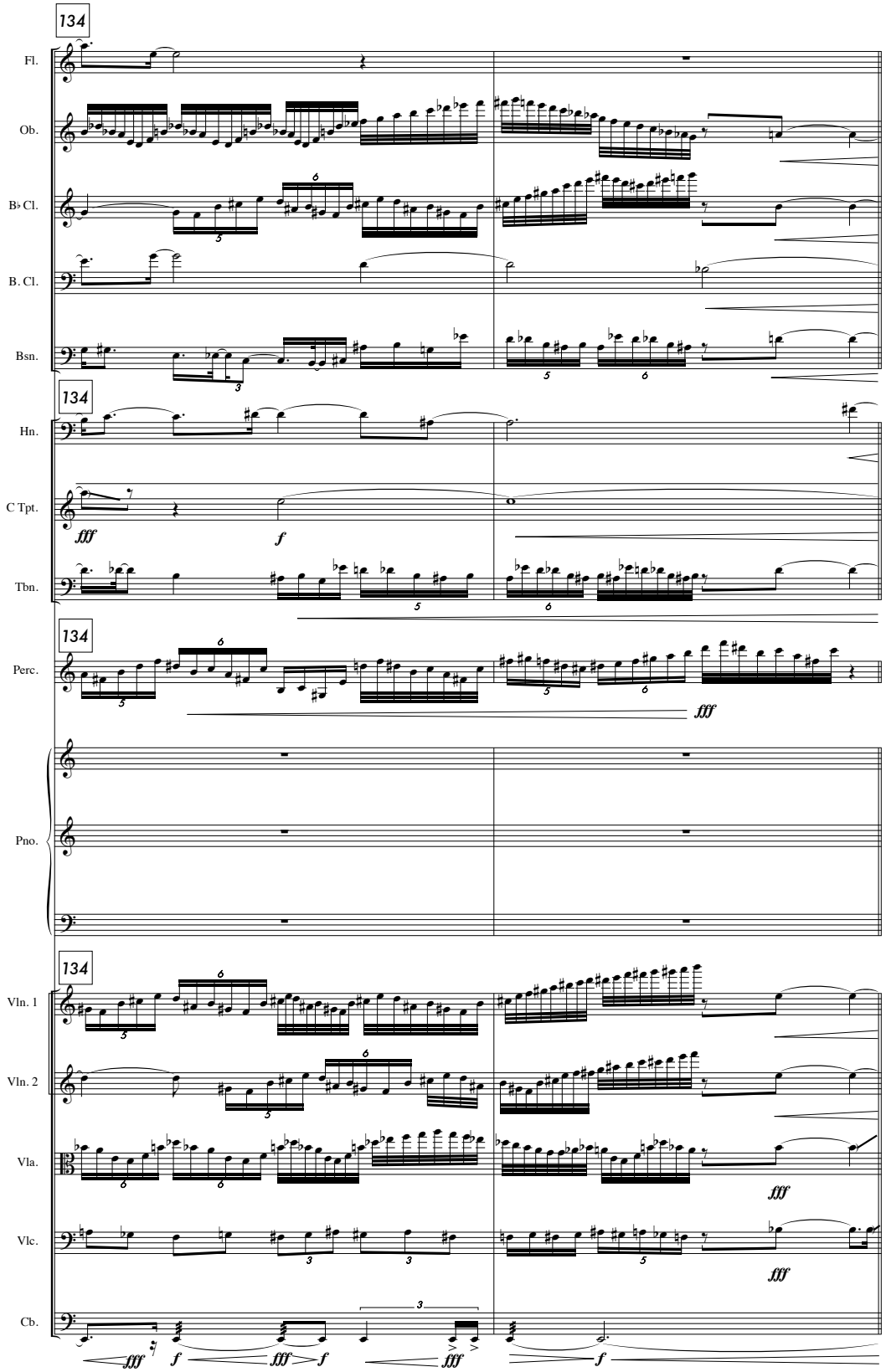

111
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
111
Hn.
C Tpt.
Tbn.
111
Perc.
Pno.
111
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

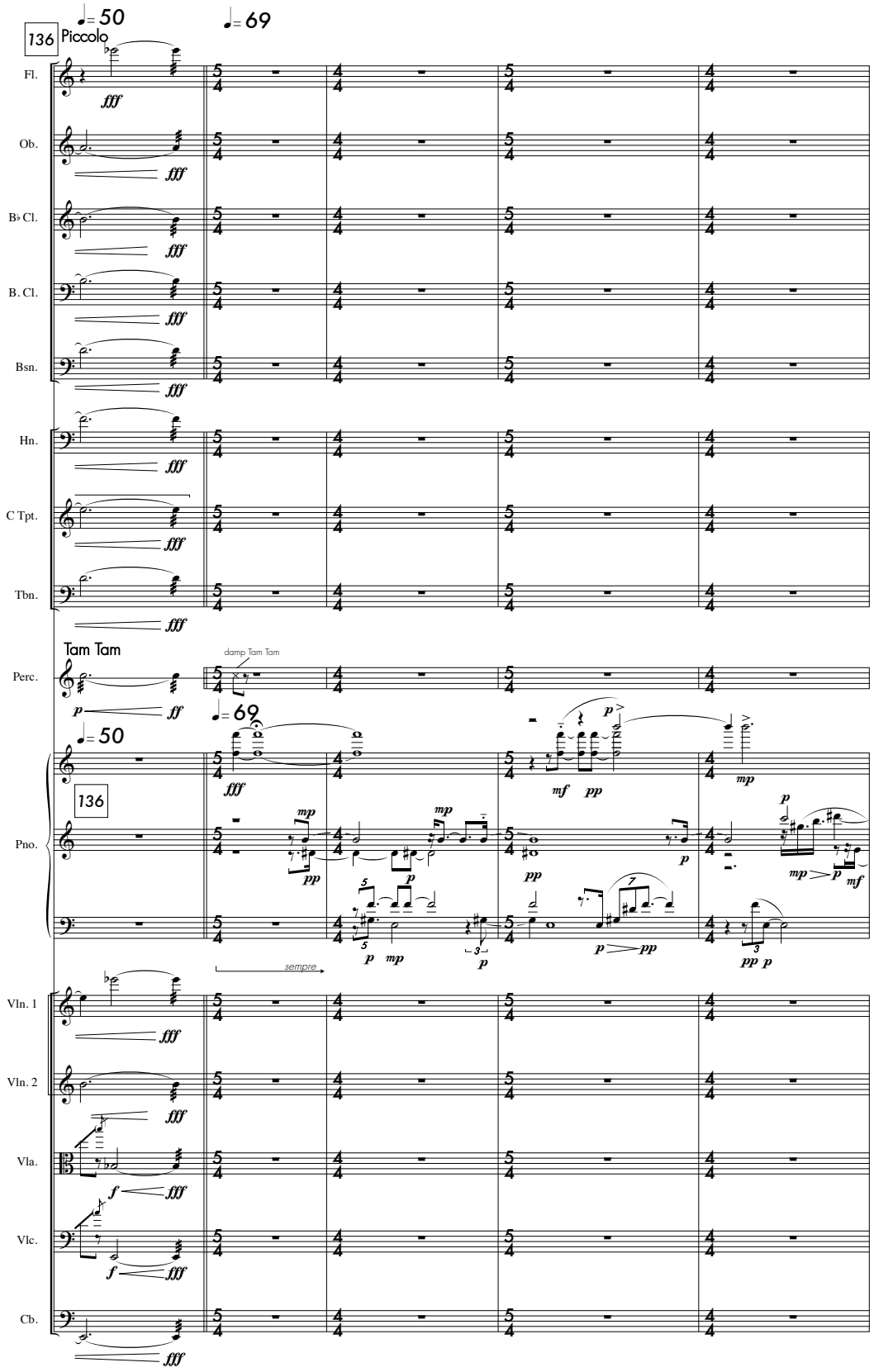

116
ritard.
♩= 48
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
116
Hn.
C Tpt.
♩= 48
Tbn.
116
Vibes
Medium Mallets
Perc.
ritard.
Pno.
116
espress.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

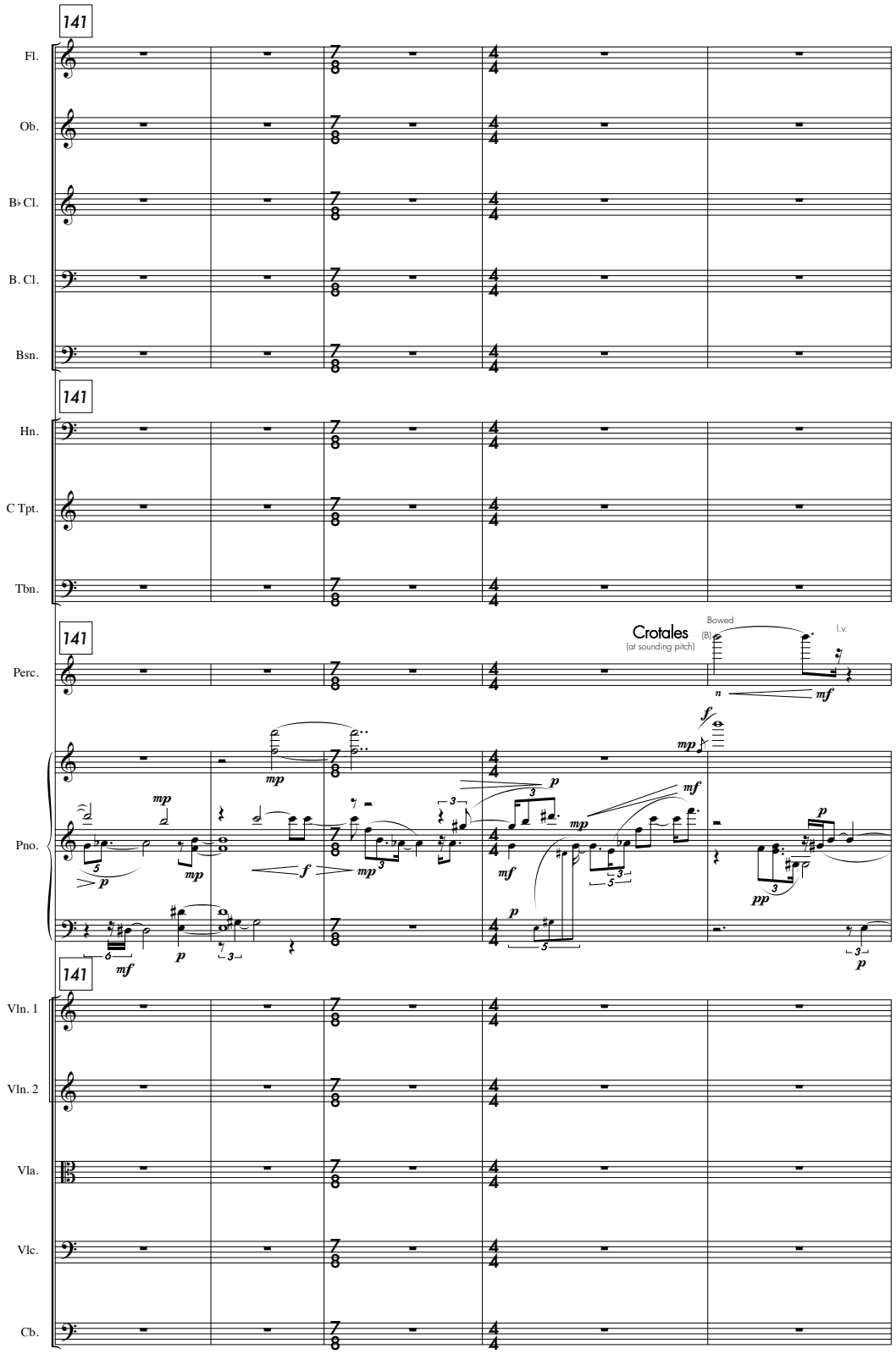

121
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
MULTI
ord.
Hn.
C Tpt.
Tbn.
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

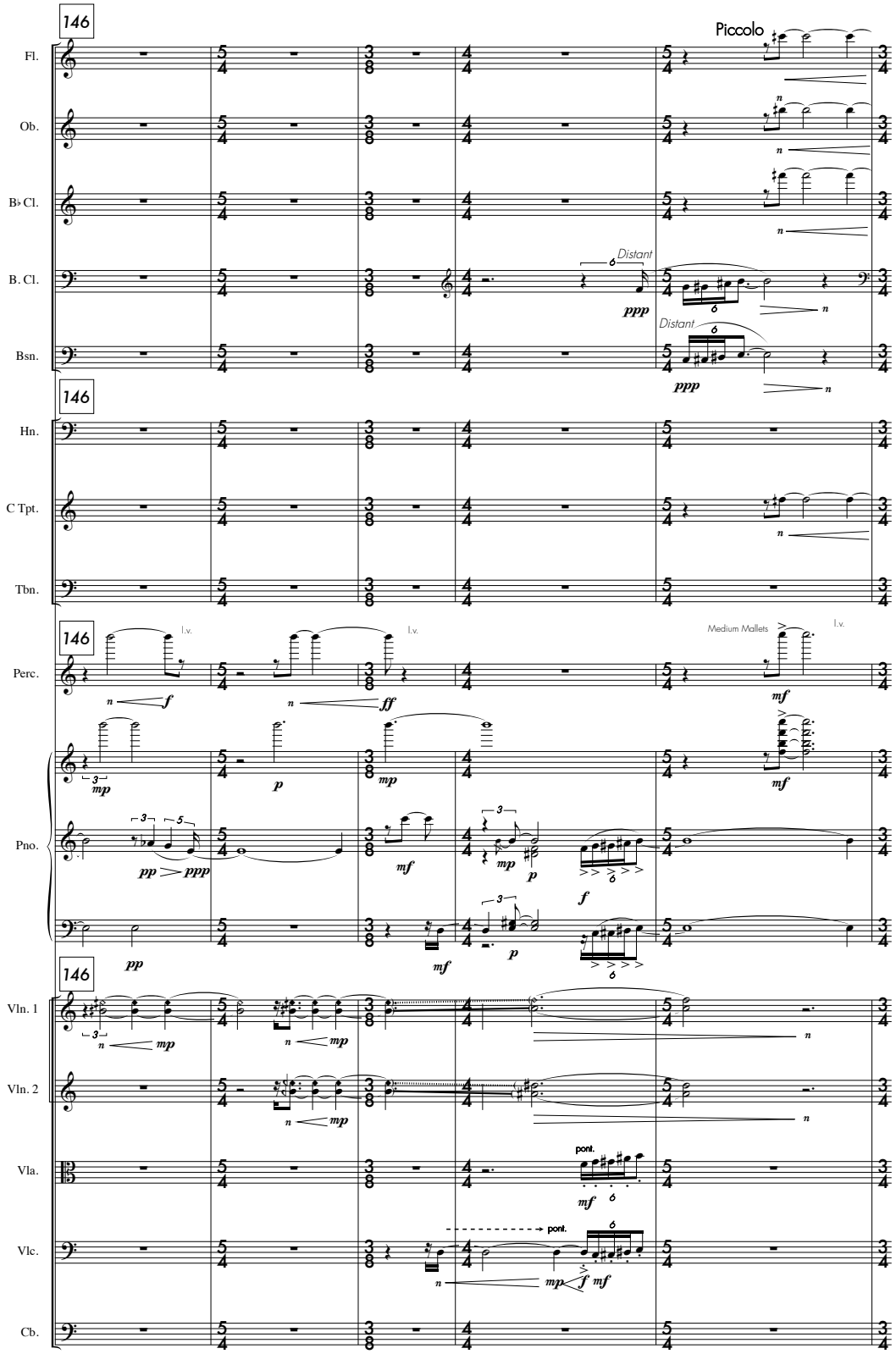

126
♩= 40
accel.
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Solo
Tbn.
Perc.
Vibes
Hard Mallets
full pedal
126
♩= 40
accel.
Pno.
126
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

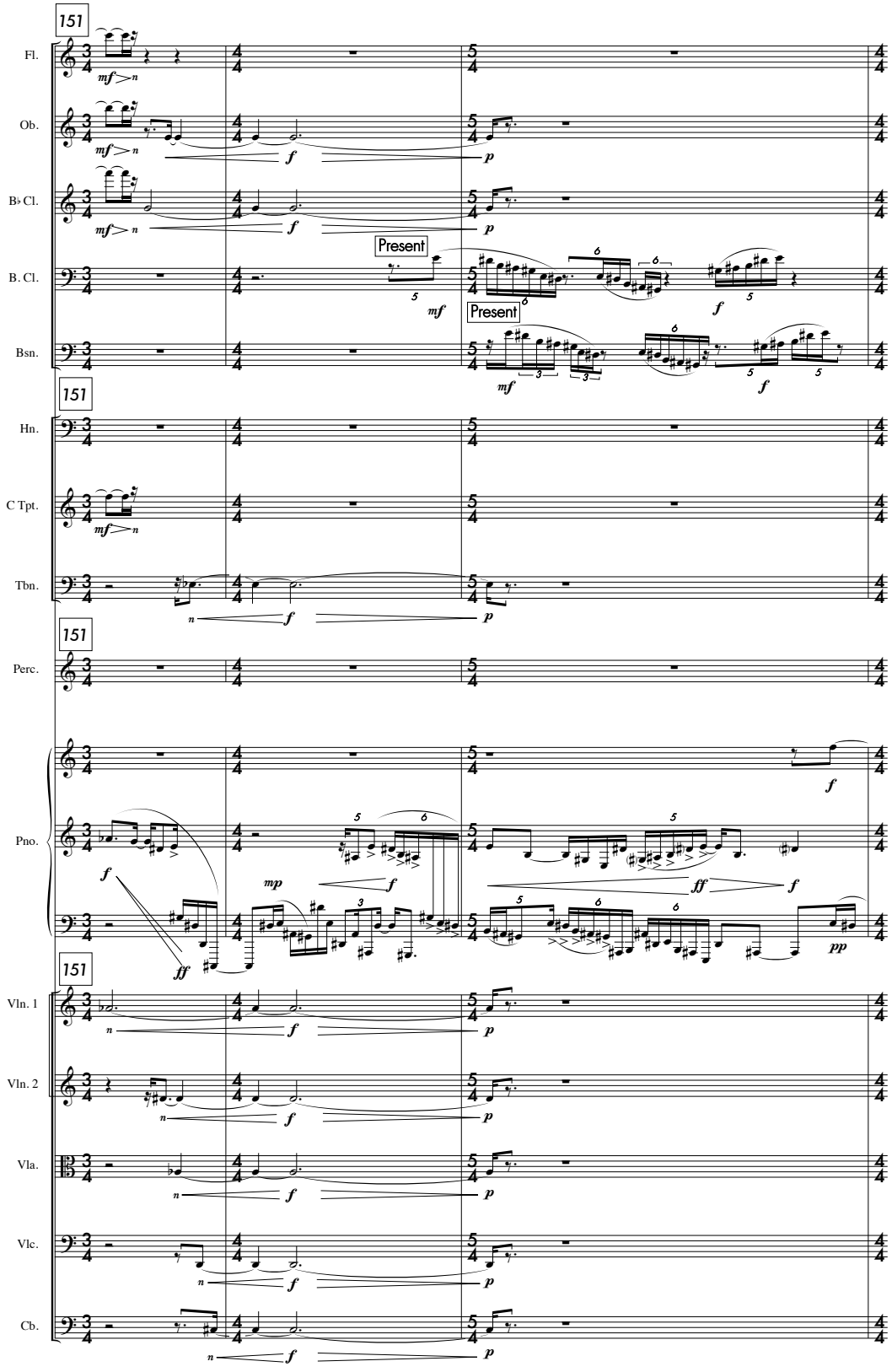

131
accel.
♩= 88
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
131
Perc.
accel.
♩= 88
Pno.
131
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

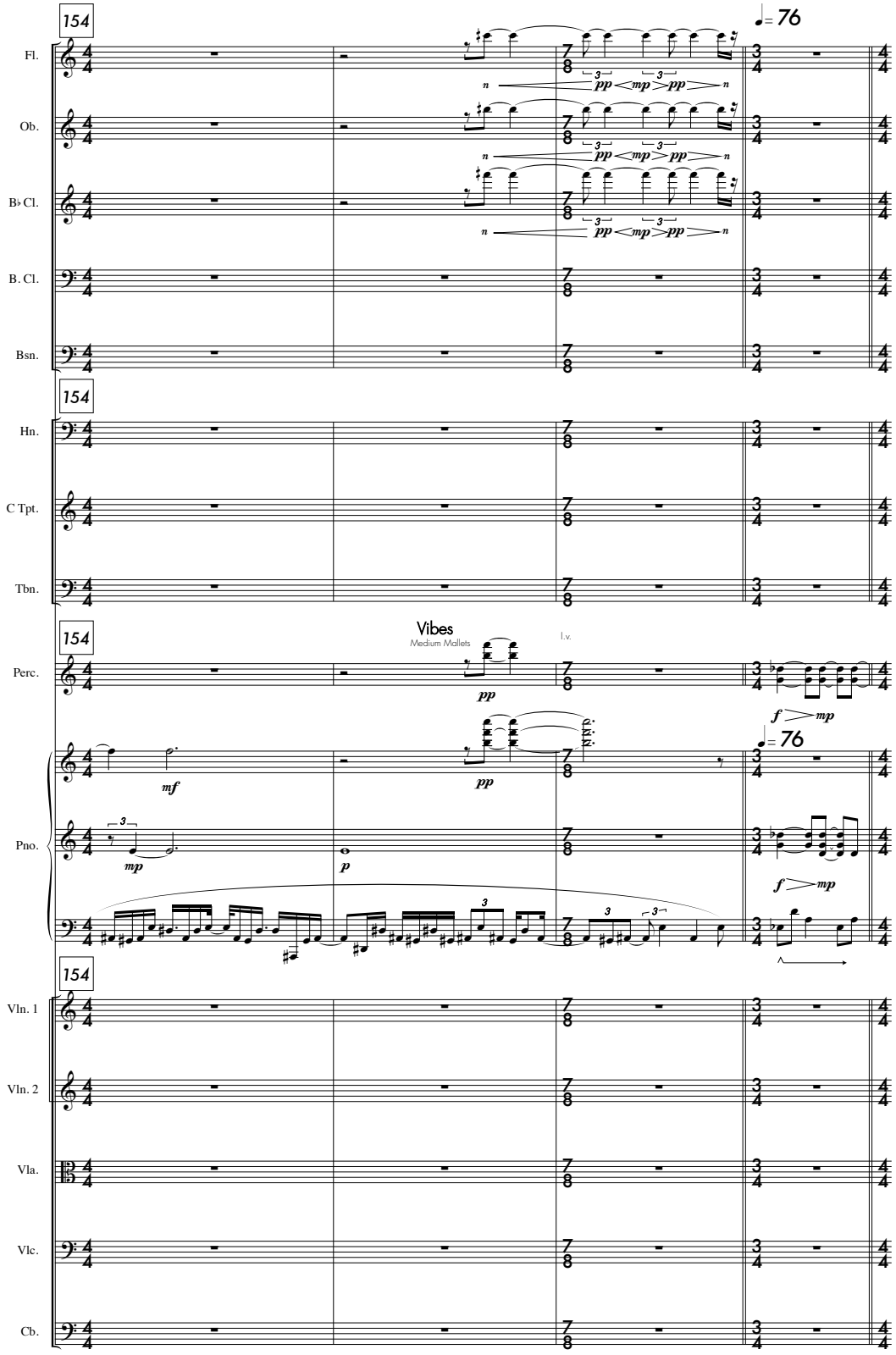

134
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
134
Hn.
C Tpt.
fff
f
Tbn.
134
Perc.
fff
Pno.
134
Vln. 1
Vln. 2
Vla.
fff
Vlc.
fff
Cb.
fff
f
fff
f
fff
f

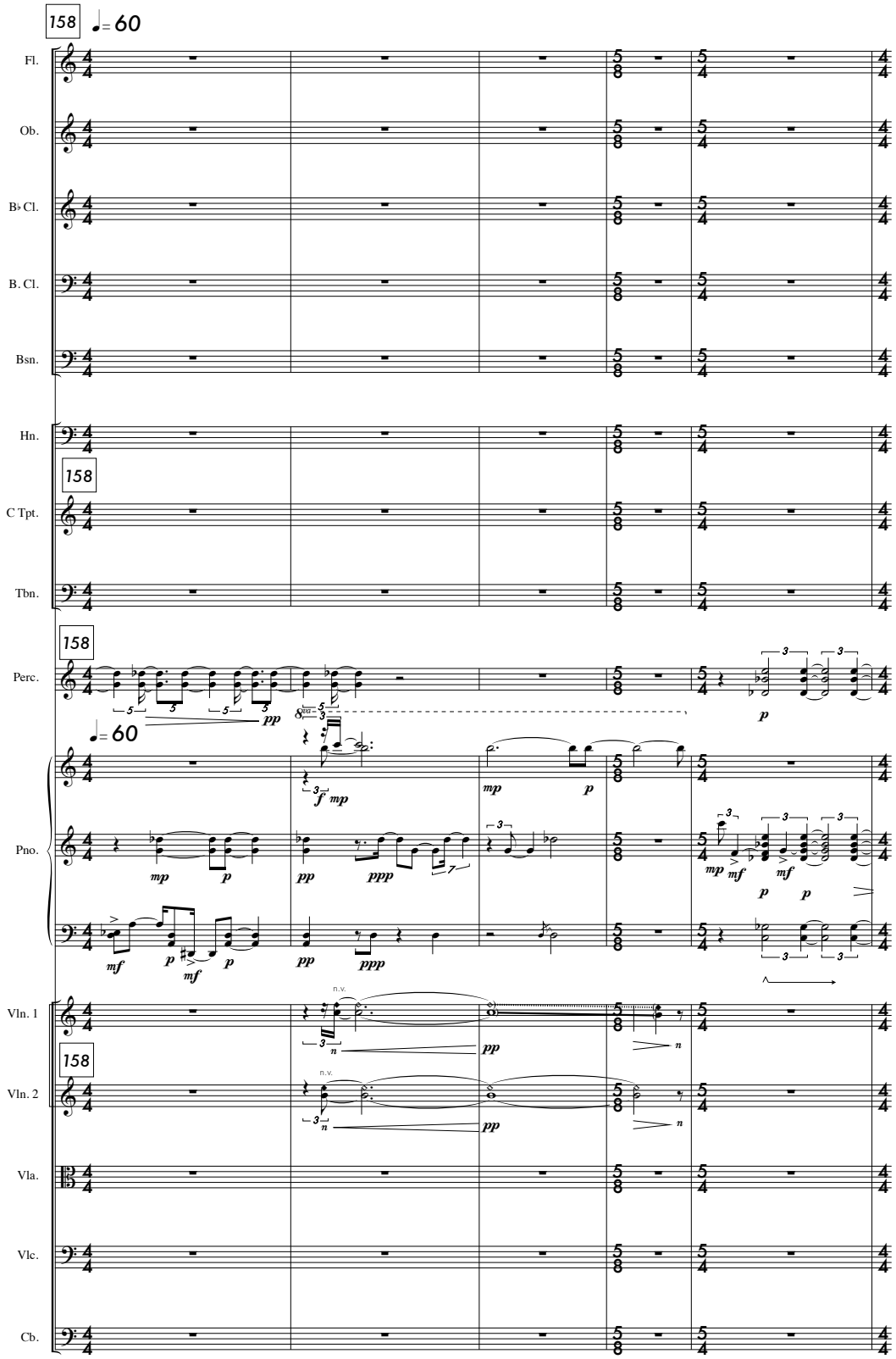

136
Piccolo
♩= 50
♩= 69
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Tam Tam
damp Tam Tam
Perc.
Pno.
sempre
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

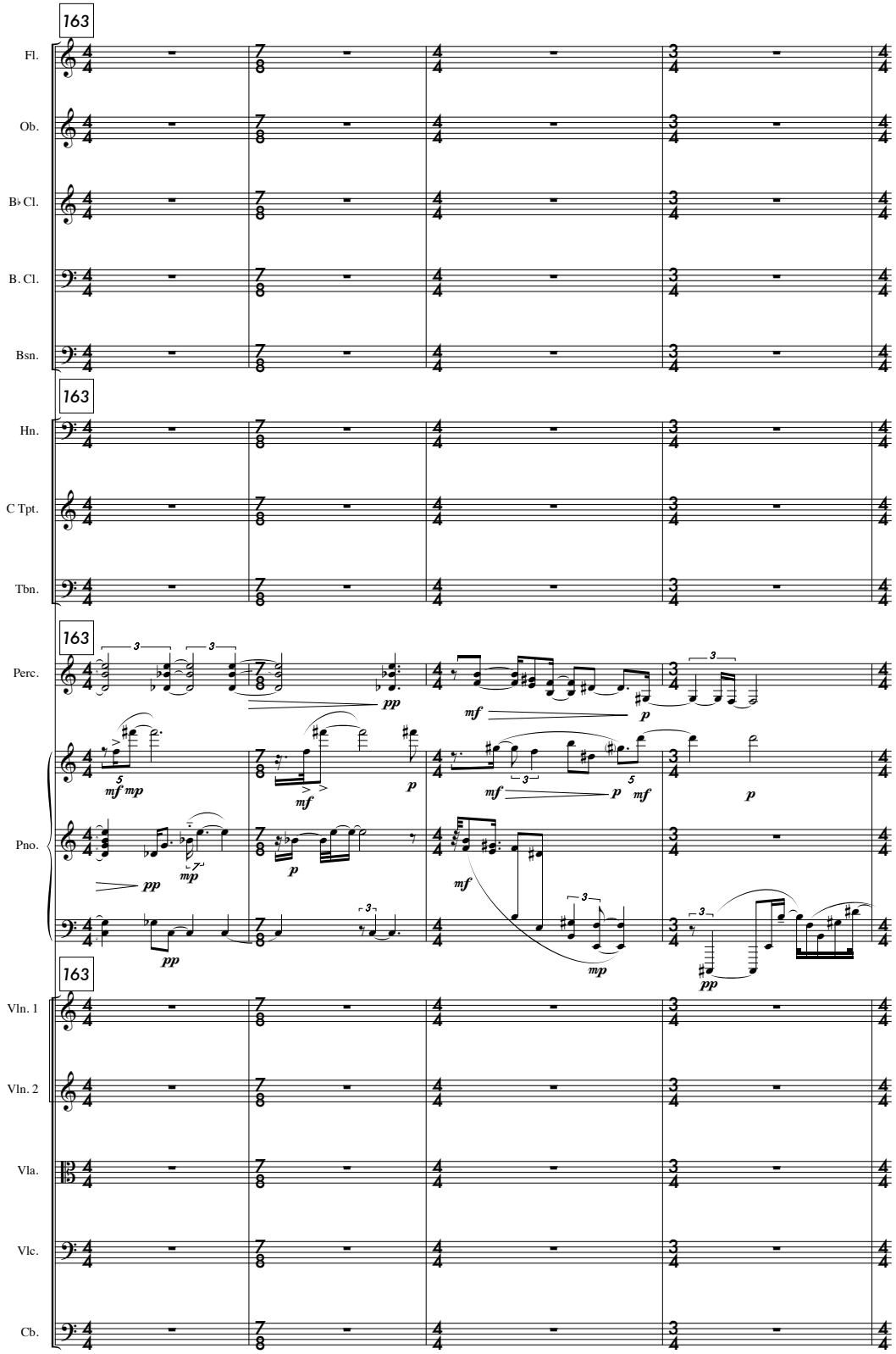

141
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
141
Hn.
C Tpt.
Tbn.
141
Perc.
Crotales
(at sounding pitch)
Bowed
l.v.
Pno.
141
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

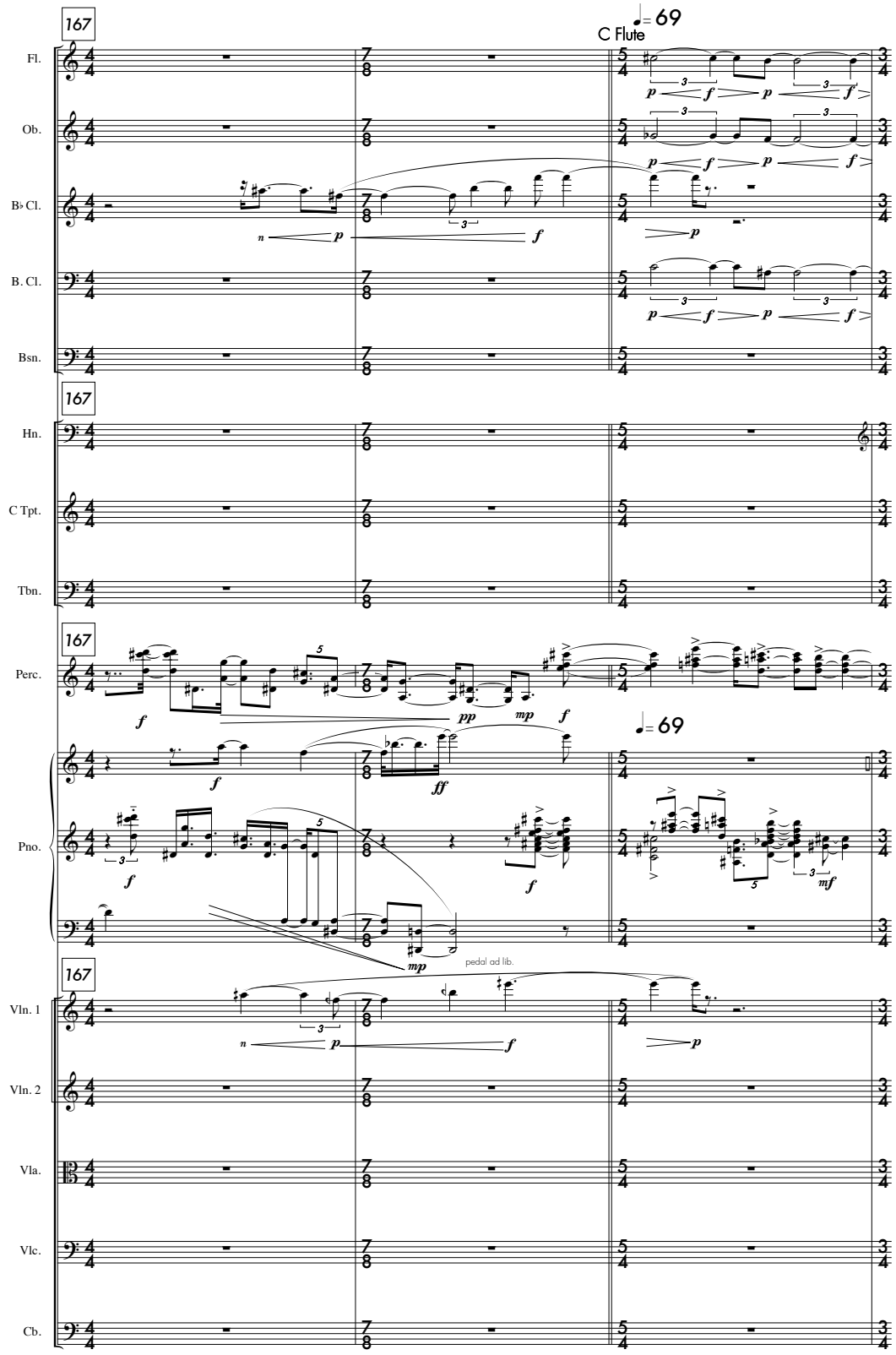

146
Piccolo
Fl.
Ob.
B♭ Cl.
B. Cl.
Distant
ppp
Distant
ppp
Bsn.
146
Hn.
C Tpt.
Tbn.
146
l.v.
l.v.
Medium Mallets
l.v.
Perc.
f
ff
mf
mp
p
mp
mf
mp
p
f
mf
Pno.
pp
ppp
pp
mf
p
146
Vln. 1
mp
mp
Vln. 2
mp
n
Vla.
pont.
mf
Vlc.
pont.
mp
f
mf
Cb.

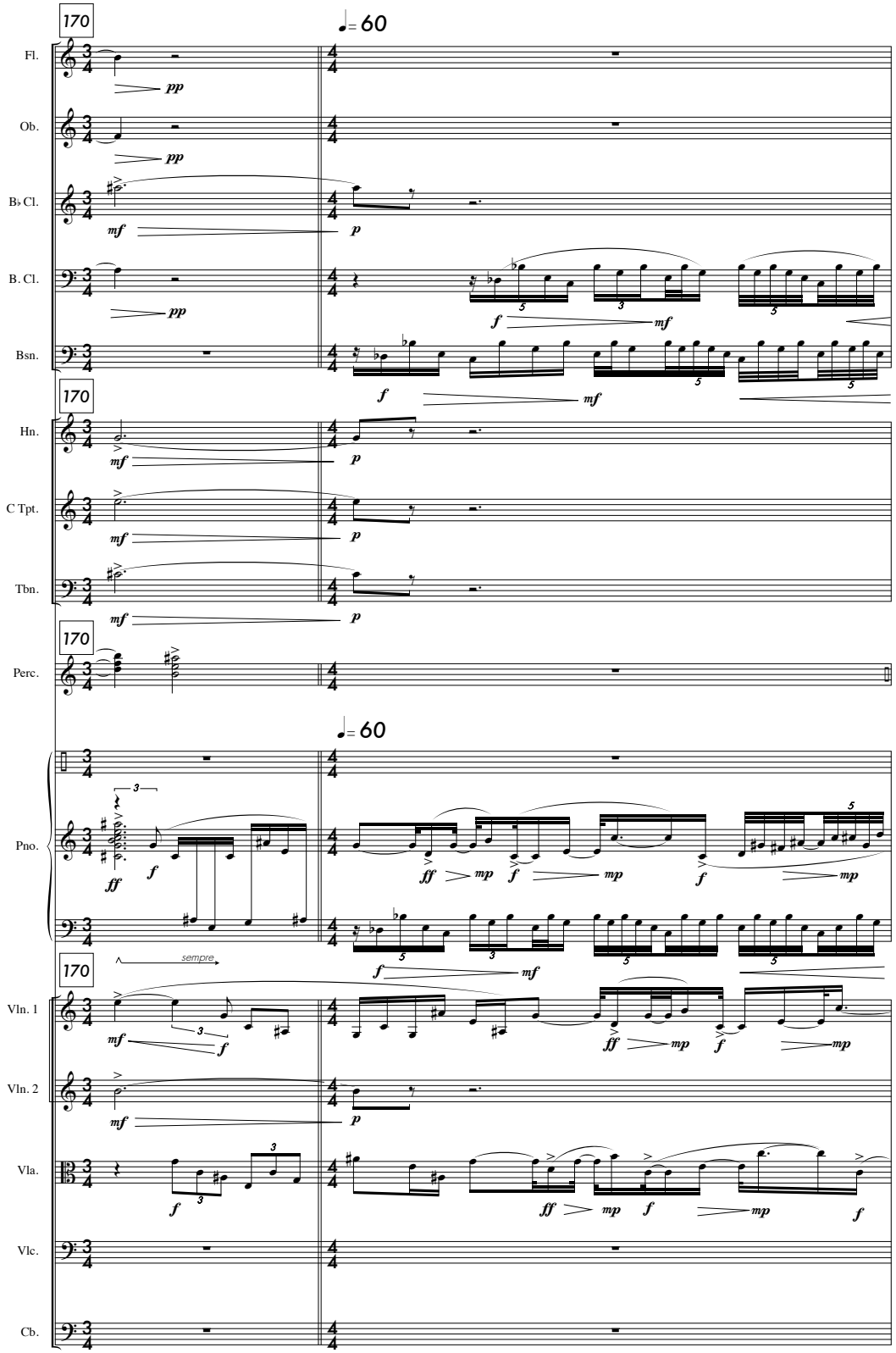

151
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Present
Present
151
Hn.
C Tpt.
Tbn.
151
Perc.
Pno.
151
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

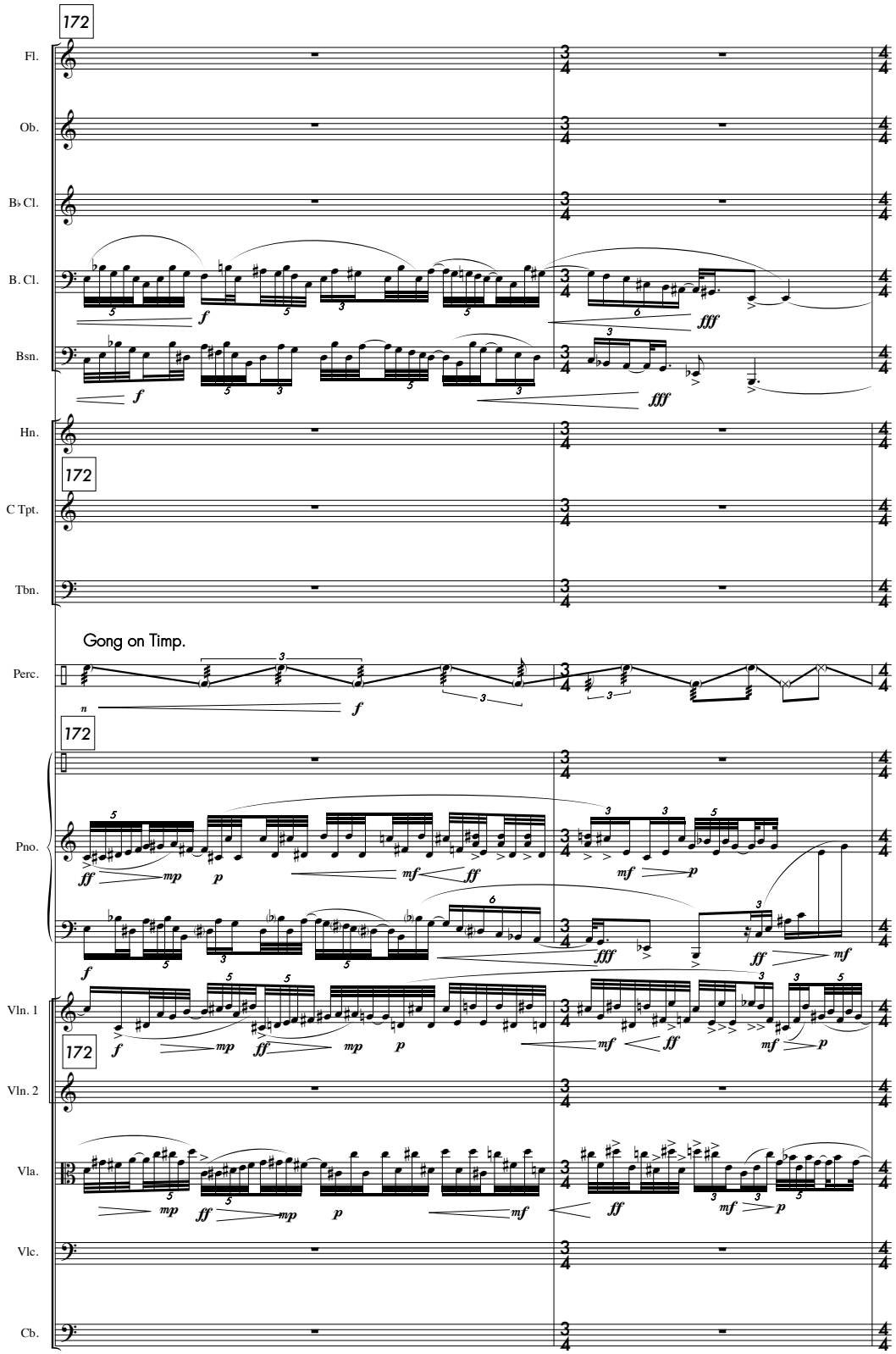

154
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
154
Hn.
C Tpt.
Tbn.
154
Vibes
Medium Mallets
l.v.
Perc.
Pno.
154
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
♩= 76
pp
mp
mf
p
f

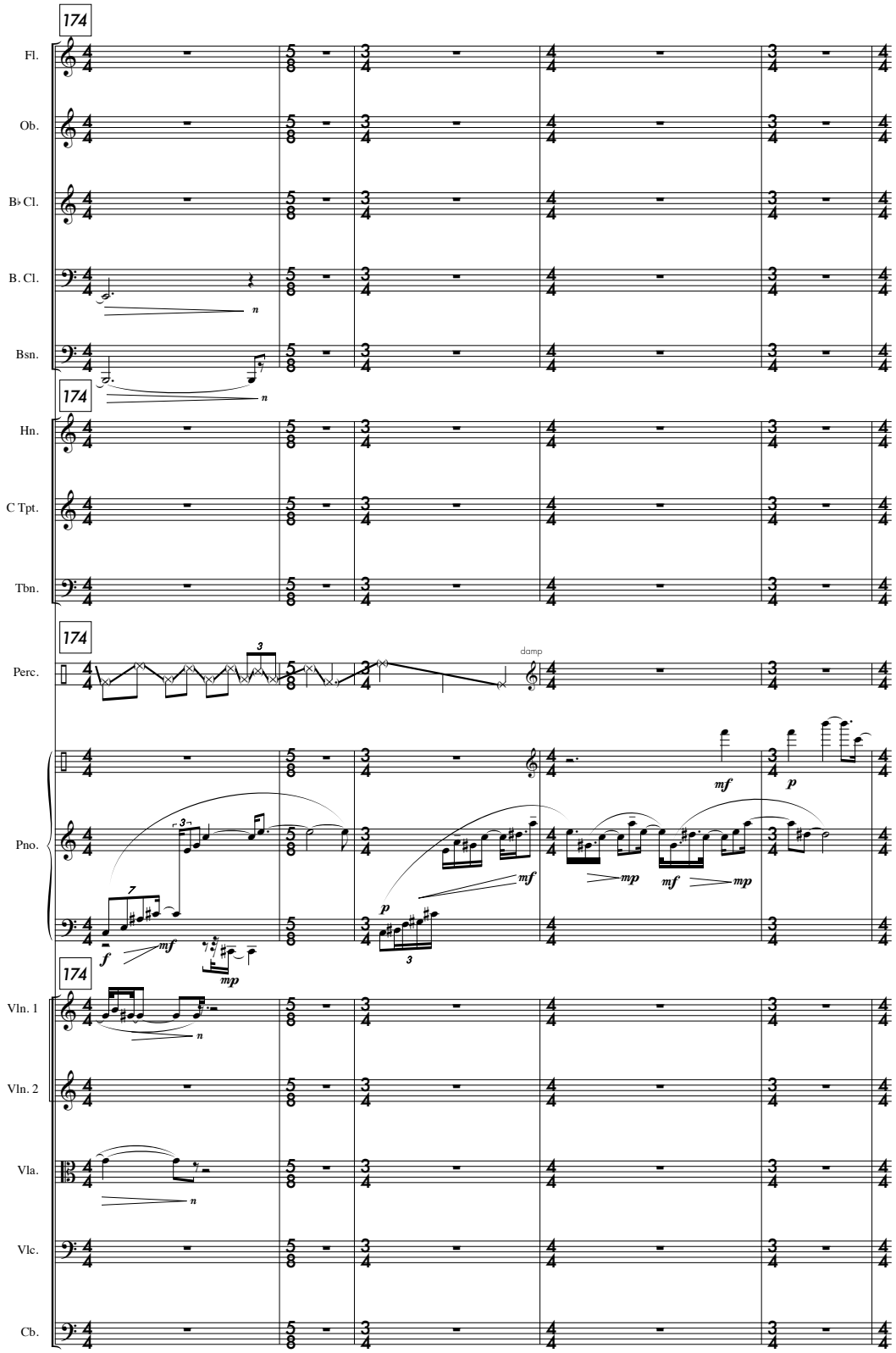

158
♩= 60
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
158
C Tpt.
Tbn.
158
Perc.
♩= 60
Pno.
Vln. 1
158
Vln. 2
Vla.
Vlc.
Cb.

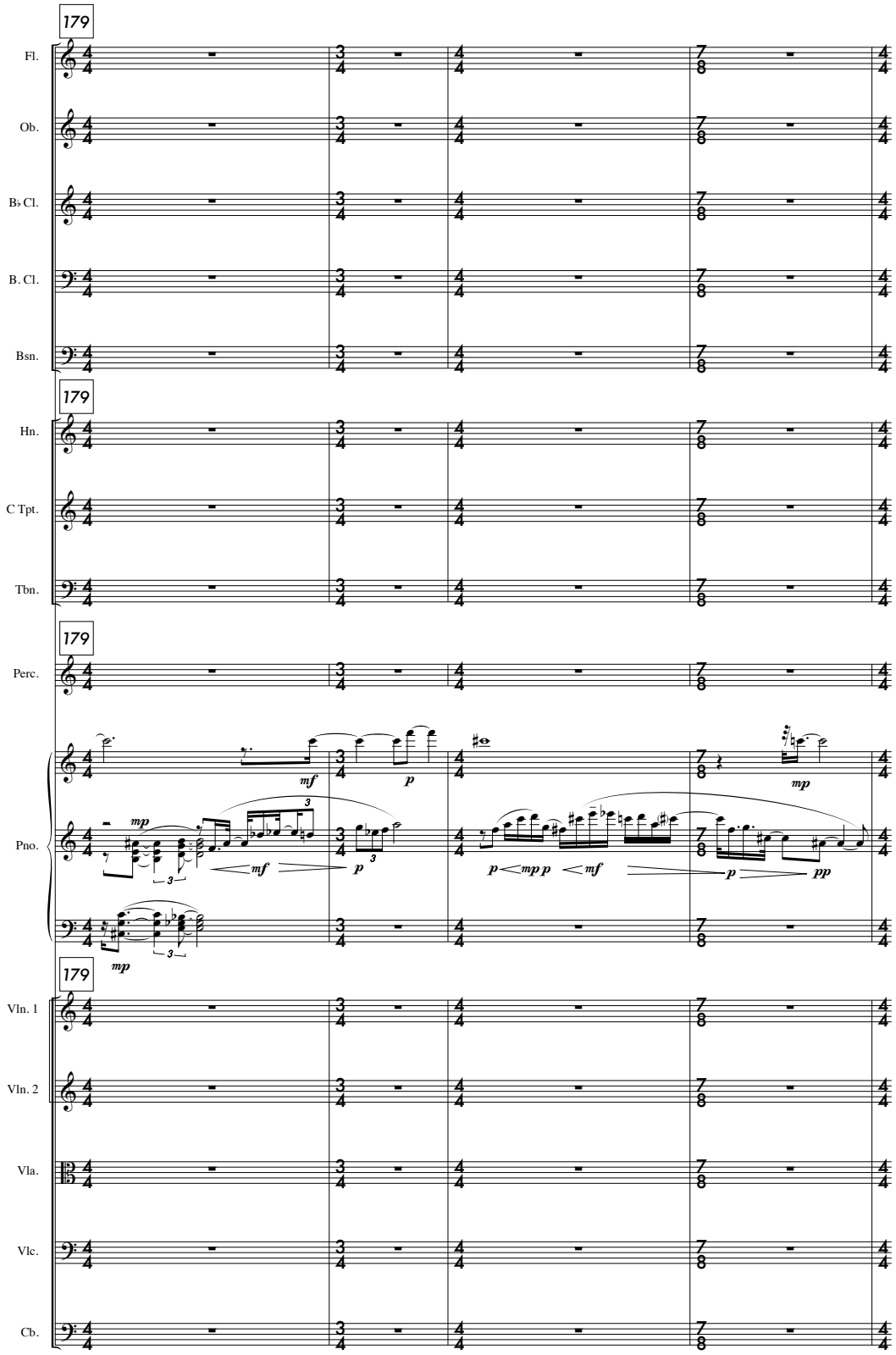

163
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
163
Hn.
C Tpt.
Tbn.
163
Perc.
Pno.
163
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

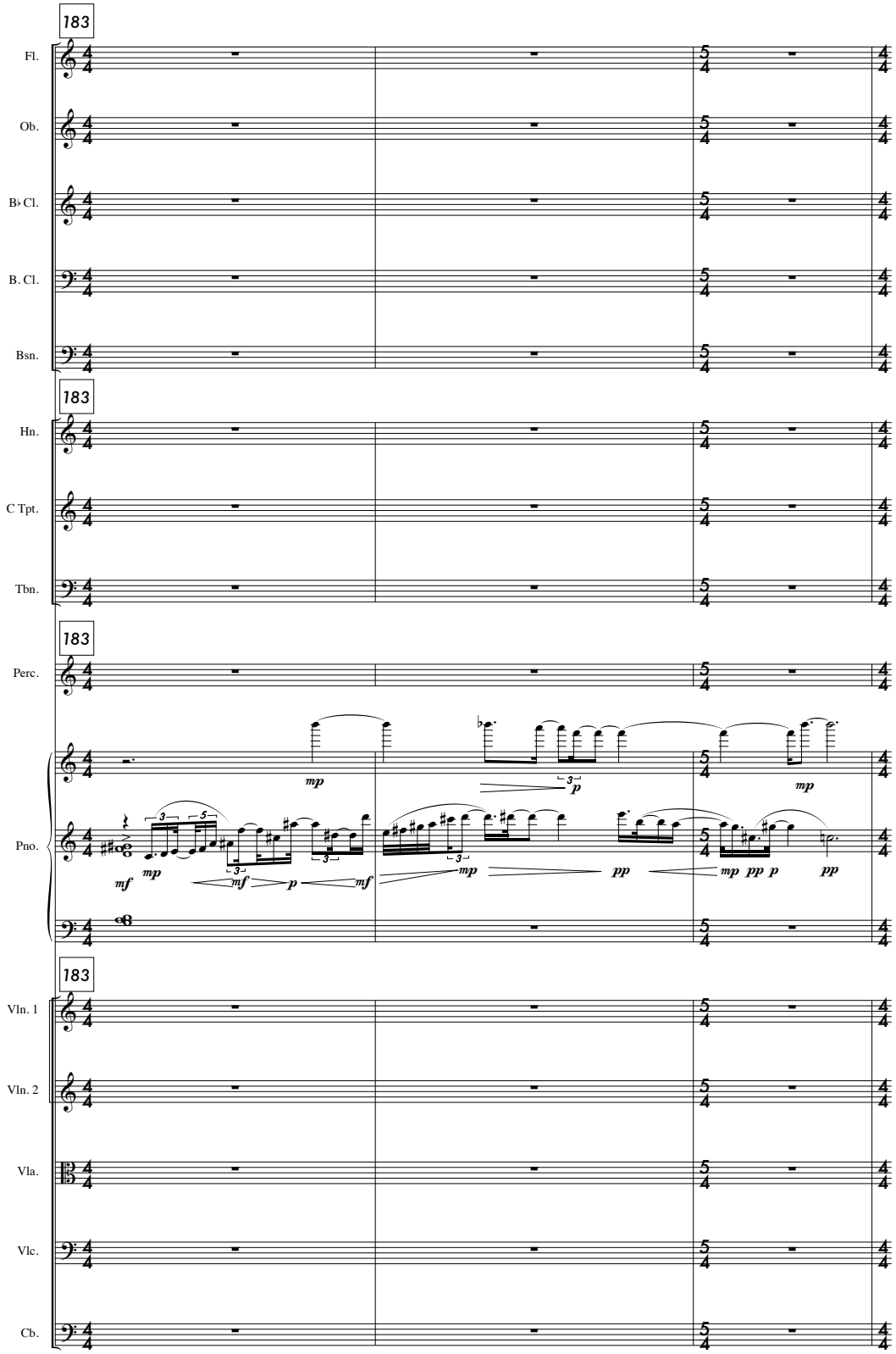

167
C Flute
♩= 69
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
167
Hn.
C Tpt.
Tbn.
167
Perc.
♩= 69
Pno.
pedal ad lib.
167
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

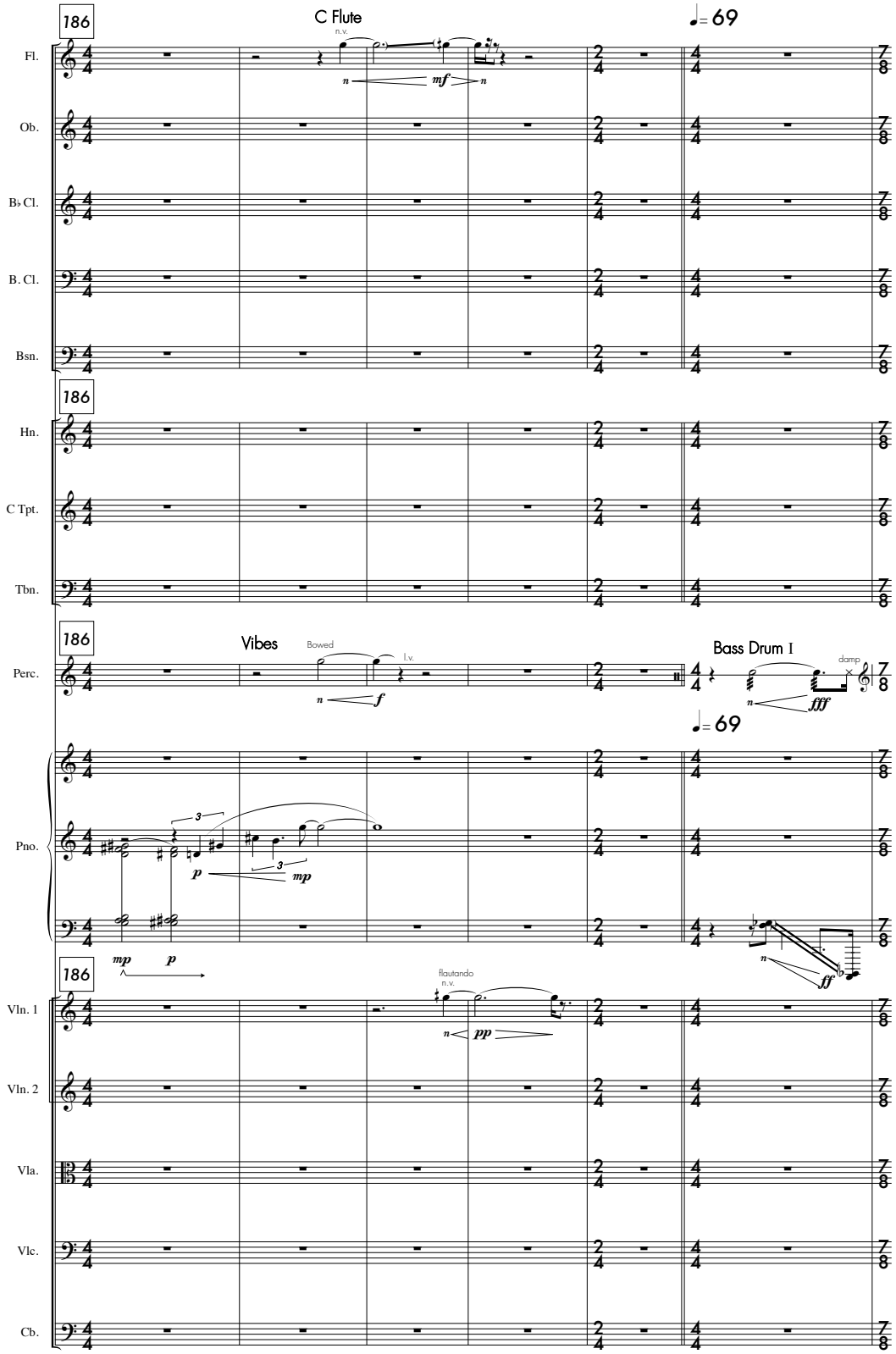

170
♩= 60
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
Tbn.
Perc.
Pno.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
sempre

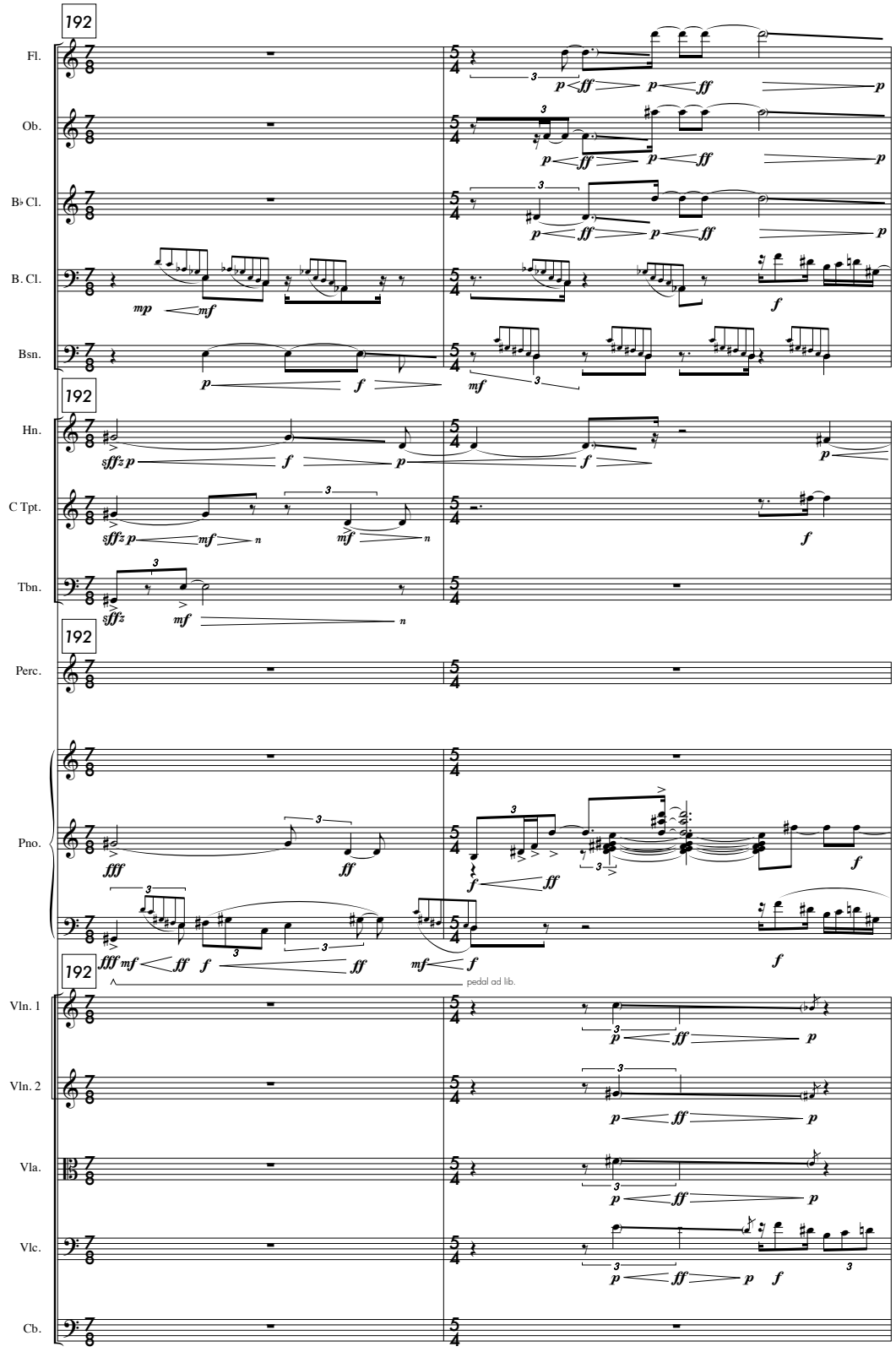

172
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
172
C Tpt.
Tbn.
Gong on Timp.
Perc.
172
Pno.
172
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

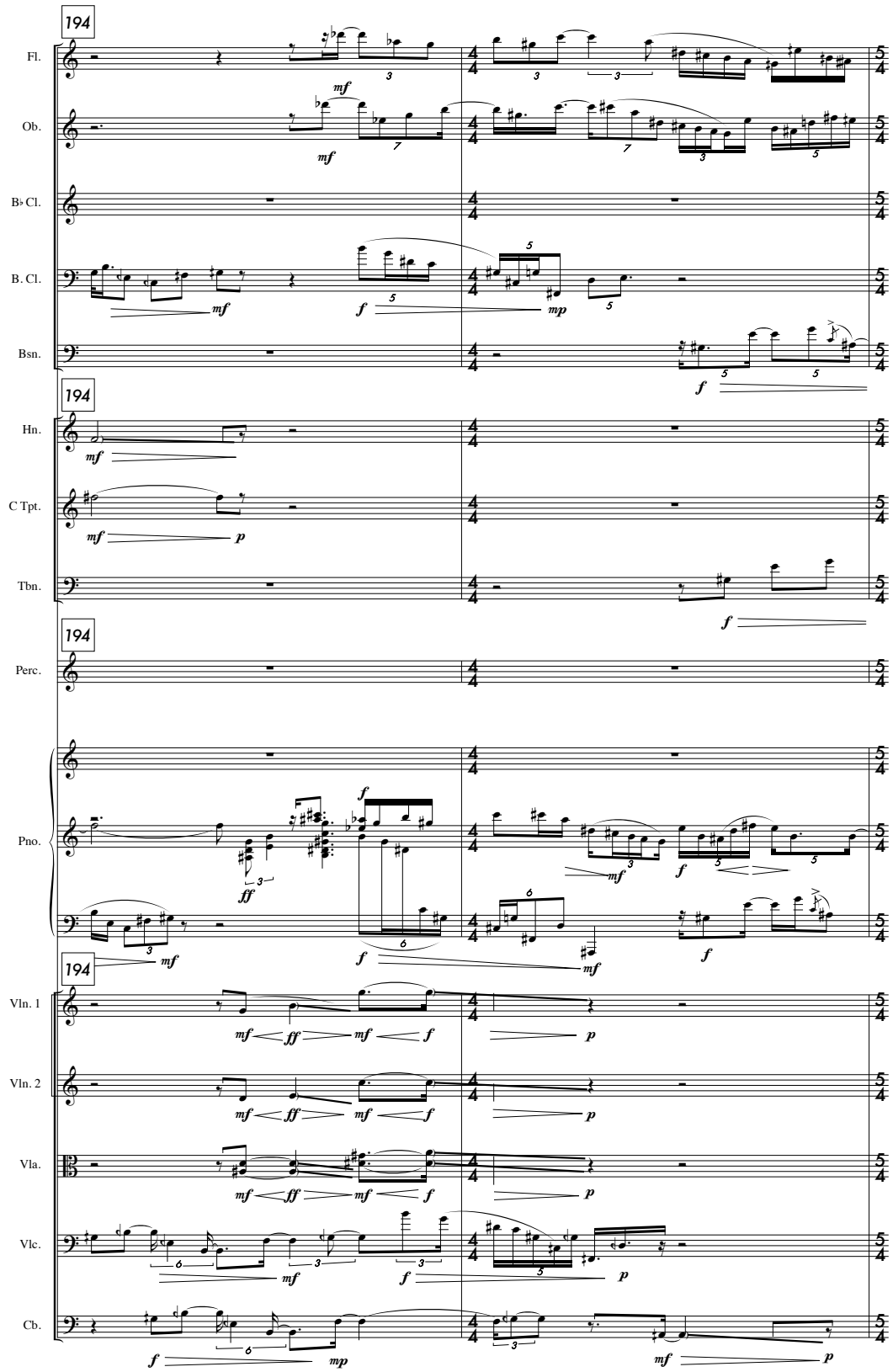

174
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
174
Hn.
C Tpt.
Tbn.
174
Perc.
damp
Pno.
174
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

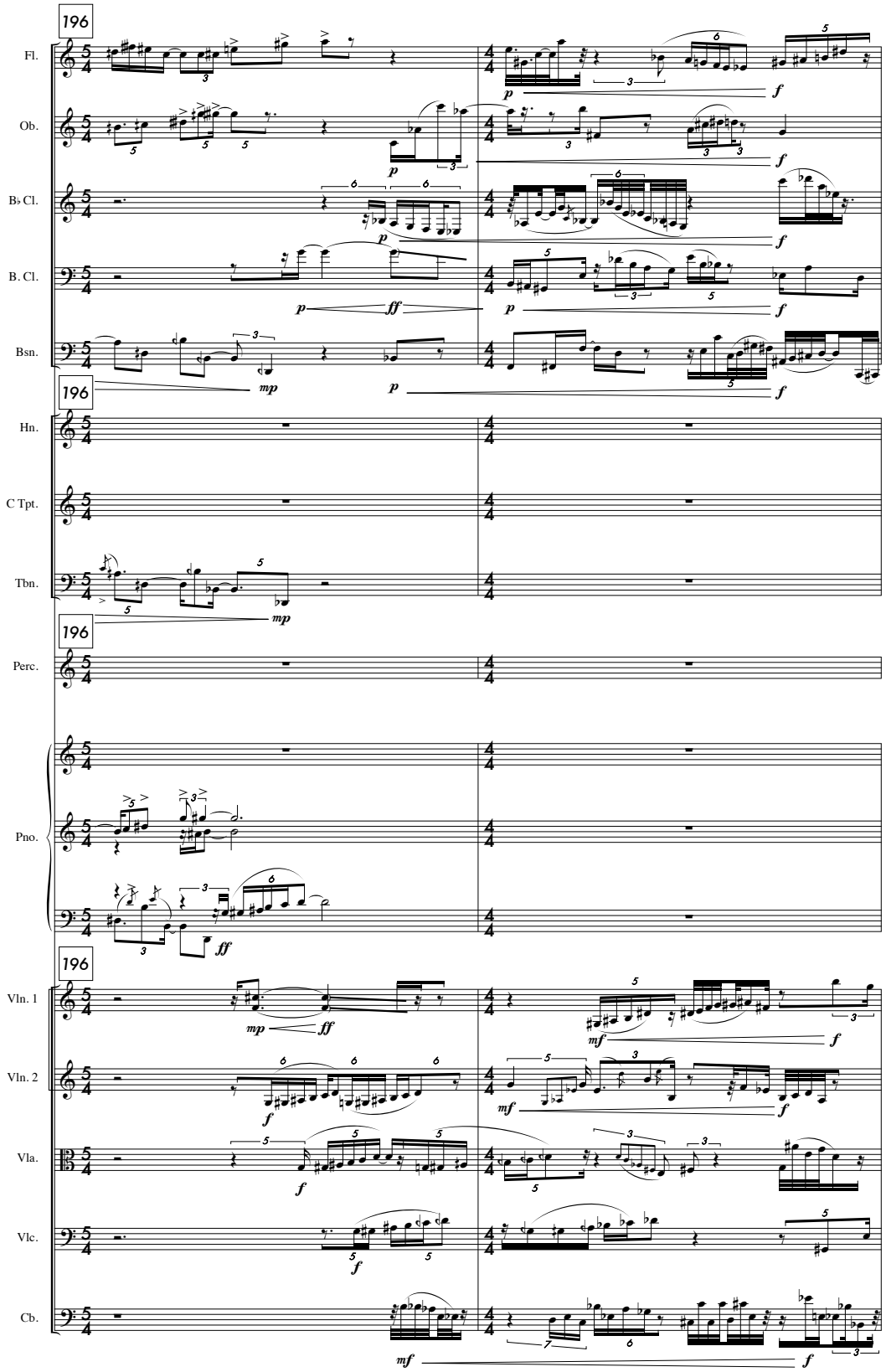

179
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
179
Hn.
C Tpt.
Tbn.
179
Perc.
Pno.
mf
p
mp
mf
p
mp
p
mp p
mf
p
pp
mp
179
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

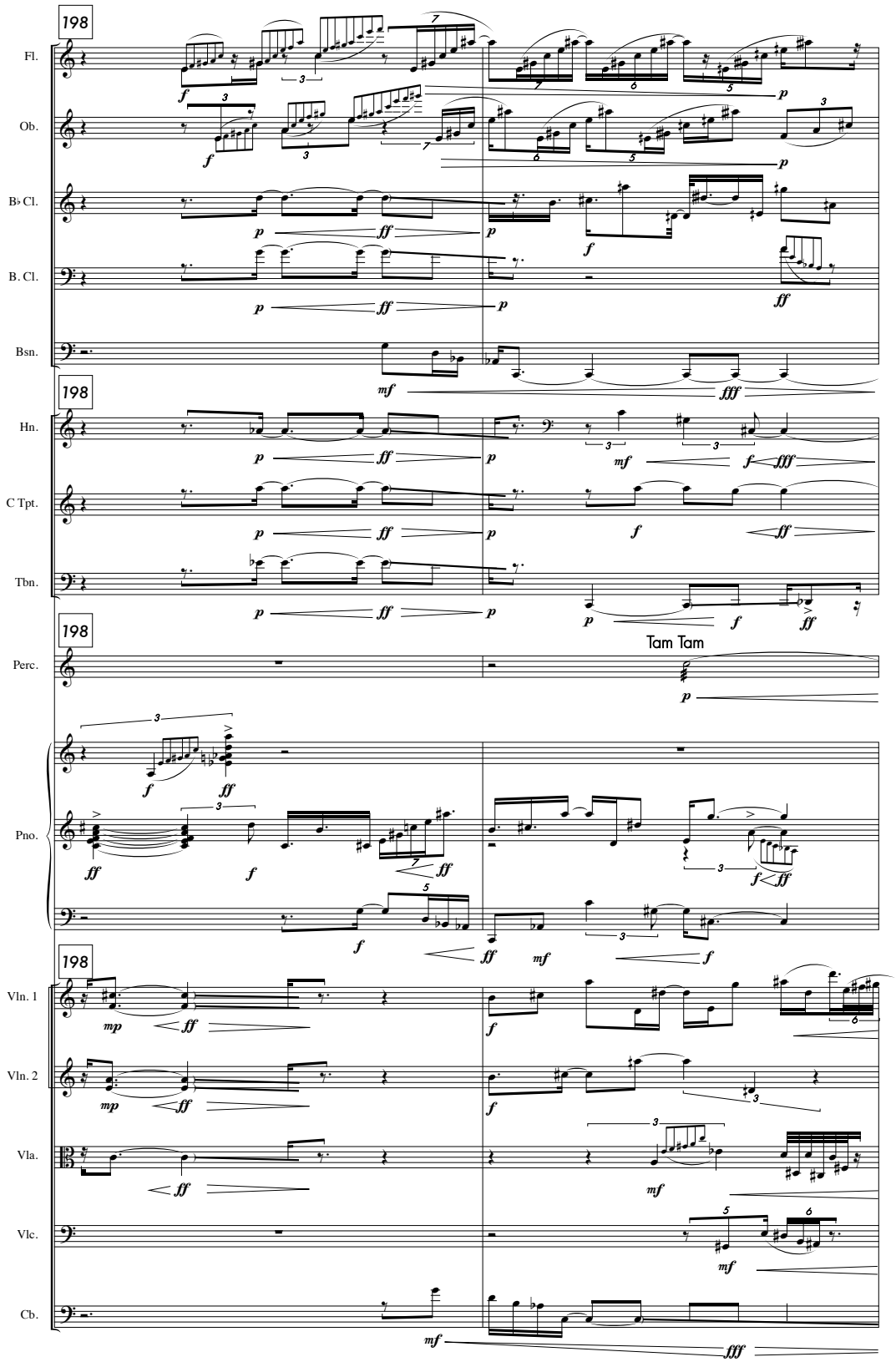

183
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
183
Hn.
C Tpt.
Tbn.
183
Perc.
Pno.
mp
p
mp
mf
mp
mf
p
mf
mp
pp
mp
pp
p
pp
183
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

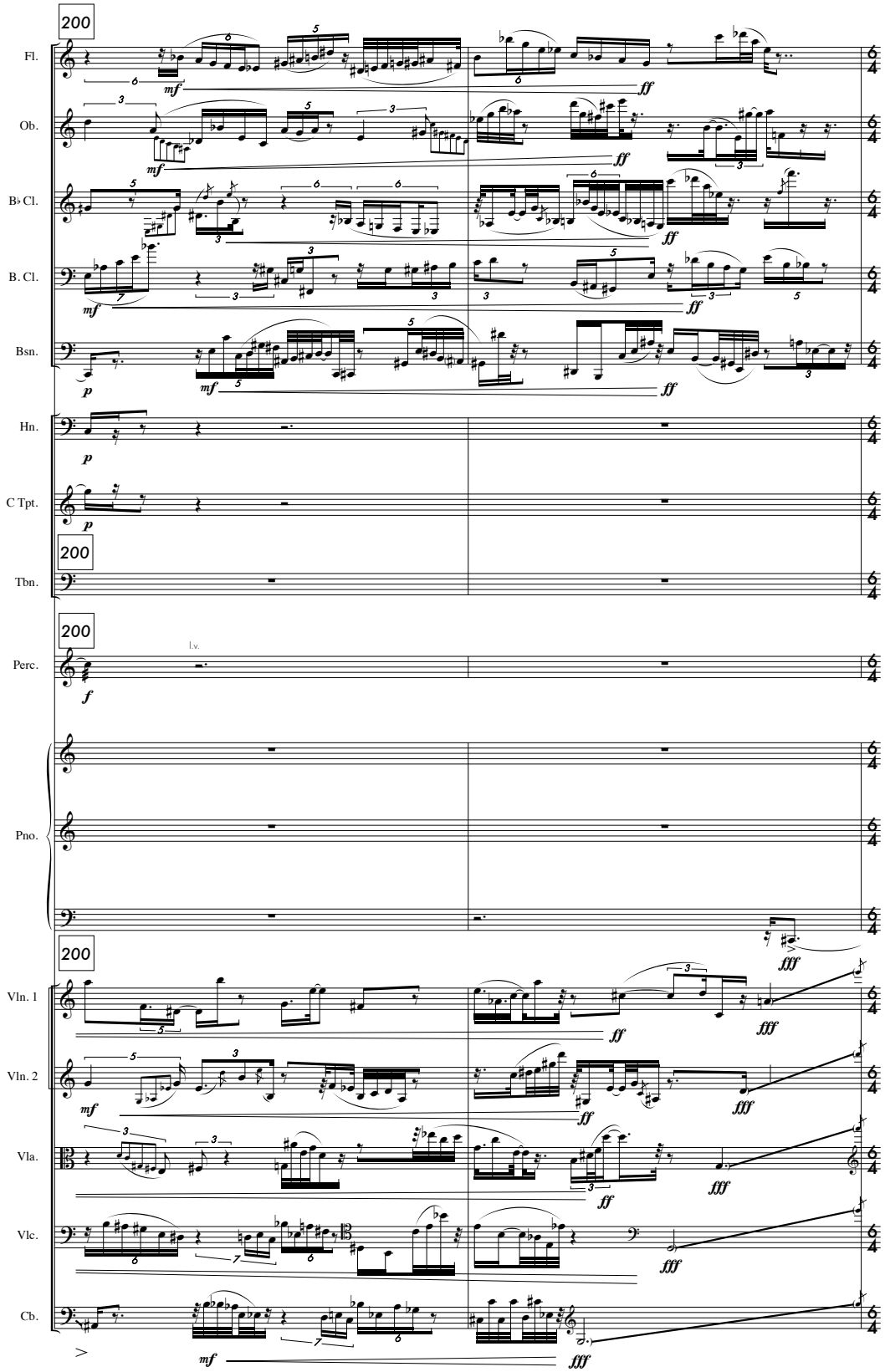

186
C Flute
n.v.
♩= 69
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
186
Hn.
C Tpt.
Tbn.
186
Vibes
Bowed
l.v.
Bass Drum I
damp
Perc.
♩= 69
Pno.
186
flautando
n.v.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

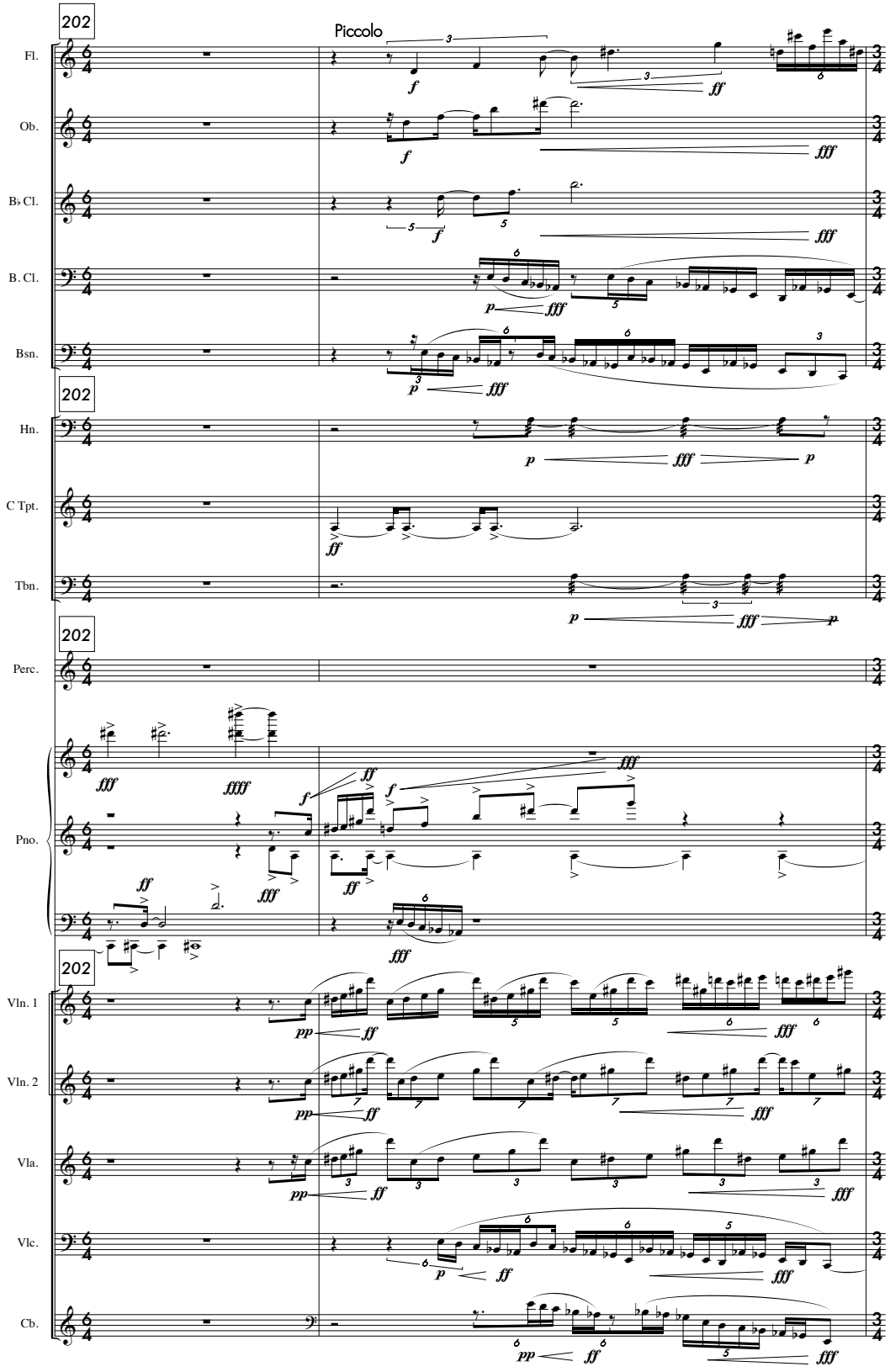

192
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
192
Hn.
C Tpt.
Tbn.
192
Perc.
Pno.
192
pedal ad lib.
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

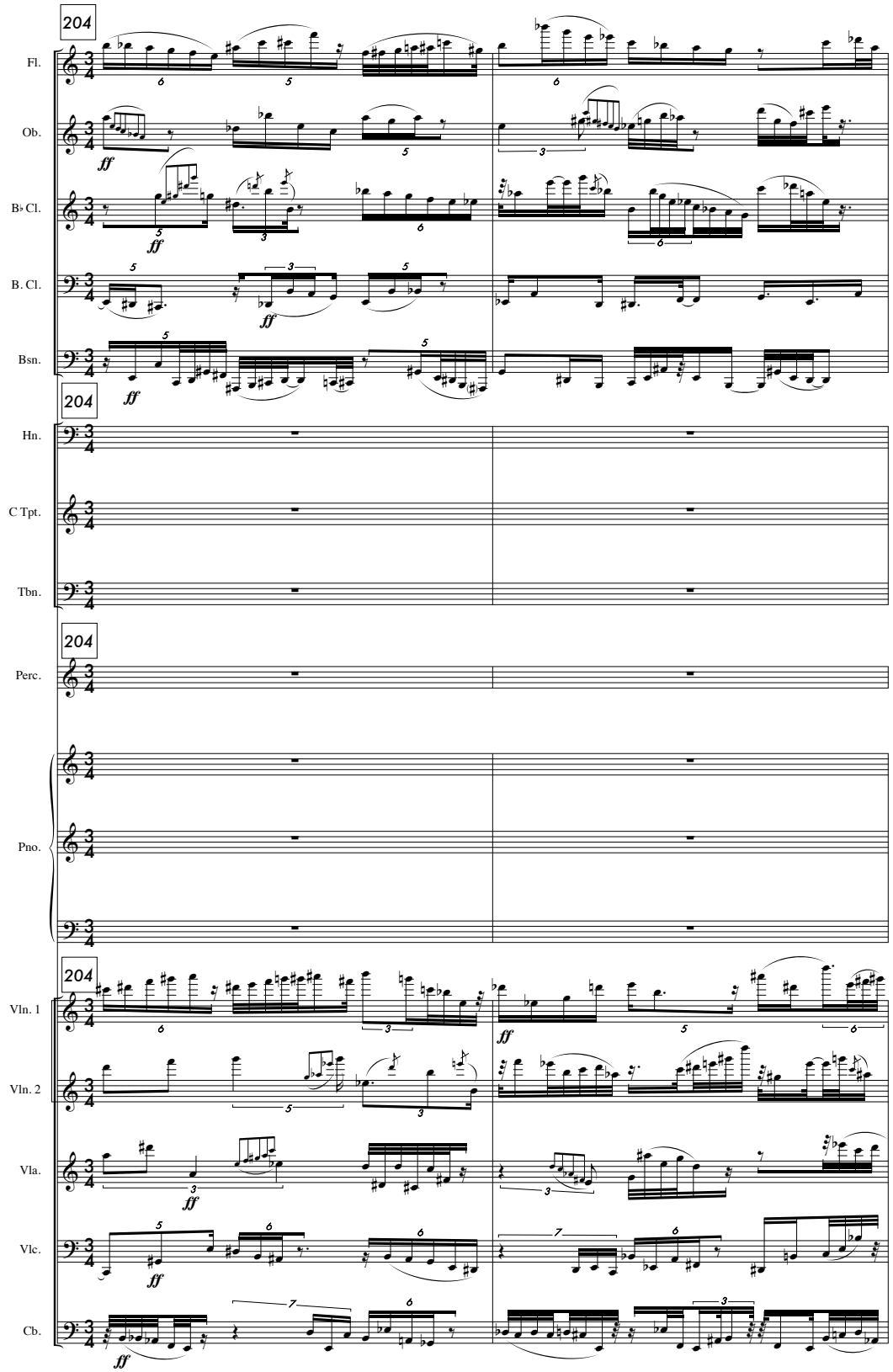

194
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
194
Hn.
C Tpt.
Tbn.
194
Perc.
Pno.
194
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

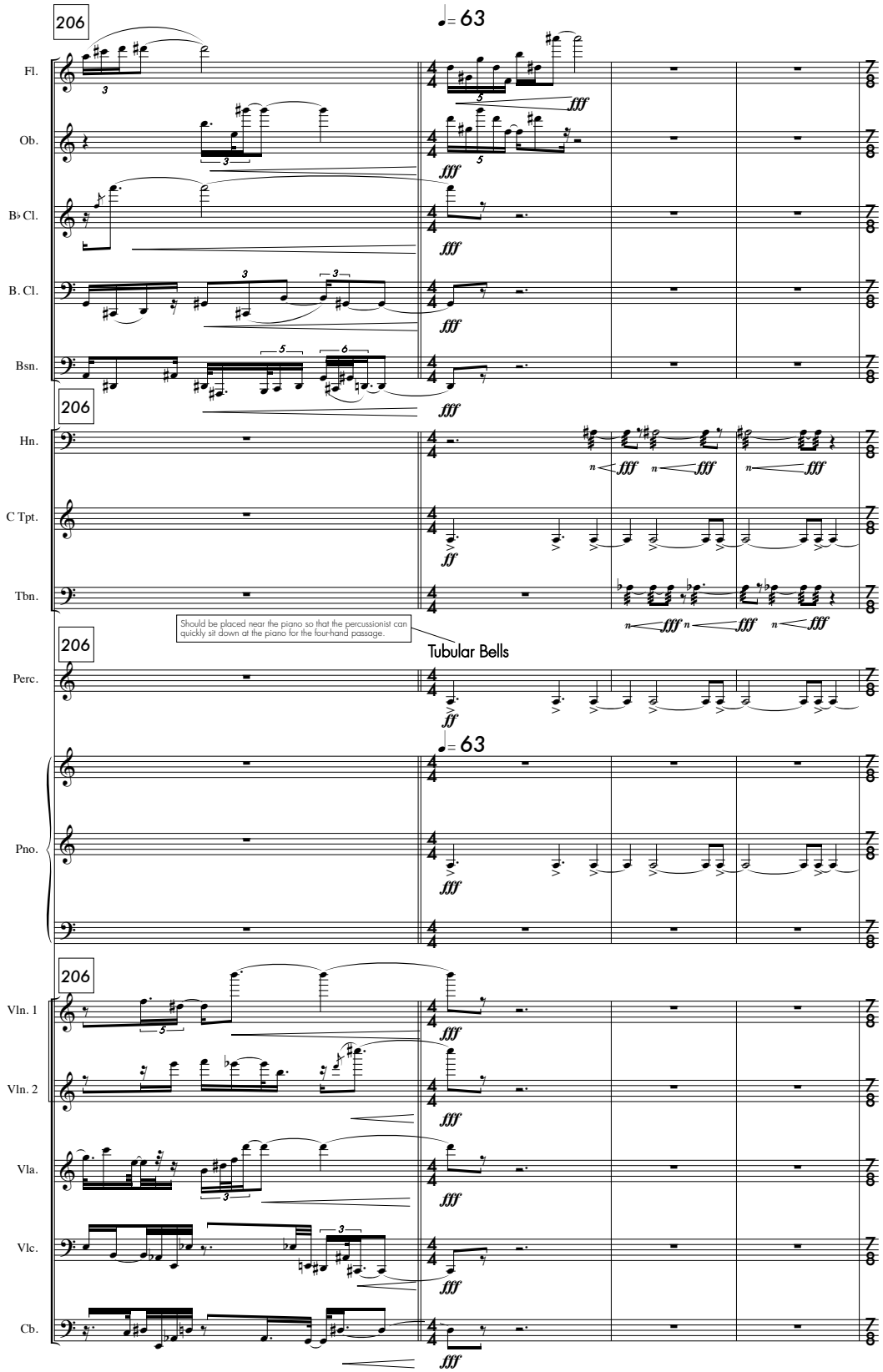

196
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
196
Hn.
C Tpt.
Tbn.
196
Perc.
Pno.
196
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

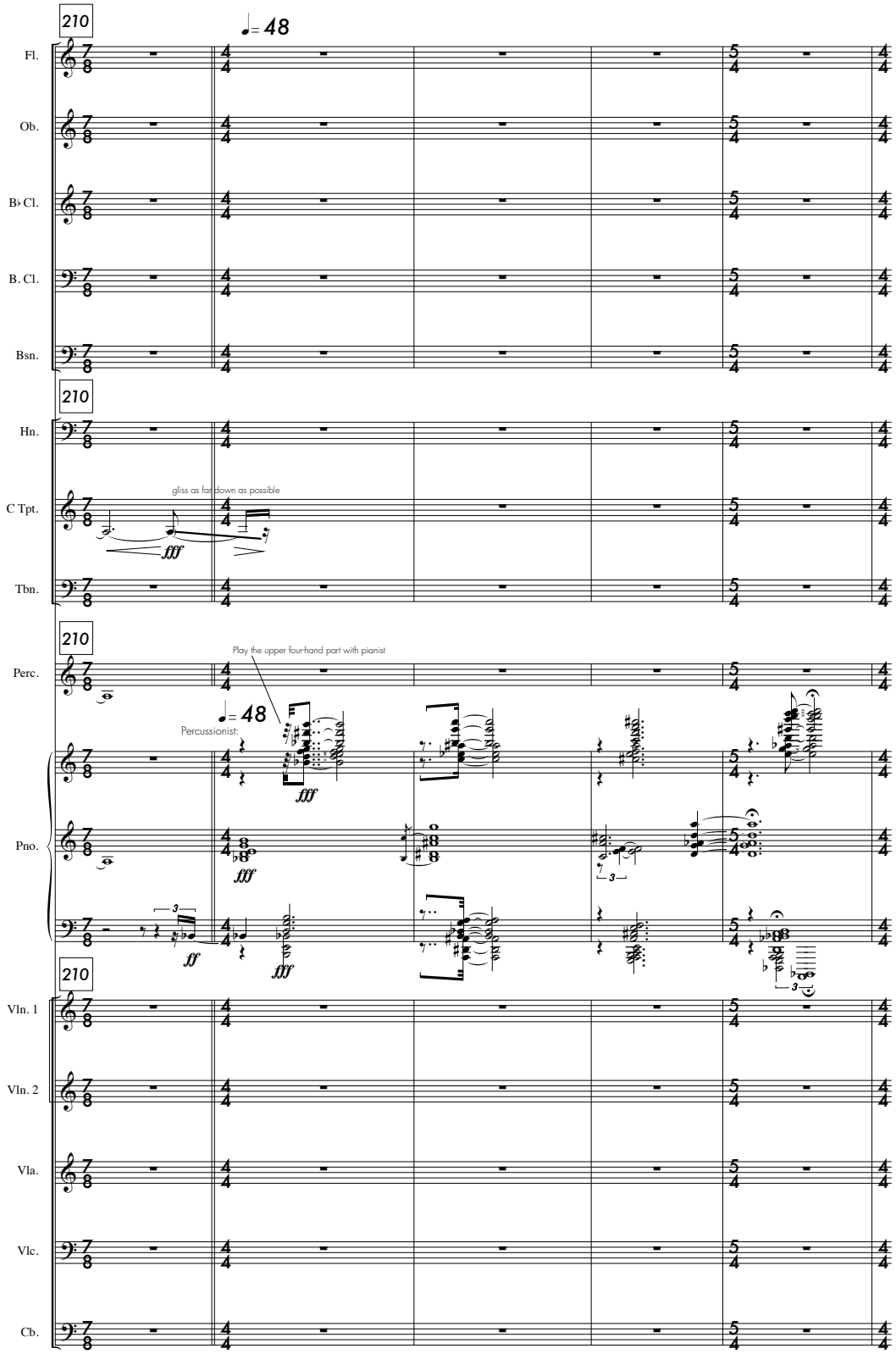

198
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
198
Hn.
C Tpt.
Tbn.
198
Perc.
Tam Tam
Pno.
198
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

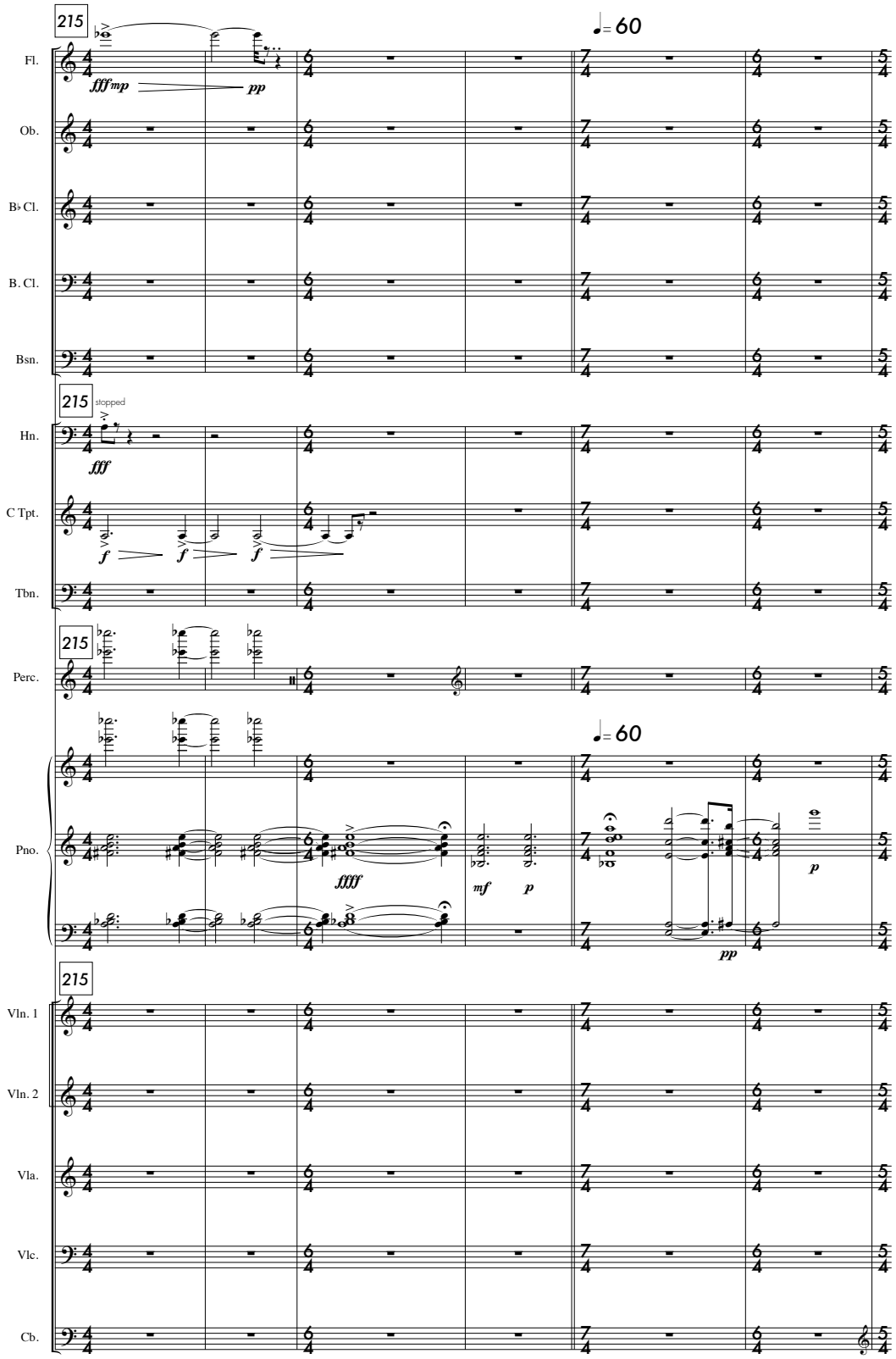

200
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
Hn.
C Tpt.
200
Tbn.
200
l.v.
Perc.
Pno.
200
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

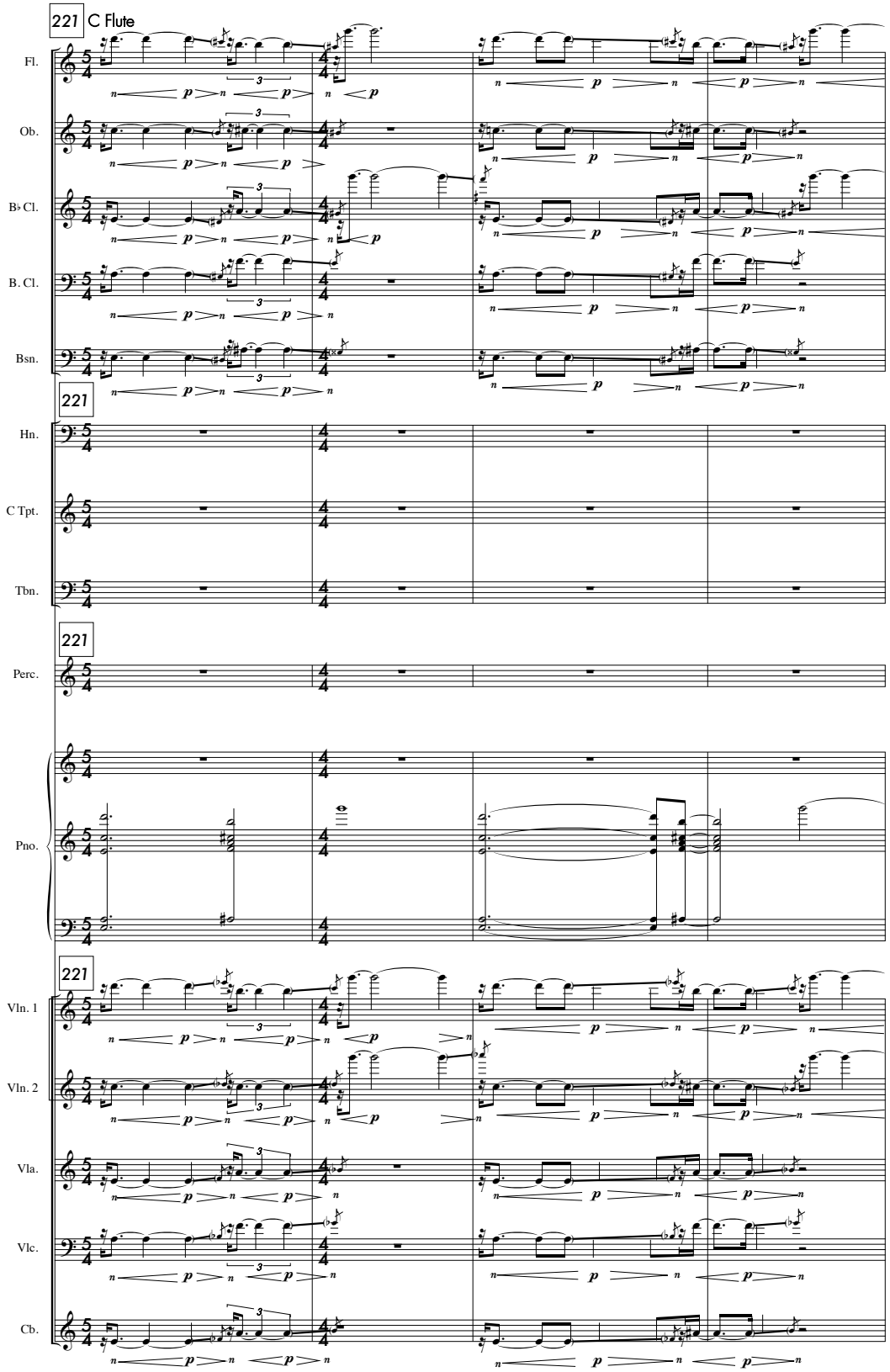

202
Piccolo
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
202
Hn.
C Tpt.
Tbn.
202
Perc.
Pno.
202
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

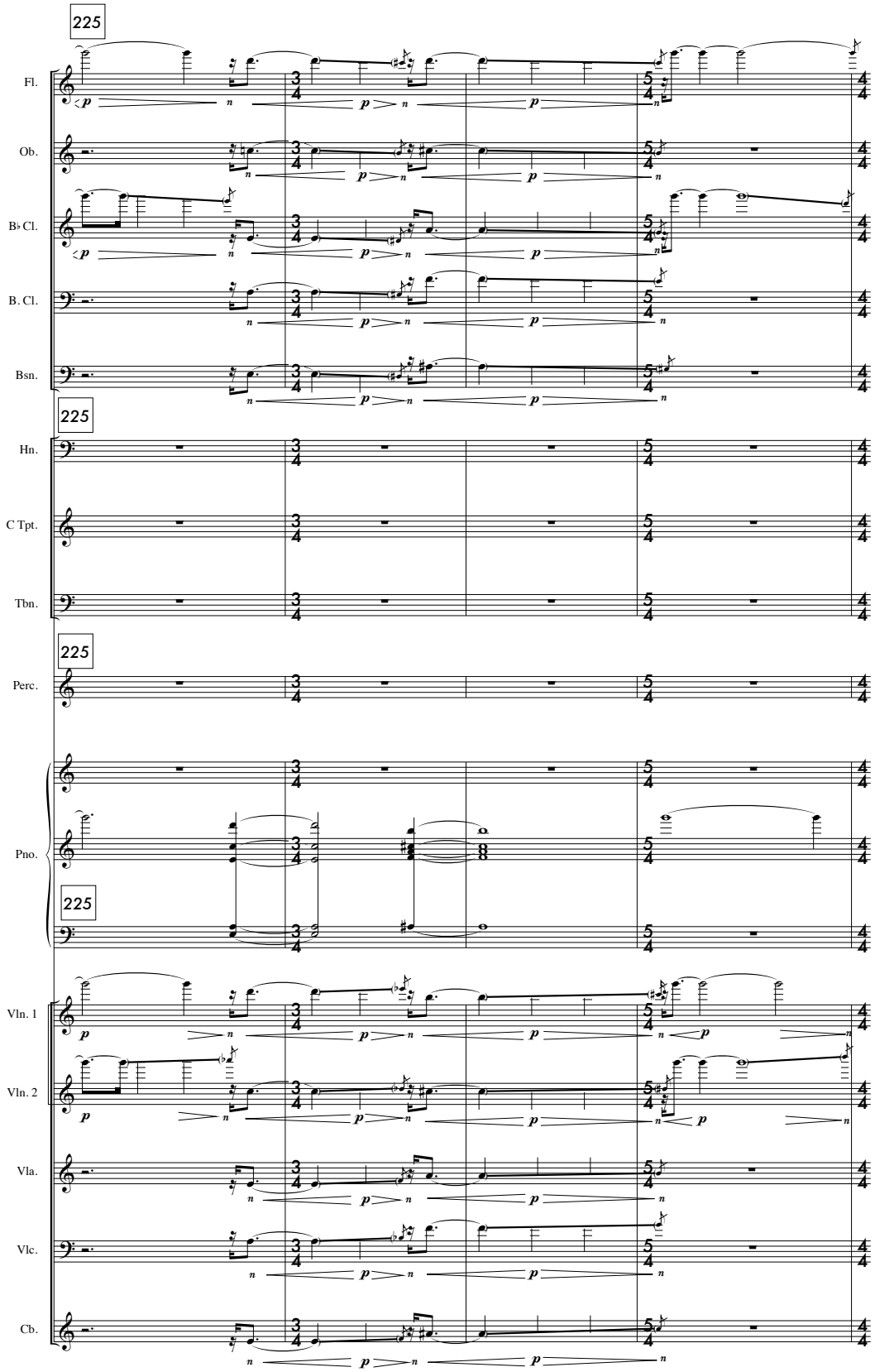

204
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
ff
204
Hn.
C Tpt.
Tbn.
204
Perc.
Pno.
204
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.
ff

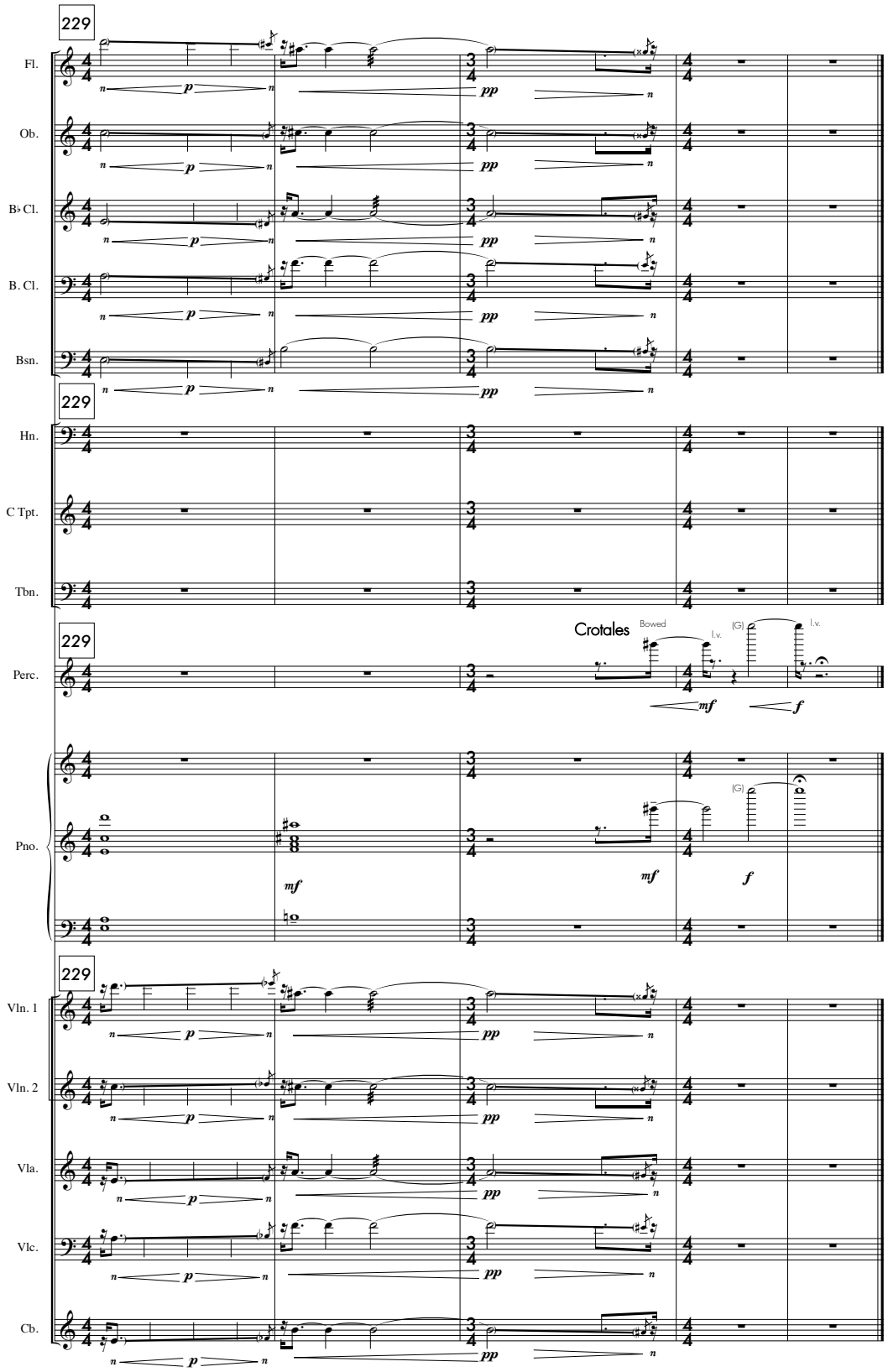

206
♩= 63
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
206
Hn.
C Tpt.
Tbn.
Should be placed near the piano so that the percussionist can quickly sit down at the piano for the four-hand passage.
206
Tubular Bells
Perc.
♩= 63
Pno.
206
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.


210
♩= 48
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
210
Hn.
C Tpt.
gliss as far down as possible
fff
Tbn.
210
Perc.
Play the upper four-hand part with pianist
♩= 48
Percussionist:
fff
Pno.
fff
ff
fff
3
3
3
210
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.


215
♩= 60
Fl.
fff mp
pp
Ob.
B♭ Cl.
B. Cl.
Bsn.
215
stopped
Hn.
fff
C Tpt.
f
f
f
Tbn.
215
Perc.
♩= 60
Pno.
ffff
mf
p
p
pp
215
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.


221
C Flute
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
221
Hn.
C Tpt.
Tbn.
221
Perc.
Pno.
221
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.


225
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
225
Hn.
C Tpt.
Tbn.
225
Perc.
Pno.
225
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

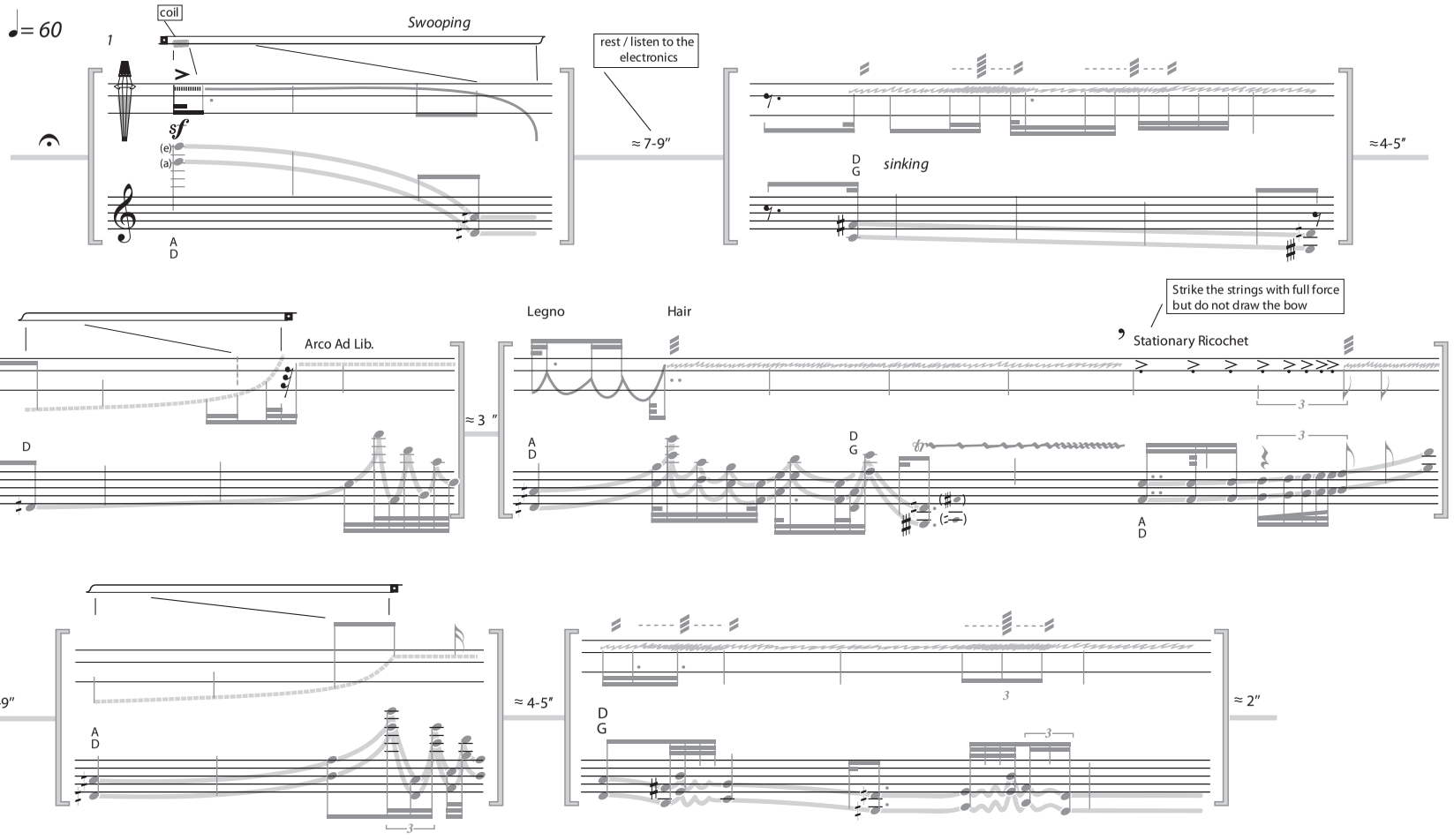

229
Fl.
Ob.
B♭ Cl.
B. Cl.
Bsn.
229
Hn.
C Tpt.
Tbn.
229
Crotales
Bowed
l.v.
(G)
l.v.
Perc.
Pno.
229
Vln. 1
Vln. 2
Vla.
Vlc.
Cb.

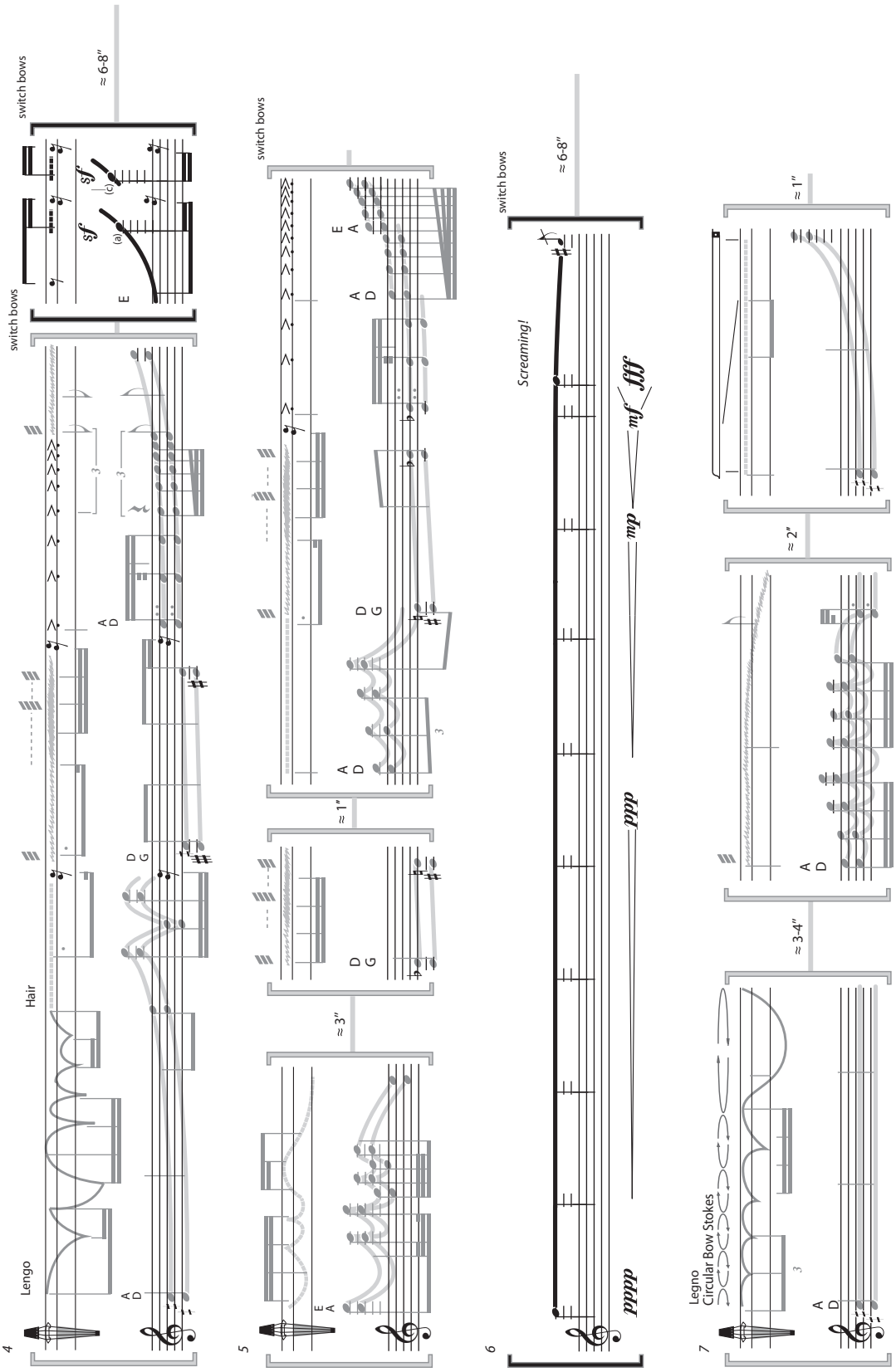
for Felix Olschofka:

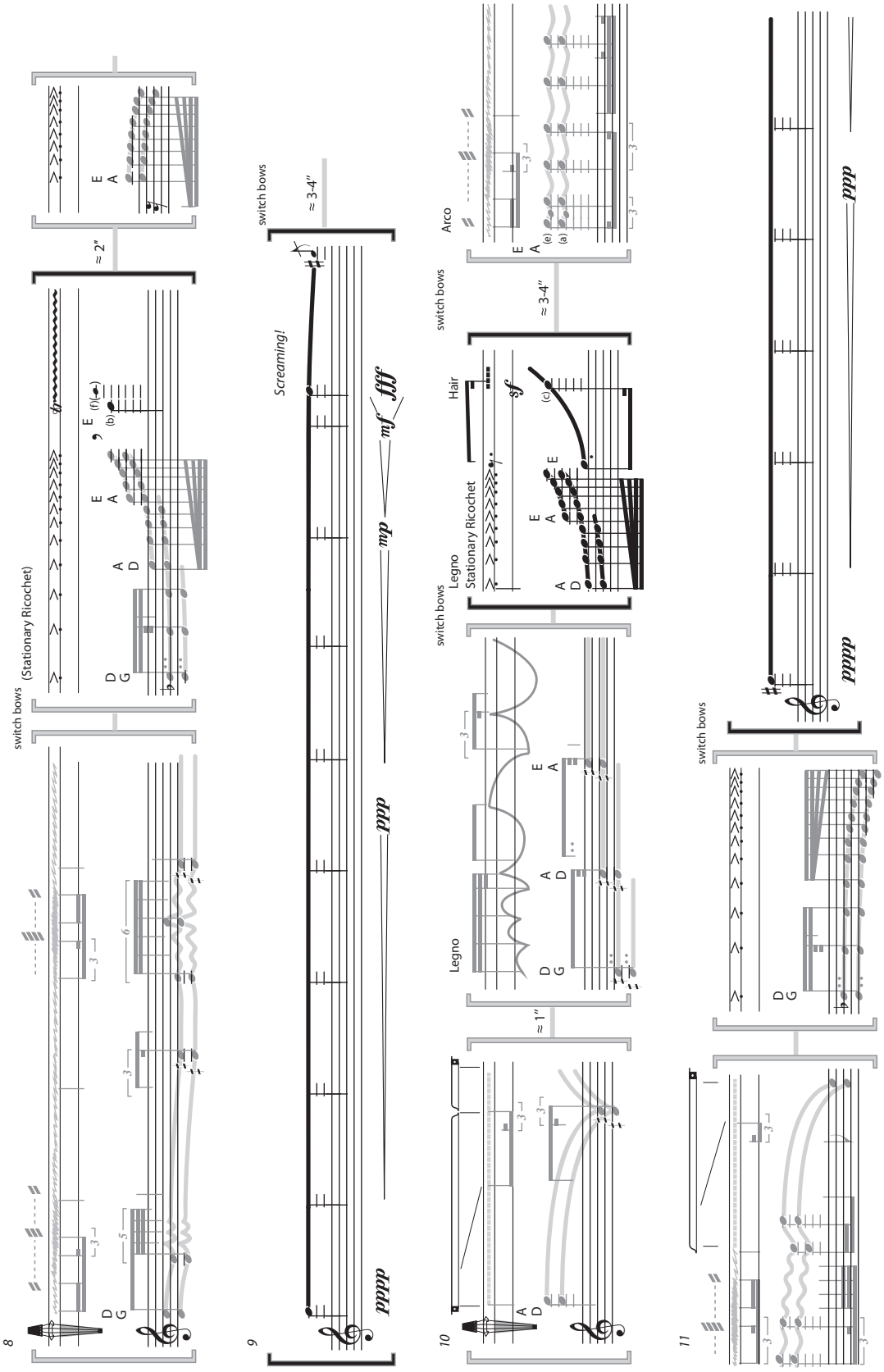
Phoenix

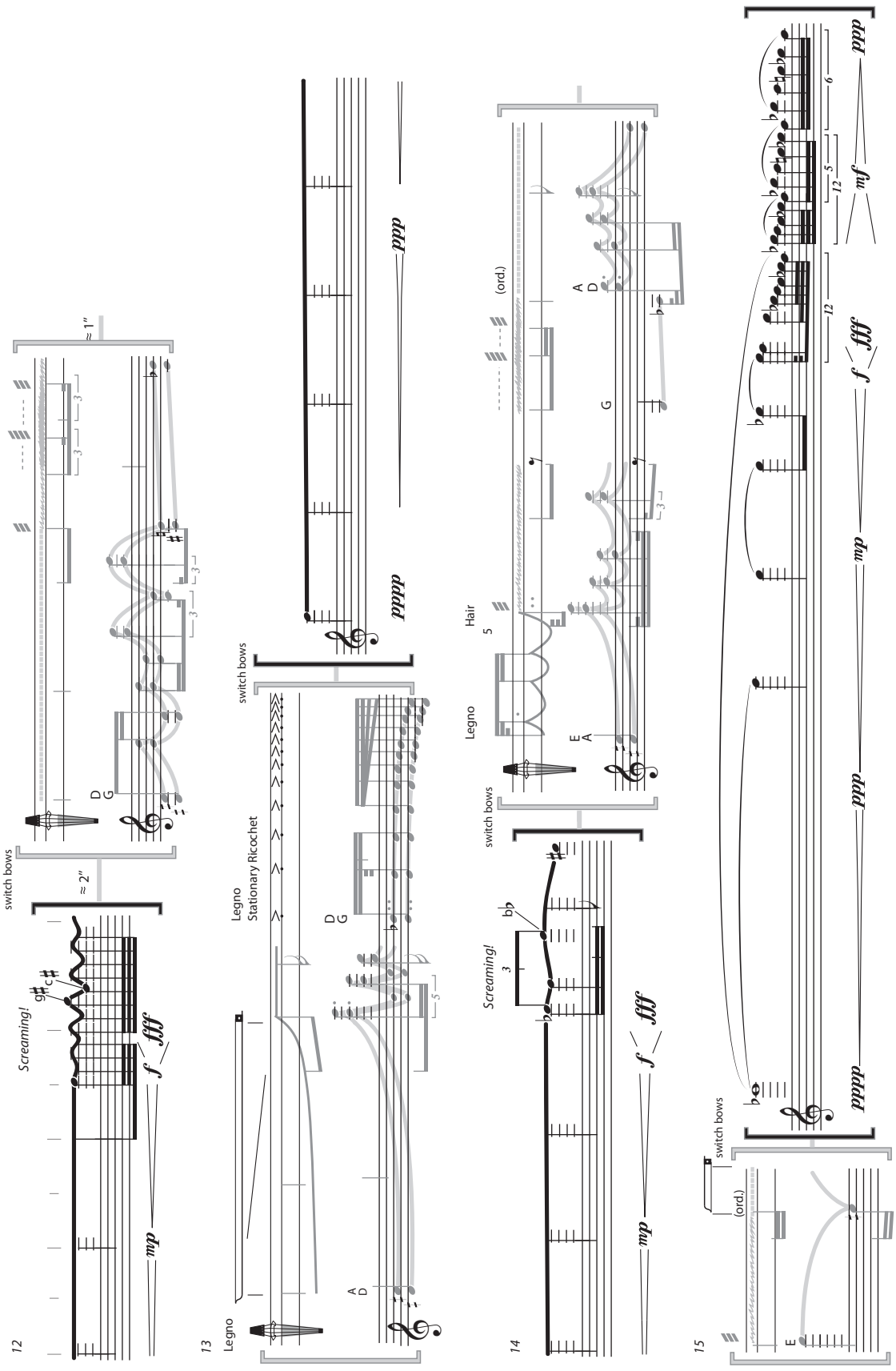
violin solo with electronics

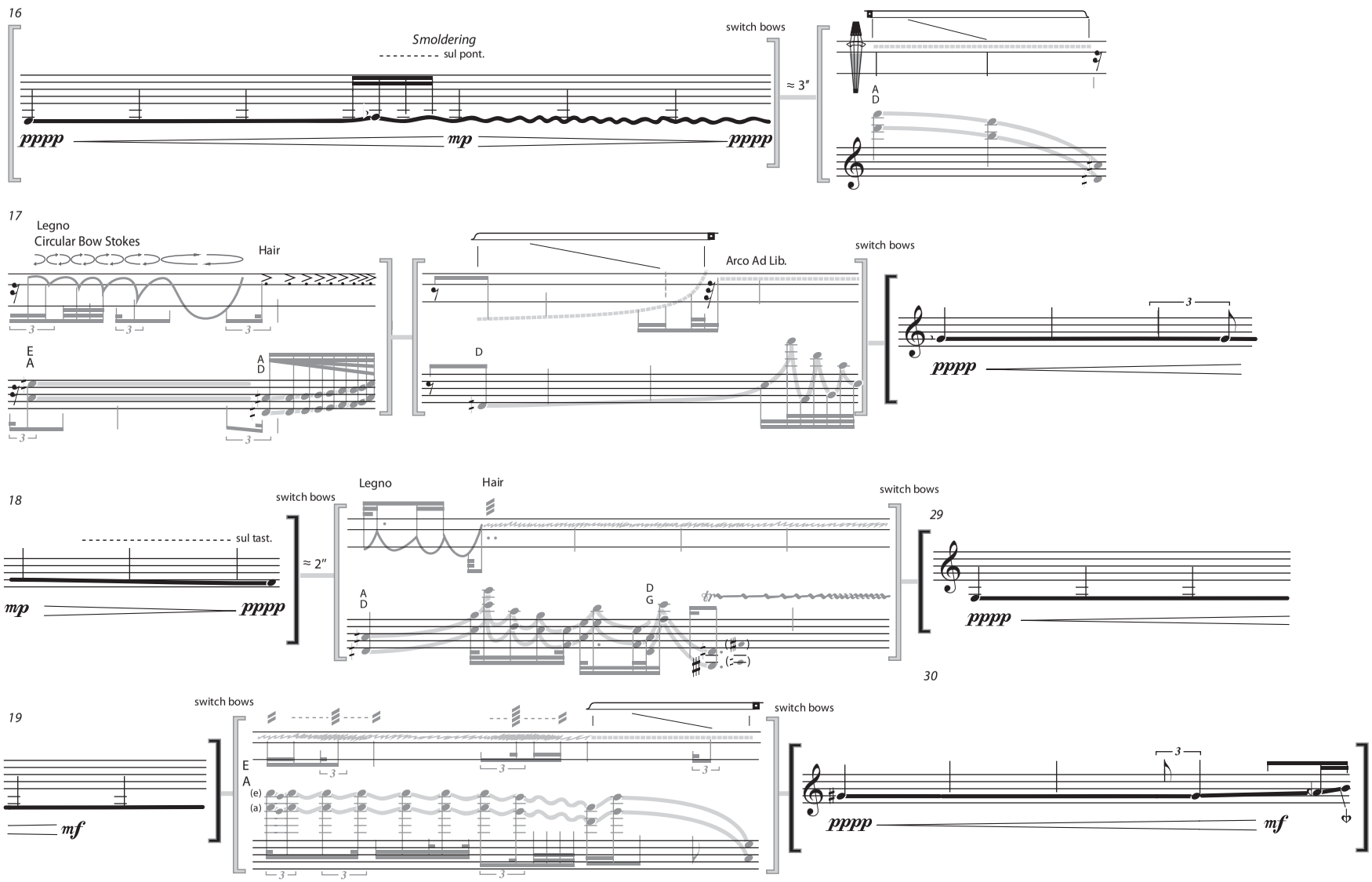
Benjamin Sabey

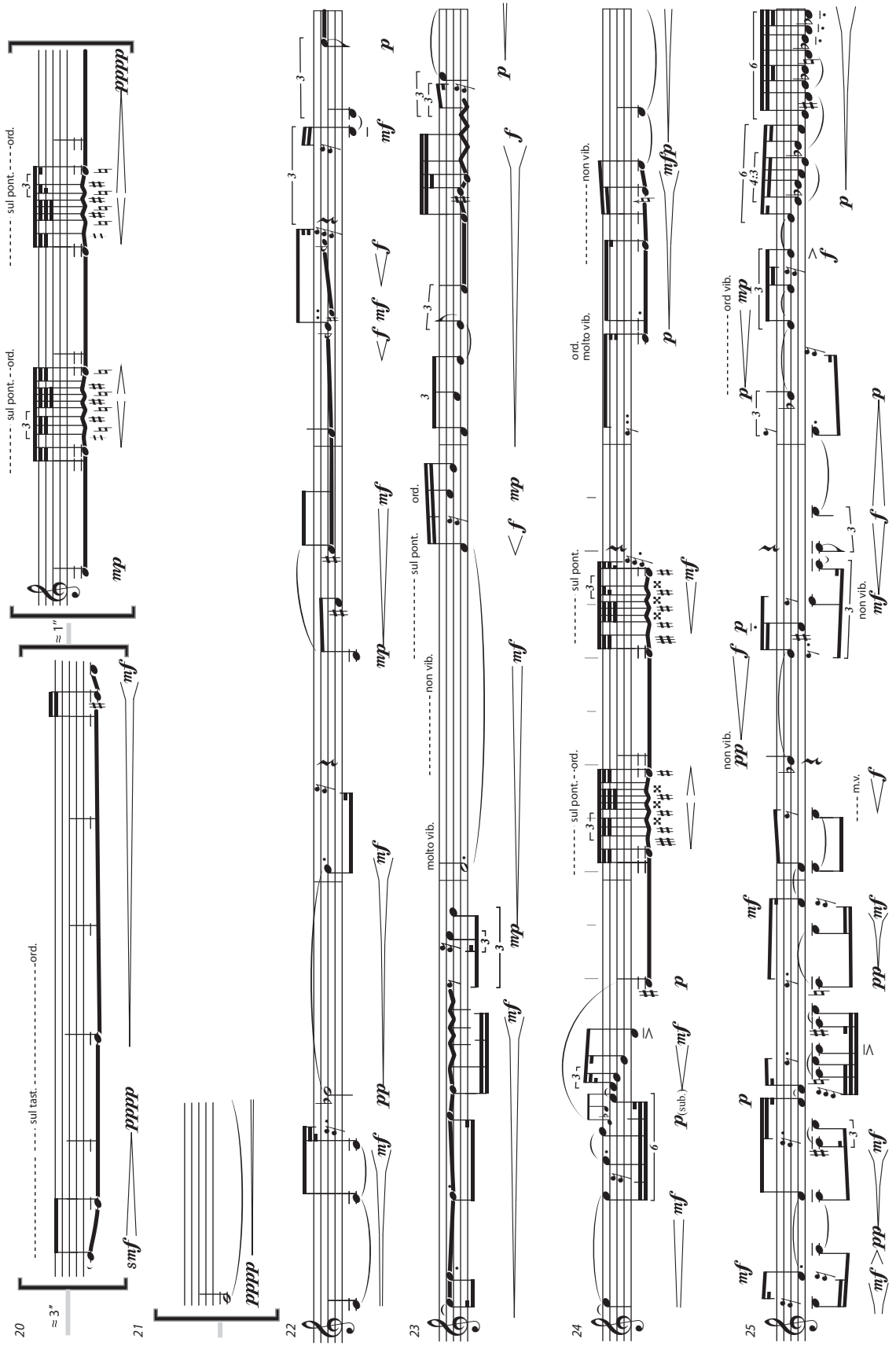


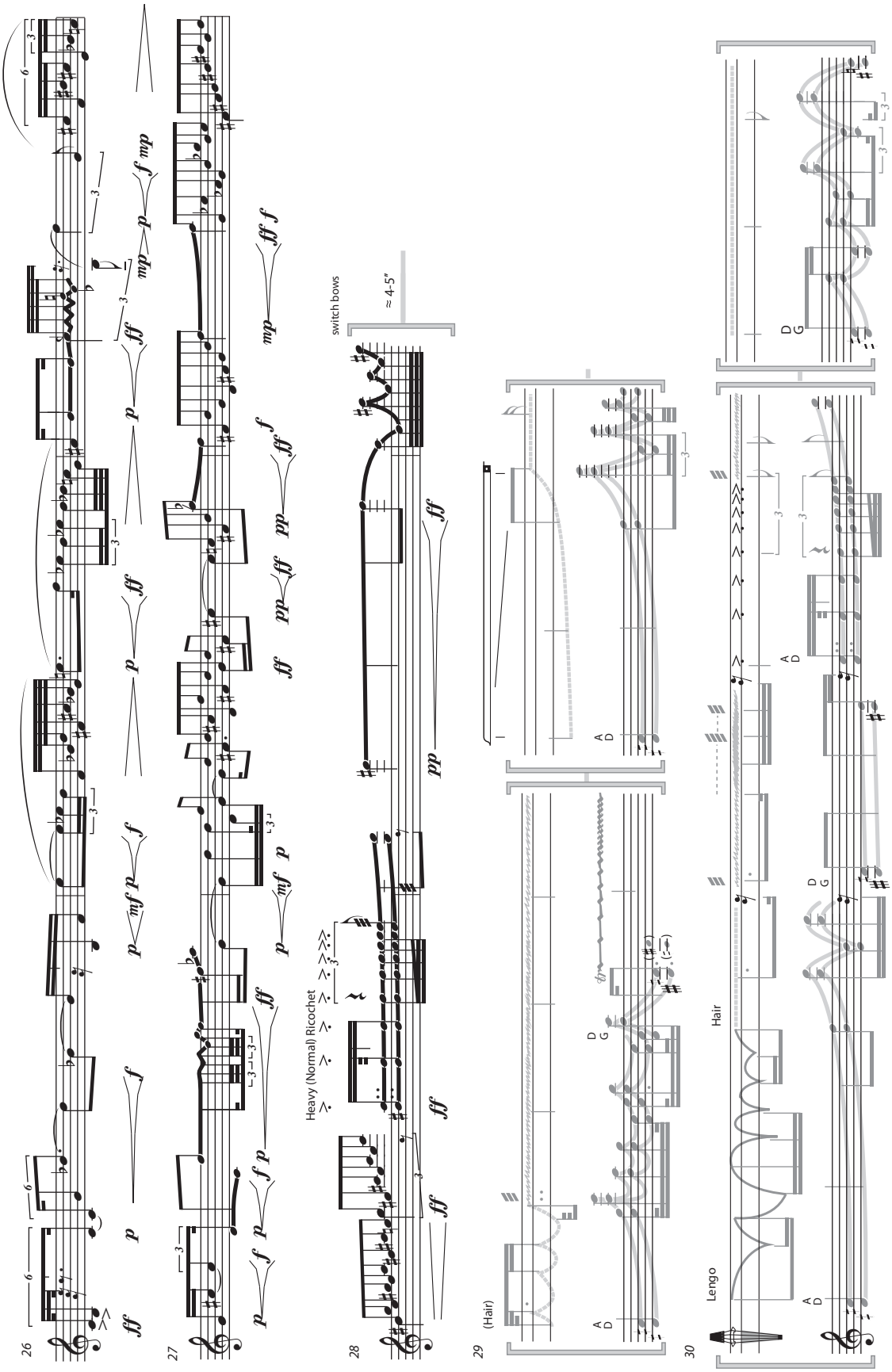

4
Lengo
Hair
switch bows
≈ 6-8″
sf
(a)
(c)
E
A
D
G
5
≈ 3″
≈ 1″
6
Screaming!
mp
mf fff
7
Legno
Circular Bow Stokes
≈ 3-4″
≈ 2″
≈ 1″

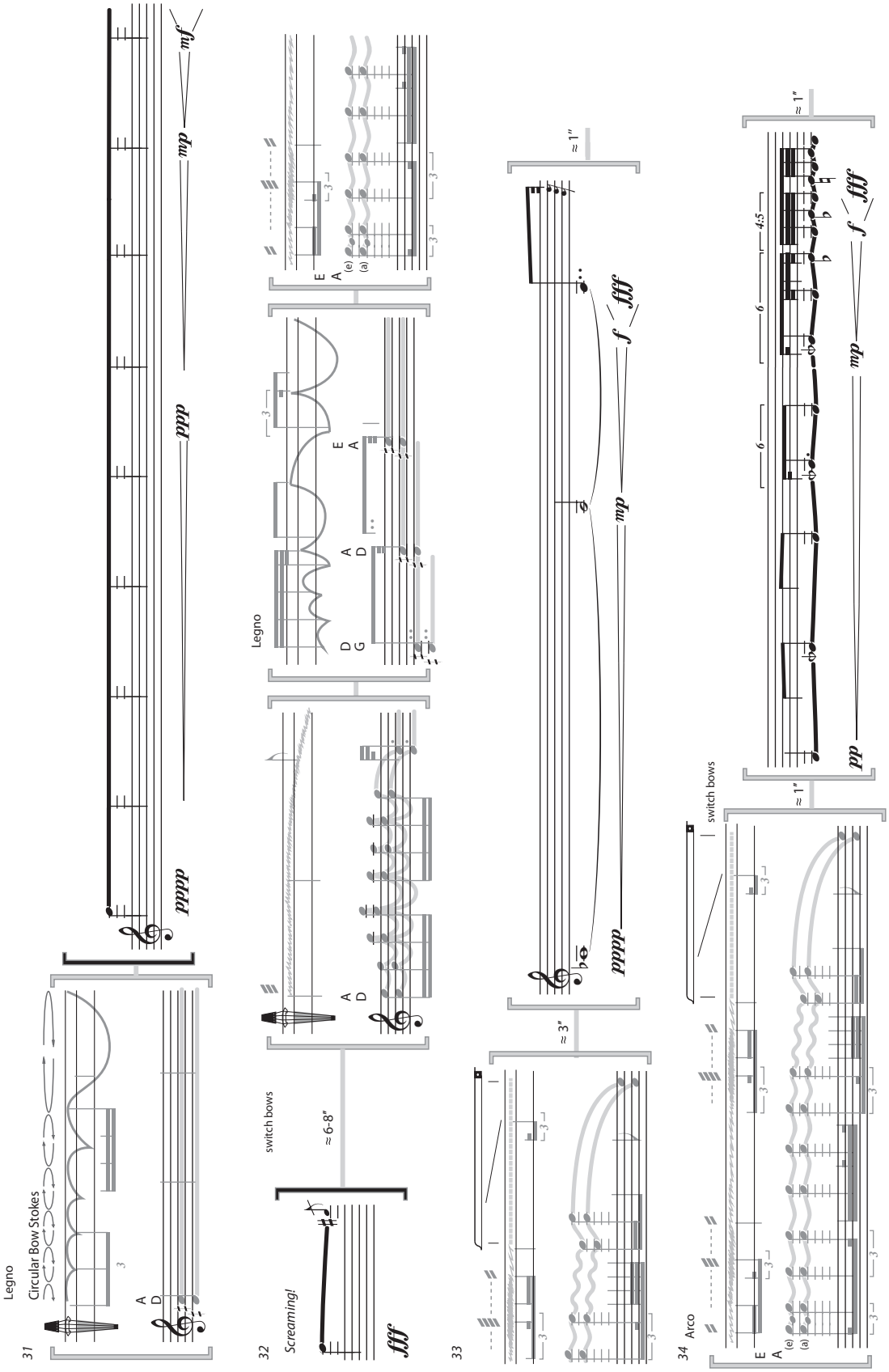

8
switch bows
(Stationary Ricochet)
≈ 2″
9
switch bows
Screaming!
≈ 3-4″
10
Legno
≈ 1″
switch bows
Legno
Stationary Ricochet
Hair
switch bows
≈ 3-4″
Arco
11
switch bows

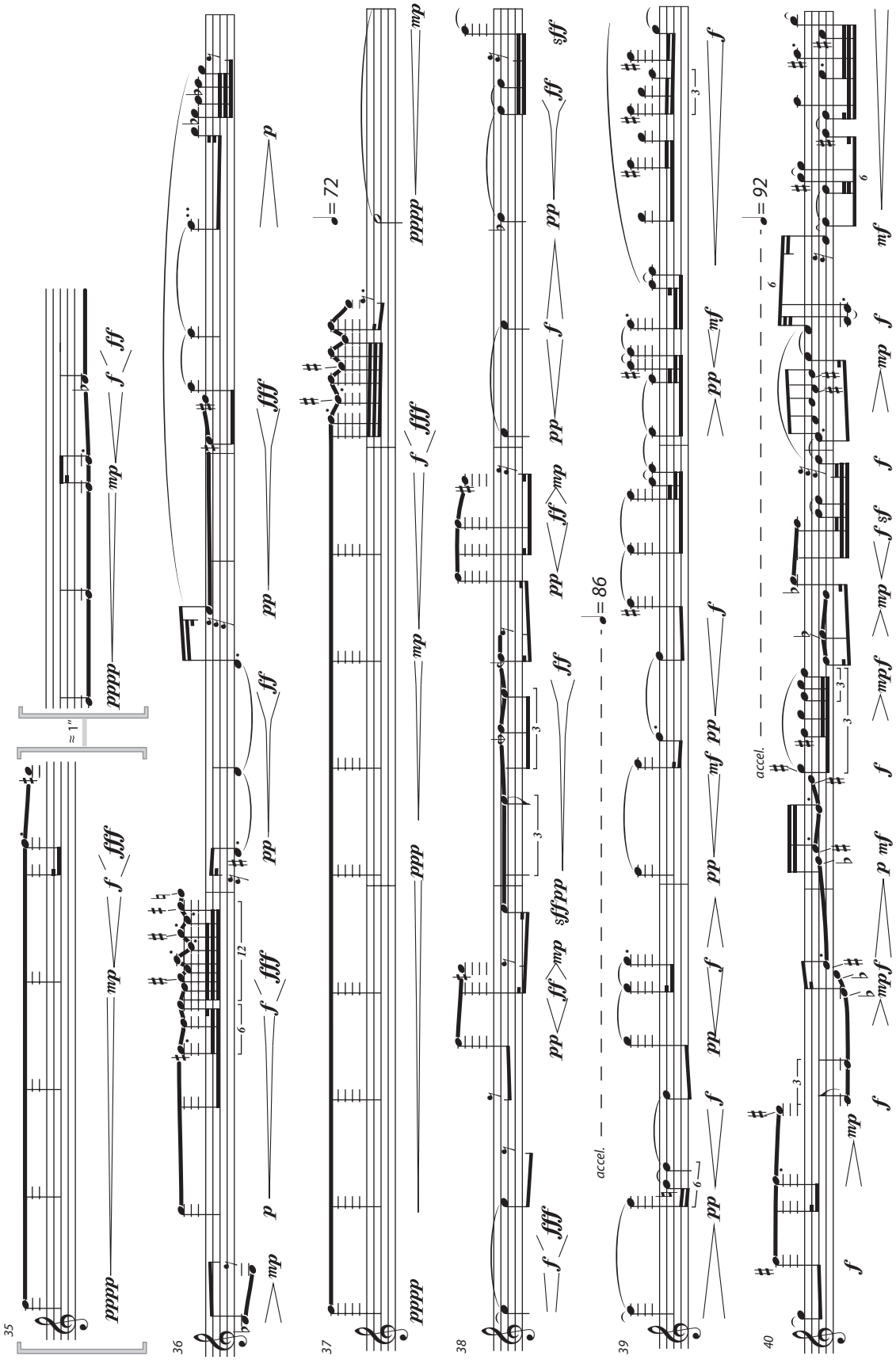

12
Screaming!
switch bows
≈ 2"
≈ 1"
D
G
13
Legno
Stationary Ricochet
switch bows
A
D
14
Screaming!
Legno
Hair
switch bows
(ord.)
E
A
G
15
switch bows
(ord.)
E

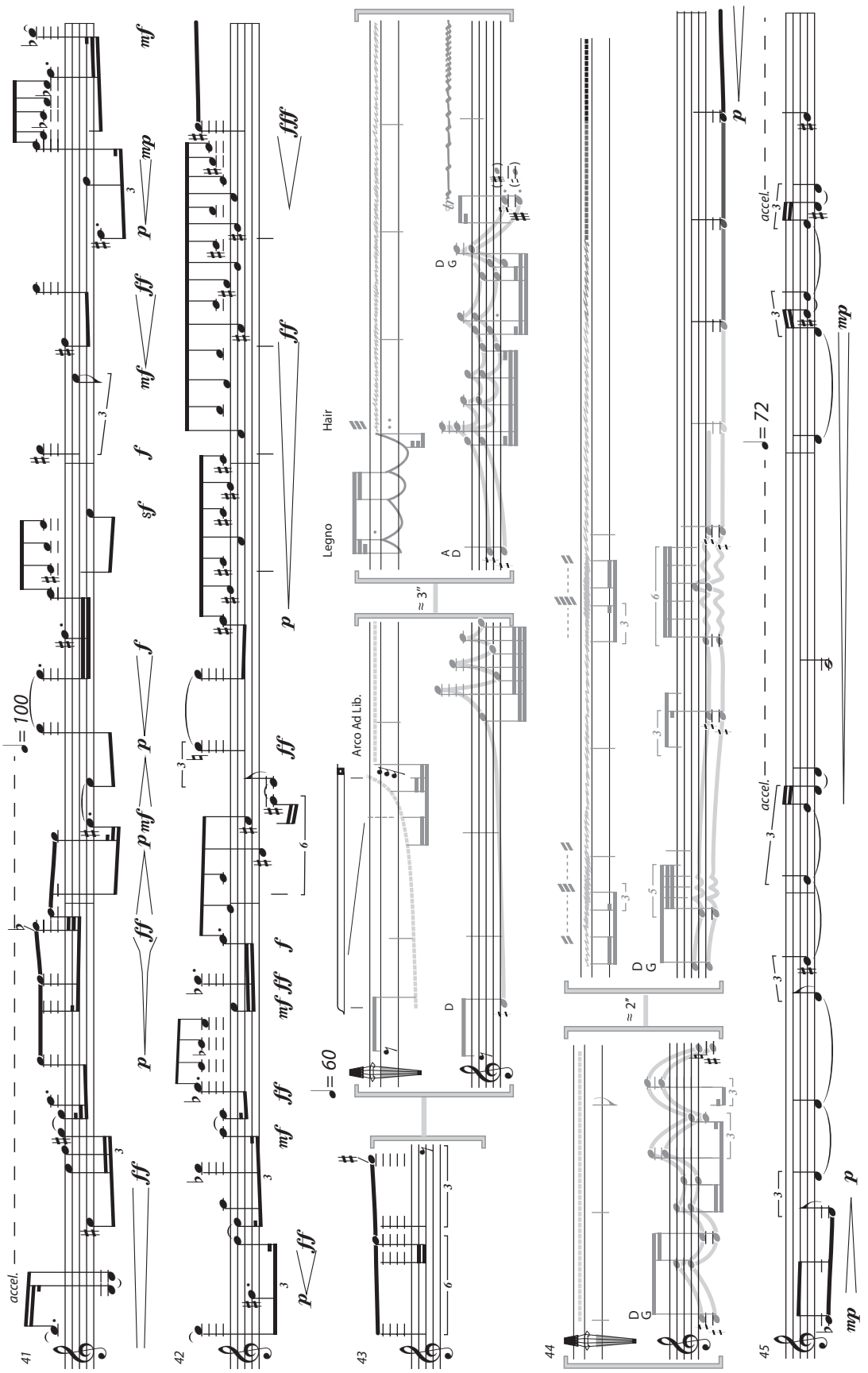

16
Smoldering
sul pont.
switch bows
≈ 3″
pppp
mp
pppp
A
D
17
Legno
Circular Bow Stokes
Hair
E
A
A
D
Arco Ad Lib.
D
switch bows
pppp
18
sul tast.
mp
pppp
switch bows
≈ 2″
Legno
Hair
A
D
D
G
switch bows
29
pppp
30
19
mf
switch bows
E
A
(e)
(a)
switch bows
pppp
mf

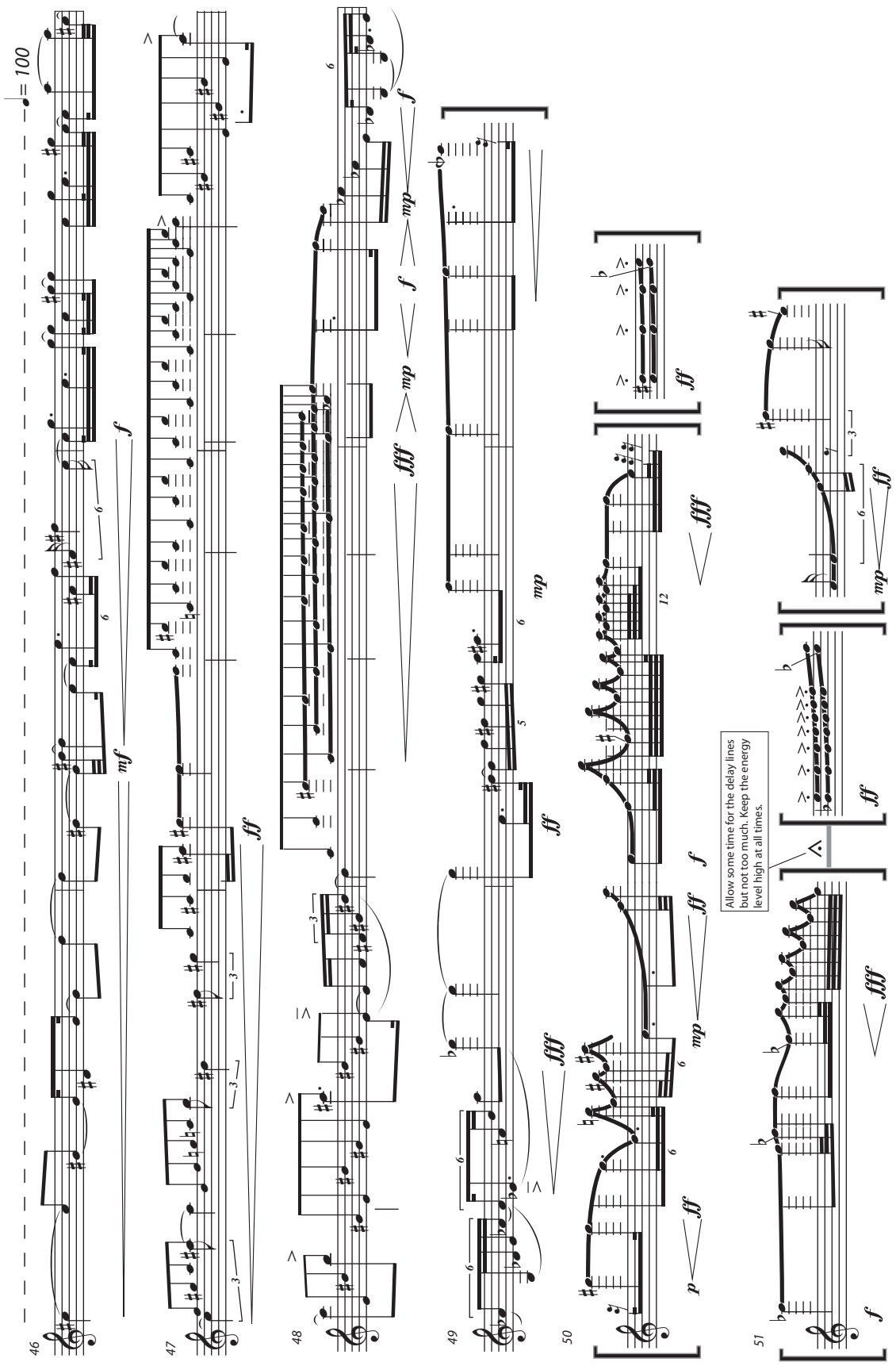

20
21
22
23
24
25
≈ 3"
≈ 1"
sul tast.
ord.
sul pont.
molto vib.
non vib.
ord vib.
m.v.
4:3

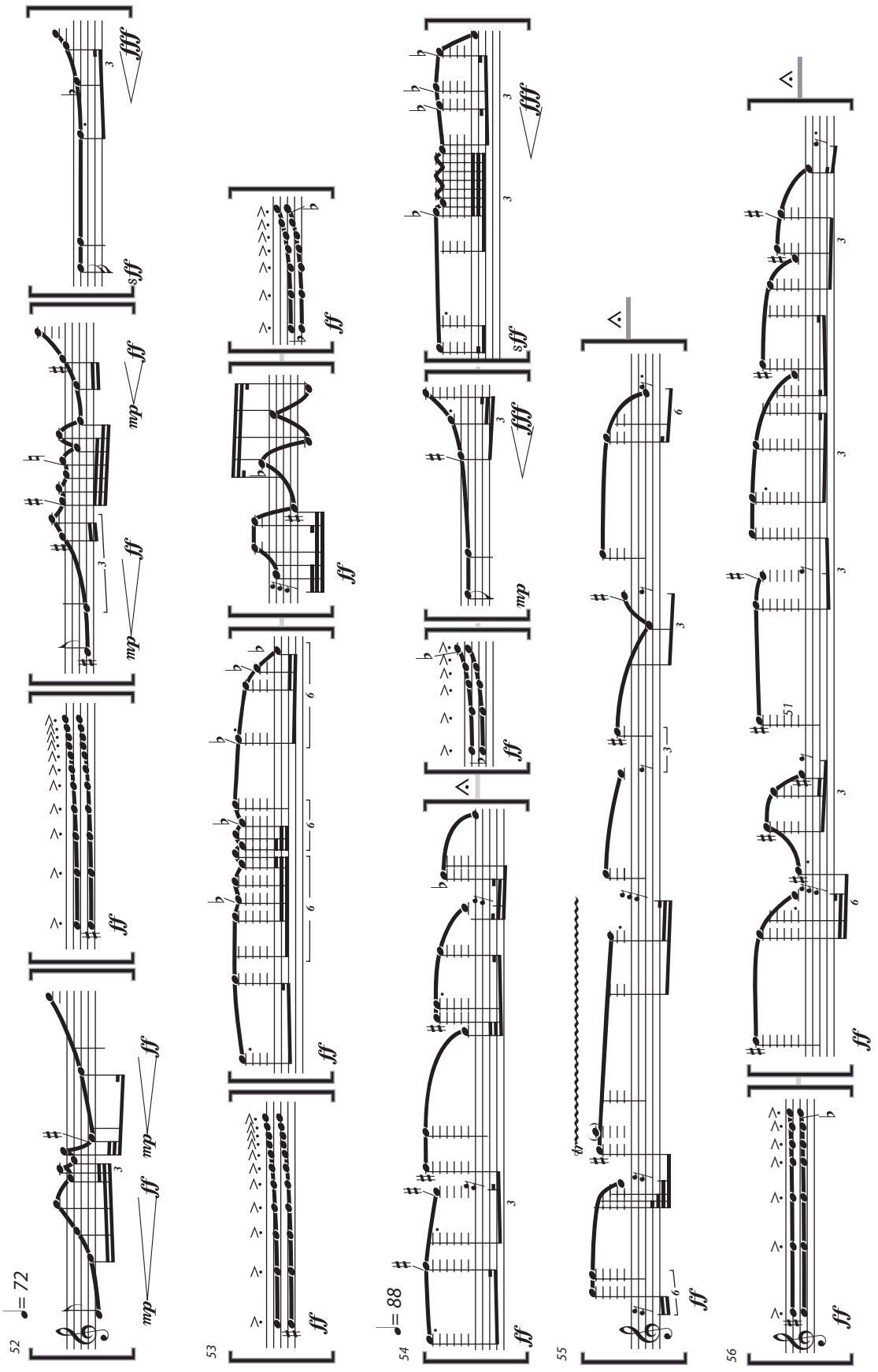

26
27
28
29
30
switch bows
≈ 4-5″
Heavy (Normal) Ricochet
(Hair)
Lengo
Hair
A
D
G

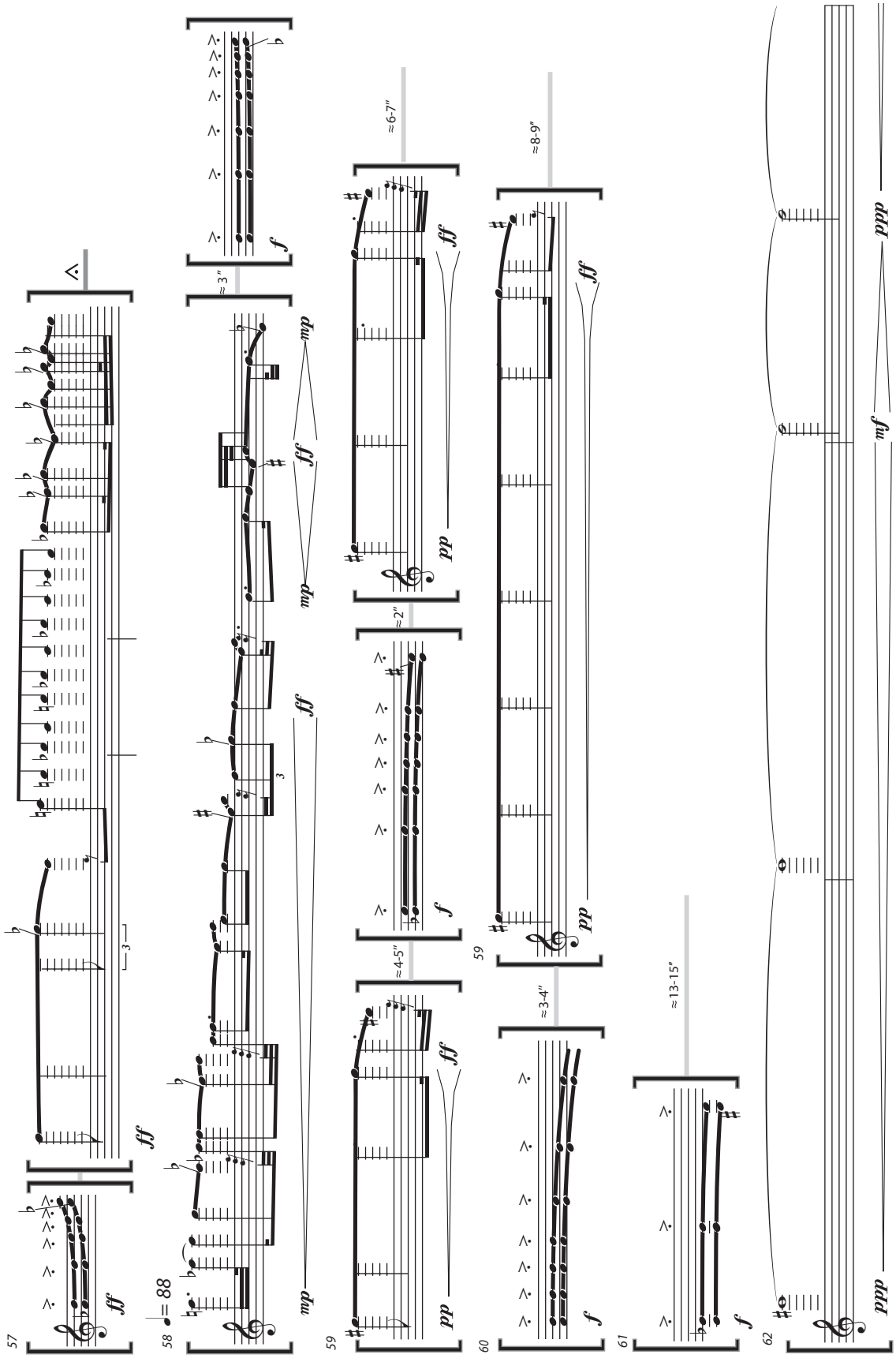

31
Legno
Circular Bow Stokes
A
D
dddd
mp
mf
32
Screaming!
switch bows
≈ 6-8″
fff
Legno
A
D
D
G
E
A
E
A
(e)
(a)
33
≈ 3″
≈ 1″
dddd
mp
f
fff
34
Arco
switch bows
≈ 1″
≈ 1″
E
A
(e)
(a)
4:5
dd
mp
f
fff

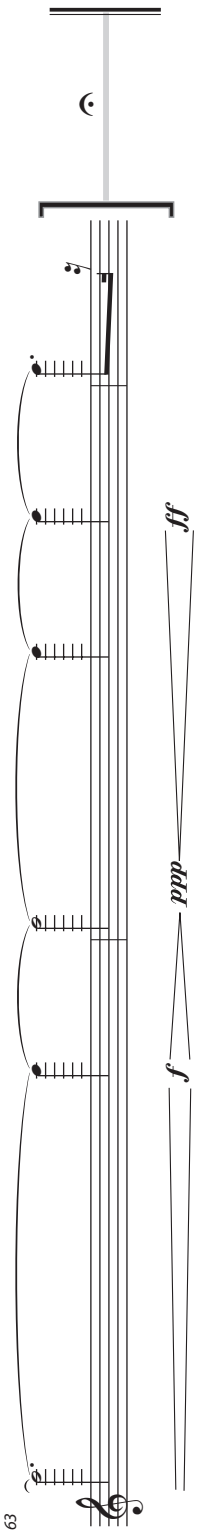

35
≈ 1"
36
37
38
39
40
accel.
accel.


accel.
♩= 100
Legno
Hair
Arco Ad Lib.
♩= 60
≈ 3"
≈ 2"
♩= 72
accel.
accel.


♩= 100
Allow some time for the delay lines but not too much. Keep the energy level high at all times.


52
♩= 72
53
54
♩= 88
55
56


57
58
59
60
61
62
≈ 88
≈ 3"
≈ 6-7"
≈ 2"
≈ 4-5"
≈ 8-9"
≈ 3-4"
≈ 13-15"
ff
mp
pp
f
ppp
mf


63
fff
ppp
f