ASPECTS OF THE FIRST MOVEMENT, *ANIRI*, IN UNSUK CHIN'S CELLO CONCERTO

BY

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THESIS

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ABSTRACT

The Korean composer Unsuk Chin (b. 1961) began receiving international recognition with the premiere of her *Acrostic Wordplay* for soprano and ensemble in 1991. Chin is regarded as among the best composers of our time and has received many prestigious awards including the Grawemeyer Award (2004), the Arnold Schoenberg Prize (2005), the Prince Pierre Foundation Music Award (2010), and the Wihuri Sibelius Prize (2017). She has written six concertos up to this point, but her Cello Concerto (2008–09, rev. 2013) has a unique position among them because her approach to composing this work differs greatly from the others in the relationship between the soloist and the orchestra. In addition, the first movement makes an explicit reference to traditional Korean music, which is a rare case in her works.

This thesis provides an introduction to Chin's Cello Concerto and illuminates the musical aspects of the first movement, *Aniri*. Chapter 1 introduces the project background, research objectives, and Chin's general musical style and influences. Chapter 2 is a general introduction to Chin's Cello Concerto, including origin, overview, pitch material, and form. Chapter 3 includes the first movement's references and overview, and discusses aspects of the movement including form, texture, timbre, and pitch and harmonic materials. Chapter 4 offers a brief conclusion.

To my father and mother

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CHAPTER 1

INTRODUCTION

1.1. Project Background

At Seoul National University, Unsuk Chin (b. 1961) studied composition with Sukhi Kang, who was born in Seoul in 1934 and studied composition with Isang Yun in Berlin. Kang is considered one of the most significant Korean composers. Chin learned a great deal from him before leaving Seoul to study composition with György Ligeti in Hamburg, Germany.

My interest in this project stems in part from my experience studying composition with both Sukhi Kang and Unsuk Chin. I studied with Kang during my undergraduate years at the Keimyung University, Daegu, Korea. It was he who introduced me to Chin and her Double Concerto (2002). Since then, I have become a fan of her music and have taken composition lessons with her a few times. I have become interested in all of her music, especially her concertos.

Chin's Cello Concerto (2008–2009, rev. 2013) is special to me. In May 2010 in Seoul, she gave me the score and a recording of its world premiere by the BBC Scottish Symphony Orchestra with the cellist Alban Gerhardt in London on August 13, 2009. Its US premiere was given on February 10, 2011 in Boston by the Boston Symphony Orchestra with Gerhardt again as the soloist. Chin offered me a ticket for the concert and sat next to me there. It was a great honor to be able to appreciate the performance of the piece together with its composer. I was fascinated by both music and performance. In particular, the emotional melodic gestures of the soloist in the first movement touched me. This amazing experience made me want to study the

piece, so I have chosen it as my thesis topic.

1.2. Research Objectives

The main research objective of this project is to introduce and understand the first movement of Chin's Cello Concerto. I identify Chin's compositional strategy and the important aspects of the first movement through an analytical overview. In general, far fewer cello concertos have been written than other concertos, especially ones for piano and violin. Composing a concerto for solo cello and orchestra can be a challenge, because the cello's sound can easily be overwhelmed by the orchestra. Knowing of this issue, Chin took a long time to think about a solution. As a result, she composed her Cello Concerto in a different way than her other concertos while maintaining her strong interest in the virtuosity of the soloist. Several studies and dissertations have been published on Chin's concertos, but not Cello Concerto or Clarinet Concerto (2014). It is reasonable to assume that her Clarinet Concerto will be studied as well in the near future. I hope this project will serve as a useful source for continued study of her concertos and other works, and of course help to understand Chin's Cello Concerto better.

1.3. Unsuk Chin's General Musical Style and Influences

Chin has written in various genres of music, from concertos to electronics. She has expressed that her intention is to always compose music that communicates with audiences:

> My music is a reflection of my dreams. I try to render into music the visions of immense light and of an incredible magnificence of colours that I see in all my dreams, a play of light and colours floating through the room and at the same

> time forming a fluid sound sculpture. Its beauty is very abstract and remote, but it is for these very qualities that it addresses the emotions and can communicate joy and warmth.[1]

Some of the titles of her works reflect this tendency to reflect light and color in her music, such as *Spektra* (1985) for three cellos and *Rocaná* (Room of Light, 2008) for orchestra. Timbre is one of the most significant aspects of Chin's music, relating to her interest in and experience with electronic music. Many critics and scholars such as Joseph Auner have described her works as *timbre music*. Auner classified Chin as one of the "spectral composers," giving her *XI* (1998) for ensemble and electronic and her opera *Alice in Wonderland* (2004–07) as examples.[2] Paul Griffiths, an eminent British music critic, novelist, and librettist, also points out the quality of timbre in Chin's music:

> This iridescence, where does it come from? Colours shimmer, float and weave over Unsuk Chin's music, and their sources are multiple. They are produced by harmonies that reflect natural resonance, building up, as in her Violin Concerto, from the basic acoustic facts of octave and fifth. More directly, these colours derive from chimings built into the music: the sounds of the piano, of bells and of the large, delicately handled percussion sections that feature in Chin's scores for orchestra or ensemble. They arise, too, from the rapid flutterings between different instrumental sounds that have been characteristic of her music since her breakthrough piece *Akrostikon–Wortspiel* of 1991–93.[3]

As noted in the quotation from Griffiths, Chin generally employs dozens of percussion instruments in her ensemble and orchestra works. She uses percussion instruments in order to

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[1] "Snapshot," Boosey & Hawkes, http://www.boosey.com/pages/cr/composer/composer_main.asp?composerid=2754&ttype=SNAPSHOT&ttitle=Snapshot; accessed January 27, 2018.

[2] Joseph Auner, *Music In The Twentieth and Twenty-First Centuries* (New York: W.W. Norton & Company, 2013), 246.

[3] Paul Griffiths, "In Focus: An Introduction to the Music of Unsuk Chin," https://www.boosey.com/pages/cr/composer/composer_main?composerid=2754&ttype=INTRODUCTION&ttitle=In%20Focus; accessed January 27, 2018.

explore and expand the possibility of timbre, even though her overall form and instrumentation in many cases are close to traditional models—as seen, for example, in her piano and violin concertos.

Chin prefers to not belong to any specific school of composition. Moreover, she does not try to reveal her nationality in her music, although many Asian composers, such as the Korean Isang Yun, the Japanese Toru Takemitsu, and the Chinese Chou Wen-Chung, try to incorporate elements of their own traditional music into Western musical styles. Paul Griffiths proposes that not revealing her nationality in her music is a strength:

> Her music makes no parade of national flavor: her preferences for the sounds of plucked or struck strings, for slowly drifting glissandos and for arrays of bells and gongs all carry no specific cultural overtones, and that indeed is one of her strengths.[4]

Chin prefers not to carry specific cultural implications in her music even when composing music for a traditional instrument of a certain country. For example, her *Šu,* a concerto for sheng and orchestra, is the first piece she wrote an instrument from non-European musical culture, but the work does not reflect any Chinese cultural gestures.[5] Even the title, *Šu* (a symbol for "air" in Egyptian mythology), has nothing to do with Chinese culture. Her significant interest is the sonority of the instrument itself rather than its cultural background. In the sheng concerto, Chin seeks to explore only the instrument's timbre and virtuosic possibilities:

> I've been fascinated by the sheng for many decades. The sheng is used in Korean music but it is not exploited in terms of solo playing. I was therefore all the more fascinated when I heard Wu Wei for the first time in Berlin, as he introduced me to the great virtuosic possibilities and multi-faceted nature of this

[4] Ibid.

[5] Sheng is one of the oldest Chinese free-reed wind instruments consisting of vertical pipes.

instrument.

> I'm very interested in using non-European instruments in a "Western" context. However, I feel a great deal of respect for the achievements of non-European musical cultures, so I've been wary of mixing things together which have completely different heritage lines…. For me, the idea to write a Sheng Concerto was not to pursue a mixture of "East' and West." I always simply try to compose my own music….[6]

Many twentieth-century composers, such as Karlheinz Stockhausen, have reacted against the traditional organic approach to music composition. In contrast, Chin often presents the basic musical materials of the pieces in the opening measures, and the possibilities of these materials are gradually explored and transformed by varied repetition of statements. This tendency is reflected especially in her piece *XI* and her fifth piano etude, *Toccata* (2003). They both open with a simple musical idea, which gradually grows and develops into complex figures. Another British critic, Arnold Whittall, mentions Chin's ability to approach to compositional organization:

> … as if the composer wants to show how elaborate transformations and extensions only make sense when heard to grow stage by stage from the basic unifying elements which ultimately integrate them. This confirms Chin's fundamentally organicist approach to compositional organization, and indicates a well-nigh "classical" concern for explicit continuity.[7]

In 1985, Chin went to Hamburg in Germany to study composition with György Ligeti on a DAAD grant (Deutscher Akademischer Austauschdienst). Chin wanted to study with Ligeti because at that time she believed that only his music had a great musical curve and flow; she was interested in other masters' works intellectually but not musically. Moreover, she felt that

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[6] "Quarternotes," Boosey & Hawkes, http://www.boosey.com/downloads/200906_Qnotes.pdf; accessed January 26, 2018.

[7] Arnold Whittall, "Unsuk Chin in Focus: Meditations & Mechanics," *Musical Times* 141, no. 1870 (2002): 25–26.

Ligeti's music was the closest her own.[10] It is well known that some of Chin's works were strongly influenced by Ligeti. For example, her Piano Concerto (1996–97) has been frequently compared to his Piano Etudes (1985–2001) and Piano Concerto (1985–1988). Ligeti's influence on Chin's music also can be seen in her Cello Concerto, as discussed in Chapter 3. She remarked:

"No twentieth-century composer has influenced me musically as much as Ligeti. The more I work as a composer, the more I realize how fortunate I was to have met him in my life."[11]

Chin has been interested in the various kinds of traditional music in the world, just as her teacher was. Her interest in the music of non-European countries, especially Balinese gamelan music, has been revealed through many of her interviews. She has employed some aspects of gamelan music in her works in an original way. Chin's first piano etude, *In C* (1999, rev. 2003), and Double Concerto are examples.

[10] Stefan Dress, *Unsuk Chin*, *Miraeui Akborul Geurida* [Unsuk Chin, Drawing the Score of the Future], trans. Hee-Kyung Lee (Seoul: Humanist, 2012), 45.

[11] Quoted in ibid, 55.

CHAPTER 2

INTRODUCTION TO UNSUK CHIN'S CELLO CONCERTO

2.1. Origin and Overview

Composing concertos has been significant in Chin's musical life. Beginning with her Piano Concerto (1996–97) she has written Violin Concerto (2001), Cello Concerto (2008–09, rev. 2013), *Šu* for Sheng and Orchestra (2009), and Clarinet Concerto (2014). Chin also composed Double Concerto (2002) for piano, percussion, and ensemble. Each concerto has a different style, but Chin has shown a strong interest in the virtuoso aspects of the concerto genre throughout. The basic idea of her concertos stems from the unique characteristics of the solo instrument and its possibilities of expression. She likes to push the limits these possibilities and to explore the relationship between soloist and orchestra.

> I am attracted by virtuosity. This enthusiasm and virtuosity of a player trying to go beyond his or her boundaries: I like that. It's a situation that I experience all the time as a composer: pushing the limits of your possibilities, not knowing whether you can do it—and then somehow succeeding. I ask every bit as much from a soloist.[12]

Chin's Cello Concerto is her third concerto for a solo instrument and orchestra. She remarked: "The Cello Concerto is quite different from the other two, less abstract and more personalized."[14] The first movement, *Aniri*, makes an explicit reference to a genre of traditional

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[12] Corinna da Fonseca-Wollheim, "Composing Outside the Lines: Unsuk Chin Talks About Her Music and Influences," https://www.nytimes.com/2014/09/23/arts/music/unsuk-chin-talks-about-her-music-and-influences.html; accessed January 27, 2018.

[14] Rebecca Franks, "Unsuk Chin: The Korean Composer Gives us a Taster of her New Cello Concerto," http://www.classical-music.com/article/unsuk-chin; accessed January 27, 2018.

Korean music, the musical drama *Pansori*.[15] Chin's approach to composing the Cello Concerto is also different from her other concertos mainly in the relationship between soloist and orchestra. In her other concertos, her fascination for polyrhythmic virtuosity is seen a great deal, and the soloist melts into the orchestra to be a single virtuoso super-instrument. In contrast, her fascination for polyrhythmic virtuosity is hardly displayed in the Cello Concerto, and the relationship between soloist and orchestra is much more competitive.

Chin's Cello Concerto is dedicated to the German cellist Alban Gerhardt. For the first time, Chin wrote a concerto with a specific soloist in mind; her previous piano and violin concertos were written without. Chin and Gerhardt had known each other for ten years, but they did not talk to each about the piece until the first official rehearsal with the orchestra. Its world premiere took place at a BBC Prom in London with Gerhardt and the BBC Scottish Symphony Orchestra conducted by Ilan Volkov on 13 August 2009. Aftewards, the critic Andrew Clements asserted that Chin's Cello Concerto was "arguably the most important concerto for that instrument to appear since Lutosławski's in 1970."[16] Gerhardt also points out that only Henri Dutilleux's cello concerto, *Tout un monde lointain*, has been regularly performed in the mainstream concert repertoire since Shostakovich's two concertos (No. 1 of 1959 and No. 2 of 1966) and expressed his opinion that Chin's piece deserves to be performed again.[17] The U.S premiere took place in Boston with Gerhadt and the Boston Symphony on February 10, 2011. A revised version of the concerto was commissioned by the Bayerisches Staatsorchester and Seoul

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[15] *Pansori* is a type of narrative song of Korea, frequently called Korean folk opera. It is typically performed by a singer accompanied by a drummer playing the *buk*, a double-headed barrel drum. *Pansori* is considered a fundamental traditional Korean music, and it was nominated by UNESCO as a Masterpiece of the Oral and Intangible Heritage of Humanity in 2003.

[16] Andrew Clements, "Unsuk Chin: Piano Concerto; Cello Concerto; Su Review—Reimagining the Concerto Form," *The Guardian*, https://www.theguardian.com/music/2014/aug/13/unsuk-chin-piano-concerto-cello-concerto-su-review; accessed January 27, 2018.

[17] Chris Caspell, "La valse … Unsuk Chin Cello Concerto … The Rite of Spring," http://www.classicalsource.com/db_control/db_features.php?id=7374; accessed January 27, 2018.

Philharmonic Orchestra, and has been performed in cities such as London, Cologne, Seoul, Amsterdam, Paris, and Berlin. The concerto received its Brazilian premiere at Sala São Paulo in August 2017 as well. The recording for Deutsche Gramophon by the Seoul Philharmonic Orchestra with Gerhardt received the *BBC Music Magazine*'s 2015 Premiere Recording Award. Whittall describes the concerto as follows:

> … spontaneously eloquent as well as powerfully dramatic…. The orchestral writing is perfectly judged to actively engage with and complement the soloist, and the reflective, questing ending is one of the most memorable in the contemporary concerto repertory.[18]

Chin's Cello Concerto is the largest of her concertos in length and instrumentation. The orchestra includes five-stringed double basses, and dozens of percussion instruments including special instruments such as pop bottles and Japanese temple bell (*Dobaci*). As in her other concertos, Chin pushes the soloist to the limits of virtuosity, and the competitive tension between the soloist and the orchestra stands out. Chin describes the work as a psychological battle between the solo cello and orchestra.

> In the first movement, there's a short attack from the orchestra, while the cello plays a very soft light improvisation line. Then the cello solo attacks the orchestra, and they're struggling for a while. In the second movement, the orchestra plays fast, short downward passages, while the cello plays passages going up. And the cello wins! The third movement is calm and lyrical, and I think it's the only harmonic movement of the whole piece. In the middle part of the fourth movement, there's a slow melodic solo line from the cello, which goes up to the very high register. The orchestra comes in and tries to destroy this line, but the solo cello remains. It survives and wins![19]

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[18] Arnold Whittall, "Chin, Piano Concerto, Cello Concerto," https://www.gramophone.co.uk/review/chin-piano-concerto-cello-concerto; accessed January 27, 2018.

[19] Franks, "Taster."

A composer writing a concerto for a solo instrument and orchestra carefully considers the relationship between them, because the compositional strategy must be shaped and informed by the characteristics of the solo instrument. Chin is highly aware of this point:

> The Cello Concerto is fundamentally different from my other concertos. There is already an essential difference between concertos in the way you handle the solo instruments. From the beginning, I was afraid of the cello because a cello concerto is something very special. For example, it is very difficult to get the right balance between a solo cello and an orchestra. That's why I had to be very careful about their relationship. It was important to keep the orchestra part transparent so that the solo cello did not get buried.[20]

In particular, Chin's compositional strategy for the Cello Concerto moved away from her other concertos in which the orchestra almost always displays a complex and dense polyphonic textures, consisting of many of layers, to a relationship where the soloist melts into the orchestra so that they both became a single virtuoso super-instrument. The Cello Concerto has much less textural complexity than Chin's other concertos, and more frequent dialogues between soloist and orchestra. In addition, the solo cello almost always leads the movement and its emotional expression stands out. Chin observes:

> The Cello Concerto is antithetical to my other concertos. While in the concertos for violin and piano, in the Double Concerto, and in my *sheng* concerto I was seeking to merge the solo instrument and the orchestra into a single virtuoso super-instrument, here it's all about the competitive tension between the soloist and the orchestra. The "aura" of the cello was the initial nucleus and forms the basis of the music, so the whole structure of the piece is thus "carried" by the cello. However, the orchestra responds to it in an antagonistic way. This antagonism is much stronger than in traditional Classical–Romantic concertos; one could even speak of a "psychological warfare" between soloist and

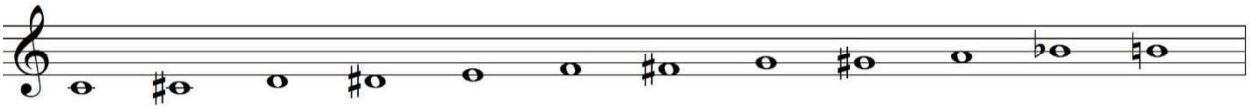
[20] Dress, *Unsuk Chin*, 73.

orchestra.[21]

2.2. Pitch Material and Form

"What characterizes Unsuk Chin's sound world is, above all, her frequent use of overtone series."[22] As Gordon Kampe has observed, she organizes pitch and harmonic materials derived from an overtone series in many of her works for solo instrument and orchestra, such as her first piano etude, *In C*, and *Rocaná* for grand orchestra. In her Cello Concerto, Chin uses a chromatic scale containing all twelve pitches as shown in Ex. 2–1. This chromatic scale serves as a basic pitch resource and is employed throughout the concerto, in both solo cello and orchestra parts.

Example 2–1. A chromatic scale used in Chin's Cello Concerto



In Chin's music, changes in tempo, meter, texture, and timbre are almost always decisive indicators of phrasing and sectional division, as generally in other contemporary music. In Chin's Cello Concerto, the textural changes closely relate to phrasing and form. Changes in mood of the melodic line of the solo cello and the cello's cadence-like melodic gestures also help to articulate the divisions. The Cello Concerto, in four movements, is about 30 minutes long. Table 2–1 summarizies the form of each movement in the Cello Concerto including the large sections, durations, measure numbers, initial meters, and initial tempos.

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[21] Quarternotes.

[22] Gordon Kampe, "Colors, Spaces, Magic Box, To the Instrumentation in the Work of Unsuk Chin," in Dress, *Unsuk Chin*, 417.

Table 2–1. Formal design in Chin's Cello Concerto

Movement	Duration	Section	Measures	Initial Meter	Initial Tempo
I	*ca.* 10 min.	A	1–55	5/4	♩ = c.92
		B	56–124	3/4	♩ = c.72-76
		C	125–57	6/4	♩ = c.72-80
		Coda	158–200	3/2	♩ = c.80
II	*ca.* 3 min.	A	1–41	2/4	♩ = c.80
		B	42–63	3/4	♩ = c.96
		C	64–89	4/4, 5/4	♩ = c.115-120
		Coda	90–103	5/4	As fast as possible (at least ♩ = c.152)
III	*ca.* 7 min.	Intro	1–20	3/2	𝅗𝅥 = c.50
		A	21–76	3/4+6/8	♩ = c.132
		B	77–101	3/2	𝅗𝅥=c.66
		C	102–19	3/4+6/8	♩ = c.92-96
		Coda	120–34	5/4	♩ = c.84
IV	*ca.* 7 min.	A	1–74	4/8	♪=c.144
		B	75–151	3/8	♪=c.150
		C	152–201	3/4	♩ = c.60

CHAPTER 3

ASPECTS OF THE FIRST MOVEMENT, *ANIRI*

3.1. References

Traditional Korean Music, *Pansori*

Pansori is performed by a singer accompanied by a drummer. The singer plays the main role with the drummer providing a suitable rhythmic background. The vocalist delivers a themed story through his or her singing, narration, and gestures. Improvised interplay often takes place between singer and drummer during the course of the performance. The narration part in *Pansori* is called *Aniri* (of course, the title of the first movement of Chin's Cello Concerto). Repeating cycles of tension–relaxation are a significant functional structure in *Pansori*. *Aniri* blocks the continuity of tension, changing it to relaxation during the course of the performance. The rhythm of *Pansori Aniri* is not fixed to a certain beat; in some cases, the singer sings a melody in free rhythm.

If we compare the first movement of Chin's Cello Concerto with *Pansori*, the improvisation-like melodic gestures of the solo cello seem to convey a story, just as the singer delivers a themed story in *Pansori*. The orchestra provides a background of harmonic accompaniment, just as the drummer in *Pansori* provides a background of rhythmic accompaniment. Interplay often takes place between singer and drummer, just as solo cello and orchestra often interact with each other. The solo cello leads the first movement, just as the singer in *Pansori* leads the music. The functional structure of repeating cycles of tension–

relaxation in *Pansori* is reflected in the first movement of the Cello Concerto on both large and small scales. Table 3–1 provides a summary of these similar features.

Table 3–1. Similar features of *Pansori* and the first movement of Chin's Cello Concerto

	Pansori	First Movement
Role	A singer delivers a story and leads the music. A drummer provides a rhythmic background.	The solo cello conveys a melodic story and leads the movement. The orchestra provides a harmonic background.
Relationship	Interaction between singer and drummer often occurs	Interaction between the solo cello and orchestra often occurs.
Formal Structure	Repeating tension–relaxation is a significant functional structure.	Tension and relaxation are one of the significant elements of the formal process.
Rhythm	Not fixed to a certain beat. Singer sometimes sings a melody in free rhythm.	Frequent changes in meter and tempo. The solo cello features improvisation-like melodic gestures in free rhythm.

György Ligeti's Cello Concerto

Clements writes of Chin's Cello Concerto:

> The Cello Concerto is a work in which the influence of Chin's teacher, György Ligeti, is hardly felt at all, other than perhaps in the sheer fastidiousness and precision of the sounds that she imagines. In the Piano Concerto, though, the solo writing often seems close to that of Ligeti's Piano Studies with extra layers of orchestral decoration added.[23]

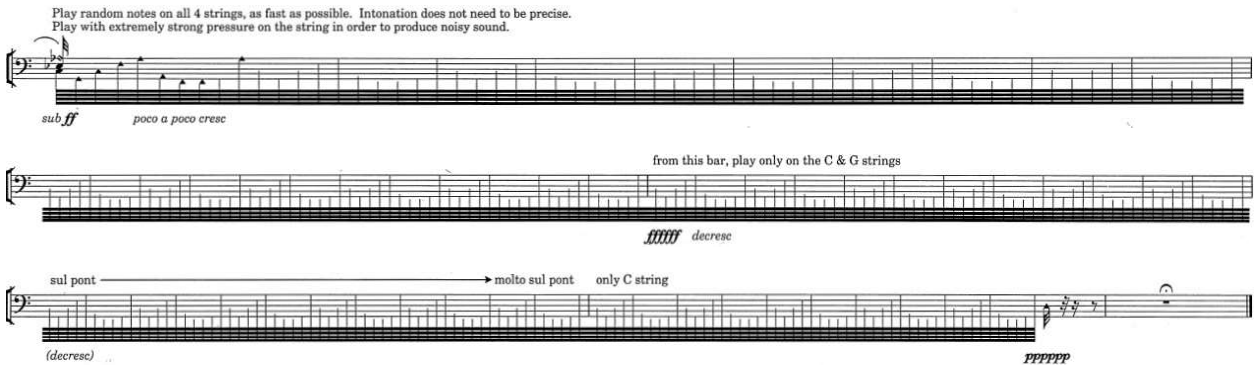
The German musicologist Habakuk Traber, however, suggests that the tempo marking "as fast as

[23] Clements, "Unsuk Chin."

possible" in the Cadenza part of the first movement indicates Chin's respect to Ligeti's Cello Concerto (1966).[24] Chin herself admitted that she got the idea of the ending in the first movement from the ending in the second movement of Ligeti's Cello Concerto, where the solo cello has an extremely fast improvised passage that fades into silence. As with Ligeti's cadenza, Chin leave the details of pitches and rhythms to the cellist, but she controls timbre through detailed instructions of dynamics and bowing position (e.g., moving from *sul tasto* to *sul ponticello*), as shown in Example 3-1. Chin was in a musical crisis while studying with Ligeti because of his harsh criticism about Chin's works being strongly influenced by the style of the European avant-garde at that time, but Ligeti's influence on her remains longlasting:

> I am very much influenced by his music, but in my works list, there are pieces which are close to his music, and also other pieces which don't have any connection. At the end of the first movement of my Cello Concerto, I took an idea from the end of his Cello Concerto—the idea of a very fast improvisation.[25]

Example 3–1. Chin, Cello Concerto, the solo cello's ending passage in the first movement, mm. 195–200



[24] Habakuk Traber, "Cello Concerto," in Dress, *Unsuk Chin*, 229.
[25] Franks, "Taster."

Claude Debussy's *Des pas sur la neige*

In a review of the world premiere, Philip Gowman mentioned that the first movement of Chin's Cello Concerto reminded him of Debussy's *Des pas sur la neige* (Footprints in the *s*now), from the first book of *Préludes* (1910):

> when the concerto opened with a sole plucked G sharp on the two harps, around which the cello played a slender strain which recalled the delicate first few bars of Debussy's piano prelude *Des pas sur la neige*, this was clearly going to be a battle of a different sort.[26]

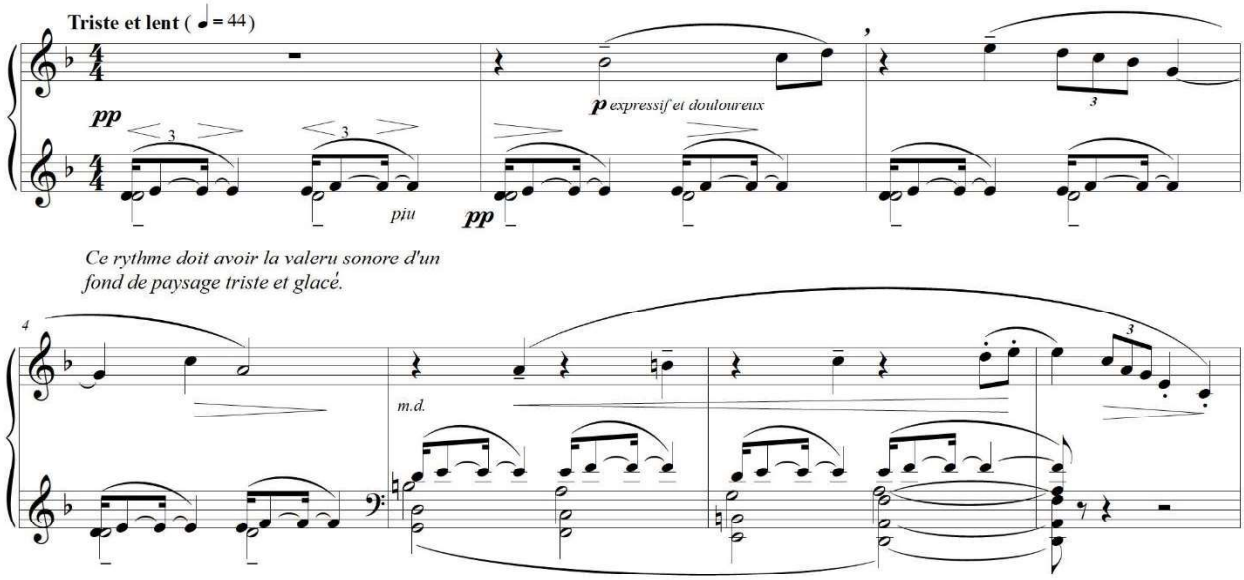
Chin has never mentioned the music of Debussy in relation to her Cello Concerto, but she has cited him as one of the greatest modern revolutionaries along with Stravinsky and others in her interviews. Given the similarities illustrated in Example 3–2 below, it might be reasonable to think that Chin took some ideas from Debussy's *Des pas sur la neige* here. 1) The opening measures in both pieces have a melody and an accompaniment in tranquil mood. In each work, the melodic line begins with B♭ in the same register (B♭4), and the melodic line is frequently interrupted by its accompaniment. 2) The opening motive on three pitches (D, E, F) in *Des pas sur la neige* plays an ostinato role. In a wide sense, the ostinato-like pattern also occurs in the two harps in the first movement of Chin's Cello Concerto, even though there is no persistent rhythmic repetition of pitch groups and no repetition of melodic phrases. But the two harps in the first movement have the essential features of a pattern that can be easily identified, one of the qualities of an ostinato, as Richard Delone defines it.

> Ostinato consists of one or more parts that provide repetitive bases for other more varied types of activity. The repetition of such patterns often involves some intervallic or

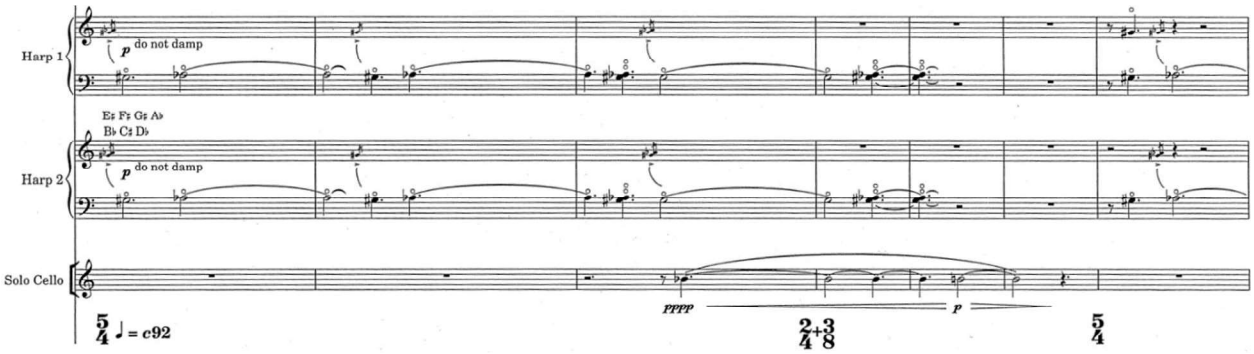
[26] Philip Gowman. "Concert Review: Unsuk Chin at the BBC Proms—A New Work Enters the Cello Repertoire," https://londonkoreanlinks.net/2009/08/20/a-new-work-enters-the-cello-repertoire.; accessed January 28, 2018,

rhythmic modification, but the essential features of the pattern must be easily recognized if it is to retain its identity.[27]

Example 3–2a. Claude Debussy, *Des pas sur la neige, Préludes*, Book I, mm. 1–7



Example 3–2b. Chin, Cello Concerto, I, mm. 1–7



[27] Allen Winold, "Rhythm in Twentieth-Century Music," in *Aspects of Twentieth-Century Music*, ed. Gary E. Wittlich (New Jersey: Prentice-Hall, 1975), 123.

3) In Debussy's *Des pas sur la neige*, a three-pitch motive from a D-minor scale is repeated throughout the piece along with many re-harmonizations of the motive, resulting in numerous harmonic colors within the same motive. Similarly, in the first movement of Chin's Cello Concerto, the G♯/A♭ in the two harps is constantly repeated with re-coloration through timbral combinations of two or more instruments. In addition, the pitch D plays a significant role as a tonal center in Debussy's *Des pas sur la neige*. Likewise, the pitch D serves as one of the most significant pitches in the first movement of Chin's Cello Concerto, and temporarily plays the role of pitch center for one particular section, mm. 167–77.[28]

3.2. Overview

The first movement, *Aniri*, is the longest movement in the Cello Concerto at about 10 minutes long. It opens calmly with only two harps. A few seconds later, the solo cello's simple and soft melodic line joins them and goes forward to virtuosic statements. Two notable compositional techniques, a pitch center and timbral variation, are employed in the first movement. The movement is constructed around a controlling pitch center, G♯, in the orchestra. Sometimes the solo cello takes the G♯ as its pitch center, as shown in Example 3–3.

Example 3–3. Chin, Cello Concerto, pitch center G♯ in solo cello, first movement, mm. 126–35

[28] The pitch D is one of the most significant pitches along with G-sharp and B-flat in the first movement of Chin's Cello Concerto, as discussed in more detail later.

Example 3–3 continued

Concerto for Cello and Orchestra by Unsuk Chin

The G♯ functions as a center of gravity in this movement. Using a pitch center seems an old-fashioned method, but Chin's continuous timbral variation on the same pitch creates novel instrumental colors, the movement's central focus of interest. The movement is not a theme and variations in the traditional sense but involves a kind of timbral variation. Both approaches to variation, however, help to unify the music.

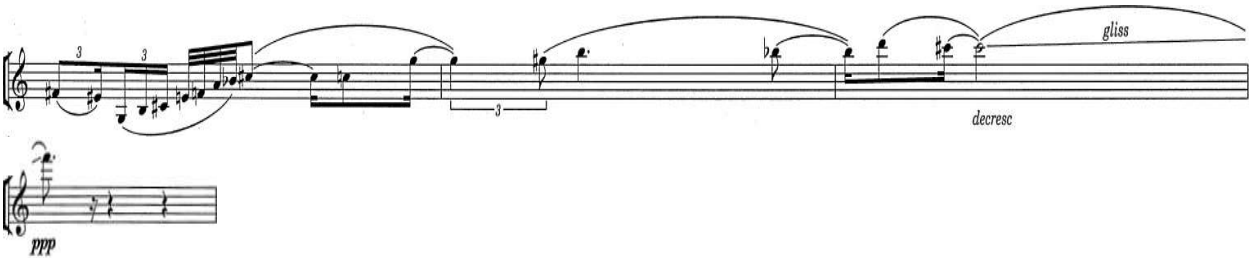
Chin's organic approach to composition, mentioned in chapter 1, is also reflected in the first movement. The timbral exploration of G♯, beginning with the initial passage with two harps, constantly and sensitively unfolds throughout the movement by employing a variety of other instruments, thereby expanding the scoring from chamber music-like instrumentation to full orchestra. Similarly, the solo cello begins with a simple and soft melodic line circling around the G♯; later its improvised melodic lines develop into virtuosic statements in a conversation with the orchestra.

3.3. Form

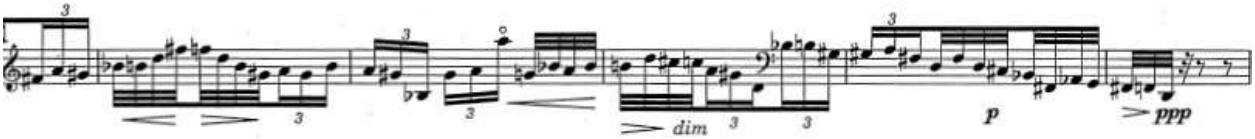
The form of the first movement builds straightforwardly on both small and large scales, while the timbral variation on the pitch center G♯ unfolds. In many cases, the solo cello helps to articulate

the closing of a section and a smaller part through cadential melodic gestures, as shown in Example 3–4.

Example 3–4a. Chin, Cello Concerto, solo cello's cadential melodic gesture through an accending line to the highest point, I, mm. 37–40



Example 3–4b. Chin, Cello Concerto, solo cello's cadential melodic gesture through a descending line to the lowest point, I, mm. 50–55



Melodic lines in the solo cello are rarely restated in the same form but change in character with each new section. For the most part, the start of each section is distinguished from the previous section by a new melodic line in the solo cello in a contrasting mood, which helps to articulate the large-scale form of the movement. Equally important, changes in tempo and texture generally serve to highlight the formal design. Timbre in each section is unified by the timbral variation on the pitch center G♯, but timbral contrast between sections also occurs when the timbral variation on G♯ is inactivated for a particular section, as discussed in more detail in section 3.5 (Textural Functions in Delineation of Form). Another significant aspect is that the composer makes use of cadential harmonies based on three pitch classes (D, G♯, B♭), so that these pitch classes also

contribute to the form of the movement, as discussed in more detail in section 3.4 (Pitch and Harmonic Materials). Both textural and harmonic structures are closely associated with the formal design in the first movement. Thus, the form of the movement is noteworthy for the interaction between texture and harmonic material that it embodies, as discussed later in this chapter.

Given the observations in the preceding paragraph, the first movement demonstrates clear dividing lines, especially between larger sections. The movement consist of four large sections: A–B–C–Coda. Each section is divided into smaller divisions. The A section comprises three subsections, a1–a2–a3, which clearly close and are separated by pauses. In contrast, the other three sections, B–C–Coda, and their smaller divisions flow continuously from one to the next, although they often involve a contrast of texture. The B section can be analyzed as comprising three subsections, b1–b2–b3, each of which contains a number of smaller parts. Likewise, the C section comprises three subsections, some containing smaller parts. Finally, the Coda can be clearly broken down into two subsections: a–b. Table 3–2 summarizes the first movement, including the large sections and their smaller divisions with measure numbers, initial tempo and meter, and a listing of initial pitches in the solo cello that will be discussed later in this chapter.

Table 3–2. Chin, Cello Concerto, formal design of first movement

Section	Measures	Sub-sections	Measures	Small parts	Measures	Tempo	Initial meter	Solo cello's initial notes
A	1–55	a 1	1–26			♩ = c.92	5/4	Bb
		a 2	27–40			♩ = c.80	5/4	D
		a 3	41–55	Part 1	41–46	𝅗𝅥 = c.50	3/2	G#
				Part 2	47–55	♪ = c.160	3/8	G#
B	56–124	b 1	56–85	Part 1	56–64	♩ = c.72-76	3/4	D
				Part 2	65–85	♪ = c.162-170	3/8	G#
		b 2	86–108	Part 1	86–93	♩ = c.92	7/8	G#
				Part 2	94–108	♩ = c.76-80	3/4	G#, Bb
		b 3	109–24			♩ = c.132-138	4/4	G#
C	125–57	c 1	125–43	Part 1	125–33	♩ = c.72-80	6/4	G#
				Part 2	134–43	♩ = c.92	5/4	G#
		c 2	144–57			♩ = c.72-80	3/4	Bb
		c 3	158–77	Part 1	158–67	♩ = c.108	5/8	D
				Part 2	168–77	♩ = c.92	5/4	G#
Coda	178–200	a	178–89			♩ = c.80	3/2	G#
		b	190–200			♩ = c.60-66	1/8+3/4	G#,(B)

3.4. Pitch and Harmonic Materials

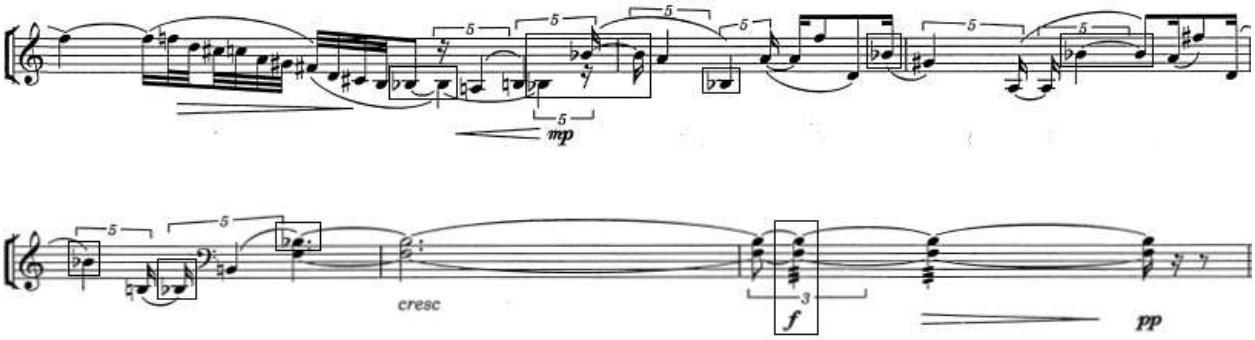
As mentioned in Chapter 2, Chin uses the chromatic scale containing all twelve pitches as melodic and harmonic pitch materials in her Cello Concerto. In the first movement, the chromatic scale provides a variety of interval types, both vertically and horizontally. At the same time, however, the movement reveals a hierarchical aspect of the pitch material. The three pitch classes D, G♯, and B♭ occur prominently in both solo cello and orchestra during the course of the movement, in some cases with enharmonic spellings. On the surface, G♯ serving as the pitch center is the most significant pitch class because it appears before the melody in the solo cello begins, and because G♯ is also important melodically in the opening measures. But on a higher level, both B♭ and D along with G♯ establish their significance by frequent appearance. The three pitch classes function as a skeleton of melodic lines in the solo cello and serve as a harmonic palette in the orchestra during the course of the movement. Furthermore, Chin unifies solo cello and orchestra by emphasizing the three pitch classes through linear and harmonic means. In short, the use of the three pitch classes is an important unifying factor in the movement.

In the Solo Cello

In the melodic lines of the solo cello, the three pitch classes are easily recognized throughout the first movement by their numerous appearances in different durations and various registers, and by them often being underscored by unison and/or octave doublings of the orchestra as well as by dynamics and articulations. In the opening measures of the movement, Chin anticipates the importance of the three pitch classes, especially B♭. The solo cello begins on B♭ with a disjunct melodic line that circles around G♯, and B♭ reappears several times in relatively long durations, always in the same register (B♭4), while the two harps focus on G♯. From m. 20, the melodic line

moves busily and its range expands as it arrives at the end of subsection a1 (mm. 1–26). In doing so, the melodic line contains B♭ more frequently and it appears in two different octaves (3 and 4). Moreover, B♭ melodically contributes to the formal design by its placement. In this subsection, the pitch not only serves as an initial note but also functions as a cadential note that is supported by the F and highlighted by unison doublings of clarinet 1, viola, and violin, and by octave doublings of timpani and harp 2. In addition, the dynamic (*f*) and tremolo on the B♭ in m. 25, as shown in Example 3–5, also emphasize the B♭ as a cadential note.

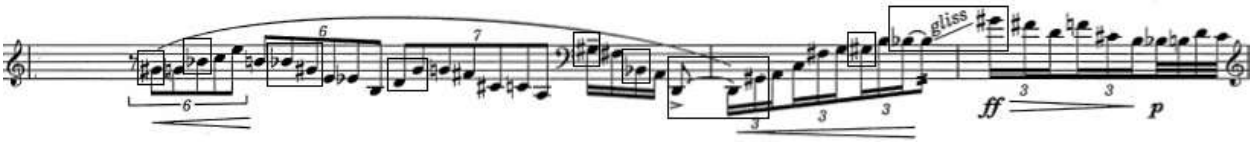
Example 3–5. Chin, Cello Concerto, emphasis on B♭ in solo cello, I, mm. 20–25



In m. 27, in the next subsection, a2, the solo cello's melodic line also begins with the pitch class D, featured as the lowest and longest note in the subsection. The initial note of each section, subsection, and smaller part is always one of the three pitch classes, as indicated in Table 3–2. In many cases, the larger sections and their smaller divisions end with a convincing melodic cadence on one of the three pitch classes, as seen in mm. 23–25, 45–47, 63–64, 93, 108, 124, 189,

etc. The goal-directed motion of the solo cello's expressive and dramatic melodic lines contributes even more to the impression of a cadence, which clearly reveals the three pitch classes and strongly emphasizes them as seen in Example 3–6. In the first part (mm. 41–46) of subsection a3, the last melodic phrase begins on G♯ in m. 45 and ends on B♭ in m. 46, passing through many members of the three pitch classes in the phrase. D is especially emphasized in this phrase, as it has the lowest pitch, longest duration, and an accent mark. Then the B♭ smoothly connects to the second part (mm. 47–55) through a glissando, which begins strongly on G♯ in m. 47 and ends with a convincing melodic cadence on D in m. 55.

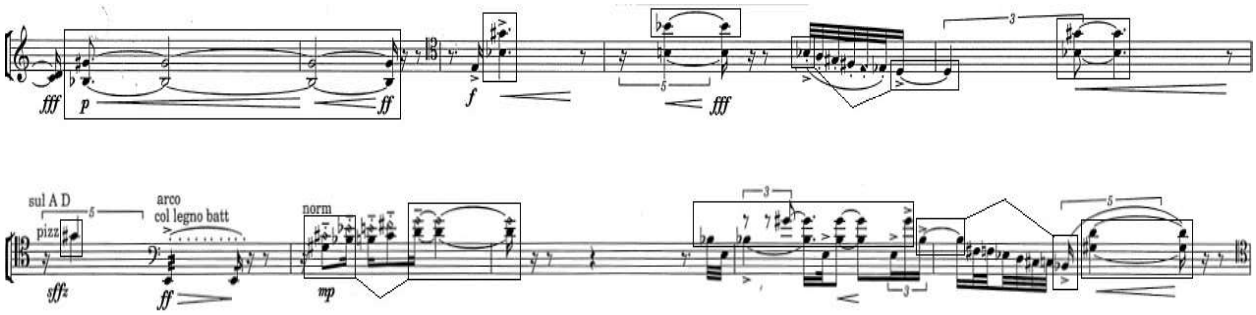
Example 3–6. Chin, Cello Concerto, emphasis on three pitch classes (D, G♯, B♭) in solo cello at a cadence, I, mm. 45–47



An extraordinary example of solo cello passages that use the three pitch classes can be found in the second part of subsection b2 (mm. 94–108). The predominant sonority of the second part is built remarkably from the three pitch classes, both vertically and horizontally. The passages of double stops employ two vertical intervals derived from the three pitch classes, including an augmented sixth (B♭/G♯) and a diminished fifth (G♯/D). Also, linear figures without double stops begin and end with members of the three pitch classes. In Ex. 3–7, the fast descending motion in m. 97 is bounded by a minor sixth (B♭/D). Further descending motion in m.

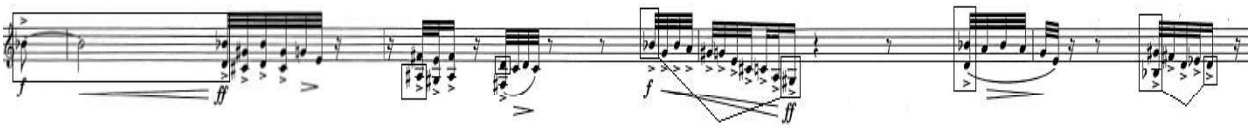
103 is bounded by an octave (B♭/B♭), and the ascending melodic figure in m. 100 is bounded by a diminished fifth (G♯/D).

Example 3–7. Chin, Cello Concerto, emphasis on three pitch classes (D, G♯, B♭) in solo cello, I, mm. 94–104



A related instance to those above is seen in subsection c2 (mm. 144–57) and the second part of subsection c3 (mm. 169–77). In subsection c2, the solo cello features less lyrical and much more rhythmically fragmented figures than before, but the connective material in the orchestra (containing many members of the three pitch classes) links the fragmented melodic line. In Ex. 3–8, the fragmented figures of the solo cello are largly comprised of the three pitch classes, and in most cases, the three pitch classes serve as a beginning note in each fragmented pattern. Some patterns are bounded by the three pitch classes as well. In both instances, the result is that the three pitch classes serving as initial notes and final notes can stand out because of the speed at which the patterns are played. The second part of subsection c3 restates the passage of double stops from the second part of subsection b2, but this time a diminished third (G♯/B♭) is added.

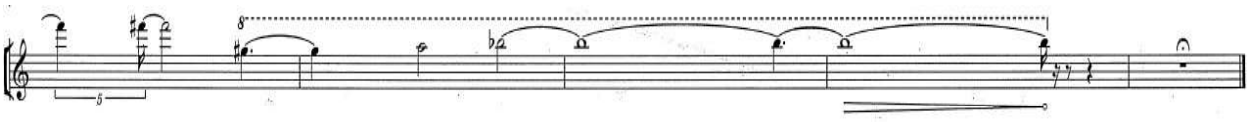
Example 3–8. Chin, Cello Concerto, the three pitch classes serving as initial notes and final note in solo cello's fragmented passages, I, mm. 143–47



In subsection c1 (mm. 125–43) and subsection a (mm. 178–89) of the Coda, the solo cello takes and keeps the pitch center G♯ from the orchestra, which had used that pitch center from the opening of the movement, and then the pitch class is decorated with a generous application of the three pitch classes, playing on different strings in the solo cello, especially both B♭ and G♯ (see Ex. 3–3).

The solo cello demonstrates a great variety of melodic shapes and various moods, as if telling a different story in each section. Chin gives consistency and unity to these diverse and improvisatory melodic gestures by using the three pitch classes. Thus, their frequent appearance in the melodic lines provides an underlying continuity and coherence to the solo cello. Chin also employs B♭ as a unifying element for the whole concerto. For example, the solo cello takes B♭ as an ending note in the last (fourth) movement, as shown in Ex. 3–9. Similarly, in Chin's Violin Concerto, the ending of the last (fourth) movement involves the opening material of the first movement, which includes the four open-string pitches of the solo violin. In both cases, a recycling of the opening material helps to unify the whole concerto.

Example 3–9. Chin, Cello Concerto, B♭ serving as ending note of solo cello, IV, mm. 197–200

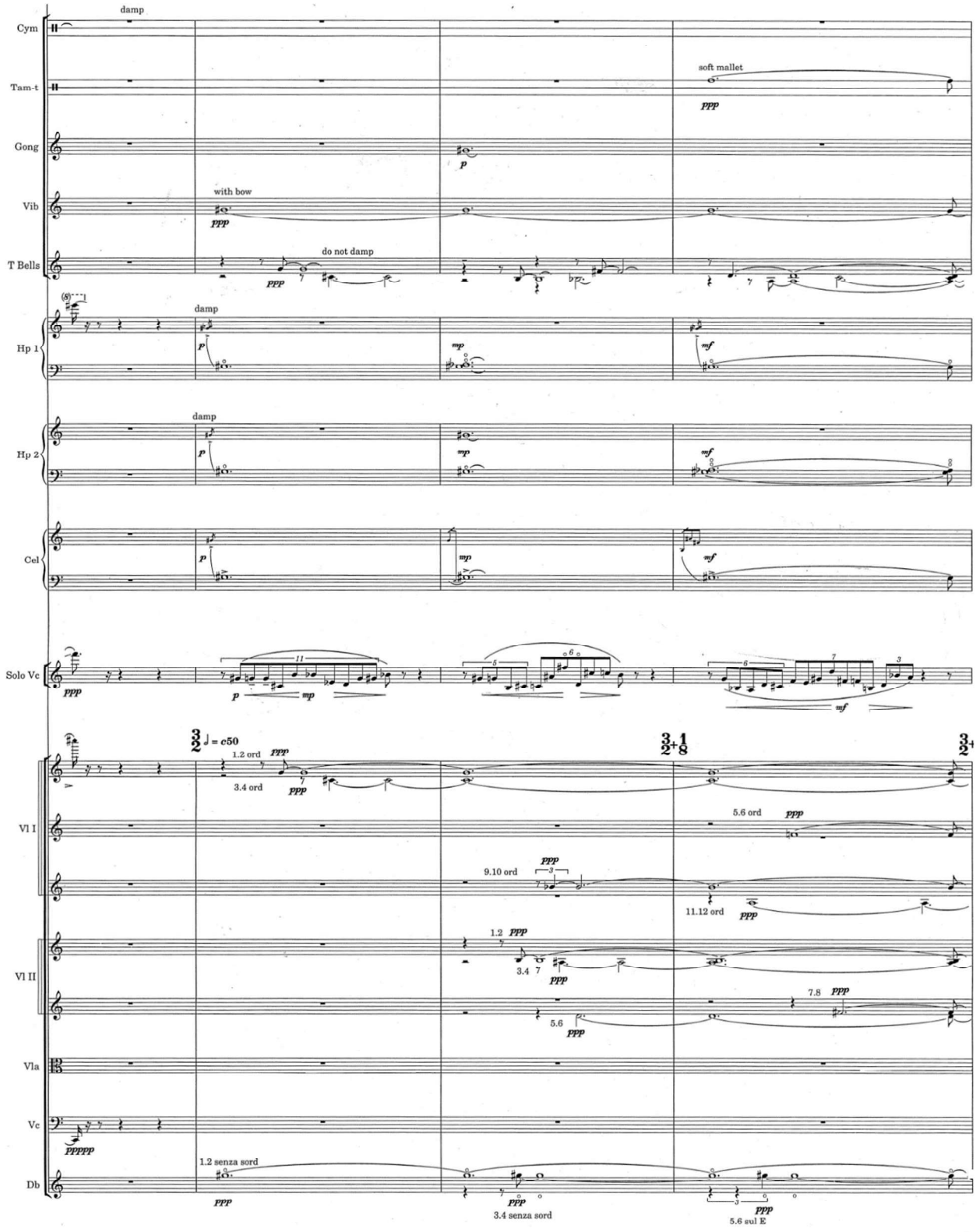


In the Orchestra

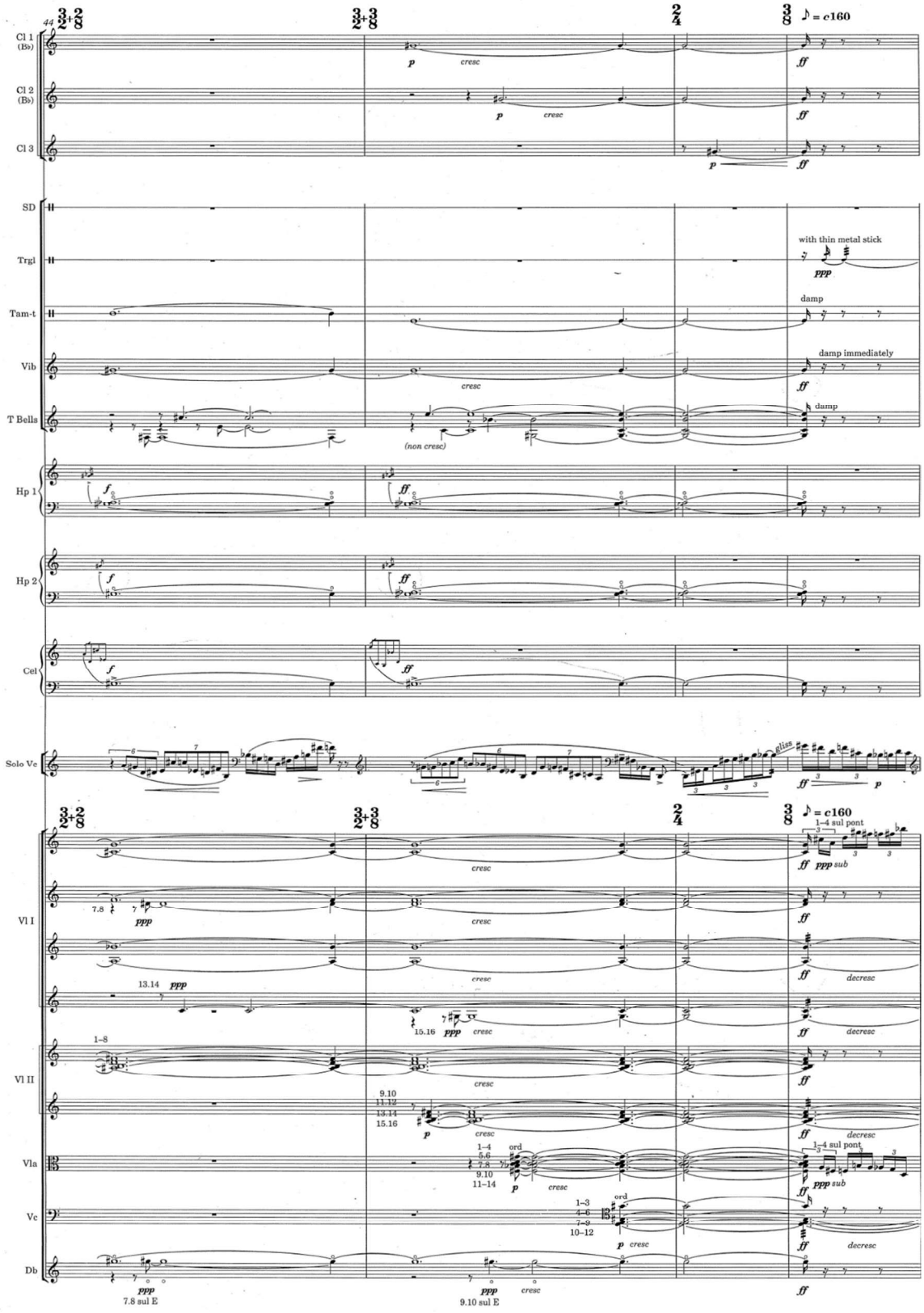
Chin constructs a variety of vertical sonorities in the orchestra based on a combination of the three pitch classes (D, G♯, B♭). In most sonorities, the composer combines the three pitch classes with other pitches in order to supply new continually changing colors, resulting in a rich sonority. Each harmoniy has a different pitch content but shares the three pitch classes. At the same time, the sonority of any of the three pitch classes is enhanced by unison and octave doublings and by appearing in one of the outer voices. As a result, the three pitch classes predominate over the others and become the basis of all harmonies; they are employed at structurally important places in the form. Significantly, the three pitch classes also always appear at points of cadential arrival, and so serve as one of the primary form-determining elements.

The movement often employs clusters based on the three pitch classes in various forms. The cadences illustrate this variety well. The first large cluster occurs in the first part of subsection a3 (mm. 41–46), as seen in Ex. 3–10. The opening measures are dominated by sustained notes of the three pitch classes in a thin texture. Then the added notes enter one by one, while the three pitch classes from the beginning remain as common tones. The large cluster finally culminates in mm. 45–46 as the music approaches a cadence. Here the cluster including the three pitch classes has become a combination of minor and major seconds.

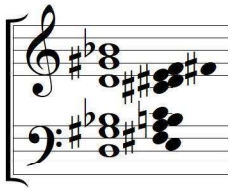
Example 3–10a. Chin, Cello Concerto, gradual accumulation of a cluster centered on G♯, I, mm. 40–47



Example 3–10a continued

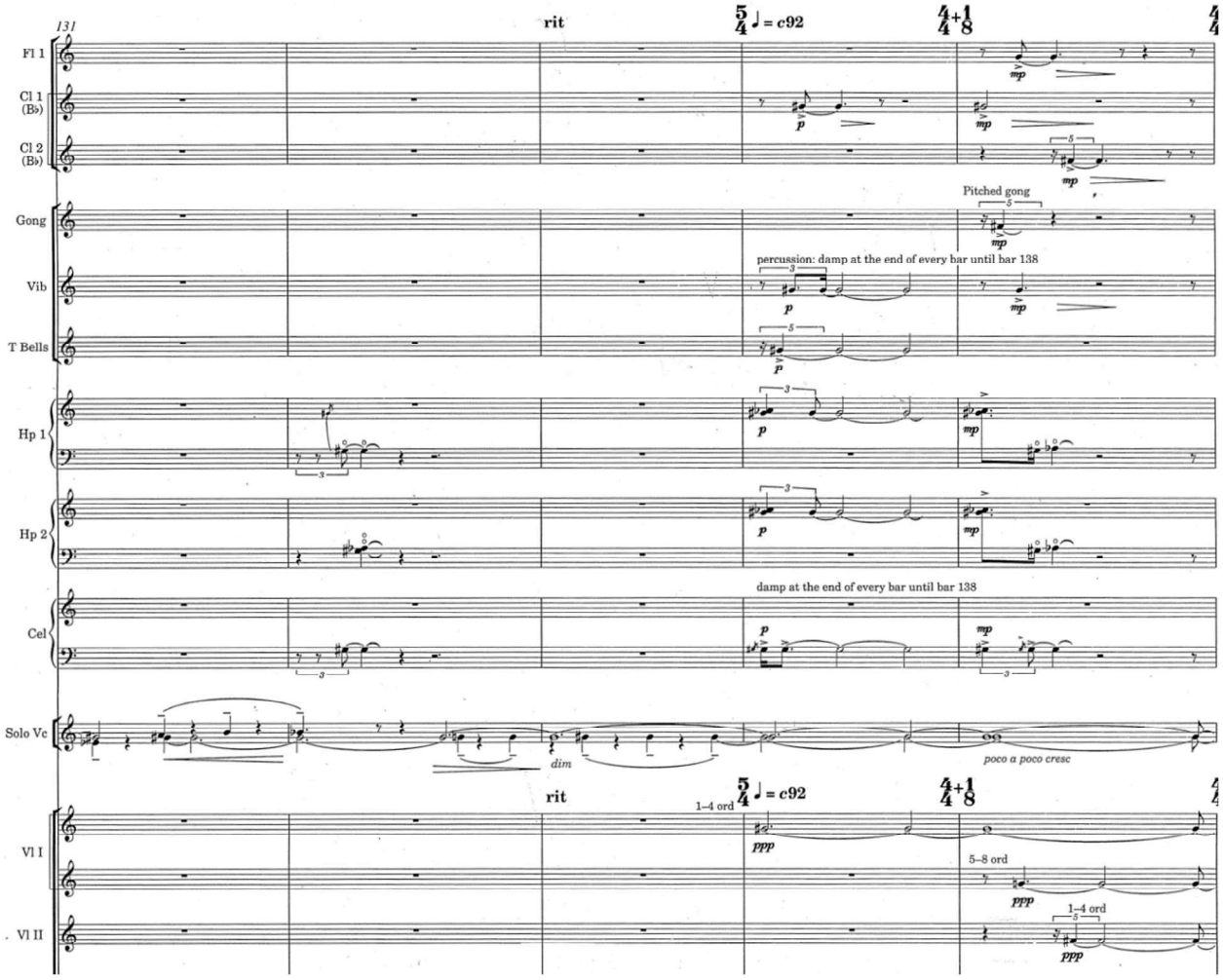


Example 3–10b. Reduction of cadential harmony in m. 46 in subsection a3 of Example 3–10a. The white notes indicate the three pitch classes. The black notes indicate the pitches added to the three pitch classes. All notation at sounding pitch.

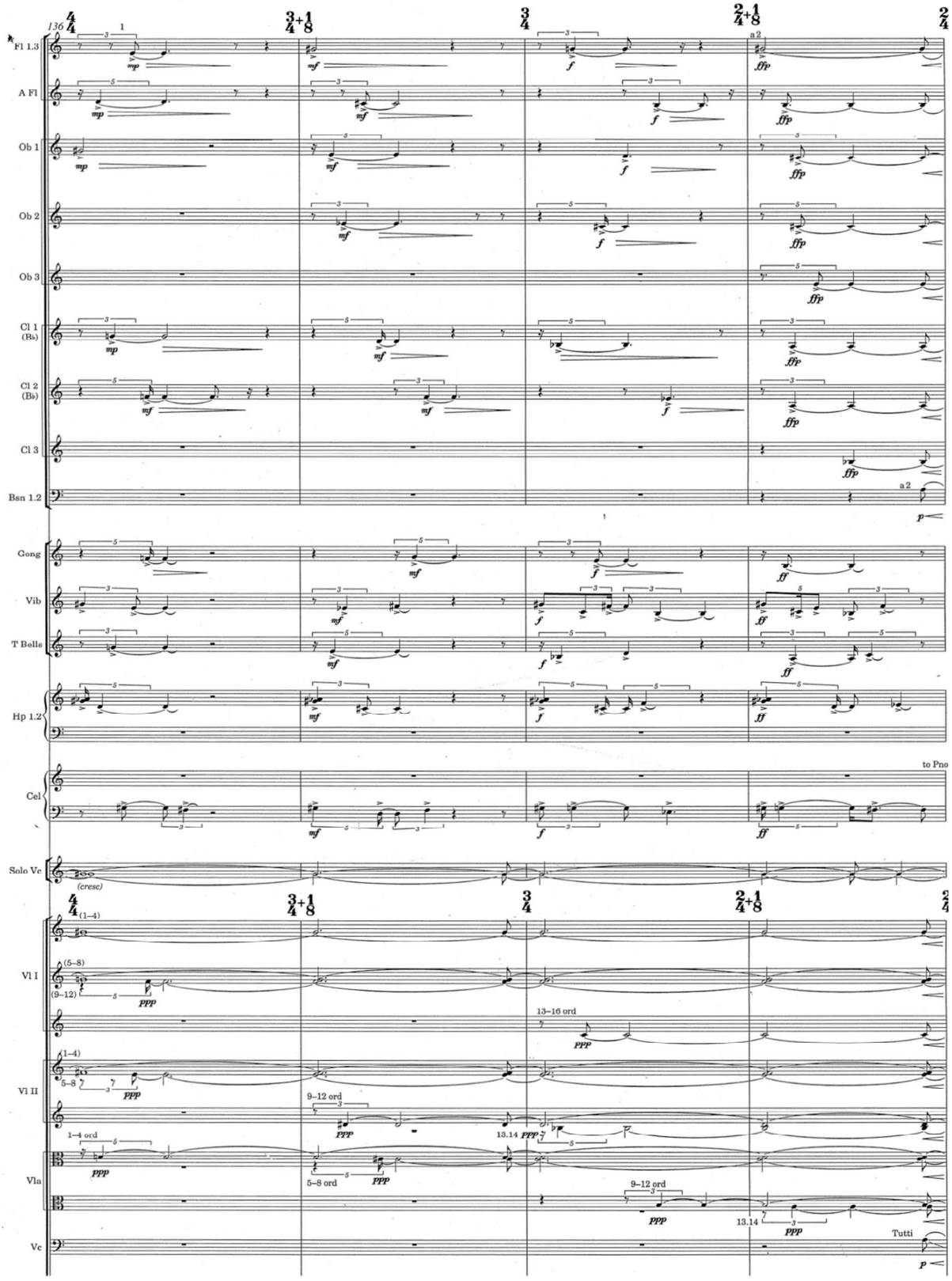


Whereas the cluster just discussed and shown in Ex. 3–10 presents the three pitch classes with heavy doublings, the cluster shown in Ex. 3–11 uses the three pitch classes without such heavy doublings. Given the complex and dense texture of the latter passage, the three pitch classes are harder to perceive there than in the former passage, even though both passages have their clusters in the same general register. However, the emphasis on the three pitch classes in Ex. 3–11 is achieved again at the cadence in mm. 140–41 in a dramatic fashion by adding a new instrumental group (two bassoons, a contrabassoon, two trombones, a tuba, cellos, and double basses), all of which play B♭. The four horns playing D and G♯ also join the group, and the trumpets are added in the group but do not relate to the three pitch classes. B♭ is strongly emphasized by its unison and octave doublings and its position as the lowest pitch in the section. Note that the descending and ascending glissandi between B♭2 and B♭1 in the double basses, along with the melodic cadence in the solo cello, also help make a convincing cadence.

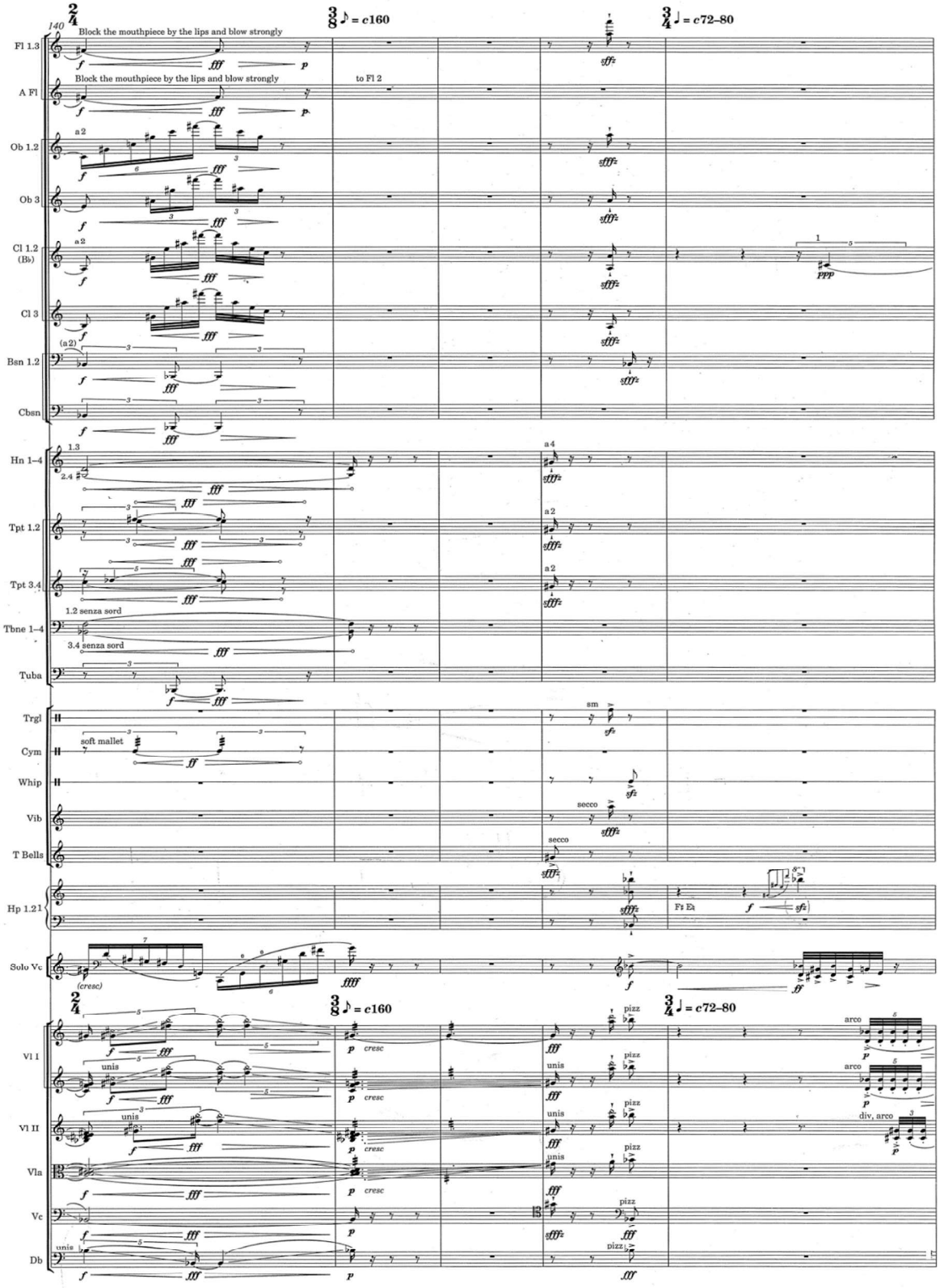
Example 3–11a. Chin, Cello Concerto, gradual accumulation of a cluster centered on G♯, I, mm. 40–55



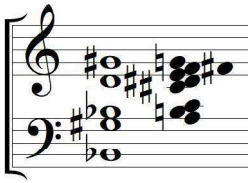
Example 3–11a continued



Example 3–11a continued



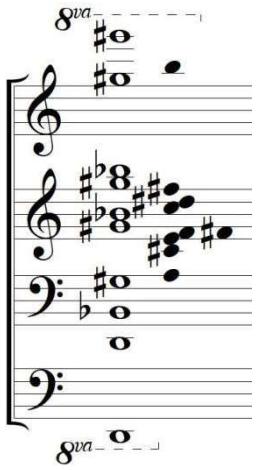
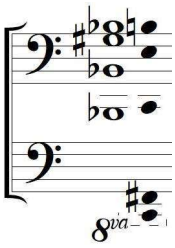
Example 3–11b. Reduction of cadential harmony in mm. 140–41, subsection c2 of Example 3–11a. The white notes indicate the three pitch classes. The black notes indicate the pitches added to the three pitch classes. All notation at sounding pitch.



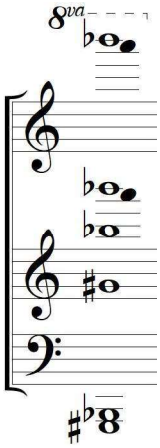
Two other large clusters employing a majority of the three pitch classes are found in m. 176 in subsection c3 and in mm. 195–99 in the ending of the movement; but unlike the previous two clusters, these clusters are not a product of gradual accumulation of pitches. Instead, they abruptly occur at cadences. Table 3–3 shows reductions of these clusters.

Like the four large clusters just discussed, a small three-tone cluster of minor seconds (G♯–A–B♭) is also important to the harmonic material at cadences. The most noticeable use of this small cluster abruptly occurs at the cadence (mm. 122–24) in subsection b3. There the pitch classes G♯ and B♭ are emphasized by doublings in a wide range of registers, as shown in Ex. 3–12.

Table 3–3. Reductions of the cadential harmonies. The white notes indicate the three pitch classes. The black notes indicate the pitches added to the three pitch classes. All notation at sounding pitch.

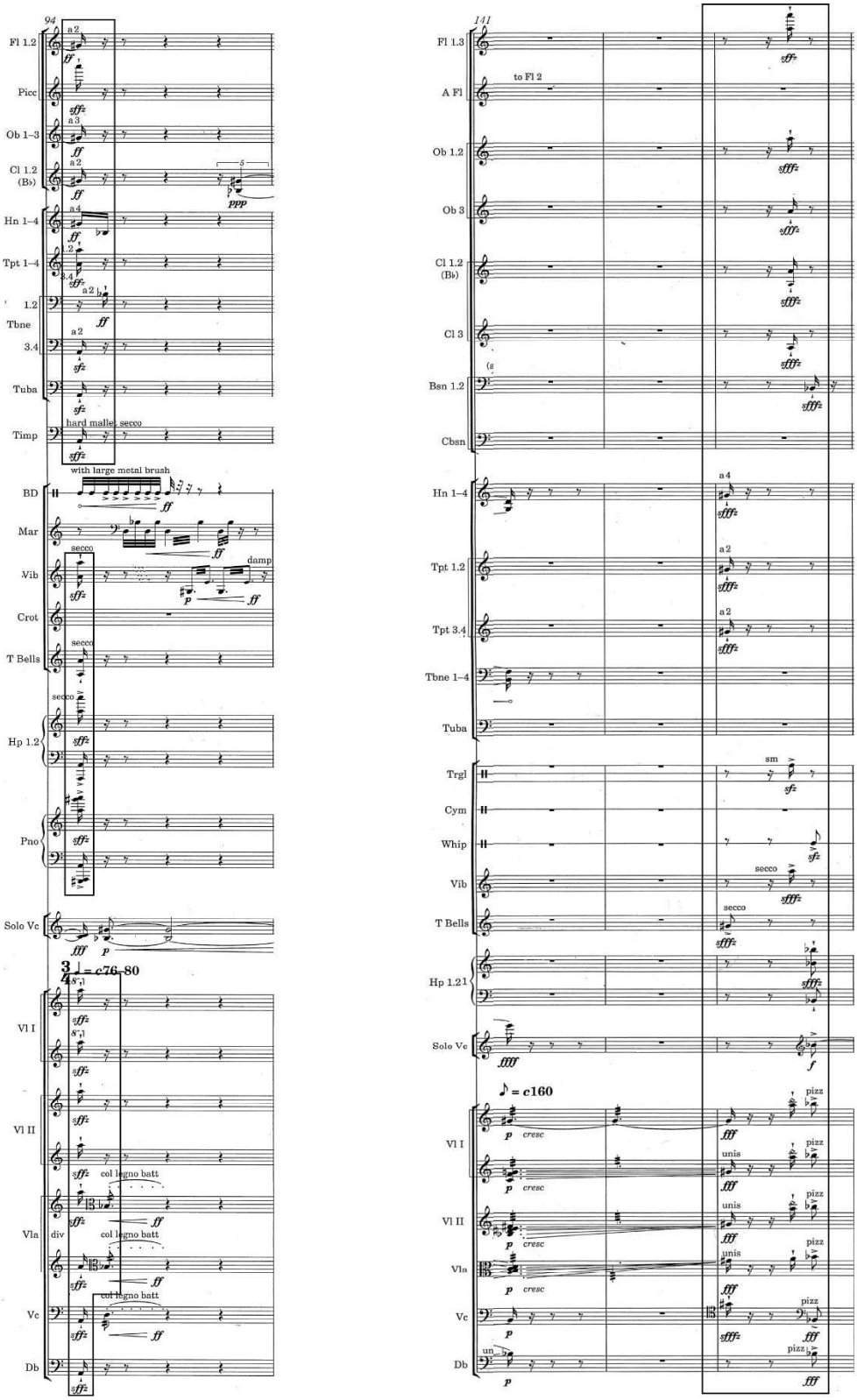
a) m. 176 in subsection c3	b) mm. 195–99 in the ending of the movement
	

Example 3–12. Reduction of cadential harmony at a cadence (mm. 122–24) in subsection b3. The white notes indicate the three pitch classes. The black notes indicate the pitches added to the three pitch classes. All notation at sounding pitch.



In the following Example 3-13a, the same three-tone cluster is expressed horizontally in m. 94 (where the closing of the first part in subsection b2 overlaps with the beginning of the second part). Again in m. 143, the three-tone cluster is expressed horizontally but with extremely wide leaps between the three notes. The three-tone cluster G♯–A–B♭ is also expressed horizontally in several transposed forms. The order of the tones in the three-tone cluster is preserved in these transposed forms. For example, the bass line in mm. 154–55 presents the three-tone cluster horizontally in its original tone-order but transposed up a diminished third to B♭–B–C, which contributes to a convincing cadence. Temporally augmented instances of the three-tone cluster can also be found in mm. 87–93, as shown in Ex. 3–13b. In this solo cello passage, Chin expands the melodic space around G♯. Notice the goal-directed motion from B in m. 87 to B♭ in m. 90, and then to A in m. 92. This can be regarded as a transposed retrograde form of the horizontally expressed three-tone cluster, G♯–A–B♭. Notice also that this goal-directed motion (B–B♭–A) leads to the cadence, which again presents the G♯–A–B♭ progression in m. 94.

Example 3–13a. Chin, Cello Concerto, the three-tone cluster in Ex. 3–12 is employed horizontally, I, m. 94 and m. 143



Example 3–13b. Chin, Cello Concerto, an augmented instance of the three-tone cluster (G♯–A–B♭) in transposed retrograde form (B–B♭–A), I, mm. 87–93, solo cello

Accordingly, certain aspects of the first movement might be understood as the motivic expression of pitch-class cells, as evidenced by the exact same three-tone cluster occurring several times in various transformations during the course of the movement and each of these transformations having at least one common tone with each of the other transformations.

In both large and small clusters, the clusters often serve to facilitate a smooth connection between two phrases or sections. More importantly, the three pitch classes (D, G♯, B♭) create a harmonic basis that unifies the movement by constantly appearing in the solo cello and orchestra throughout the movement, yet not over-saturating the movement.

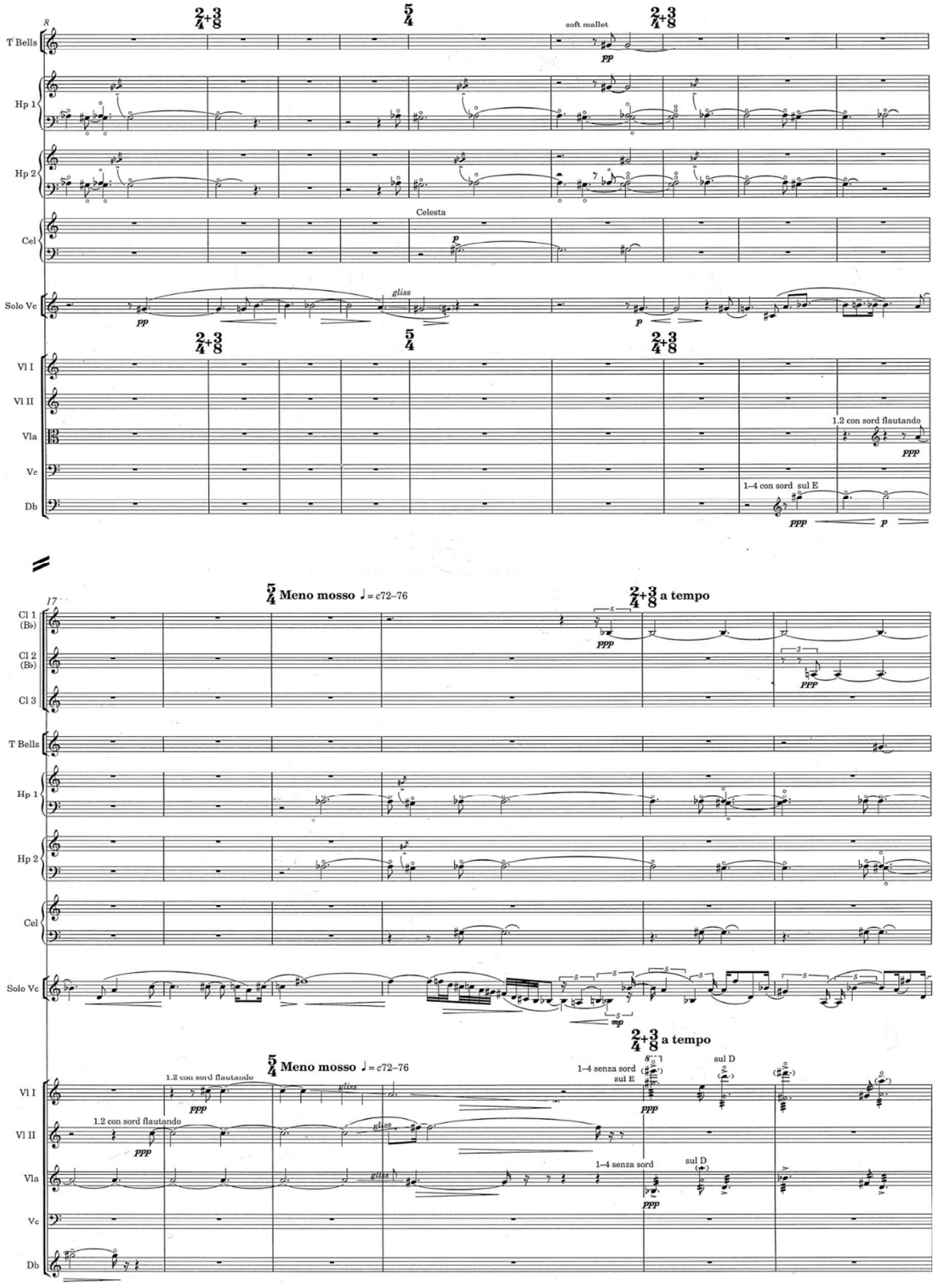
3.5. Textural Functions in Delineation of Form

Whereas Chin's other concertos demonstrate a highly complex and dense texture, the overall textural structure of the Cello Concerto is concise and transparent. The orchestra functions in many cases as a background to the solo cello and also has frequent dialogues with the soloist. The concerto also demonstrates an economical and effective deployment of instrumental resources. All of these tendencies result from Chin's premise that the sonority of the solo cello

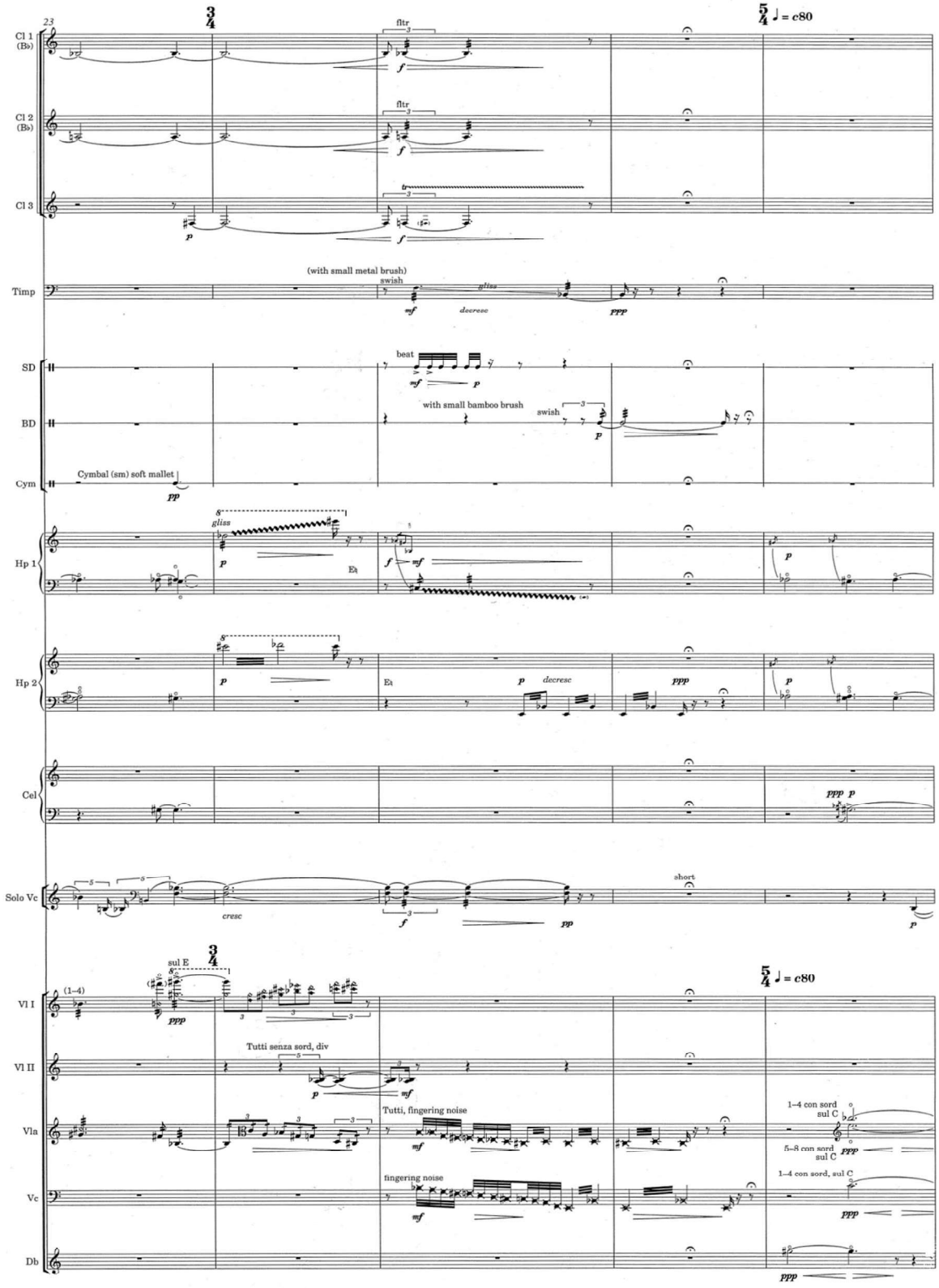
can be easily buried by the orchestral sound. The first movement, however, reveals a greater variety of textural detail than other movements and demonstrates significant and expressive textural processes. One remarkable feature is the principle of textural change serving as a primary form-determining element in various manners, which will now discuss in detail. Furthermore, textural change as a predominant cadential device is almost always employed in conjunction with the three pitch classes (D, G♯, B♭) at structurally significant cadences. Thus, attention should be given to textural changes functioning in an expression of cadence and a delineation of form.

The first example for textural change serving as a primary form-determining element is found in the opening section of the movement, as shown in Ex. 3–14. The textural structure in subsection a1 (mm. 1–26) is based a melody in the solo cello and an accompaniment composed of only the two harps. The textural thickening process begins in m. 16 in the viola part. As the section proceeds, more parts are added with increasing melodic activity in the solo cello, resulting in a much denser texture than the opening. The maximal textural density occurs in m. 25, highlighted by a dynamic accent and change of timbre (provided by the noise sonority generated from fingering noise in the violas and cellos, flutter tonguing and trills in the clarinets, a falling glissando in the first harp, snare drum, and the tremolo of the solo cello). Soon thereafter the texture reduces in density and is simplified in the closing in m. 26, which ends at a pause with a fermata serving as a conclusive closure. Such a cadence in subsection a1 is essentially a product of textural manipulation enhanced by complementary elements, including timbre and dynamic changes.

Example 3–14. Chin, Cello Concerto, textural thickening process toward a cadence, I, mm. 8–27



Example 3–14 continued

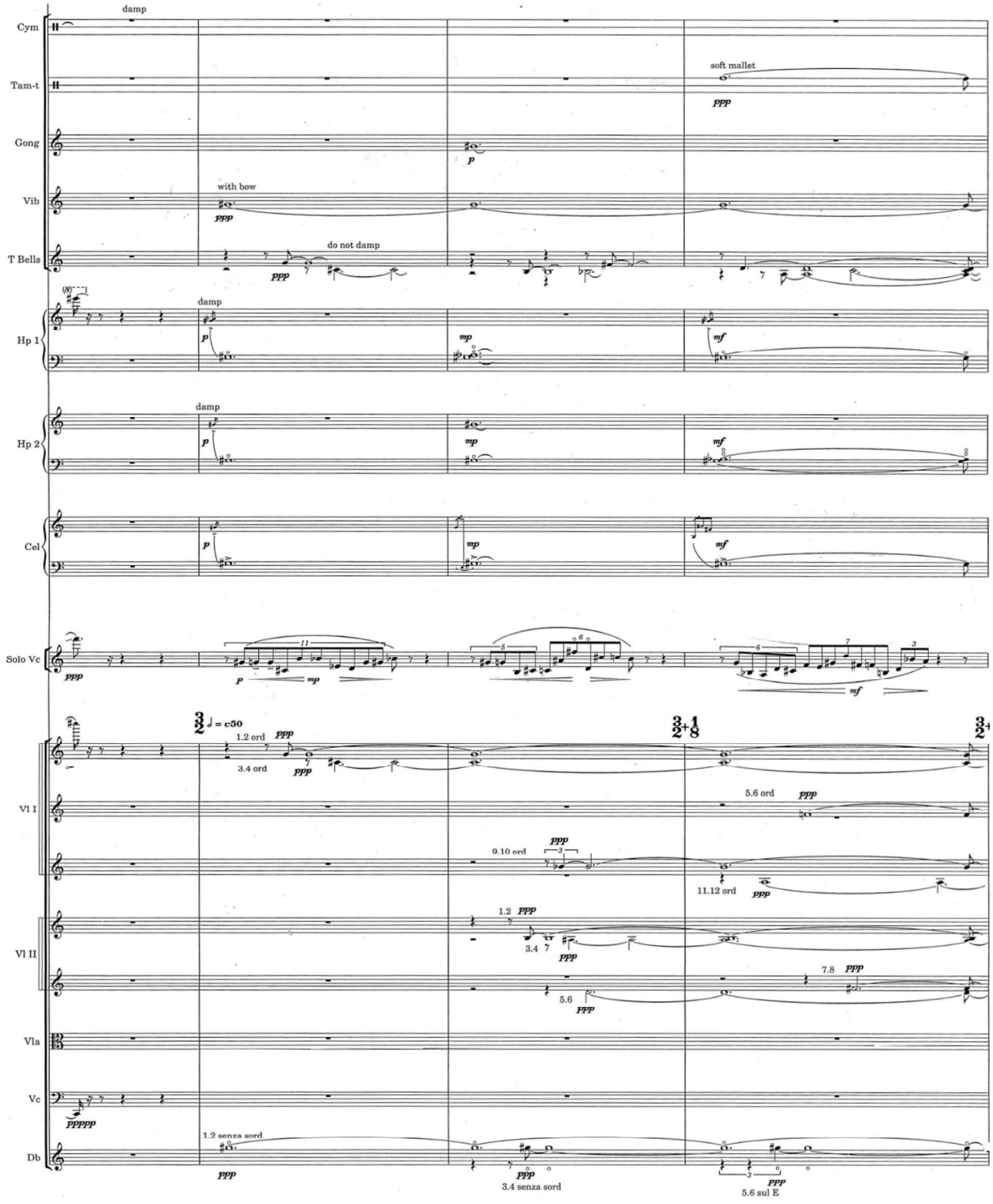


Progressive Change of Textural Density

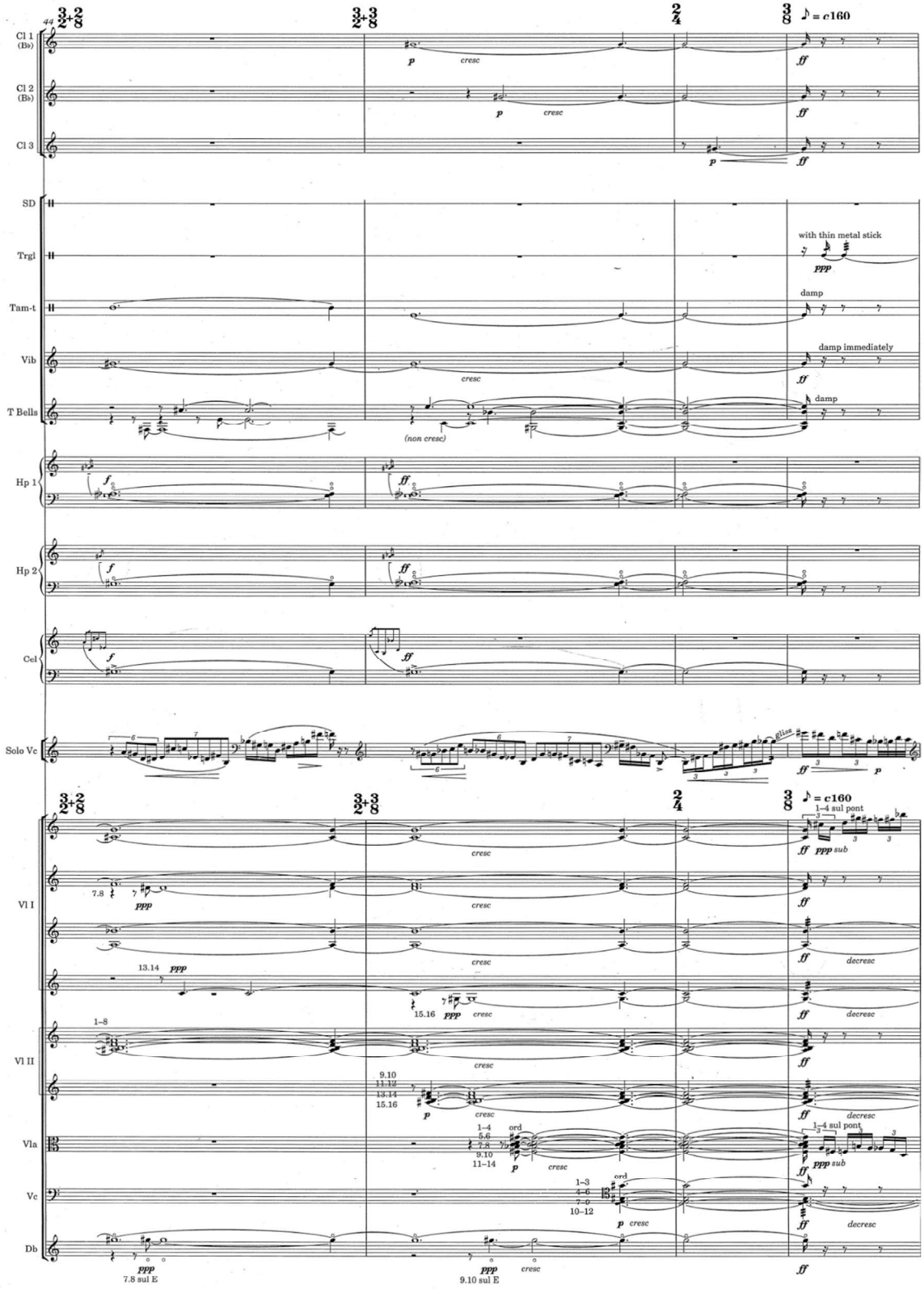
As in Ex. 3–14 just discussed, a progressive change of textural density moving toward a point of cadence is a primary cadential formula in the first movement of the Cello Concerto. The movement is frequently marked by textural increase in intensity (or tension) and decrease (or relaxation) during the course of a cadential process. In doing so, Chin almost always employs last-minute changes of timbre, register, dynamics, or intensity at the point of cadence. All of these serve as a complementary factor that reinforces the impression of textural change and cadences. Such progressive change of intensity and textural density moving toward a point of cadence is particularly evident in Exx. 3–15 and 3–16; and the entire passages in the two examples are enormously useful for textural succession intended for cadential expression complementing other related elements, including dynamics, articulation, timbre, harmony, and melodic motions of the solo cello.

In Ex. 3–15, a climax and cadence of the first part (mm. 41–46) are established for section A by a gradual increase in textural density. To do so, every measure has some modification of musical parameters: 1) a great number of different notes are more or less gradually enter in each measure so as to eventually form a sonority of high dissonance at the cadence, 2) the number of grace notes in the celesta in each measure is increased from one to five, 3) the overall dynamic level is gradually increased from *ppp* to *ff* (increase in dynamic level in each measure from *p* to *ff* in the two harps and celesta is obvious), 4) the sequential entry

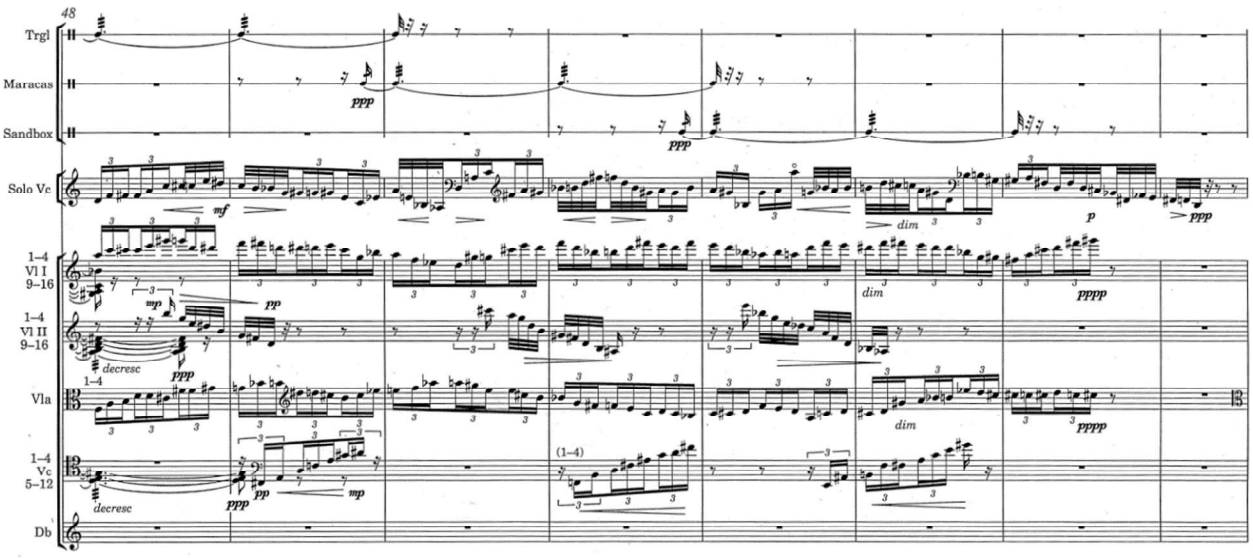
Example 3–15. Chin, Cello Concerto, a progressive change of textural density moving toward a point of cadence, I, mm. 40–55



Example 3–15 continued



Example 3–15 continued



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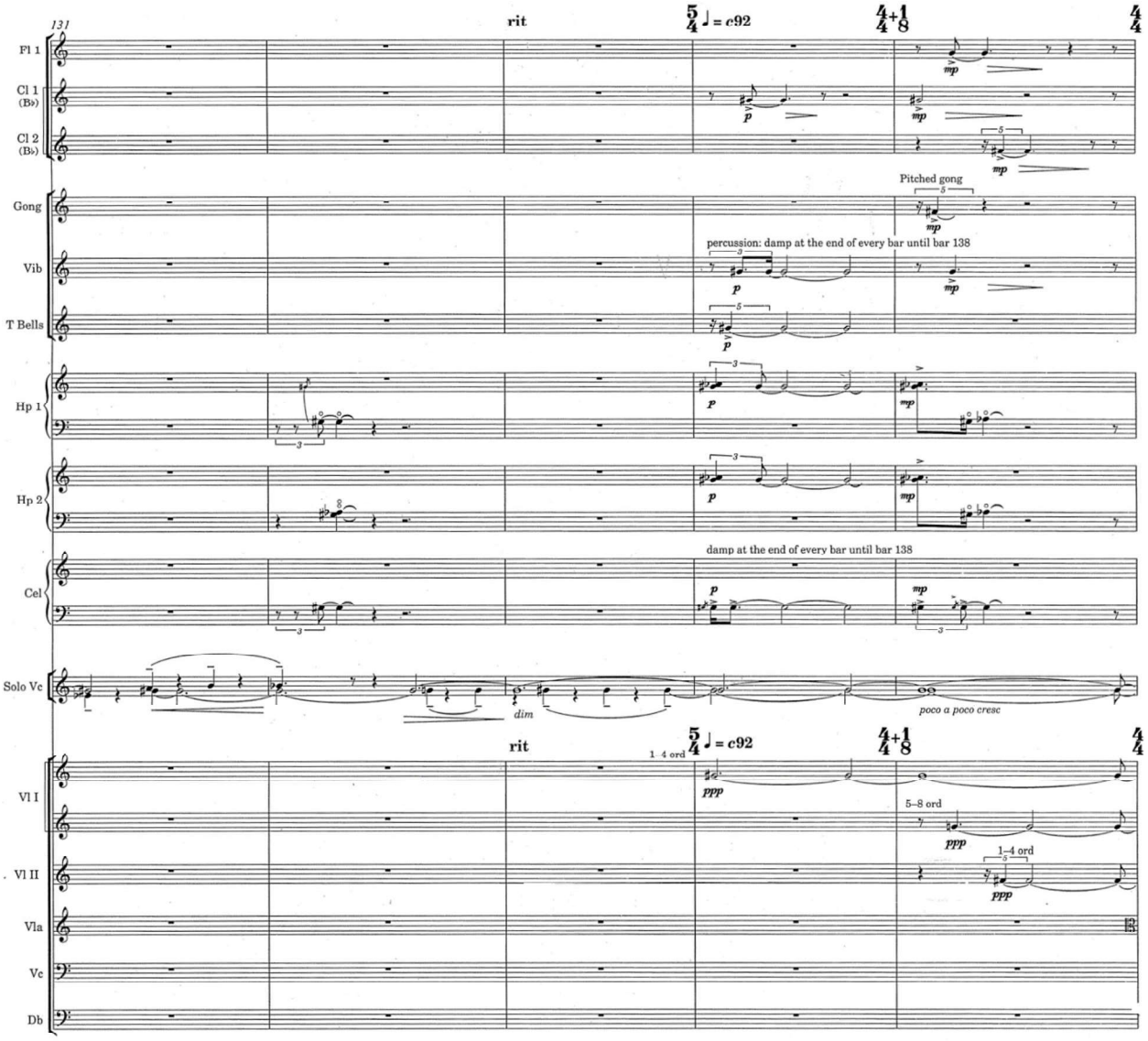
of the double basses from two pairs to ten pairs emphasizing G♯ contributes to the gradual and smooth increase in dynamic level, and 5) the gradual extension of measure length through the adding more beats per measure is compensated for by the melodic activity of the solo cello, resulting in an accelerando-like effect without actual alteration of tempo, while the orchestra keeps a relatively static sonority with long sustained notes. During the course of this progressive textural change toward increased intensity, a point of maximum density occurs at the cadence in mm. 46–47. Chin subsequently extends the cadence into the second part (mm. 47–55) and then makes a conclusive closure in m. 55. The result is that the cadence in mm. 46–47 functions as a sort of deceptive cadence. The decisive closure in the second part is accomplished by reducing the texture to one voice (the solo cello) along with a decrease in dynamics. It is clear that the solo cello's goal-directed pitch motion arriving at pitch class D in the lowest register affects the

cadential expression, enhanced in its conclusive effect by a pause. Note that the timbral contrast of the second part with the first part is enhanced by the absence of pitch center G♯ and by the new tremolo sonority (in triangle, maracas, and sandbox), which functions as a supportive background layer. Also note that the last-minute mutation to tremolo on B♭ in m. 46 in the solo cello reinforces the cadential expression as being like m. 25, and the opening of the second part is further enhanced by the mutation to tremolo in the violin and cello parts on the downbeat in m. 47.

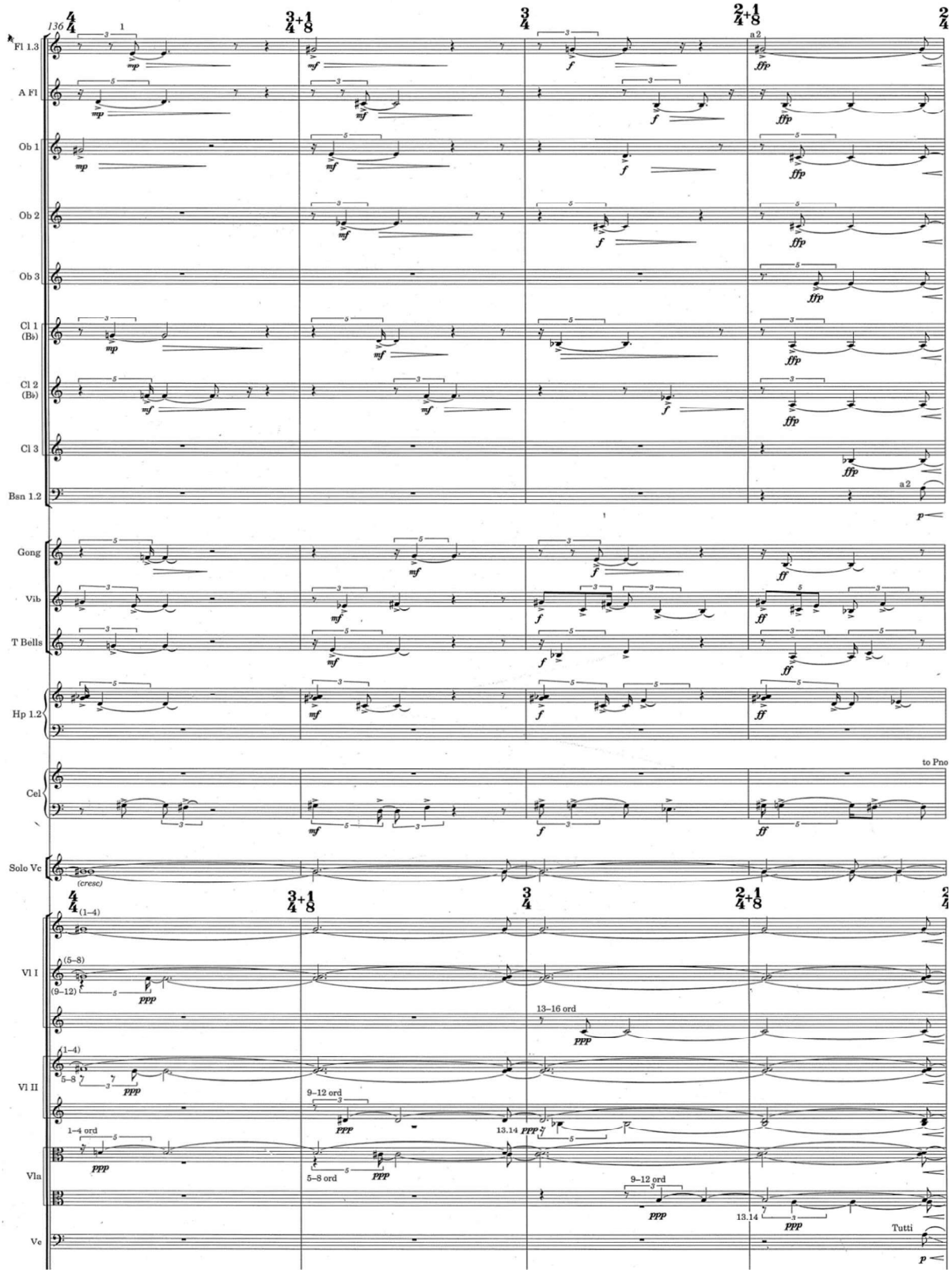
Example 3–16 has a much larger instrumentation and more complex texture than Ex. 3–15, but possesses a fairly similar thickening process within a similar register. The role of solo cello and orchestra in Ex. 3–16 is reversed from Ex. 3–15: 1) the solo cello holds the pitch center G♯ and serves as part of the background (but the solo cello gradually appears in the foreground level through its gradual increase in dynamics), while the orchestra except for the string parts provides rhythmic activity serving as a foreground, and 2) an accelerando effect in the orchestra without actual alteration of tempo is created by the gradual contraction of measure length through the dropping off the lengths of beats that each measure creates, while the solo cello remains as a stable and static sonority. As in Ex. 3–15, the textural density of Ex. 3–16 is increased by constructing harmonic tension through highlighting dissonant intervals. In Ex. 3–16, the individual entrance notes in the string parts build up to a cluster deriving from the G♯ in the solo cello, and the individual entrance notes are picked up and reinforced by unison doublings of the notes in the woodwinds, percussions, two harps, and celesta. Ultimately, the instruments in the upper systems above the solo cello provide instrumental colors and subtle timbre changes to the long-sustained sonorities in the string parts. The result is that both density and timbre change during the course of the thickening process toward to the cadence. The texture accumulates in

intensity until the climax explodes under the pressure of the developed intensity in m. 140. In that measure, the climax and cadence are enhanced by large increases in the range of register, rhythmic activity, dynamics, and density of texture. Note that a subsequent and complete change of timbre is supplied by the added instruments (bassoons, contrabassoon, horns, trombone, tuba, cello, and double bass), emphasizing the three pitch classes (D, G♯, B♭); and further color is created by the overblowing sonority in the flutes. As a result, Chin dramatically reinforces the intensity and textural density, also creating coloristic effect referring to the last-minute change of timbre. Note that the cadence is enhanced by the solo cello's descending–ascending pitch motion with an increase in dynamics. Right after this climax in m. 140, Chin makes a progressive relaxation in mm. 141–43. Here a dissolution of the highly dissonant sonority of the climax is achieved by the considerable reduction of texture from complex polyphony in the full orchestra (m. 140) to simple homophony in the string parts (m. 141). Then the textural reduction is continued in the following measures in the string parts. In this way, the dissonant cluster in m. 141 gradually resolves to a consonance (pitch class G♯) in m. 143 through the glissando motion.

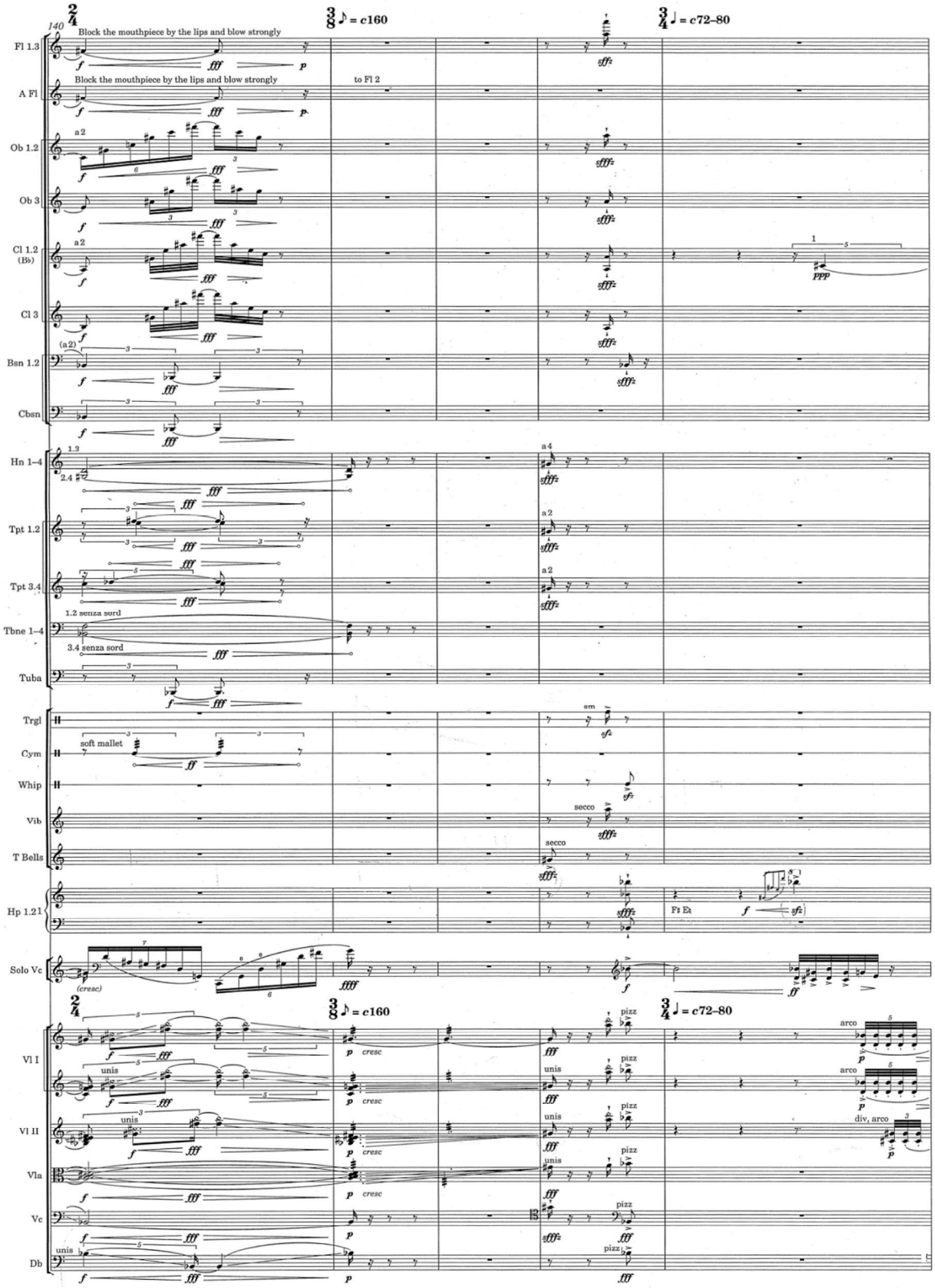
Example 3–16. Chin, Cello Concerto, a progressive change of textural density moving toward a point of cadence, I, mm. 131–144



Example 3–16 continued



Example 3–16 continued



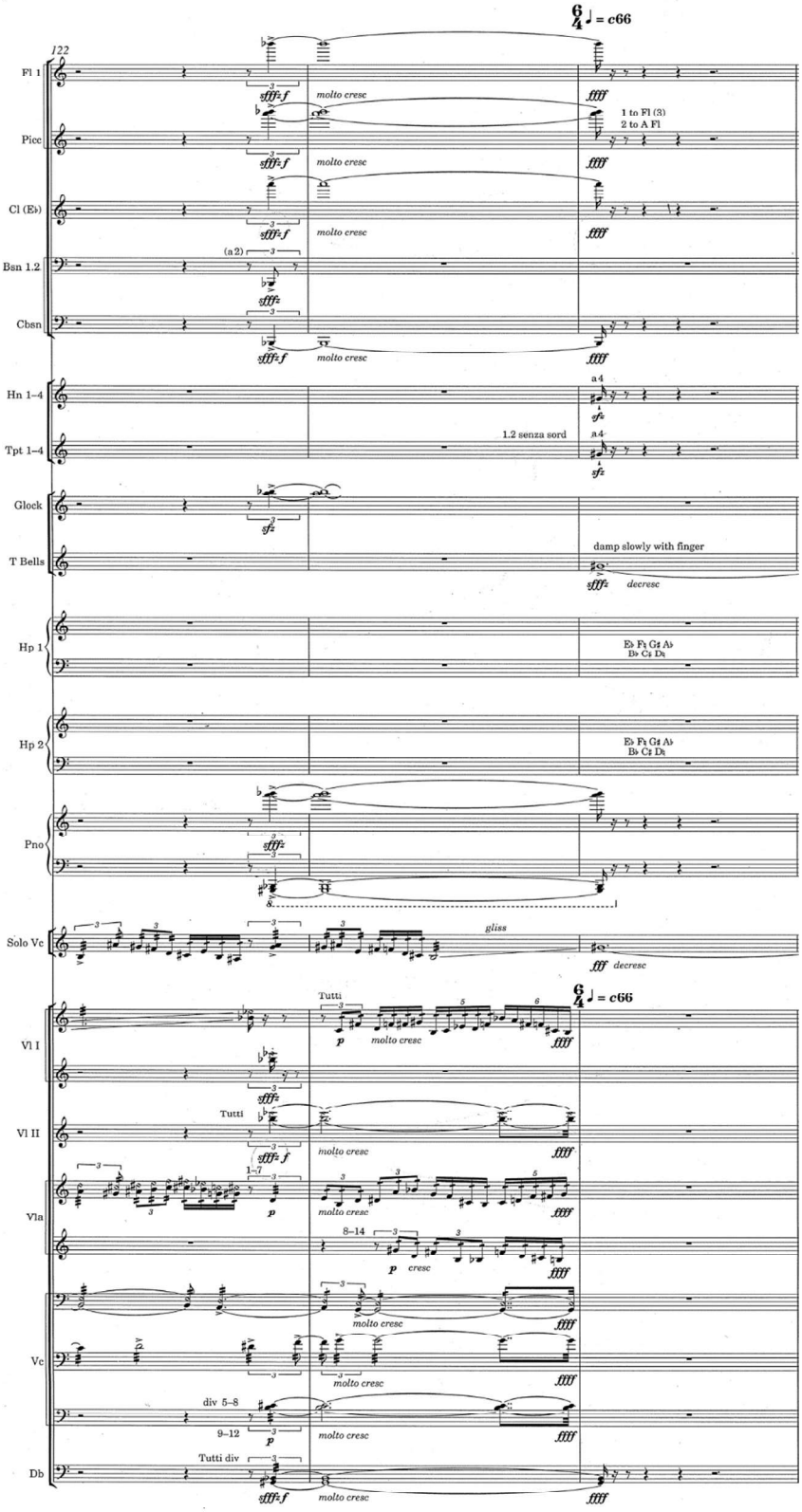
The cadences in Exx. 3–15 and 3–16 we have discussed are prepared by gradual increases in textural density and intensity. This sort of textural process can also be seen in the first part of subsection b2 (mm. 86–93) and subsection b in the Coda (mm. 190–95), although their textural structures are much thinner than Exx. 3–15 and 3–16. But the progressive succession of texture in all these examples has in common that it establishes a clear expectation toward a cadence and proceeds to accomplish it. This anticipatory factor appears to be a significant element of the formal process in the first movement.[29]

Abrupt Change in Textural Density

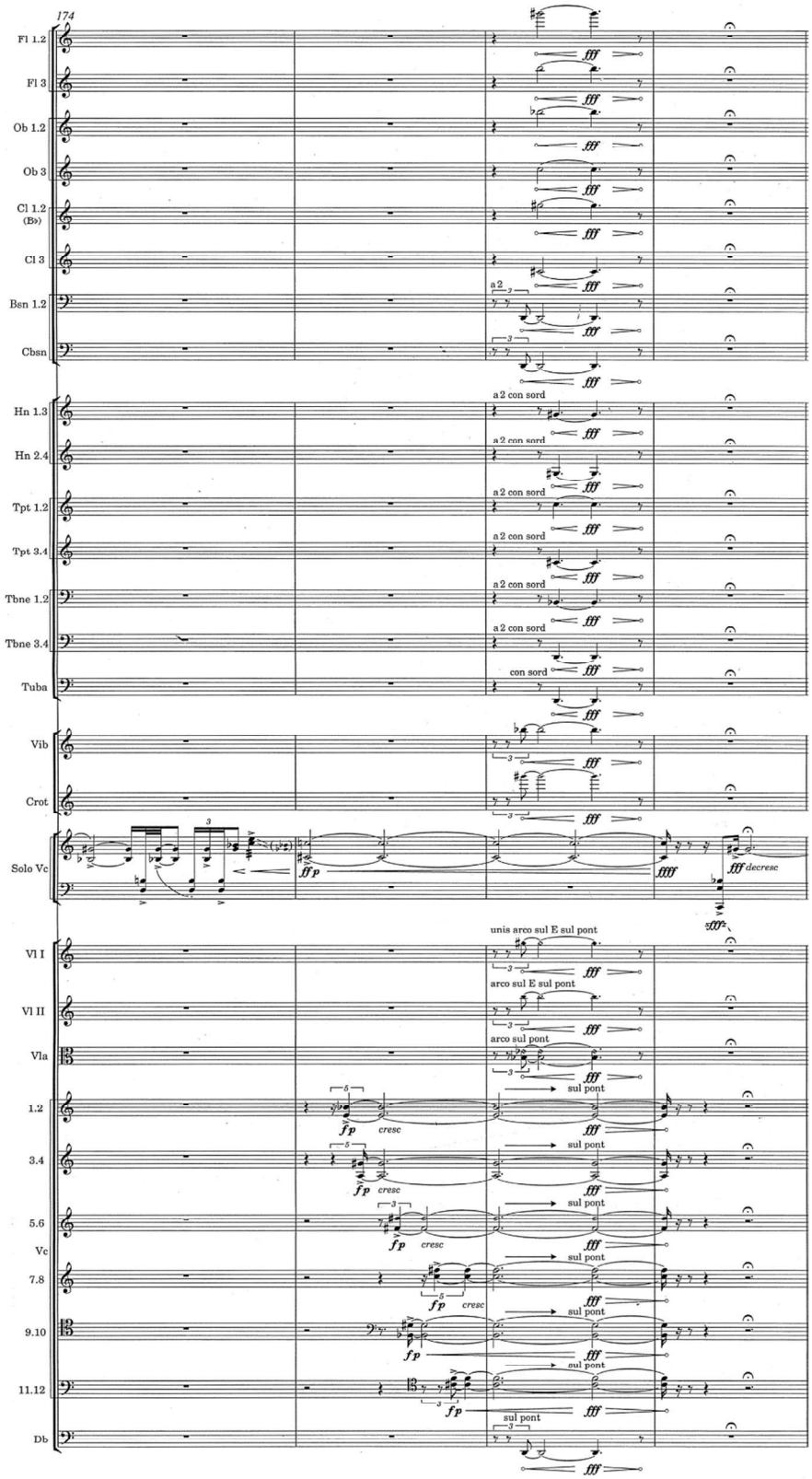
In contrast, the cadences in subsection b3 (mm. 122–24) and subsection c3 (m. 176) of Ex. 3–17 are marked by abrupt changes of textural density and register, resulting in an unanticipated appearance and a dramatic effect. In both cases, there are heavy doublings of the three pitch classes (D, G♯, B♭) in enhancement of their sonority (see Ex. 3–12 and Table 3–3a) But more importantly, the principal cadential effect is a product of the abrupt change in textural density with an extreme expansion of register at the point of cadence.

[29] As an anticipatory factor, Chin also employs a particular sonority. For example, the ascending harmonics passages with sul ponticello in the violins and violas initially appear in mm. 36–40 to conclude subsection a2, reappearing in m. 105 in a developed form in order to announce the beginning of the transition toward the cadence in m. 108, where the cadence also involves a last-minute change of timbre (through the tremolo on B♭ in the solo cello and left-hand pizzicato in the string parts).

Example 3–17a. Chin, Cello Concerto, abrupt changes of textural density and register at the cadence in subsection b3, I, mm. 122–24



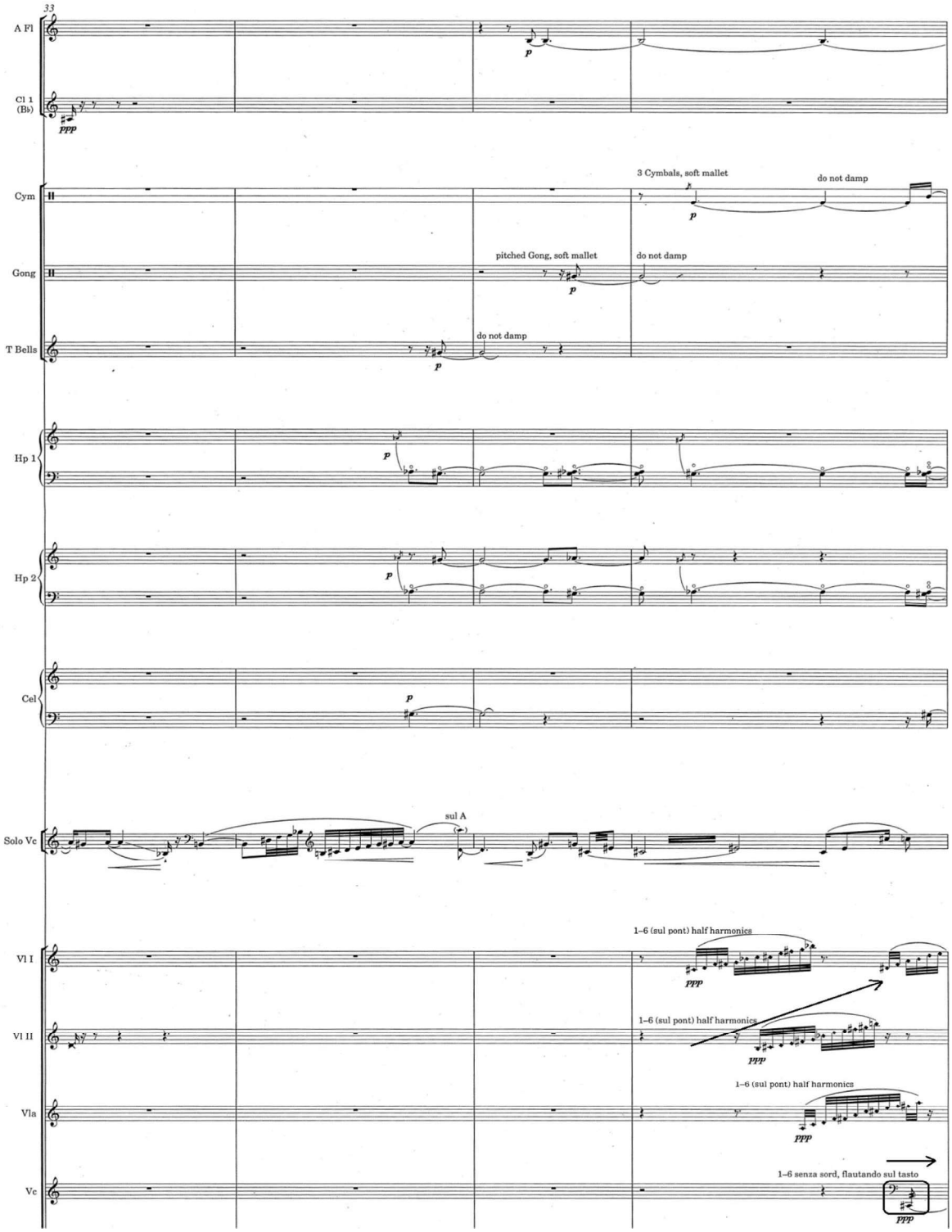
Example 3–17b. Chin, Cello Concerto, abrupt changes of textural density and register at a cadence in subsection c3, I, mm. 174–77



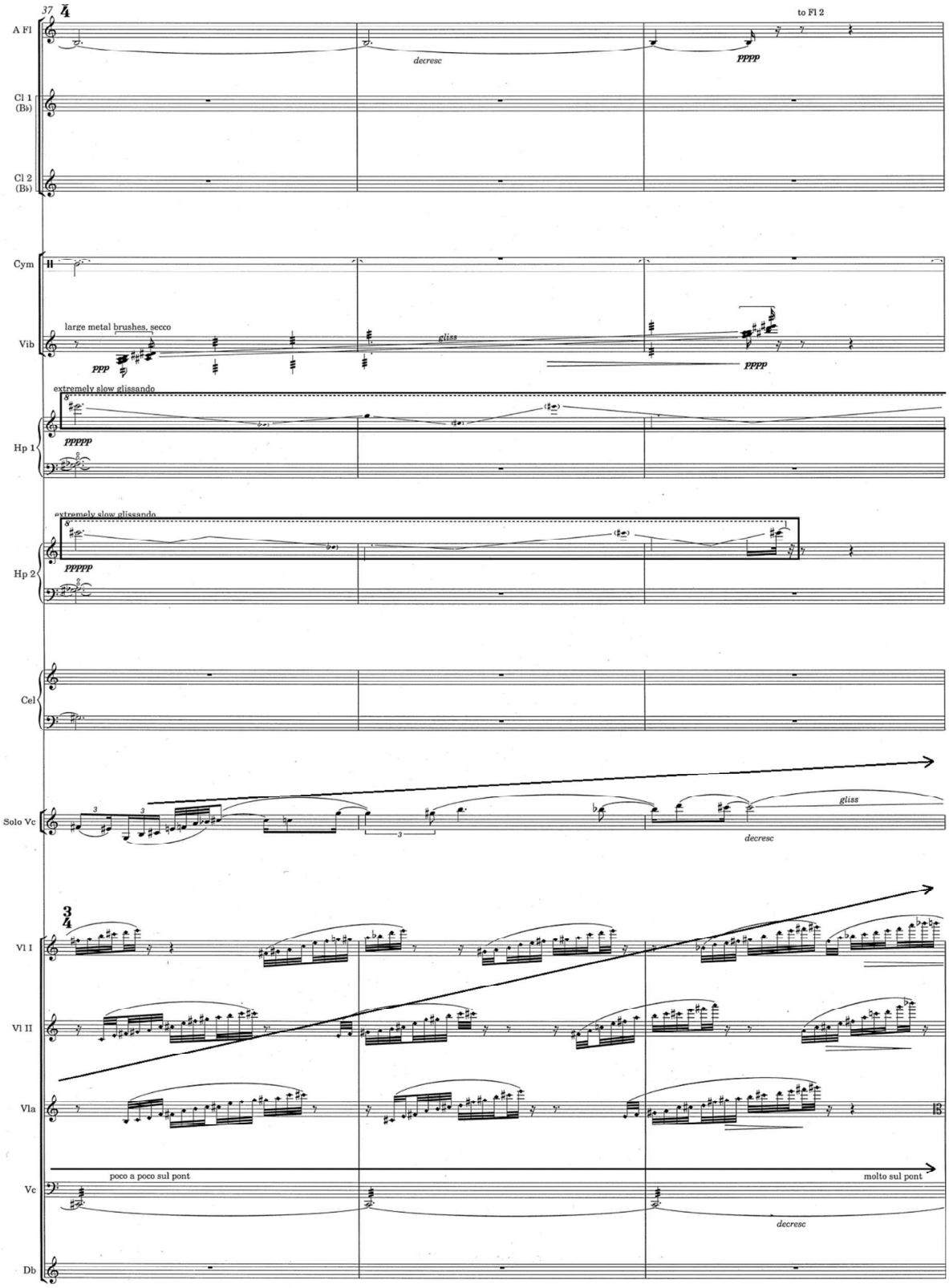
Registral Expansion and Contraction

Related to registral considerations, the cadences in subsection a2 (mm. 27–40) and the second part of subsection b1 (mm. 65–85) in Ex. 3–18 present a manipulation of register during the course of a cadential process involving changes in spacing and number of parts. In Ex. 3–18a, the expansion of register begins in m. 36. E♯7 in the two harps and C2 in cello part provide a subsequent change of register. The sustaining sonority of the C2 serving as a supportive background layer is maintained until the closing in m. 40, while the ascending pitch motions in the violins and violas gradually reach a high point. The solo cello also considerably expands its range of register from D2 in m. 27 to F6 in m. 40. Note that the solo cello's melodic line displays a clear ascent to a high point along with dynamic decline, and thus it builds a clear expectation (or anticipation) of the cadence. Conversely, the second part of subsection b1 in Ex. 3–18b exhibits registral contraction. In this section, the pitch center G♯ is inactivated for a while, and the section features the most complex polyphonic texture in the movement, resulting from the imitative dialogue between the instruments within a wide range of register. In m. 77, Chin begins to compress the widespread registers to the mid-registers through textural reduction emphasized by reactivation of the pitch center G♯ that play a role of gravity in the flutes and clarinets, resulting in a relatively more static sonority than before. In mm. 79–80, the beginning of the transition toward the next section is announced by the entrances of tremolo sonority in the percussion parts, an increased number of G♯s in the flutes and clarinets, and a gradual change of timbre from left-hand pizzicato sonority to fingering noise in the string parts.

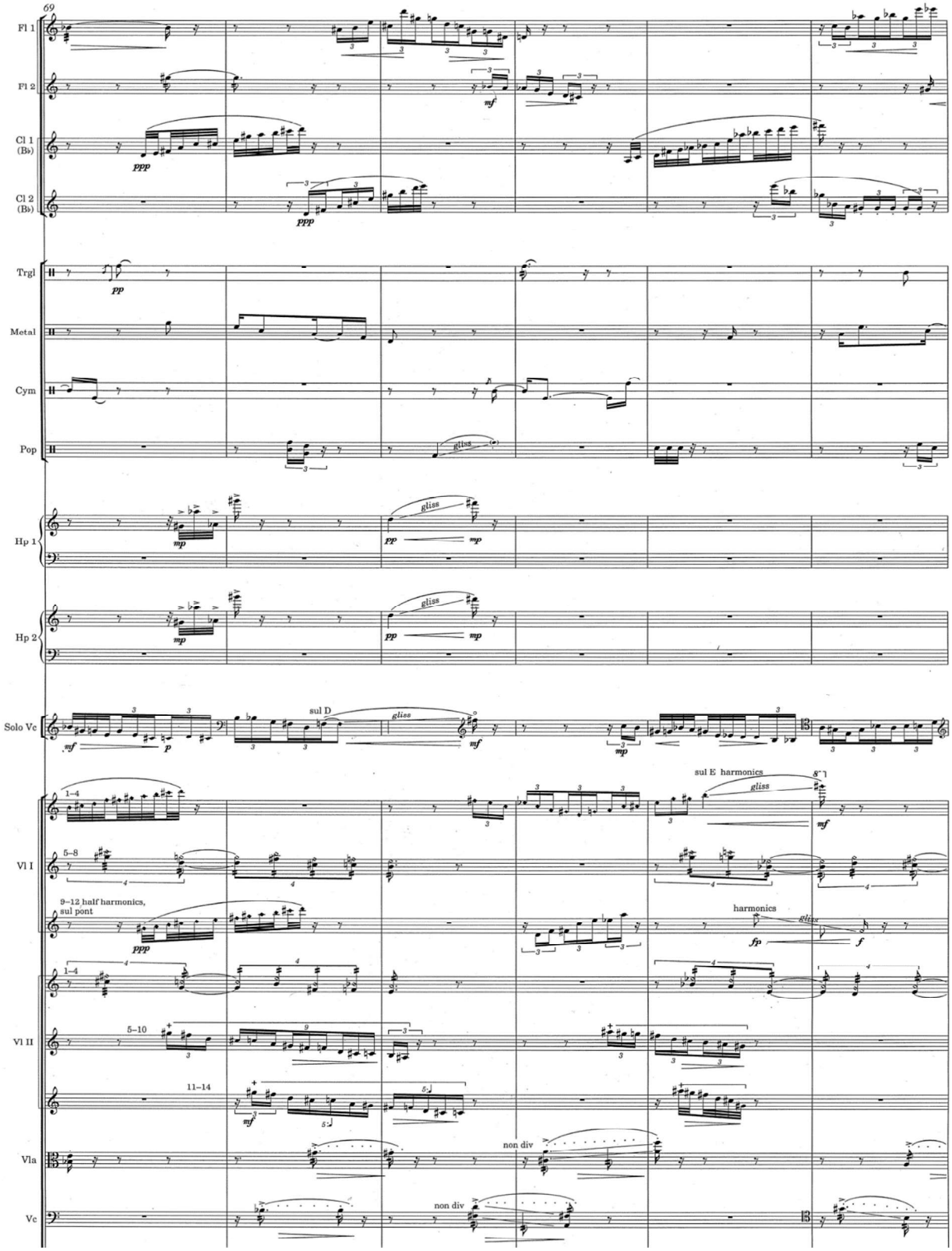
Example 3–18a. Chin, Cello Concerto, a cadential process involving registral expansion in subsection a2, I, mm. 33–39



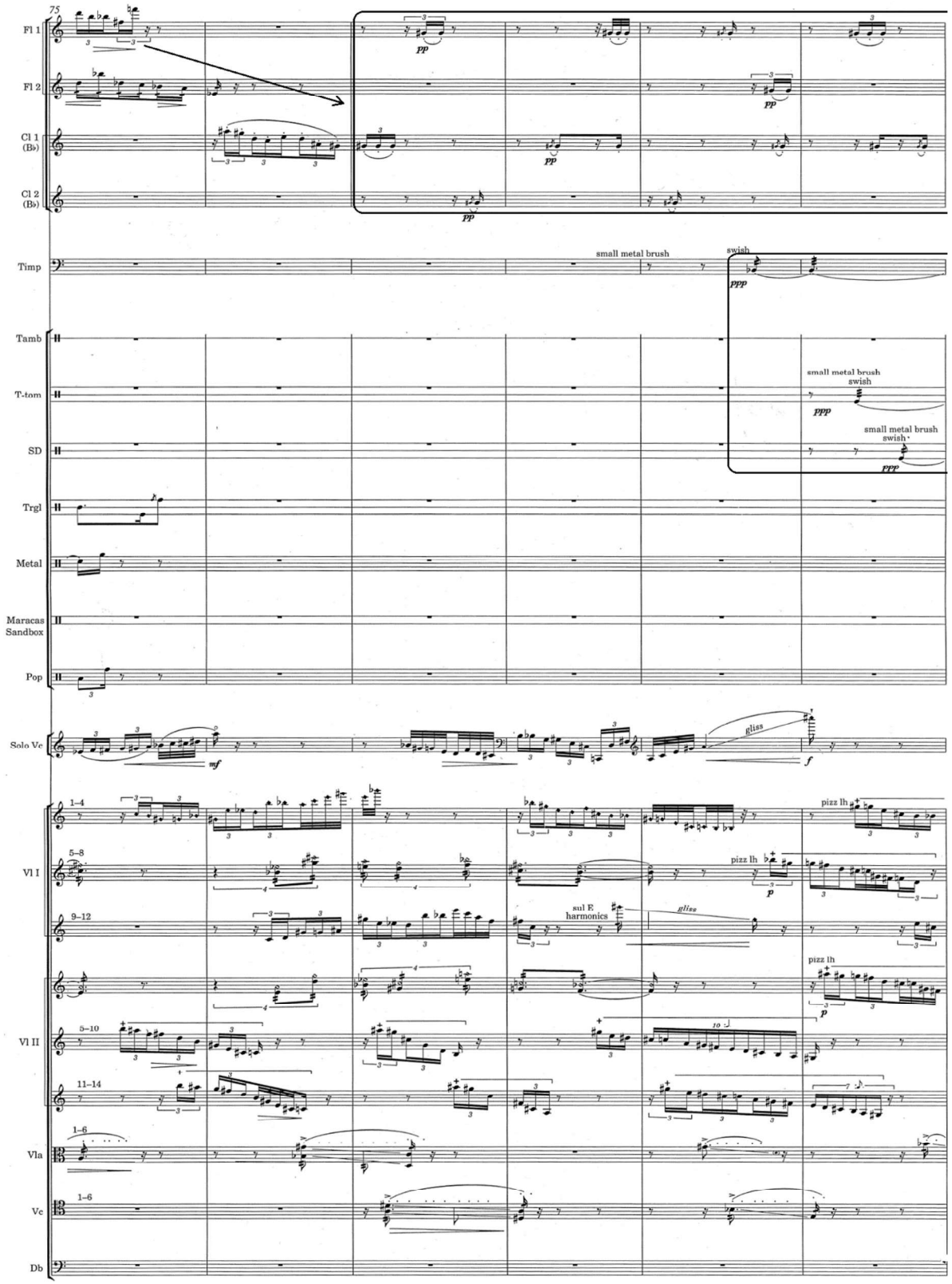
Example 3–18a continued



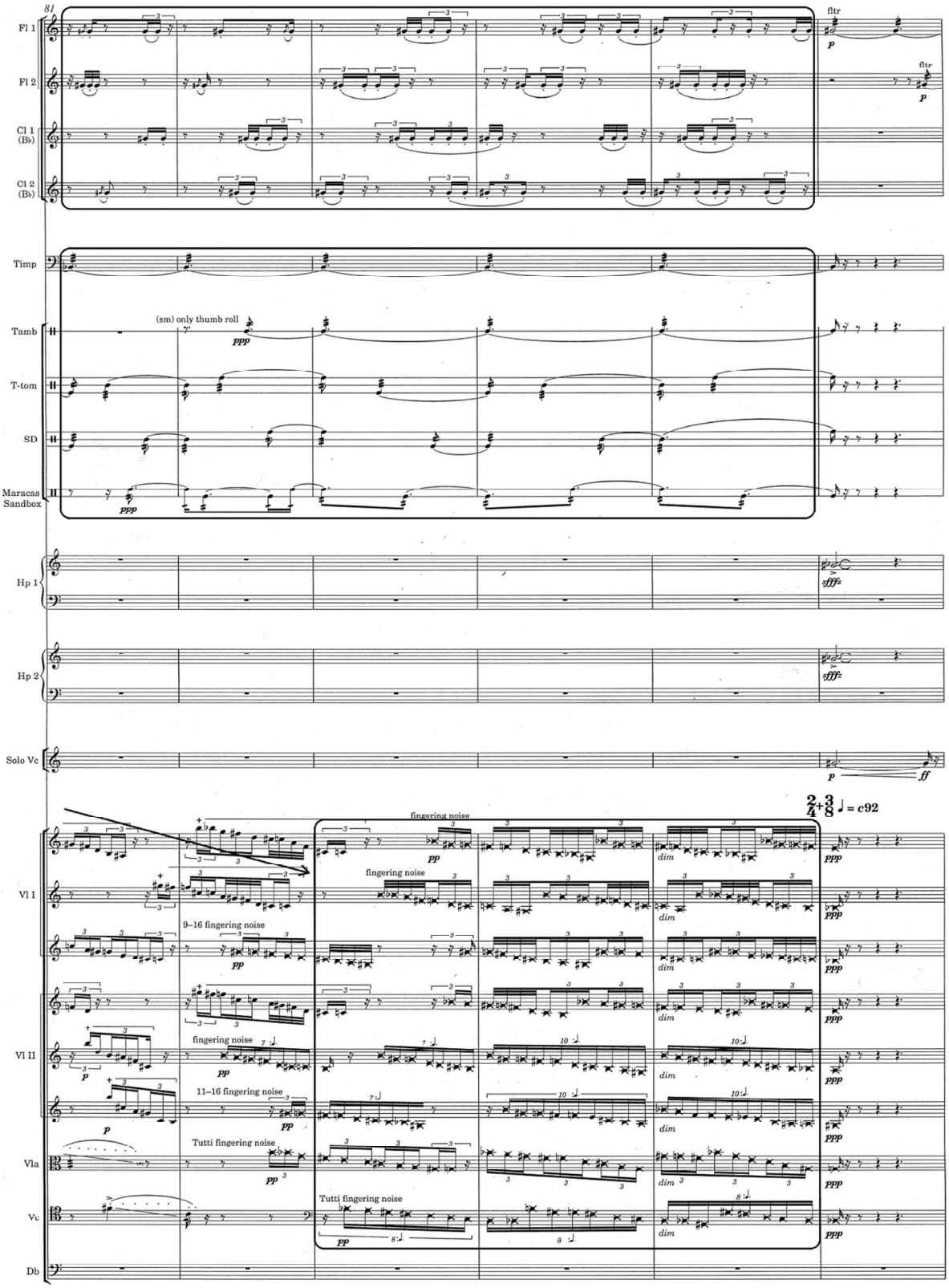
Example 3–18b. Chin, Cello Concerto, a cadential process involving registral contraction in subsection b1, I, mm. 69–86



Example 3–18b continued



Example 3–18b continued



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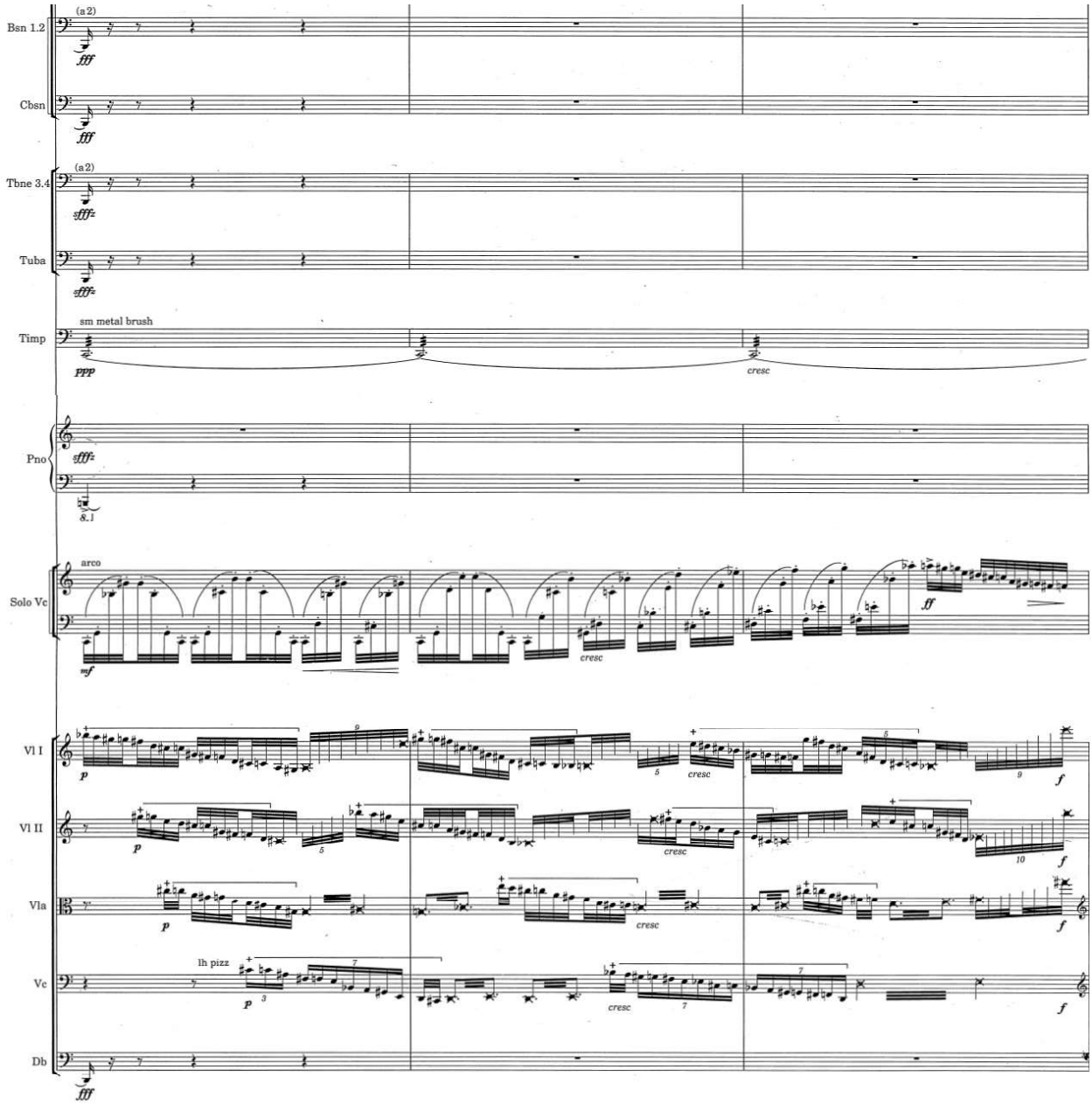
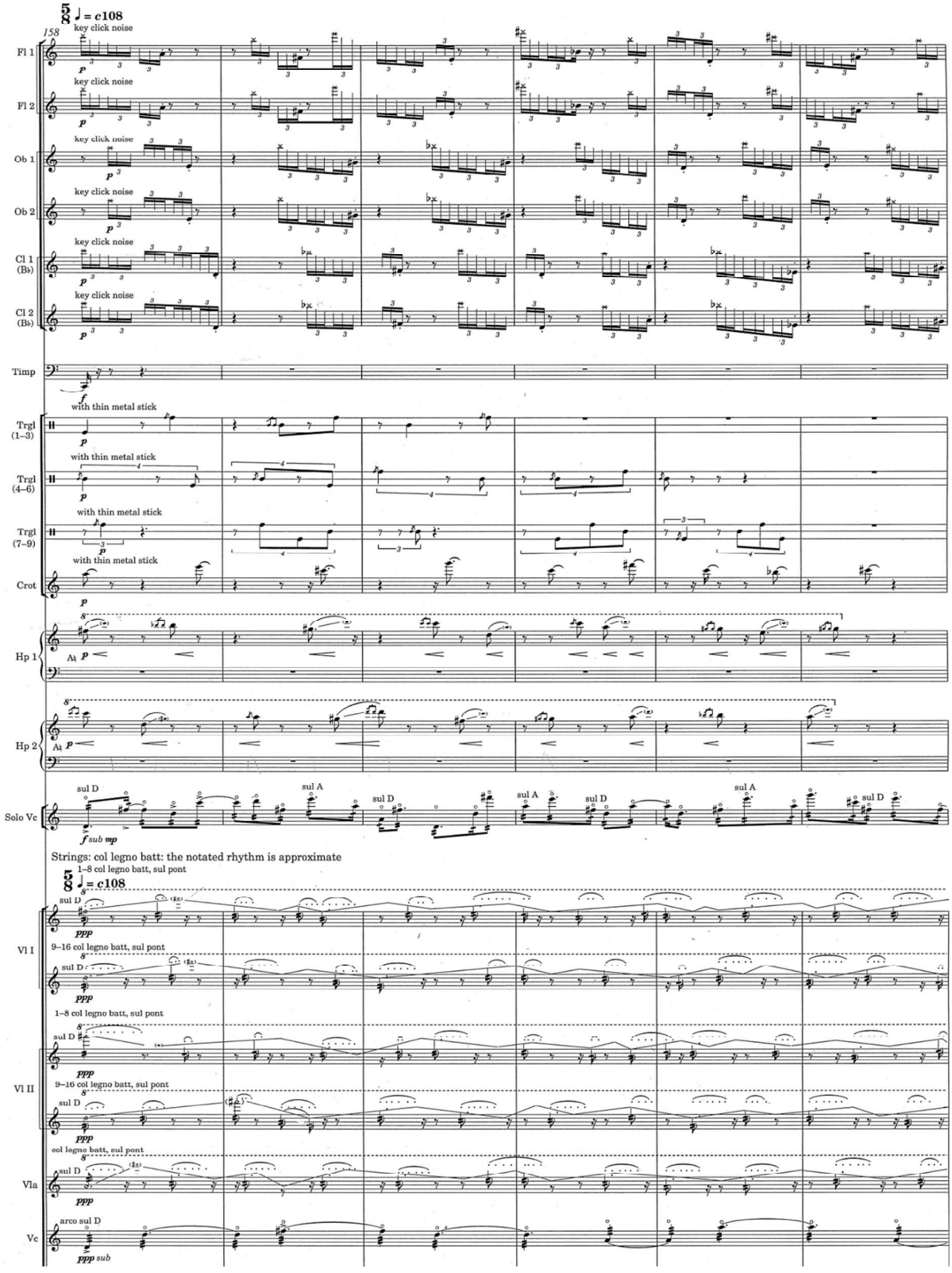
As the last example, there are abrupt and dramatic textural and timbral changes at the beginning of the first part in subsection c3 (mm. 158–67), where the pitch class D serves as a fundamental pitch and its overtone sonority is predominant. The formal change is heightened by a sudden shifting of textural activity to an extreme high register. There is sound mass serving as a background for the solo cello. It is created by a combination of determinate pitch sonority (in the two harps and solo cello) and indeterminate pitch sonority (the key-click noise in the flutes, oboes, and clarinets; the glissando with *col legno battuto* in the violins and violas; and the non-pitched percussion instruments, three triangles). The extreme activity of the sound mass in the extreme high register creates a completely new texture and timbre, resulting in a radical contrast with the preceding phrase.

Example 3–19. Chin, Cello Concerto, high radical contrast with the preceding section by an abrupt expansion of register along with an abrupt increase in textural density, I, mm. 155–64



Example 3–19 continued



In conclusion, the cadential process in delineation of form in all these examples we have discussed might be said to be a result of textural manipulation more than other complementary parameters including dynamic, tempo, mood, spacing, registration, cadential gesture of the solo cello, and rhythmic acceleration in both solo cello and orchestra. However, it is clear that the cadences in all these examples above primarily involve the three pitch classes (D, G♯, B♭), which means that both texture and harmonic structure based on these pitch classes are equally important as a primary form-determining element.

3.6. Timbral Variation and Transformation

The treatment of timbre is a significant concern for all composers, and Unsuk Chin is no exception. Her Cello Concerto demonstrates an ingenious combination of orchestral colors. Our preceding discussion has presented a glimpse of some of her treatments of timbre, the first movement revealing the varying manipulations of timbral detail beginning with the timbral exploration of the pitch center G♯ in the two harps in the opening measures. Chin makes considerable use of harmonics on the pitch center G♯ in unison doublings of the two harps. Hector Berlioz describes the use of harmonics with several harps in unison as a most happy effect and as a mysterious sonority in his book on orchestration:

> The effect of harps (when not speaking of familiar music intended to be heard near, as in a private room) is in proportion better, as they are in greater number. The notes, the chords, or the arpeggios which they then throw out amidst the orchestra and choir, are of extreme splendor. Nothing can be more in keeping with ideas of poetic festivities, or religious rites, than the sound of a large body

> of harps ingeniously introduced. Alone, or in groups of two, three, or four, they have also a most happy effect, either uniting with the orchestra, or serving to accompany voices and solo instruments.
>
> The *harmonics* of the harp—particularly of many harps in unison—are still more magical. Solo players frequently employ them in the pedal-points and cadences of their fantasias, variations and concertos. But nothing comes near the sonorousness of these mysterious notes, when united to chords from flutes and clarinets playing in the medium.[30]

Harmonics in the two harps consistently appear during the course of the timbral variations on the pitch center G♯ over the entire movement. The harmonics sonority of the harps constitutes a unifying factor rather than a momentary effect, and the texture in this movement is unified throughout by the sustained and repeated G♯s. Chin's treatment of the harps in this movement illuminates her interest in making full use of the timbral resource of any instrument used. The composer Gordon Kampe also claims that the opening measures reveal Chin's sensibility of timbre. According to him, subtle changes in timbral nuance can be found in the harps in the first thirteen measures. The varying manipulations of timbral nuance are achieved by the particular types of notation. For example, G♯ and A♭ are enharmonically notated in order to be played on a different string, G♯ and A♭ as ornament notes are added an octave higher in order to enhance the timbre effect in such a narrow space, and so forth.[31] Through this process Chin produces eight different subtle timbral nuances on the pitch center G♯ in the harps, as indicated in Ex. 3–20.

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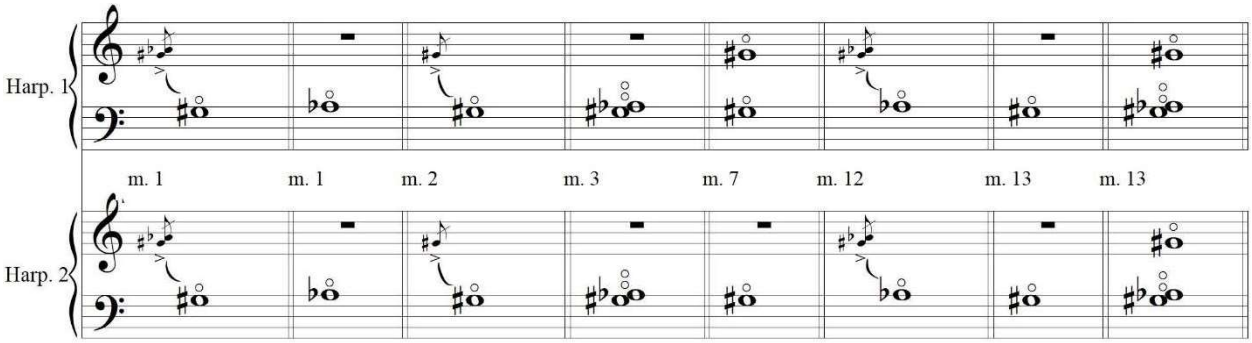
[30] Hector Berlioz, *A Treatise upon Modern Instrumentation and Orchestration*, trans. Mary Cowden Clarke (London: J.A. Novello, 1856), 65.

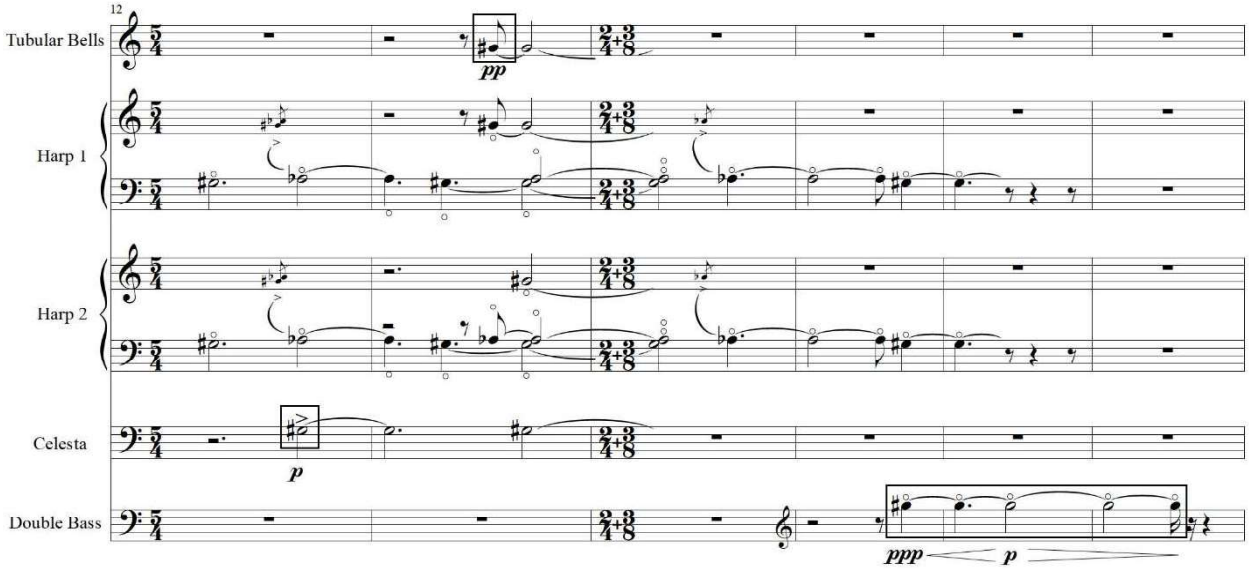
[31] Kampe, "Colors, Spaces, Magic Box," 419.

Example 3–20. The eight different notations producing subtle different timbral nuances on the pitch center G♯ in the two harps in I, mm. 1–13

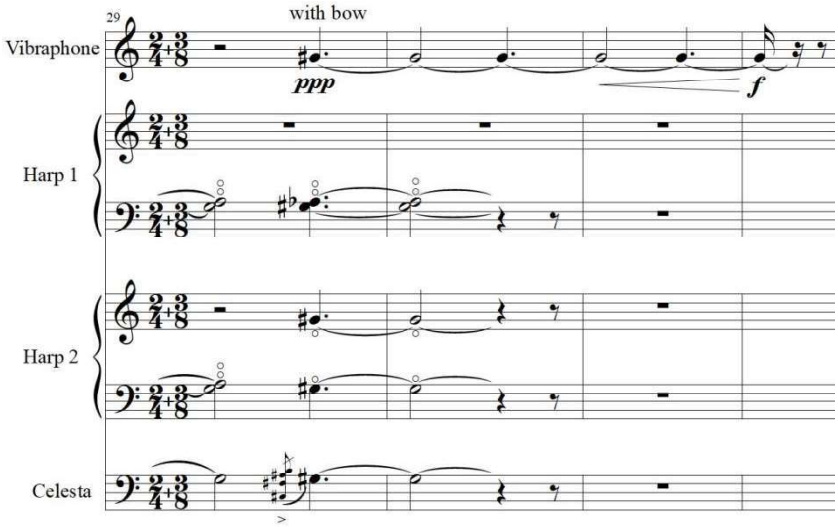


In Ex. 3–21a below, Chin begins the process of re-coloration on the pitch center G♯, and this re-coloration is continually explored at phrase level through constantly evolving instrumental combinations, resulting in a continuous timbral variation. The celesta adds a new color to the G♯ sonority in the harps in m. 12. Another color is added by tubular bells with soft mallet (sounding an octave higher than notated) in m. 13, resulting in timbral variation and expansion of the vertical space. In mm. 15–16, the double basses join the timbral variation on G♯ in the harps. Then the G♯ sonority in the harps transfers to a sonority of harmonics of the double basses in m. 17, resulting in effectively incorporating timbral transformation. A similar idea to mm. 15–16 occurs in mm. 29–31, as shown in Ex. 3–21b. In m. 29, the vibraphone with bow adds a color to the G♯ in the harps and celesta. Then the G♯ sonority in the harps and celesta transfers to vibraphone sonority in mm. 30–31.

Example 3–21a. Chin, Cello Concerto, timbral variation and transformation on the pitch center G♯, I, mm. 12–17

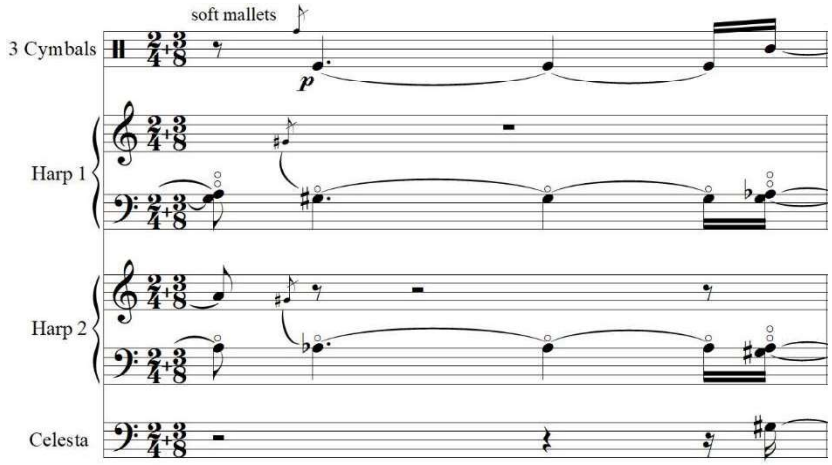


Example 3–21b. Chin, Cello Concerto, timbral variation and transformation on the pitch center G♯, I, mm. 29–32

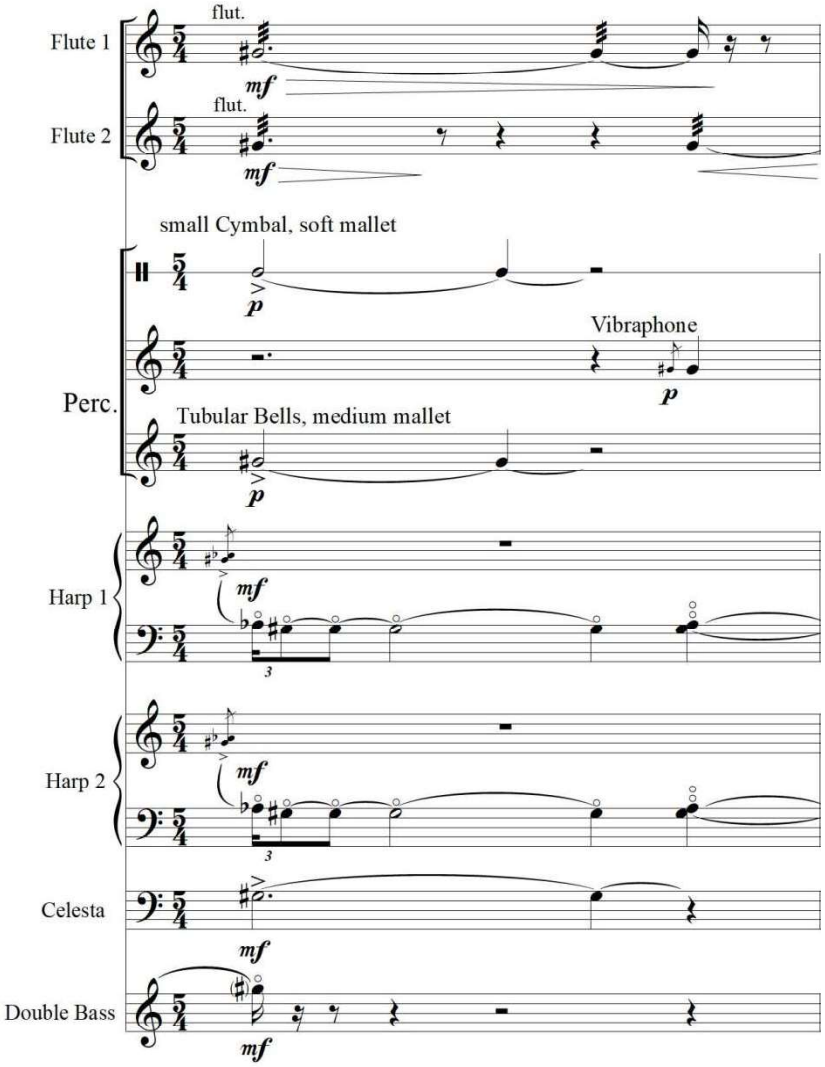


Sometimes the timbral variation on the pitch center G♯ in the harps is supported by non-pitched percussion instruments, for example in mm. 36–37 (employing three cymbals with soft mallets) in Ex. 3–22a, mm. 43–45 (employing three tam-tams with soft mallets) and m. 57 (employing small cymbal with soft mallet) in Ex. 3–22b, where the two flutes join the timbral variation on the pitch center G♯ for the first time and their entrances are emphasized by flutter-tonguing. These percussion instruments function in a non-pitched timbral underlayer, enhancing the G♯ sonority in the harps. Chin's use of different mallets with the tubular bells (soft mallet in m. 13 and medium mallet in m. 15) illuminates her sensitivity to timbre.

Example 3–22a. Chin, Cello Concerto, timbral variation on the pitch center G♯ supported by 3 cymblas, I, m. 36



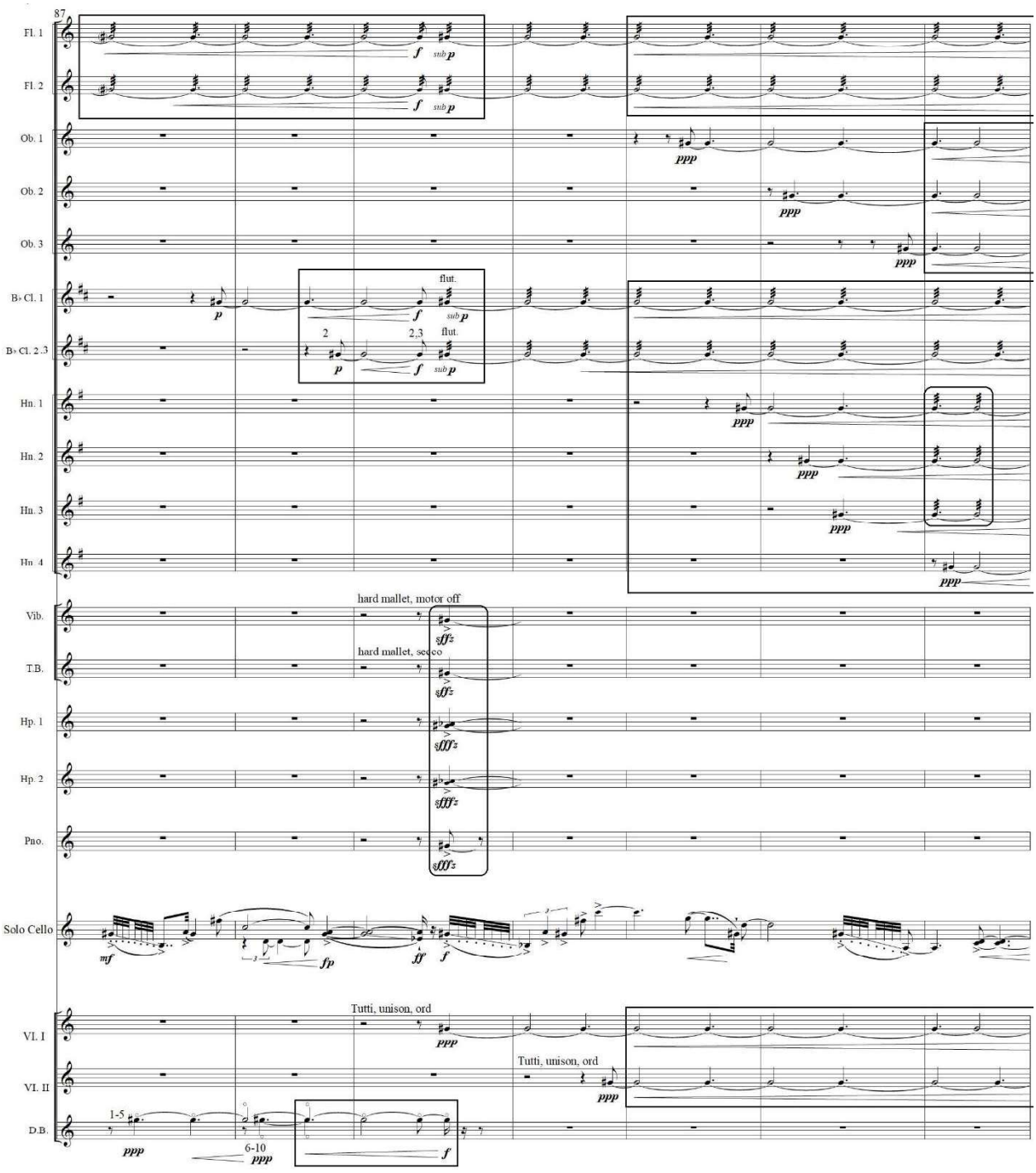
Example 3–22b. Chin, Cello Concerto, timbral variation on the pitch center G♯ supported by a small cymbal, I, m. 57



In the first part of subsection b2 (mm. 86–93) shown in Ex. 3–23, the largest number of instruments in the entire movement joins the timbral variation on the pith center G♯ when oboes, horns, and piano become involved. The result is that the maximum coloration on the pitch center G♯ occurs. Thus, mm. 86–93 in this subsection can be understood as a development of the

opening measures, 1–13, in both solo cello and orchestra.

Example 3–23. Chin, Cello Concerto, maximum coloration on the pitch center G♯ resulting in a feeling of polyphony, I, mm. 87–93



Compared texturally with the opening measures (see Ex. 3–2b), Ex. 3–23 demonstrates a progressive development of textural activation in the approach to the cadence in mm. 93–94 and reveals a far richer sonority and color. Also, the solo cello's melodic line creates a much more complex and energetic gesture than its opening melodic gesture in mm. 1–13. But basically, they both consist of a melody-plus-accompaniment texture, and their accompaniments involve a kind of monophony because they consist of statements of only the pitch class G♯. However, the accompaniment in Ex. 3–23 creates a feeling of polyphony through a succession of timbral and dynamic articulations. The contributing factors are: 1) different entrances of the instruments on G♯4, 2) a gradual increase in dynamic from *p* (m. 87) to *f* (m. 89) and from *p* (m. 91) to *ff* (m. 93), 3) an abrupt dynamic change from *f* to *sub p* in the flutes and clarinets in m. 89, 4) an attack with strong dynamic accent in the group of vibraphone, tubular bells, two harps, and piano in m. 89, 5) an expansion of register (an octave higher) in the tubular bells in m. 89, and 6) increasingly activated texture by a mutation to flutter-tonguing in the clarinets in m. 89 and the last-minute mutation to flutter-tonguing in the horns in m. 93. Note that the attack in m. 89 reinforces the phrasing and adds tension. It also propels the solo cello's melodic line to a climatic pitch (C6 in m. 90).

From the second part of subsection b2 (mm. 94–108), the timbral variation on the G♯ is not so much a focal point. In contrast to the first part of subsection b1 in Ex. 3–23 just discussed, the solo cello has disjunct melodic lines, but the orchestra represents in a way the echo of the solo cello and fills in between the cello's disjunct melodic lines through imitative dialogues. In doing so, the orchestra gives a supplementary coloration to the solo cello and develops the

cello's sonority through timbral variation and transformation. The result significantly constitutes the structural outline of this section, because the orchestra's connective materials interacting with the solo cello's disjunct melodic lines generate an elaborate web of musical continuities. The following is a brief account of the entries of connective materials that constitute timbral variation and transformation, indexed by Arabic numbers corresponding to the numbers in Ex. 3–24.

1. The clarinet's microtones provide a subtle color change and connect to the next melodic line of the solo cello.

2. The solo cello's sonority is transformed into sonority of harmonics in the string parts.

3. The B and B♭ in the solo cello are reinforced by unison doublings of the horns and violas. Futher color is supplied by a cluster harmony in the viola parts.

4. The solo cello's descending pitch motion from B♭ to D is rhythmically and timbrally intensified by the bass drum played with large metal brushes. Then their combined sonority is transformed into fingering noise in the second violins and cellos while the pitch class D is reinforced by a sustained octave doubling of the double basses.

5. The solo cello's strong pizzicato on pitch class G♯ is echoed on unison doublings of the xylophone and flute. The flute sustains the G♯ from the cello solo's pizzicato note while the xylophone drops out. This passage can be described as an ADSR envelope (Attack–Decay–Sustain–Release). Note that further color is created by their difference in articulation.

6. The timpani and double basses add color to the solo cello's *col legno battuto* on E by their unison doublings. Then the E is sustained in the double basses, serving as a supportive underlayer.

7. The solo cello's melodic line is imitated in a developed form by the violins and violas.

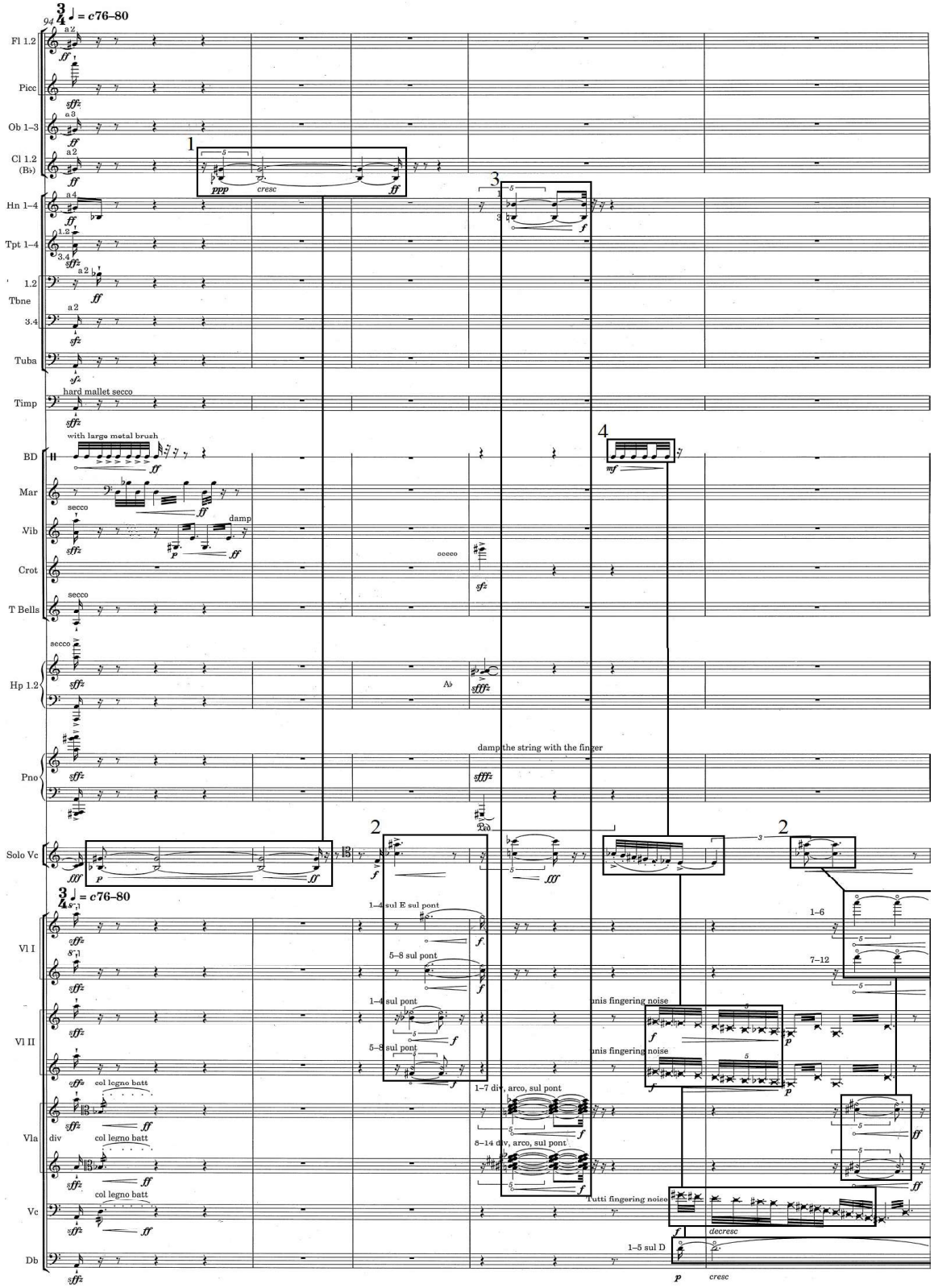
8. Pitch classes B♭ and G♯ in the solo cello are reinforced by the unison doublings of the

horns.

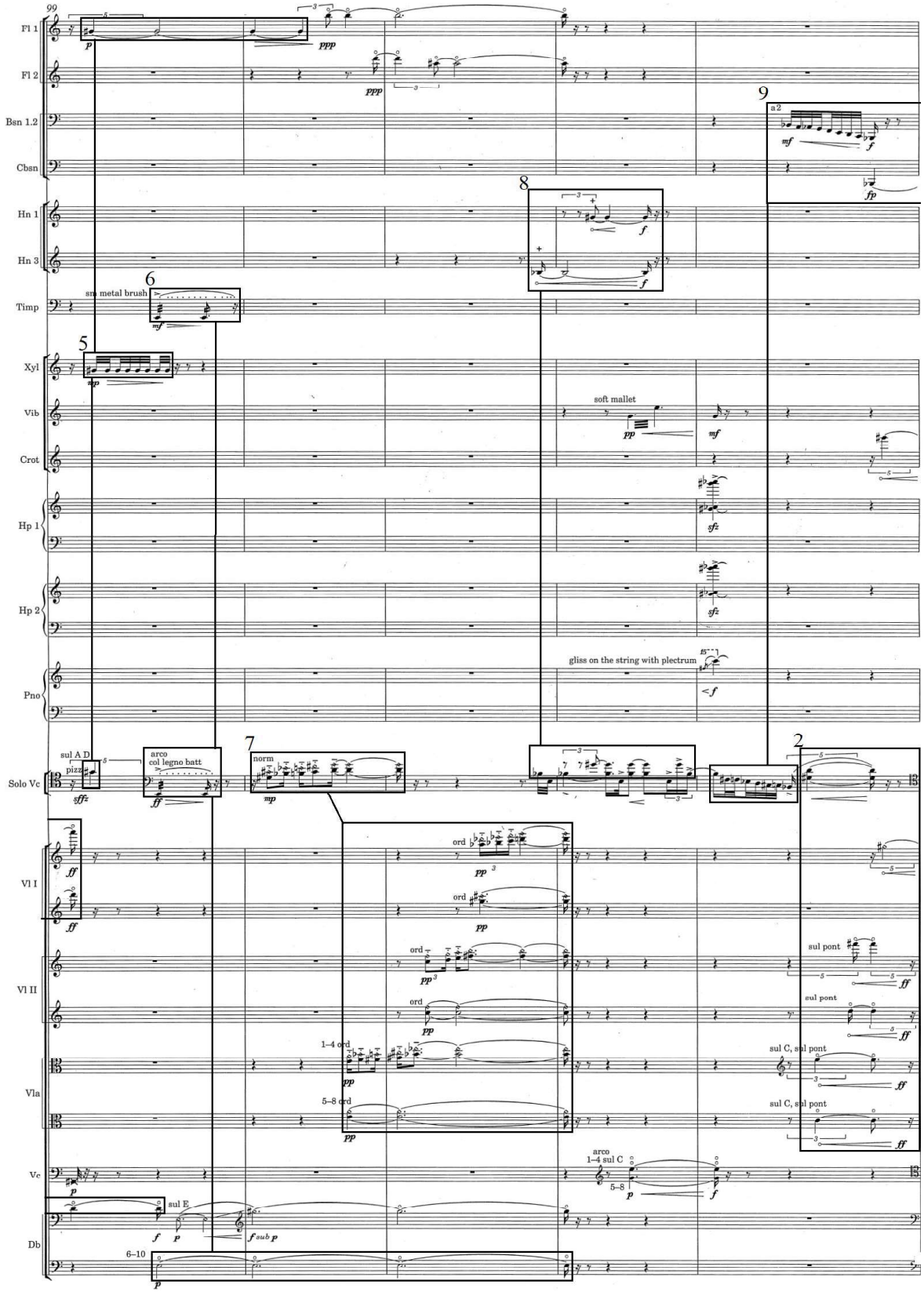
9. The decending pitch motion, bounded by pitch classe B♭, is imitated by the bassoon. Then the B♭ is picked up and sustained by the contrabassoon, serving as a supportive underlayer.

10. Most of the pitches in the solo cello are picked up and extended by the trumpets and trombones. The solo cello's descending glissando beginning on the last beat in m. 104 is rhythmically and timbrally intensified by the cellos, large tambourine, and bass drum played with a small metal brush serving as a supportive underlayer.

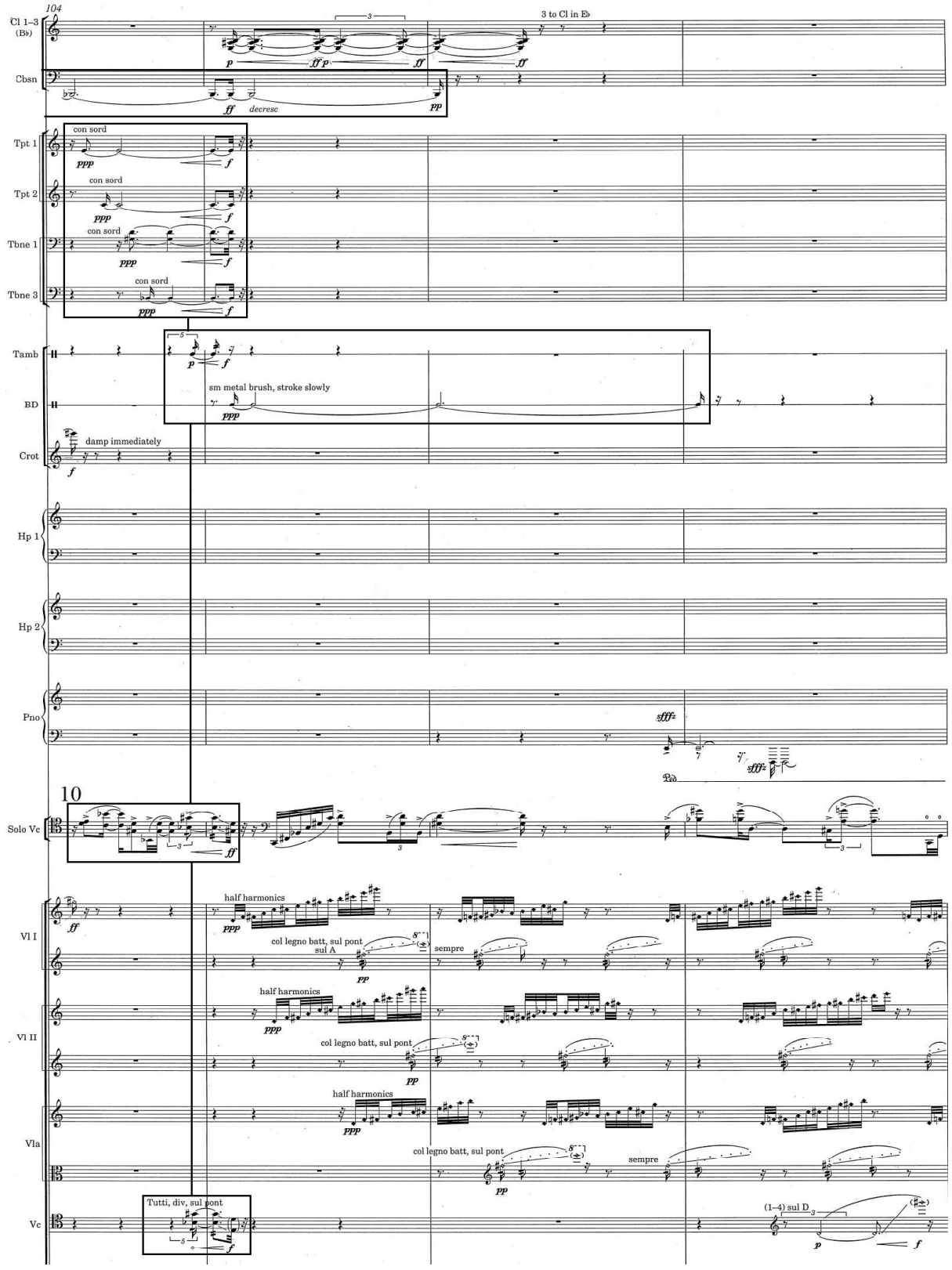
Example 3–24. Chin, Cello Concerto, musical continuities created by timbral variation and transformation, mm. 94–107



Example 3–24 continued



Example 3–24 continued



Concerto for Cello and Orchestra by Unsuk Chin

CHAPTER 4

CONCLUSION

Unsuk Chin's Cello Concerto is unique among her concertos because her approach to composing differs, mainly in the relationship between the soloist and orchestra. Whereas the solo instrument blends into the orchestra in her other concertos, the Cello Concerto has frequent dialogues between soloist and orchestra, which functions in many cases as an accompaniment.

The first movement, *Aniri*, does not reflect Chin's nationality, even though the movement makes explicit reference to a type of Korean traditional music, *Pansori*, because she does not use specific musical materials from *Pansori* but abstractly employs its compositional features. The solo cello's ending passage also makes a clear reference to Ligeti's Cello Concerto, and Chin also may have taken some basic ideas from Debussy's *Des pas sur la neige.*

The chromatic scale (C, C♯, D, D♯, E, F, F♯, G, G♯, A, B♭, B) organized by Chin provides a variety of interval types, both horizontal and vertical, but the movement demonstrates a hierarchical organization of the pitch material. The three pitch classes D, G♯, B♭ are constantly and significantly employed in both the solo cello and orchestra over the course of the movement. They serve as a skeleton for melodic lines in the solo cello and as a basis for harmonic content in the orchestra, resulting in a significant unifying element in the movement.

The overall texture of the Cello Concerto is concise and transparent. Chin effectively and economically uses the instrumental resources. In addition, the first movement exhibits a great variety of textural detail and remarkable textural changes that function primarily to define the form of the movement. Moreover, textural manipulation is almost always employed in cooperation with the three pitch classes (D, G♯, B♭) at structurally important cadences. These

elements as well as the tempo marking, solo cello's mood, and solo cello's cadence-like melodic gestures divide the movement into four large sections: A–B–C–Coda. Each of these sections is further divided into smaller parts.

The first movement uses a variety of manipulations of timbral detail, beginning with that of the pitch center G♯ by the two harps. This timbral exploration illuminates Chin's interest in making full use of her timbral resources. Harmonics on the pitch center G♯ in the two harps consistently appear during the entire movement, creating a unifying element rather than a temporary effect. Timbral variation on the pitch center G♯ is constantly explored through various instrumental combinations that include non-pitched percussion instruments, adding a subtle color change and serving as a supportive underlayer. In some passages where the solo cello and orchestra engage in imitative dialogue, the orchestra colors the solo cello, developing its sonority through timbral transformation, and resulting in musical continuity within the given framework.

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