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UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

W. Hollas Longton

Portfolio of Works 2012-2015

Writing for the first time through 'An Coulin'

String Quartet

Hollas Longton

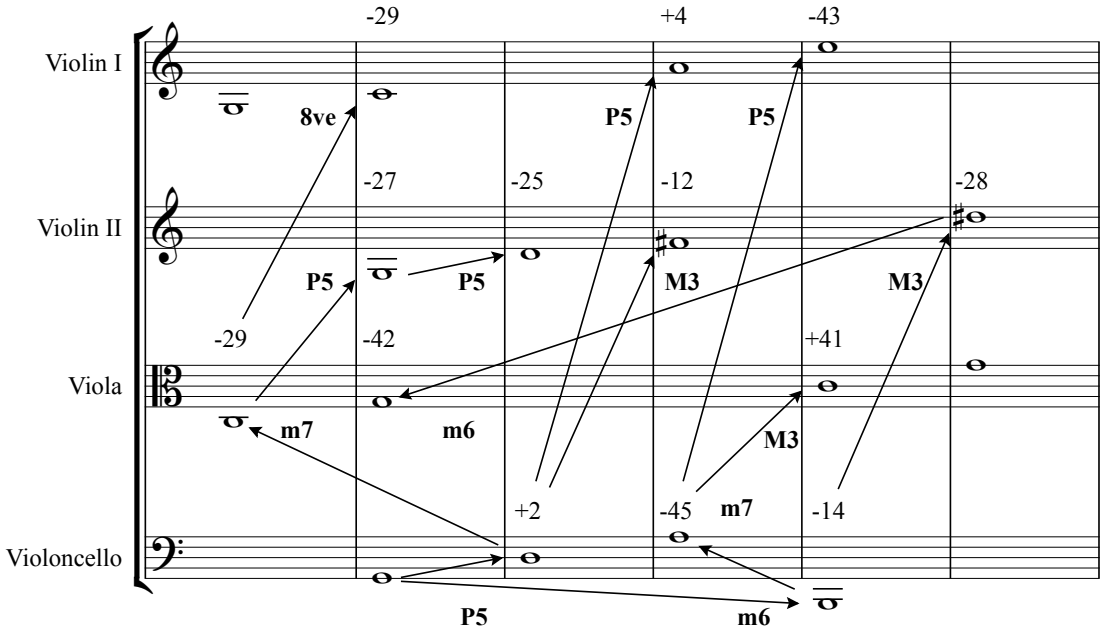
Duration: 4’15”

- The piece is in four sections. The sections are defined by their different treatment of texture and melody. Section ends are indicated with a double barline.

- Notation is spatial. Each system is 15 seconds long.

- Numbers above notes indicate cent deviations from the equal-tempered scale (one cent equals 1/100th of a semitone).

- This piece makes extensive use of scordatura (shown below). All of the tuning is initially derived from a G without cent deviation:



- The intervals used to achieve this scordatura are as follows: **8ve** (2:1) (1200 cents), **m7** (7:4) (969 cents), **m6** (8:5) (814 cents), **P5** (3:2) (702 cents), and **M3** (5:4) (386 cents). Inversions of some of these intervals are also used.

- Only open strings and natural harmonics are used. Solid noteheads indicate both natural harmonics and open strings.

- Each instrument has two staves: one indicates finger placement and one shows the resultant sounding pitches. A double stave at the top of the score shows the cumulative sound of the quartet.

- Roman numerals indicate which strings are to be used: I is the highest and IV is the lowest.

- All glissandi are harmonic glissandi (half-pressed). Only the starting and arrival points are notated.

- Dynamics should be relatively quiet and even throughout.

- The precise note lengths are left to the discretion of the players. Longer note values are generally encouraged, but should be kept within reason.

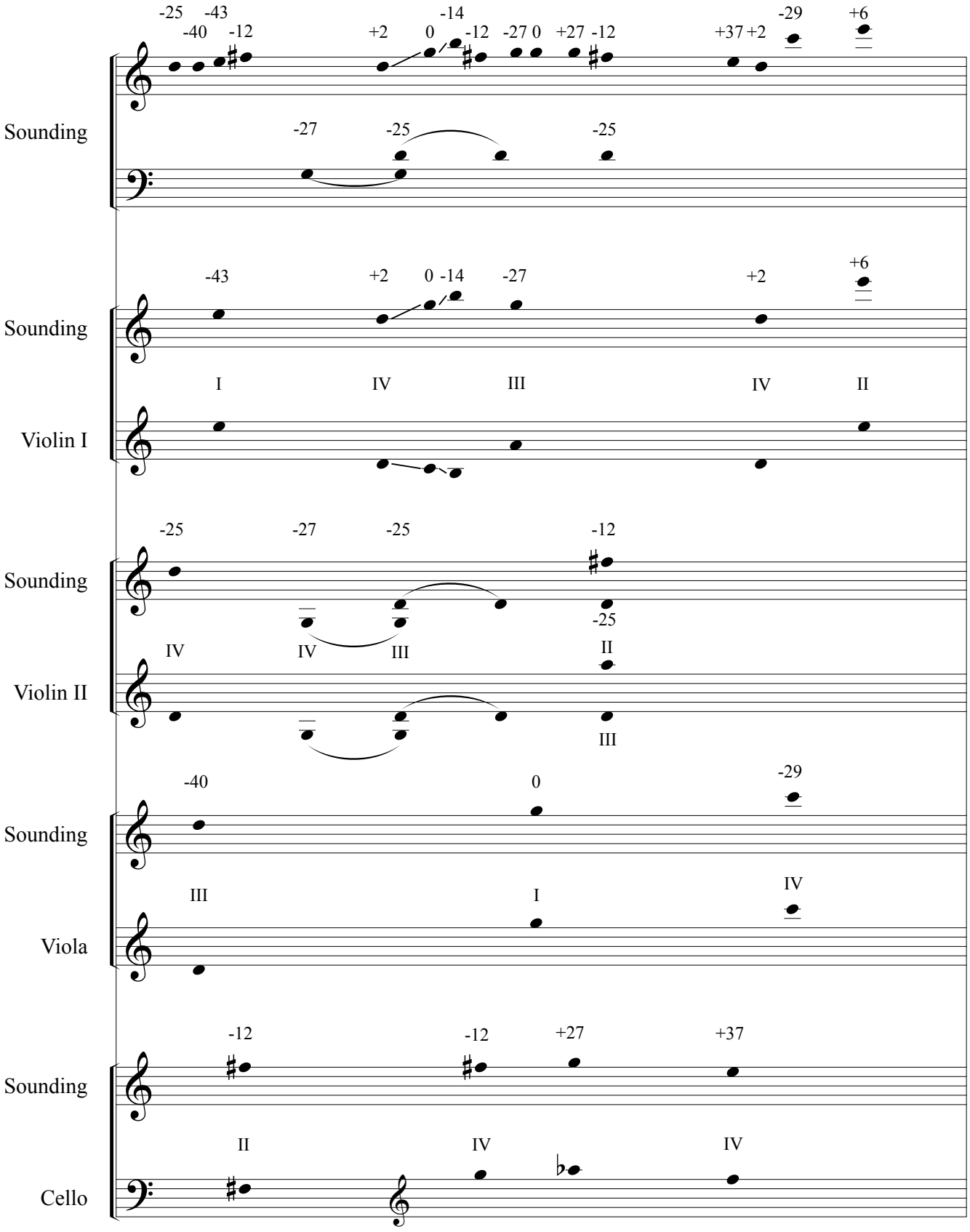
- Ties are used to indicate the exact length of held notes (usually a longer duration), or to indicate when one note is held over and played simulatenously with another.

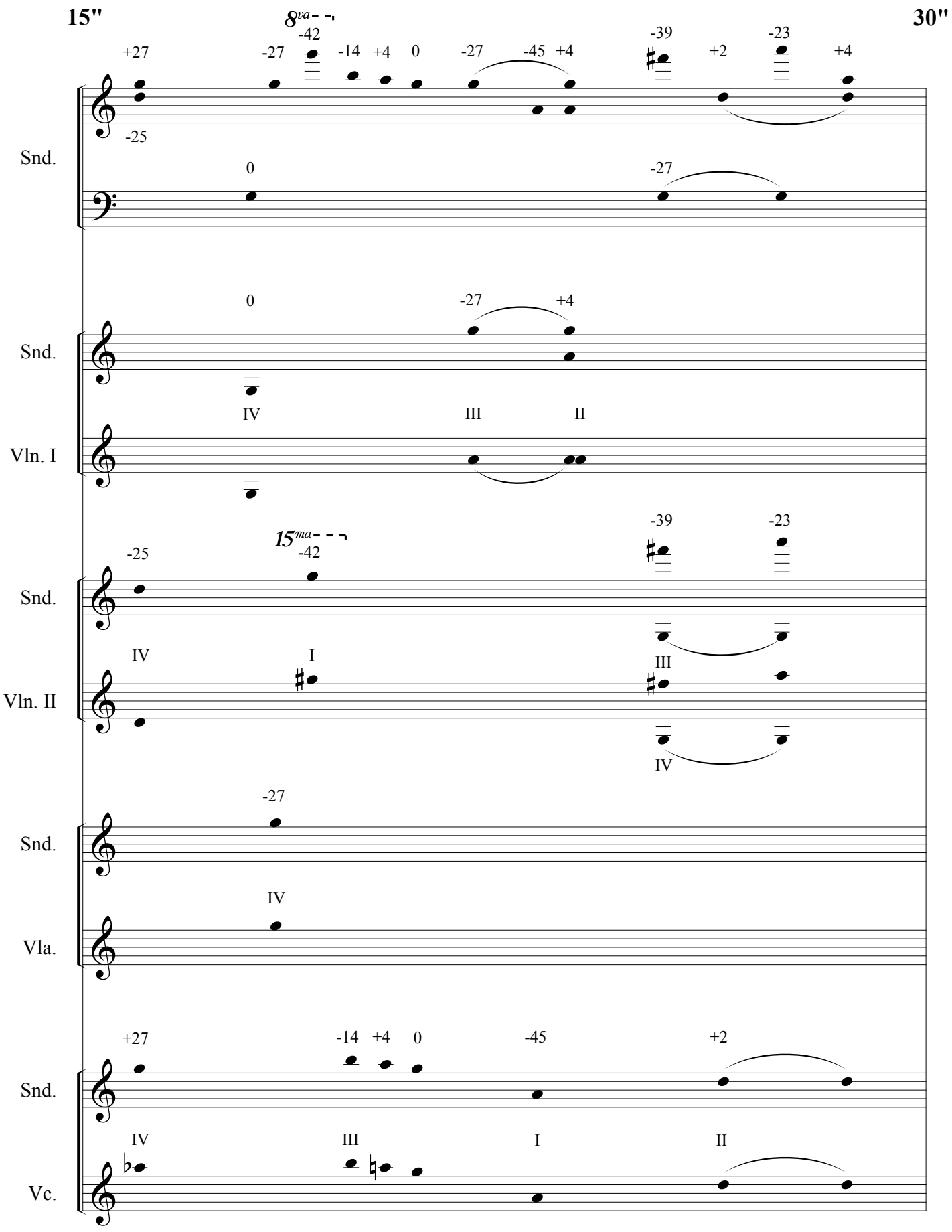
- At 3'00", because of the page turn, it may be necessary to take a short breath.
  From 3'00" until the end of the piece, much longer note durations are used.

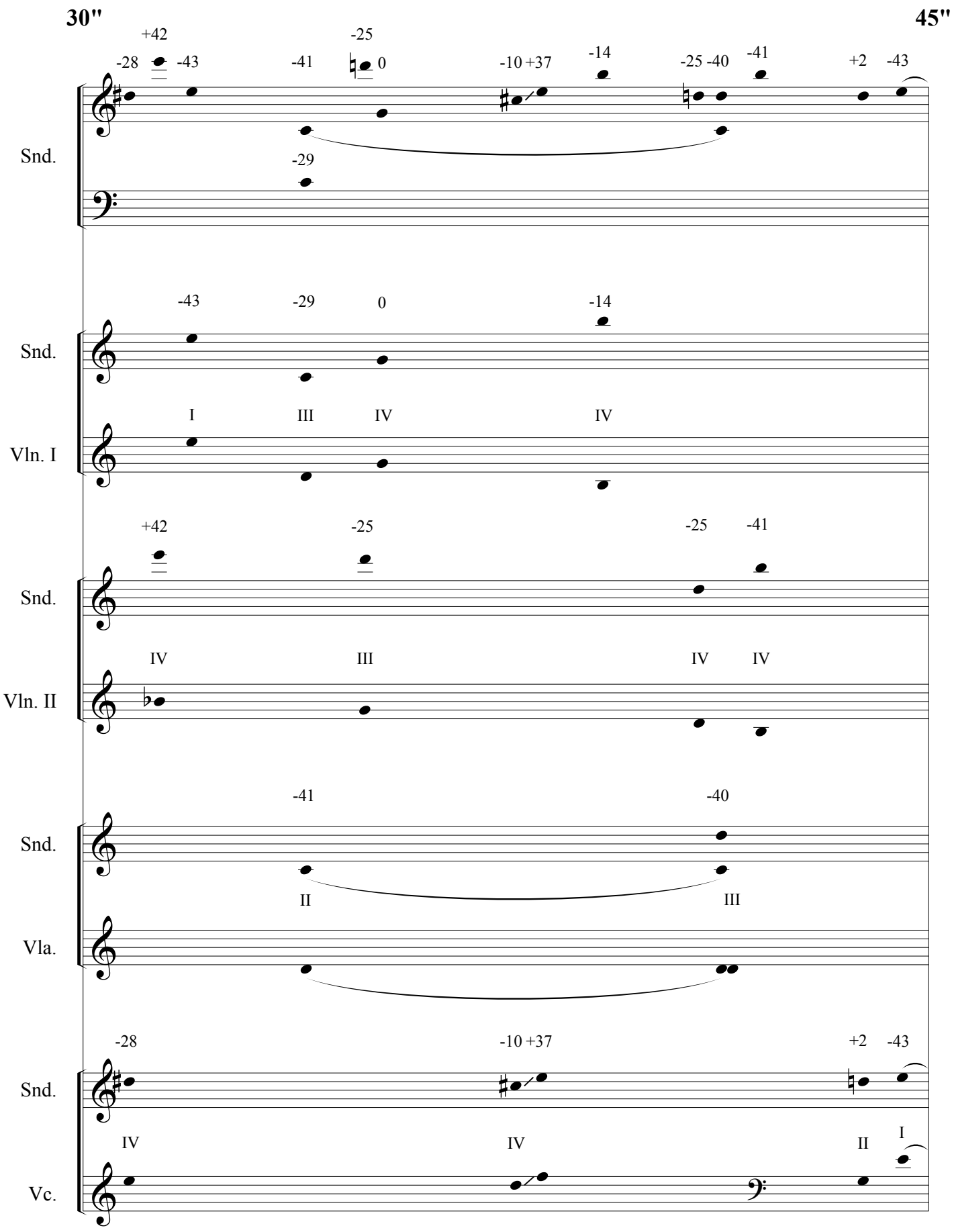
Writing for the first time through 'An Coulin'

Hollas Longton

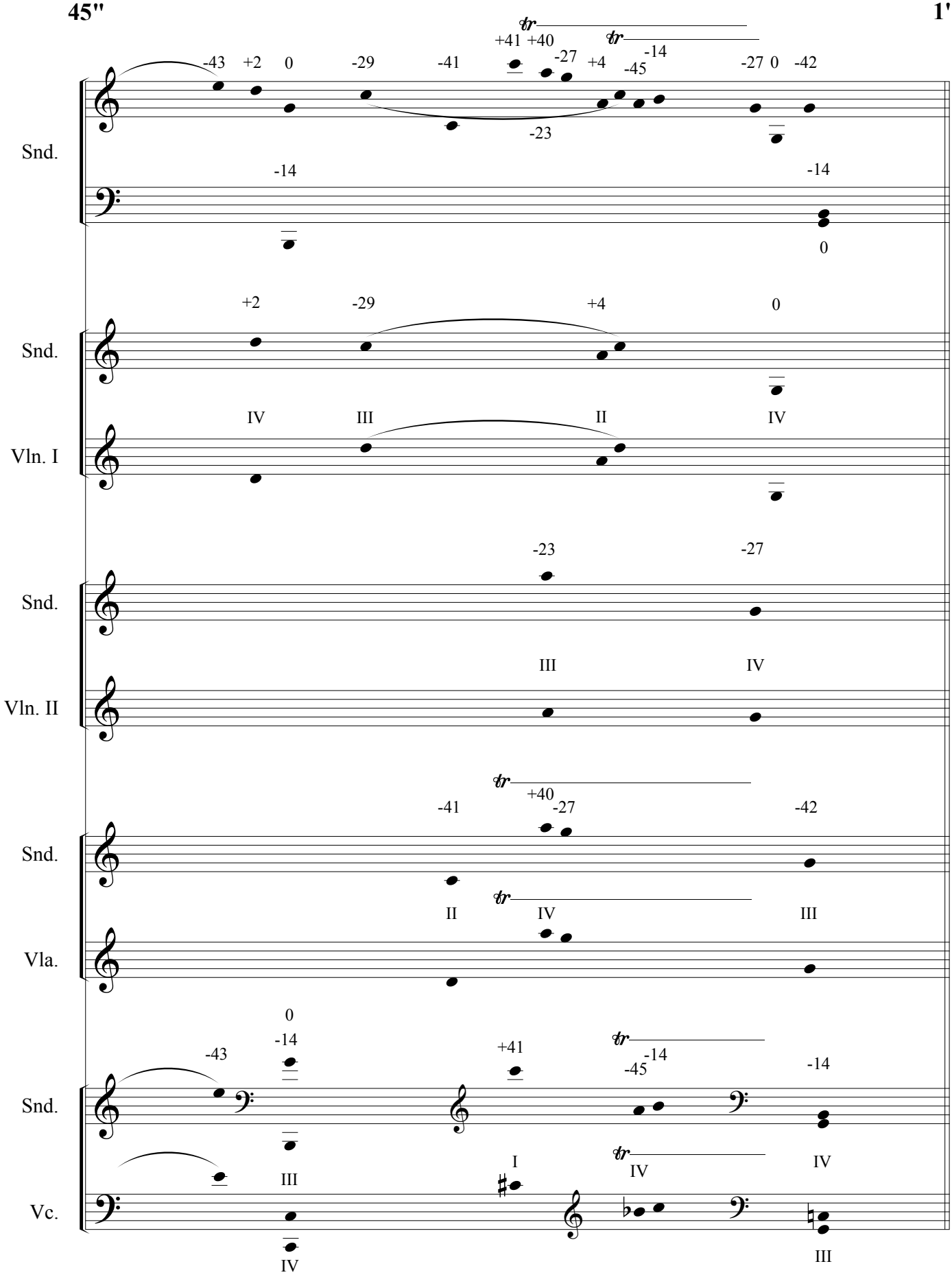
15"

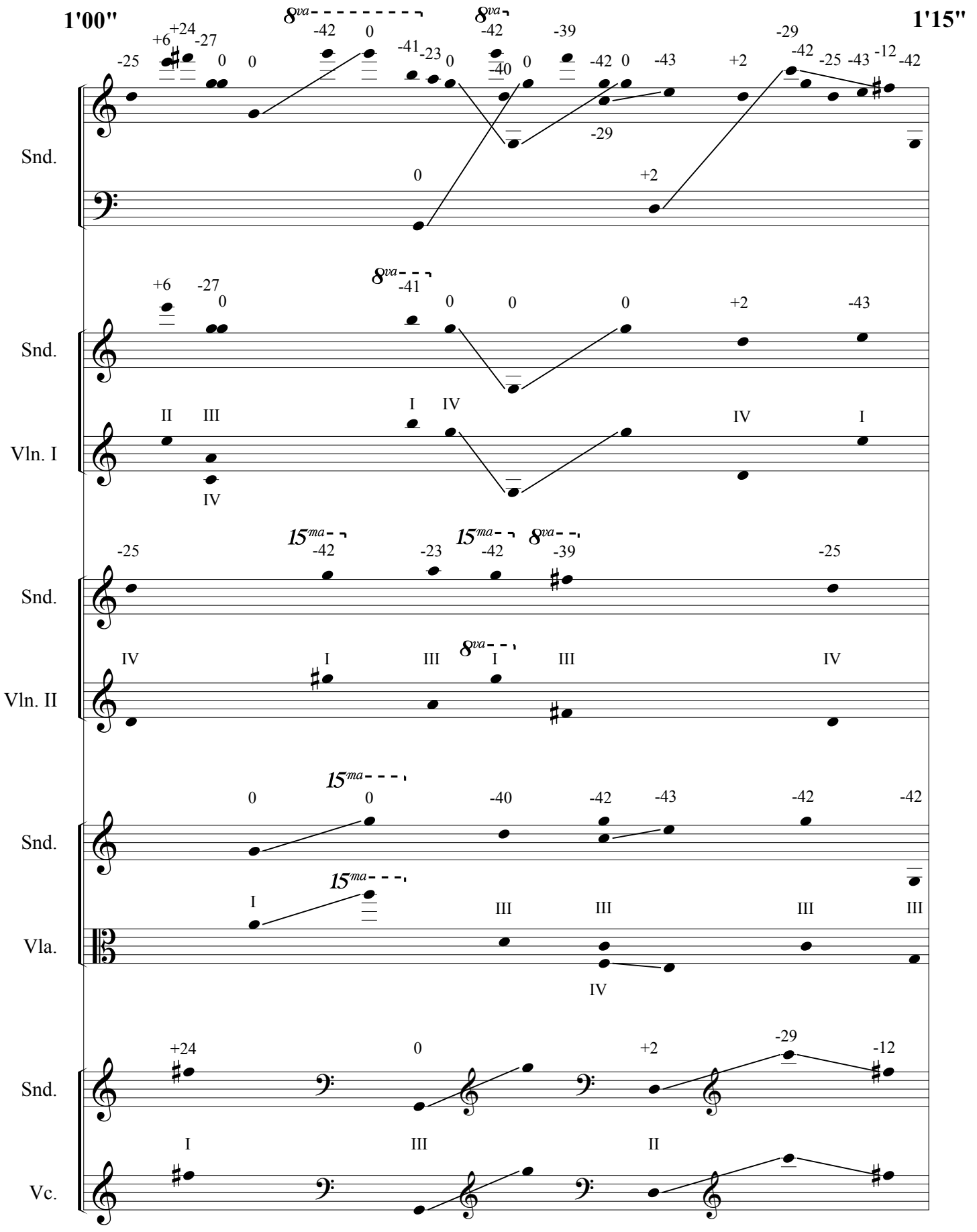


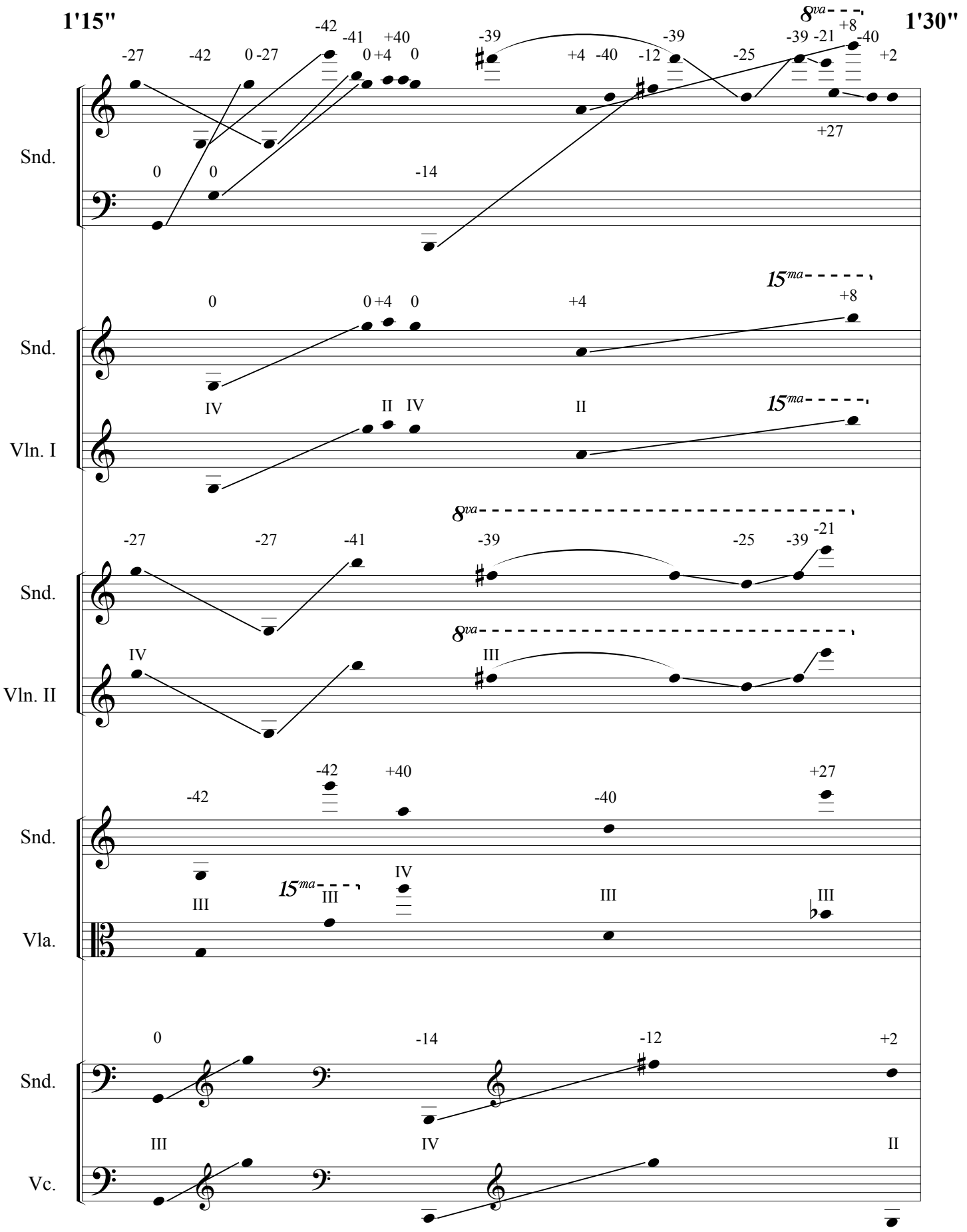

15"
8va
30"
Snd.
Snd.
Vln. I
Snd.
Vln. II
Snd.
Vla.
Snd.
Vc.
15ma

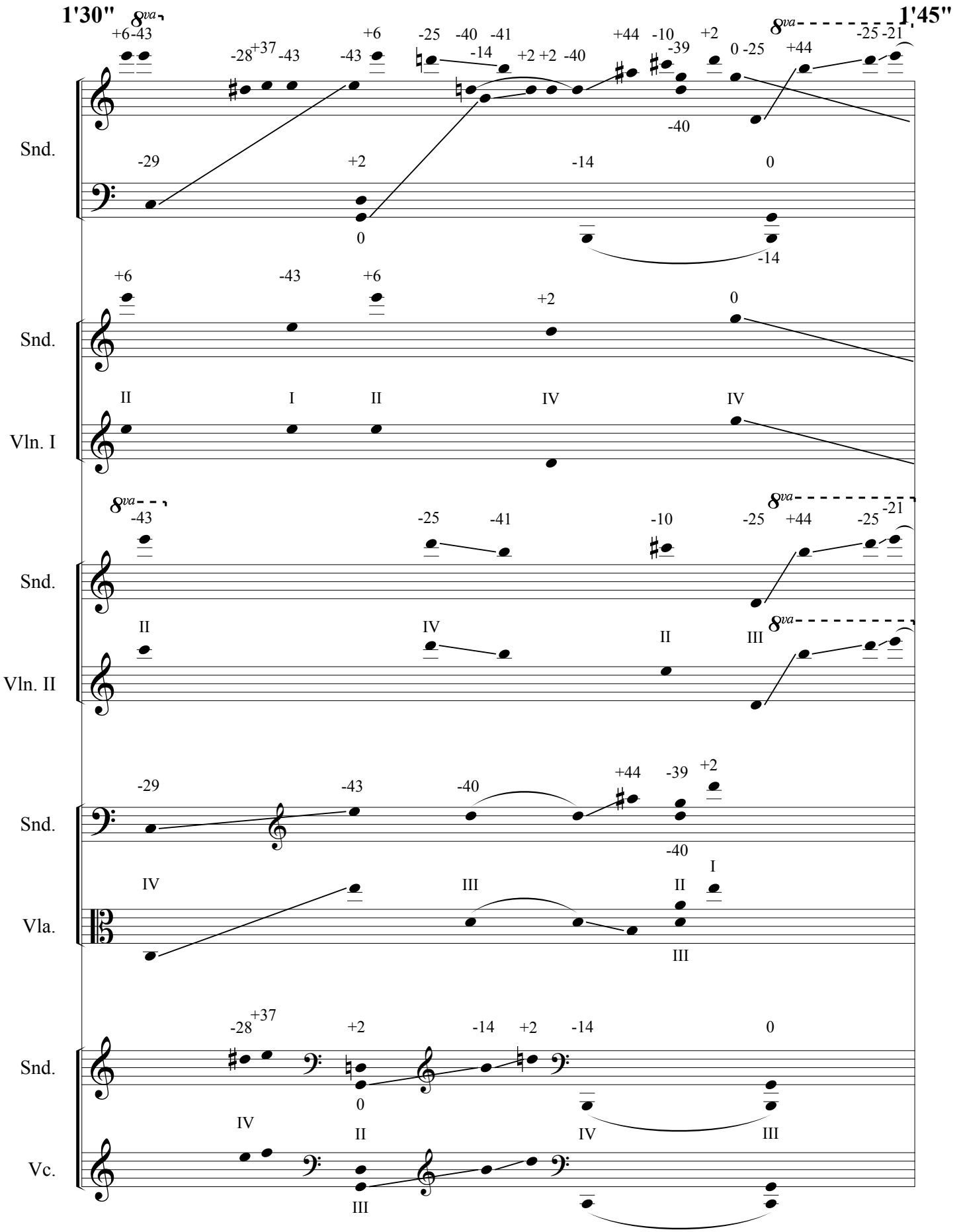

30"
45"
Snd.
Snd.
Vln. I
Snd.
Vln. II
Snd.
Vla.
Snd.
Vc.
+42
-28
-43
-41
-25
0
-10 +37
-14
-25 -40
-41
+2
-43
-29
-43
-29
0
-14
I
III
IV
IV
+42
-25
-25
-41
IV
III
IV
IV
-41
-40
II
III
-28
-10 +37
+2
-43
IV
IV
II
I

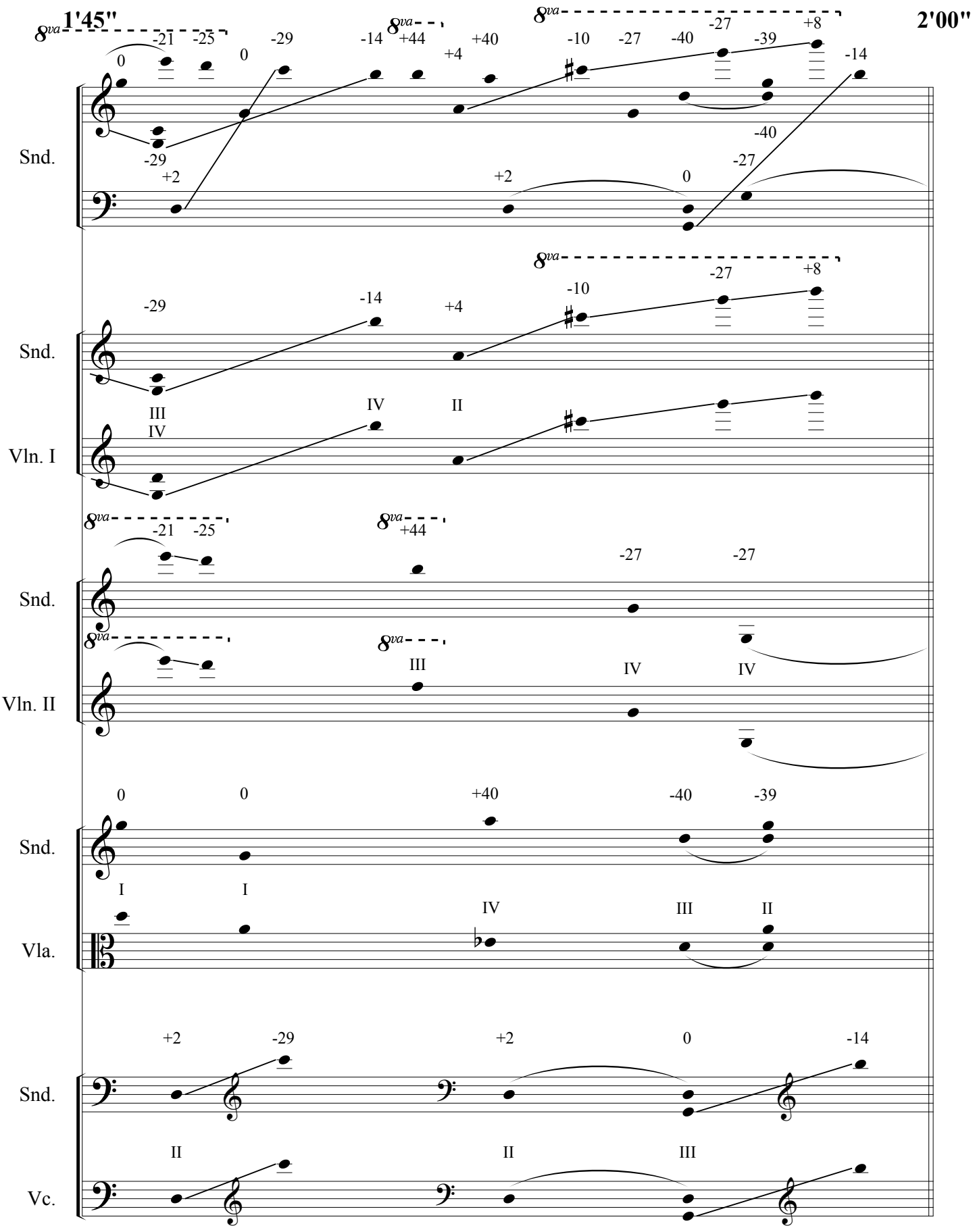
45" **1'00"**

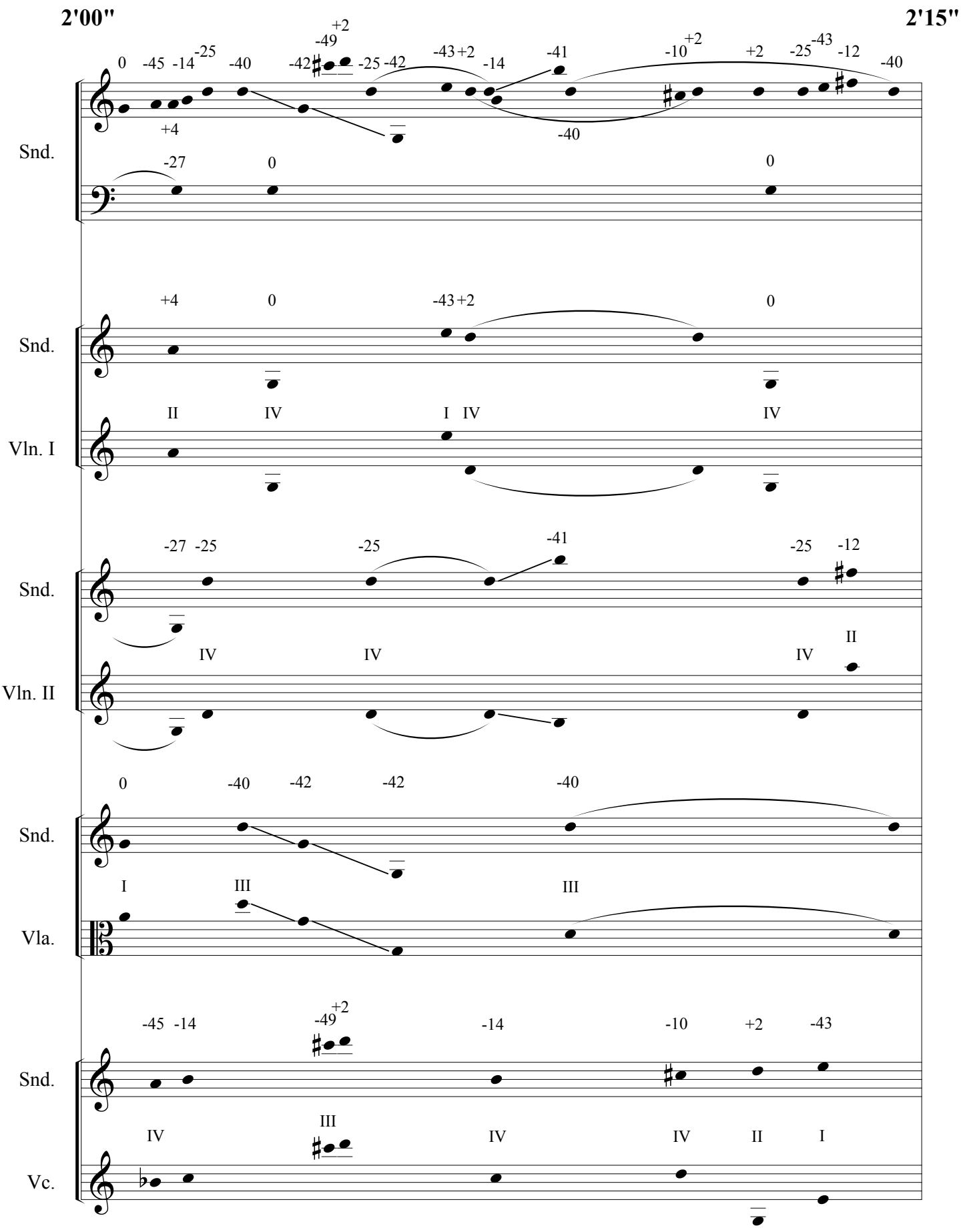

Snd.
-43 +2 0 -29 -41 +41 +40 -27 +4 -45 -14 -27 0 -42
-23
-14 -14
0
Snd.
+2 -29 +4 0
Vln. I
IV III II IV
Snd.
-23 -27
Vln. II
III IV
Snd.
-41 +40 -27 -42
II IV III
Vla.
Snd.
0 -14 -43 +41 -45 -14 -14
Vc.
III I IV IV
IV III

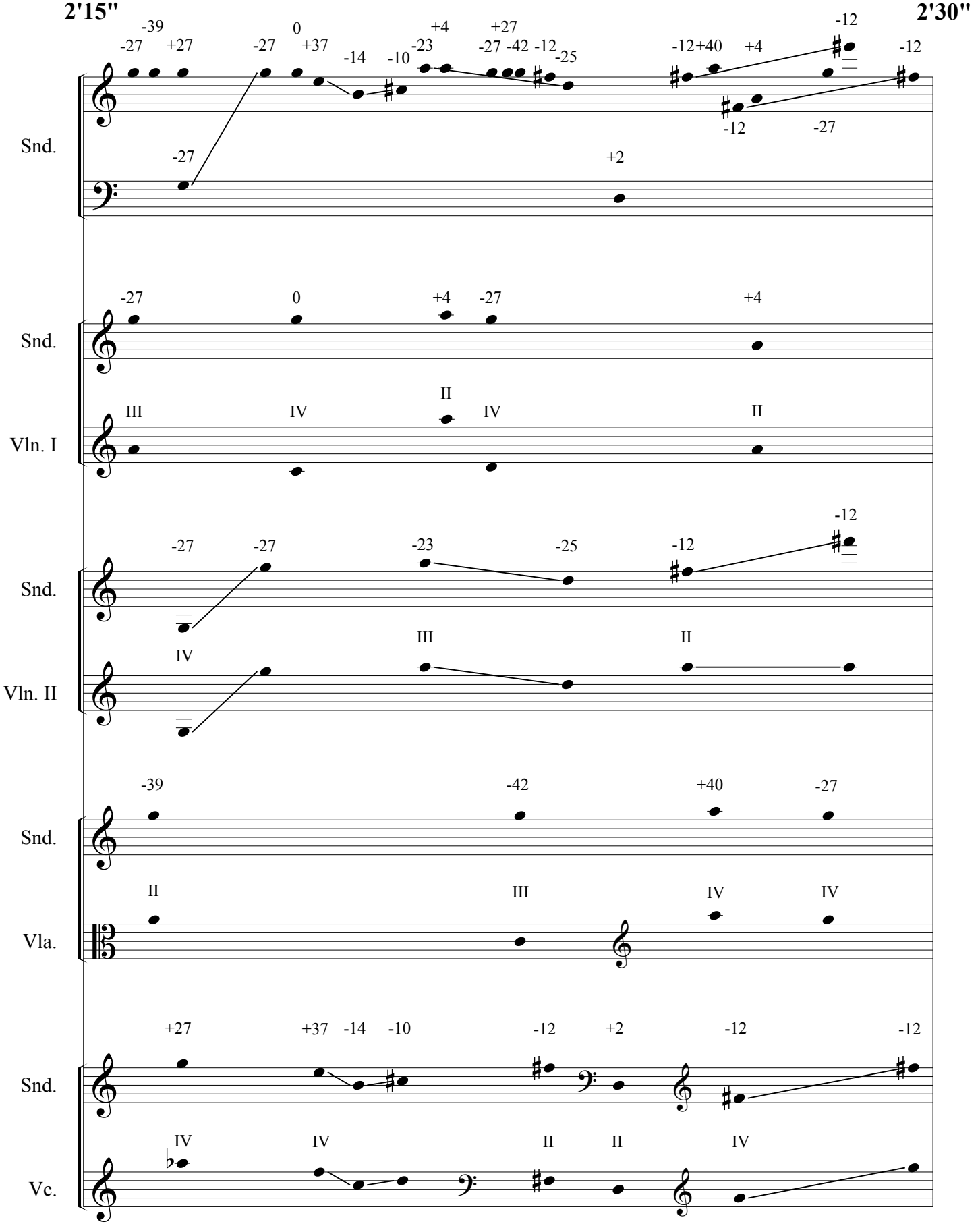

1'00"
1'15"
Snd.
Vln. I
Vln. II
Vla.
Vc.
8va
15ma

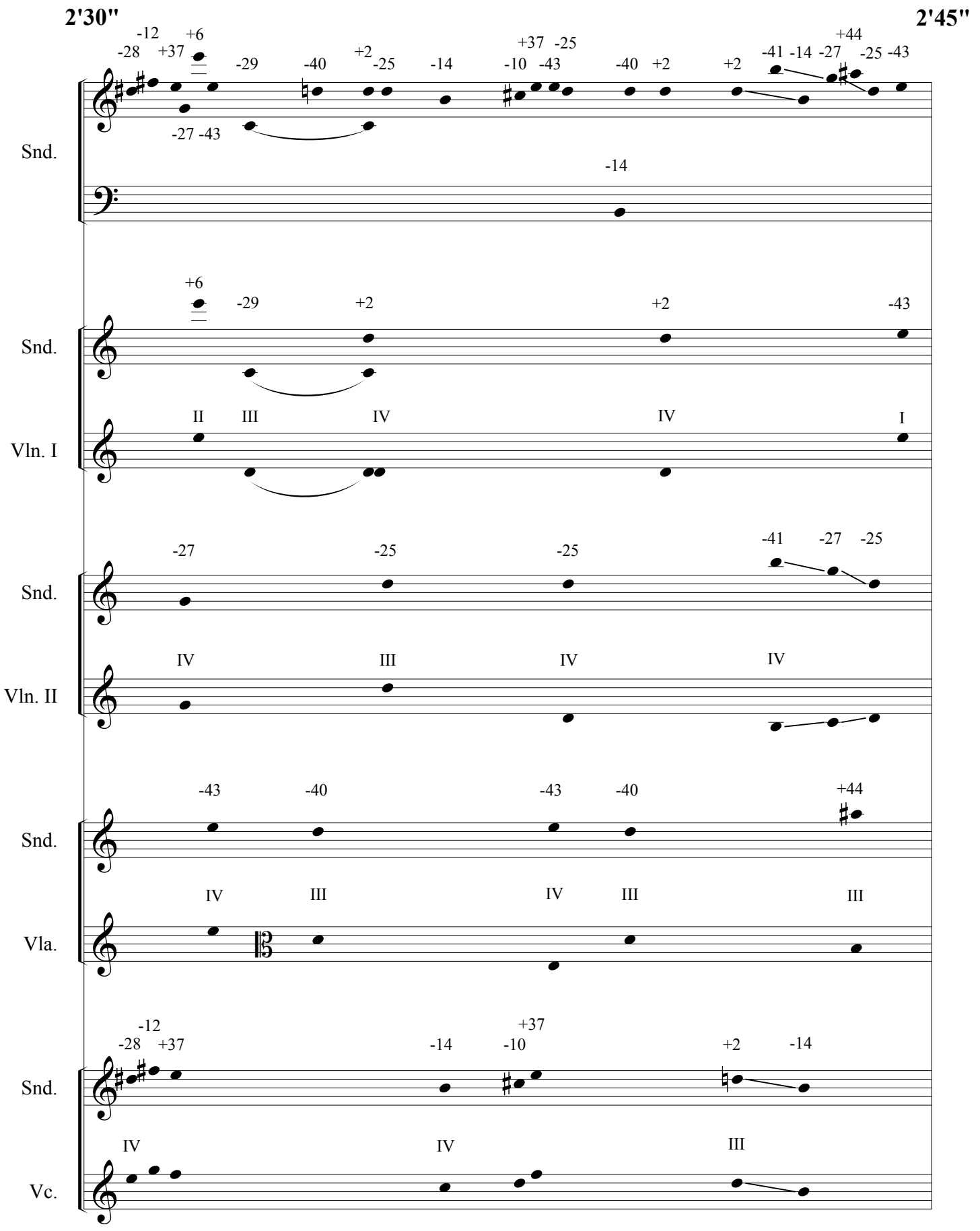

1'15"
1'30"
8va
15ma
Snd.
Vln. I
Vln. II
Vla.
Vc.


1'30"
1'45"
8va
Snd.
Vln. I
Vln. II
Vla.
Vc.
+6 -43 -28 +37 -43 -43 +6 -25 -40 -41 -14 +2 +2 -40 +44 -10 -39 +2 0 -25 +44 -25 -21 -40
-29 +2 -14 0 0 -14
+6 -43 +6 +2 0
II I II IV IV
-43 -25 -41 -10 -25 +44 -25 -21
II IV II III
-29 -43 -40 +44 -39 +2 -40
IV III II I III
-28 +37 +2 -14 +2 -14 0 0
IV II IV III III

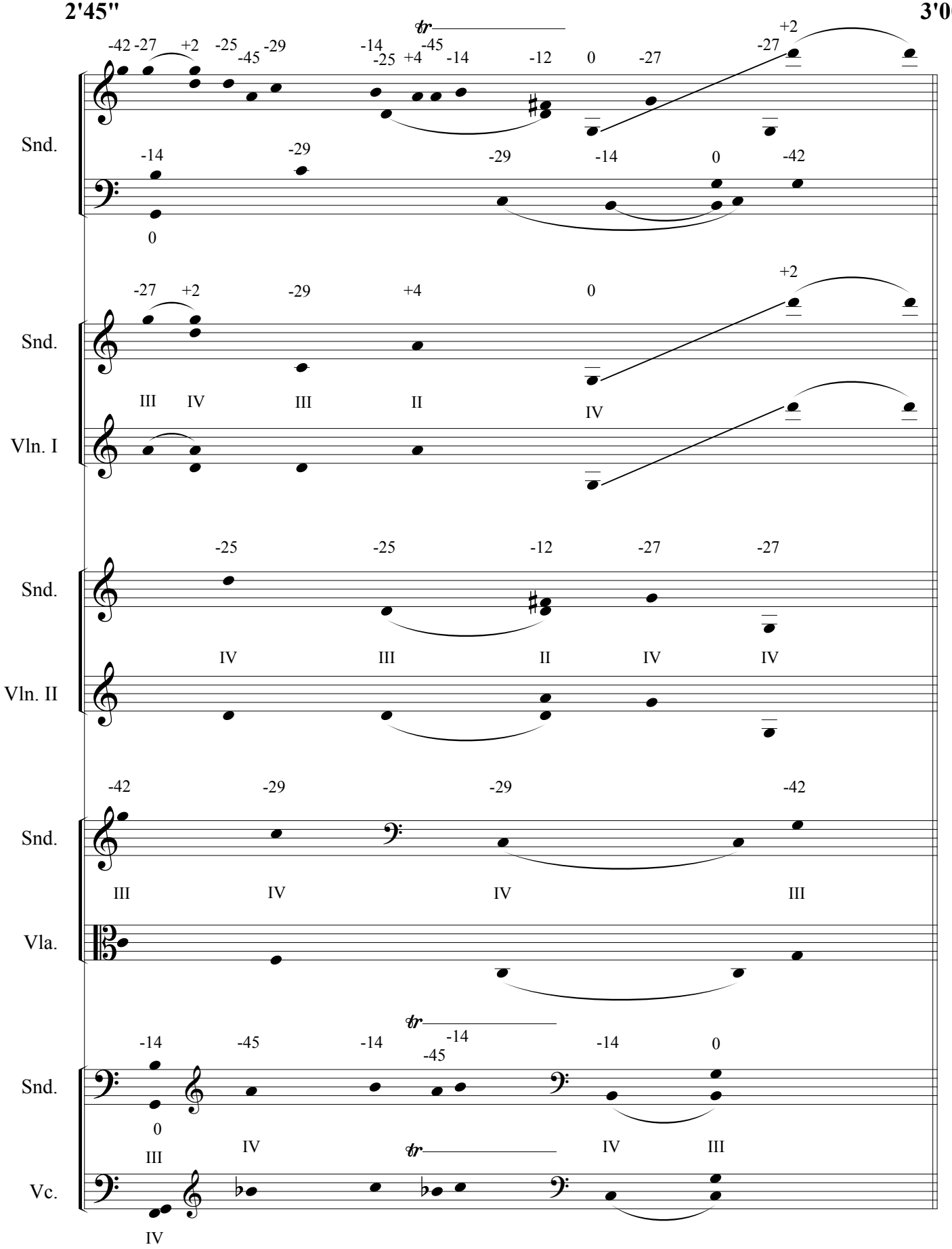

1'45"
2'00"
Snd.
Snd.
Vln. I
Snd.
Vln. II
Snd.
Vla.
Snd.
Vc.

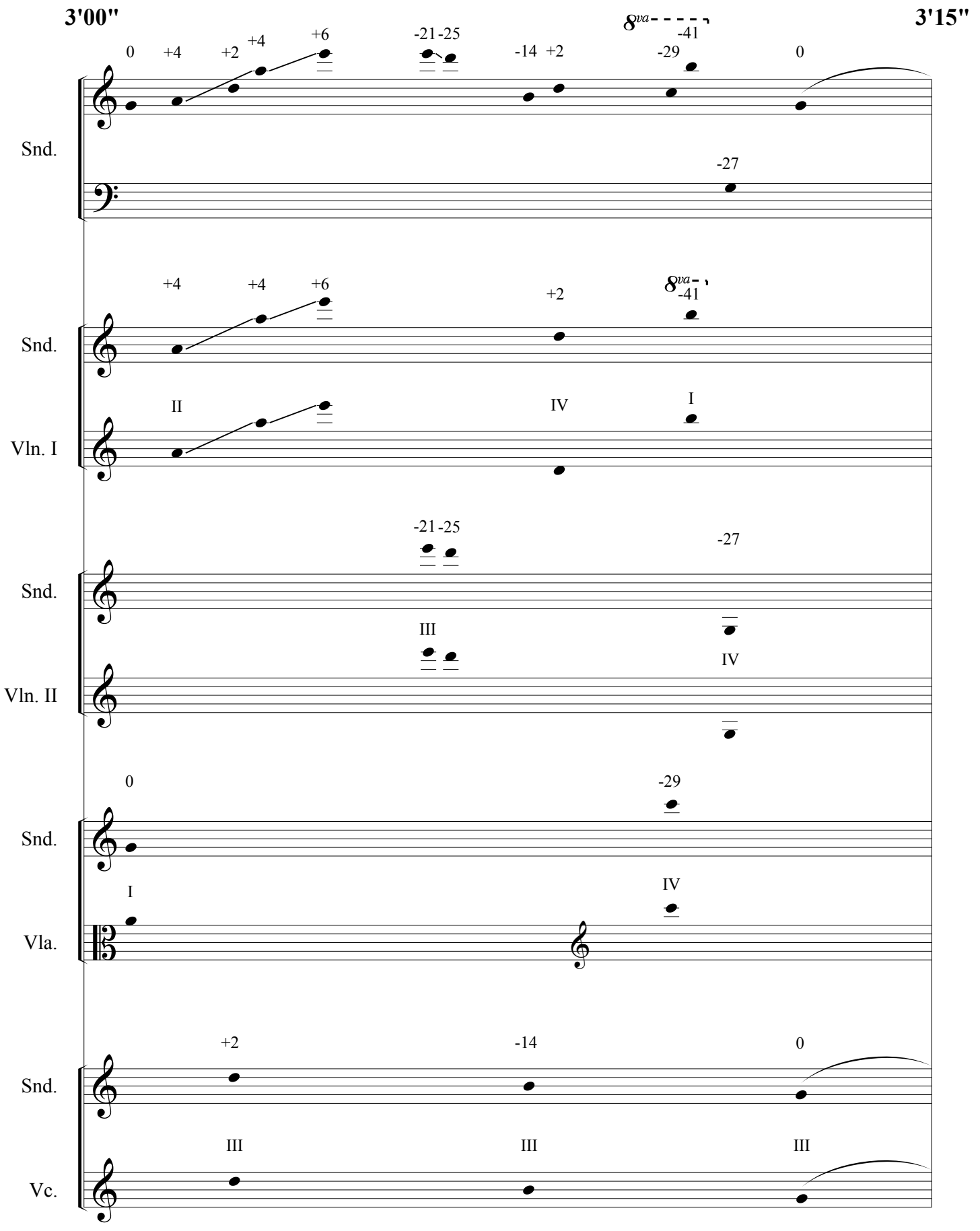

2'00"
2'15"
Snd.
Snd.
Vln. I
Snd.
Vln. II
Snd.
Vla.
Snd.
Vc.

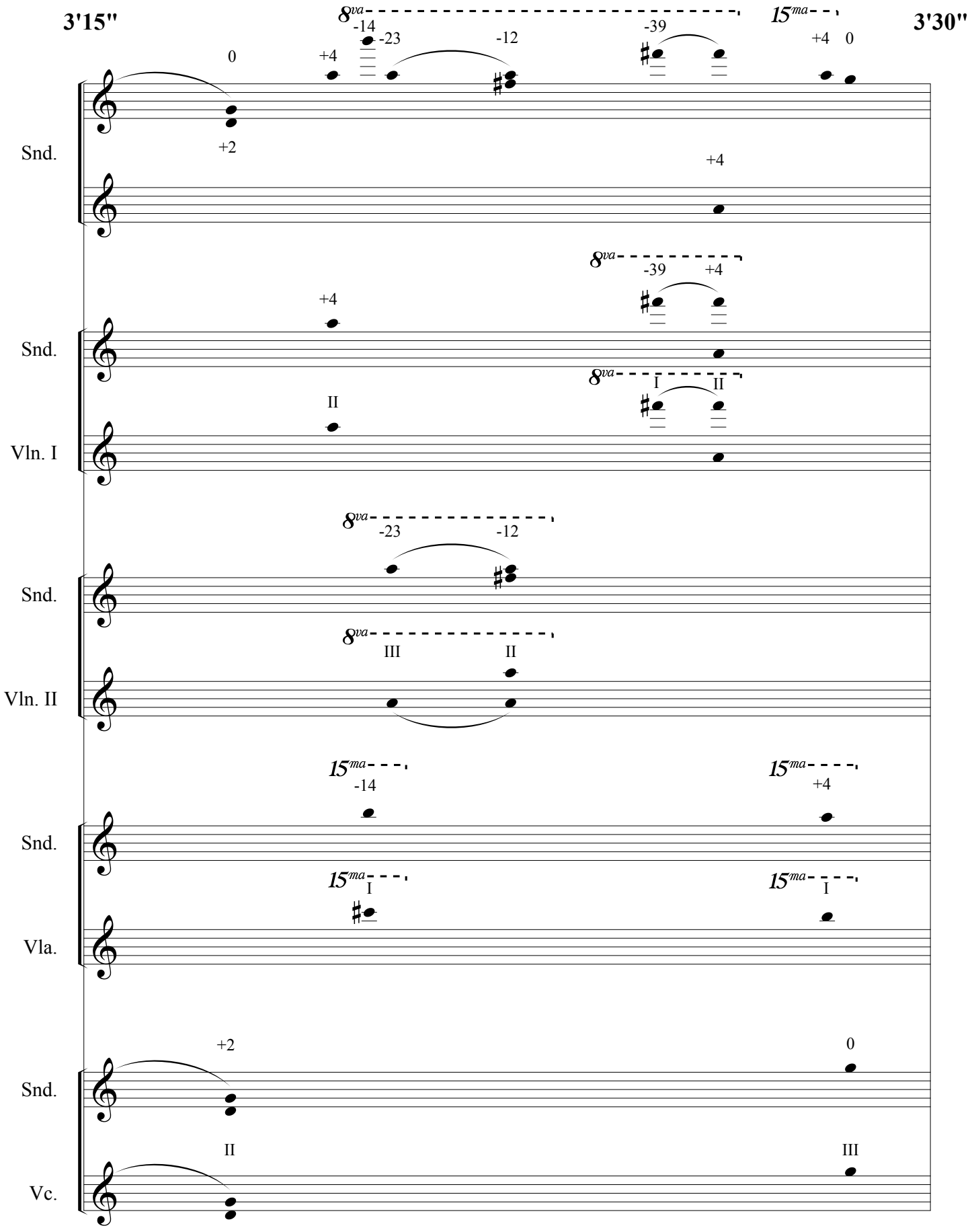

2'15"
2'30"
Snd.
Vln. I
Vln. II
Vla.
Vc.
-39 -27 +27 -27 0 +37 -14 -10 +4 -23 +27 -27 -42 -12 -25 -12 +40 +4 -12 -12 -27 -12
-27 +2
-27 0 +4 -27 +4
III IV II IV II
-27 -27 -23 -25 -12 -12
IV III II
-39 -42 +40 -27
II III IV IV
+27 +37 -14 -10 -12 +2 -12 -12
IV IV II II IV

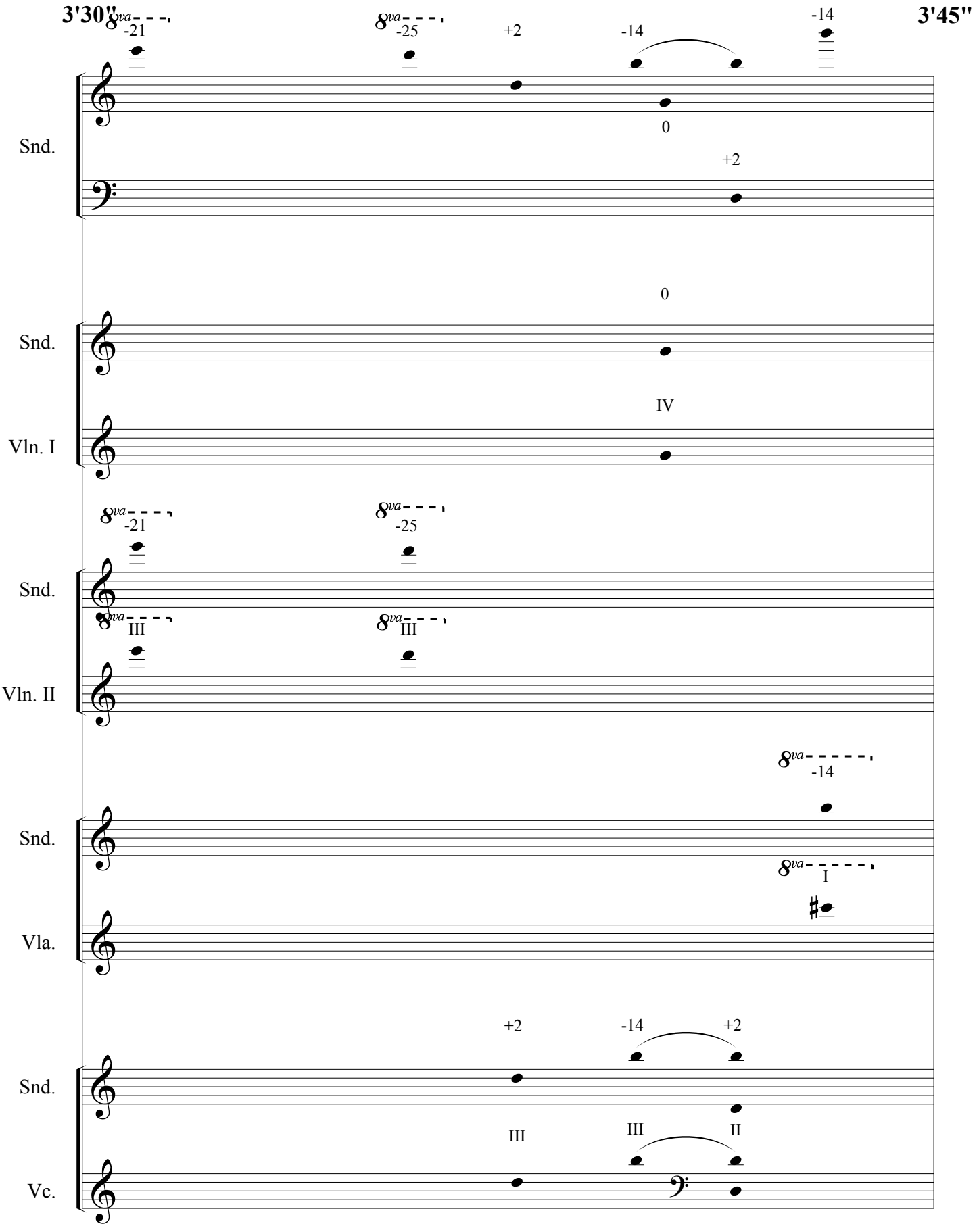

2'30"
2'45"
Snd.
Snd.
Vln. I
Snd.
Vln. II
Snd.
Vla.
Snd.
Vc.

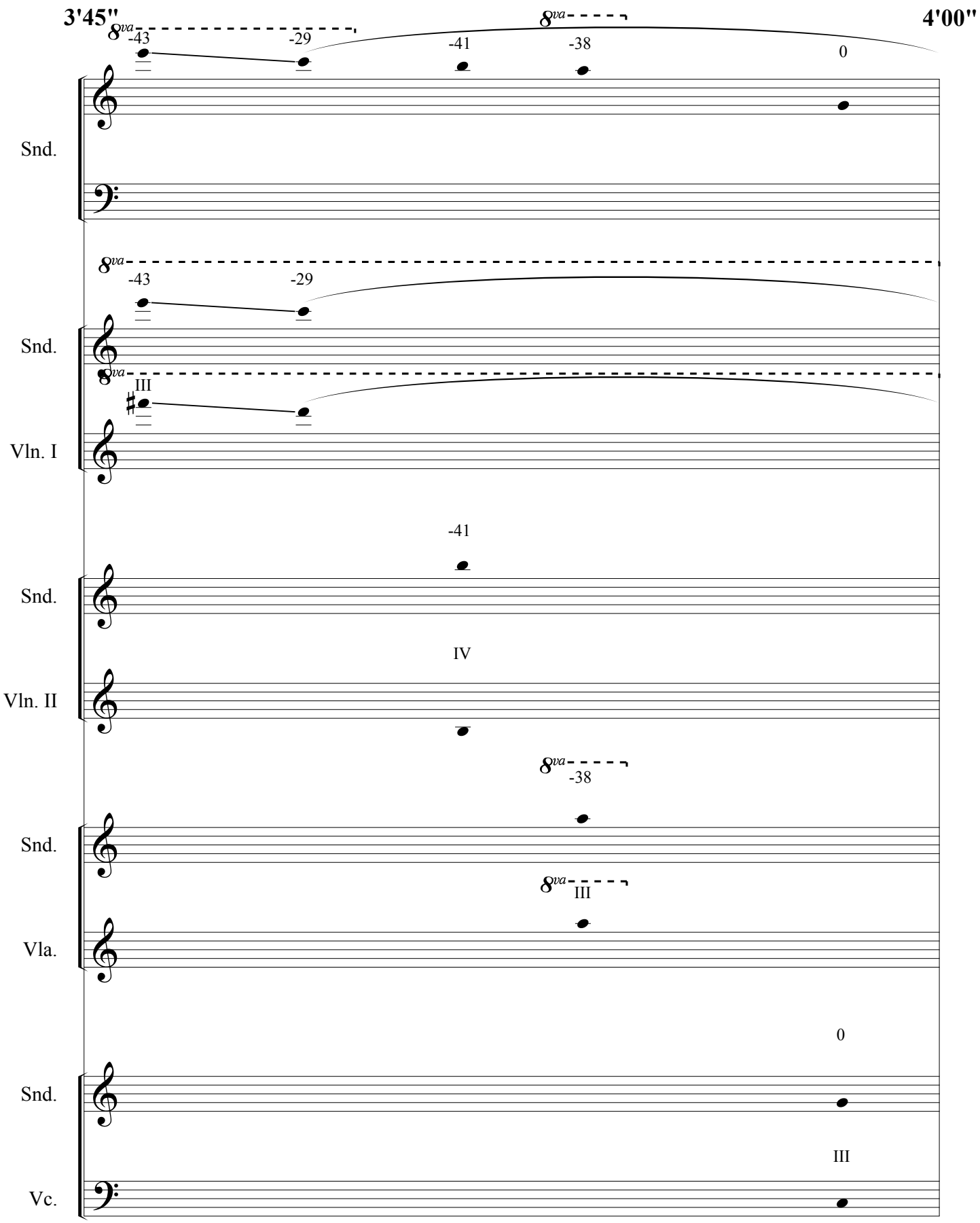
2'45" **3'00"**

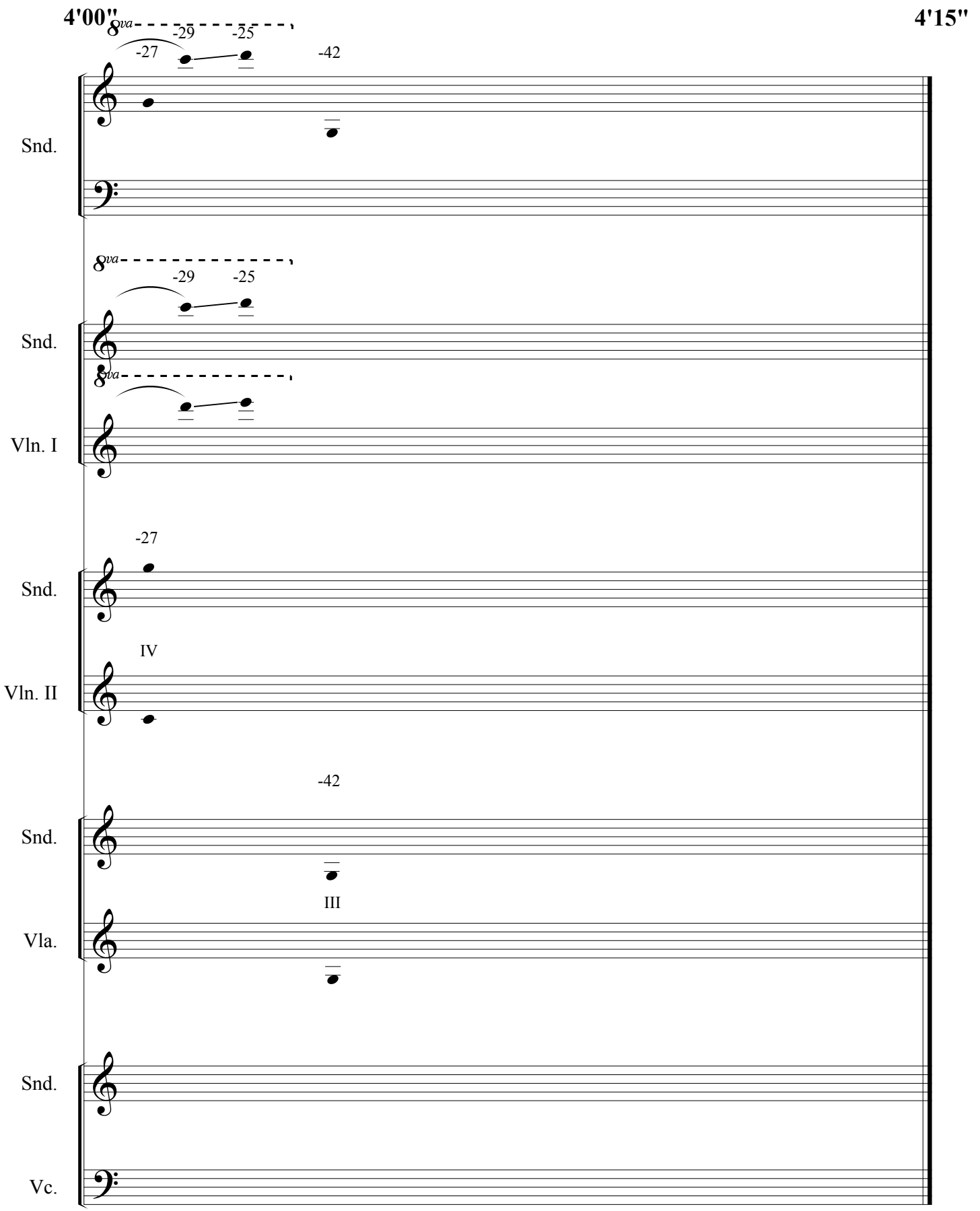



3'00"
3'15"
8va
Snd.
Vln. I
Vln. II
Vla.
Vc.
0 +4 +2 +4 +6 -21 -25 -14 +2 -29 -41 0 -27
+4 +4 +6 +2 -41
II IV I
-21 -25 -27
III IV
0 -29
I IV
+2 -14 0
III III III


3'15"
3'30"
8va
15ma
Snd.
Vln. I
Vln. II
Vla.
Vc.
0
+4
-14
-23
-12
-39
+2
II
I
III


3'30"
3'45"
Snd.
Snd.
Vln. I
Snd.
Vln. II
Snd.
Vla.
Snd.
Vc.
8va
-21
-25
+2
-14
0
IV
III
I
II


3'45"
4'00"
8va
-43
-29
-41
-38
0
Snd.
III
Vln. I
IV
Vln. II
Vla.
Vc.


4'00"
4'15"
8va
-27
-29
-25
-42
Snd.
Vln. I
IV
Vln. II
III
Vla.
Vc.

The Gates of Los Angeles

for the Huygens-Fokker Organ

Hollas Longton

Duration: 10’ - ∞

'The Gates of Los Angeles' is a static harmonic installation composed for the 31-tet Huygens-Fokker Organ in Amsterdam. It is made up of a single chord of 19 pitches which approximate parts of a harmonic series built on a fundamental two octaves below the organ's lowest pitch (pedal tone C at 33.111 Hz). The bottom and top pitches of the chord require the 16’ and 4’ stops respectively. The MIDI realization of this work uses the ‘Method III’ protocol.

Harmonic #:	Frequency (Hz):	Pitch:	Cents Deviation:	Channel:	MIDI #:	HFO Note #:	Key #:
383	3169.133	G7	+18.21	7	91	143	18
358	2963.525	F#7	+2.08	7	90	140	15
274	2266.109	C#7	+37.57	8	85	128	3
262	2167.003	C#7	-39.84	8	84	126	1
256	2119.087	C7	+21.44	7	84	125	0
250	2072.231	C7	-17.26	9	83	124	30
224	1853.041	A#6	-10.81	9	81	119	25
219	1812.068	A#6	-49.52	8	81	118	24
214	1772.000	A6	+11.76	7	81	117	23
209	1732.818	A6	-26.94	9	80	116	22
146	1211.666	D#6	-46.29	2	86	100	6
122	1013.206	B5	+44.02	2	83	92	29
84	692.814	F5	-14.04	2	76	75	12
82	677.495	E5	+47.25	3	74	74	11
80	662.514	E5	+8.53	1	76	73	10
78	647.865	E5	-30.17	2	75	72	9
6	49.518	G1	+18.22	4	43	19	18
5	41.407	E1	+8.53	4	40	11	10
4	33.111	C1	+21.45	4	36	1	0

Quartets I - VIII

for String Quartet with or without Electronics

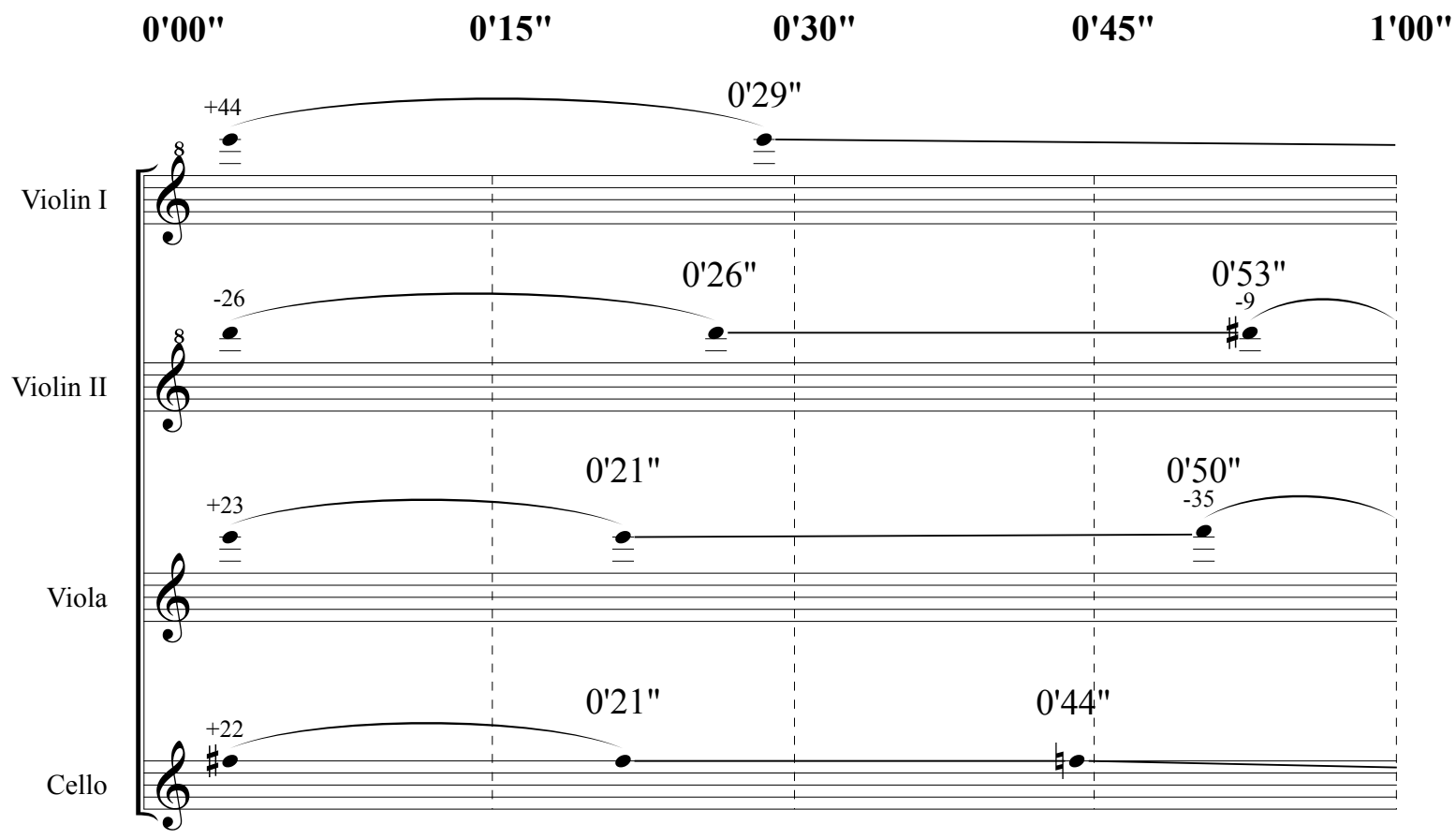
Hollas Longton

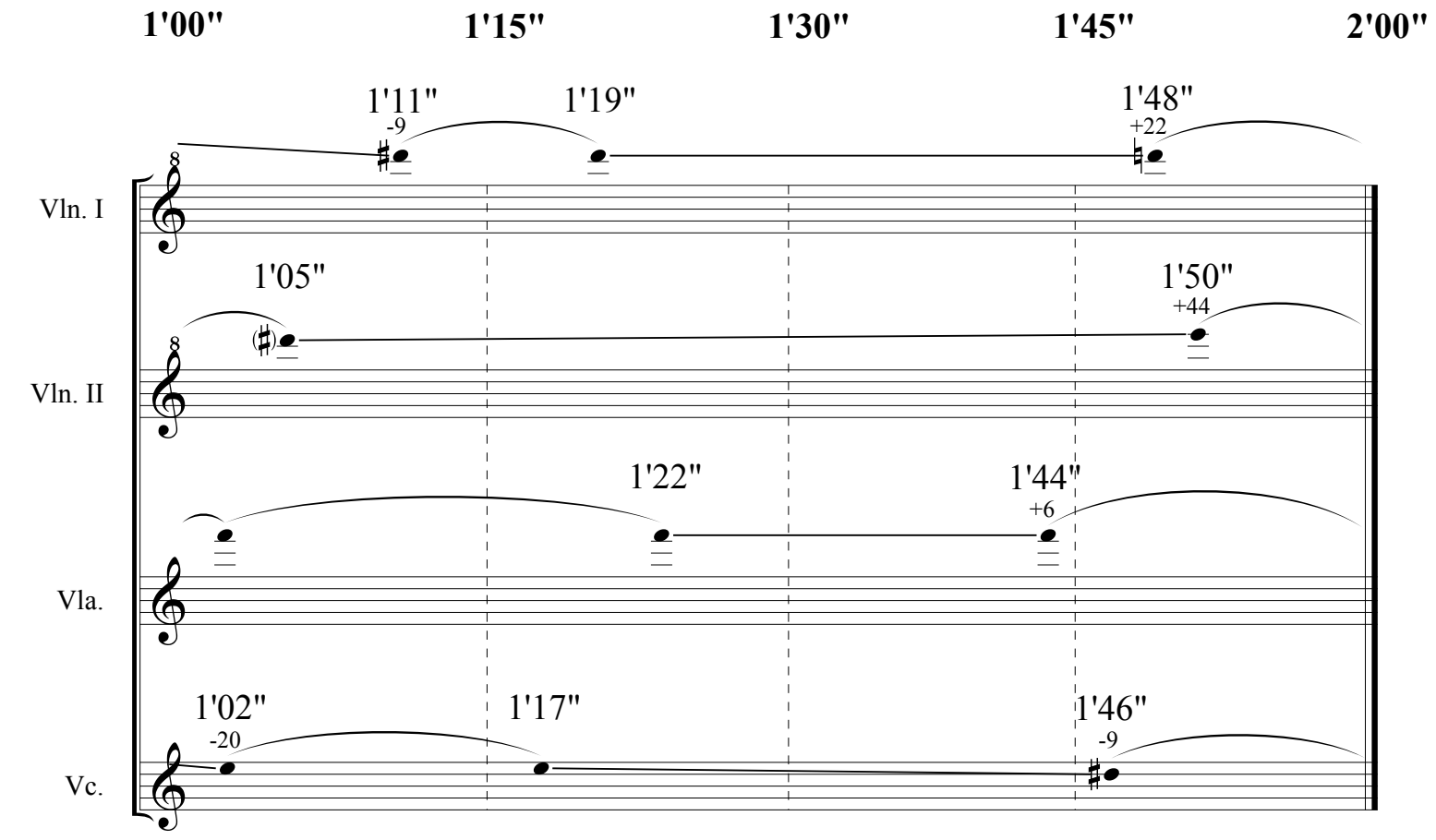
- No vibrato.
- Instruments should try to match dynamics but be as loud as possible at all times.
- Bow changes should be as subtle as possible.
- Numbers above the noteheads indicate cent deviations from the equal-tempered scale, where one cent equals 1/100th of a semitone. Tuners should be used to aid in the initial practice of these pitches but only if absolutely necessary in performance. It is not expected that pitches and glisses will occur exactly where they are indicated. The nature of the music aids you in hearing the smallest of pitch deviations.
- All notation is spatial. All bars are 15 seconds long. Notes are spaced where they occur in the bar, but timings above the noteheads are also indicated.
- All movements are two minutes long. Notes are held until the end of each movement, when they are cut off together. Use of a timer visible to all quartet members is highly recommended.
- Pitches may be played either by fingering the sounding pitch, or with the use of artificial harmonics. Any number of instruments may use either method of sound production, as long as the dynamic level is fairly even and the general sound blends. Experiment with this.

This piece is made up of 12 separate two-minute movements. The performers choose at least four of them to be played at any given time, but may play them in any order. Once the number and order of movements is chosen, there are four possible ways to play this piece, and they vary in setup and complexity (MAX/MSP patches are attached):

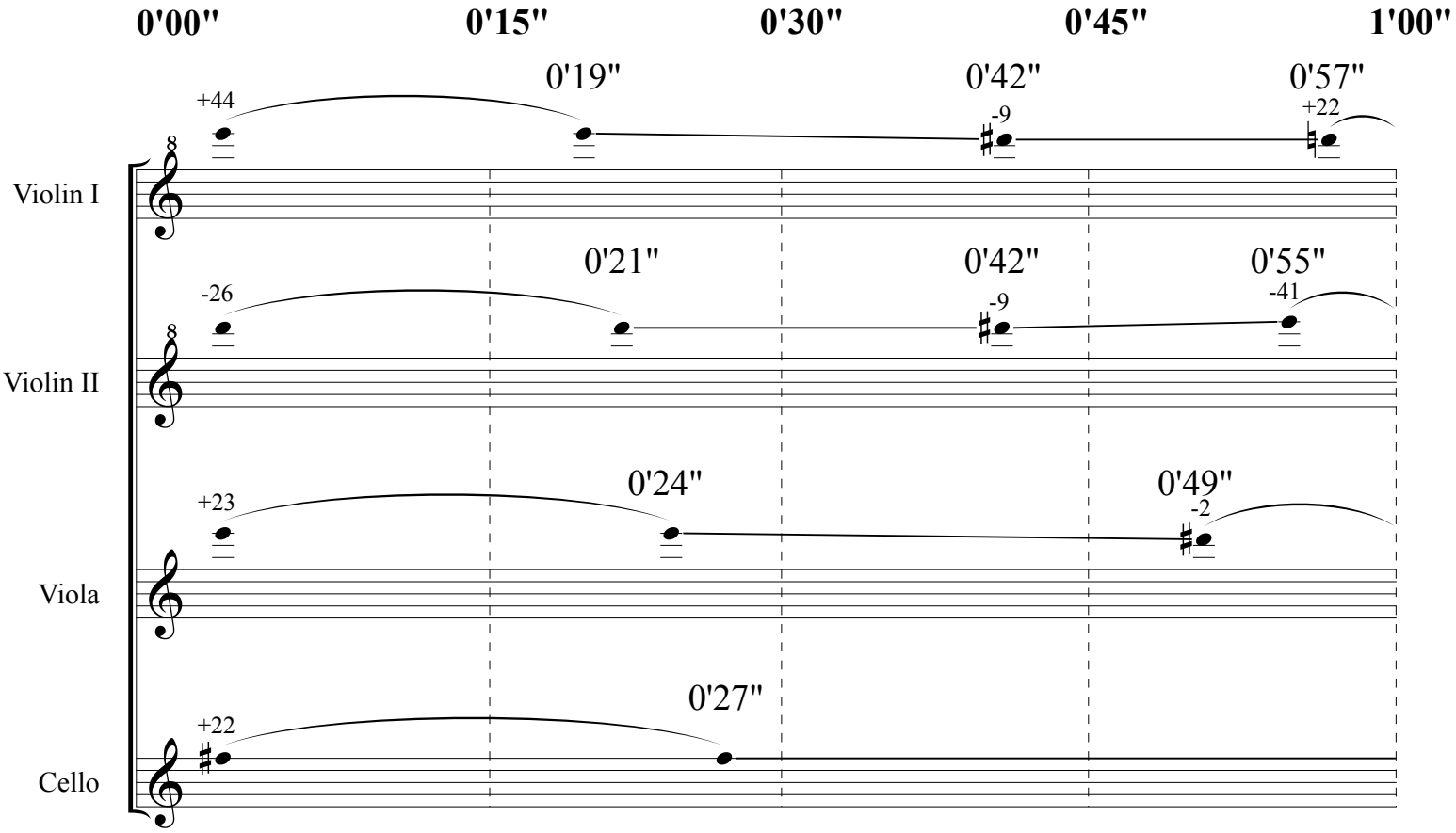
1) Play the score as is without any additional electronics.
2) Play the score with the addition of contact microphones and a MAX/MSP patch which simulates distortion pedals (used to amplify the presence of difference tones). (This can be done with real pedals instead of the patch as long as the 1st Violin and the Viola are plugged into the same pedal, and the 2nd Violin and the Cello are plugged into the same pedal.)
3) Play the score with the addition of contact microphones and a MAX/MSP patch which simulates ring modulation against a static sine tone chord.
4) Play the score with the addition of the static sine tone chord but without the patch.

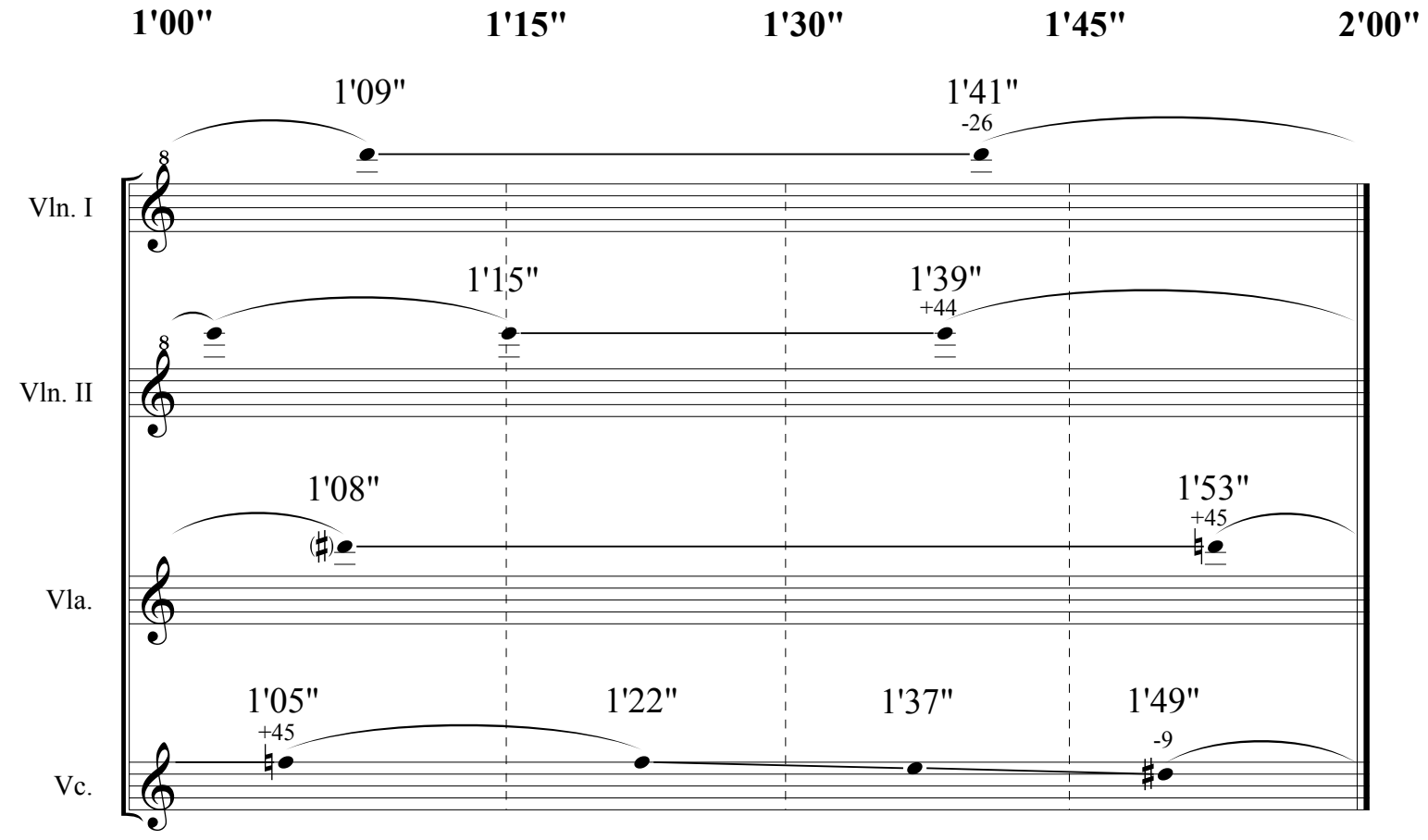
I


0'00"
0'15"
0'30"
0'45"
1'00"
Violin I
Violin II
Viola
Cello
+44
0'29"
-26
0'26"
0'53"
-9
+23
0'21"
0'50"
-35
+22
0'21"
0'44"

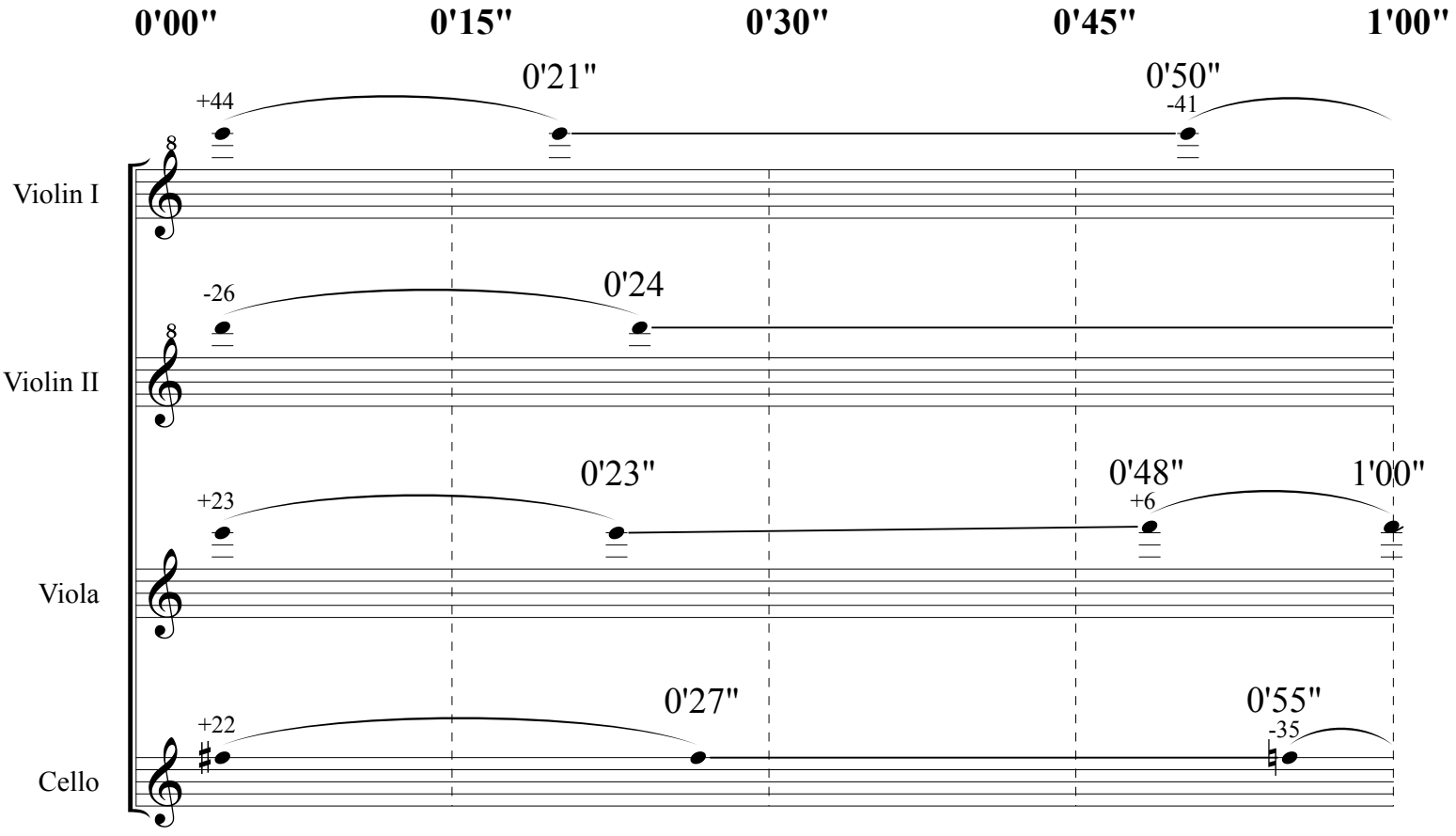

1'00"
1'15"
1'30"
1'45"
2'00"
Vln. I
Vln. II
Vla.
Vc.
1'11"
-9
1'19"
1'48"
+22
1'05"
1'50"
+44
1'22"
1'44"
+6
1'02"
-20
1'17"
1'46"
-9

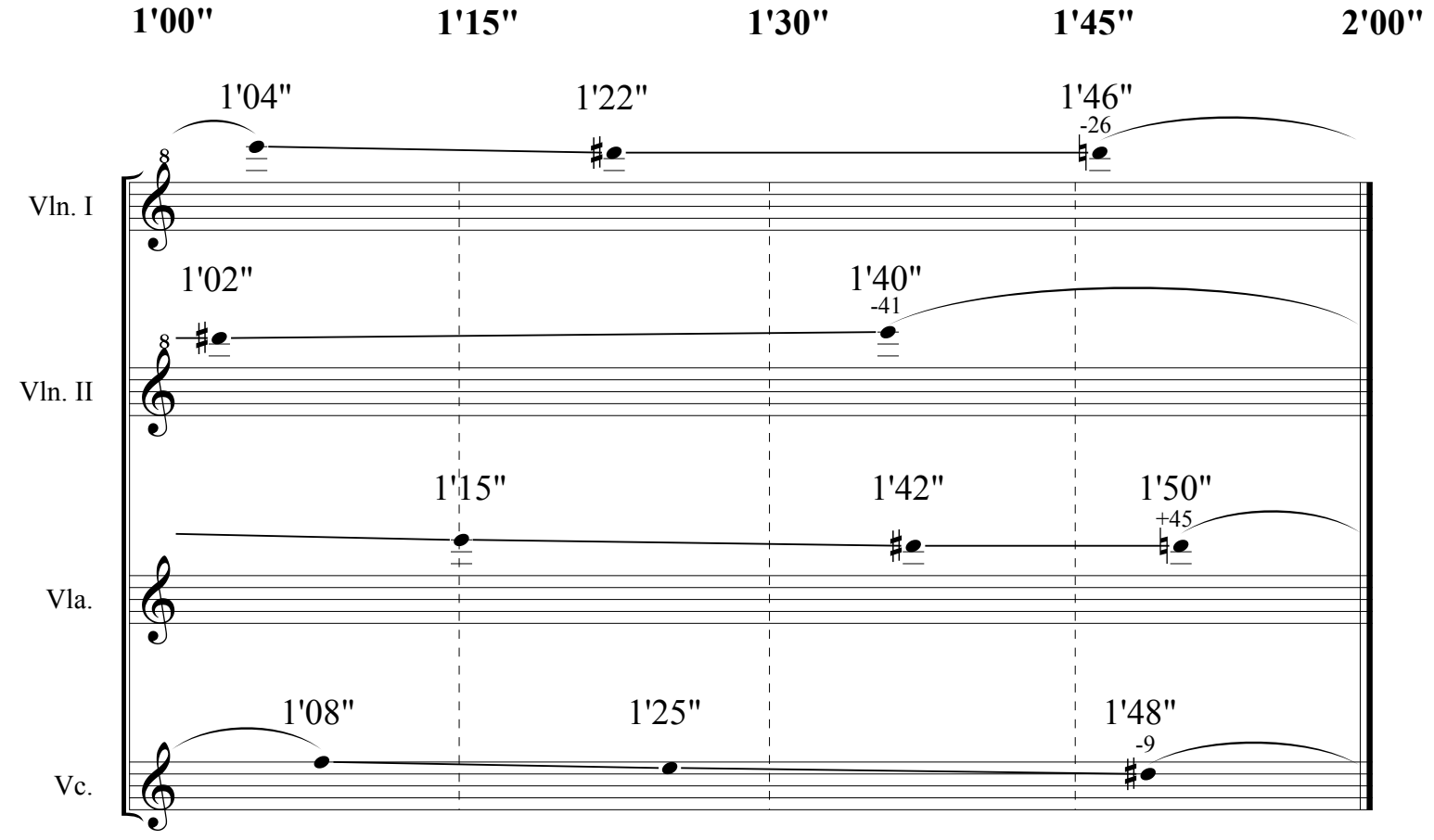
II


0'00"
0'15"
0'30"
0'45"
1'00"
Violin I
+44
0'19"
-9
0'42"
+22
0'57"
Violin II
-26
0'21"
-9
0'42"
-41
0'55"
Viola
+23
0'24"
-2
0'49"
Cello
+22
0'27"

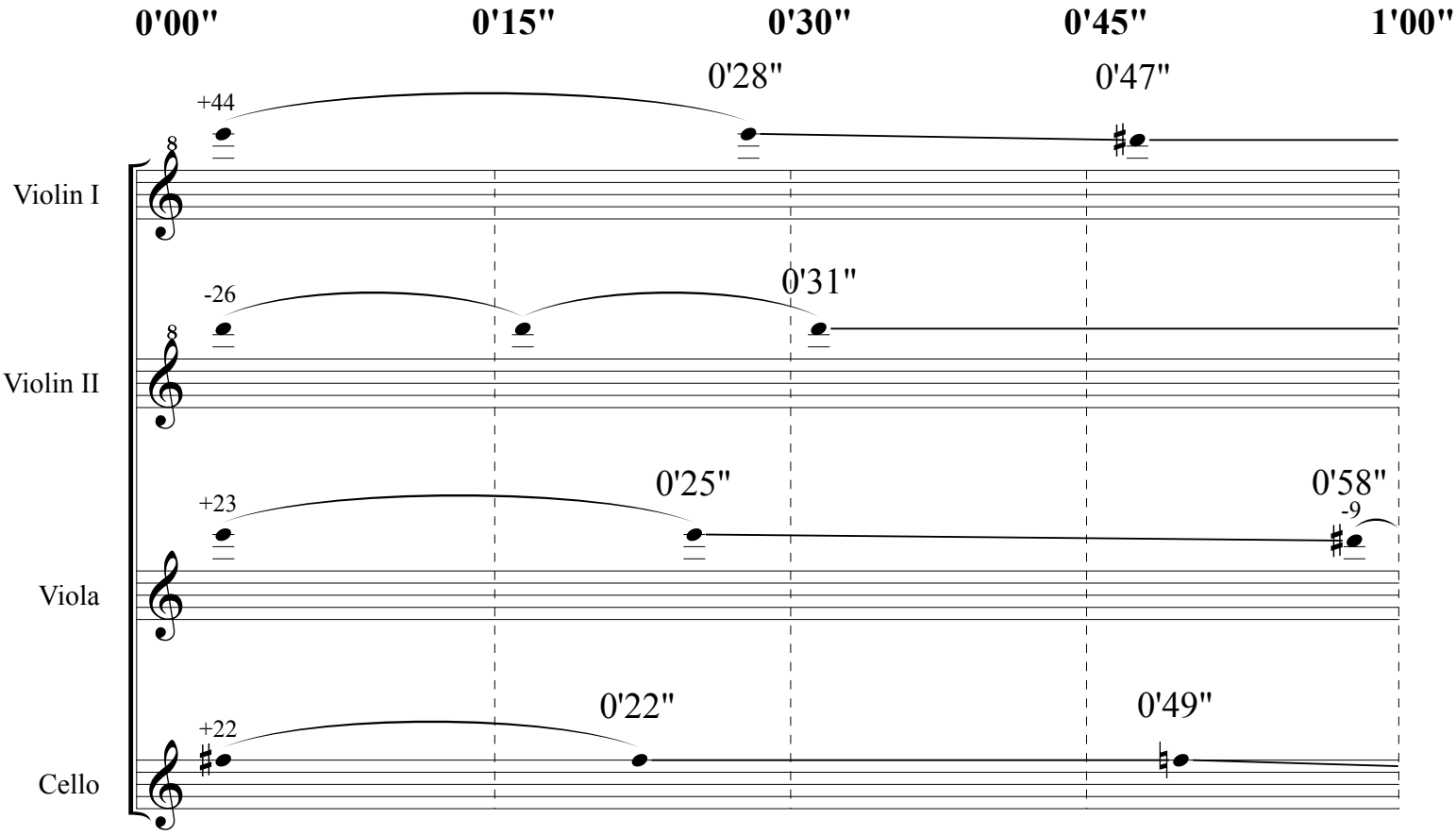

1'00"
1'15"
1'30"
1'45"
2'00"
Vln. I
1'09"
-26
1'41"
Vln. II
1'15"
+44
1'39"
Vla.
1'08"
1'53"
+45
Vc.
1'05"
+45
1'22"
1'37"
1'49"
-9

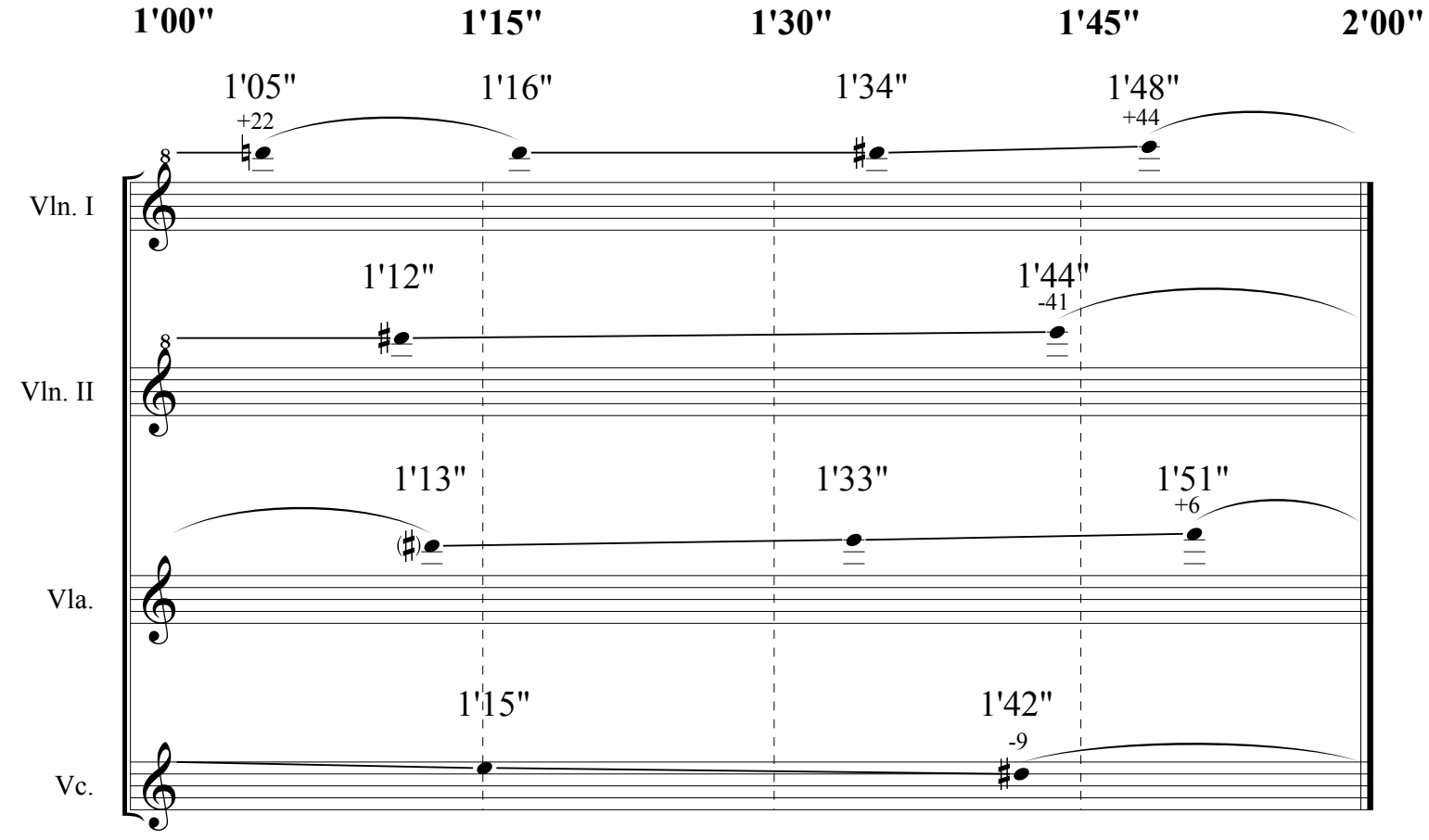
III


0'00"
0'15"
0'30"
0'45"
1'00"
0'21"
0'50"
+44
-41
Violin I
-26
0'24
Violin II
0'23"
0'48"
1'00"
+23
+6
Viola
0'27"
0'55"
+22
-35
Cello

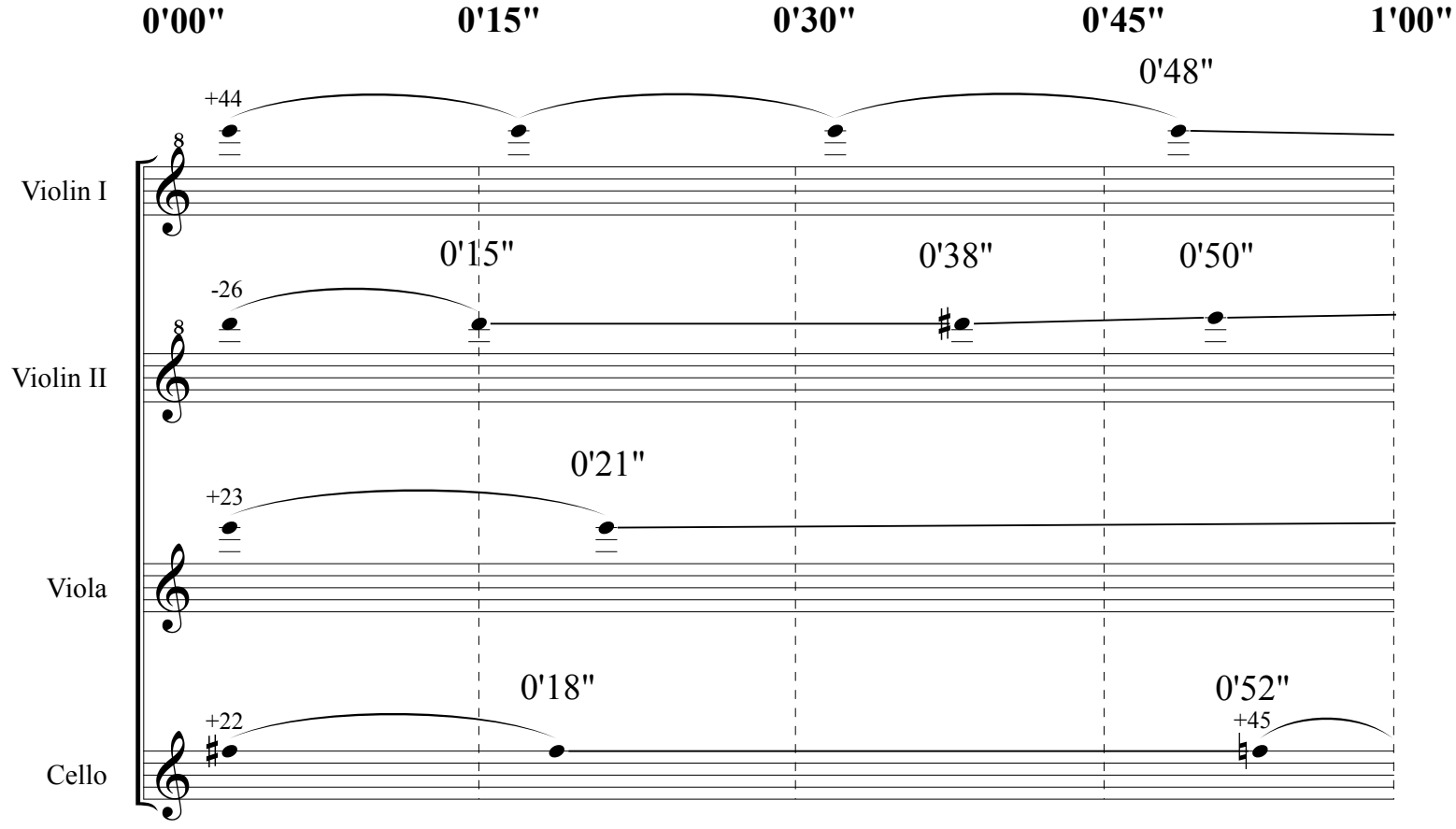

1'00"
1'15"
1'30"
1'45"
2'00"
1'04"
1'22"
1'46"
-26
Vln. I
1'02"
1'40"
-41
Vln. II
1'15"
1'42"
1'50"
+45
Vla.
1'08"
1'25"
1'48"
-9
Vc.

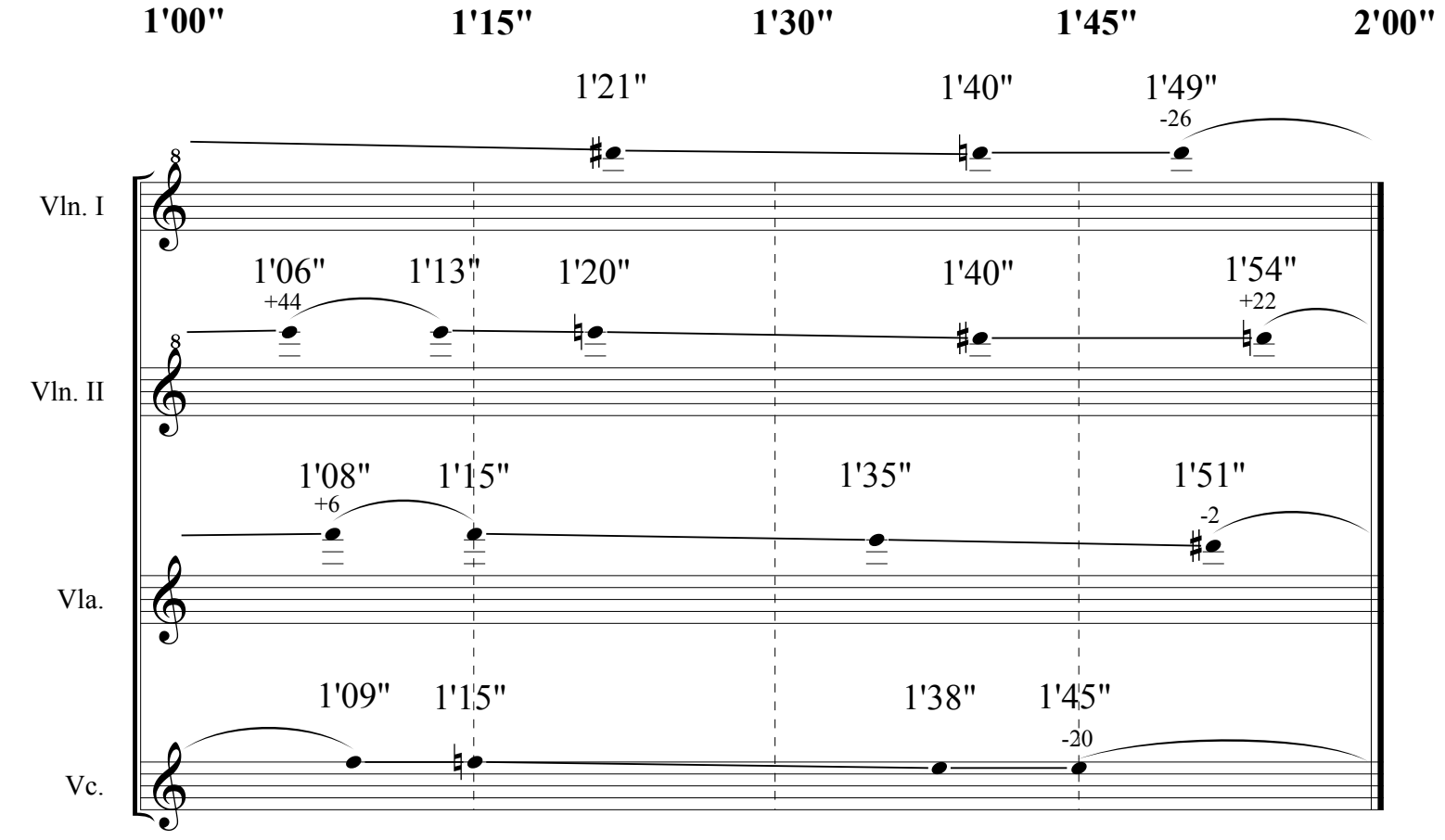
IV


0'00"
0'15"
0'30"
0'45"
1'00"
Violin I
Violin II
Viola
Cello
+44
0'28"
0'47"
-26
0'31"
+23
0'25"
0'58"
-9
+22
0'22"
0'49"

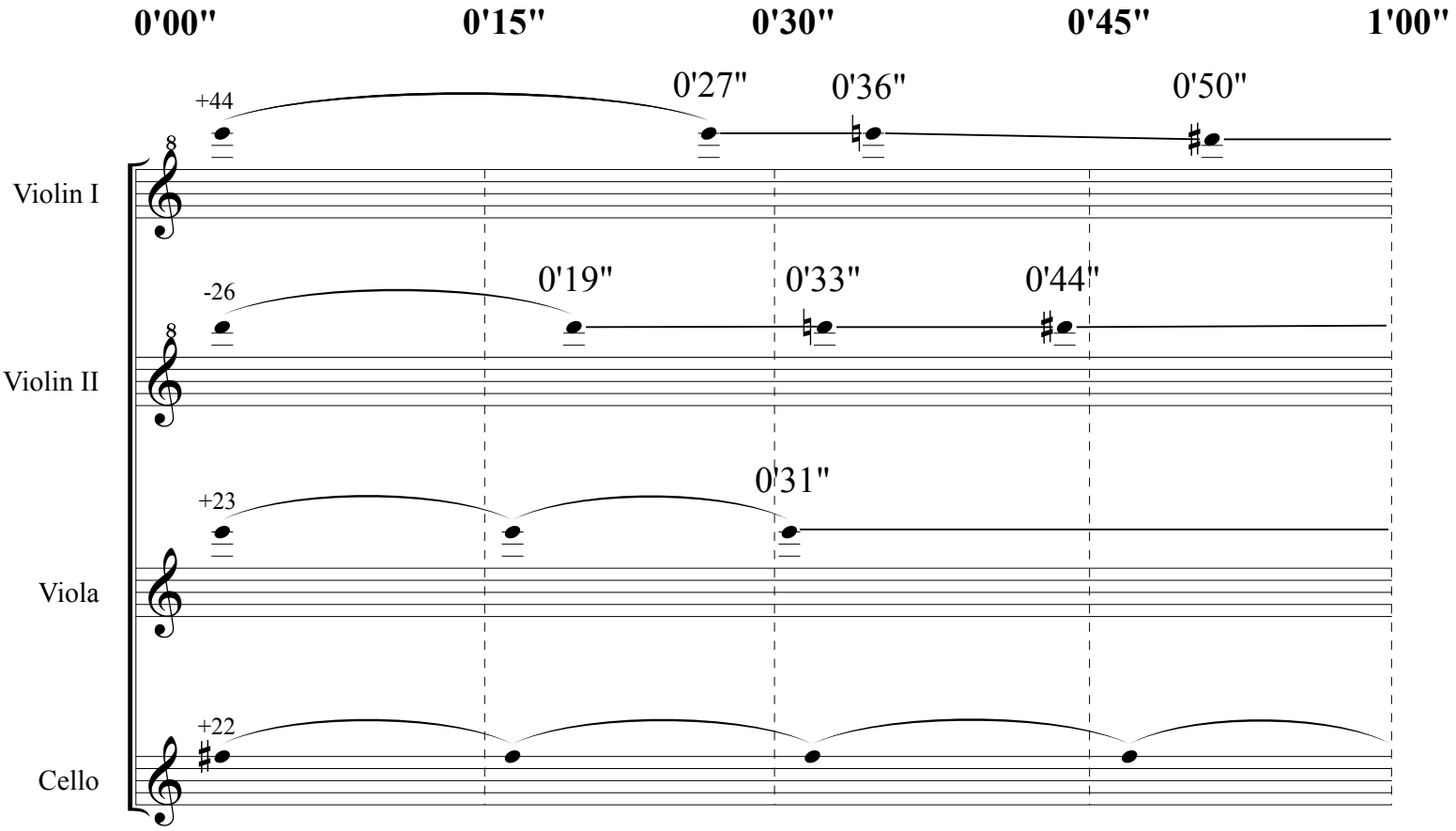

1'00"
1'15"
1'30"
1'45"
2'00"
Vln. I
Vln. II
Vla.
Vc.
1'05"
+22
1'16"
1'34"
1'48"
+44
1'12"
1'44"
-41
1'13"
1'33"
1'51"
+6
1'15"
1'42"
-9

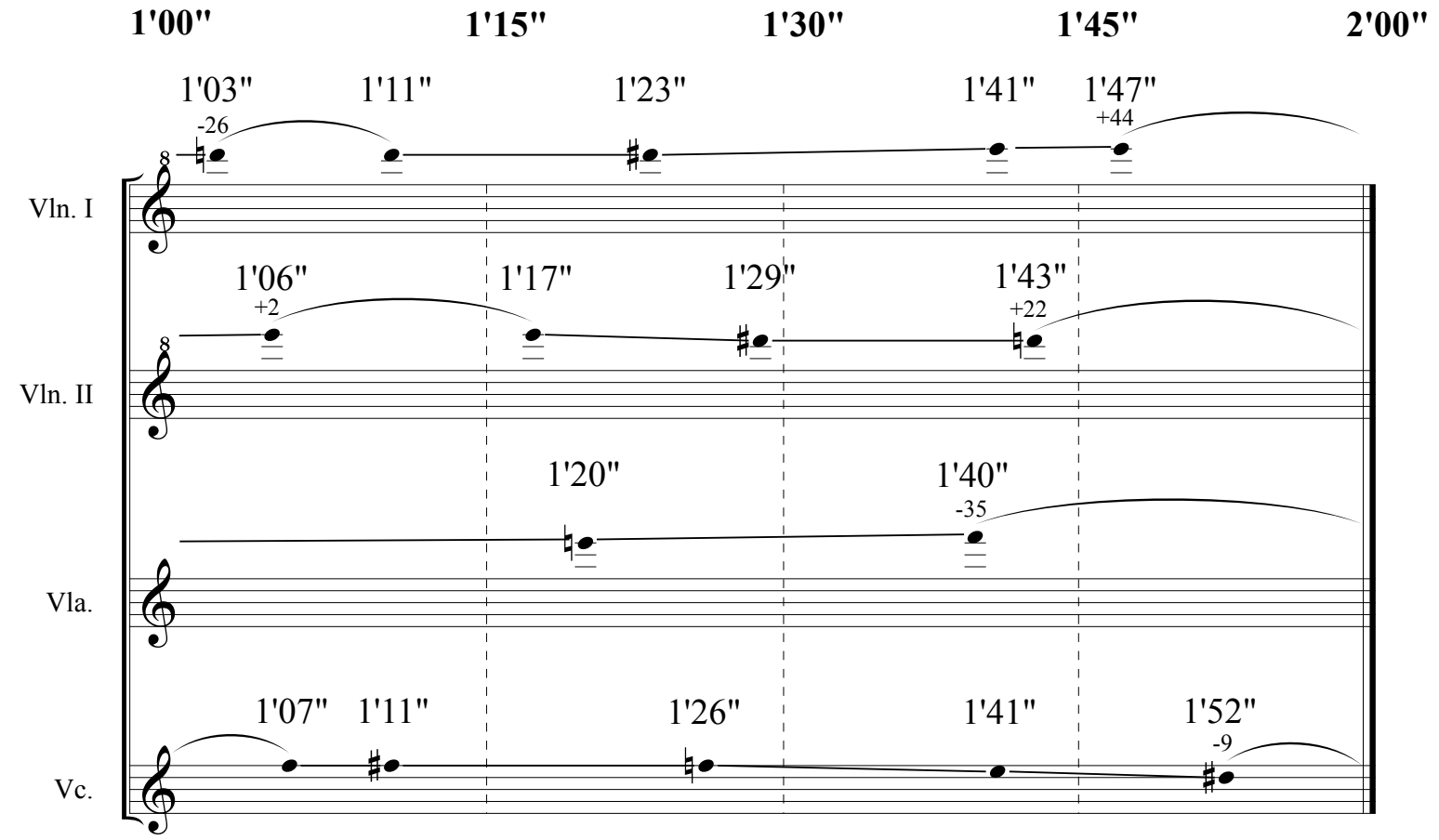
V


0'00"
0'15"
0'30"
0'45"
1'00"
0'48"
+44
Violin I
0'15"
0'38"
0'50"
-26
Violin II
0'21"
+23
Viola
0'18"
0'52"
+22
+45
Cello

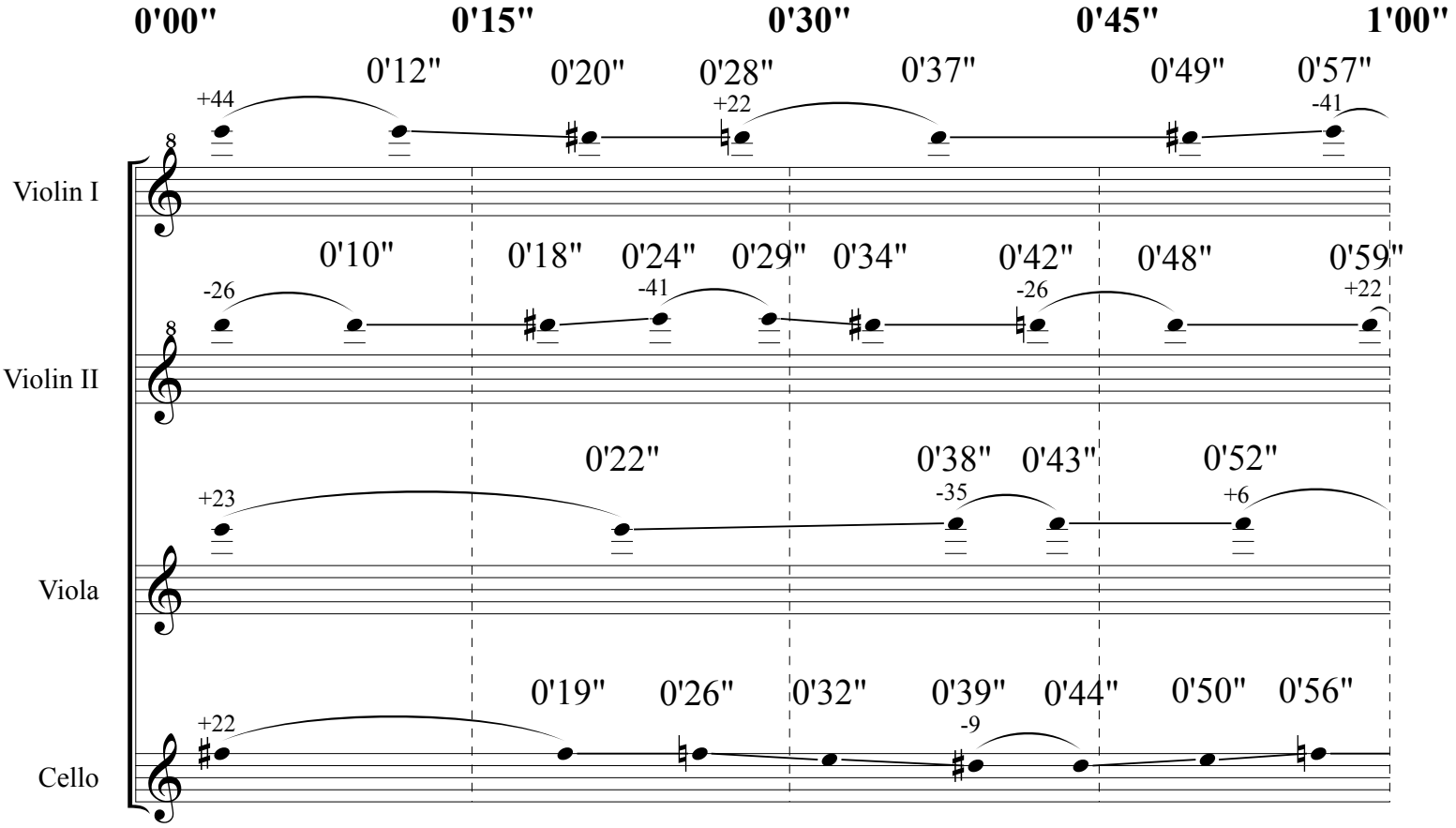

1'00"
1'15"
1'30"
1'45"
2'00"
1'21"
1'40"
1'49"
-26
Vln. I
1'06"
1'13"
1'20"
1'40"
1'54"
+44
+22
Vln. II
1'08"
1'15"
1'35"
1'51"
+6
-2
Vla.
1'09"
1'15"
1'38"
1'45"
-20
Vc.

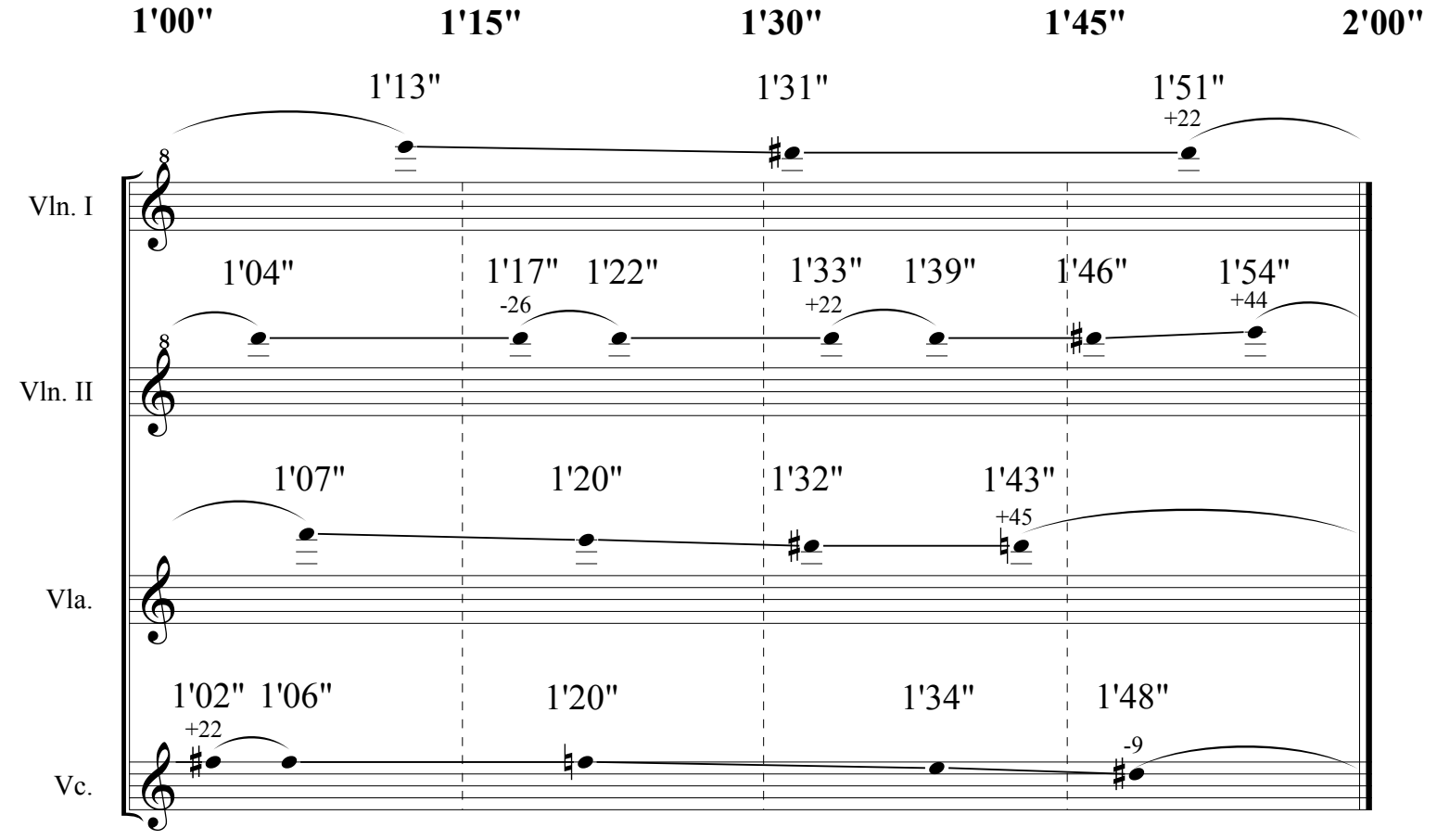
VI


0'00"
0'15"
0'30"
0'45"
1'00"
Violin I
+44
0'27"
0'36"
0'50"
Violin II
-26
0'19"
0'33"
0'44"
Viola
+23
0'31"
Cello
+22

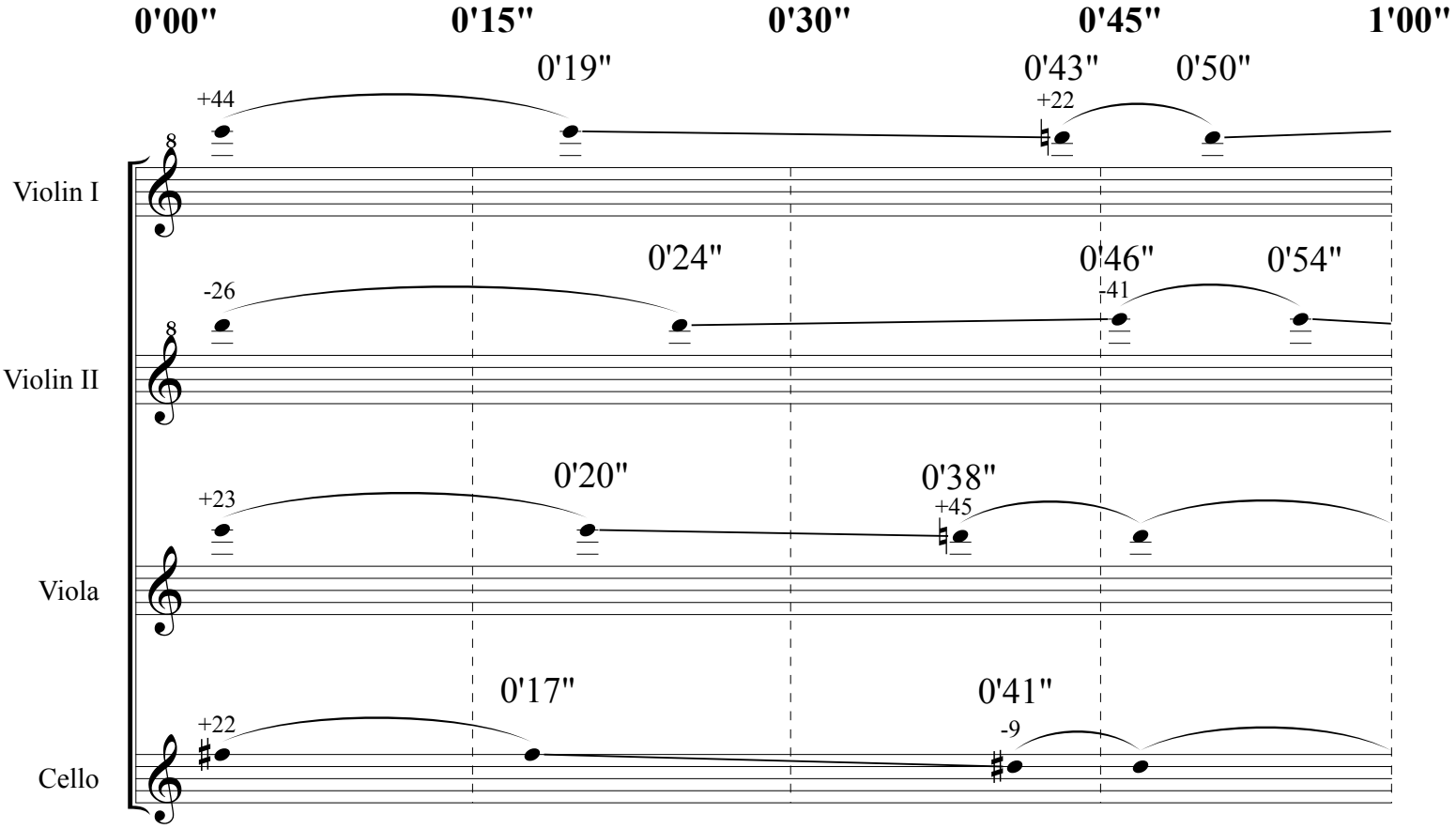

1'00"
1'15"
1'30"
1'45"
2'00"
Vln. I
1'03"
-26
1'11"
1'23"
1'41"
1'47"
+44
Vln. II
1'06"
+2
1'17"
1'29"
1'43"
+22
Vla.
1'20"
1'40"
-35
Vc.
1'07"
1'11"
1'26"
1'41"
1'52"
-9

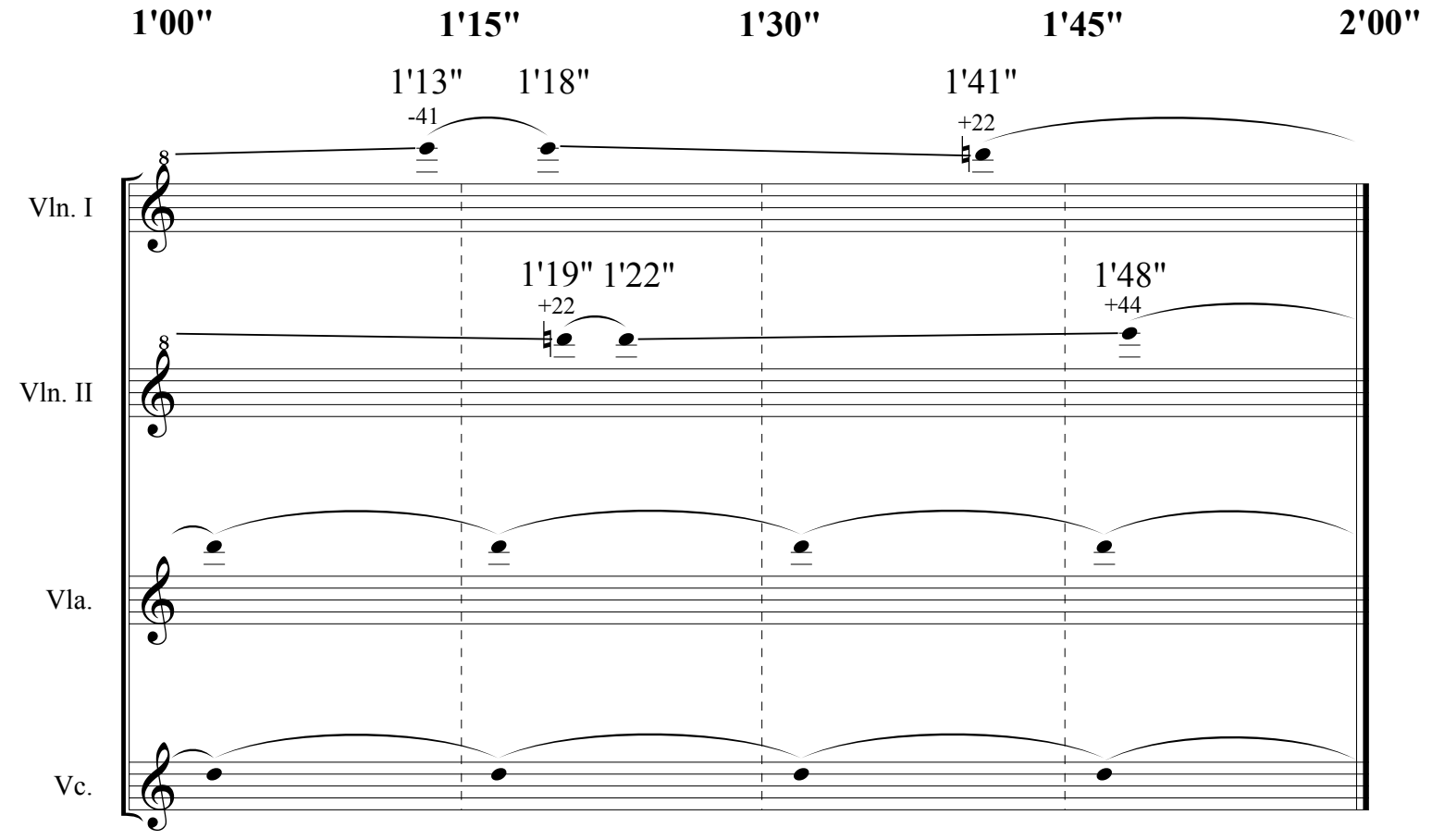
VII


0'00"
0'15"
0'30"
0'45"
1'00"
Violin I
0'12"
0'20"
0'28"
0'37"
0'49"
0'57"
+44
+22
-41
Violin II
0'10"
0'18"
0'24"
0'29"
0'34"
0'42"
0'48"
0'59"
-26
-41
-26
+22
Viola
0'22"
0'38"
0'43"
0'52"
+23
-35
+6
Cello
0'19"
0'26"
0'32"
0'39"
0'44"
0'50"
0'56"
+22
-9


1'00"
1'15"
1'30"
1'45"
2'00"
Vln. I
1'13"
1'31"
1'51"
+22
Vln. II
1'04"
1'17"
1'22"
1'33"
1'39"
1'46"
1'54"
-26
+22
+44
Vla.
1'07"
1'20"
1'32"
1'43"
+45
Vc.
1'02"
1'06"
1'20"
1'34"
1'48"
+22
-9

VIII


0'00"
0'15"
0'30"
0'45"
1'00"
0'19"
0'43"
0'50"
+44
+22
Violin I
0'24"
0'46"
0'54"
-26
-41
Violin II
0'20"
0'38"
+23
+45
Viola
0'17"
0'41"
+22
-9
Cello


1'00"
1'15"
1'30"
1'45"
2'00"
1'13"
1'18"
1'41"
-41
+22
Vln. I
1'19"
1'22"
1'48"
+22
+44
Vln. II
Vla.
Vc.

'Rising' for James Tenney

Strings or Winds with variable and continuous tuning

Hollas Longton

Duration: 7-30’

- For 5-20 sustaining string or wind instruments of continuously variable pitch.
- It may be useful for mutes to be used so that dynamics are evenly matched throughout (especially if this piece is performed by trombones).

Before the performance the players should find a pitch which is easily playable by all of them (no octave transposition or open strings are allowed). The players sit or stand in a circle (if possible completely surrounding the audience). To begin the performance, players should all enter with this same pitch one at a time starting at one point in the circle and going around it in one direction. As each player enters, they should tune their pitch as exactly as possible to the person who entered previously. For this entrance only you may flatten or sharpen your pitch to match the others. Players should also match their volume to the previous player. If the circle is not complete (a semicircle), then the players at the ends should simply tune to their neighbour on the one side. Once all the players have played one full slow bow (or for winds one long breath), they should take both the bow and the left hand off the instrument (wind players should take their mouths off the instrument). After a short pause begin playing again, trying to match the pitch you held previously. It is preferable to be sharper rather than flatter in your estimation of your entering pitch. As the other players enters on their pitches in the same manner as the first entrance, you should notice that there are tuning discrepancies between them. If you are below the pitch of the player who entered directly previous, you should tune up very slowly to match them. If you are a higher pitch than the player who entered just before you, then you should stay on your pitch. You should not tune your pitch down to match the other players. After one slow bow or breath, you should take your fingers and mouth off the instrument and repeat this process again, trying to enter on the pitch you were just playing. The piece ends after the first player to start playing has traveled some arbitrary distance from the starting pitch. For a short performance this is approximately a major third above the starting pitch, for a medium performance a perfect fifth, and for a long performance an octave.

16 18 19 20

String Quartet

Hollas Longton

Duration: 19-20’

- The title of this piece refers to the numbers of the harmonics of the harmonic series which make up the pitch material (the 16th, 18th, 19th, and 20th harmonics).

- No vibrato.

- Numbers above the pitches indicate cent deviations from the equal-tempered scale (one cent equals 1/100th of a semitone).

- Exact intonation should be sought at all times. Be especially careful when playing a unison with another player. Tuners may be used.

- The A-string of the cello should be tuned down a whole tone to G. This is to ensure a more even harmonic spectrum. Make sure to tune all the G-strings together. All pitches should be played on the G-string.

- At the beginning of the piece the players should enter slowly one at a time. After their entrance a player should not stop playing.

- Each bar should last at least one minute. However, the bars do not need to be all the same length.

- The players should play *molto legato*, with a minimum of audible bow changes, and *molto sul ponticello* at all times. The players should favour the sound of the harmonics over that of the fundamental pitch. By changing the contact point, the angle of the bow, and by using long, slow *legato* strokes these harmonics should make a kind of random arpeggio on the harmonic series of the fingered pitch. At times you may find that a particular harmonic will speak very clearly. When this happens you should try to hold on to it as long as possible.

- Any member of the quartet may play any stave at any time, as long as all the pitches indicated within the given bar are sounding. Since no bar contains all four pitches, at least one pitch must be doubled within each bar. This means that the players should be keenly aware of which pitches are sounding and ensure that all the pitches within the bar are

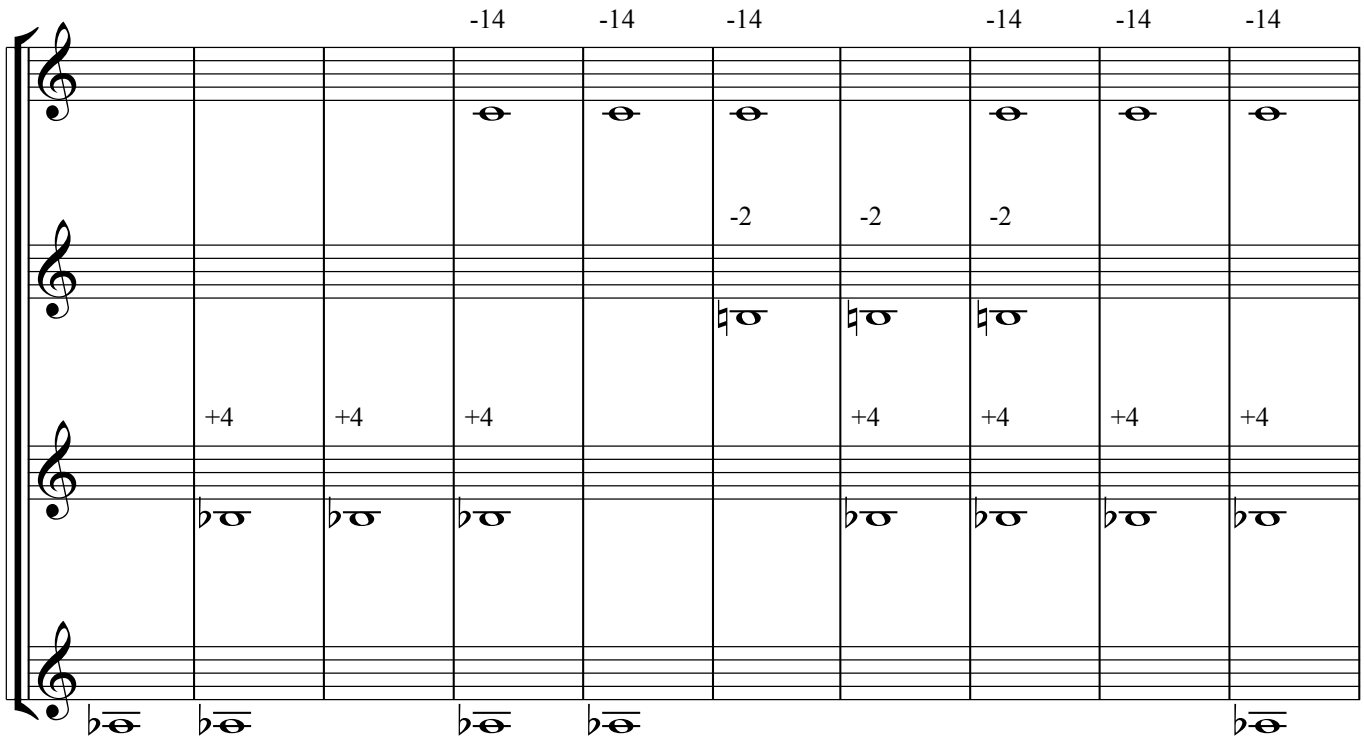
sounding. You may choose to change staves at any time, but this should not be done too erratically or too often.

- Players may play artificial harmonics by stopping the Ab and half-stopping any of the other pitches being played. This will produce the 5th to 9th harmonics (C -14 to Bb +4). This may be done even when the Ab is not present in the bar. When there is doubt as to the correct tuning of a pitch, natural resonances appearing out of the Ab, should be used as a guide for the other pitches.

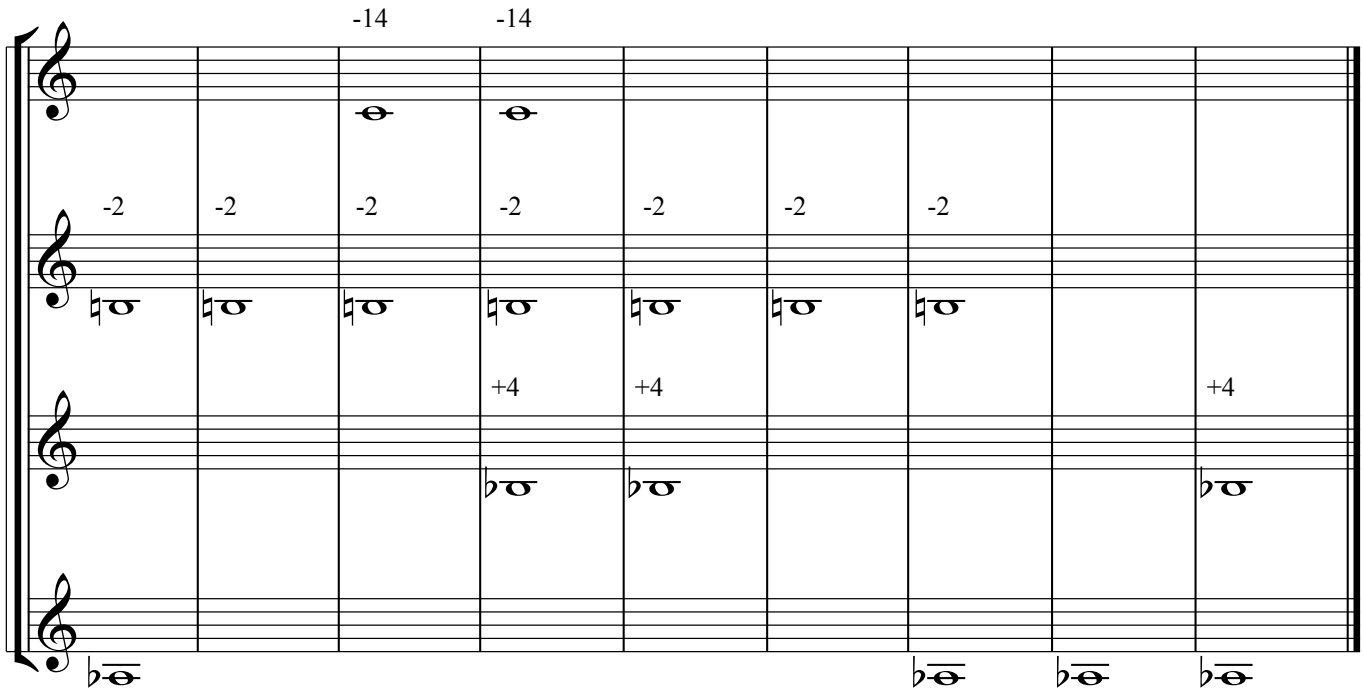
16 18 19 20

String Quartet

Hollas Longton



19-20'



Invisible Melody

for Tom Buckner

Hollas Longton

Duration: 4’

- This piece consists of a sine tone drone (an A at 110 Hz) and a one-note melody sung in unison with this drone. This melody is sung with various vowel sounds which emphasize different harmonics of the voice. Dynamics should be loud enough to make the different harmonics of the vowels clearly audible above the drone.

- The score indicates the rhythms and relative heights of the vowel sounds. These should be taken with a grain of salt, as the gestures contained within these rhythms are more important than the rhythms themselves.

- Unless otherwise noted, there should be a somewhat mechanical movement between vowel sounds.

- The marking 'legato' will be used to indicate a smoother change between vowels. The marking ‘normale' will be used to indicate a return to the mechanical movement.

- For the sections marked 'legato', it should be understood that the whole value of the note should be used to glissando from one vowel sound to the next, passing through the other vowel sounds if you are traveling between two non-adjacent vowels.

The vowel sounds I am using for this piece (ordered highest to lowest) are as follows:

E - is the sound 'ee' as in the letter ‘E'

A - is the sound 'ay' as in the letter ‘A'

Ah - is the sound 'ah' as in the words 'ask' or 'fat'

Aw - is the sound 'aw' as in the words 'awe' or 'raw'
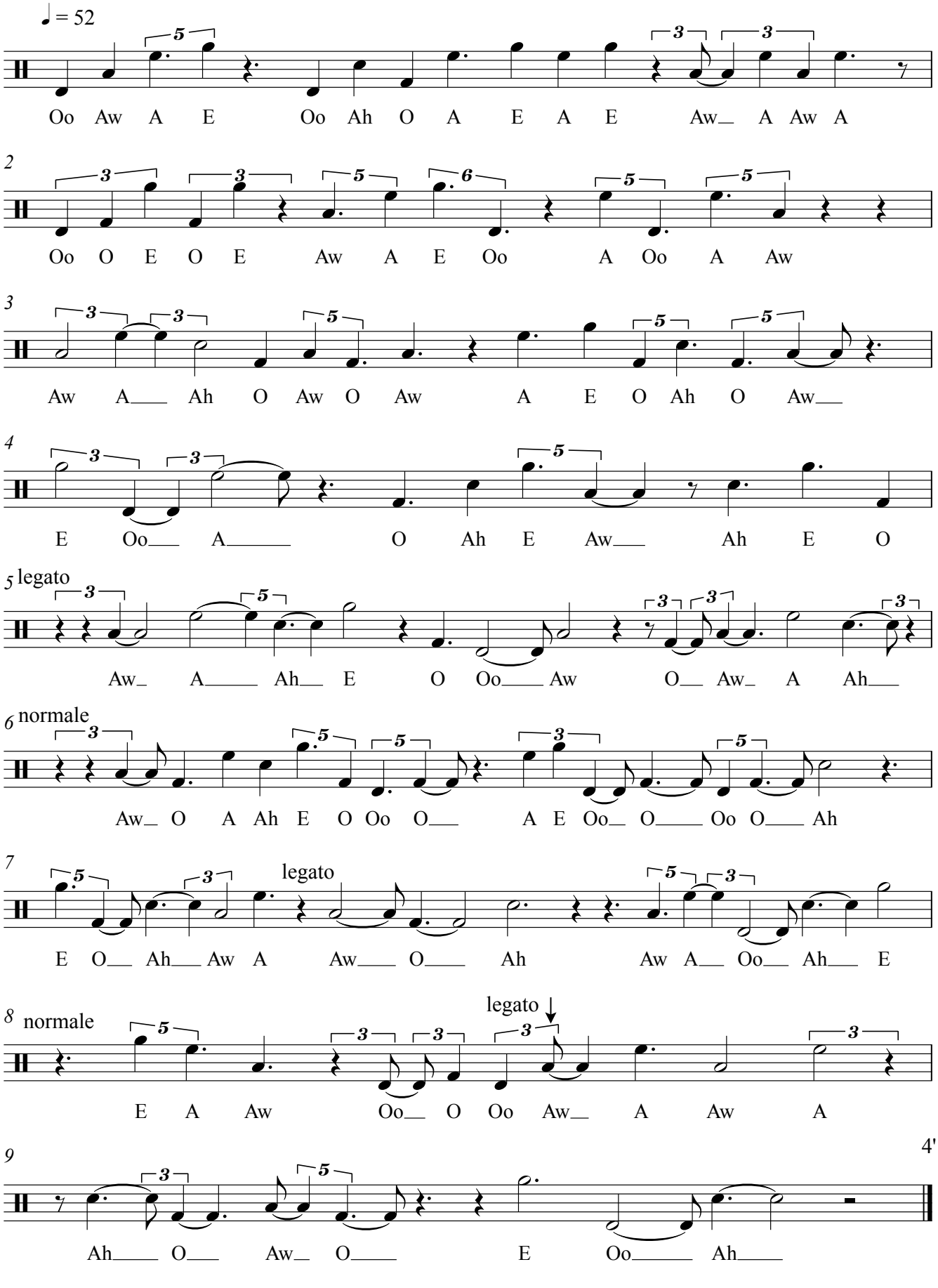
O - is the sound 'oh' as in the letter 'O'

Oo - is the sound 'oo' as in 'oops'

Invisible Melody

for Tom Buckner

Hollas Longton



Immobile #1

for Electric Guitar, Cello, and Trombone

(QME Trio)

Hollas Longton

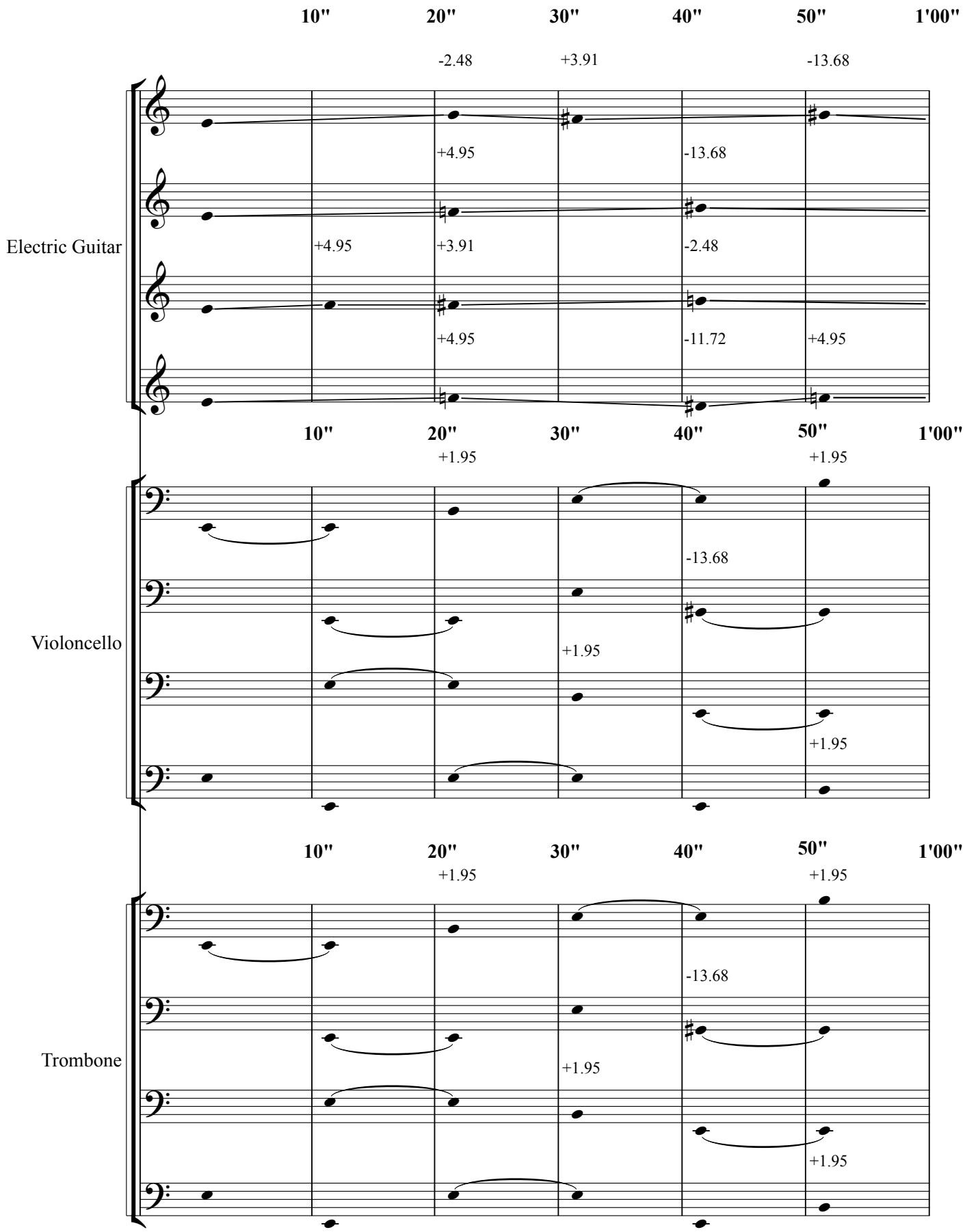
Duration: 4'10”
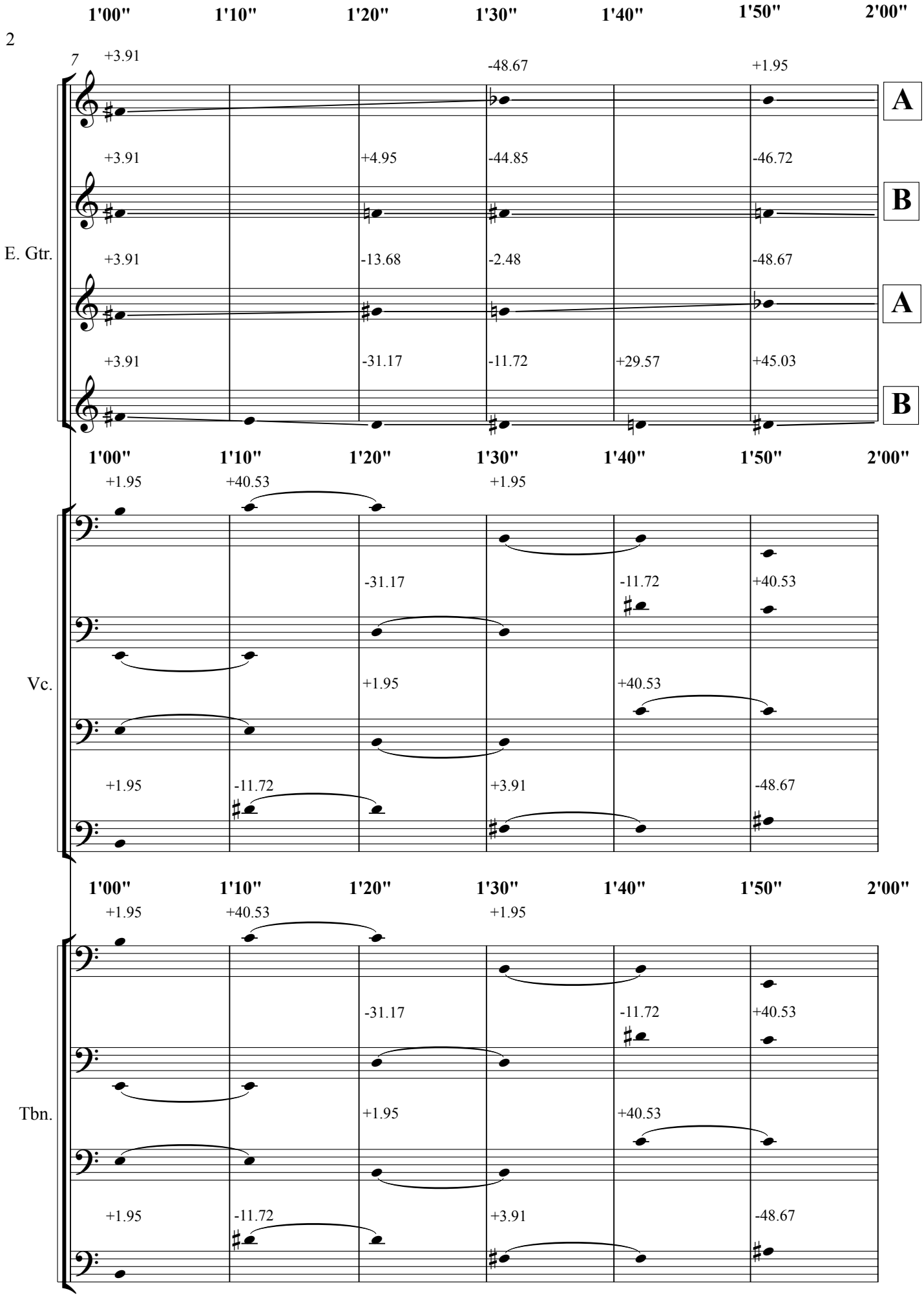
- No vibrato.
- All notes are to be played legato, with the minimum of space between pitches.
- All dynamics should be quiet, but loud enough so that harmonic resonances are audible. The instruments should take care to blend their dynamics and timbres and bring out these resonances.
- Numbers above noteheads indicate cent deviations from the equal-tempered scale, where one cent equals 1/100th of one semitone (1200 cents equal one octave).
- Each bar is ten seconds long. Timings are indicated above barlines. Pitches may be played anytime near the timing indicated.
- Noteheads along glissandi indicate places where the player should pause briefly (two seconds at most), but do not indicate points of arrival. Glissandi should be slow and measured, but need not be exact.
- Electric Guitar should be played with an ebow and a slide.
- Cello and Trombone share the same part.
- Trombone should be played with a straight mute.
- Each part contains four staves. The players each choose one stave per page to play. You may choose any stave for any page. However, the Electric Guitar staves marked with either “A” or “B” must be followed or preceded by a stave marked with the same letter. Because the Cello and the Trombone have the same material in their staves, a small amount of planning should be taken to ensure that they choose different staves.
- The whole piece may be repeated up to three times. Players should choose a different stave with each repetition.
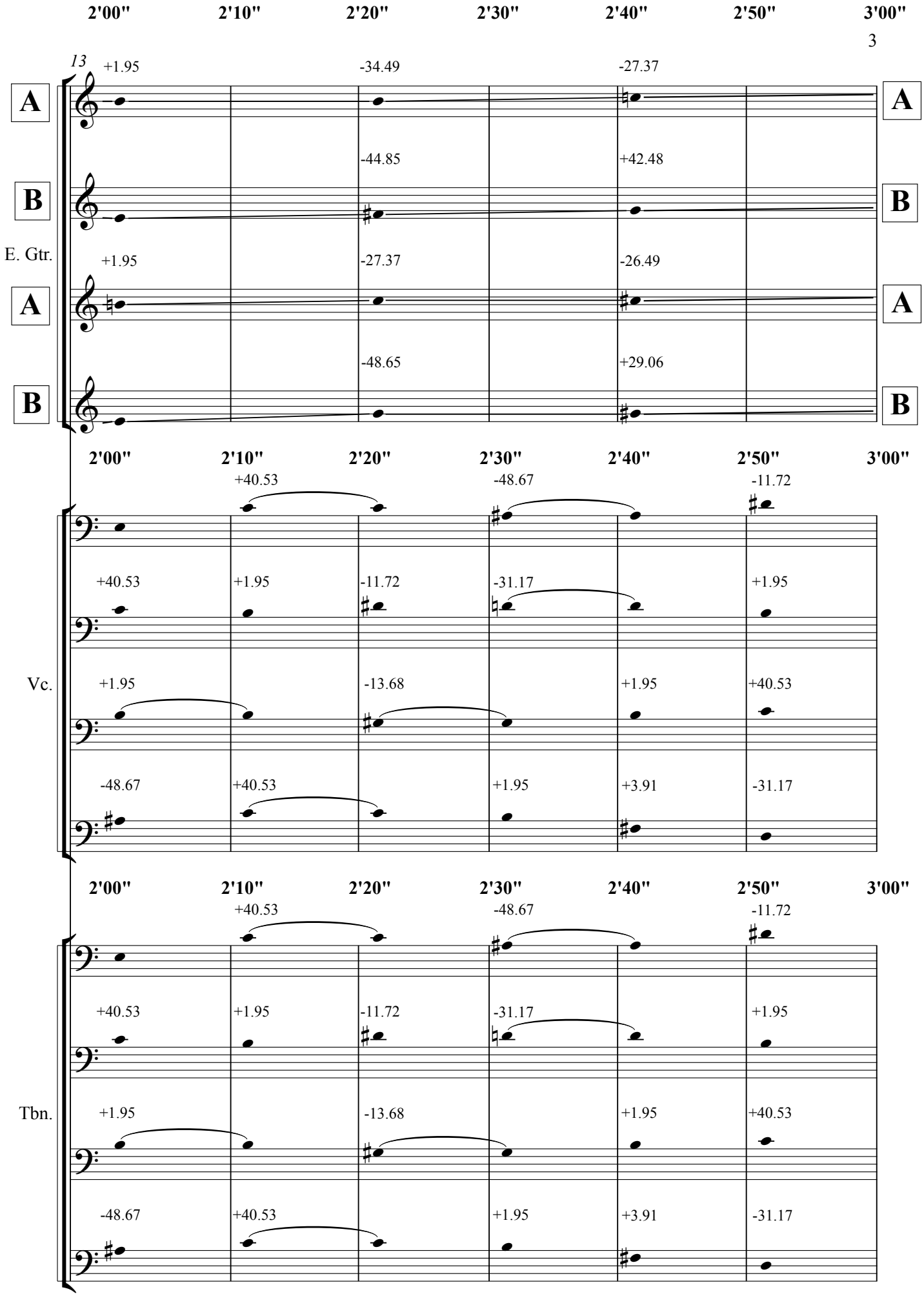
Immobile #1

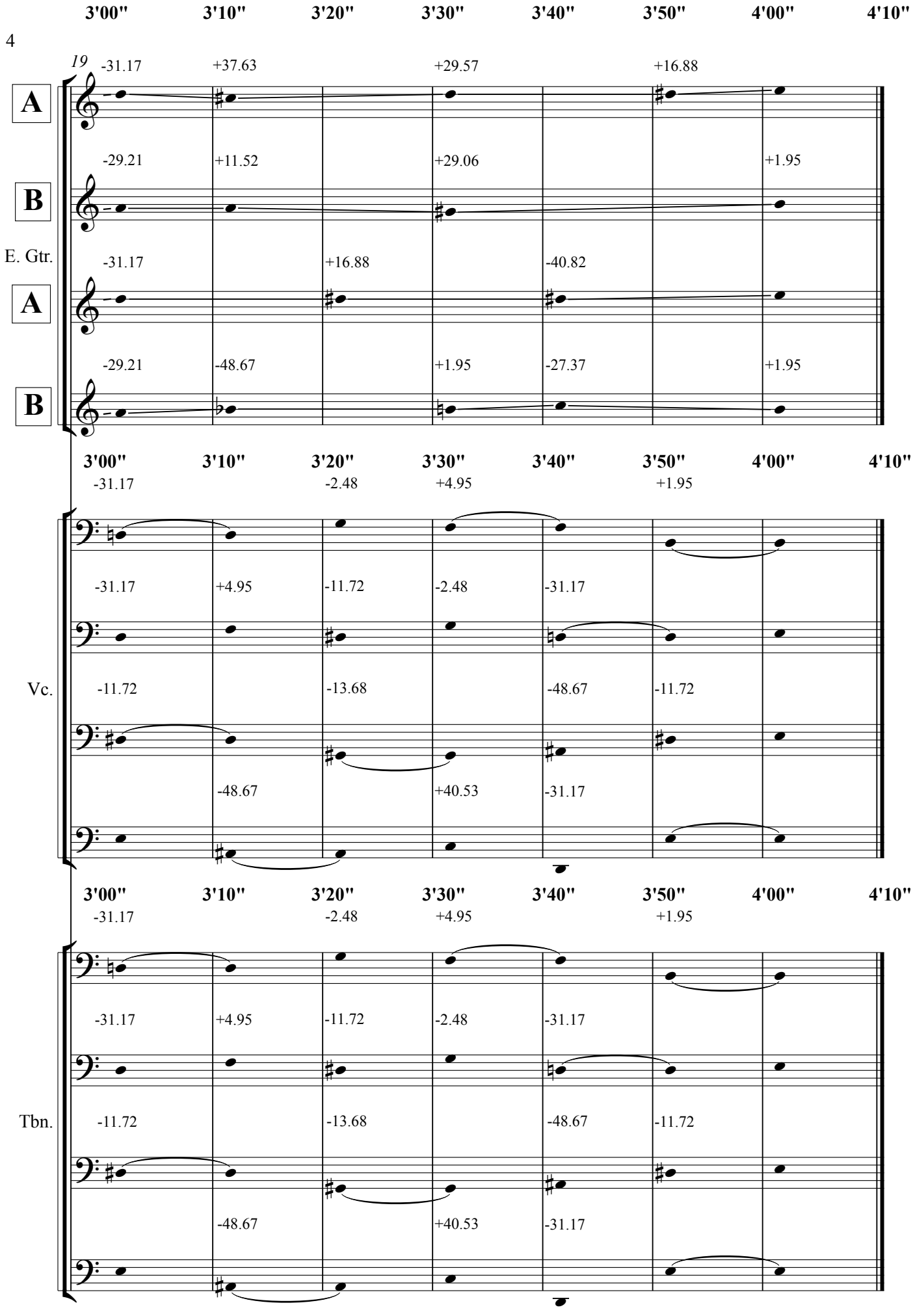
for QME Trio

Hollas Longton




1'00"
1'10"
1'20"
1'30"
1'40"
1'50"
2'00"
7
E. Gtr.
A
B
Vc.
Tbn.


2'00"
2'10"
2'20"
2'30"
2'40"
2'50"
3'00"
13
A
B
E. Gtr.
Vc.
Tbn.
+1.95
-34.49
-27.37
-44.85
+42.48
-26.49
-48.65
+29.06
+40.53
-48.67
-11.72
-11.72
-31.17
-13.68
+3.91


3'00"
3'10"
3'20"
3'30"
3'40"
3'50"
4'00"
4'10"
19
-31.17
+37.63
+29.57
+16.88
A
-29.21
+11.52
+29.06
+1.95
B
E. Gtr.
-31.17
+16.88
-40.82
A
-29.21
-48.67
+1.95
-27.37
+1.95
B
-31.17
-2.48
+4.95
+1.95
-31.17
+4.95
-11.72
-2.48
-31.17
Vc.
-11.72
-13.68
-48.67
-11.72
-48.67
+40.53
-31.17
-31.17
-2.48
+4.95
+1.95
-31.17
+4.95
-11.72
-2.48
-31.17
Tbn.
-11.72
-13.68
-48.67
-11.72
-48.67
+40.53
-31.17

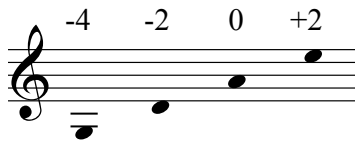
Walk Until Morning

String Quartet
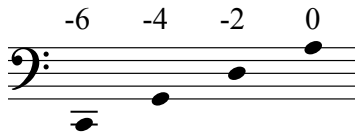
Hollas Longton

Duration: 17 - 68’

- No vibrato.
- Strings are specified using roman numerals I - IV where IV is the G-string and I is the E-string.
- For harmonics, string numbers are indicated with a roman numeral while the harmonic number is indicated in superscript above it. In this system ‘1’ is the fundamental pitch (open string) rather than the first fingered harmonic.
- Numbers above notes indicate cent deviations from the equal-tempered scale (one cent equals 1/100th of a semitone).
- The open strings of the violin are tuned in just perfect 5ths outwards from A as such:



- The open strings of the viola and cello follow the same pattern of just perfect 5ths. The viola is tuned an octave higher than the cello (as normal):



- The pitches in this piece come from linking just intervals to one another to create a long melody. The top staff of the score is the cumulative sound of this melody.
- Letters and numbers in bold (e.g. **m7**) indicate the size of the interval used to produce the next pitch. In this example it is the interval of a minor 7th (a just ratio of 7:4).

- The following just intervals are used: **8ve** (2:1) (1200 cents), **m7** (7:4) (969 cents), **M6** (5:3) (884 cents), **P5** (3:2) (702 cents), **P4** (4:3) (498 cents), and **M3** (5:4) (386 cents). The inversions of these intervals are also used.

- Each bar is 10 - 40 seconds long. This length is further determined by the length of time it takes the harmony to feel ‘settled’ and for the various resonances within it to become audible. The players should move to the next bar only after this has occurred.

- For practice (and perhaps also in performance) tuners with cent deviation readout may be used. Players may need to attach contact mics to their bridges to connect to their tuners.

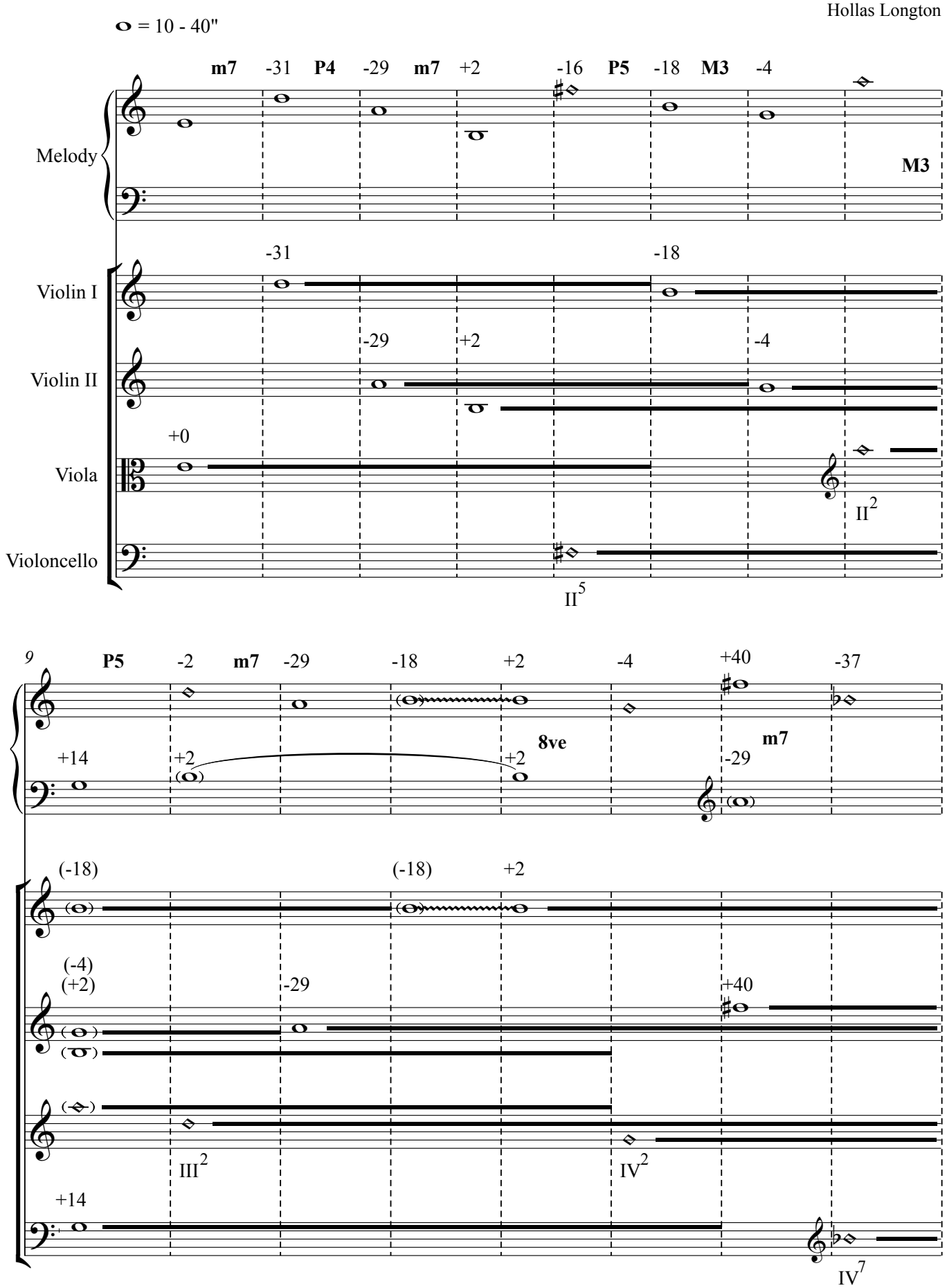
- Glissandi are notated with a zigzag rather than a straight line.

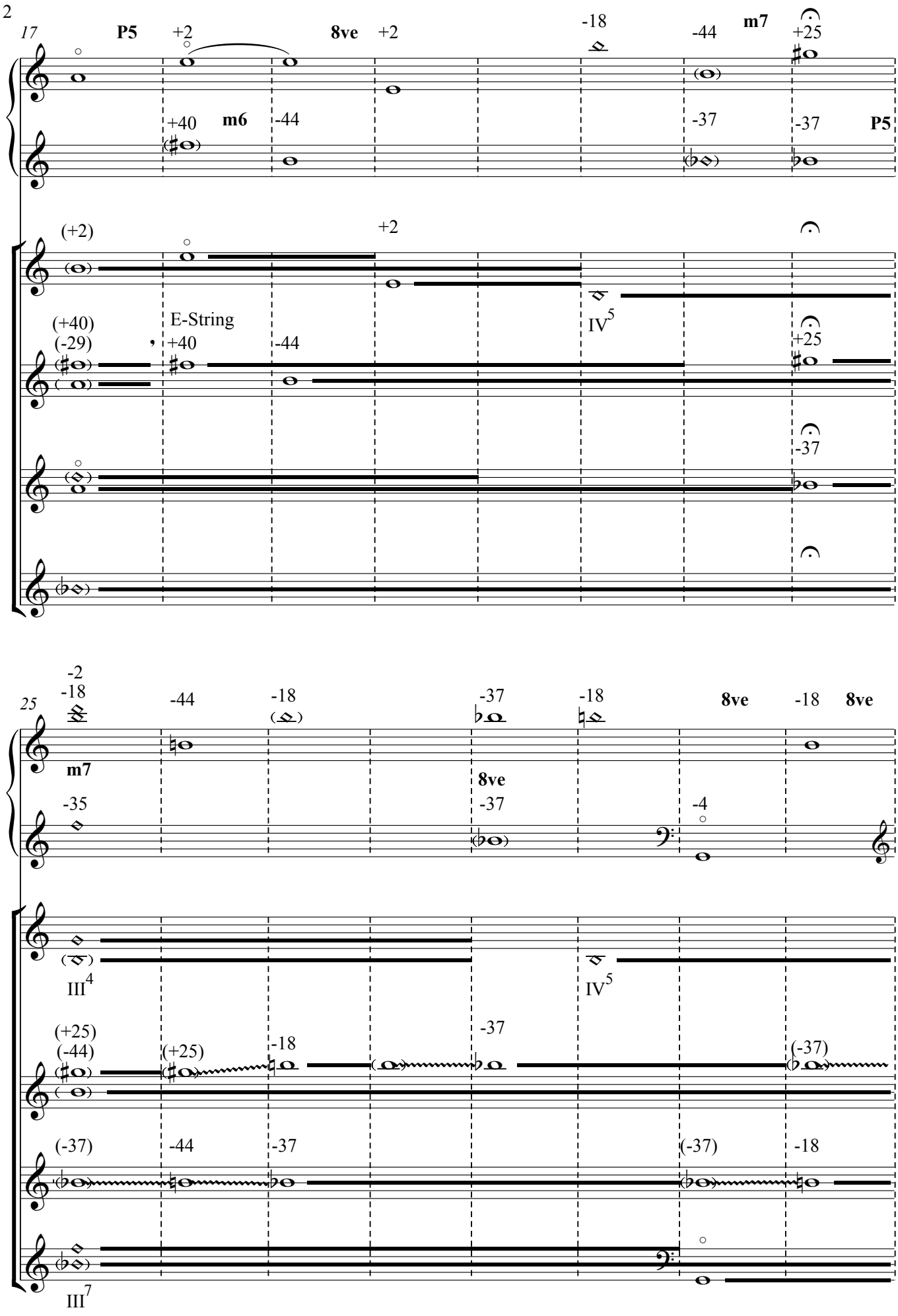
- Pitches in parentheses indicate pitches which are already sounding, yet need to be shown for the purpose of interval linking.

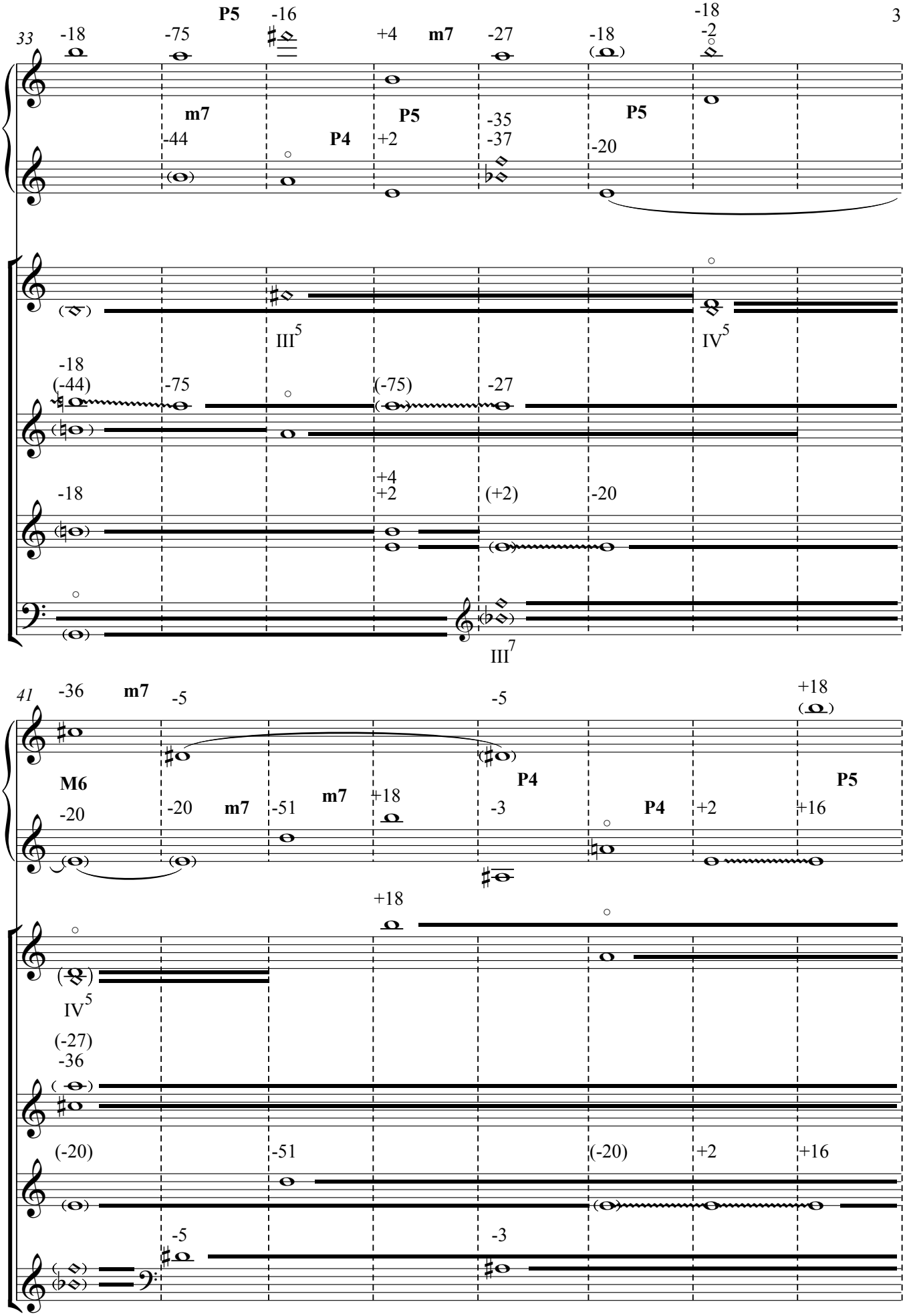
- Dynamics should be relatively even throughout. When it is necessary to hear distinct pitches within a thick harmony some of the players may play louder.
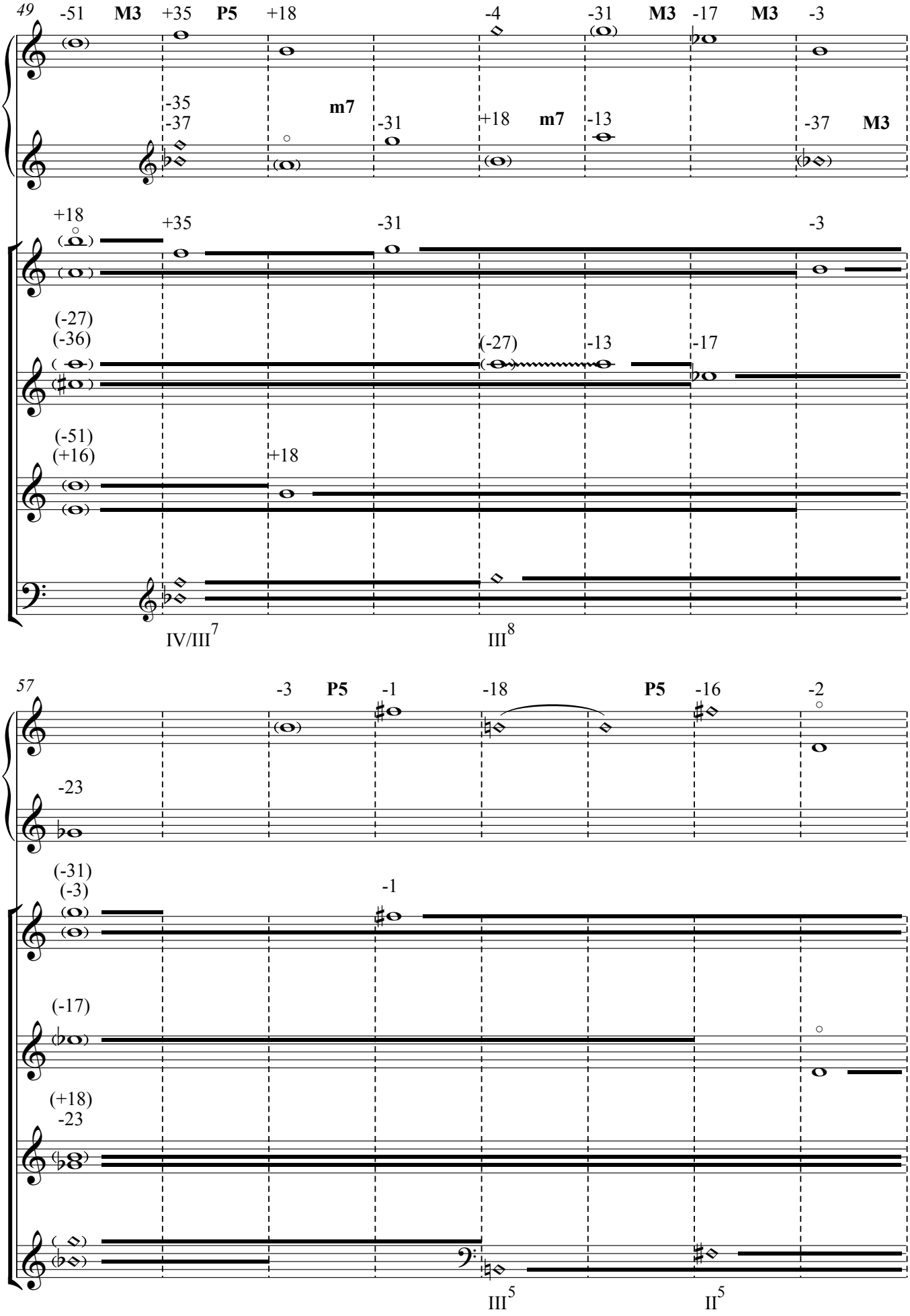
Walk Until Morning

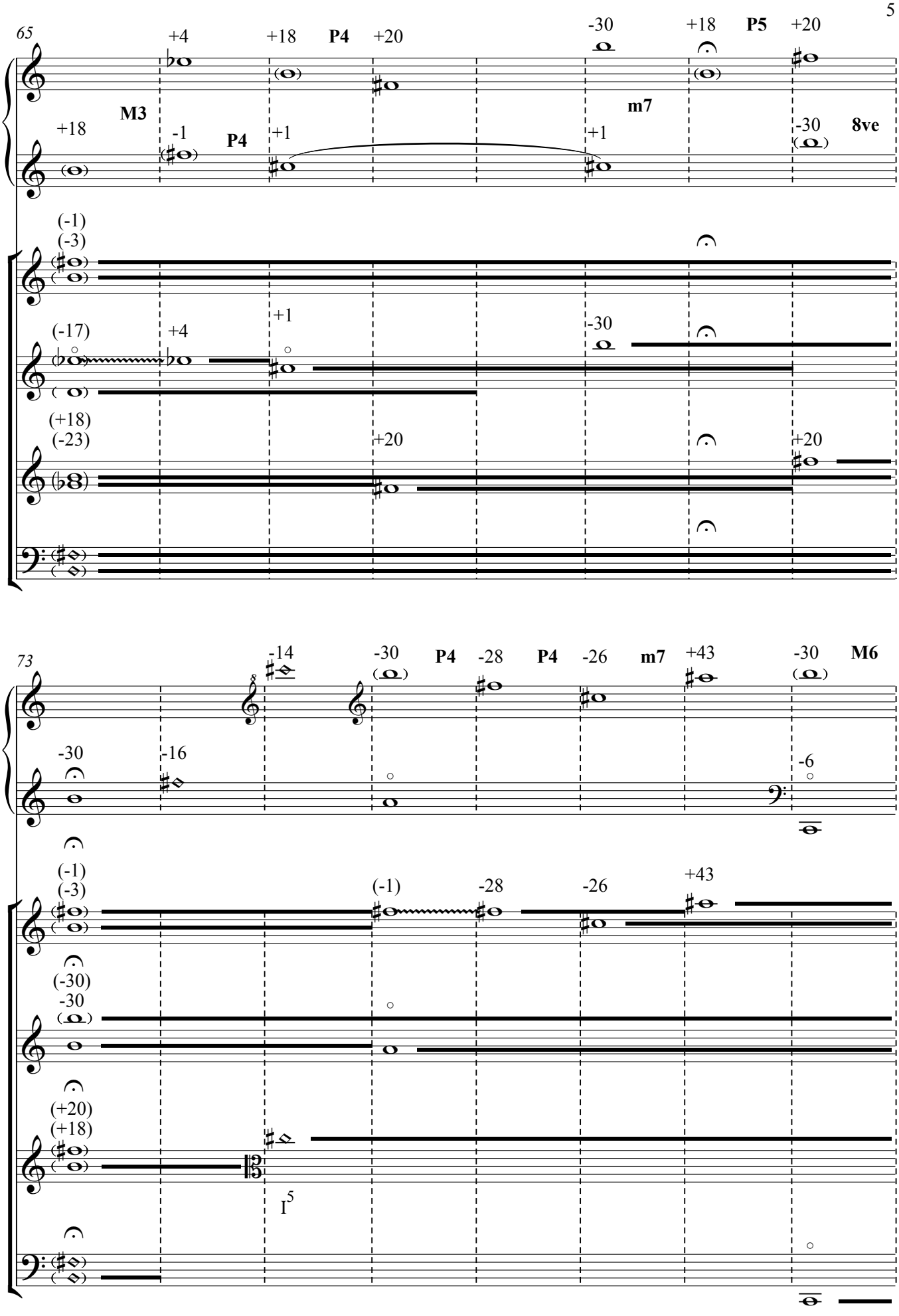
Hollas Longton

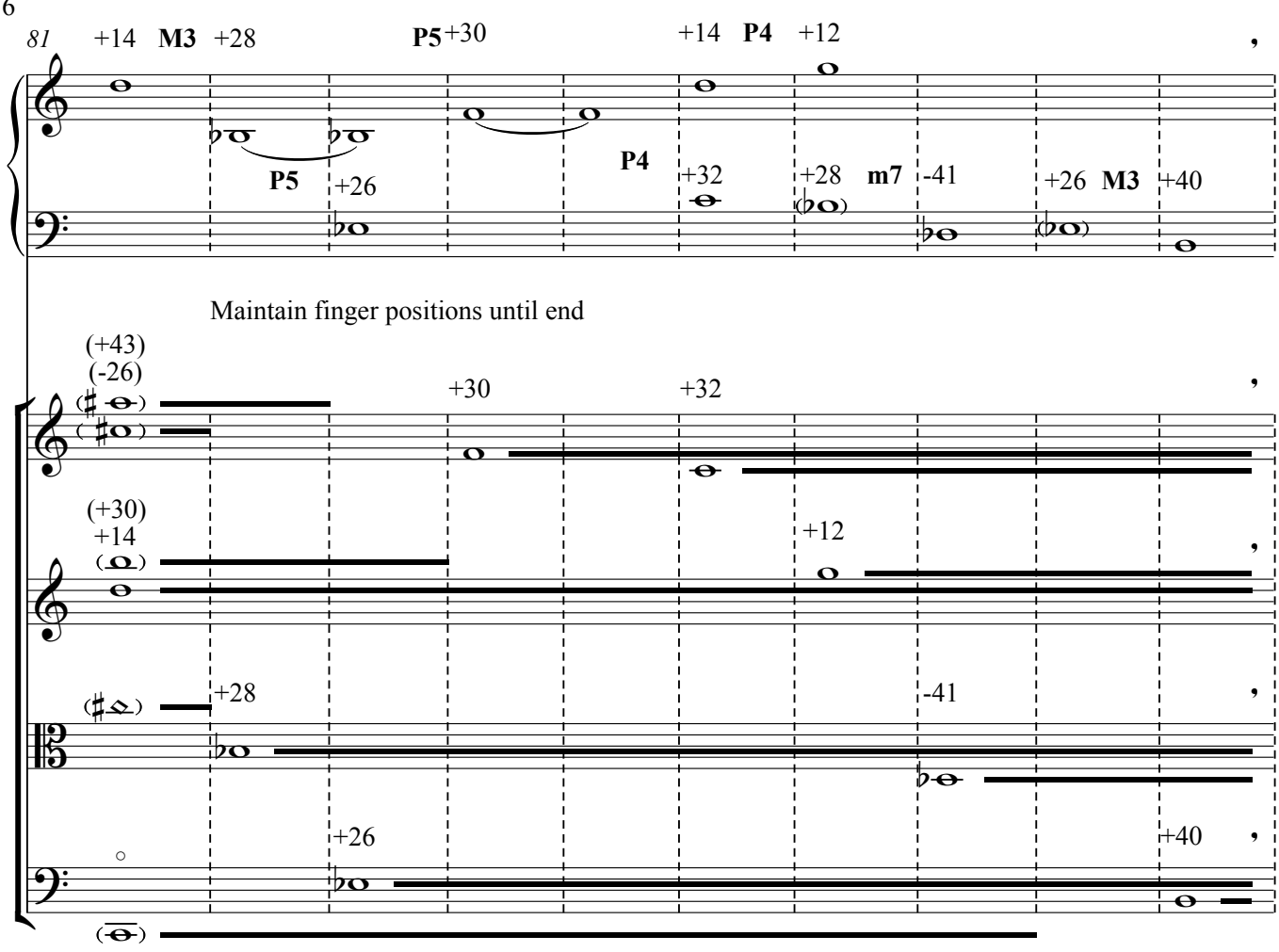



17
P5
+2
8ve
+2
-18
-44
m7
+25
+40
m6
-44
-37
-37
P5
(+2)
+2
(+40)
(-29)
E-String
+40
-44
IV5
+25
-37
25
-2
-18
-44
-18
-37
-18
8ve
-18
8ve
m7
-35
8ve
-37
-4
III4
IV5
(+25)
(-44)
(+25)
-18
-37
(-37)
(-37)
-44
-37
(-37)
-18
III7
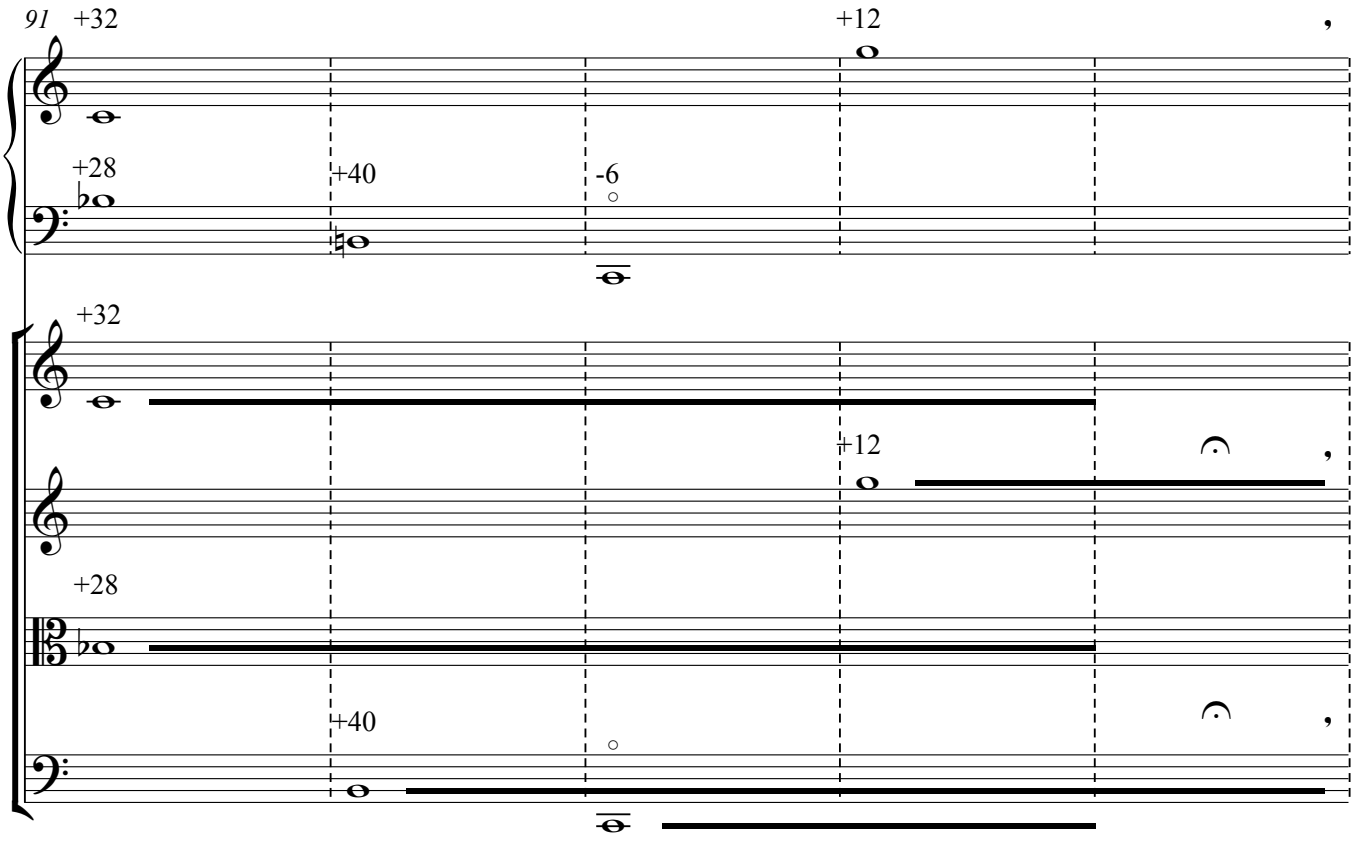

33
-18
-75
P5
-16
+4
m7
-27
-18
-18
-2
m7
-44
P4
+2
P5
-35
-37
P5
-20
III5
IV5
-18
(-44)
-75
(-75)
-27
+4
-18
+2
(+2)
-20
III7
41
-36
m7
-5
-5
+18
M6
P4
P5
-20
-20
m7
-51
m7
+18
-3
P4
+2
+16
+18
IV5
(-27)
-36
(-20)
-51
(-20)
+2
+16
-5
-3


49
-51 M3 +35 P5 +18 -4 -31 M3 -17 M3 -3
-35 -37 m7 -31 +18 m7 -13 -37 M3
+18 +35 -31 -3
(-27) (-36) (-27) -13 -17
(-51) (+16) +18
IV/III7
III8
57
-3 P5 -1 -18 P5 -16 -2
-23
(-31) (-3) -1
(-17)
(+18) -23
III5
II5

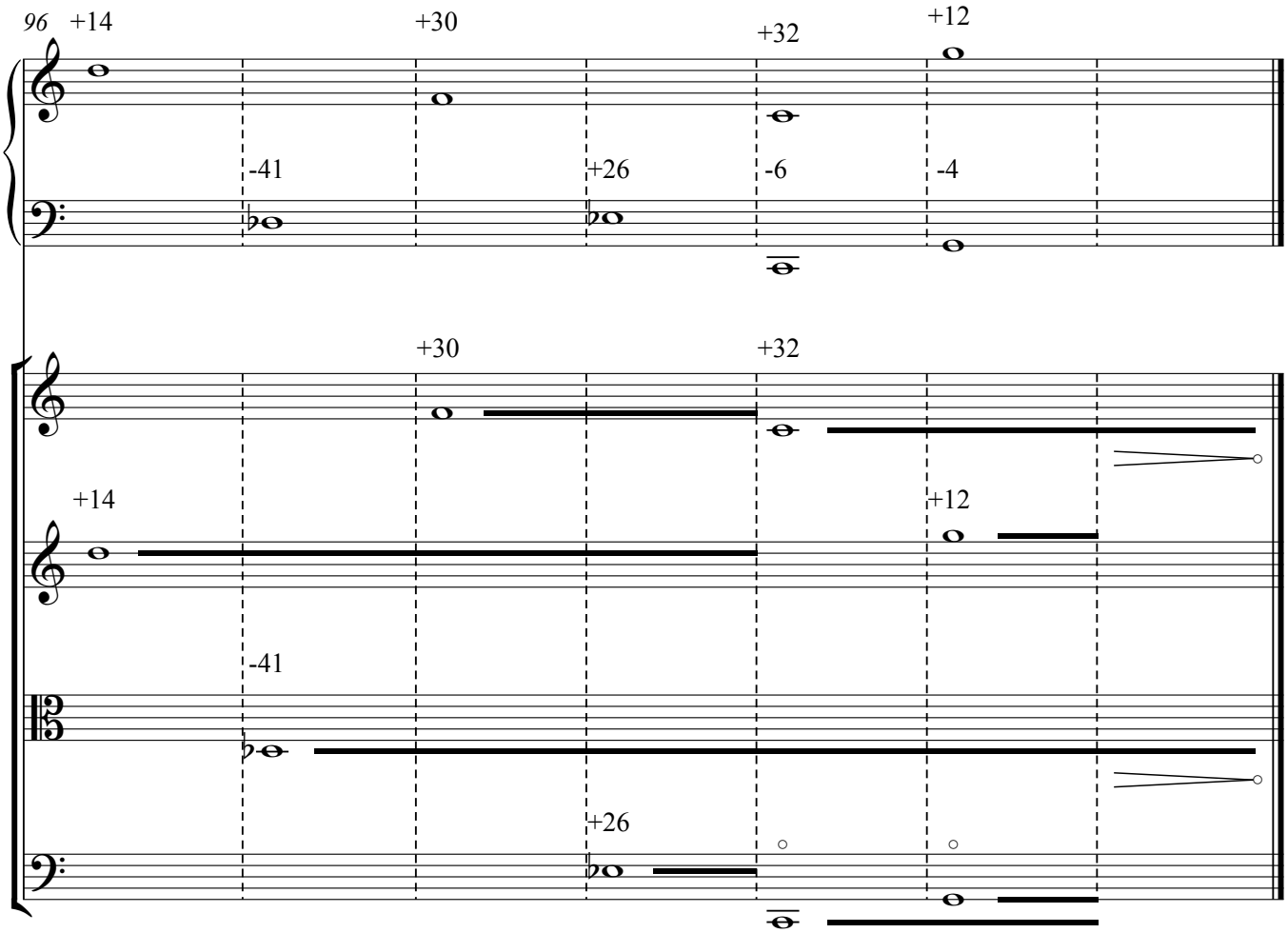

65
+4
+18
P4
+20
-30
+18
P5
+20
M3
m7
+18
-1
P4
+1
+1
-30
8ve
(-1)
(-3)
(-17)
+4
+1
-30
(+18)
(-23)
+20
+20
73
-14
-30
P4
-28
P4
-26
m7
+43
-30
M6
-30
-16
-6
(-1)
(-3)
(-1)
-28
-26
+43
(-30)
-30
(+20)
(+18)
I5


81
+14
M3
+28
P5
+30
+14
P4
+12
P5
+26
P4
+32
+28
m7
-41
+26
M3
+40
Maintain finger positions until end
(+43)
(-26)
+30
+32
(+30)
+14
+12
+28
-41
+26
+40

Coda


91
+32
+12
+28
+40
-6
+32
+12
+28
+40

17 - 68'



Dissonance

for Tom Buckner

Hollas Longton

Duration: 10 or 20’

- This piece consists of a static sine-tone chord built on an A (at 110 Hz) and a vocal melody. The vocal melody uses different vowel sounds which emphasize different harmonics of the voice. Because the static sine tone chord is a harmonic series which has been detuned, the harmonics of the voice will often beat against it. This will occur even when the voice is singing in unison with the low A.

- To make the harmonics as obvious as possible, the tone should be as level and flat as possible.

- Tempo should be quite slow. Assuming long whole breaths are used throughout, a maximum of three notes can be sung in one breath.

- Dynamics should be loud enough for the different harmonics of the vowels to be clearly audible above the chord. For this reason, the voice may be amplified and/or a high pass filter and/or a guitar distortion pedal used.

- You may begin on any stave of the score. Movement is done along arrows. While you may not move left, you may move up or down to another stave if you have an arrow indicating that it is permissible to do so.

- Any pitch may be repeated as desired. If the repeated pitch is one which includes a glissando, the glissando should not be sung.

- All transitions between pitches and vowels should be as smooth as possible.

- When transitioning between pitches a glissando should be sung even when it is not indicated (e.g. when moving between staves).

- Parentheses around quarter-tones indicate only an approximate pitch.

- When transitioning between non-adjacent vowels, these transitions should include all the tongue and lip positions of the intermediate vowels.

- The piece may be repeated in full after the double bar.

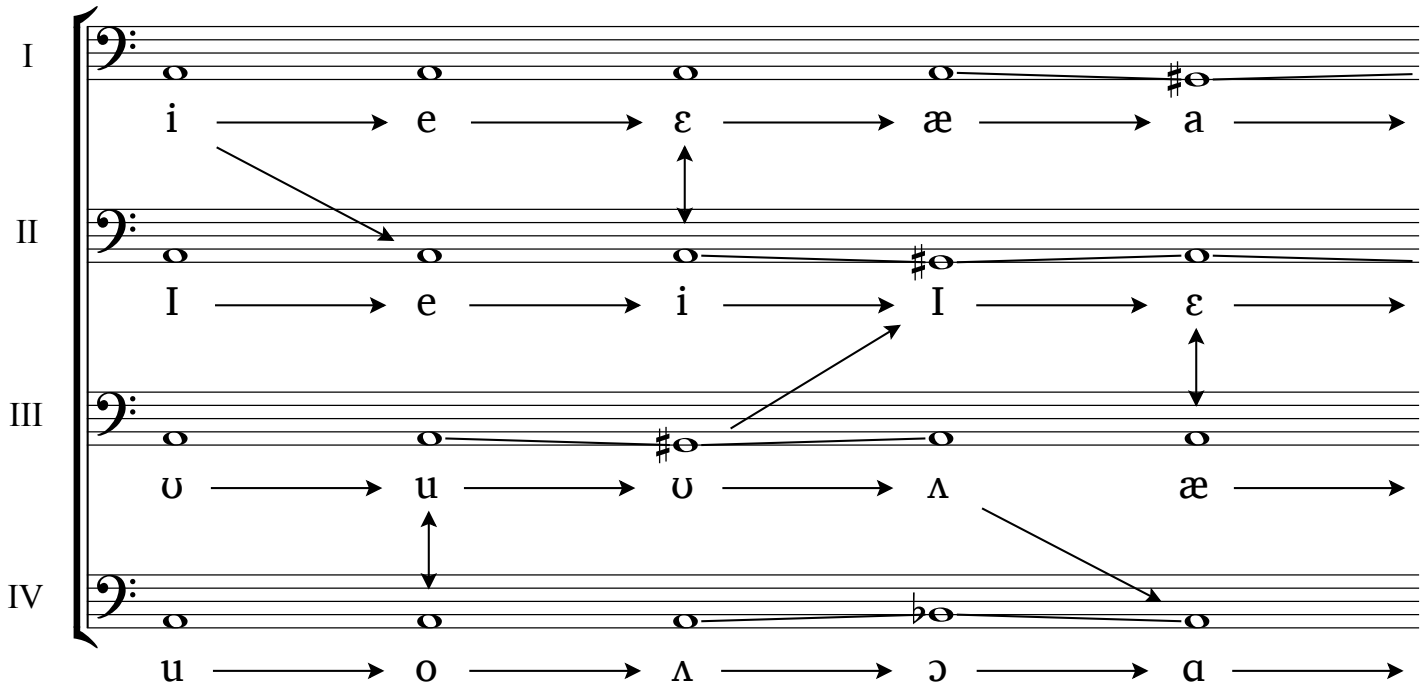
- Vowel sounds for this piece are written as follows, using the ‘International Phonetic Alphabet’ (IPA) notation:

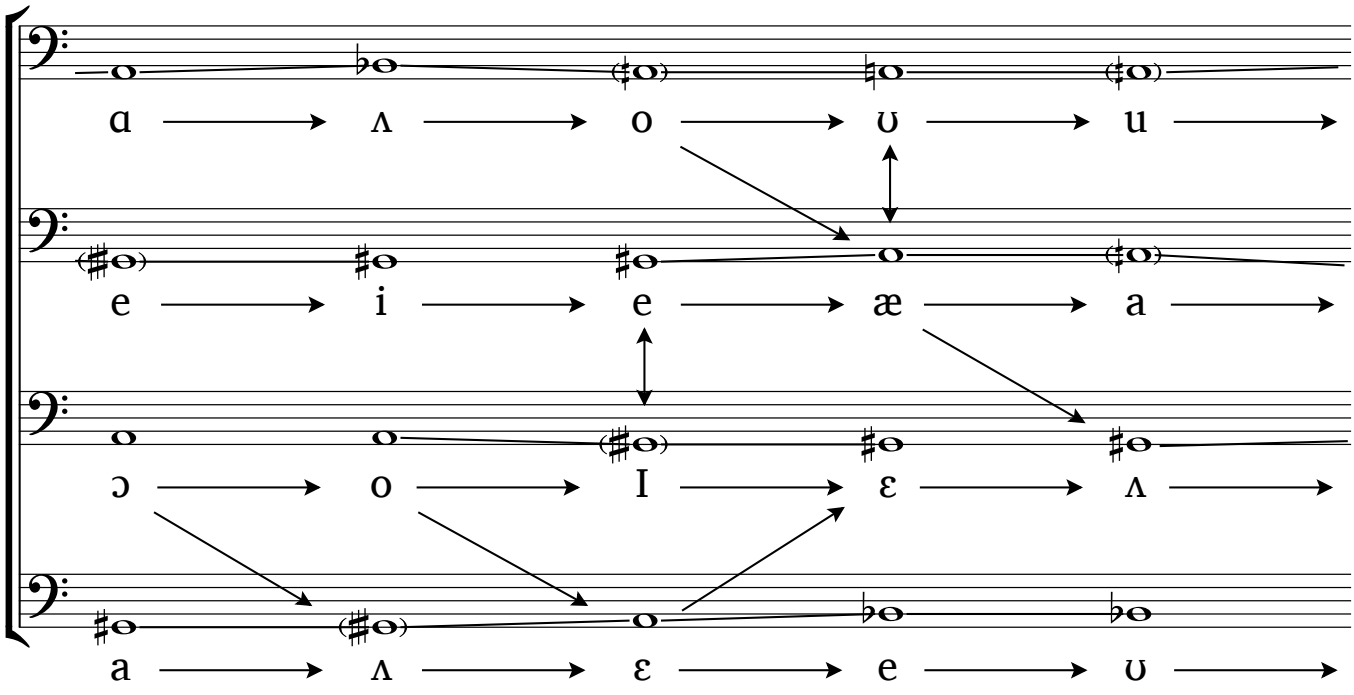
Symbol	Sounds like
æ	a in “bat” or “cat”
a	a in “carafe”
ɑ	a in “father” or o in “nod”
e	a in “made” or ai in “wait” ɑ
ɛ	e in “bed” or “met”
i	ee in “need” or i in “pizza”
I	i in “bid” or “window”
o	o in “hope” or oa in “road”
ɔ	aw in “saw” or “gnawed”
u	u in “rude” or oo in “food”
ʊ	oo in “wood” or u in “put”
ʌ	u in “cup” or “sud”

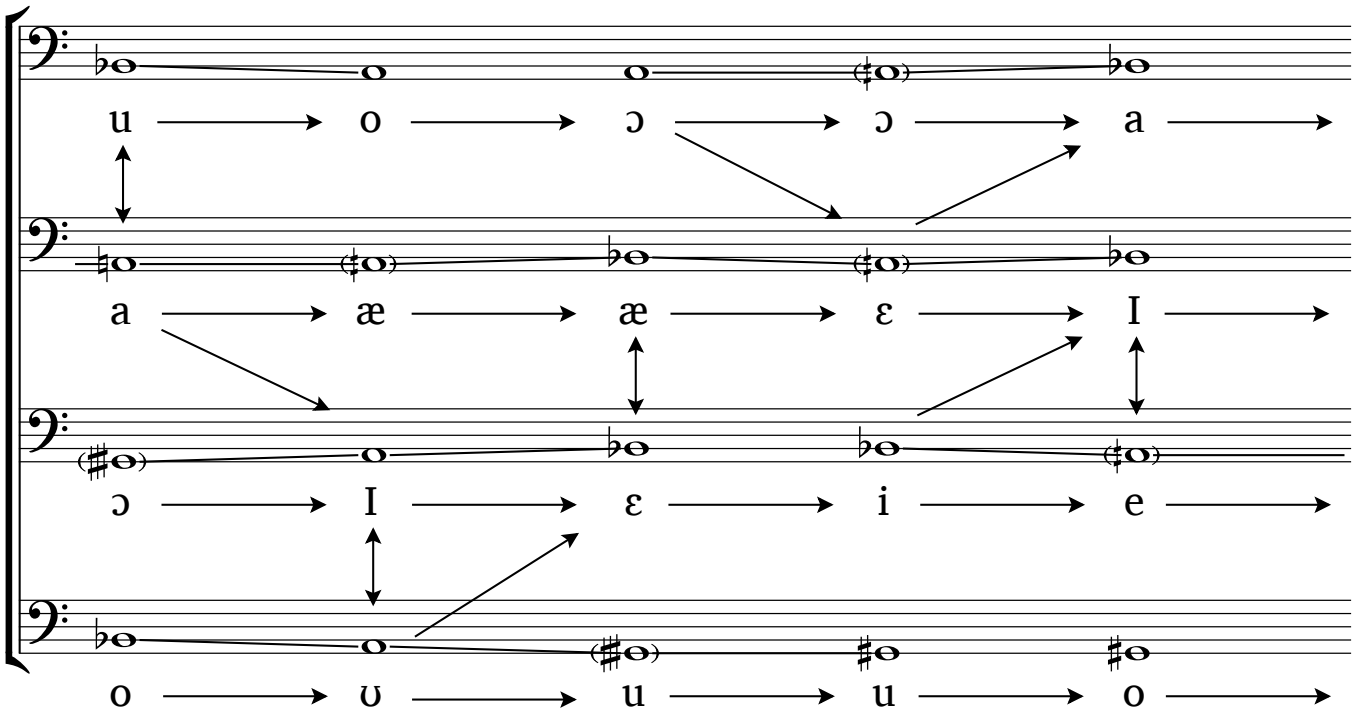
Dissonance

for Tom Buckner

Hollas Longton

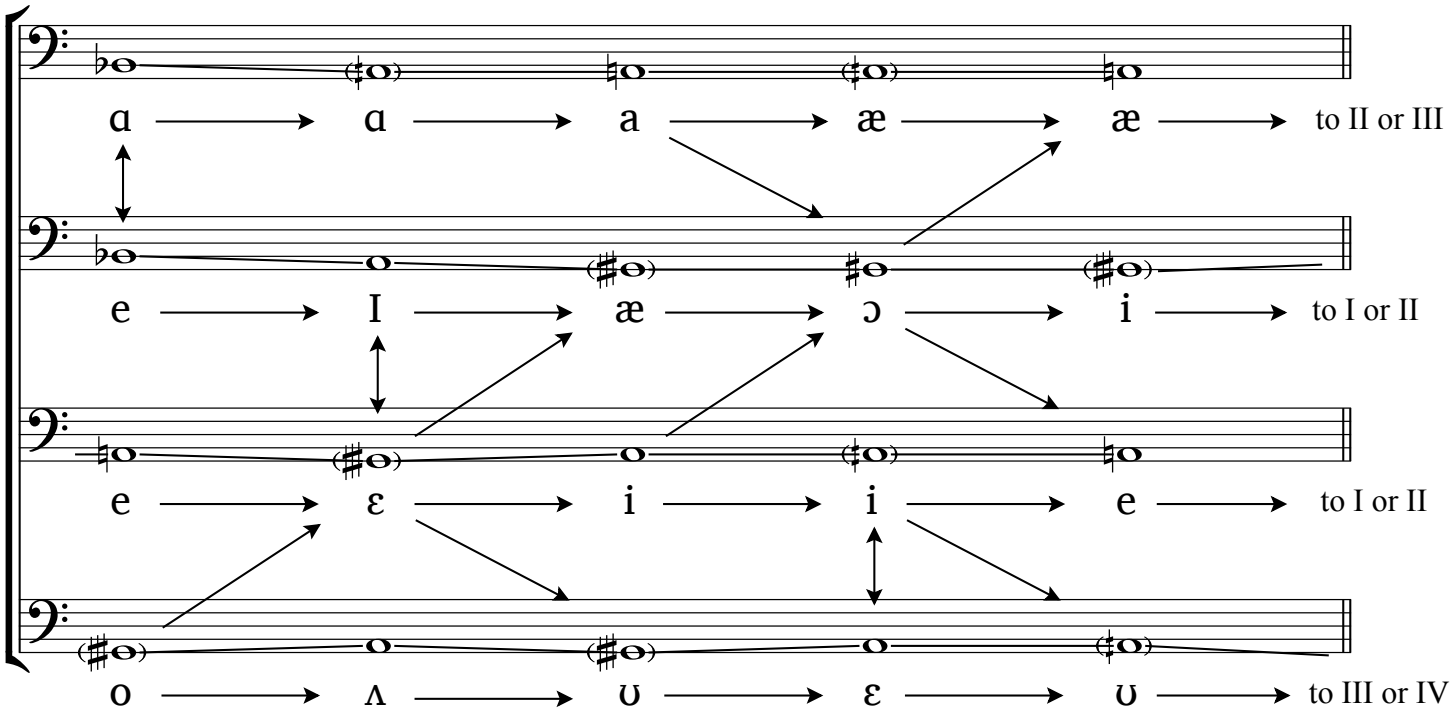


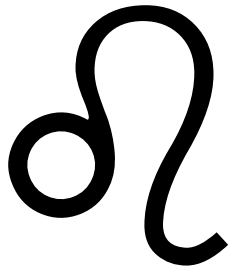




Rinse, Lather, Repeat as Desired

10'





For Leo

for Leo Svirsky

Hollas Longton

Duration: 7’

- Notation is spatial. Each bar is approximately five seconds long.

- Noteheads only indicate the start of a note. Pedal markings as well as ties are marked as normal.

- Empty bars only indicate that no new attacks occur, they are not rests.
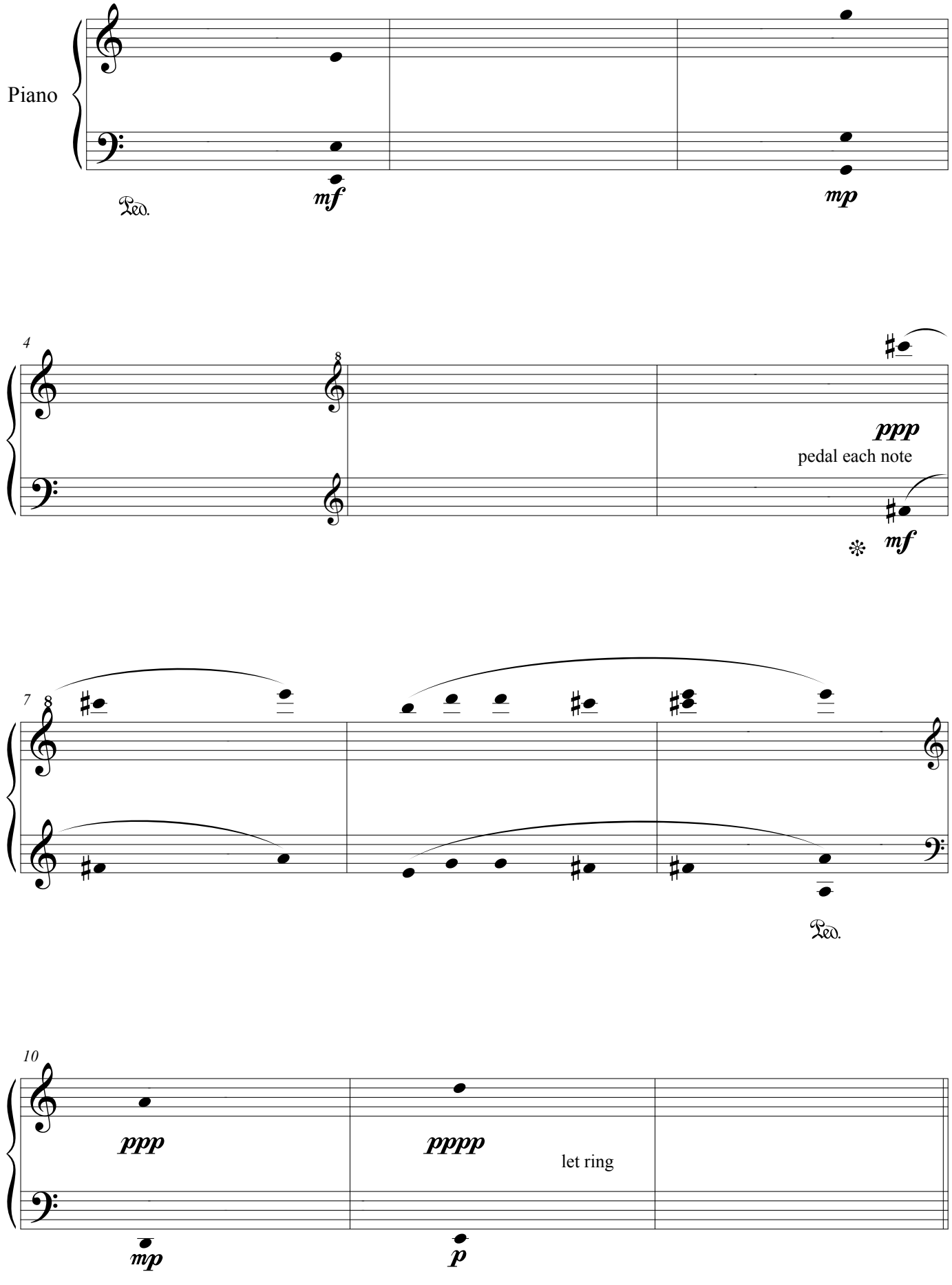
- All dynamics are to be taken extremely seriously. Where seemingly ridiculous dynamics are marked, every attempt should be made to realize them. Often these dynamics are written so that high notes in the right hand will blend into a low note in the left hand. These timbral effects are the emphasis of this piece.

- Where no dynamic is present, it is understood that either: the dynamic in one hand is the same as the other or, the dynamic has not changed from its earlier marking.
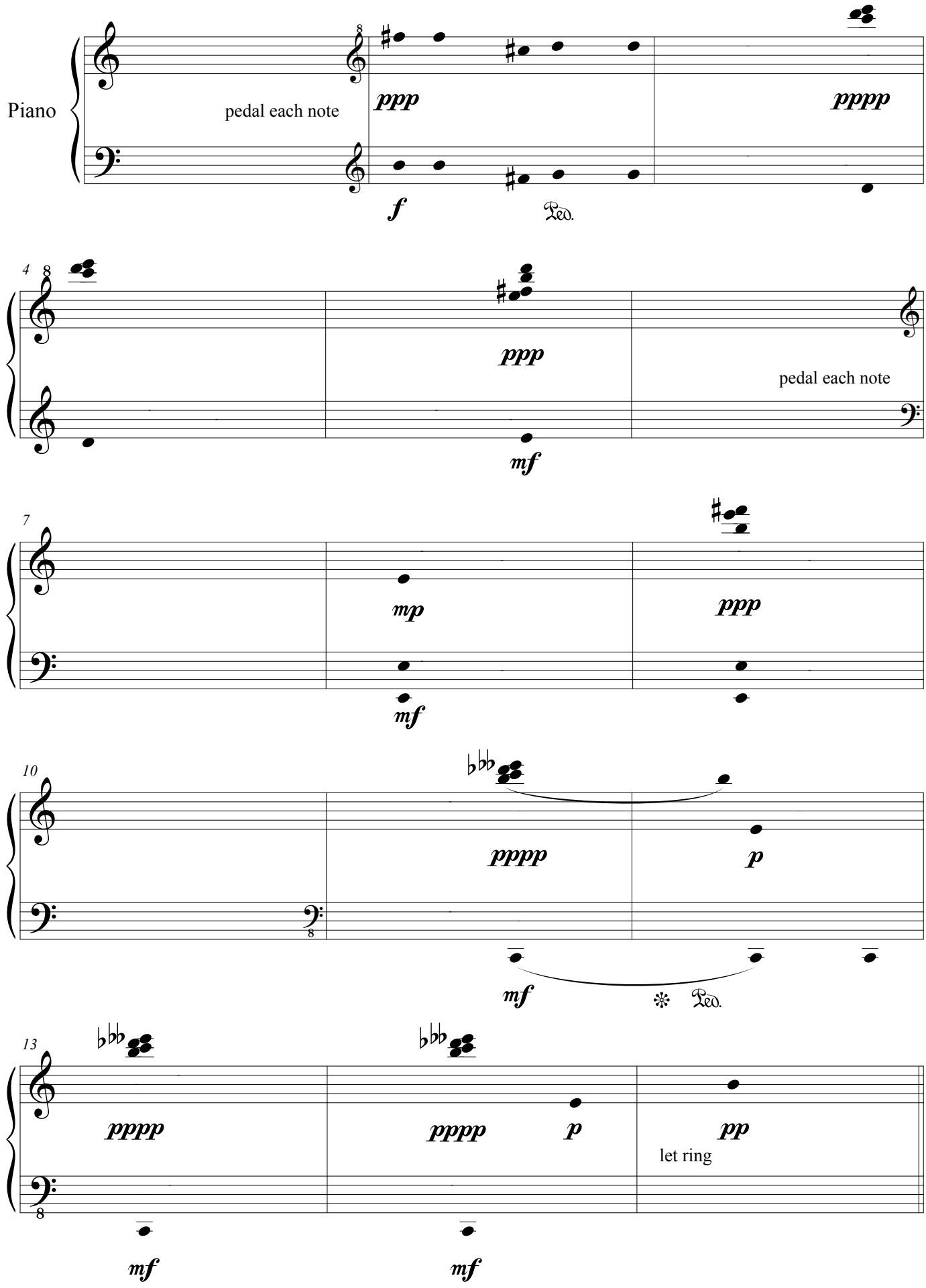
For Leo

I
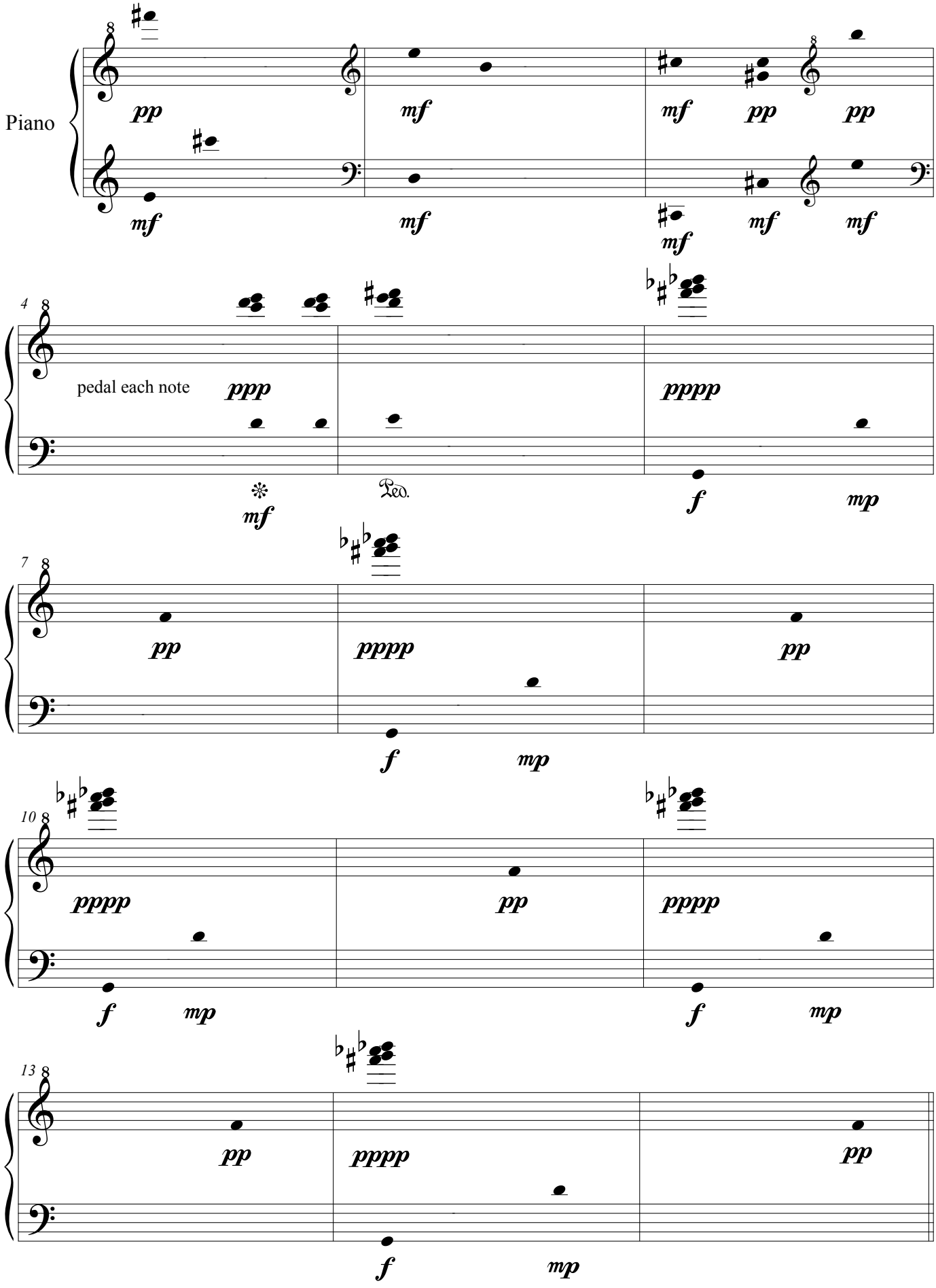
Hollas Longton
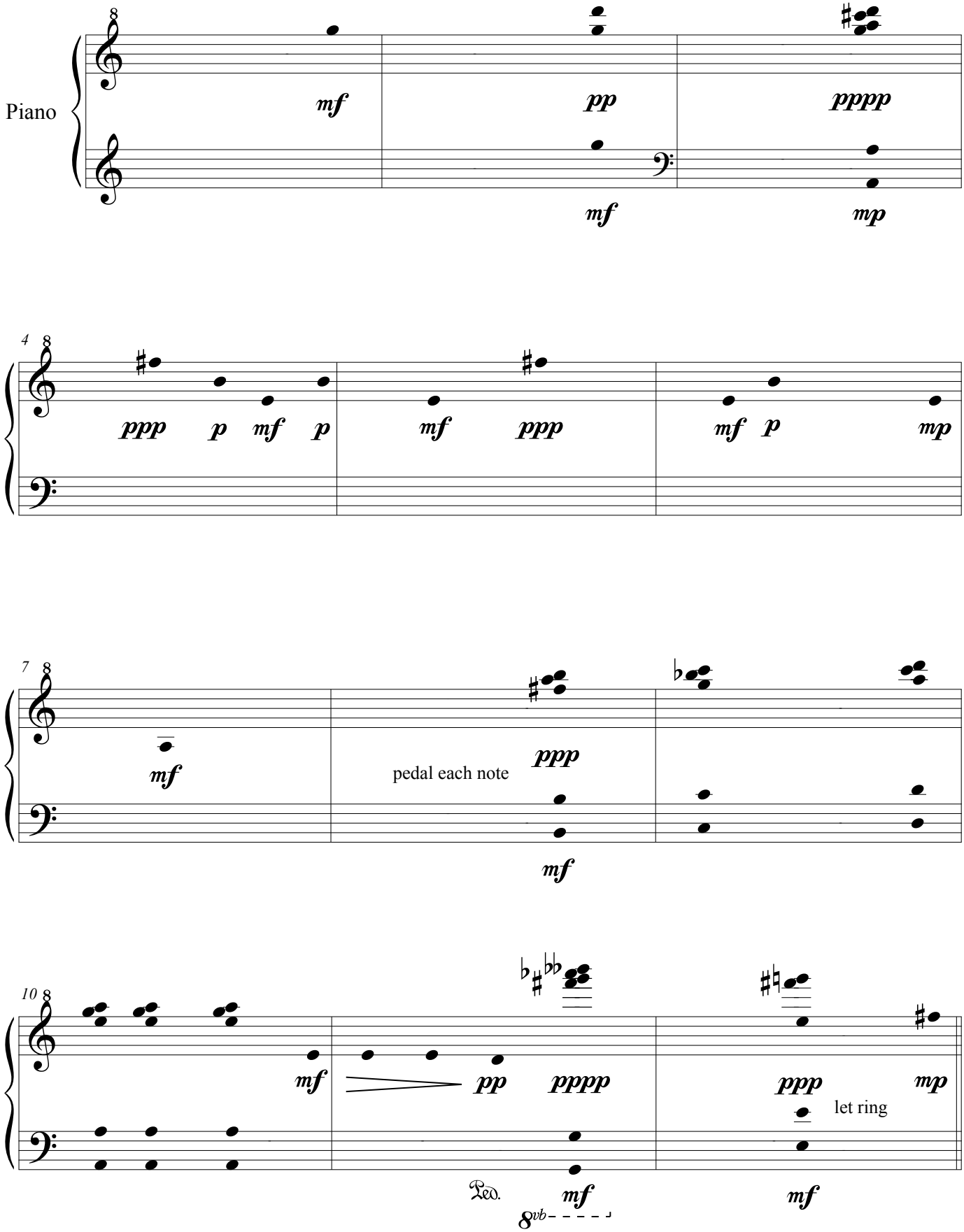


II


Piano
pedal each note
ppp
f
Ped.
pppp
4
ppp
mf
pedal each note
7
mp
mf
ppp
10
pppp
mf
p
Ped.
13
pppp
mf
pppp
mf
p
pp
let ring
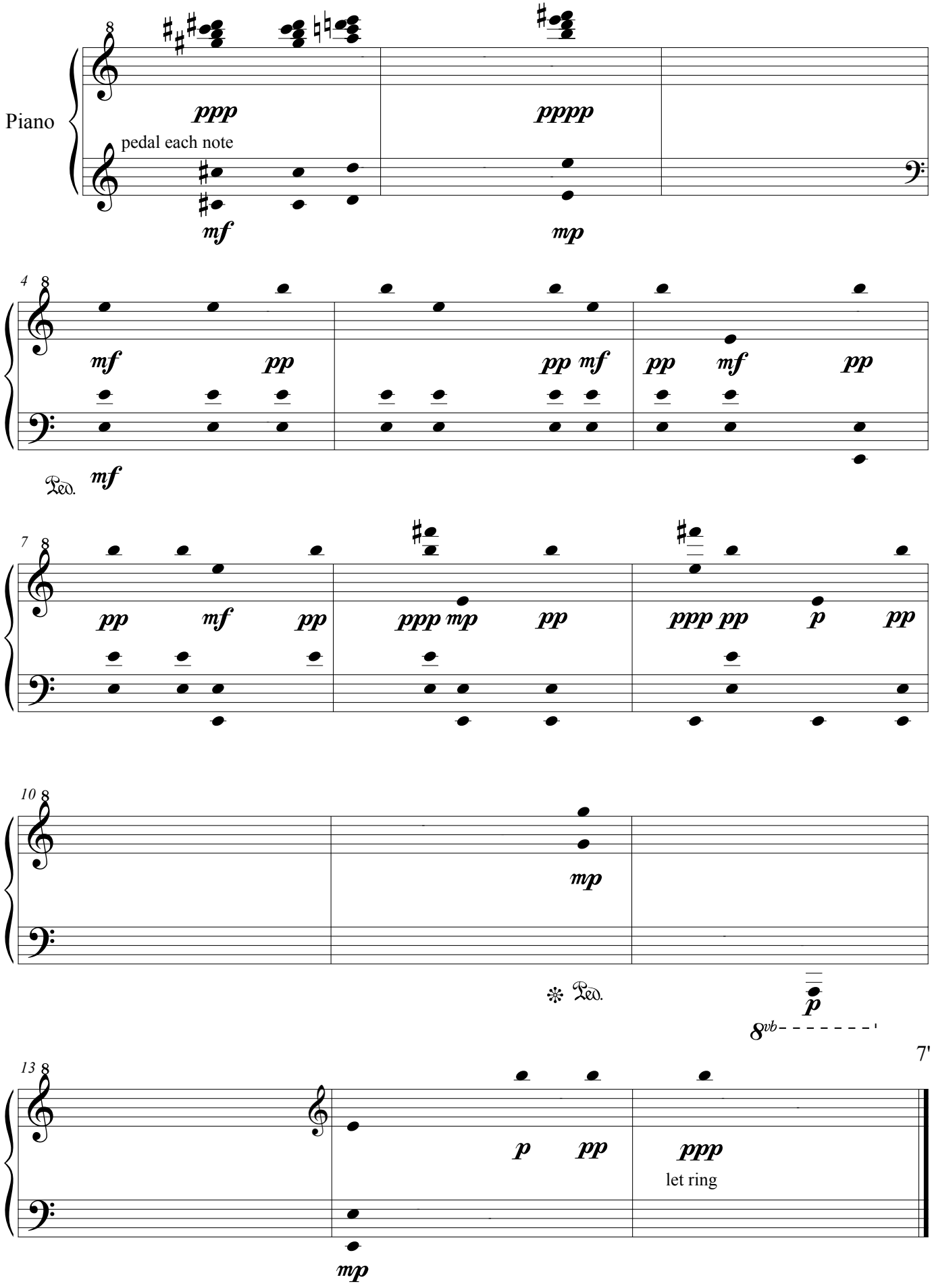
III


Piano
pp
mf
mf
pp
pp
mf
mf
mf
mf
mf
4
pedal each note
ppp
pppp
mf
Ped.
f
mp
7
pp
pppp
pp
f
mp
10
pppp
pp
pppp
f
mp
f
mp
13
pp
pppp
pp
f
mp

IV


Piano
mf
pp
pppp
mf
mp
4
ppp
p
mf
p
mf
ppp
mf
p
mp
7
mf
pedal each note
ppp
mf
10
mf
pp
pppp
ppp
mp
let ring
Ped.
mf
mf
8vb

V


Piano
ppp
pedal each note
mf
pppp
mp
4
mf
pp
pp
mf
pp
mf
pp
Ped.
mf
7
pp
mf
pp
ppp
mp
pp
ppp
pp
p
pp
10
mp
Ped.
p
8vb
7'
13
p
pp
ppp
let ring
mp

Old Dutch Masters

for the UBC Contemporary Players

Hollas Longton
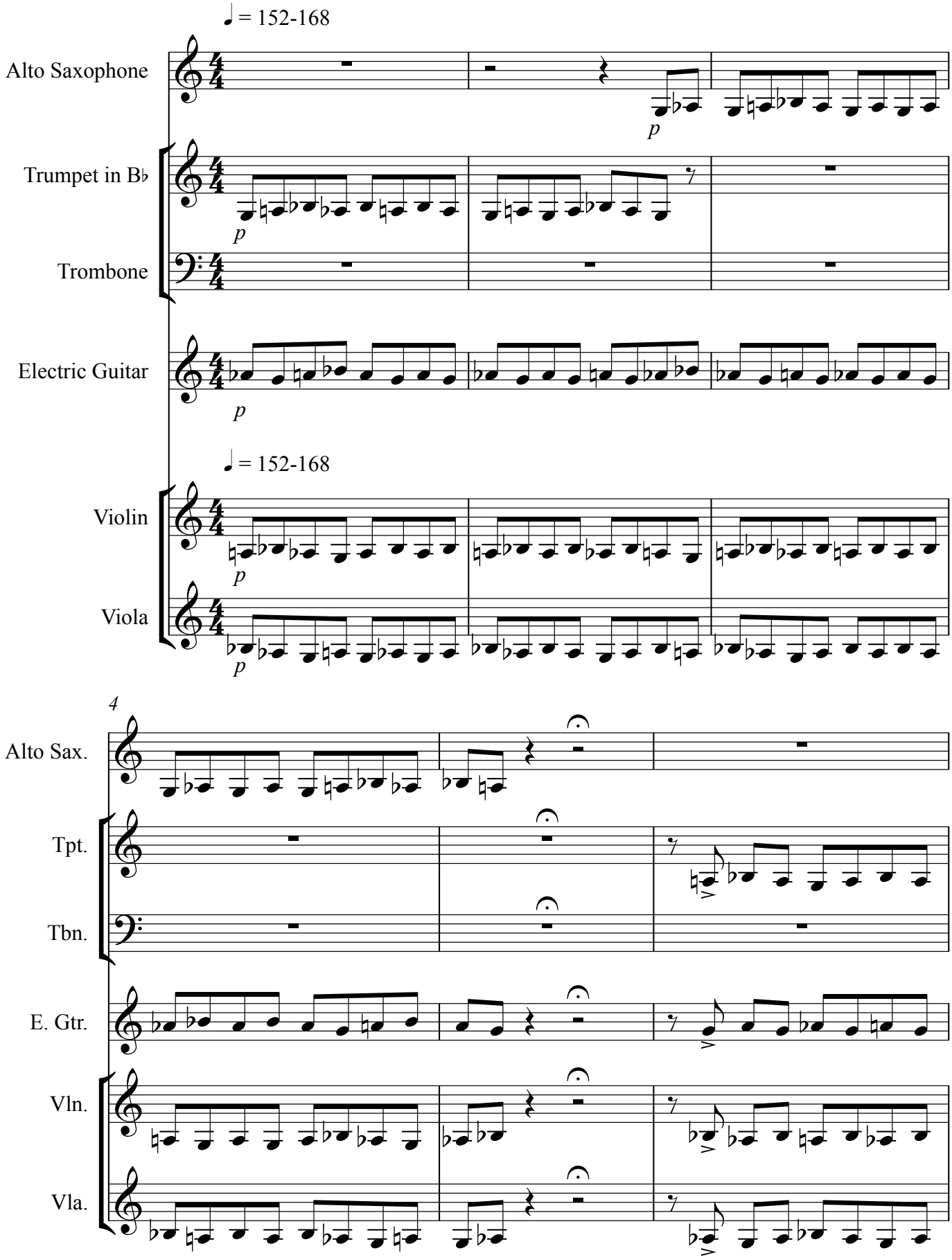
Duration: 7’
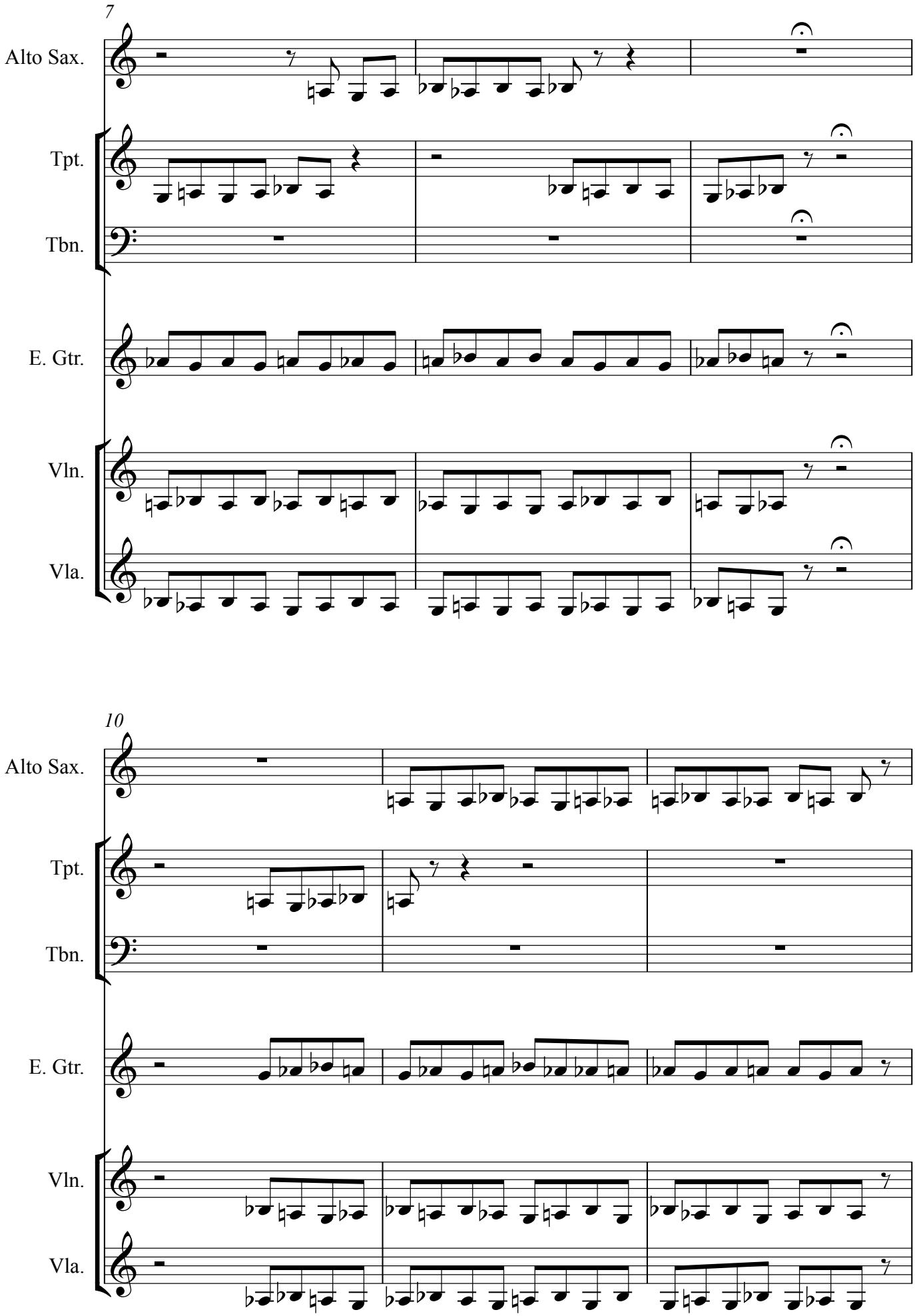
- No vibrato.
- Score is in C. Electric Guitar is written one octave higher than sounding.
- Accidentals continue through the bar, but cautionary accidentals are sometimes shown.
- Tempo should remain constant throughout with no rubato whatsoever, except for fermatas (see below).
- Fermatas are often indicated above rests. In these cases fermata indicates a collective breath so the players can more easily re-enter together. For this reason, the lengths of the rests with fermatas above them is only an estimation and may be lengthened slightly at the performer's discretion.
- The aim of the ensemble throughout should be to create a blended sound, within which the individual instruments can easily hide and disappear.
- Accents should be quite sharp and aggressive, so long as all the instruments playing are able to match dynamic levels.
- All long tones should have a slight hairpin into the middle of the note. It is not expected to do a very long hairpin in the very long notes, just enter and exit the note roundly.
- At times you will see numbers above the long tones. These numbers indicate cent deviations from the tempered scale. There are 1200 cents in an octave with each semitone containing 100 cents. While it is humanly impossible to play these precise deviations perfectly, an approximation can readily be achieved. For convenience I have only marked those deviations which are at least slightly audible.
- For home practice, or even in concert, it will be useful to check the more exotic tunings with an electronic tuner.
- There are essentially only three things that happen in this piece: accented sections, unaccented sections, and long tones. Accented sections should be approached almost violently, while unaccented sections should be rather broad and legato. Long tones give the texture a harmonic context and should be warm and inviting. In this way dynamic markings should only serve as a guideline.
- Guitar tone throughout should be clean and not percussive. Using a soft pick is also recommended, but I am not picky about the method to creating a clean, mellow tone that will easily blend with the other instruments.
- For the trumpet and trombone a mute is recommended (Harmon or straight).
- For the strings a normal orchestral mute might be necessary.
- It may also be helpful to familiarize yourself with some of the pieces on which this is an homage: Louis Andriessen's 'Hoketus', 'De Staat', and 'Worker's Union', Cornelis de Bondt's 'Bint', and Diderik Wagenaar's 'Tam Tam'.
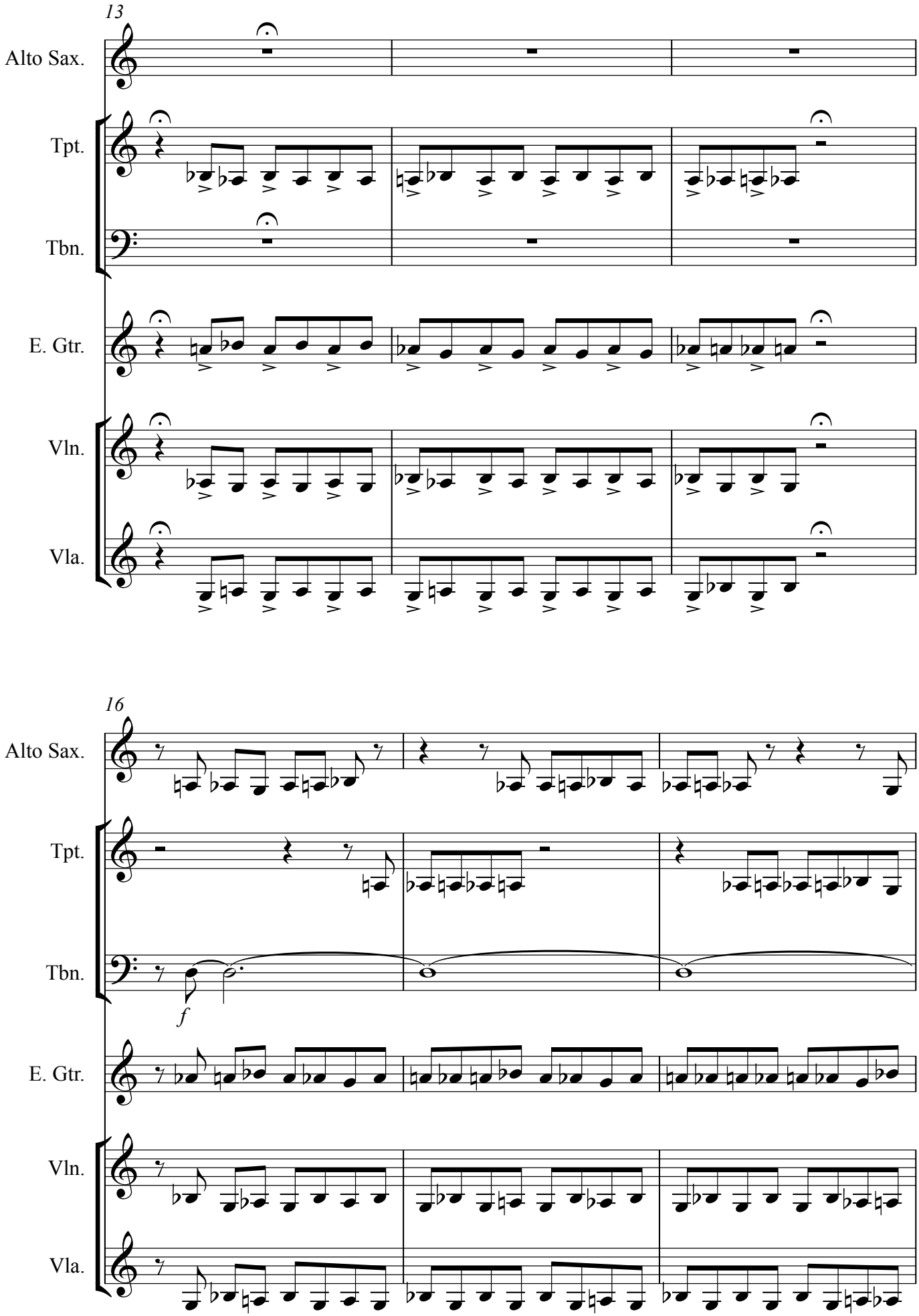
Old Dutch Masters
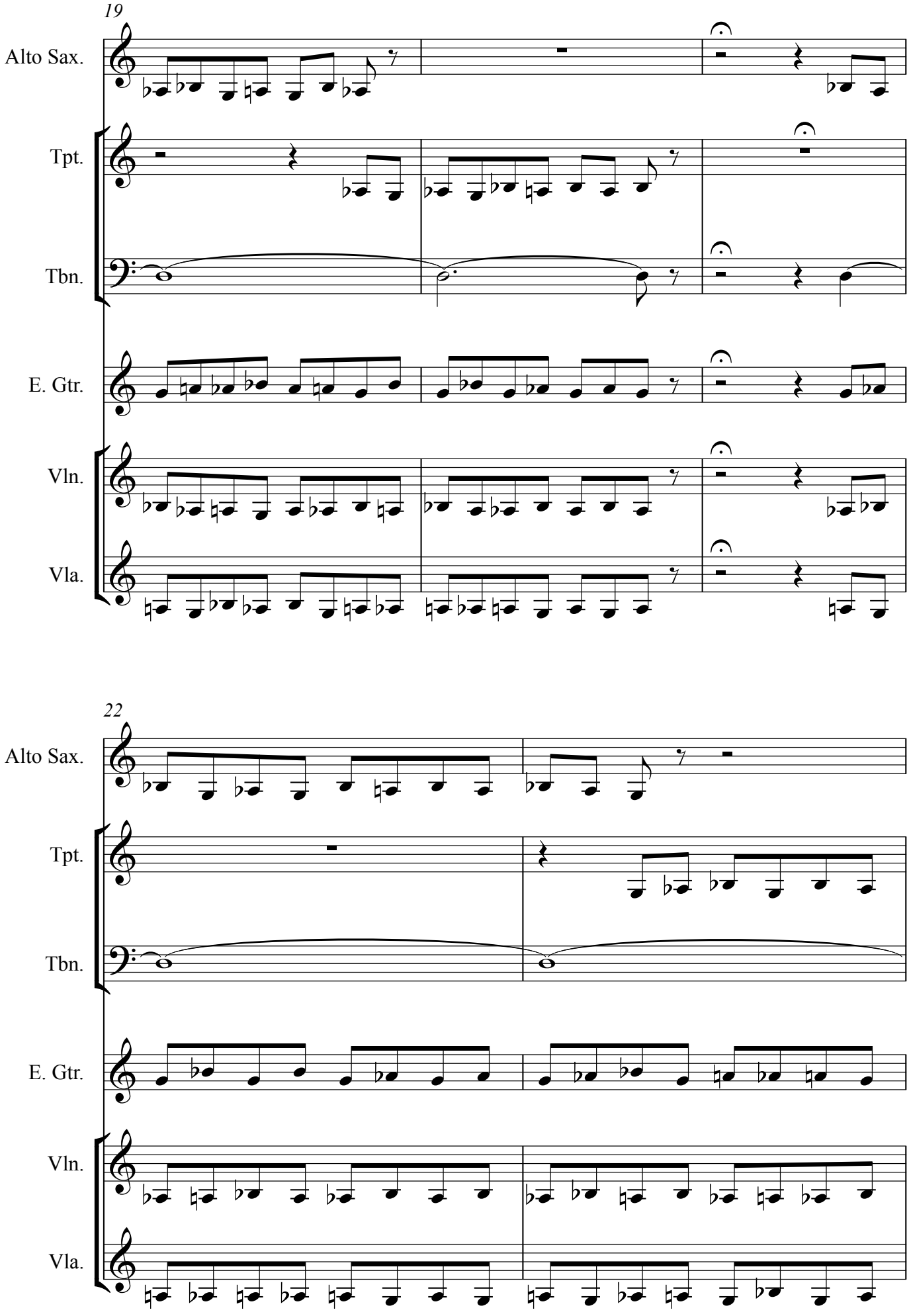
an homage to The Hague School
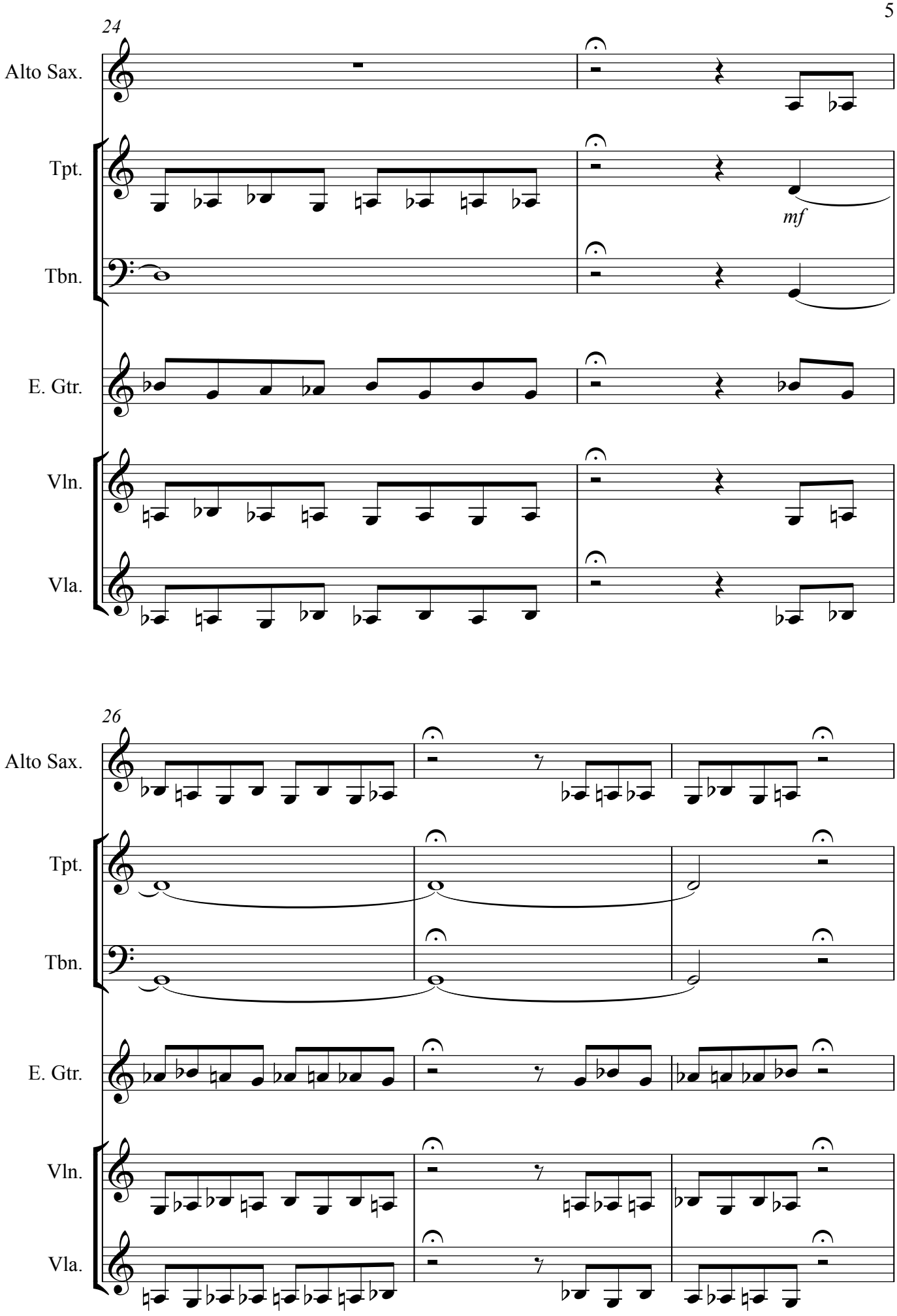
Hollas Longton
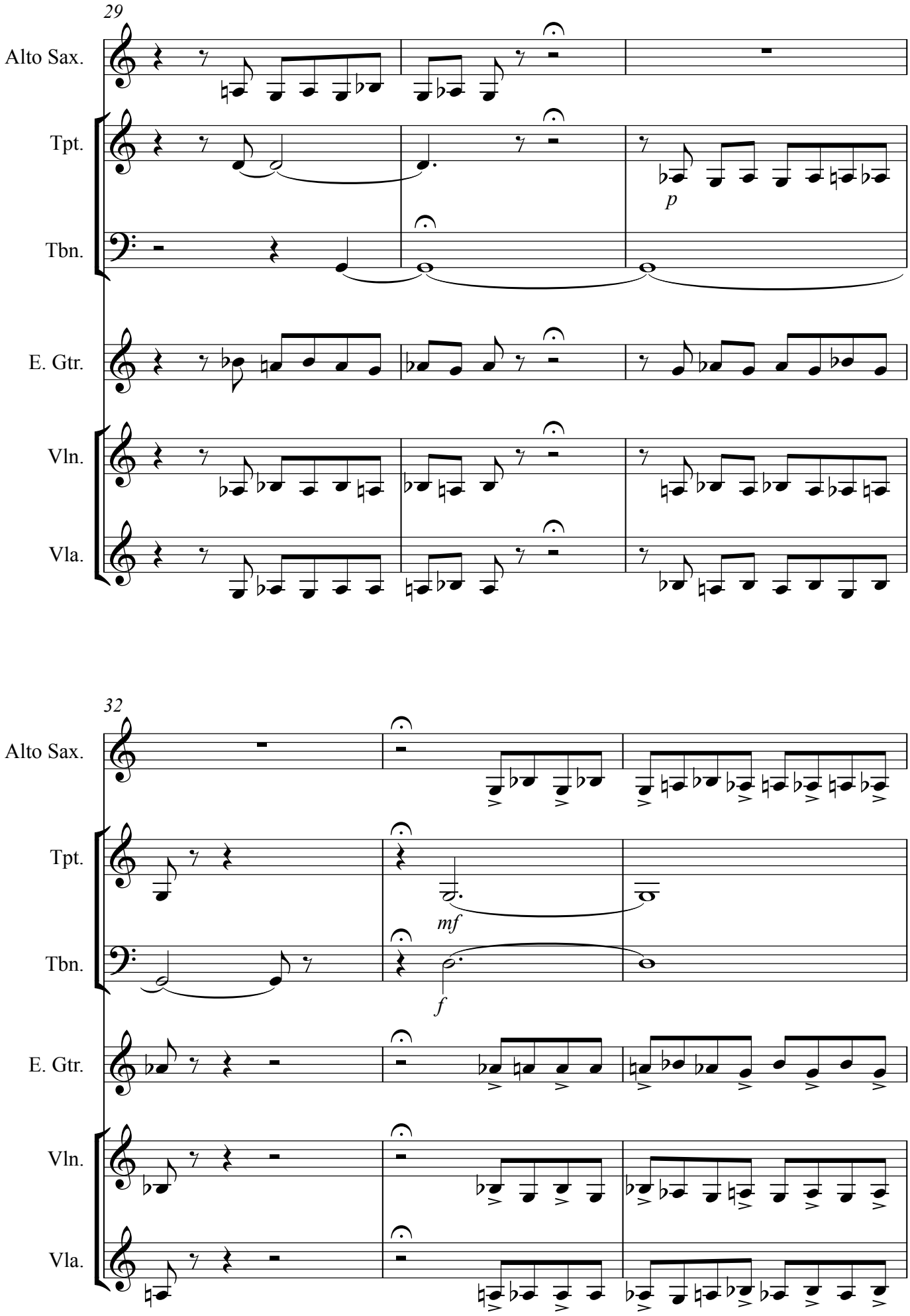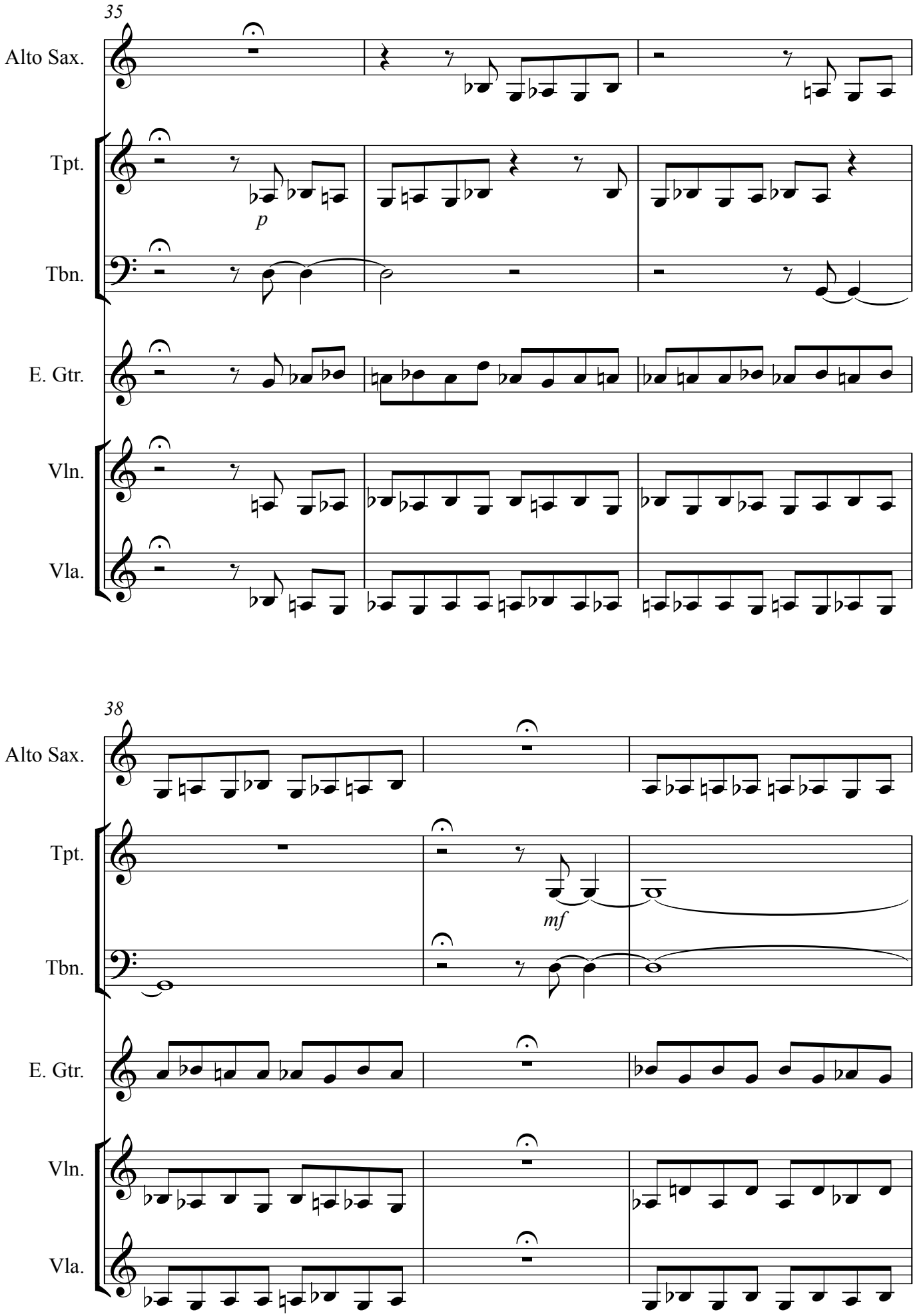



7
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
10
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
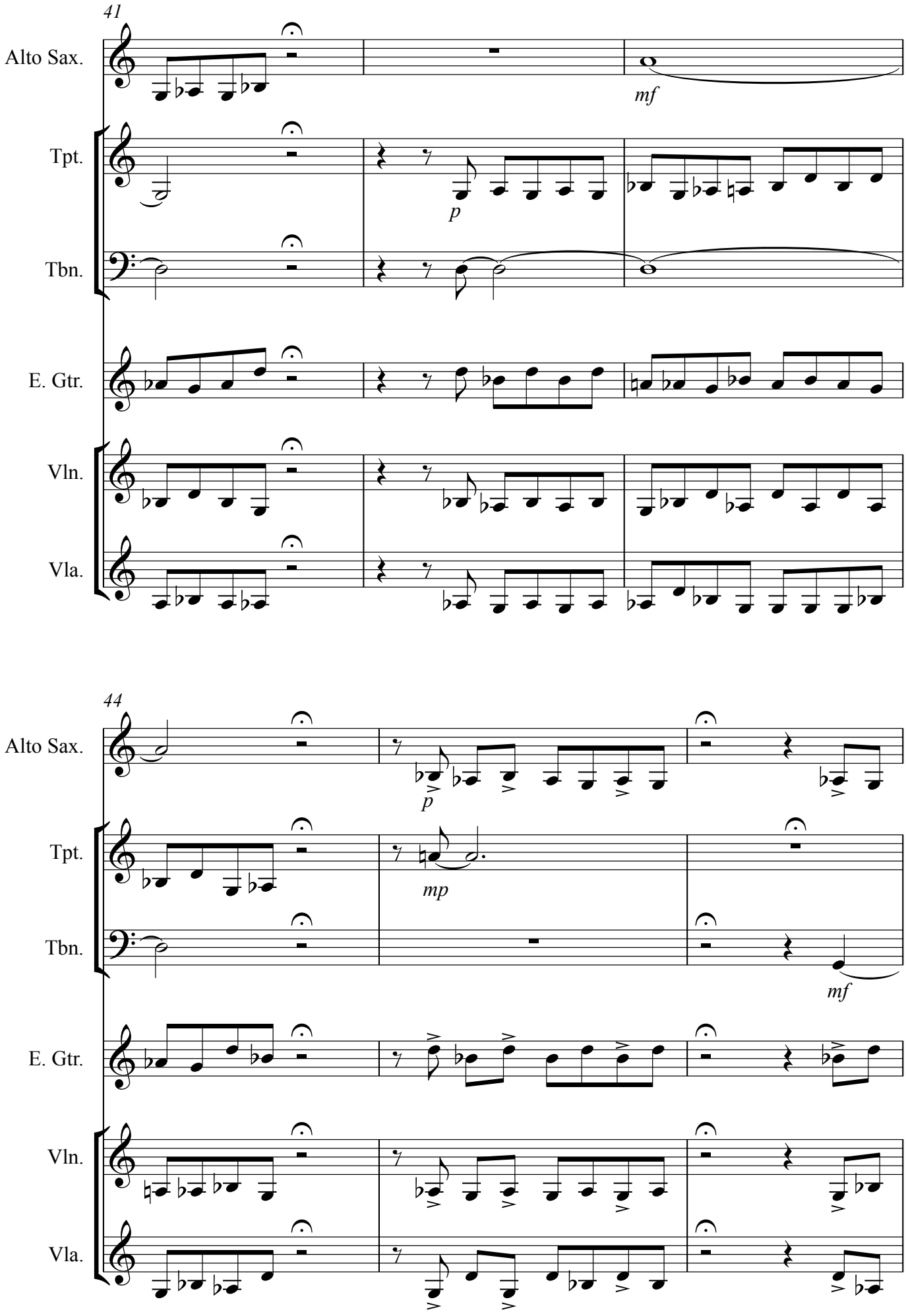

13
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
16
Alto Sax.
Tpt.
Tbn.
f
E. Gtr.
Vln.
Vla.
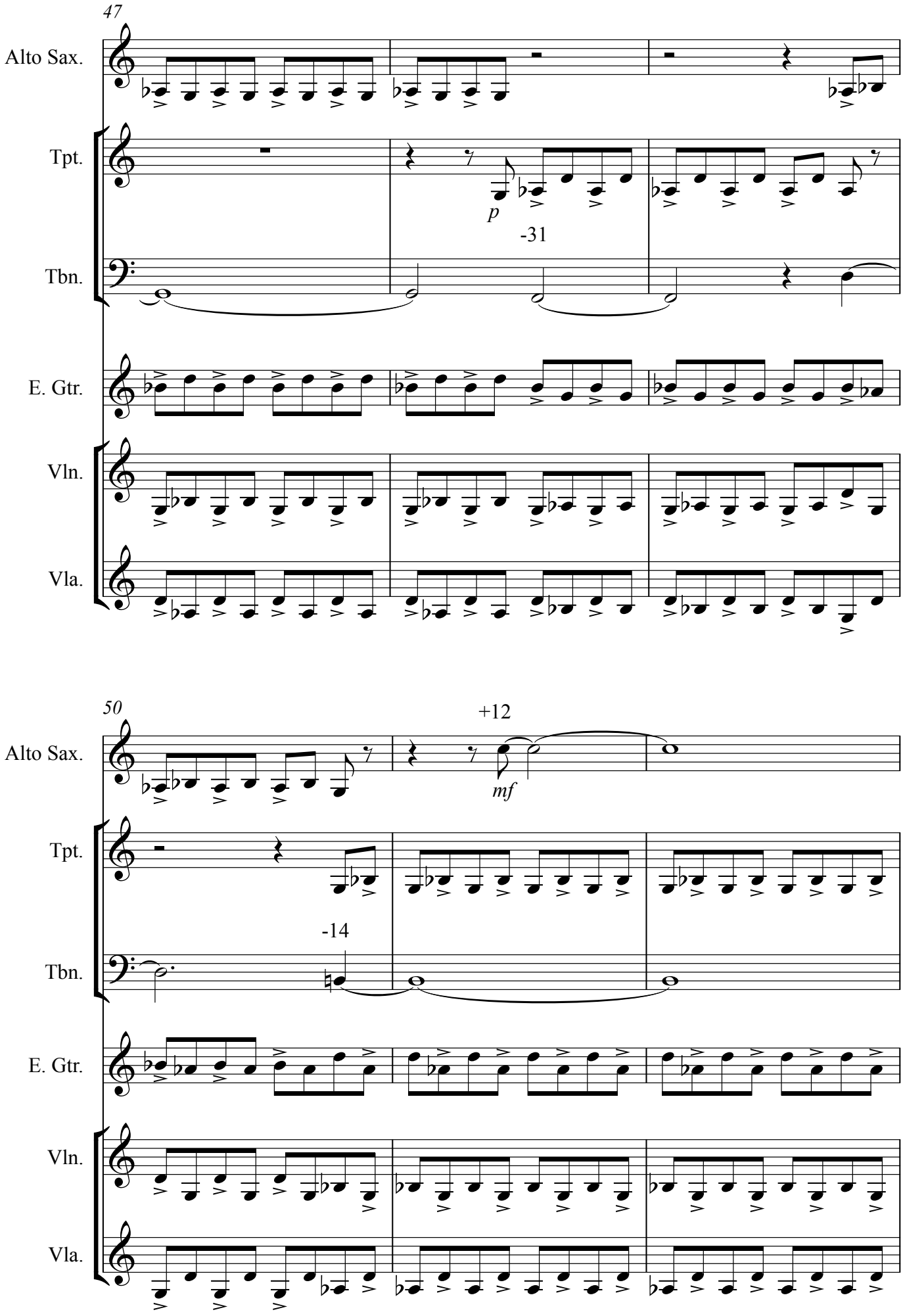

19
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
22
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
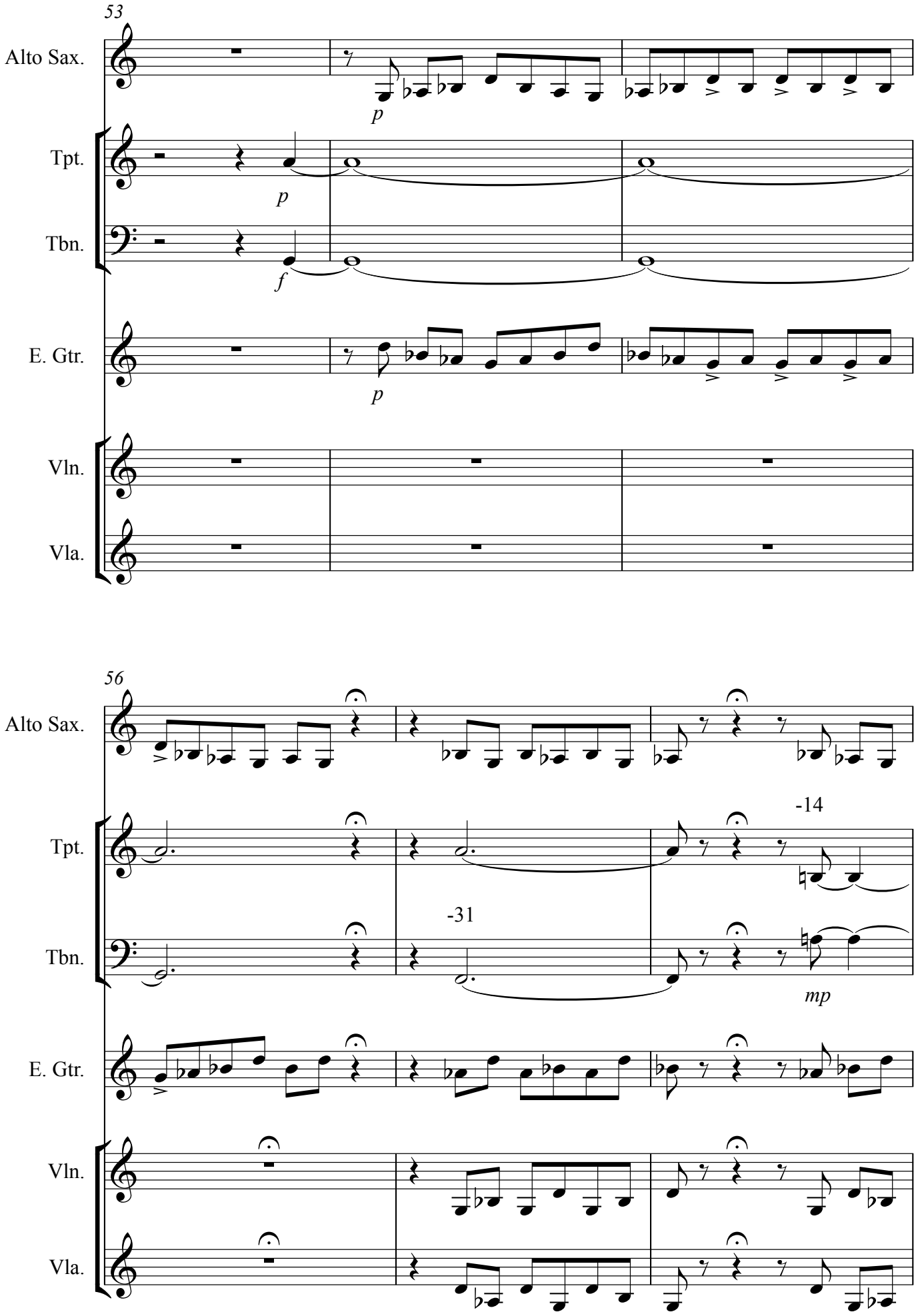

24
Alto Sax.
Tpt.
mf
Tbn.
E. Gtr.
Vln.
Vla.
26
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
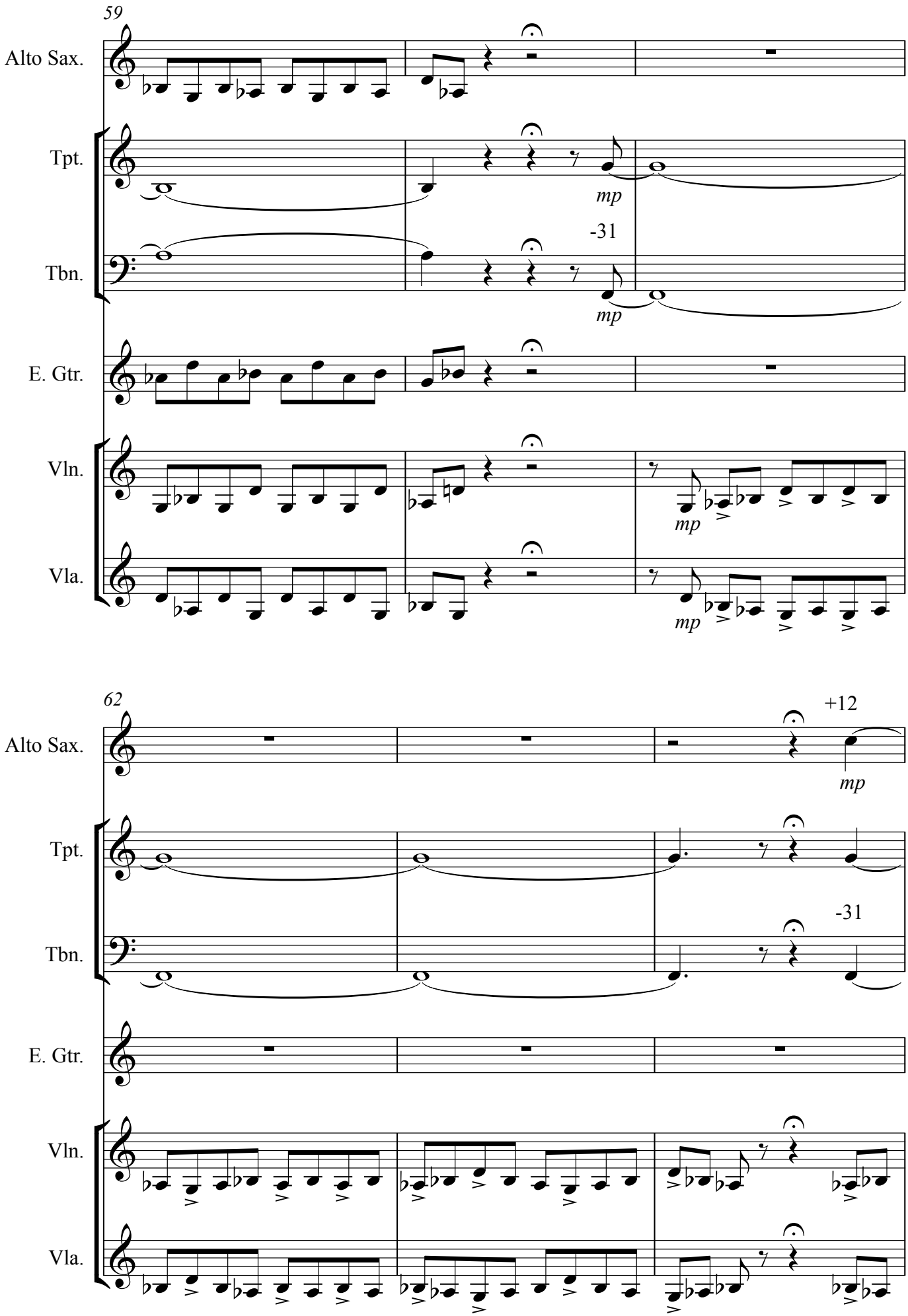

29
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
p
32
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
mf
f
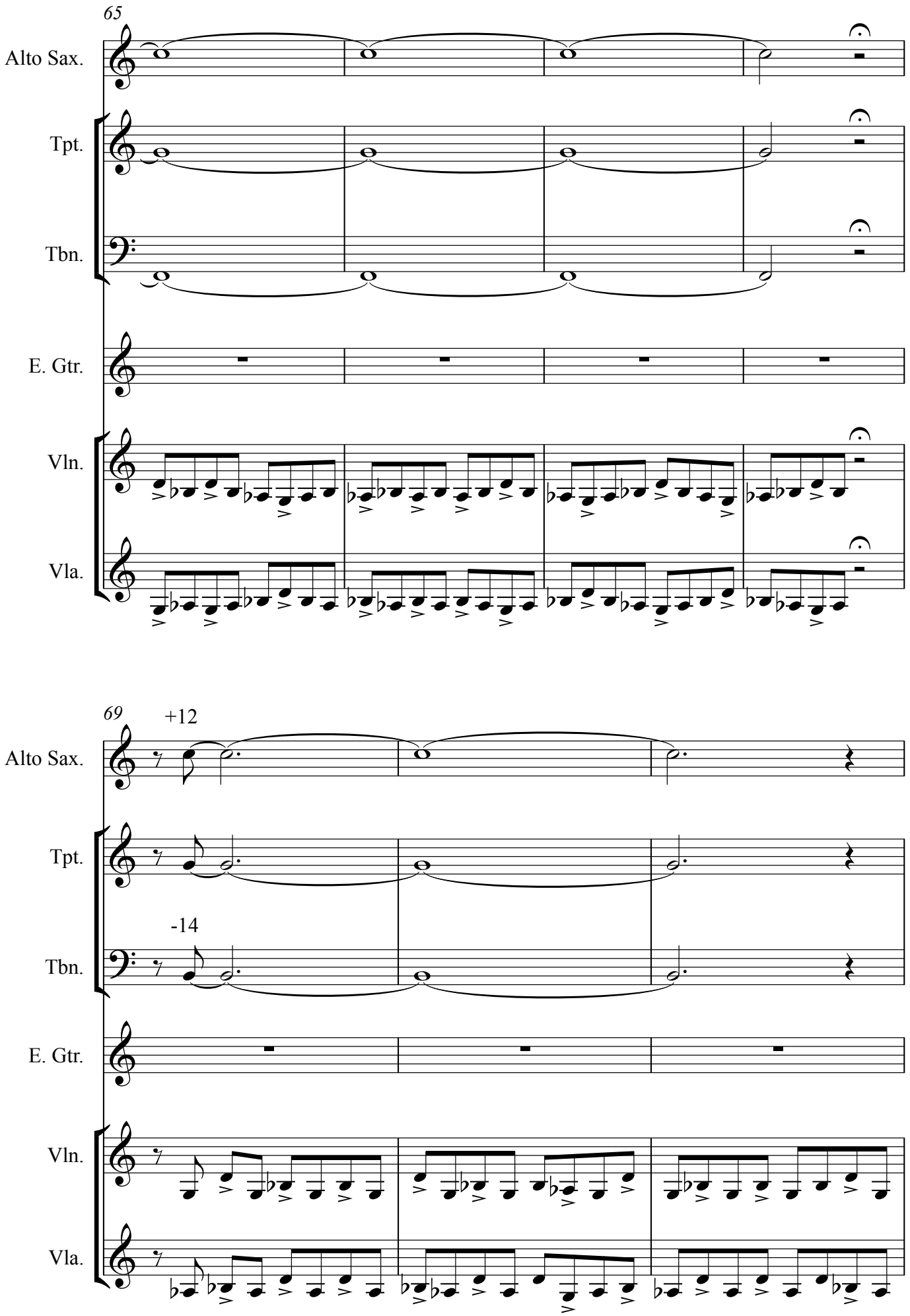

35
Alto Sax.
Tpt.
p
Tbn.
E. Gtr.
Vln.
Vla.
38
Alto Sax.
Tpt.
mf
Tbn.
E. Gtr.
Vln.
Vla.
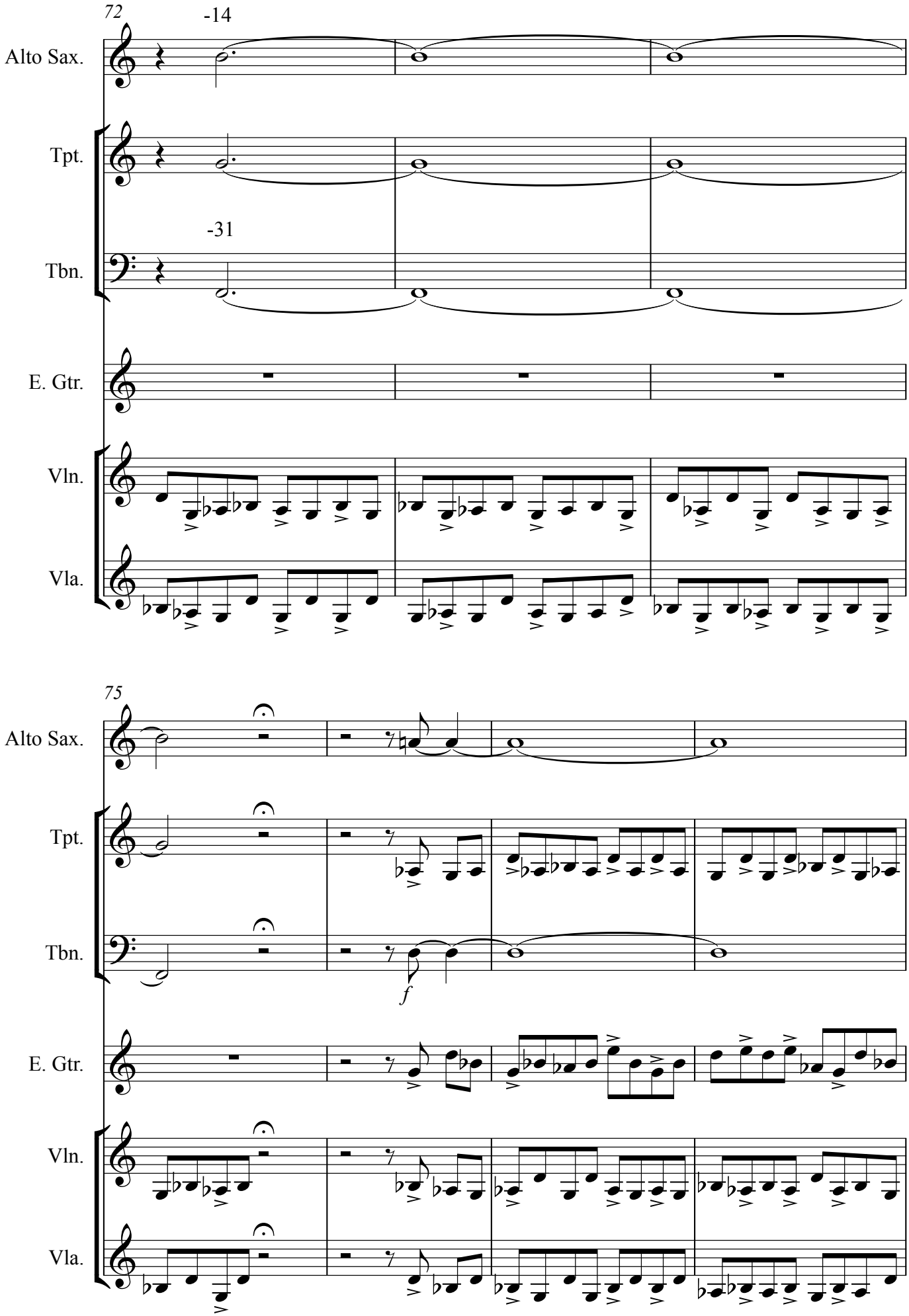

41
Alto Sax.
mf
Tpt.
p
Tbn.
E. Gtr.
Vln.
Vla.
44
Alto Sax.
p
Tpt.
mp
Tbn.
mf
E. Gtr.
Vln.
Vla.
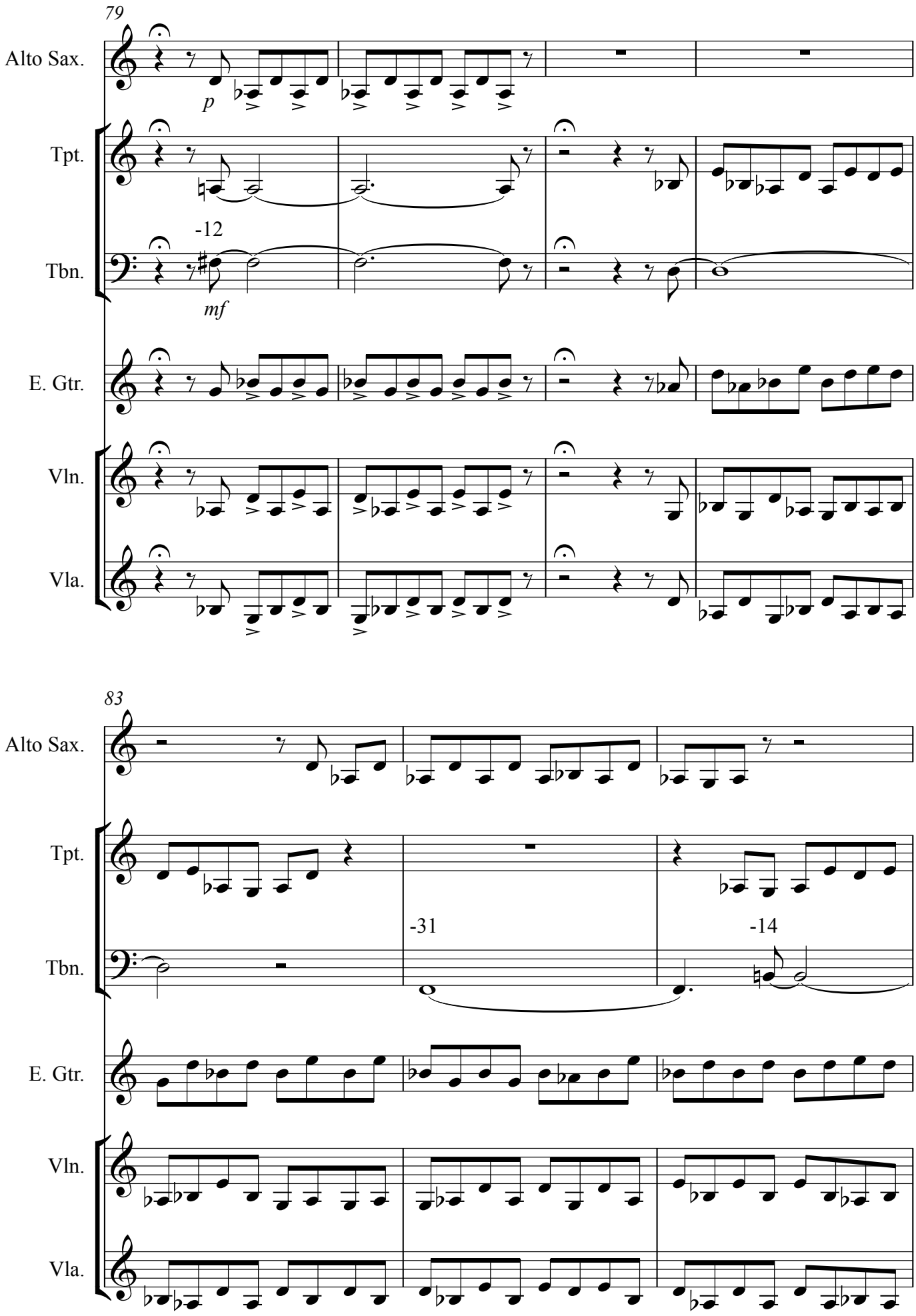

47
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
p
-31
50
+12
mf
-14
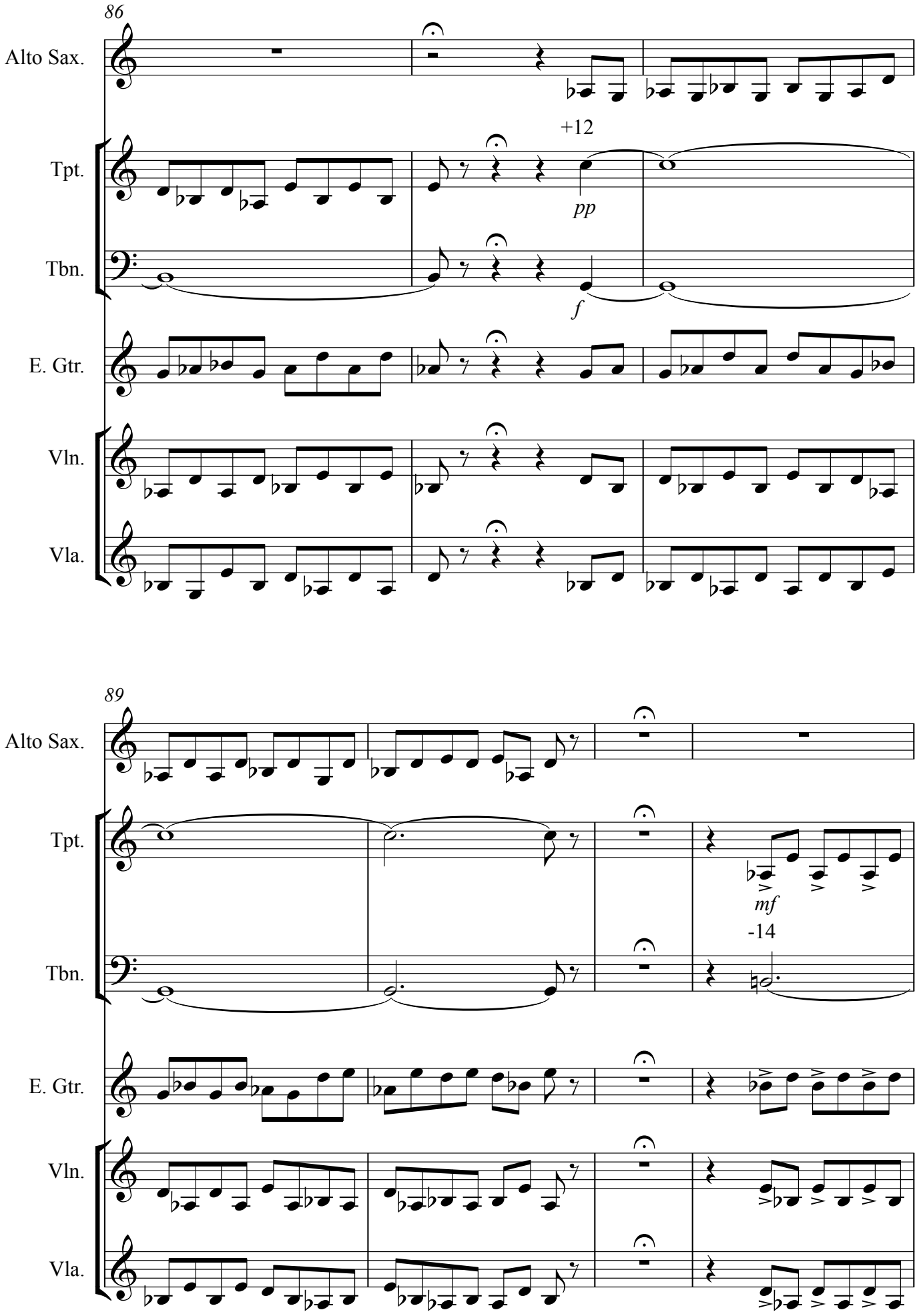

53
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
p
p
f
p
56
-14
-31
mp
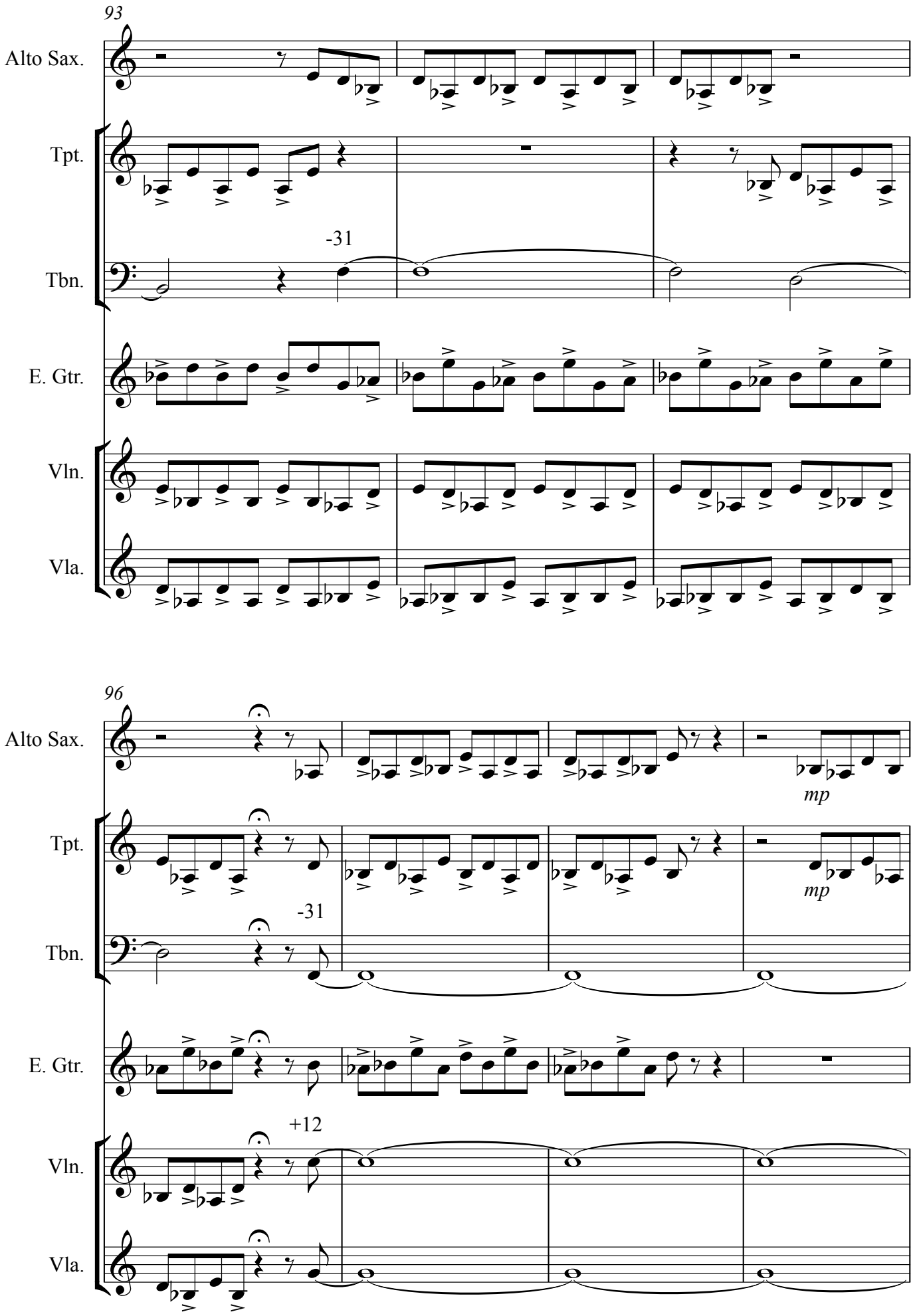

59
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
mp
-31
mp
mp
mp
62
+12
Alto Sax.
mp
Tpt.
Tbn.
-31
E. Gtr.
Vln.
Vla.
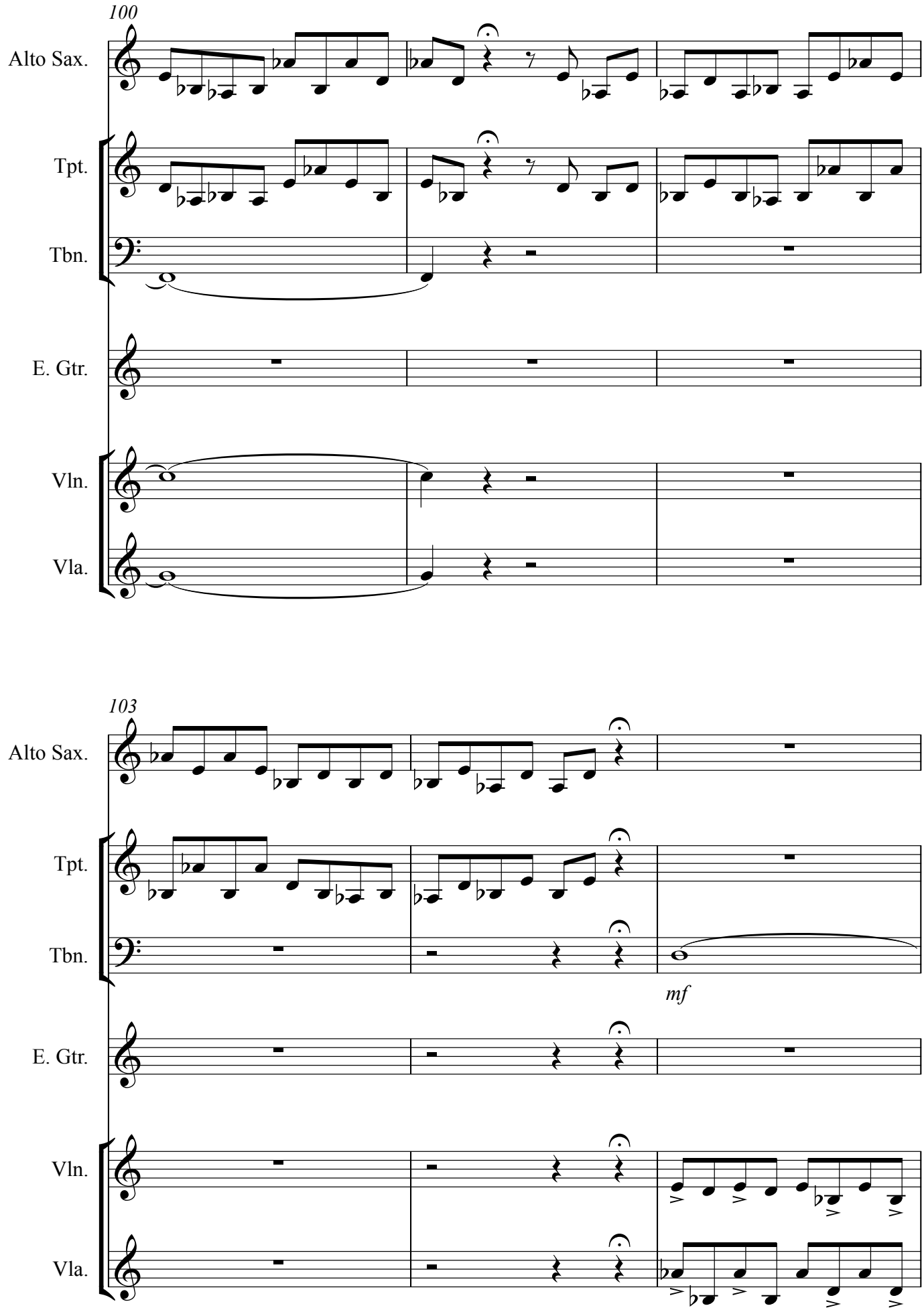

65
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
69
+12
-14
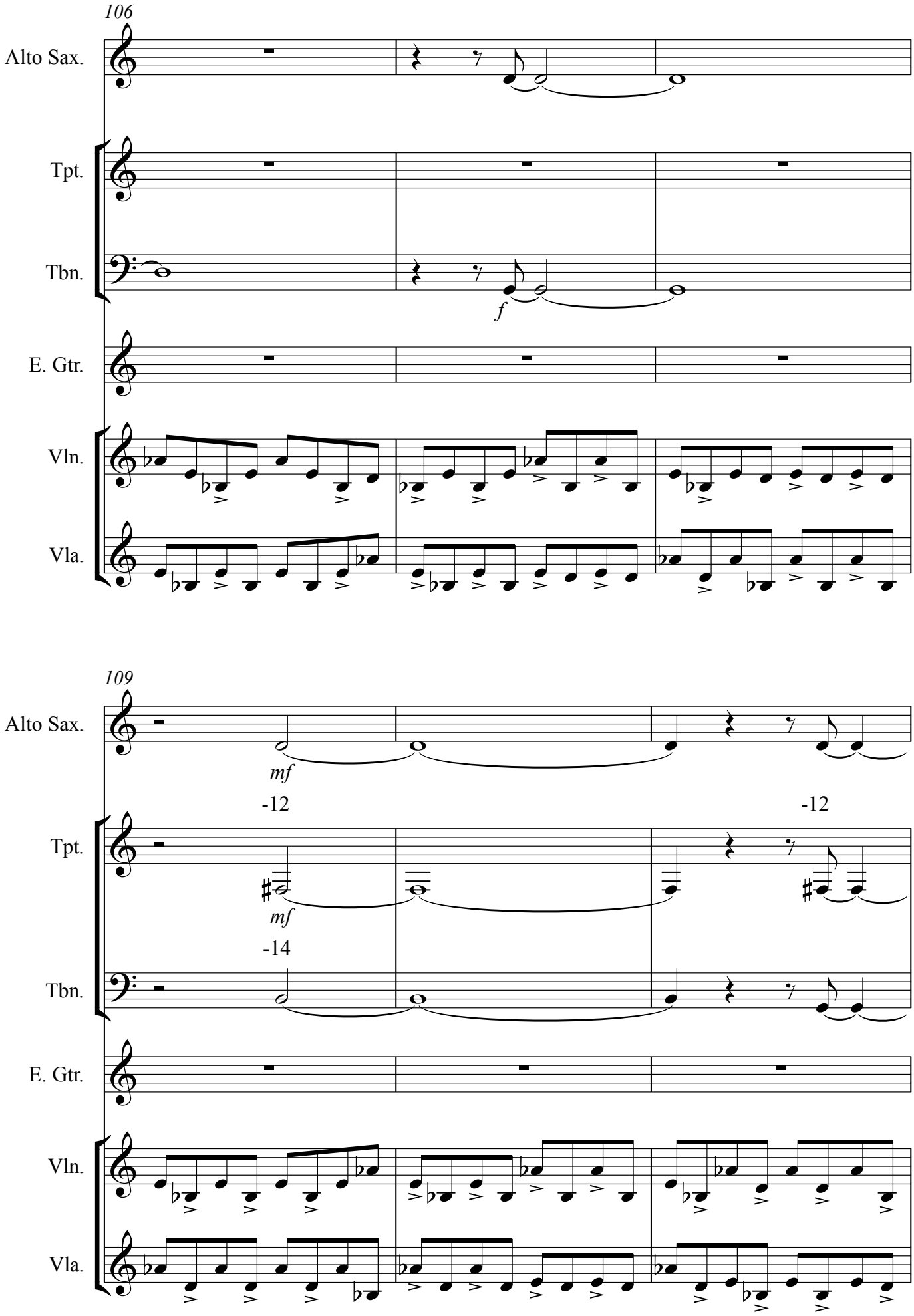

72
-14
Alto Sax.
Tpt.
-31
Tbn.
E. Gtr.
Vln.
Vla.
75
Alto Sax.
Tpt.
Tbn.
f
E. Gtr.
Vln.
Vla.
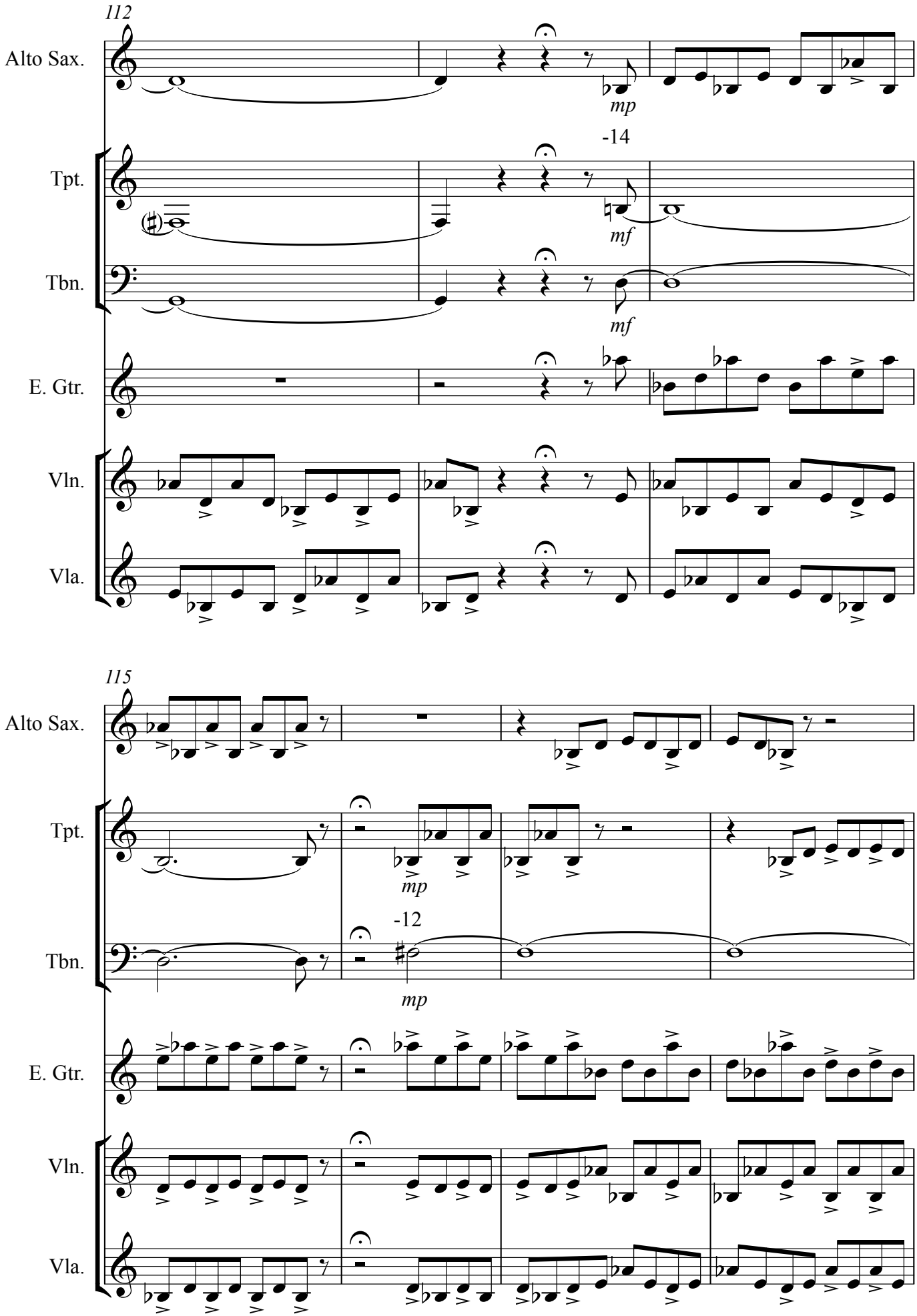

79
Alto Sax.
p
Tpt.
-12
Tbn.
mf
E. Gtr.
Vln.
Vla.
83
Alto Sax.
Tpt.
-31
-14
Tbn.
E. Gtr.
Vln.
Vla.
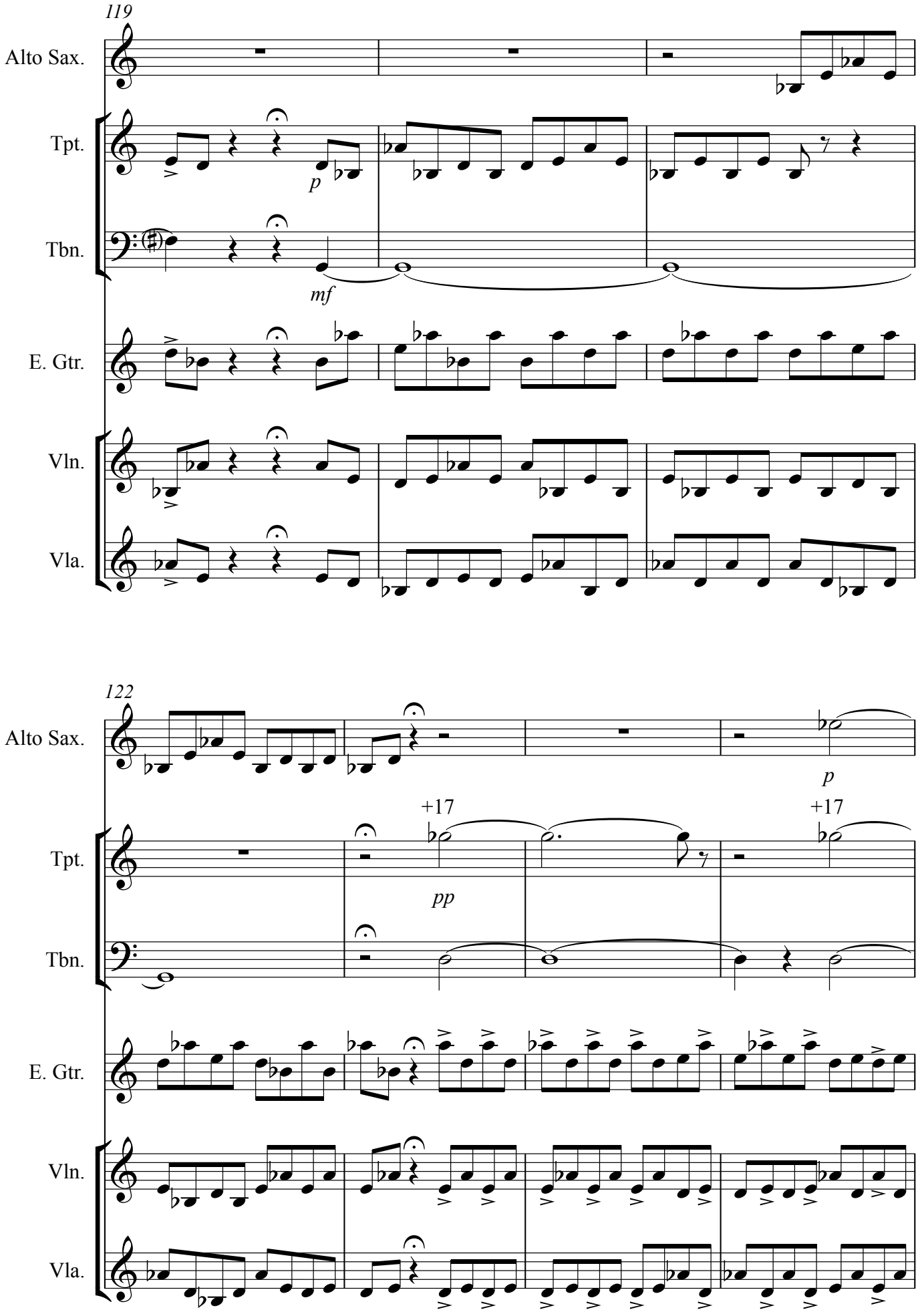

86
Alto Sax.
+12
Tpt.
pp
Tbn.
f
E. Gtr.
Vln.
Vla.
89
Alto Sax.
Tpt.
mf
-14
Tbn.
E. Gtr.
Vln.
Vla.
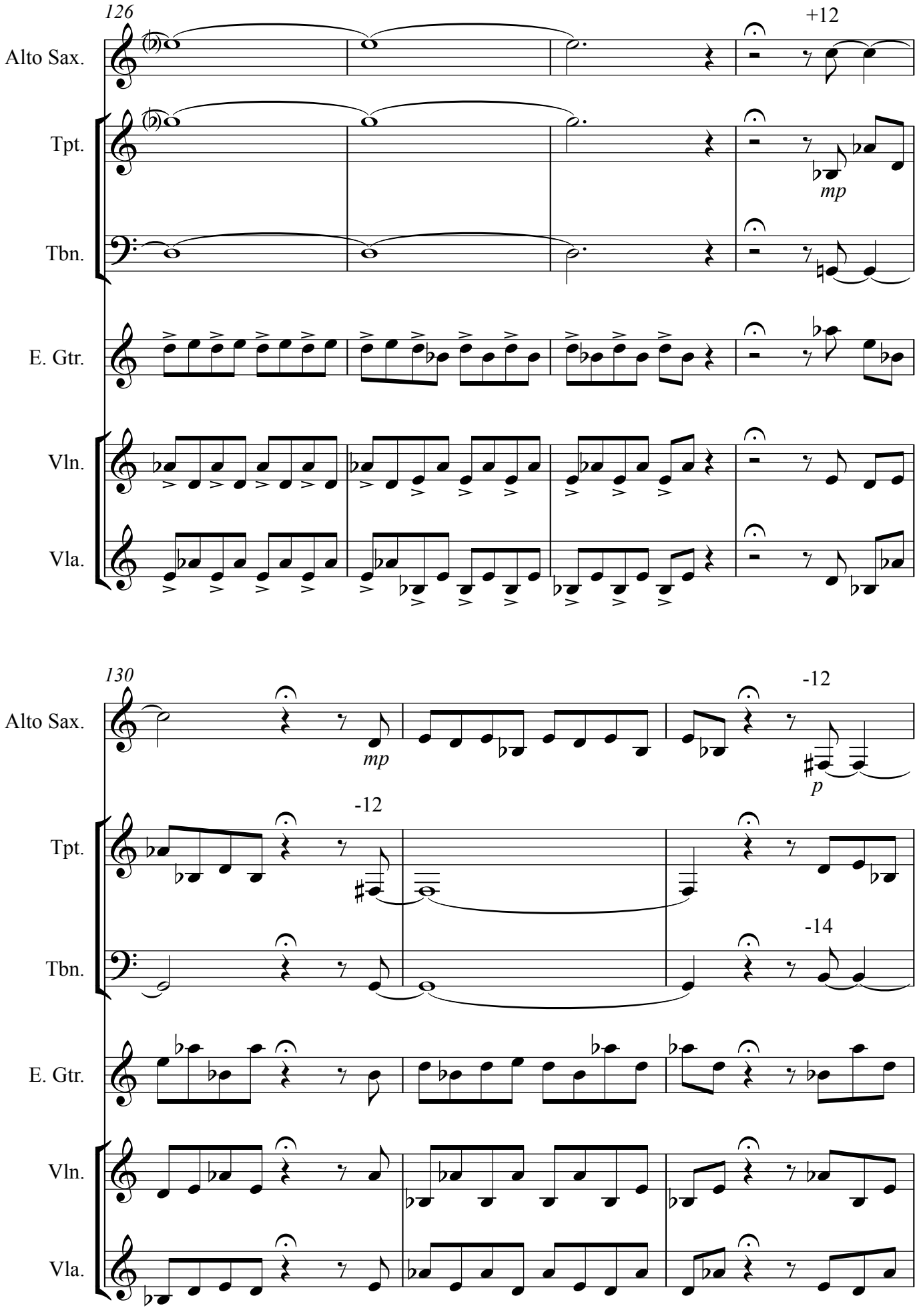

93
Alto Sax.
Tpt.
-31
Tbn.
E. Gtr.
Vln.
Vla.
96
Alto Sax.
mp
Tpt.
mp
-31
Tbn.
E. Gtr.
+12
Vln.
Vla.
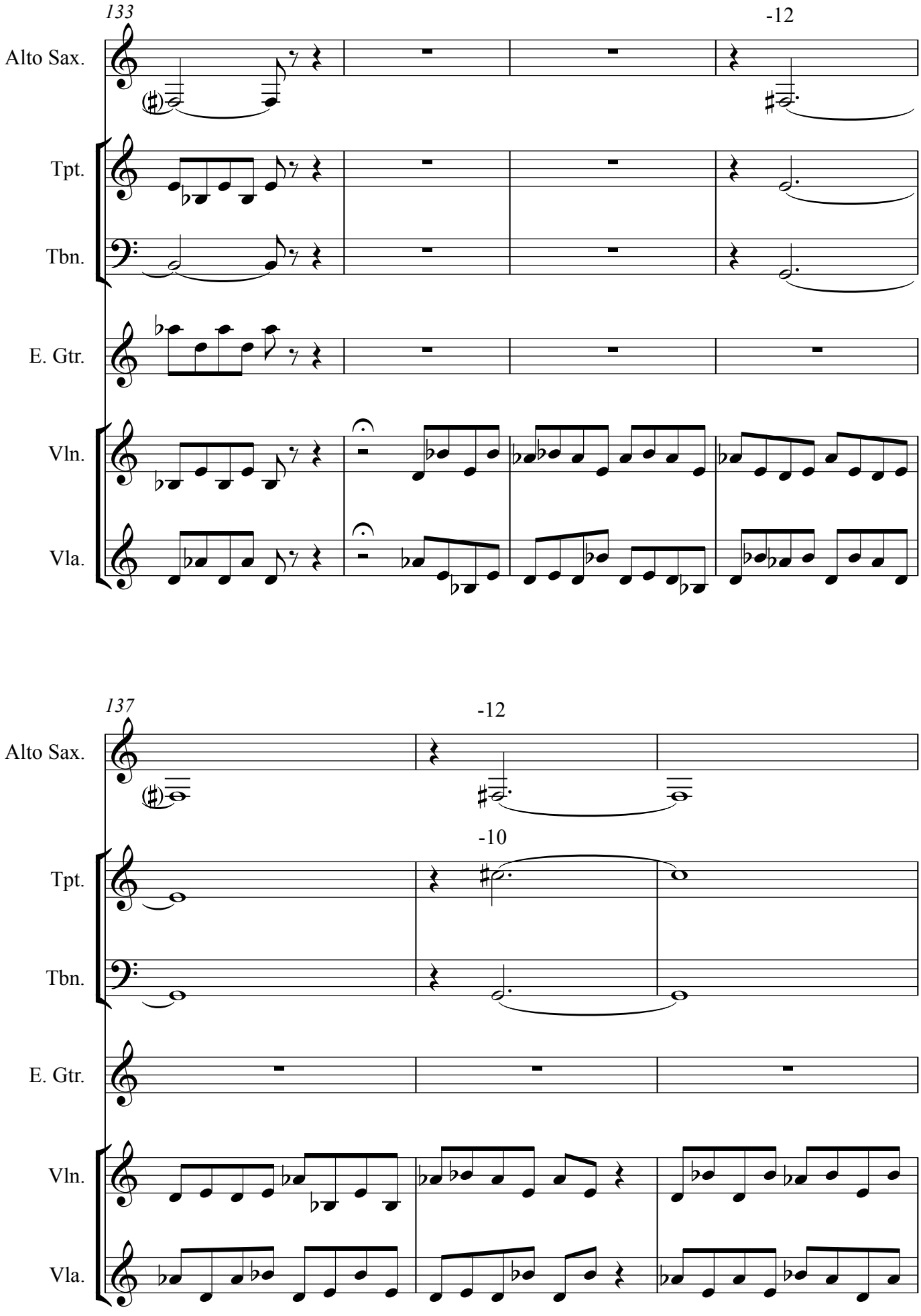

100
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
103
Alto Sax.
Tpt.
Tbn.
mf
E. Gtr.
Vln.
Vla.
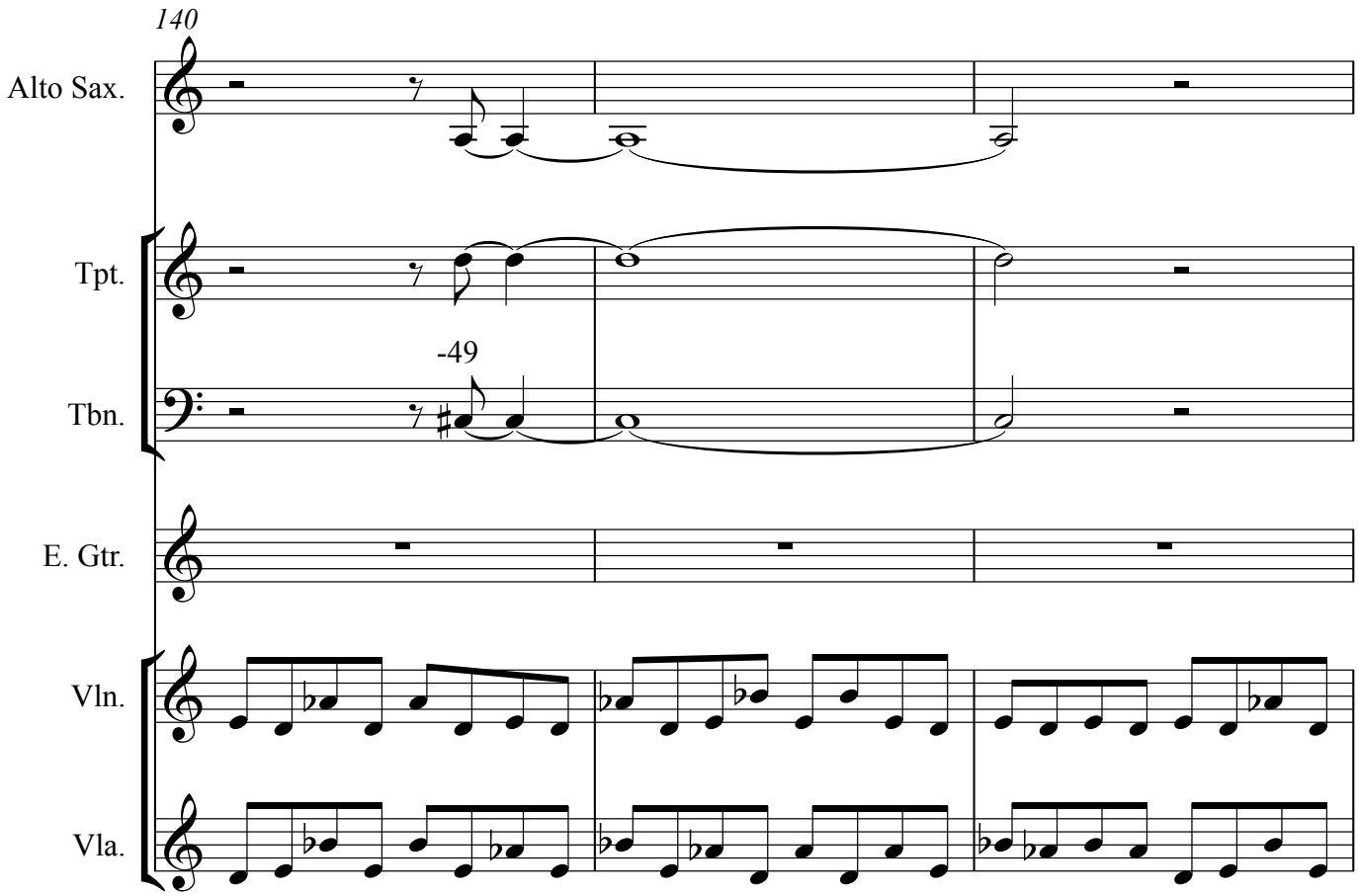

106
Alto Sax.
Tpt.
Tbn.
f
E. Gtr.
Vln.
Vla.
109
Alto Sax.
mf
-12
-12
Tpt.
mf
-14
Tbn.
E. Gtr.
Vln.
Vla.

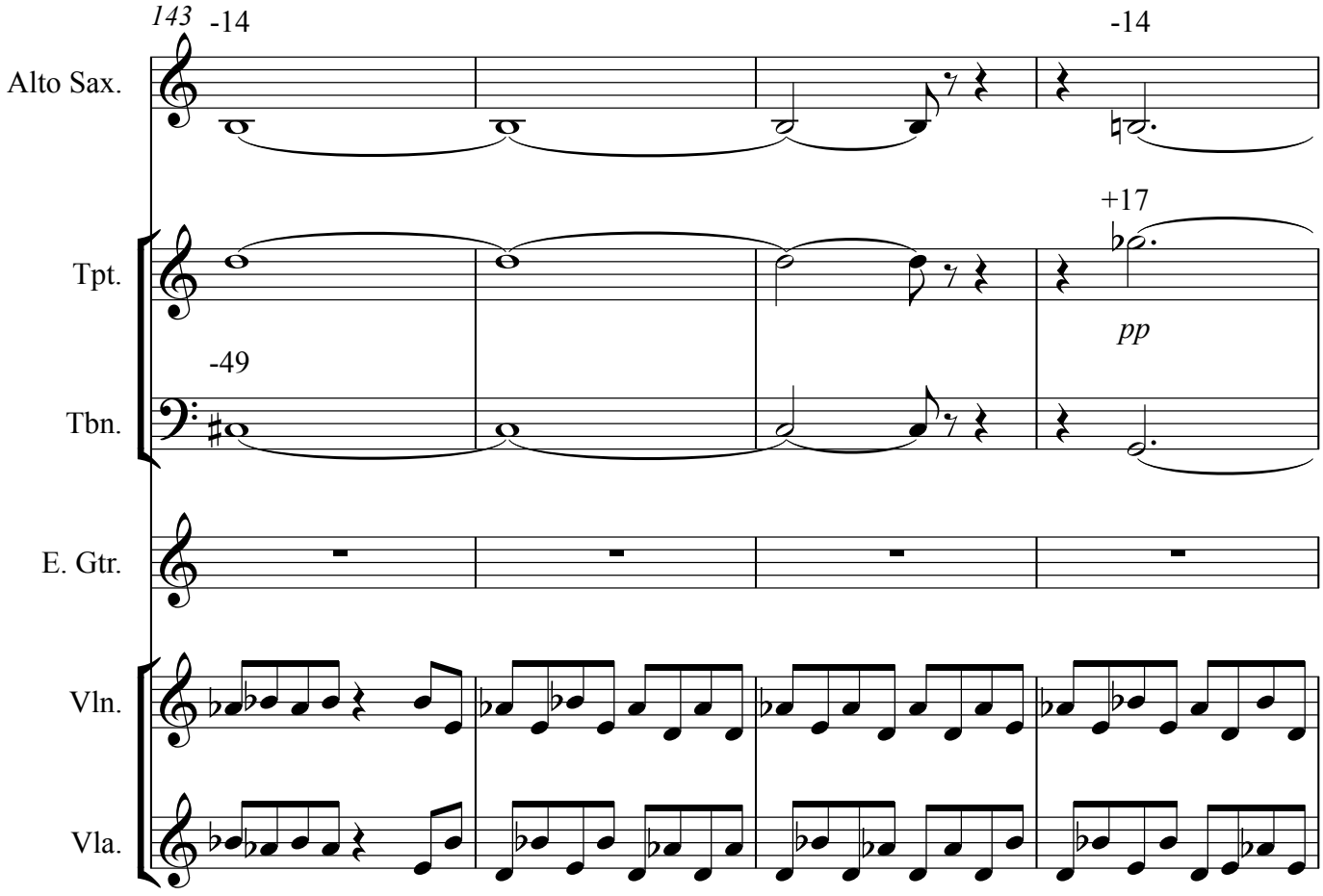

112
Alto Sax.
mp
-14
Tpt.
mf
Tbn.
mf
E. Gtr.
Vln.
Vla.
115
Alto Sax.
Tpt.
mp
-12
Tbn.
mp
E. Gtr.
Vln.
Vla.
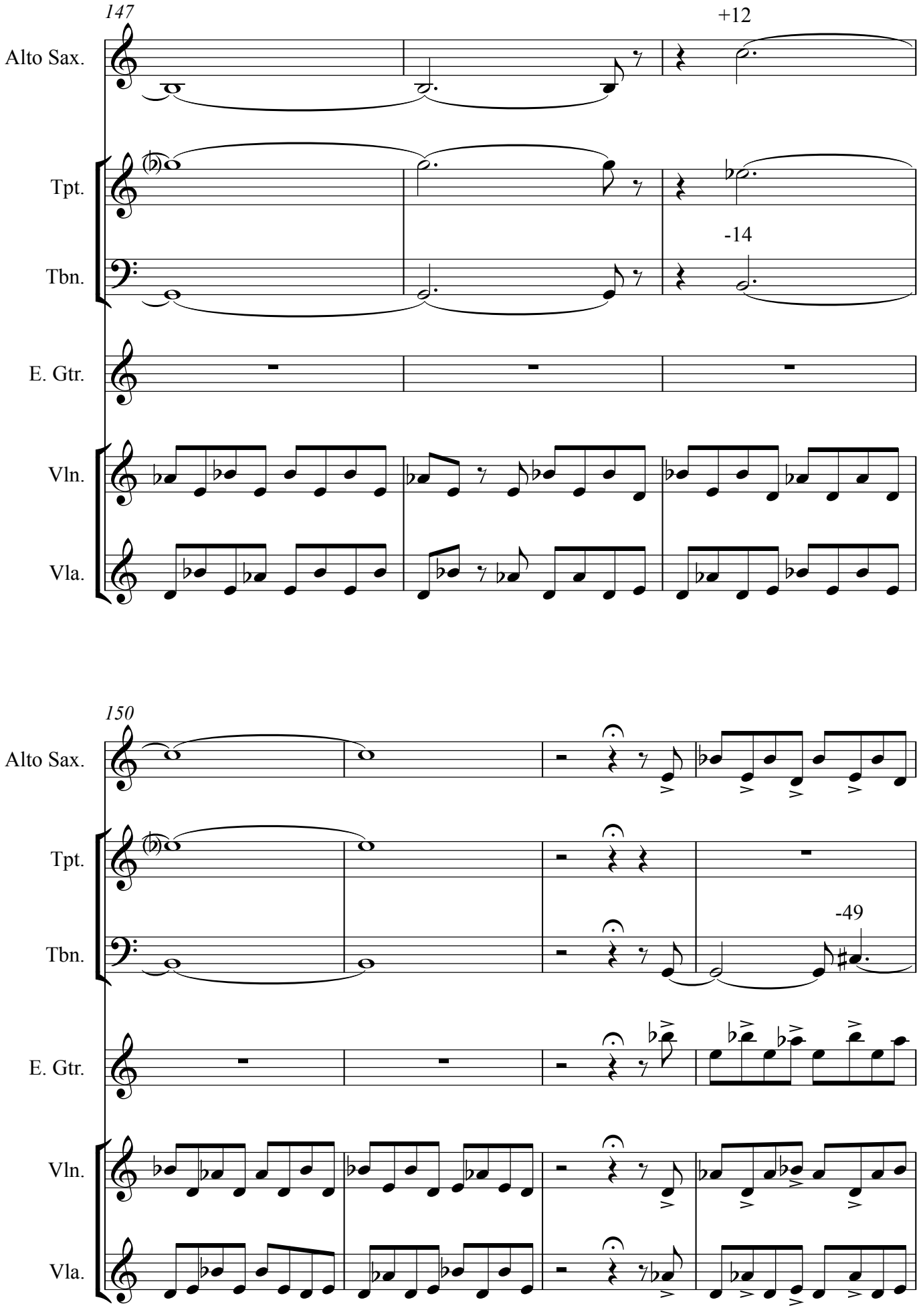

119
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
p
mf
122
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
p
+17
+17
pp
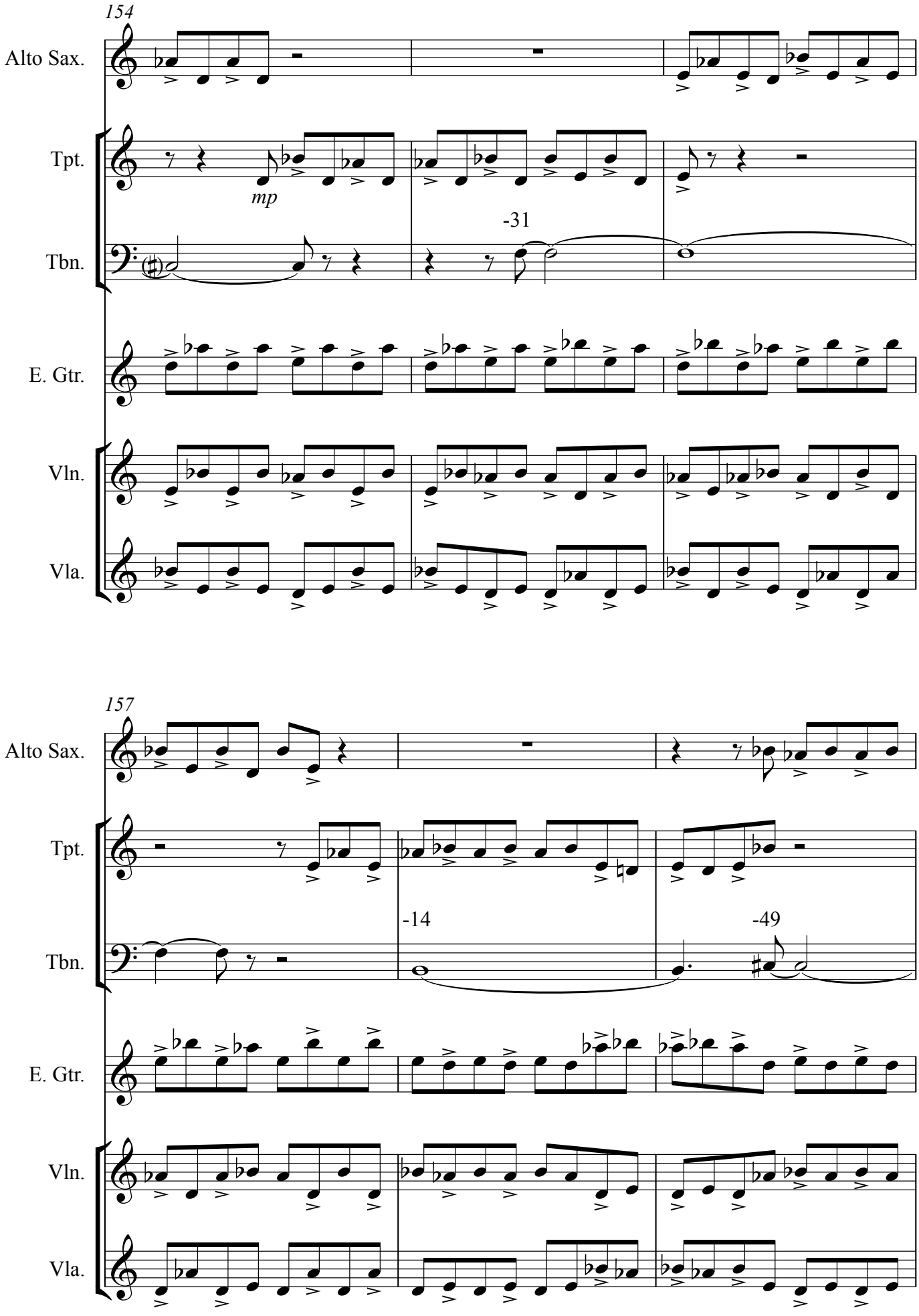

126
+12
Alto Sax.
Tpt.
mp
Tbn.
E. Gtr.
Vln.
Vla.
130
-12
Alto Sax.
mp
p
-12
Tpt.
-14
Tbn.
E. Gtr.
Vln.
Vla.
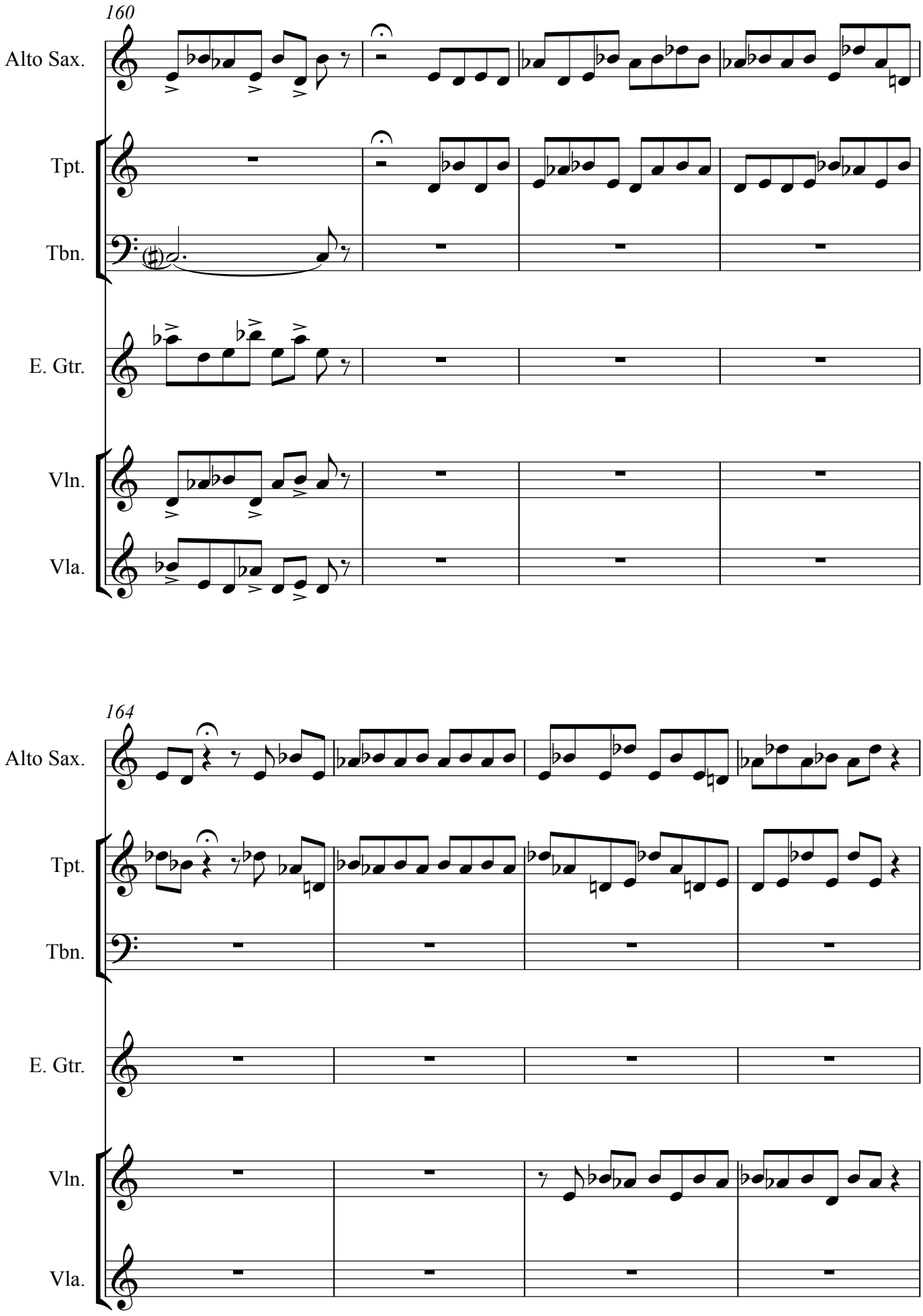

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-12
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Tpt.
Tbn.
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Vln.
Vla.
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-10
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Tbn.
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Vln.
Vla.
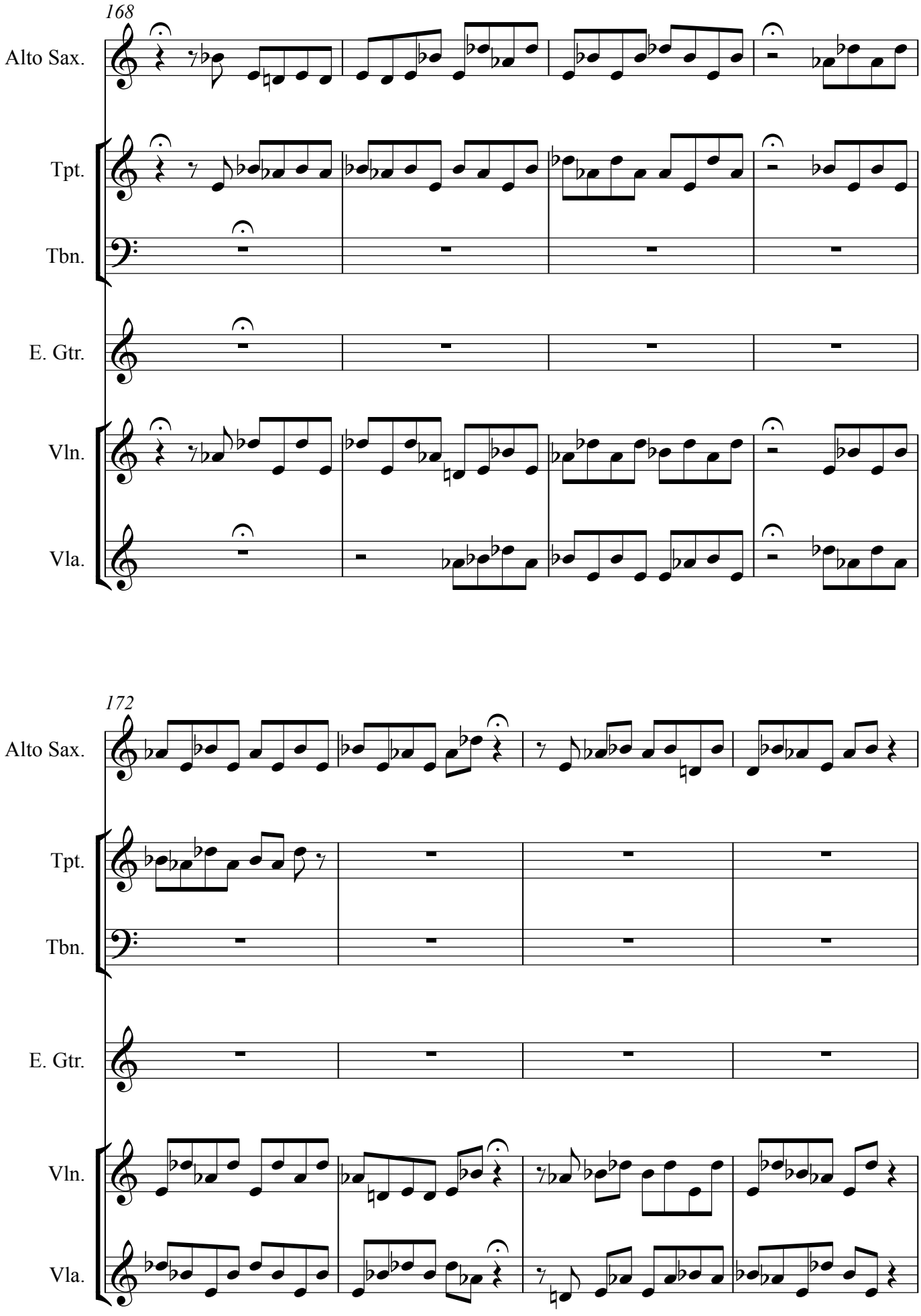

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Alto Sax.
Tpt.
-49
Tbn.
E. Gtr.
Vln.
Vla.
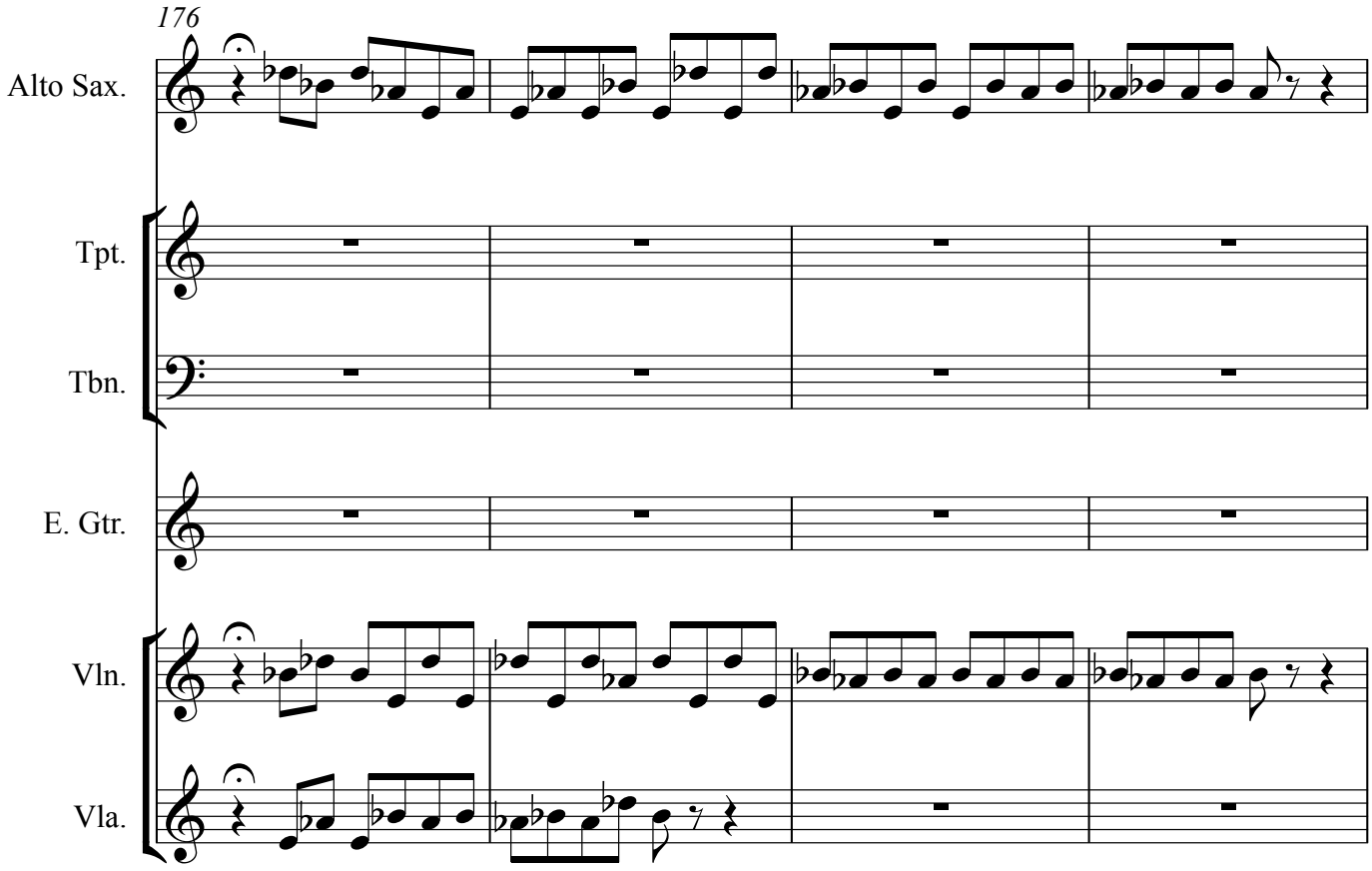

143
-14
-14
Alto Sax.
+17
Tpt.
pp
-49
Tbn.
E. Gtr.
Vln.
Vla.
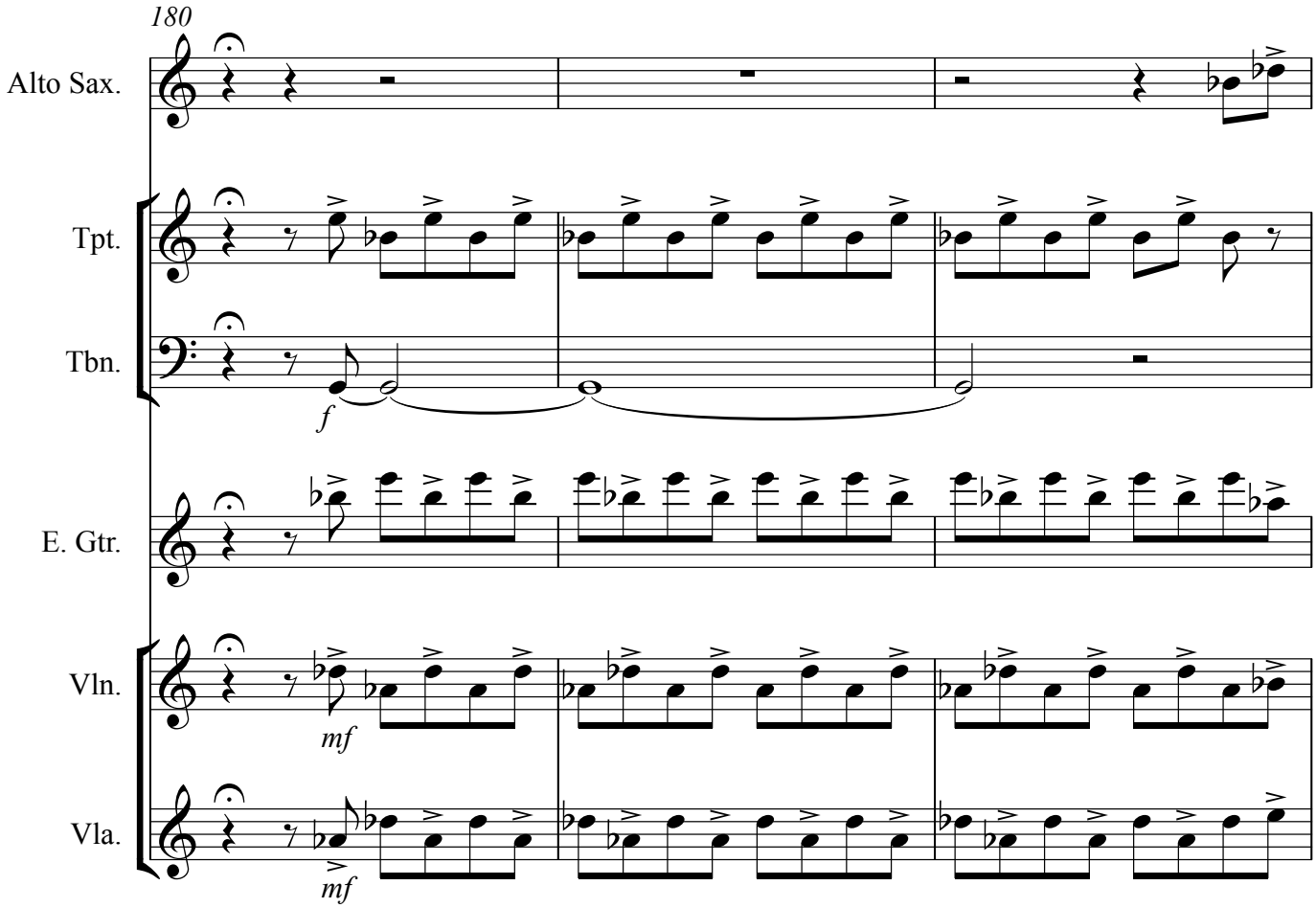

147
+12
Alto Sax.
Tpt.
-14
Tbn.
E. Gtr.
Vln.
Vla.
150
Alto Sax.
Tpt.
-49
Tbn.
E. Gtr.
Vln.
Vla.
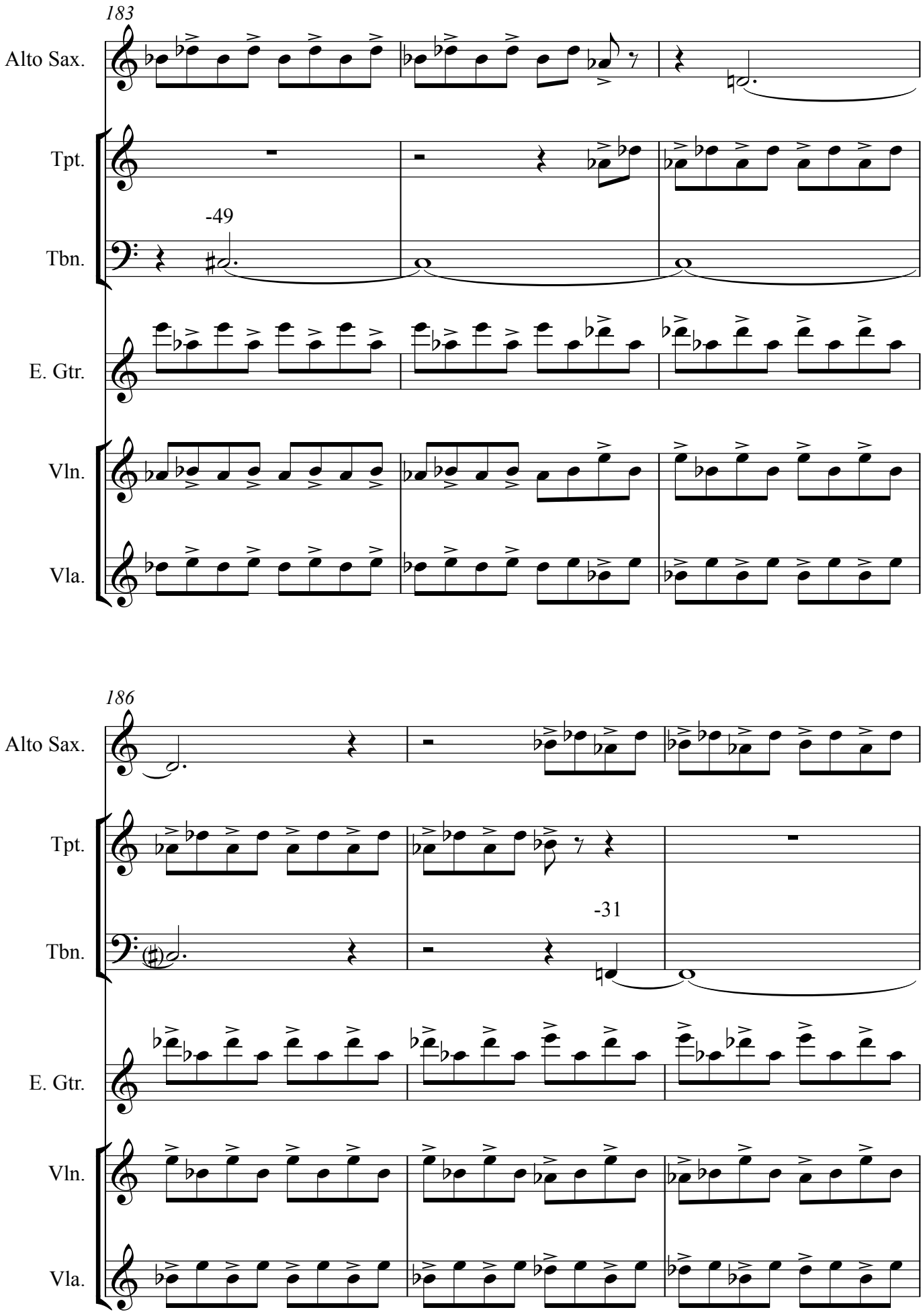

154
Alto Sax.
Tpt.
mp
-31
Tbn.
E. Gtr.
Vln.
Vla.
157
Alto Sax.
Tpt.
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E. Gtr.
Vln.
Vla.
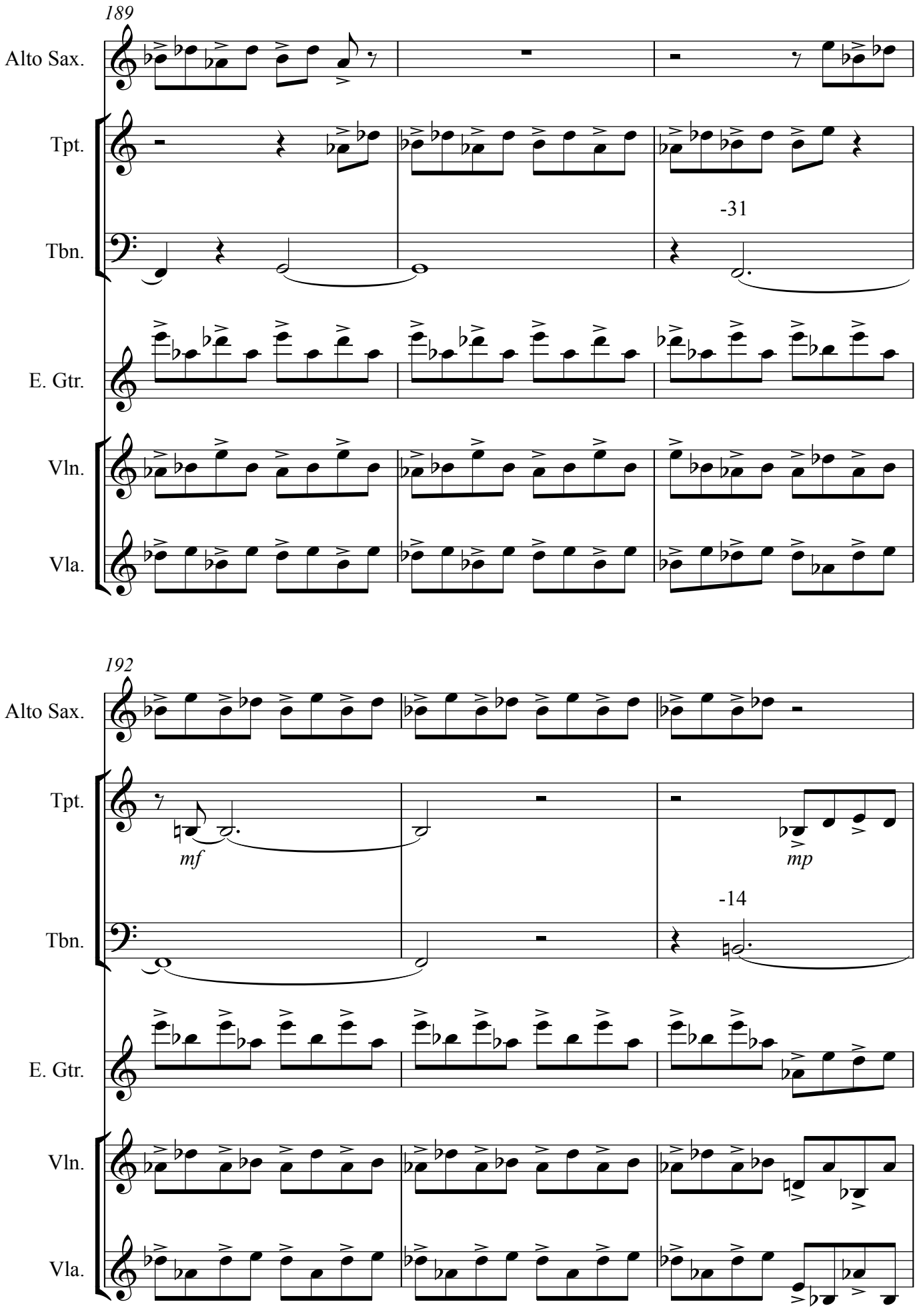

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Alto Sax.
Tpt.
Tbn.
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Vln.
Vla.
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Alto Sax.
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Vln.
Vla.
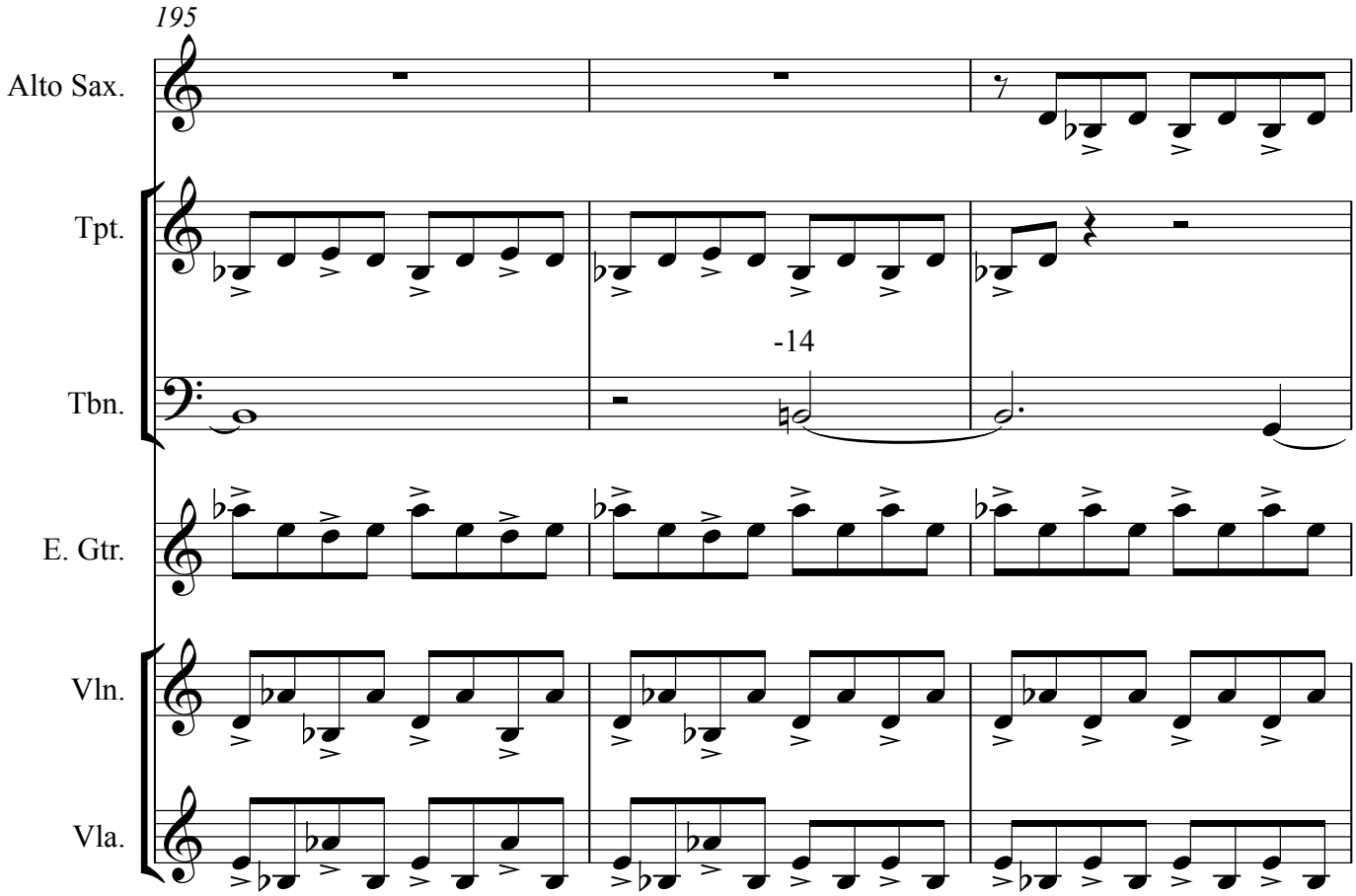

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Tpt.
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Vla.
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Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
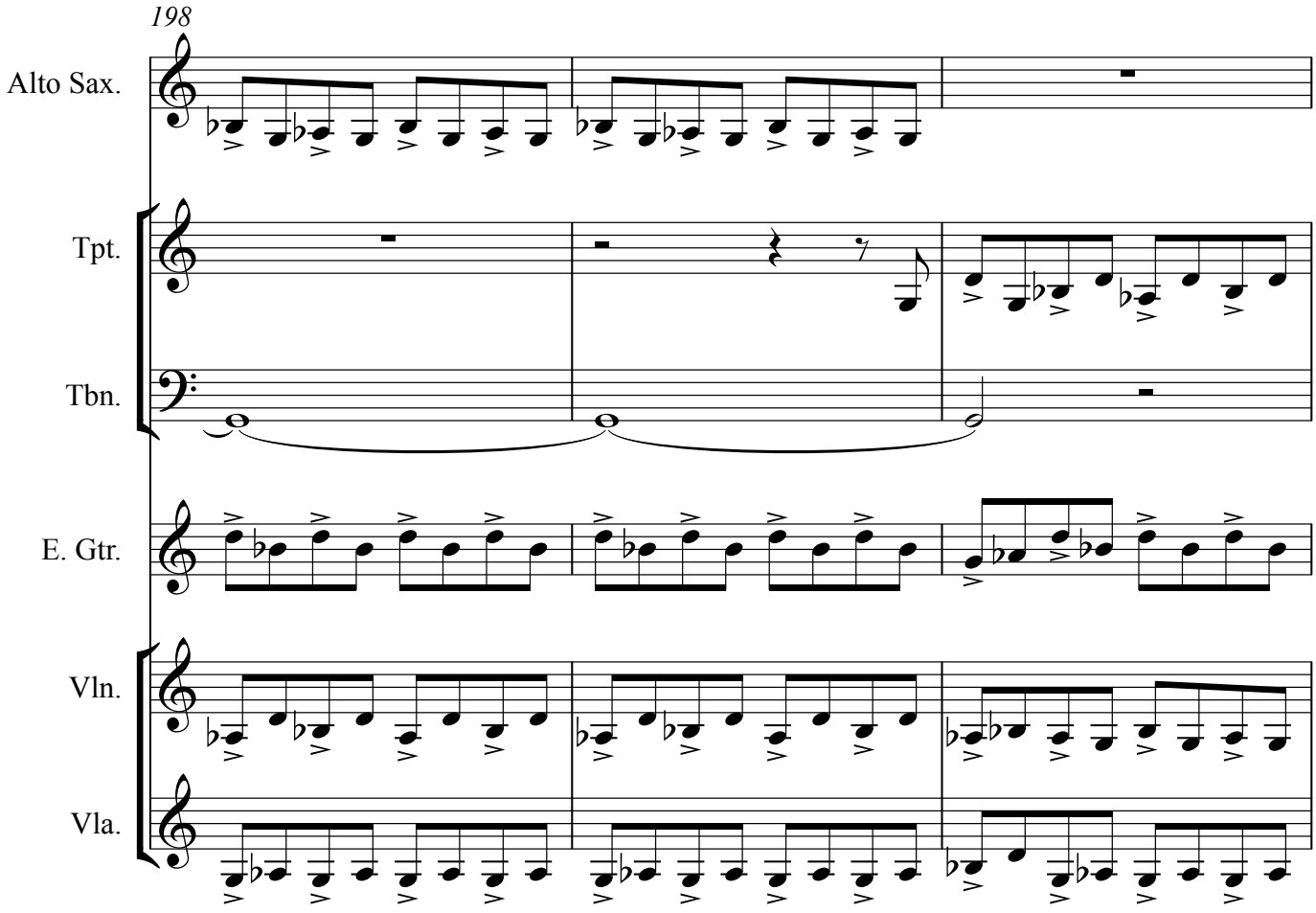

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Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
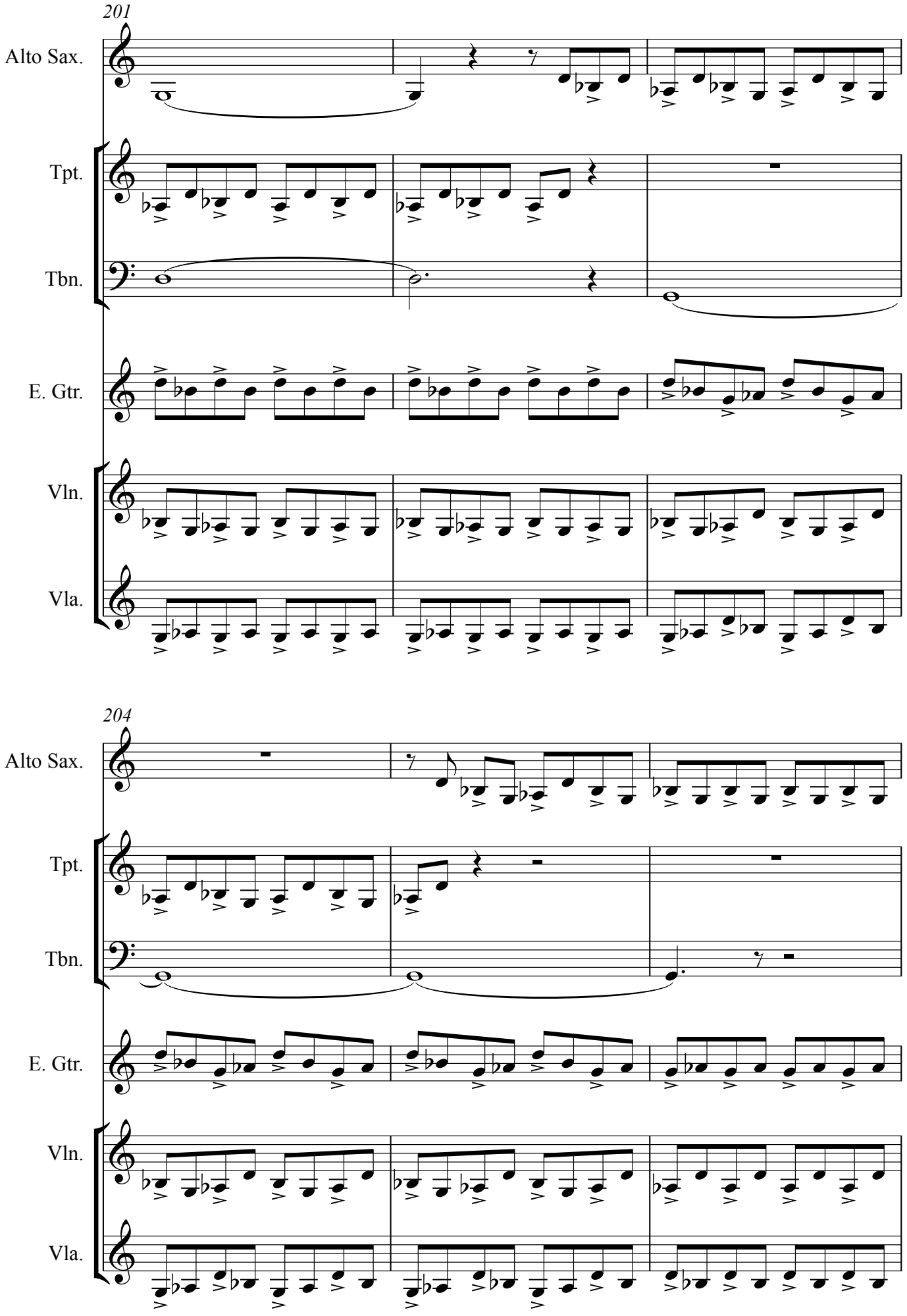

180
Alto Sax.
Tpt.
Tbn.
f
E. Gtr.
Vln.
mf
Vla.
mf
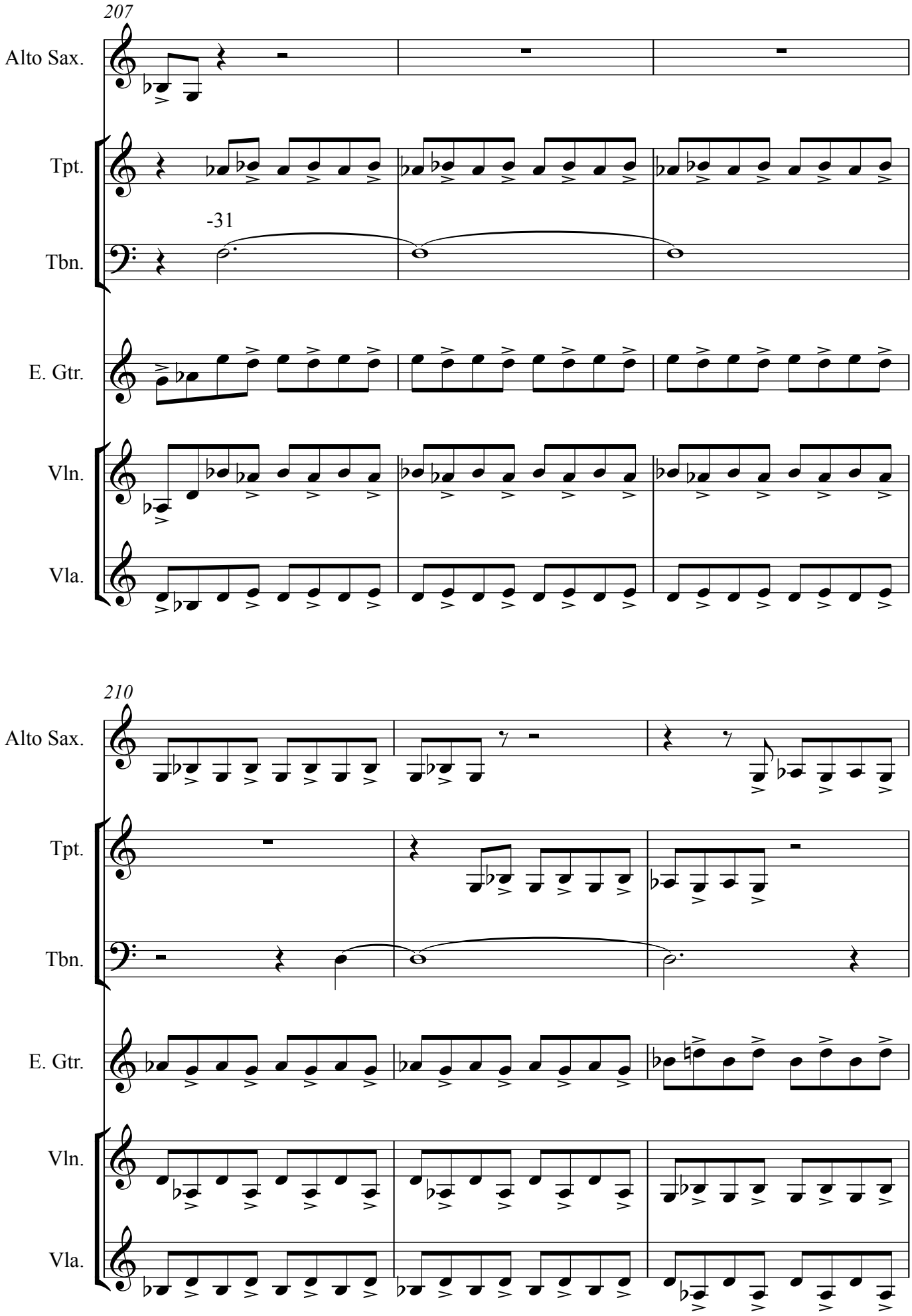

183
Alto Sax.
Tpt.
-49
Tbn.
E. Gtr.
Vln.
Vla.
186
Alto Sax.
Tpt.
-31
Tbn.
E. Gtr.
Vln.
Vla.
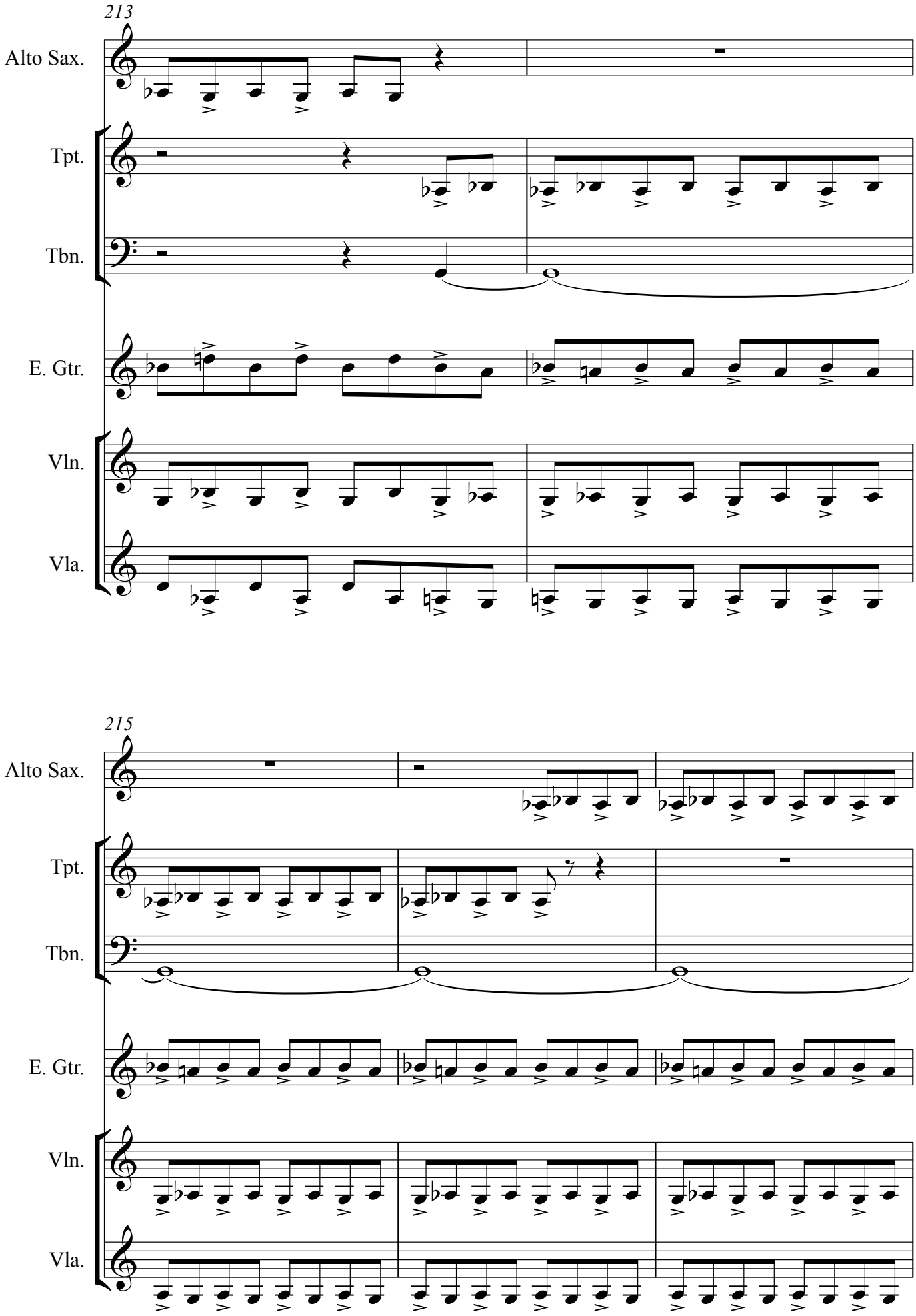

189
Alto Sax.
Tpt.
-31
Tbn.
E. Gtr.
Vln.
Vla.
192
Alto Sax.
Tpt.
mf
mp
-14
Tbn.
E. Gtr.
Vln.
Vla.
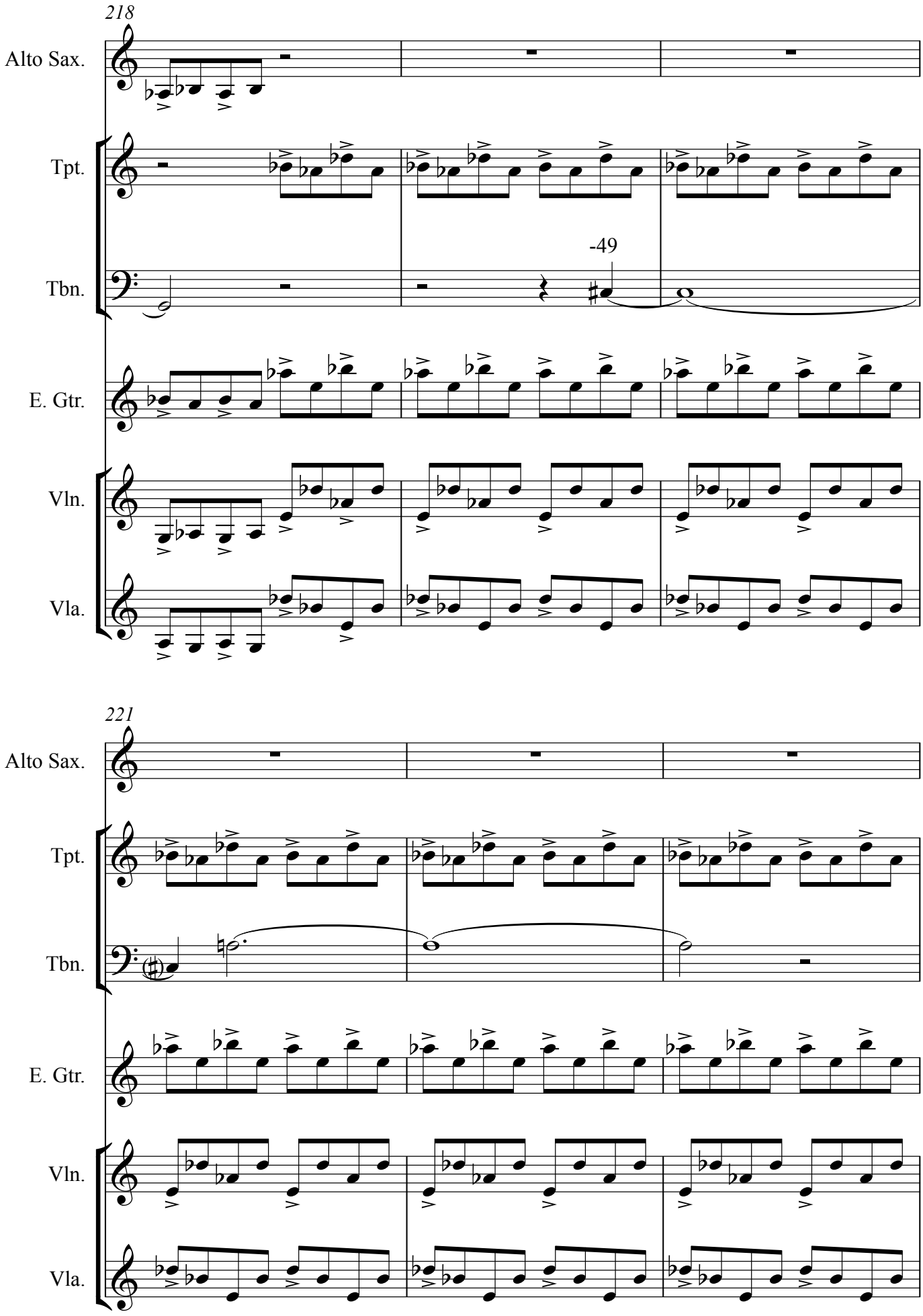

195
Alto Sax.
Tpt.
-14
Tbn.
E. Gtr.
Vln.
Vla.
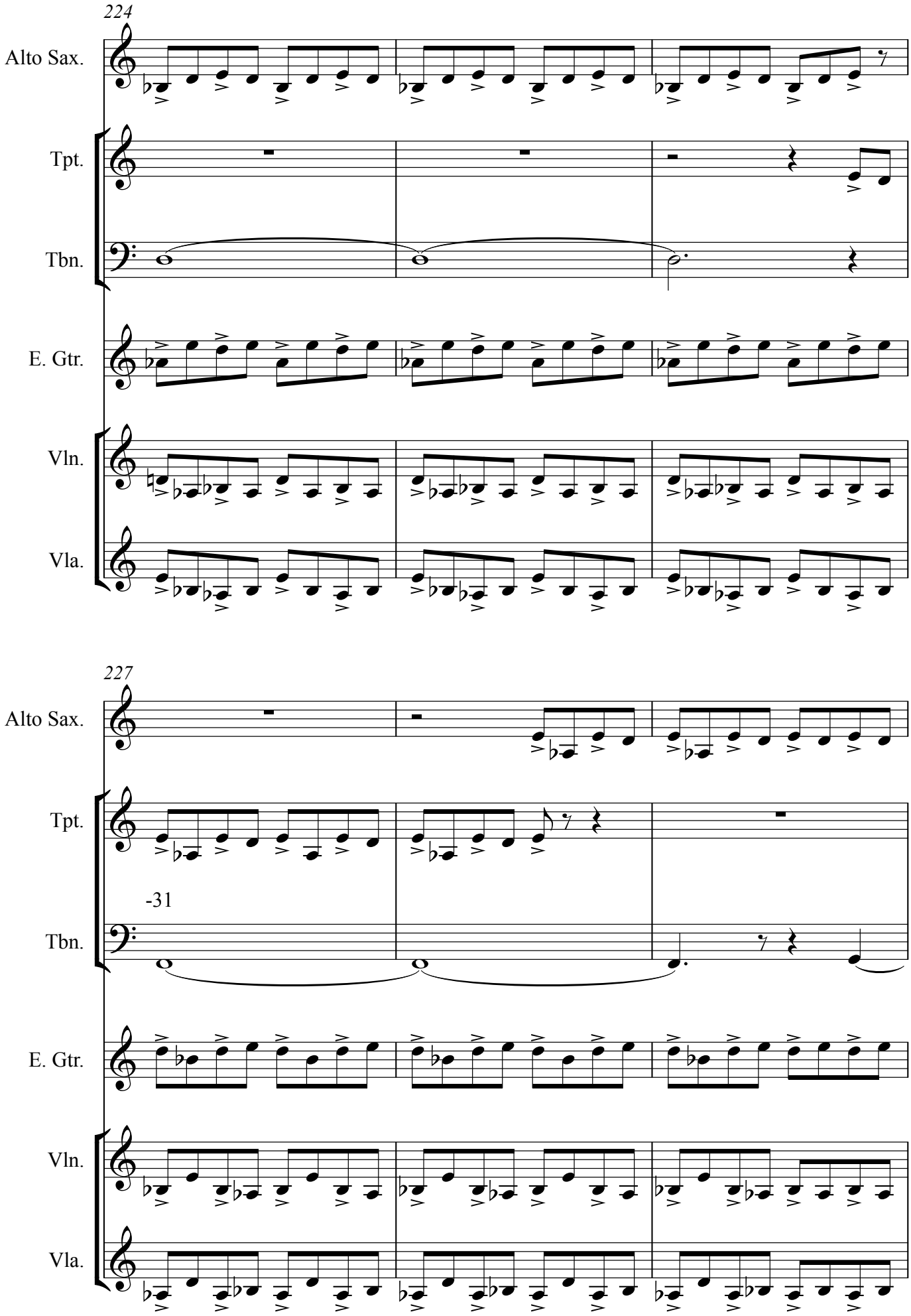

198
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
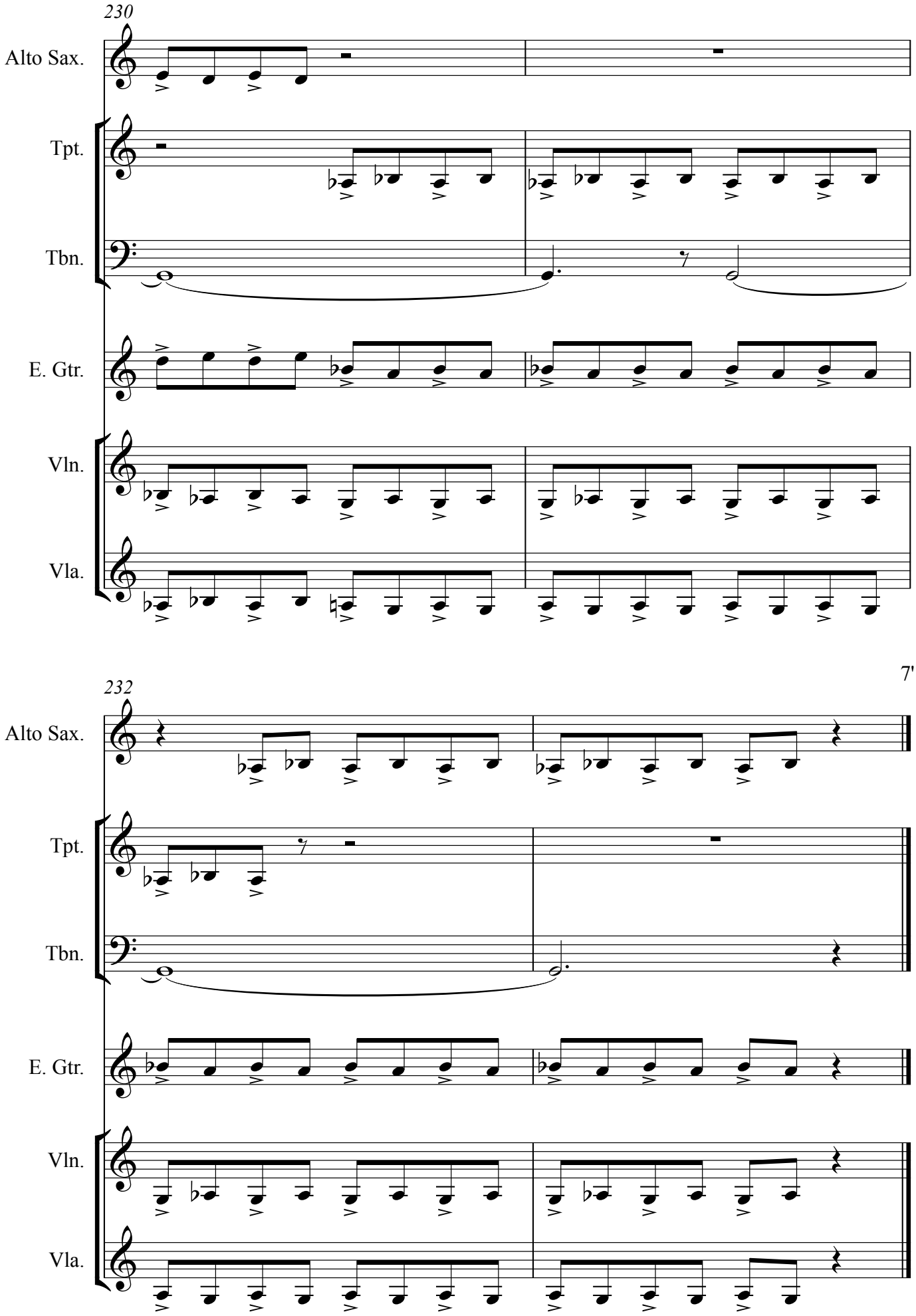

201
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
204
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.


207
Alto Sax.
Tpt.
-31
Tbn.
E. Gtr.
Vln.
Vla.
210
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.


213
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
215
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.


218
Alto Sax.
Tpt.
Tbn.
-49
E. Gtr.
Vln.
Vla.
221
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.


224
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
227
Alto Sax.
Tpt.
-31
Tbn.
E. Gtr.
Vln.
Vla.


230
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.
7'
232
Alto Sax.
Tpt.
Tbn.
E. Gtr.
Vln.
Vla.

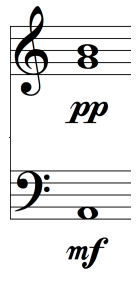
Landscape with Train Whistle

for Leo Svirsky and Germaine Sijstermans

for one or two pianos with optional sustaining instruments

Hollas Longton

The material of this piece is made up of approximately-tuned harmonics of the piano's lowest note (A = 27.5 Hz). Chords and single tones are made from sum and difference tones. The 'train whistle' of the title is the chord:



This chord is a loose transcription of the 'Nathan/Airchime K3L/K3H Series' whistle commonly found on CN Rail freight trains.

The score is a map containing cells of material (single pitches and chords) which the players navigate through the use of connecting lines. Players have no obligation to play all of the cells.

General Instructions:

- Duration: 10-30’

- The score may be played as a piano solo, as a piano duo, as piano with ensemble (of at least four sustaining instruments of continuously variable pitch) or as two pianos with ensemble.

- Numbers above pitches are possible cent deviations from the equal-tempered scale (one cent = 1/100th of a semitone).

- Scores for both the piano and ensemble parts are to be printed on A3 paper.

How to Play:

- To begin, the pianist(s) should choose chords or single pitches from different areas of the score and begin playing them repeatedly. Begin by playing and repeating only a single cell (note or chord). After thirty seconds to a minute the pianist should add another cell. If performing this piece with two pianos, cells should still be added one at a time. The timing of the repetitions of the cells should not be synchronized (this will be explained later).

- If performing this piece with ensemble, the ensemble should enter only after all the cells of the piano(s) have entered.

- Movement between cells is done along connecting lines. This movement should be done slowly at all times. Each cell should be repeated several times before moving on to the next one.

- You may move in either direction along a connecting line and double back on yourself.

- If performing the ensemble version of this piece, the performers of the ensemble should map out (and probably indicate on the score) a route which they follow together. If performing this piece as a piano solo or duo, no prior planning is necessary.

- The ensemble is not expected to get through all the chords within a performance. In fact, exploring only a handful of the chords should create a full performance.

- If performing the ensemble version of this piece, two groups of two or more instruments (one or more high and low within each group) pair off and switch off playing the same chord repeatedly. Their entrances should overlap somewhat (by at least a few seconds), but spaces and/or rests may sometimes also occur.

- You may end on any cell. If playing the ensemble version of this work, the ensemble should stop playing first. The pianist(s) should then stop playing their lines one line at a time.

For the Pianist(s):

- Pedal is held down throughout and should be kept down at the end of the piece.

- Pay very close attention to dynamics. Because all of the material is derived from one harmonic series, the aim is to create a constantly-evolving harmonic cloud. In most of the chords the aim is to create the impression of different timbres. The higher pitches of these chords are not meant to be consciously audible, but rather to aide in the creation of timbre. For most chords, if you can clearly hear the higher notes you are probably playing them too loudly.

- In many chords multiple dynamic markings for a single pitch are indicated. These dynamic markings are given as a range of possible dynamic markings in which the chord may blend to create a timbre. This is a technical solution to the reality that every piano is different.

- Some chords and pitches have diminuendo and crescendo markings, this is to make smoother transitions between material. For example, if the dynamic marking is a crescendo, then this dynamic will be reversed (becoming a diminuendo) if you come at the cell from the right side. Always begin this material with the same dynamic level you were playing previously, before transitioning to the new dynamic.

- The speed of the repetition is as follows: repeat the cell once the loudest pitch of the previous one has decreased by at least two dynamic levels. Cells with different dynamics will have different speeds of repetition. These repetitions should not be metronomic, but should vary slightly as the dynamics vary. When a pianist is playing two paths of material simultaneously, the different dynamic levels of the two paths should make the two paths go out of phase with one another slightly.

- Try to avoid playing the same chord or pitch twice at the same time (keep the two lines separate from one another). If performing this piece with two pianos, this precaution becomes even more important.

- A pianist may temporarily end a line for technical reasons. When technical difficulties cease, try to begin the line again where you left off or on an adjacent cell.

For the Ensemble:

- The ensemble should be made up of any quartet (or greater multiple of two) of sustaining instruments (may include voices) of continuously variable pitch.

- Dynamics are relative and may need to be altered so as to not drown out the piano. The sustaining instruments should try to become a 'shadow' of the piano. On pitches where this is completely impossible, do not play that particular pitch.

- When pitches fall outside the range of an instrument, they may be left out. Try to pick a route which maximizes the number of playable cells.

- Cent deviations are not exactly mandatory. Instead, players may play any cent deviation of these pitches between the indicated deviation and equal-temperament (no deviation). Sometimes this will mean a range of about a quarter tone (50 cents) within which to play. Players are expected to glissando on their pitches within these given ranges.

- To get a feel for where the cent deviations lie, tuners should be used for practice, but not necessarily for performance.

- It is important to note that there is one bar with two pitches in each part. Within this bar you may glissando between the two pitches.

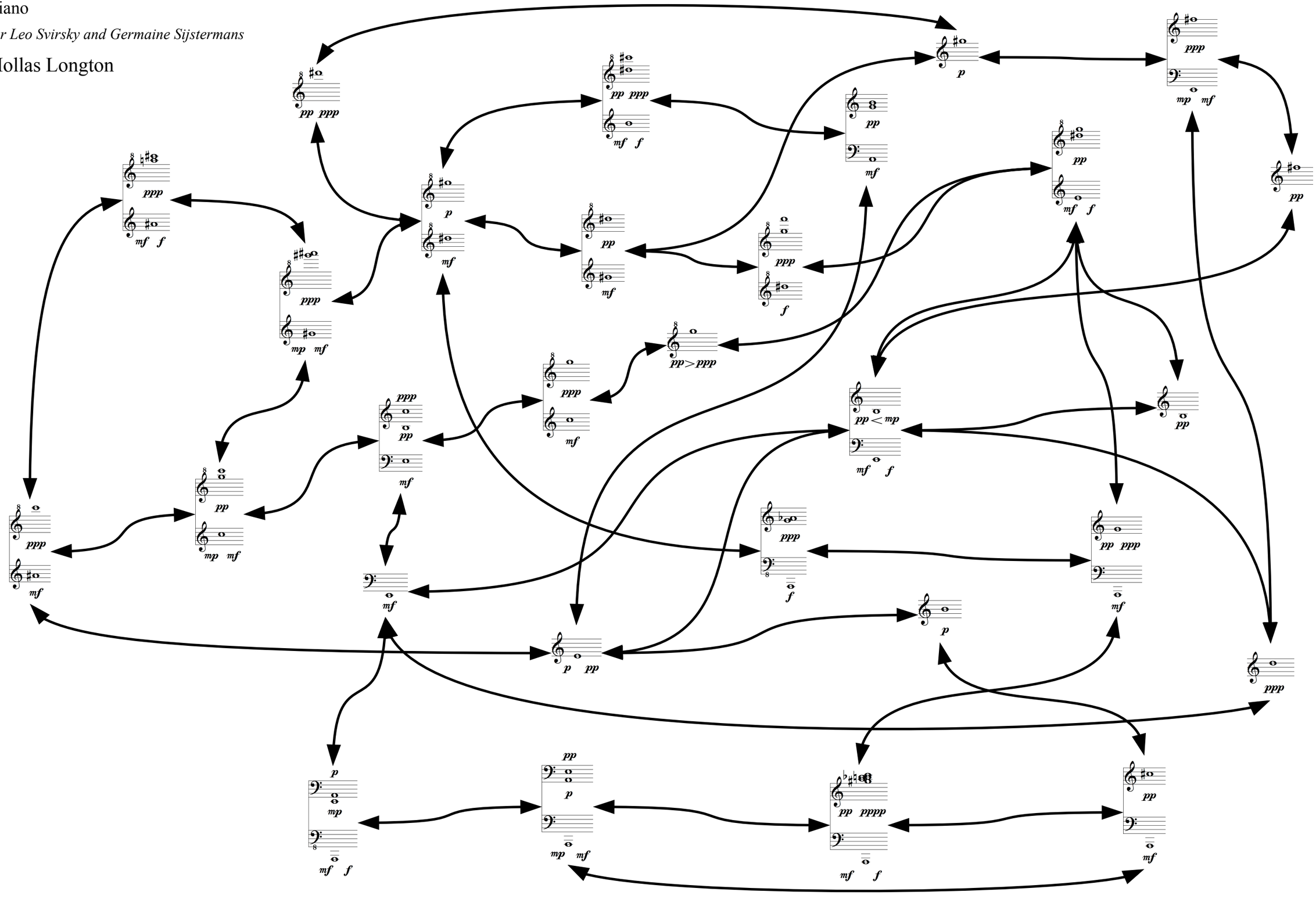
- When instruments overlap entrances, it is not expected that the tunings should be the same. Players should explore their range of pitch slowly while listening for beatings, timbral alterations, and upper harmonics.

Landscape with Train Whistle

Piano

for Leo Svirsky and Germaine Sijstermans

Hollas Longton

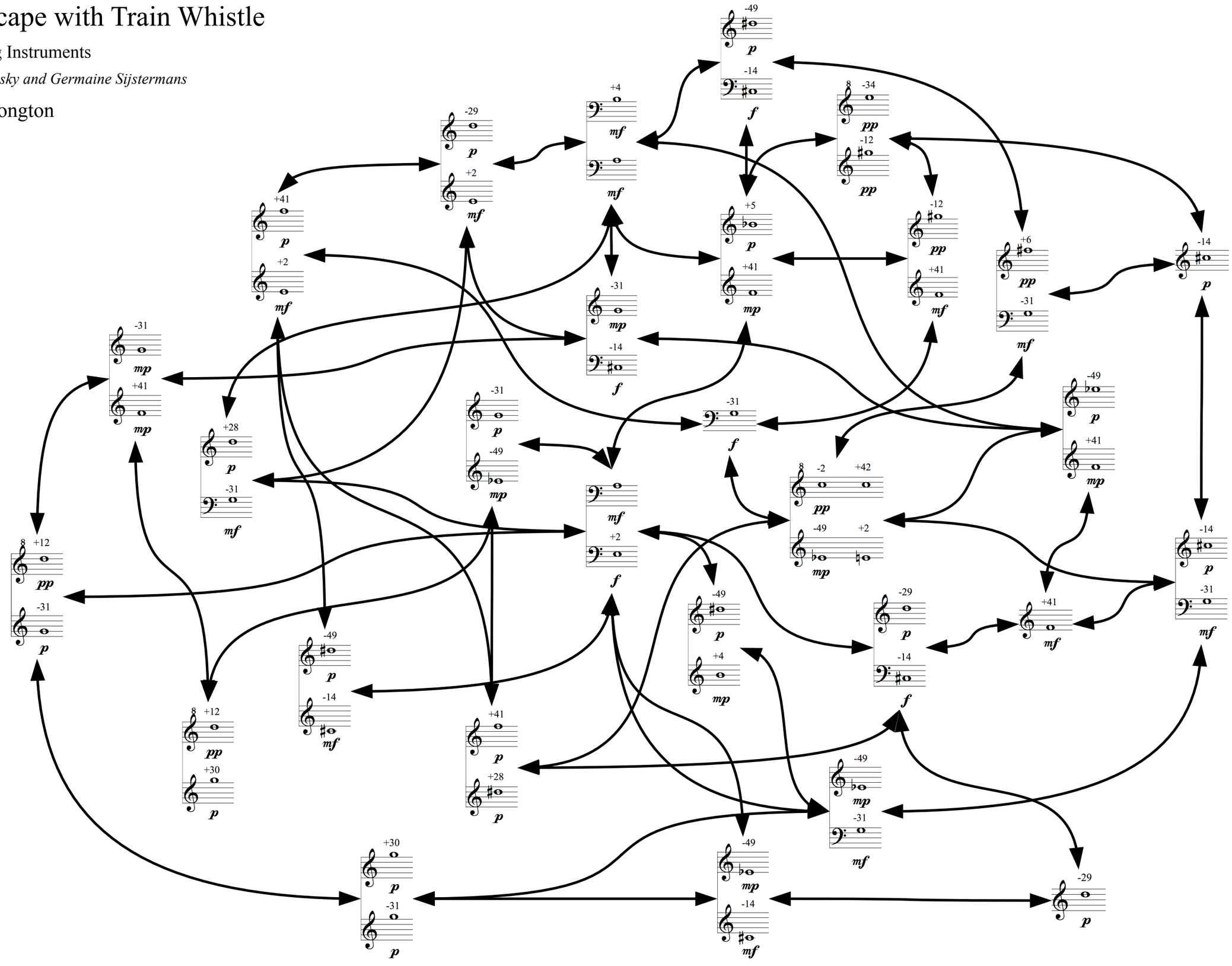


Landscape with Train Whistle

Sustaining Instruments

for Leo Svirsky and Germaine Sijstermans

Hollas Longton



Distributions for String Quartet

for Tom Johnson

Hollas Longton

Duration: 8’

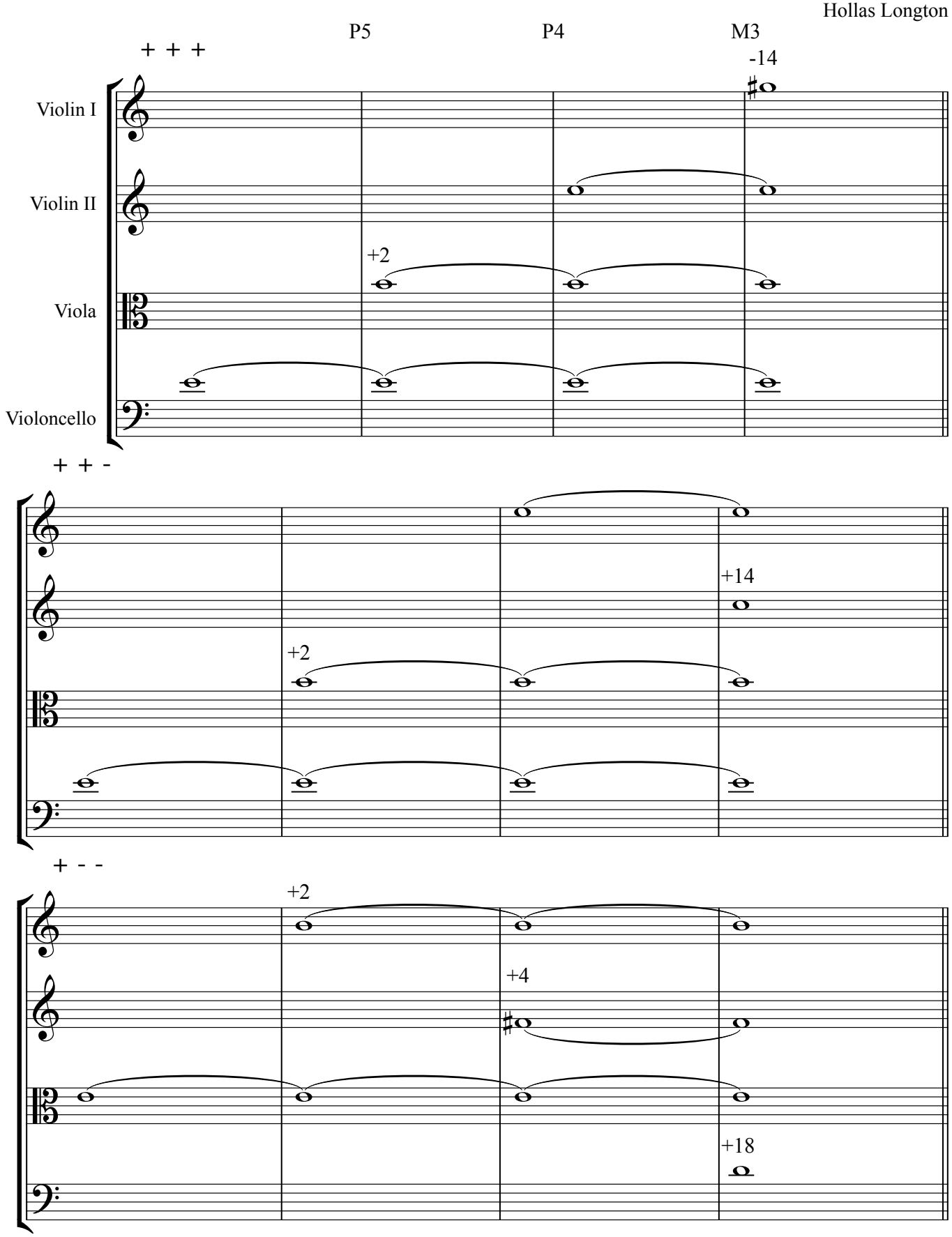
The idea for this piece comes from mathematical distributions. We have all seen examples of 'regular distributions' in science museums in which balls fall through mazes of pins. At each pin the ball falls either to the left or to the right. The process is repeated with many pins and many balls until you have pyramid of balls in what is referred to as a 'regular distribution'. I have tried here to make a very simple catalogue of these outcomes, albeit with only three pins. Each 'pin' is represented by a different just interval, each one a smaller interval than the one previous. At each pin (interval), the ball (pitch) falls either to the left (descends) or to the right (ascends). The eight possible permutations are arranged beginning with all ascending intervals, and ending with all descending intervals. The pluses and minuses at the beginning of each movement indicate which intervals ascend and which intervals descend. E.g. + + + (ascending, ascending, ascending), while + - - (ascending, descending, descending). I dedicate this piece to Tom Johnson because it shares his love of mathematical ideas and catalogues.

- No vibrato.
- Each bar is about 15 seconds long.
- A short rest is made at the end of each movement.
- All dynamics should be even and equal throughout, with a minimum of audible bow changes.
- Numbers above pitches indicate cent deviations from the equal-tempered scale. One cent is equal to 1/100th of a semitone.
- Tuners may be used when necessary, although if possible only in practice.
- Sometimes it may become difficult to hear the tuning relationships within the texture of the piece. Do not worry too much about time, simply tune each pitch until the resonance with the previous pitch is audible. Because of these possible tuning difficulties, some movements may be slightly longer than one minute.

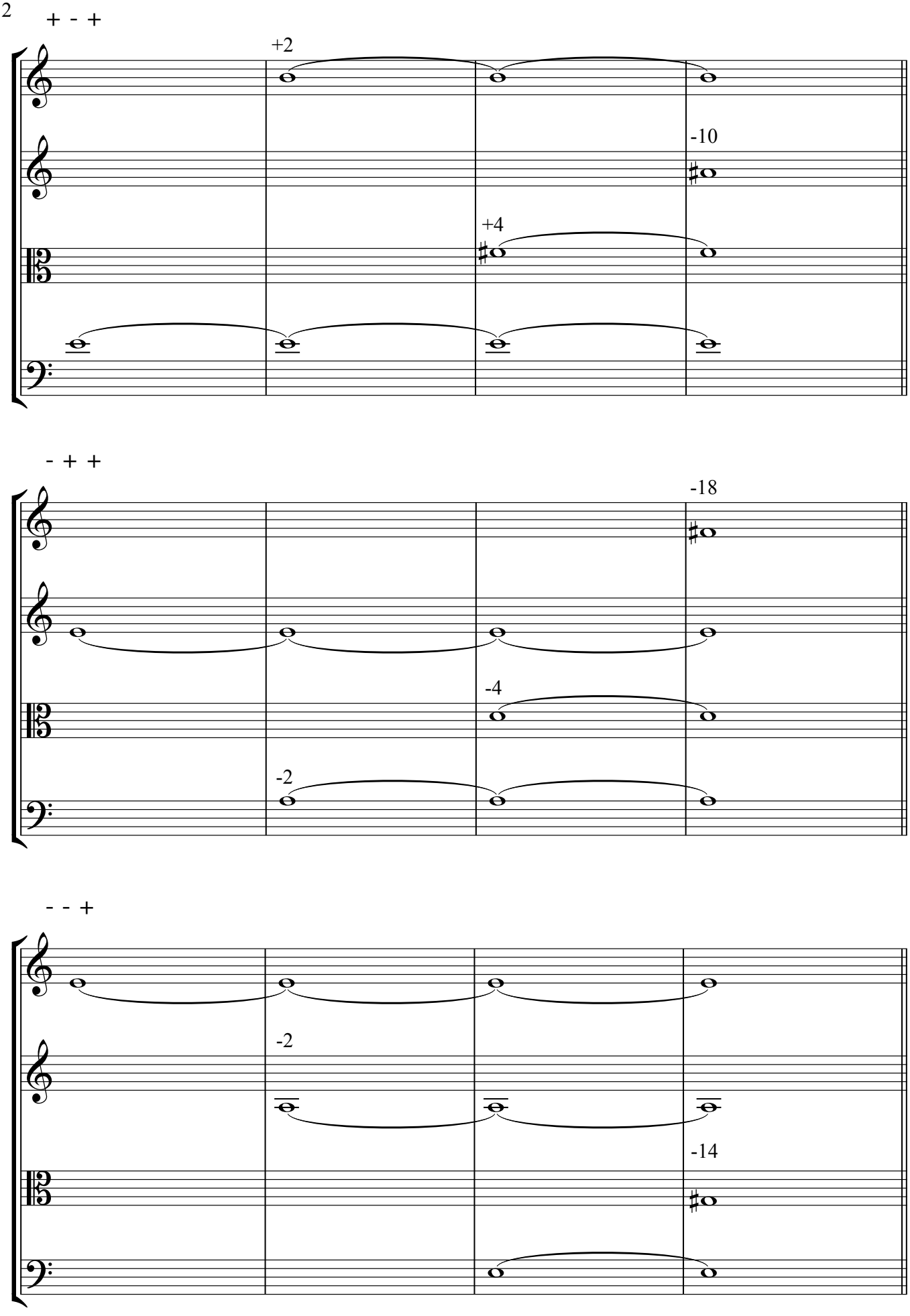
Distributions for String Quartet

for Tom Johnson

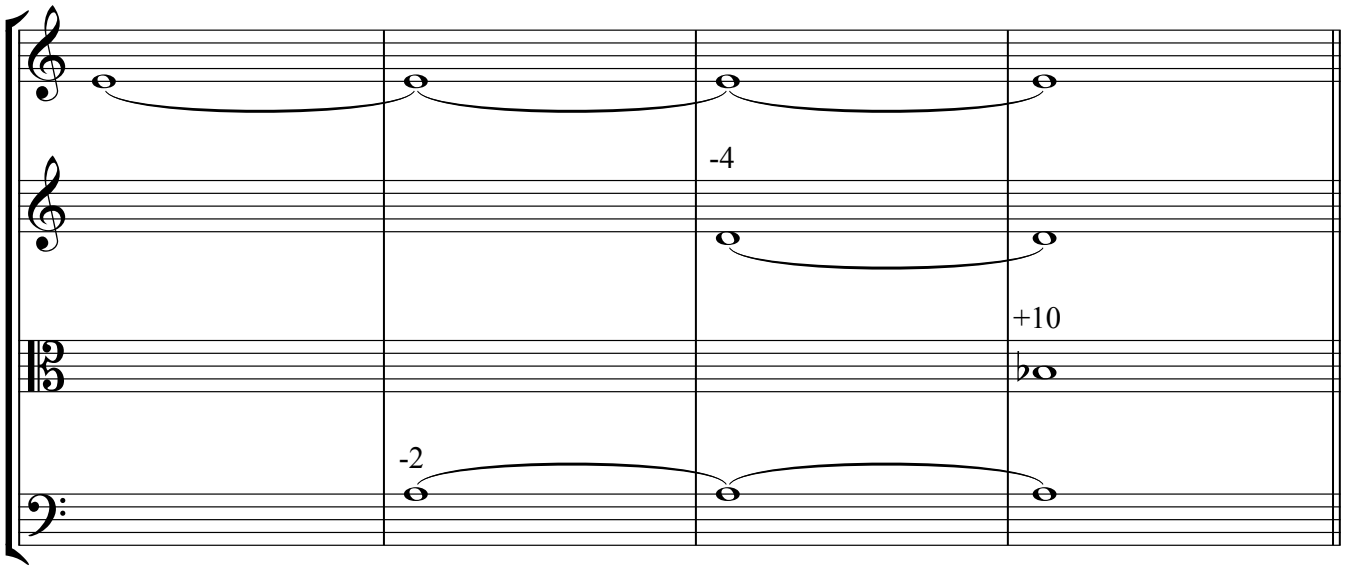
Hollas Longton



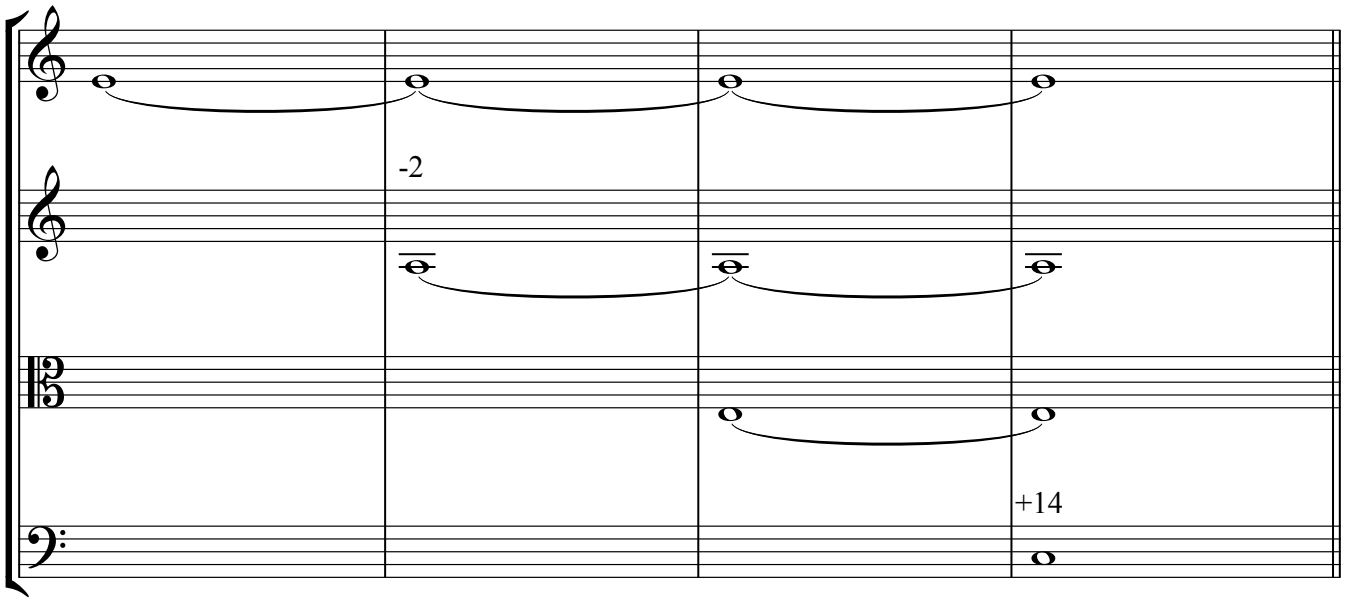
2



- + -


-4
+10
-2

- - -


-2
+14

Dissonance for Cello

for Laine Longton

Hollas Longton

- The piece is made up of at least two sections of approximately five minutes in length each. Within each section the cellist plays continuously. Between sections there should be a pause of 10-20 seconds after which the cellist should play continuously as before.

- The cellist may choose either the C or the G strings on which to play the A, but may only switch strings during pauses between sections.

- This piece consists of two components: long sustained cello tones centred around a low A (110 Hz) and a sine-tone chord made up of mistuned harmonics of the same low A. These mistuned harmonics will beat against the real harmonics of the cello A.

The basic form of the piece is as follows: a Max/MSP patch containing the sine-tone chord is started and the chord is gradually faded in. After a few seconds the cellist should begin to play the low A in a *legato* manner beginning in the centre of the pitch range using long bows without accent. After establishing a tone, they should seek out interesting acoustic effects which result from their interaction with the sine tone chord (beating frequencies, summation tones, difference tones, etc.) by altering their tone in two ways: by changing the relative strengths of the harmonics of the tone (by changing the contact point of the bow and/or bow pressure), or by changing the fundamental frequency by very slowly rolling the finger back and forth (the cellist may not sharpen or flatten their pitch by more than a semitone). These two methods of tone alteration may be done separately or together. As the cellist alters his or her tone, they should listen carefully to the various acoustic effects which result from their interactions with the sine tones and try to find some acoustic artefact in the sound which interests them. Once this happens, they should try to hold on to this artefact for some time before altering their tone again to explore more acoustic effects. This should happen naturally, as if by accident and not from any conscious guidance. Repeat this process indefinitely. After approximately five minutes the cellist should stop playing for 10-20 seconds (the demarcation between sections) before beginning this process again. The piece may end after at least two sections of five minutes each are played.

This piece is more of an environment than a strict structure. The cellist should find that there is no fundamental pitch or dynamic level which does not produce some kind of beating with the sine tone chord. The job of the cellist is not to try to find consonance, but rather to explore the situation in which they find themselves, its consonances, dissonances, and everything in between. Because the acoustics of the room can alter the sound greatly, the audience may be invited to stand up and move around the space to explore this environment more actively.

Mud Filigree

for Crash Ensemble

Hollas Longton

A few years ago I became enamoured with the sounds of chain gang songs from the American deep south. I loved the wild heterophony and measured chaos of these songs. This piece uses this same kind of wild heterophony in conjunction with large justly-tuned chords to create the effect of a chaotically changing texture and timbre. The piece is in eight sections (six melodic sections and two harmonic sections). Each melodic section is conceived as an imaginary organ stop which uses harmonics of a given fundamental to create timbral colours, while the static harmonic sections use the strings' natural harmonics and open strings to explore the harmony even further. Using harmonics to alter the timbre of a pitch is the way 'mixture stops' work on an organ. One can imagine this piece even more broadly as an interpretation of plainchant singing (chaotic heterophonic organ stops) interspersed with the occasional organ interlude (static chordal sections). The title of this piece refers both to something as sacred and ornate as filigree, but also to the grit, dirt, and passionate messiness of chain gang songs.

Duration: 6’

- No vibrato.
- Score is in C without octave displacement.
- Accidentals continue through the bar, but cautionary accidentals are sometimes shown.
- Cent deviations from the equal-tempered scale are indicated above the note. One hundred cents is equal to one semitone.
- Each bar is five seconds long. The conductor may choose to indicate as much or as little information within the bar as they deem necessary. However, the conductor should cue all attacks and releases in the chordal sections.
- Timings are shown at the beginning and end of each page.
- Notation is spatial. Noteheads only indicate the start of the note. All notes should be played legato unless a comma is indicated. Winds may breathe where necessary.
- Commas indicate rests, which are also positioned spatially.
- Because it is very near impossible to execute all attacks exactly where they should occur, all that is asked of the musicians is an honest attempt to position their notes accordingly.
- Phrasing marks are indicated with long slurs. These are not bowings or breath markings.
- Bowing and breathing are free, but the musicians should be mindful of them so that not everyone is breathing or changing bows at the same time.
- Dynamics are only indicated at the beginning of a section or chord. It is understood that as you play the phrase markings, dynamic changes will occur. No single instrument should remain at a much higher dynamic level than the rest.
- Some dynamics (especially for the winds) may be quite difficult to achieve at a given range. Do not sacrifice tone stability for dynamics.
- Dynamics of static chords should completely stable and flat.
- Electric Guitar should be played using an ebow and a slide, with a slight amount of reverb, to closely imitate the sound of an ondes martenot or theremin. Sliding is to be done tastefully and never across a string change.
- For the strings, orchestral mutes should be used to help create a blended sound. *Sul tasto* playing may also be necessary for further blending.
- For the trombone, a mute should also be used.

Score in C

Mud Filigree

Hollas Longton

20"

Flute

Bass Clarinet

Trombone

Piano

Electric Guitar

all notes 31 cents flat until **2**

Violin

all notes 41 cents sharp until **2**

Viola

all notes 49 cents flat until **2**

Cello

-33
-35

-35
-37

Double Bass

+41
+43

+39
+41

20" 40"

5

Fl.

B. Clar.

Trbn.

mp mp

Pno.

E.G.

Vln.

Vla.

-35 -37 -35 -37

Vcl.

mf mp

-49 -47 +41 +43

DB

mf mf

40" 2 1'00"

Fl.
B. Clar.
Trbn.
Pno.
E.G.
Vln.
Vla.
Vcl.
DB

9

tune to RH of Piano (P5 below)

mp

mp

tune to DB (8ve below)

mf

pp

f

all notes 49 cents flat until **3**

mp

mp

+0

all notes 31 cents flat until **3**

mf

mp

-37

tune to RH of Piano (P4 above)

mf

mp

-18

all notes 12 cents flat until **3**

mf

p

+51

+53

mf

f

1'00" 1'20"

13

Fl.

B. Clar.

Trbn.

Pno.

E.G.

Vln.

Vla.

Vcl.

DB

1'20" 1'40"

17

Fl.

B. Clar.

Trbn.

Pno.

E.G.

Vln.

Vla.

Vcl.

DB

1'40" 2'00"

3
21

Fl.

B. Clar.

Trbn.

Pno.

E.G.

mp mf

Vln.

-4 -2 +2 +0

mp mp p

Vla.

-0 -4 -4 -6 -2 -4

mp mf p

Vcl.

-35 -37 -35 -35 -37

mf mp mp

DB

+51 +53 +51 +53 +41 +43

mf mf mp

2'00" 2'20"

4

25

Fl.

tune to LH of Piano (8ve below)

pp

B. Clar.

tune to Trombone (P5 below)

p

Trbn.

mp

Pno.

pp

p

E.G.

all notes 12 cents flat until **5**

p

Vln.

all notes 41 cents sharp until **5**

p

Vla.

all notes 29 cents flat until **5**

p

Vcl.

all notes 31 cents flat until **5**

p

DB

mf

2'20" 2'40"

29

Fl.

B. Clar.

Trbn.

Pno.

E.G.

Vln.

Vla.

Vcl.

DB

2'40" 3'00"

33

Fl.

switch to Piccolo

B. Clar.

switch to Bb Clarinet

Trbn.

Pno.

E.G.

Vln.

Vla.

Vcl.

DB

3'00" 3'20"

5

37 8

Fl. *p*

tune to LH of Piano (P5 below)

B. Clar. *mf*

Trbn. *mf*

Pno. *p* *mp*

E.G. *mp*

+2 -16 -0

Vln. *p* *mp*

8va

all notes 41 cents sharp until **6**

Vla. use artificial harmonics *mp*

-35 -35 -37

Vcl. *mp* *mp*

all notes 49 cents flat until **6**

DB use artificial harmonics *p*

3'20" 6 3'40"

Fl.

B. Clar.

Trbn.

Pno.

E.G.

Vln.

Vla.

Vcl.

DB

3'40" 4'00"

45 8

Fl.

B. Clar.

Trbn.

Pno.

E.G.

mp

-4
-16

mp

-16
-18

Vln.

mf

-37

mp

-0
-2

Vla.

mp

mf

Vcl.

-35

-35
-37

mp

mp

DB

+49
+51

+49
+51

mf

mf

4'00" 4'20"

49

Fl.

B. Clar.

Trbn.

Pno.

E.G.

mp

-2
-18

Vln.

mf

-0

Vla.

mp

-35
-37

Vcl.

p

+47
+49

DB

mf

4'20" 4'40"

7 (very slightly sharp)

53 8

Fl.

mp

B. Clar.

mp

Trbn.

all notes 31 cents flat until **8**

mp

Pno.

mf

mp

E.G.

all notes 49 cents flat until **8**

mf mf

Vln.

+2
-2

8va

all notes 45 cents sharp until **8**

mp

use artificial harmonics

mp

8va

all notes 30 cents sharp until **8**

Vla.

-37

p

use artificial harmonics

mp

8va

all notes 29 cents sharp until **8**

Vcl.

-35
-37

mp

use artificial harmonics

mp

DB

+49
+51

mf f

4'40" 5'00"

57

Fl.

B. Clar.

Trbn.

Pno.

E.G.

(8va)

Vln.

(8va)

Vla.

(8va)

Vcl.

DB

5'00" 8 5'20"

Fl.

B. Clar.

Trbn.

Pno.

E.G.

Vln.

Vla.

Vcl.

DB

61 8

pp

switch back to Bass Clarinet

f

mp

8va

ppp

pp

all notes 49 cents flat until end

pp

8va

all notes 31 cents flat until end

use artificial harmonics

p

8va

all notes 28 cents sharp until end

use artificial harmonics

p

all notes 41 cents sharp until end

use artificial harmonics

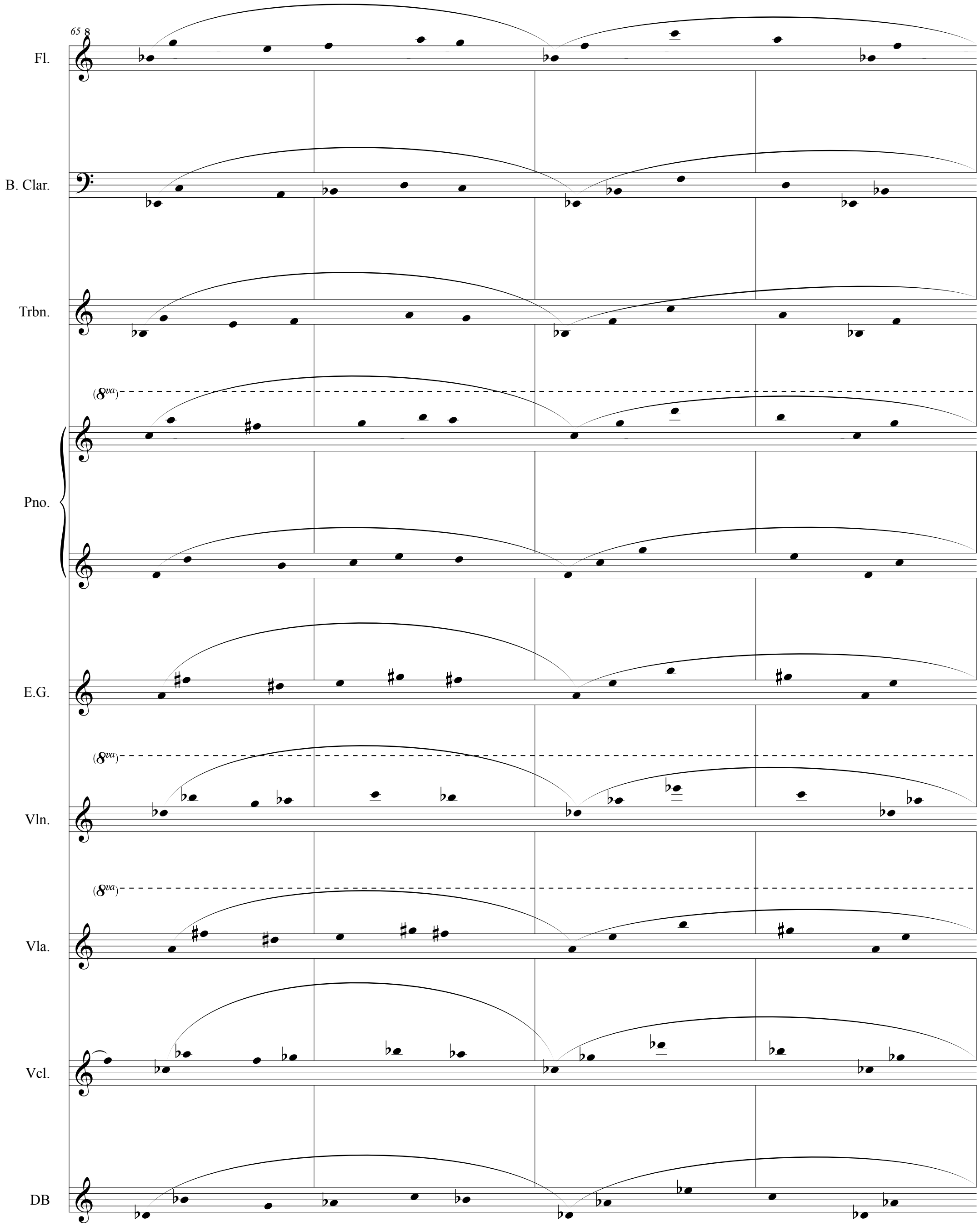
p

all notes 31 cents flat until end

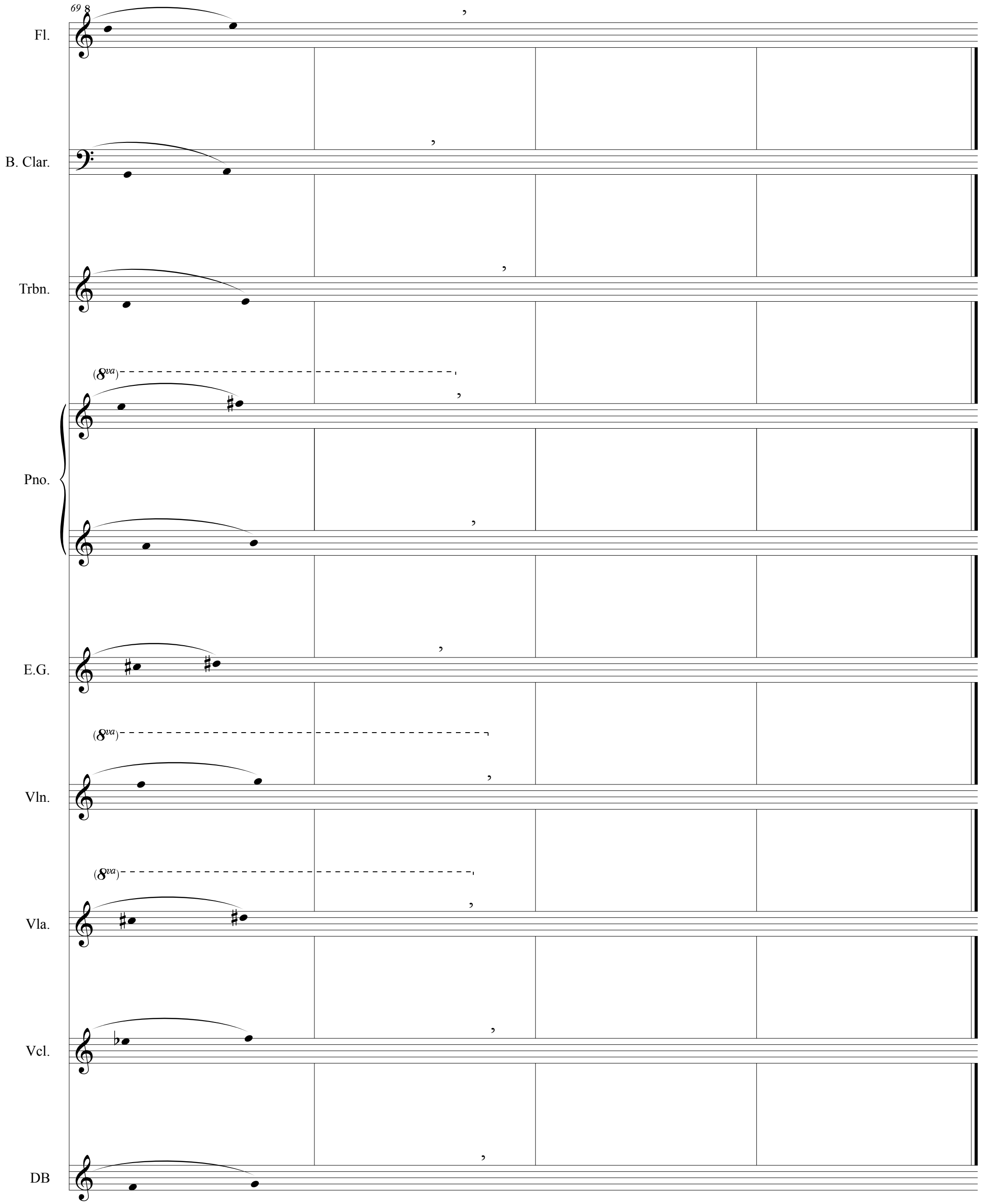
use artificial harmonics

mp

5'20" 5'40"



5'40" 6'00"



Without Sky

Violin, Cello, and Double Bass

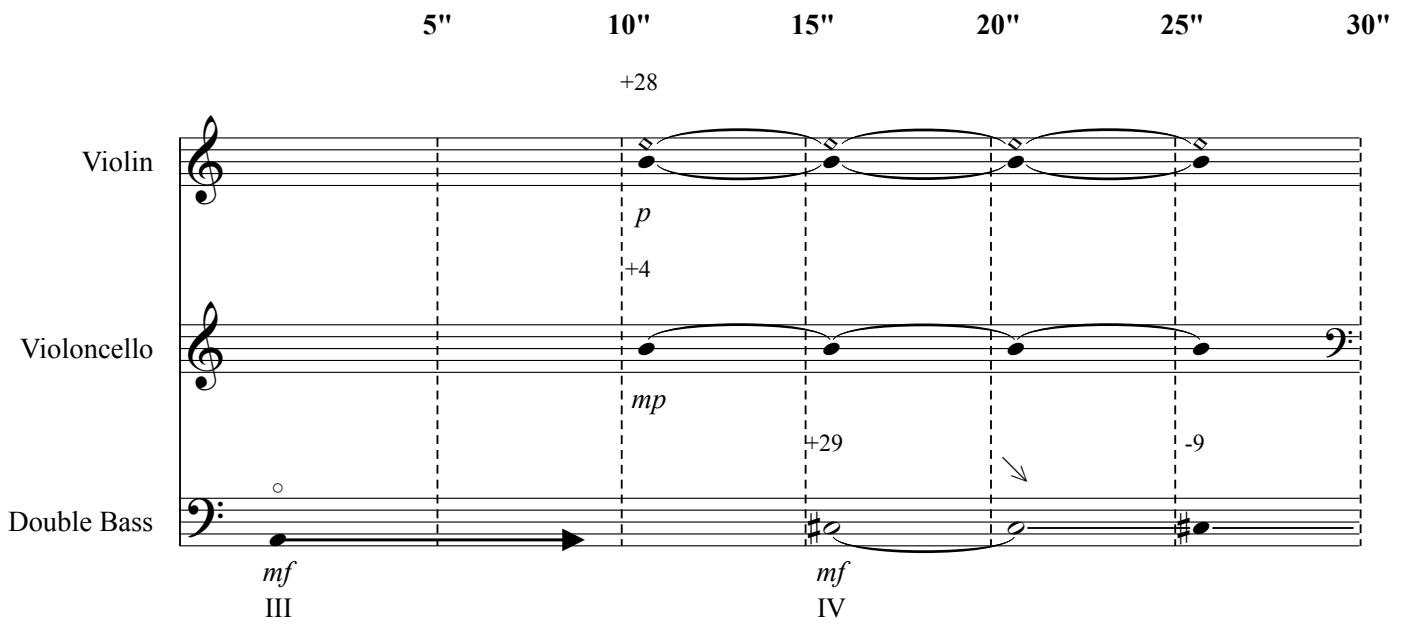
Hollas Longton

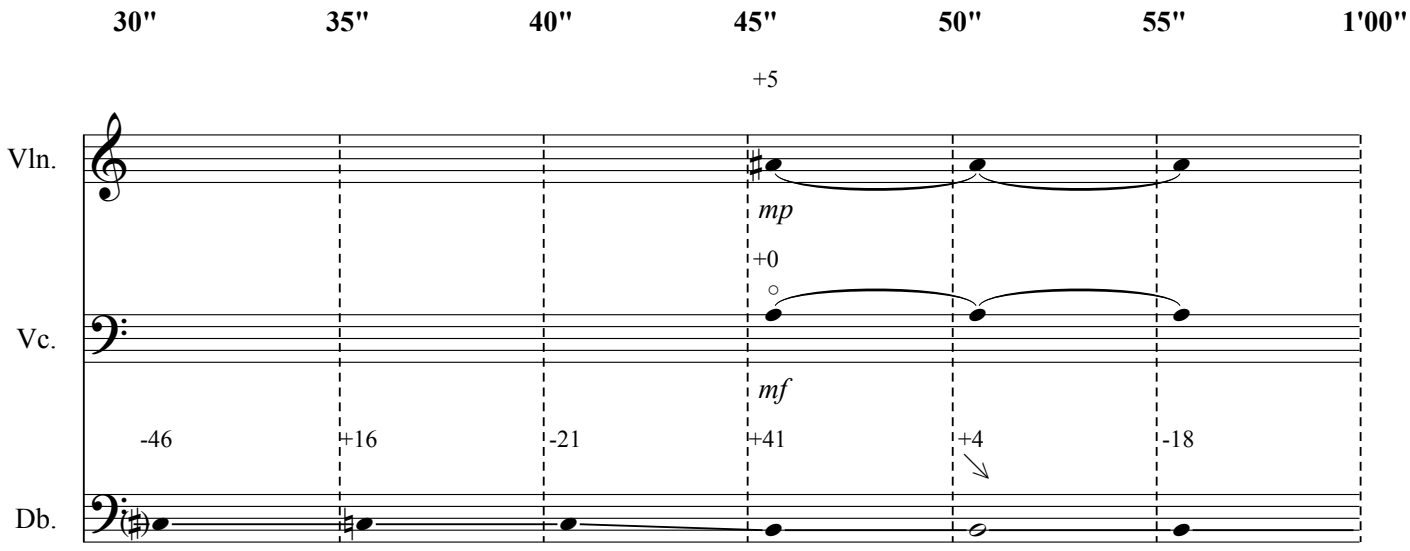
Duration: 12’30”

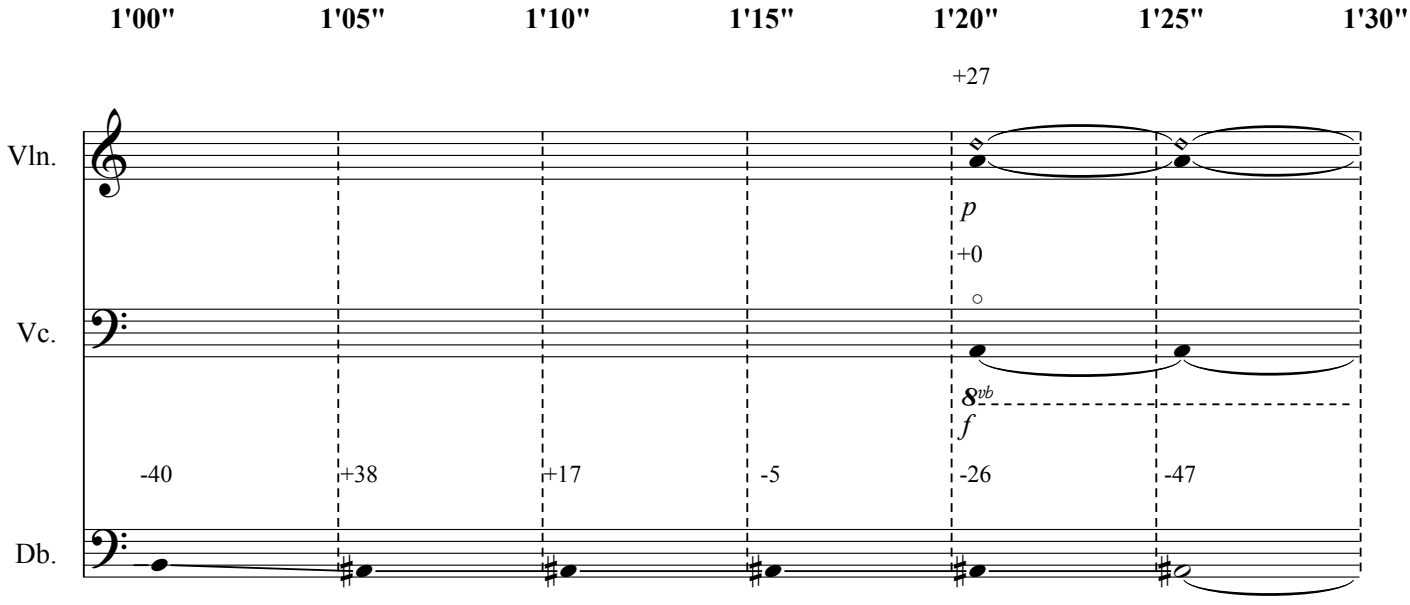
- No vibrato.
- Score is transposing. Double Bass sounds one octave lower than written.
- Commas indicate a short breath at the end of the bar.
- Dynamics should be even and flat at all times.
- Each bar is five seconds long. Timing is indicated at the top of each bar. Players should watch a timer during performance.
- Numbers above noteheads indicate cent deviations from the equal-tempered scale. 100 cents is equal to one semitone, 1200 cents is equal to one octave.
- During practice and performance players should check their tuning with a tuner that shows cent deviations. This may involve the use of a microphone connected to the tuner.
- The C-string of the Cello is to be tuned down to A (55 Hz). This is the same pitch as the Double Bass A-string.
- Where possible Cello pitches should be played as natural harmonics (A-strings).
- The A-string of the Double Bass is to be played throughout as a drone.
- The Double Bass part has two kinds of noteheads, filled noteheads and unfilled noteheads. Filled noteheads indicate intermediate notes within a glissando. These notes are meant to be a guide to help the player judge the speed of the glissandi correctly. The cent deviations on these notes are approximate (+/- 3 cents). Unfilled noteheads indicate points of arrival and departure. These notes mark the beginning, end, or middle of a glissando. When an unfilled notehead is in the middle of a glissando, the glissando will change speed, or direction, or both. These notes are more important, and as such, the cent deviations above them should be taken extremely seriously.
- Diagonal arrows in the Double Bass part indicate the direction of the glissando to come.

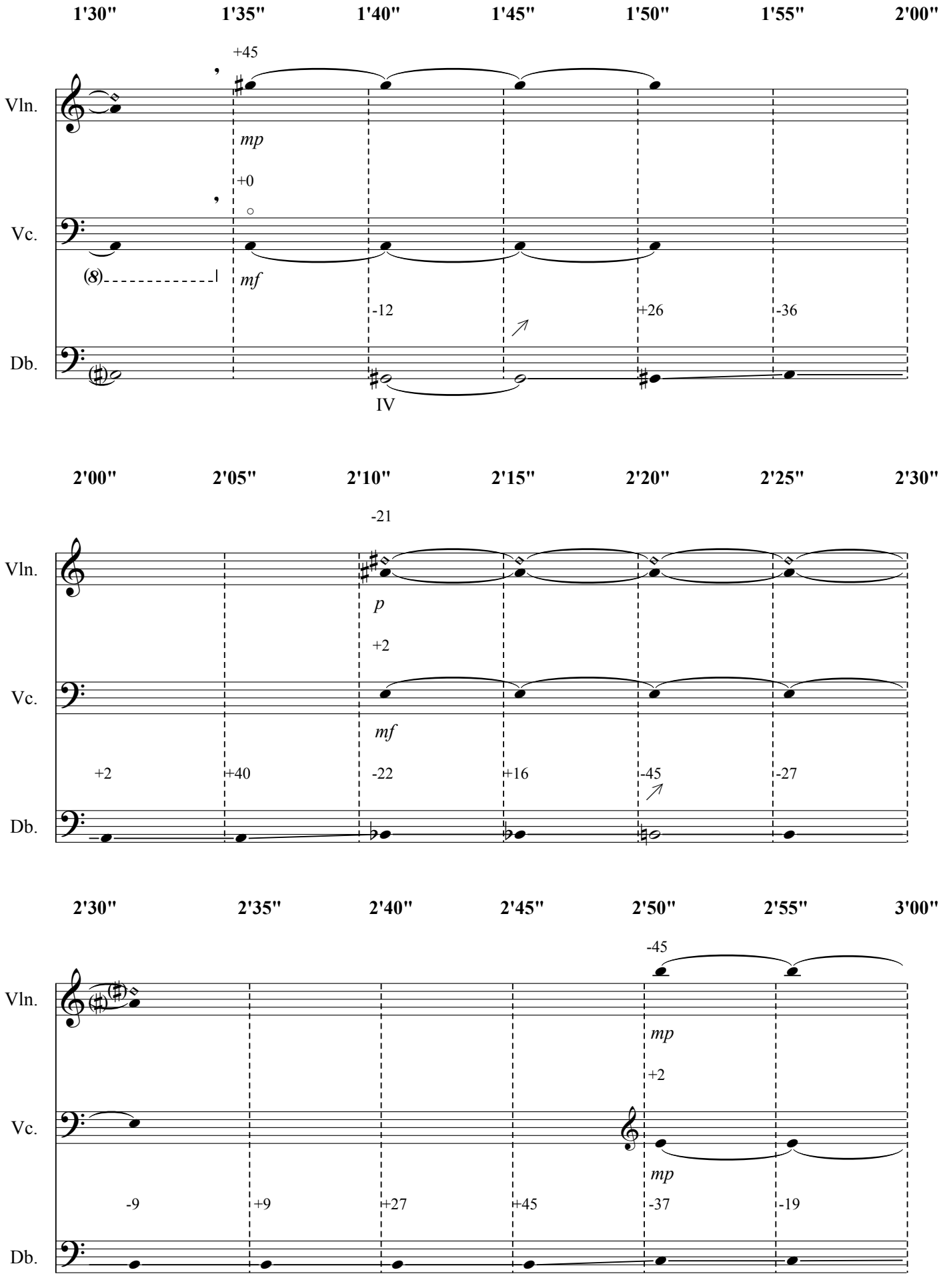
Without Sky

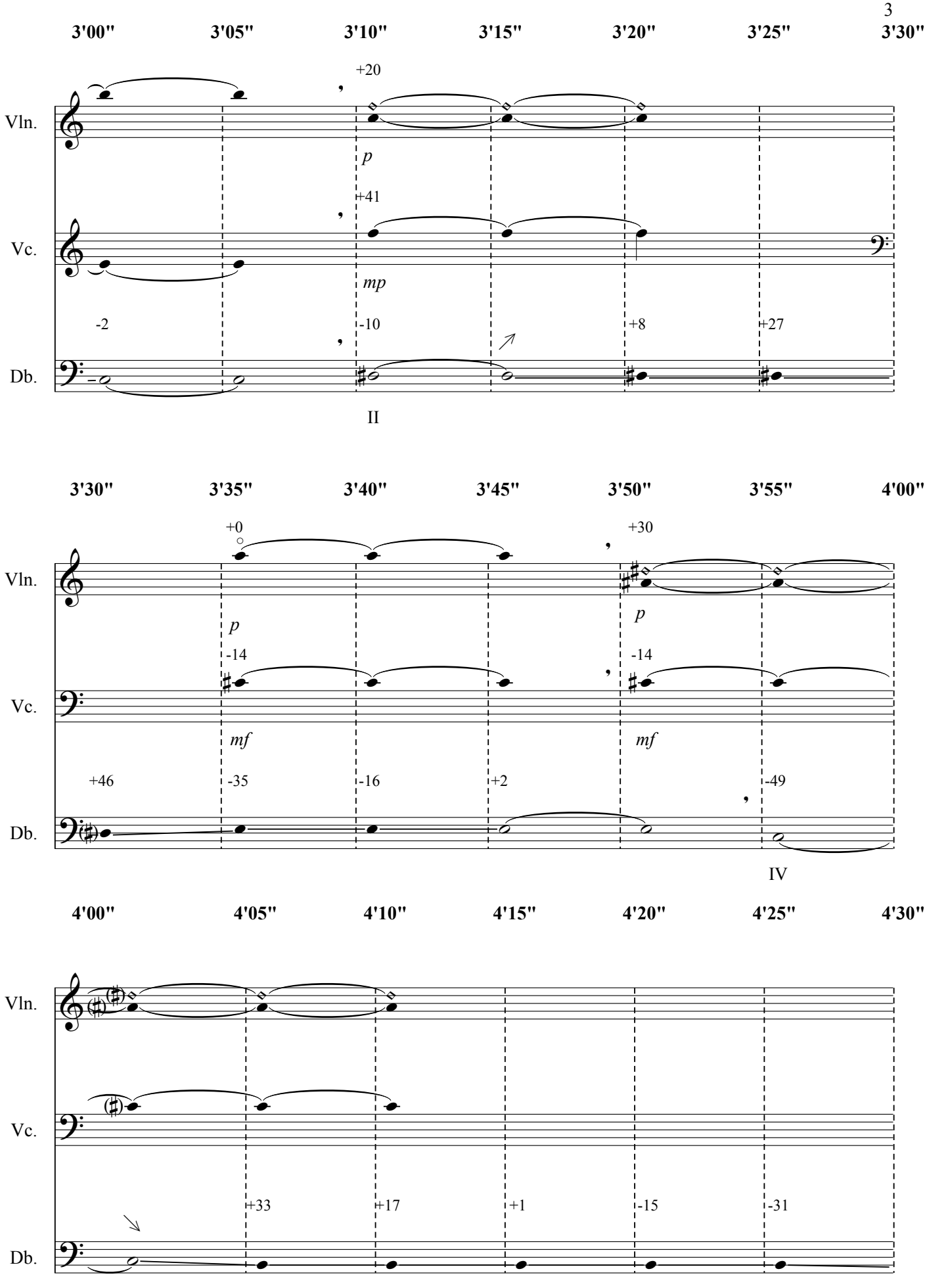
Hollas Longton

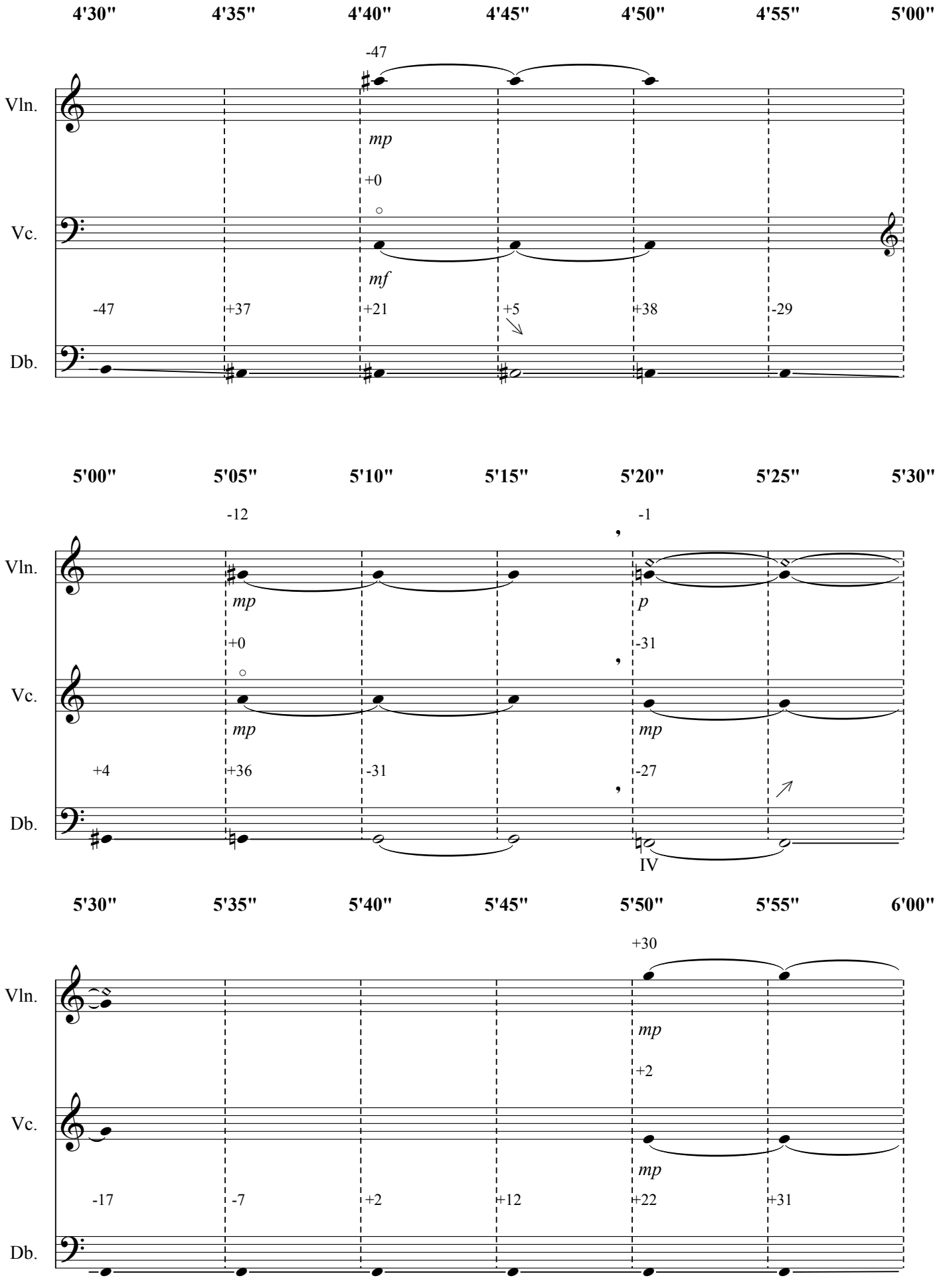


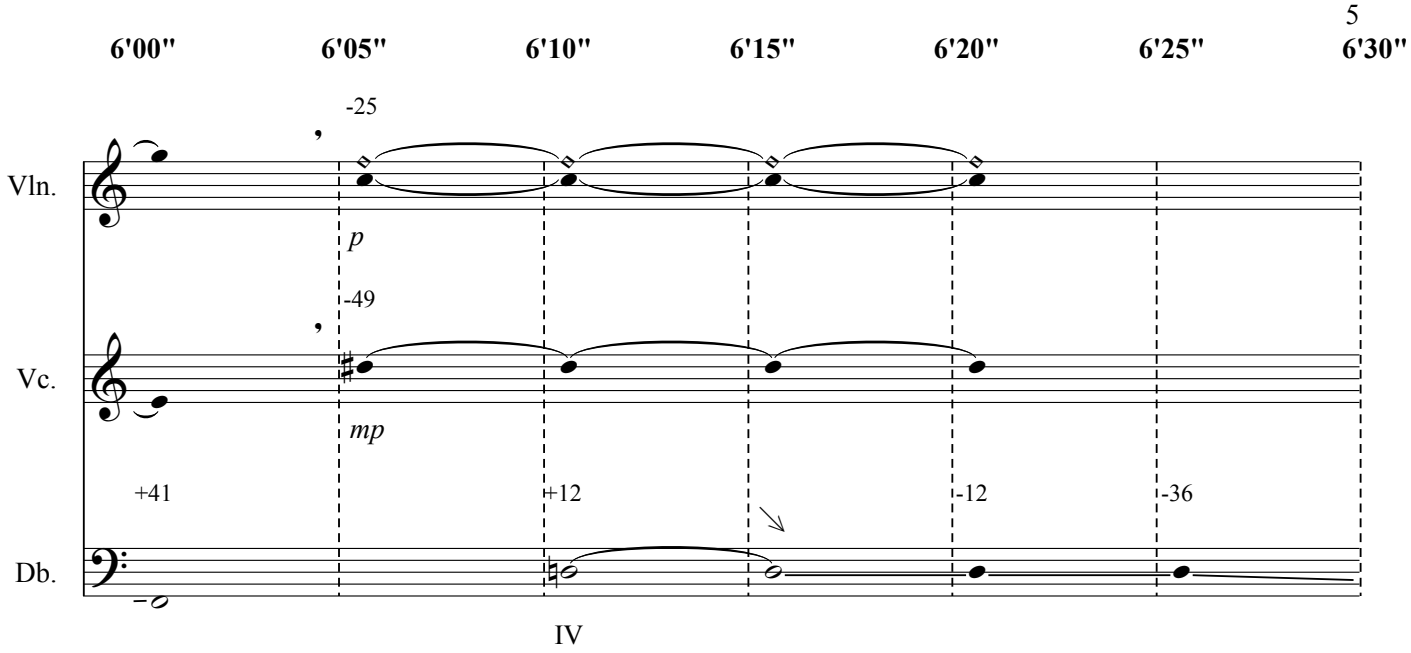




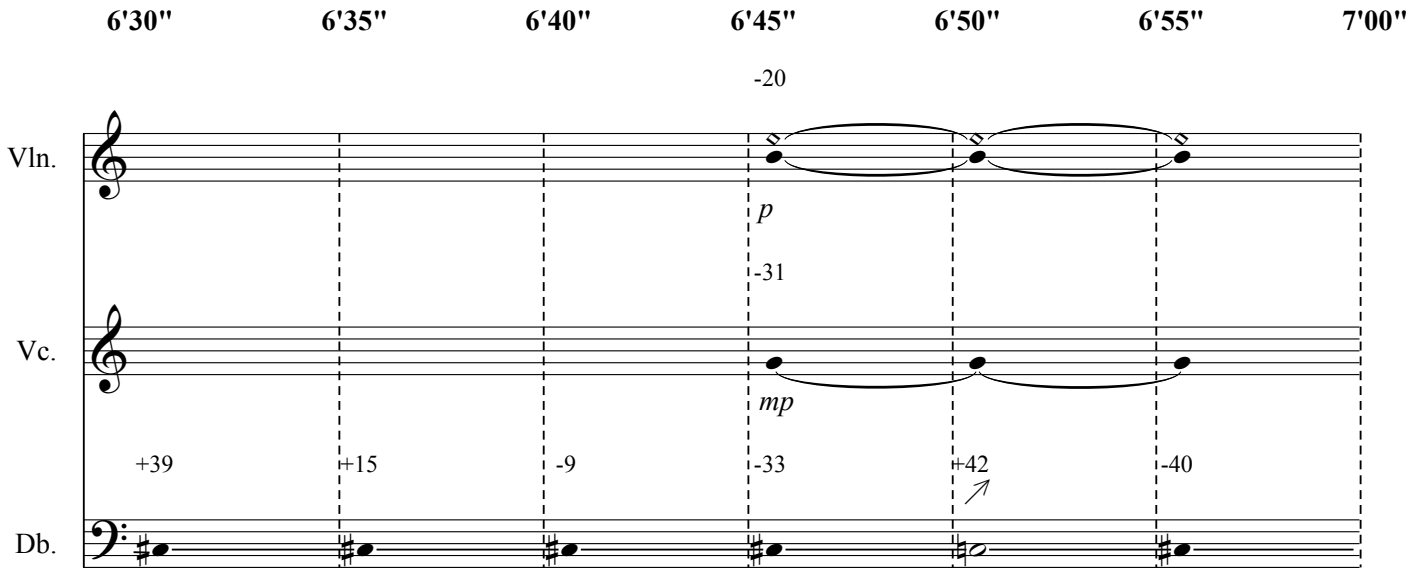

1'30"
1'35"
1'40"
1'45"
1'50"
1'55"
2'00"
Vln.
Vc.
Db.
+45
mp
+0
mf
(8)
-12
+26
-36
IV
2'00"
2'05"
2'10"
2'15"
2'20"
2'25"
2'30"
-21
p
+2
mf
+2
+40
-22
+16
-45
-27
2'30"
2'35"
2'40"
2'45"
2'50"
2'55"
3'00"
-45
mp
+2
mp
-9
+9
+27
+45
-37
-19

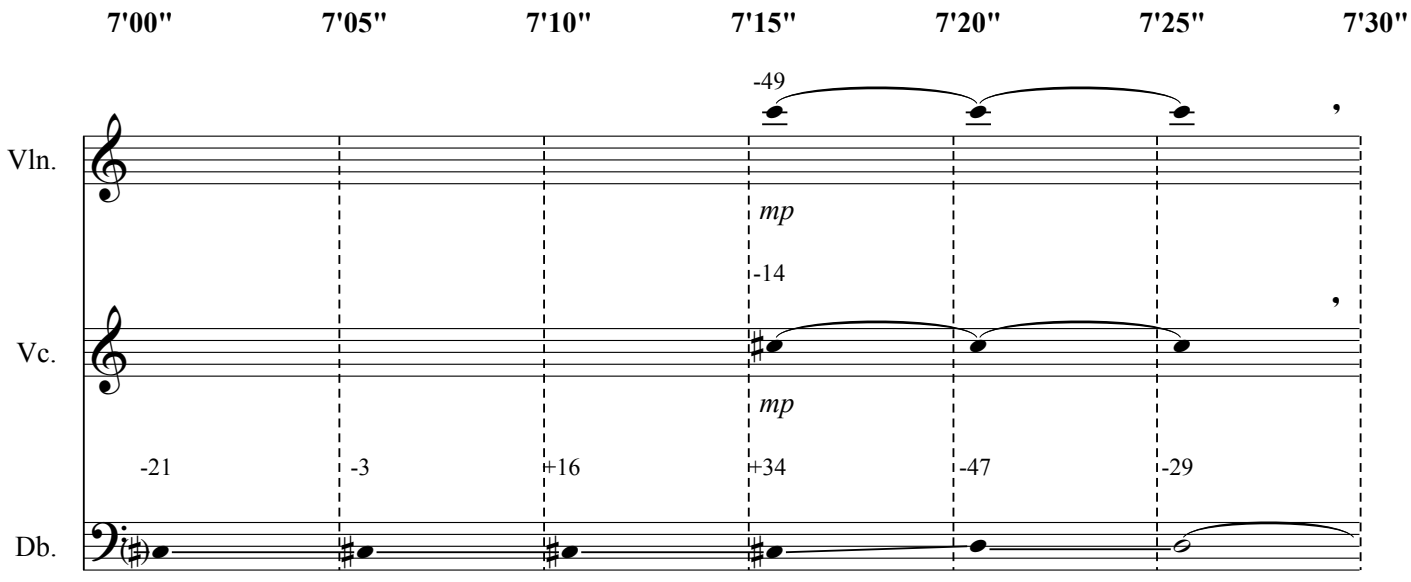

3'00"
3'05"
3'10"
3'15"
3'20"
3'25"
3'30"
Vln.
Vc.
Db.
+20
p
+41
mp
-2
-10
+8
+27
II
3'30"
3'35"
3'40"
3'45"
3'50"
3'55"
4'00"
+0
+30
p
p
-14
-14
mf
mf
+46
-35
-16
+2
-49
IV
4'00"
4'05"
4'10"
4'15"
4'20"
4'25"
4'30"
+33
+17
+1
-15
-31

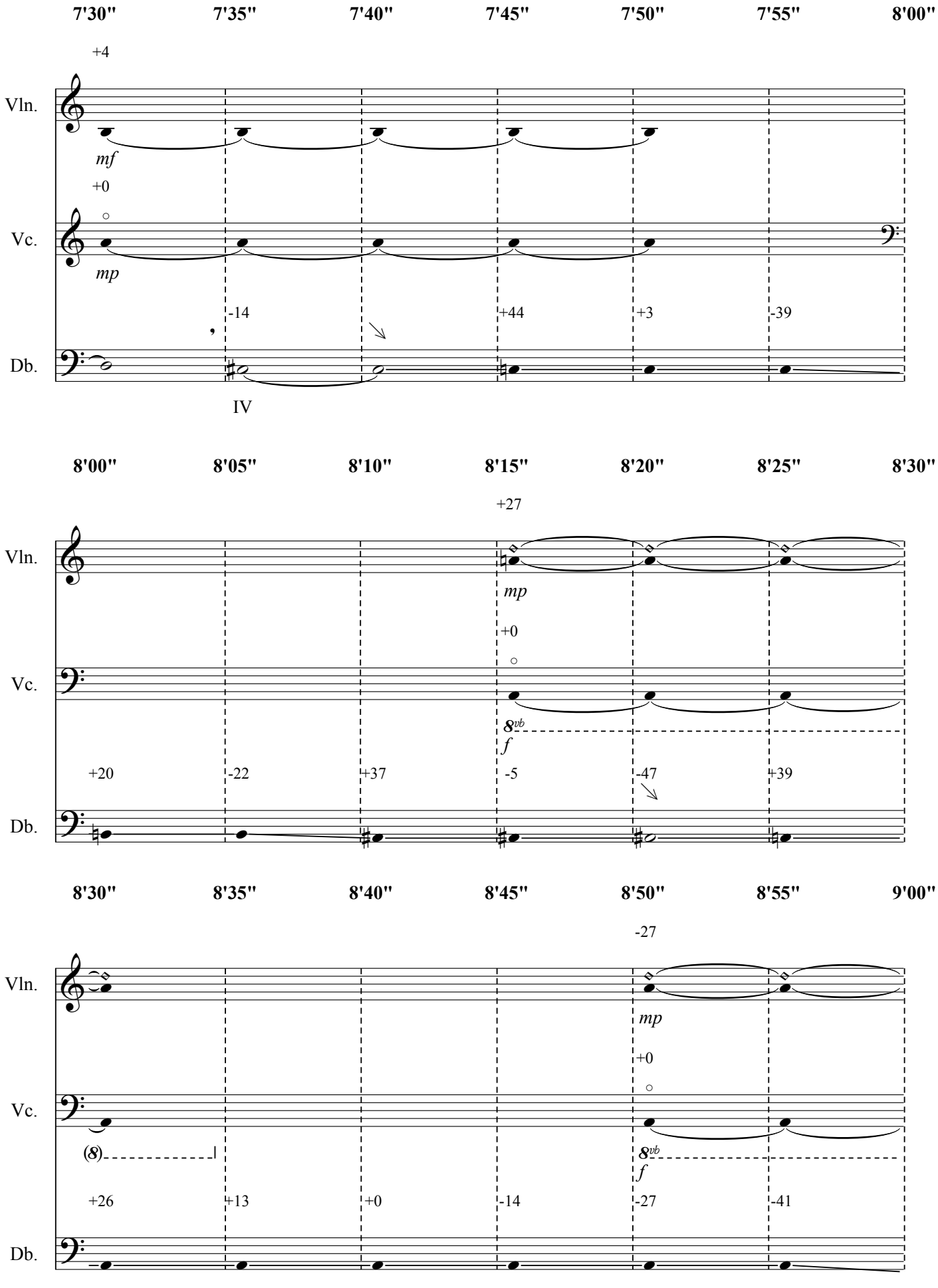

4'30"
4'35"
4'40"
4'45"
4'50"
4'55"
5'00"
-47
Vln.
mp
+0
Vc.
mf
-47
+37
+21
+5
+38
-29
Db.
5'00"
5'05"
5'10"
5'15"
5'20"
5'25"
5'30"
-12
-1
Vln.
mp
p
+0
-31
Vc.
mp
mp
+4
+36
-31
-27
Db.
IV
5'30"
5'35"
5'40"
5'45"
5'50"
5'55"
6'00"
+30
Vln.
mp
+2
Vc.
mp
-17
-7
+2
+12
+22
+31
Db.

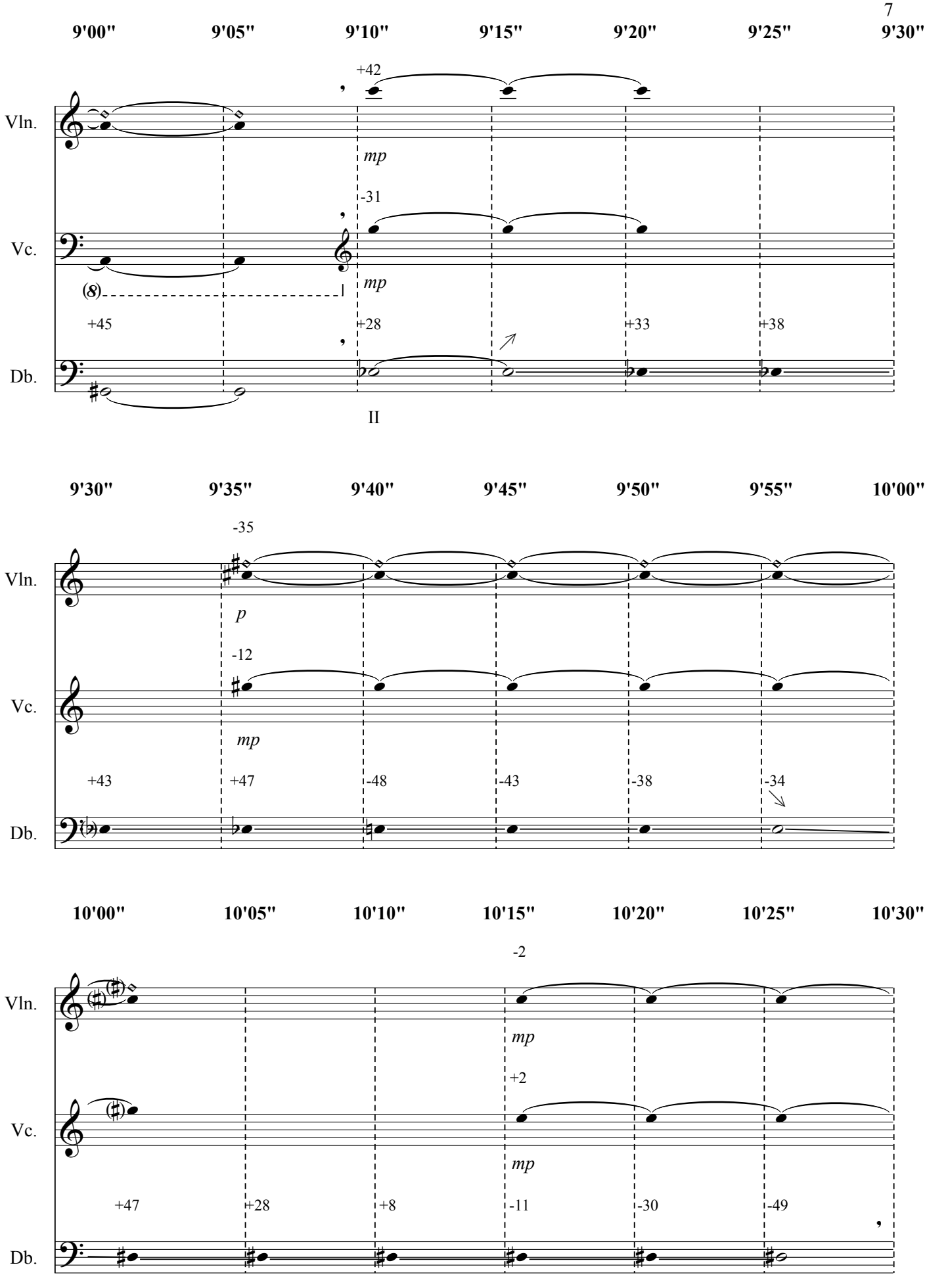

6'00"
6'05"
6'10"
6'15"
6'20"
6'25"
6'30"
Vln.
Vc.
Db.
-25
p
-49
mp
+41
+12
-12
-36

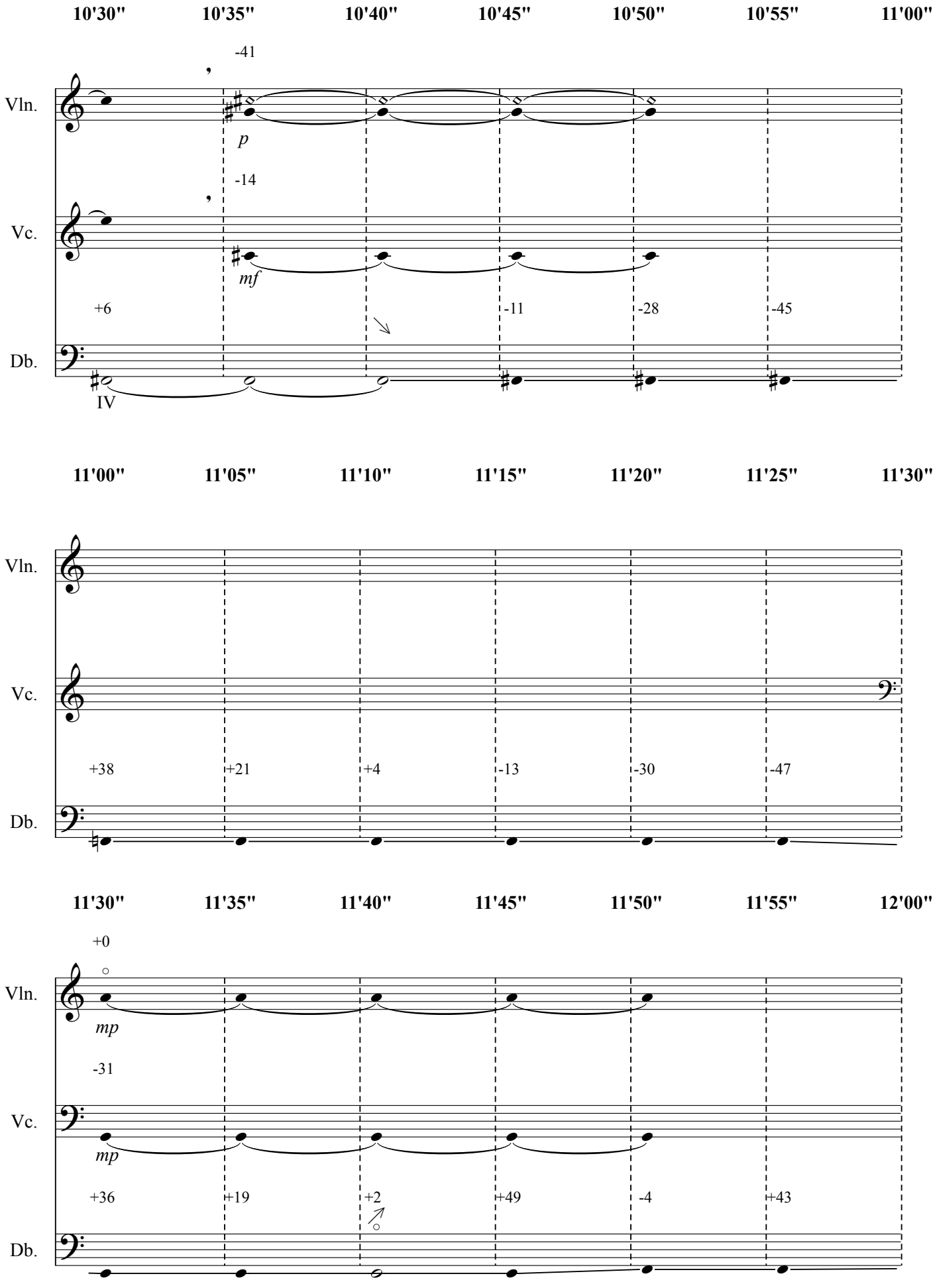
IV

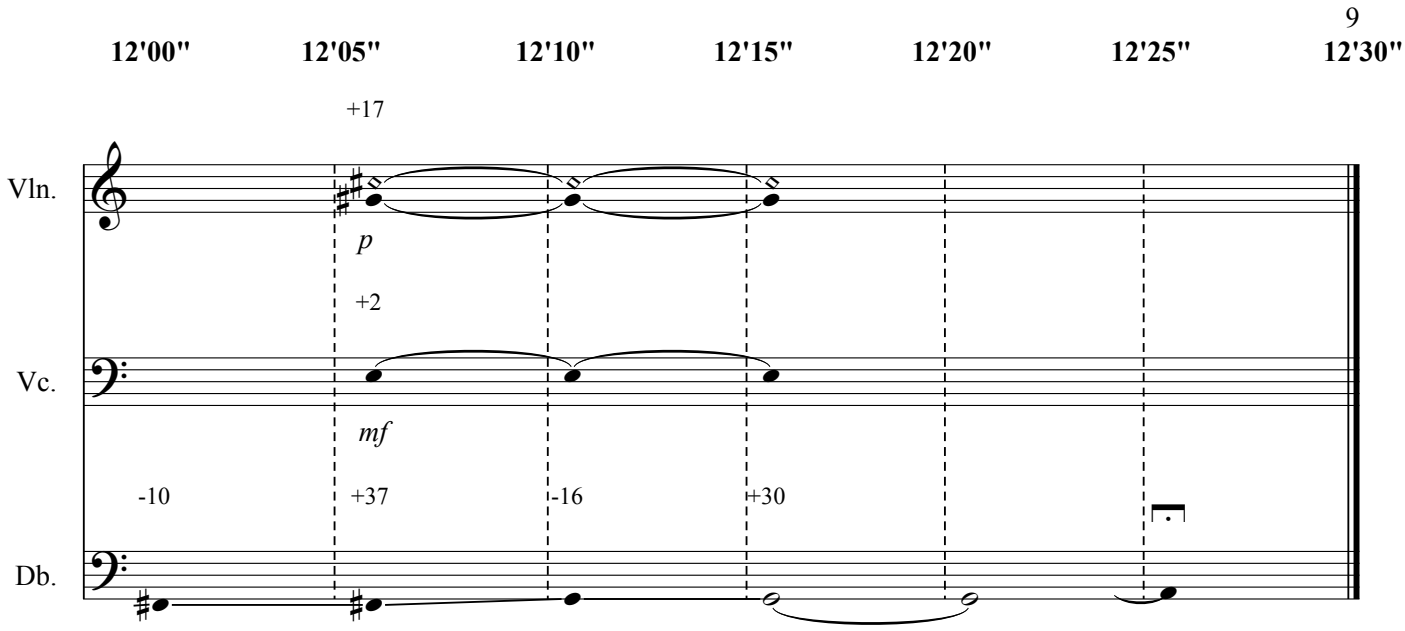

6'30"
6'35"
6'40"
6'45"
6'50"
6'55"
7'00"
Vln.
Vc.
Db.
-20
p
-31
mp
+39
+15
-9
-33
+42
-40


7'00"
7'05"
7'10"
7'15"
7'20"
7'25"
7'30"
Vln.
Vc.
Db.
-49
mp
-14
mp
-21
-3
+16
+34
-47
-29


7'30"
7'35"
7'40"
7'45"
7'50"
7'55"
8'00"
+4
Vln.
mf
+0
Vc.
mp
-14
+44
+3
-39
Db.
IV
8'00"
8'05"
8'10"
8'15"
8'20"
8'25"
8'30"
+27
Vln.
mp
+0
Vc.
8vb
f
+20
-22
+37
-5
-47
+39
Db.
8'30"
8'35"
8'40"
8'45"
8'50"
8'55"
9'00"
-27
Vln.
mp
+0
Vc.
(8)
8vb
f
+26
+13
+0
-14
-27
-41
Db.


9'00"
9'05"
9'10"
9'15"
9'20"
9'25"
9'30"
Vln.
Vc.
Db.
+42
mp
-31
mp
(8)
+45
+28
+33
+38
II
9'30"
9'35"
9'40"
9'45"
9'50"
9'55"
10'00"
-35
p
-12
mp
+43
+47
-48
-43
-38
-34
10'00"
10'05"
10'10"
10'15"
10'20"
10'25"
10'30"
-2
mp
+2
mp
+47
+28
+8
-11
-30
-49


10'30"
10'35"
10'40"
10'45"
10'50"
10'55"
11'00"
-41
Vln.
p
-14
Vc.
mf
+6
-11
-28
-45
Db.
IV
11'00"
11'05"
11'10"
11'15"
11'20"
11'25"
11'30"
Vln.
Vc.
+38
+21
+4
-13
-30
-47
Db.
11'30"
11'35"
11'40"
11'45"
11'50"
11'55"
12'00"
+0
Vln.
mp
-31
Vc.
mp
+36
+19
+2
+49
-4
+43
Db.


12'00"
12'05"
12'10"
12'15"
12'20"
12'25"
12'30"
+17
Vln.
p
+2
Vc.
mf
-10
+37
-16
+30
Db.

Harmonic Catalogue

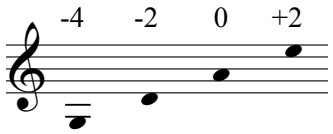
for Clemens Merkel

Hollas Longton

This piece was composed as an homage to Tom Johnson's 'Chord Catalogue'. Using only natural harmonics this piece goes through all the possible intervals within an octave. There are 24 in total. The piece starts from the narrowest interval and ends with the widest. This process is done by adding only one interval with each repetition, so if '1' stands for the narrowest and '24' the widest we have the form: 1 / 1,2 / 1,2,3 / 1,2,3,4 / 1,2,3,4,5, etc.

- Only natural harmonics and open strings are used.

- The violin is tuned in true perfect fifths outwards in either direction from A:



- The top stave indicates the sounding pitch, while the bottom indicates finger placement. Tunings for the sounding pitches are not equal-tempered but are marked with cent deviations above the note (one cent is $1/100^{th}$ of a semitone). Strings are specified using roman numerals I – IV where IV is the G-string and I is the E-string. Alternate fingerings are often possible. These are indicated on the table of intervals.

- Notation is spatial. Each system should be 10 seconds in duration. Extra time may be taken for technical considerations, although a fast general pace should be maintained at all times.

- Try to play relatively legato at all times. Although there are many awkward string crossings, make every attempt to connect the pitches together smoothly so as to create the illusion of chordal harmony. To aid this illusion this piece is best suited for performance in a fairly reverberant space.

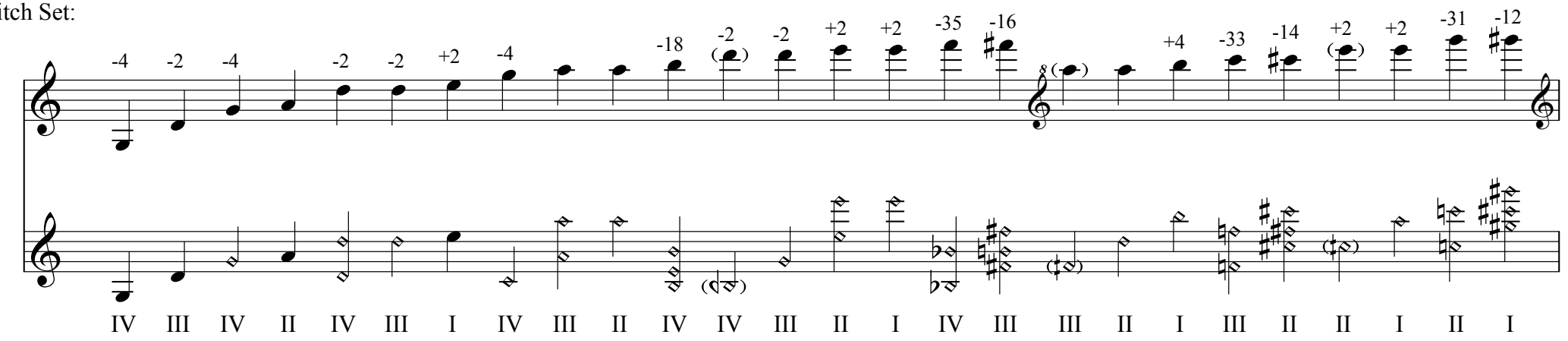
- Dynamics may vary greatly but should change smoothly and gradually.

- Bowing is free but phrasing is indicated. Try to make long, sweeping, gestural phrases full of energy and virtuosity.

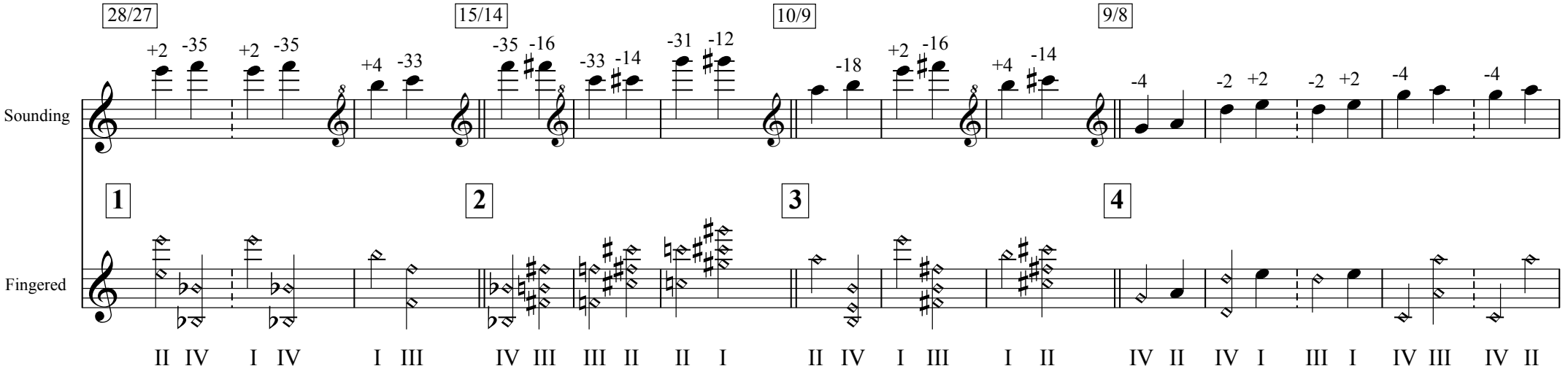
Interval Chart for 'Harmonic Catalogue'
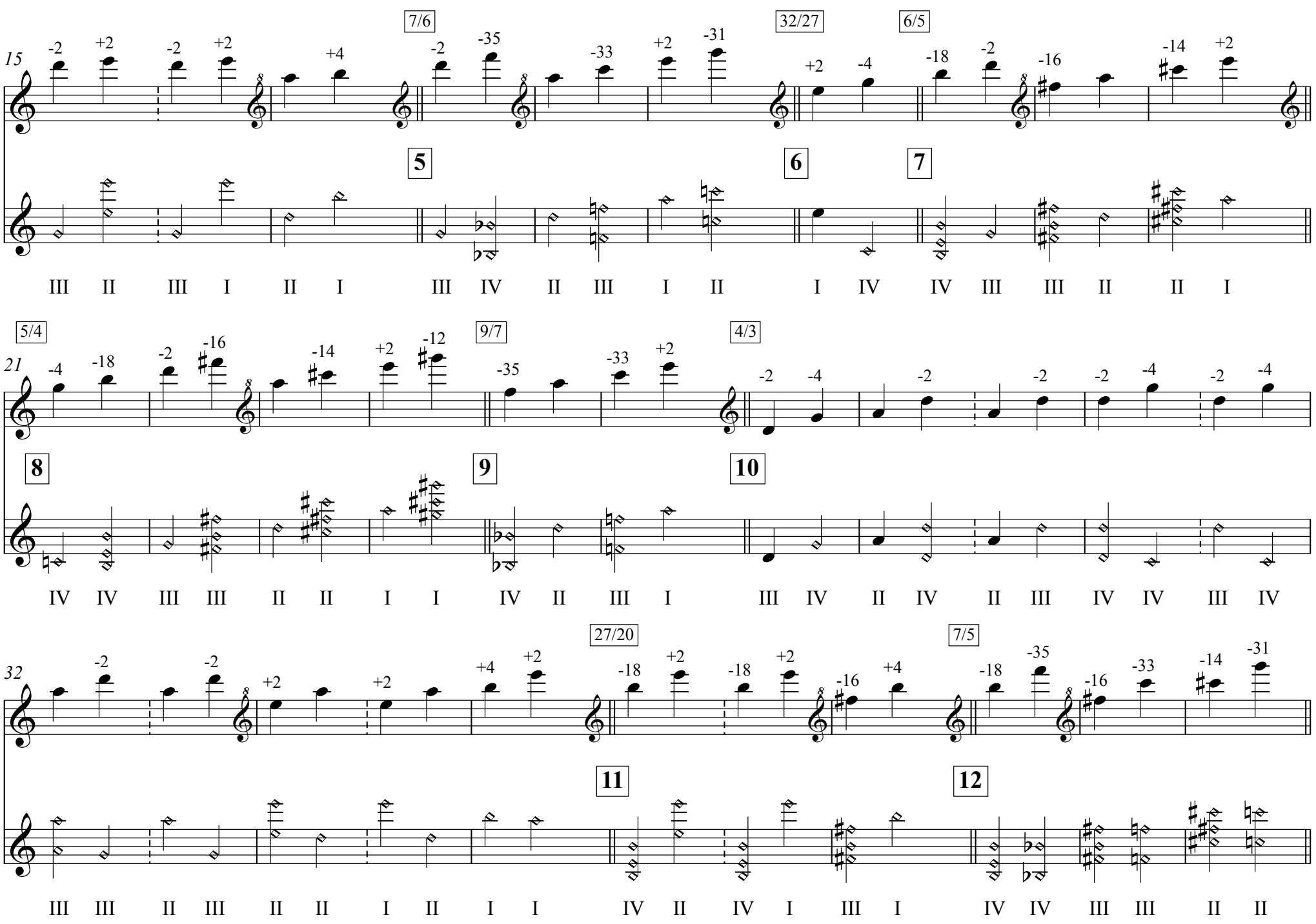
Hollas Longton
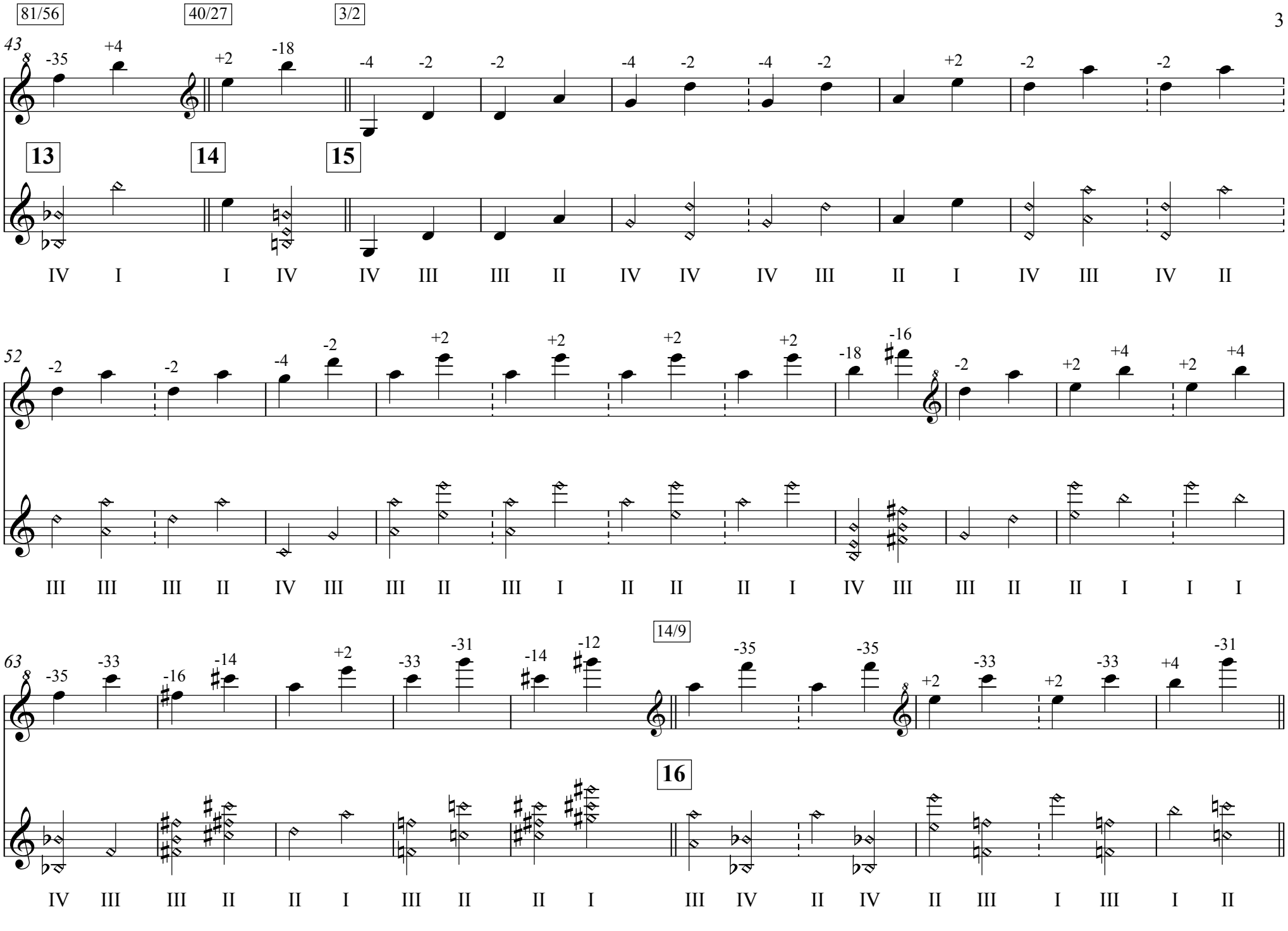
Pitch Set:
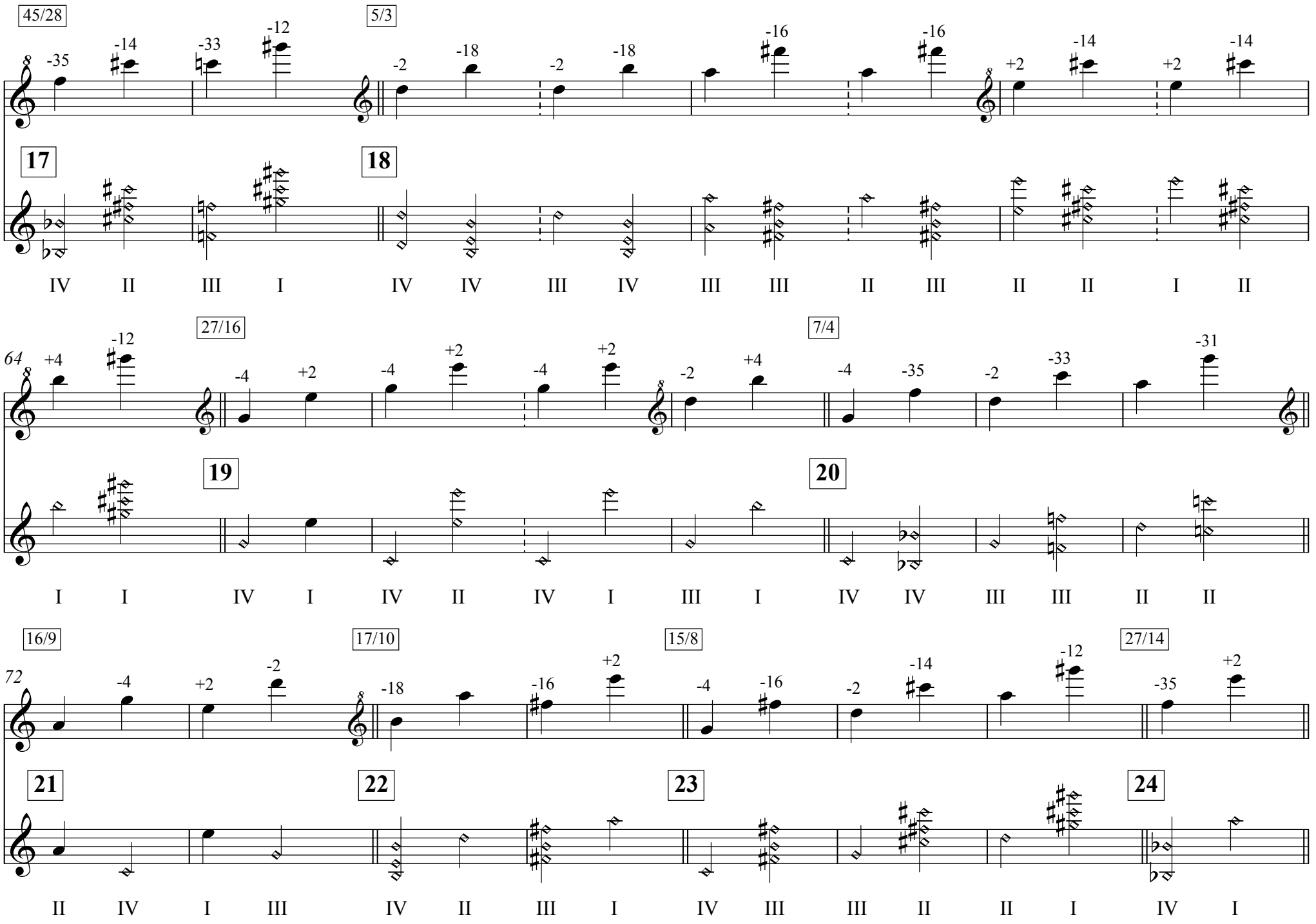


Interval Set:




15
7/6
32/27
6/5
5
6
7
III II III I II I III IV II III I II I IV IV III III II II I
21
5/4
9/7
4/3
8
9
10
IV IV III III II II I I IV II III I III IV II IV II III IV IV III IV
32
27/20
7/5
11
12
III III II III II II I II I I IV II IV I III I IV IV III III II II


81/56
40/27
3/2
43
13
14
15
IV I I IV IV III III II IV IV IV III II I IV III IV II
52
III III III II IV III III II III I II II II I IV III III II II I I I
63
14/9
16
IV III III II II I III II II I III IV II IV II III I III I II

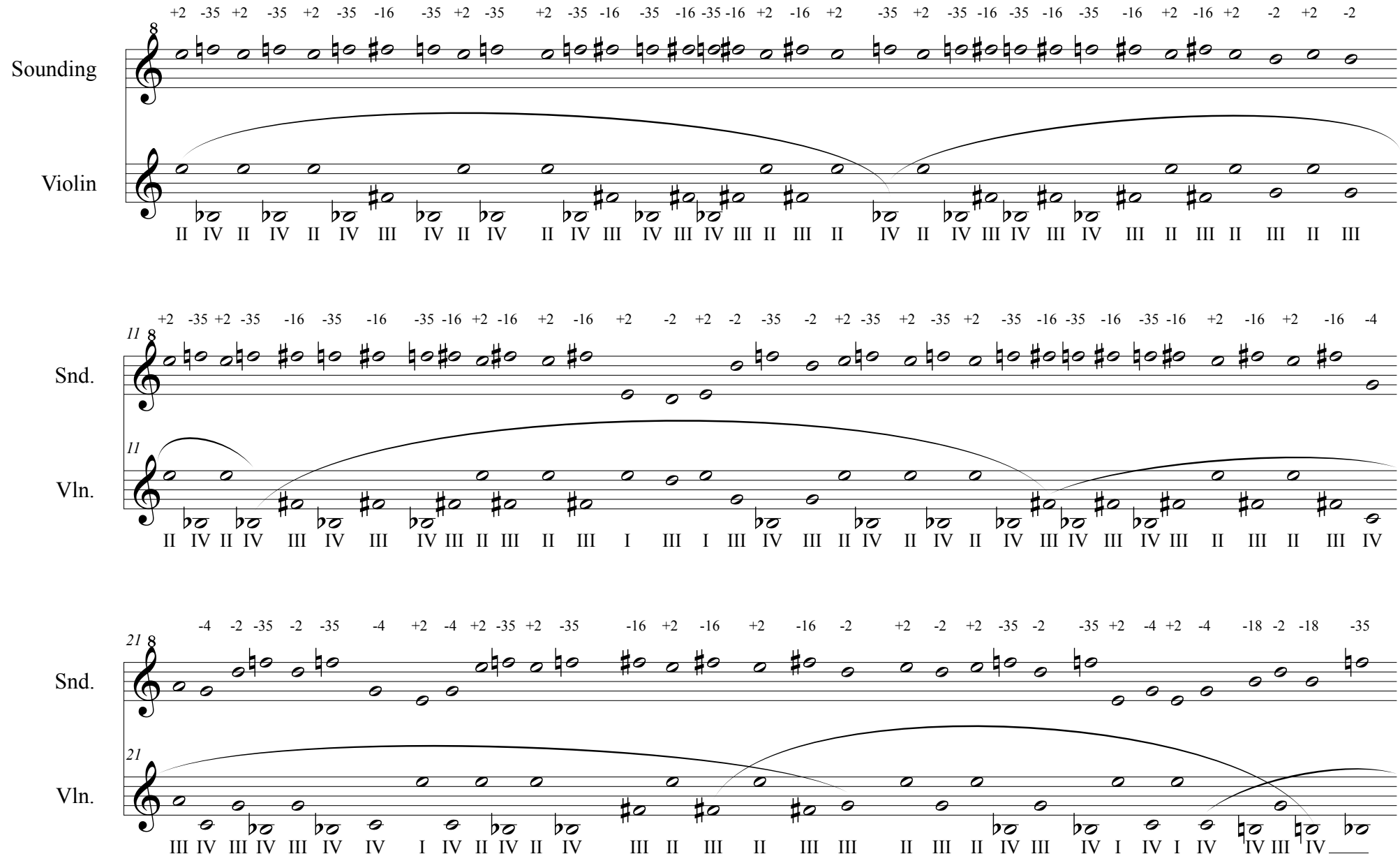

45/28
5/3
17
18
IV II III I IV IV III IV III III II III II II I II
64
27/16
7/4
19
20
I I IV I IV II IV I III I IV IV III III II II
16/9
17/10
15/8
27/14
72
21
22
23
24
II IV I III IV II III I IV III III II II I IV I

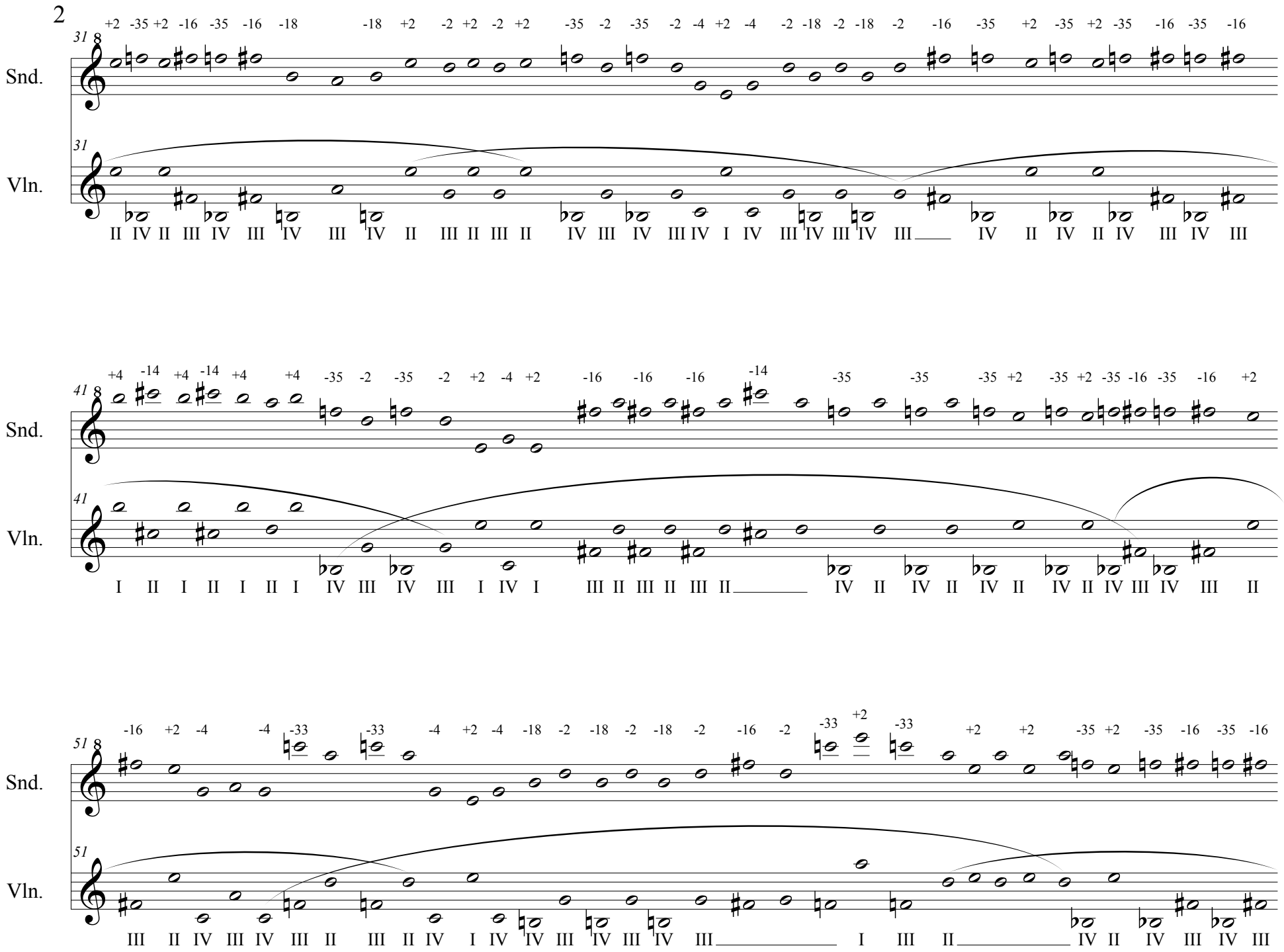
Harmonic Catalogue

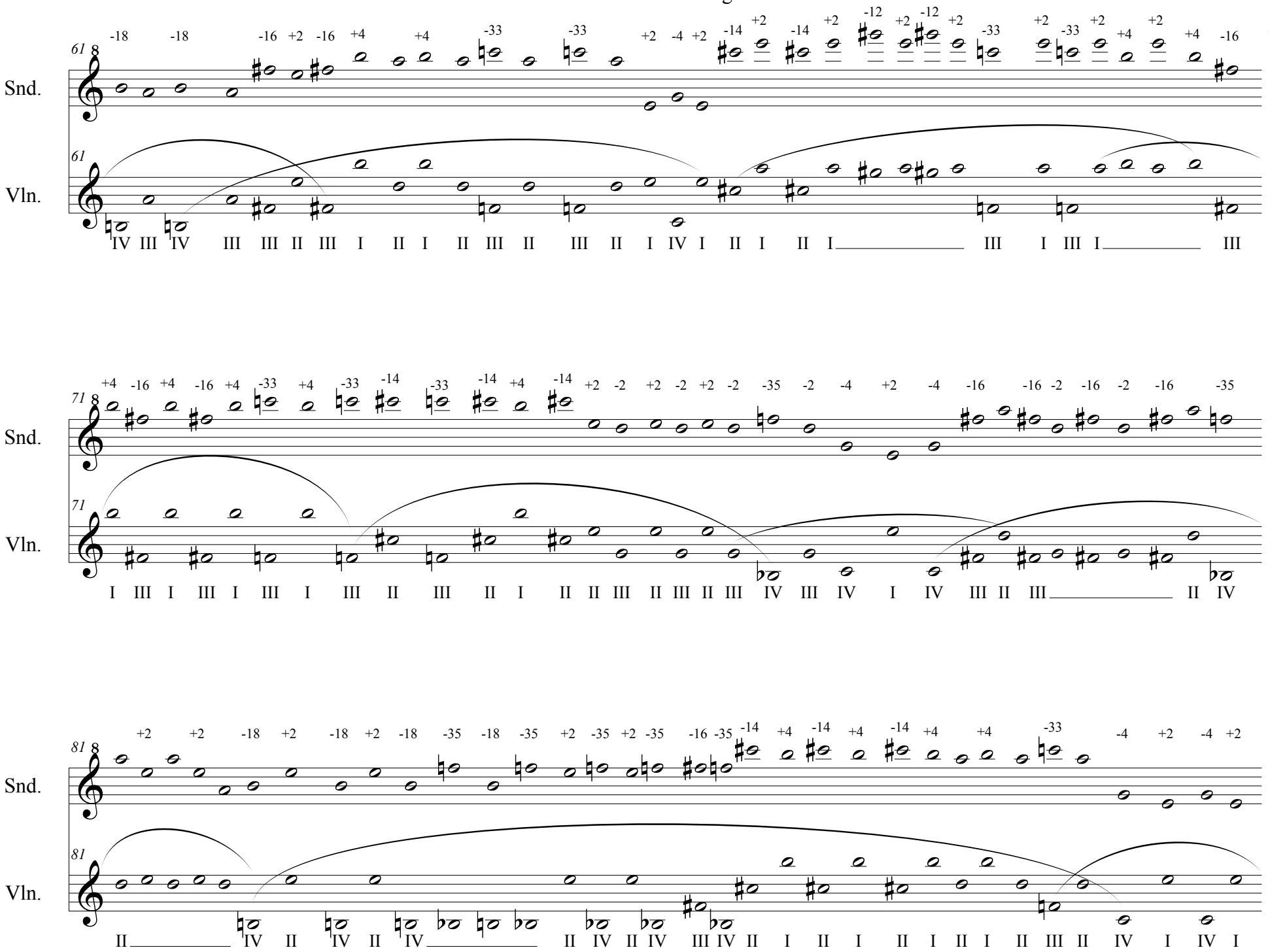
for Clemens Merkel

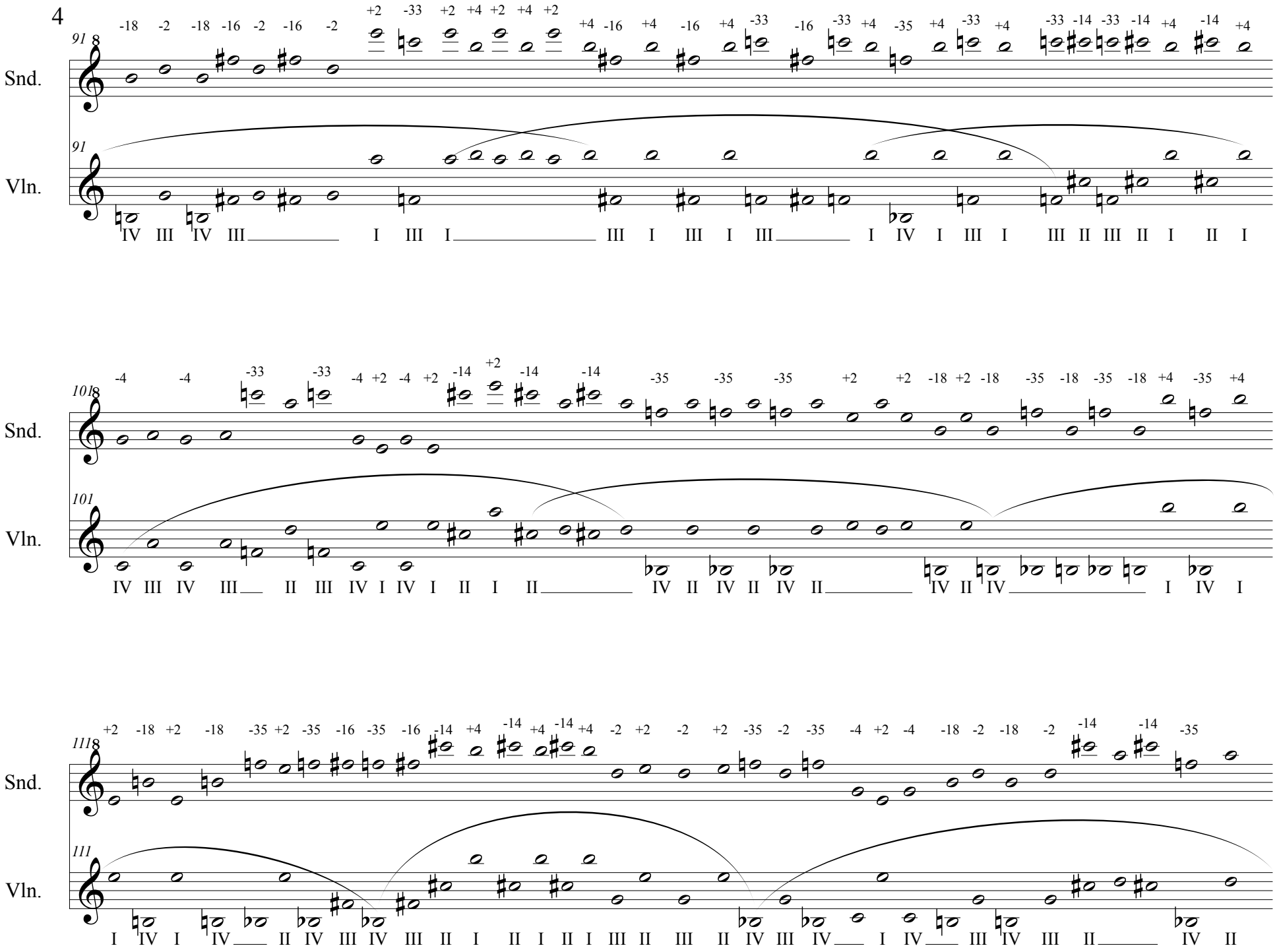
Study Score

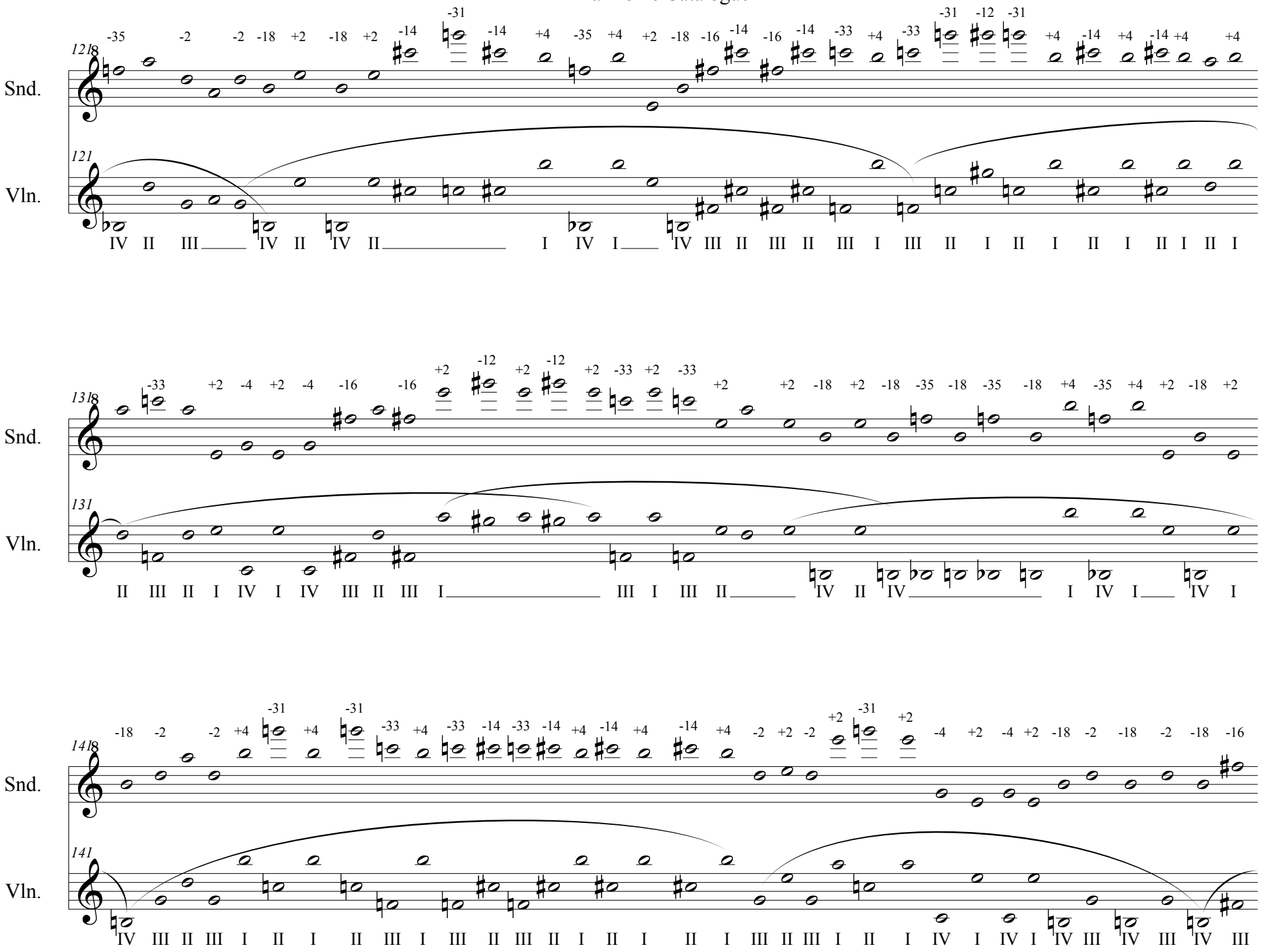
Hollas Longton

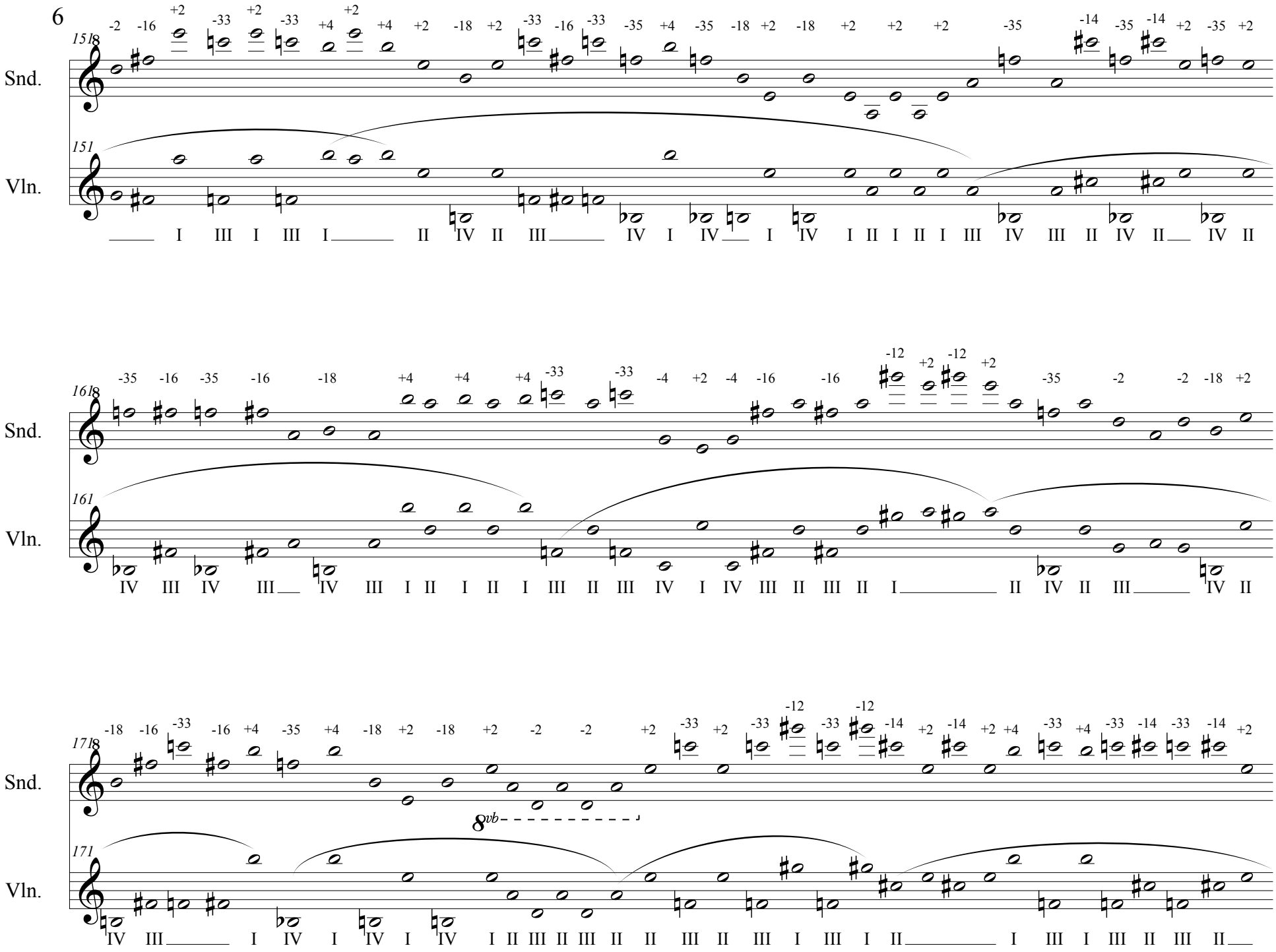


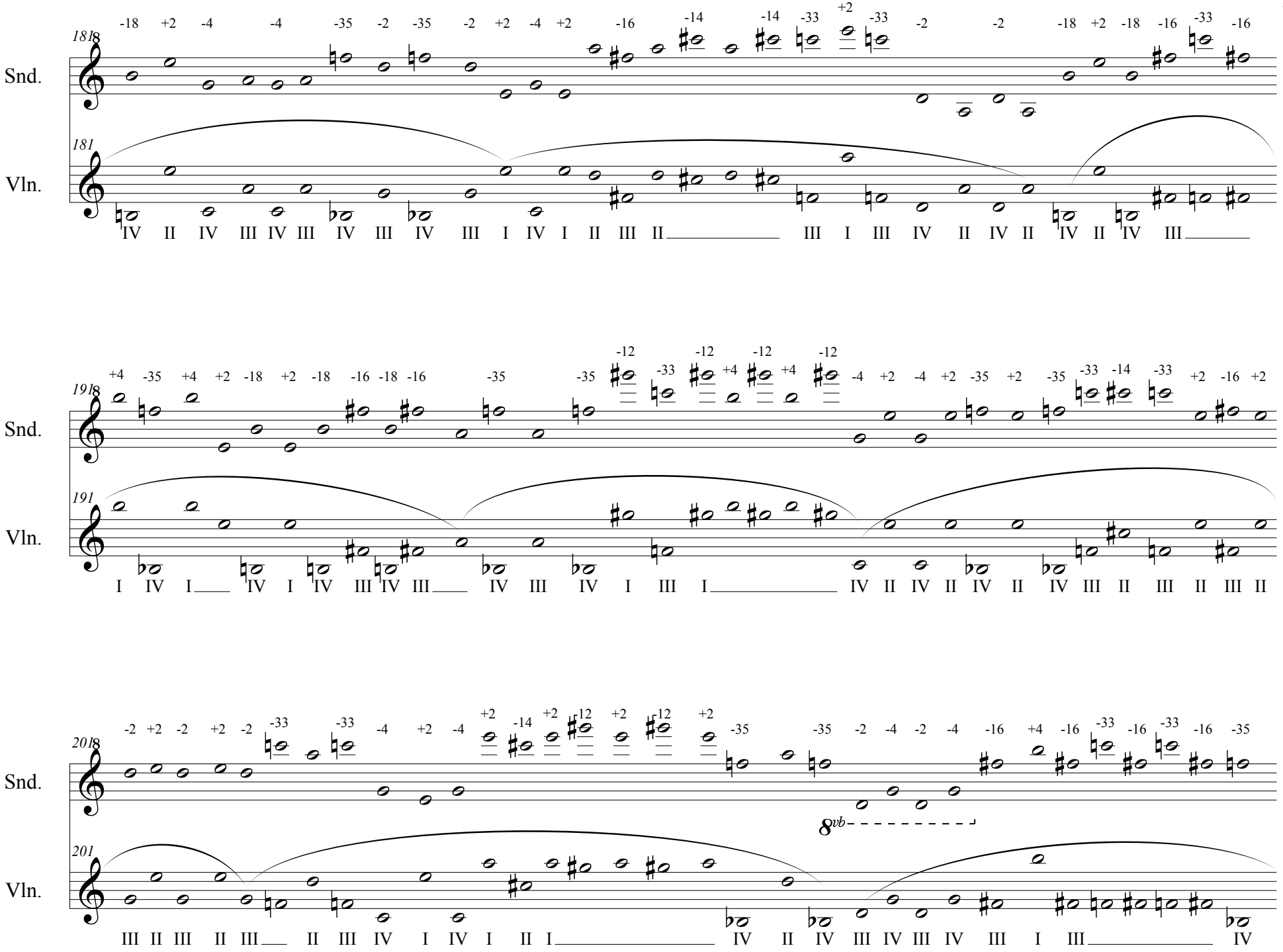

2
31
Snd.
Vln.
+2 -35 +2 -16 -35 -16 -18 -18 +2 -2 +2 -2 +2 -35 -2 -35 -2 -4 +2 -4 -2 -18 -2 -18 -2 -16 -35 +2 -35 +2 -35 -16 -35 -16
II IV II III IV III IV III IV II III II III II IV III IV III IV I IV III IV III IV III IV II IV II IV III IV III
41
Snd.
Vln.
+4 -14 +4 -14 +4 +4 -35 -2 -35 -2 +2 -4 +2 -16 -16 -16 -14 -35 -35 -35 +2 -35 +2 -35 -16 -35 -16 +2
I II I II I II I IV III IV III I IV I III II III II III II IV II IV II IV II IV II IV III IV III II
51
Snd.
Vln.
-16 +2 -4 -4 -33 -33 -4 +2 -4 -18 -2 -18 -2 -18 -2 -16 -2 -33 +2 -33 +2 +2 -35 +2 -35 -16 -35 -16
III II IV III IV III II III II IV I IV IV III IV III IV III I III II IV II IV III IV III

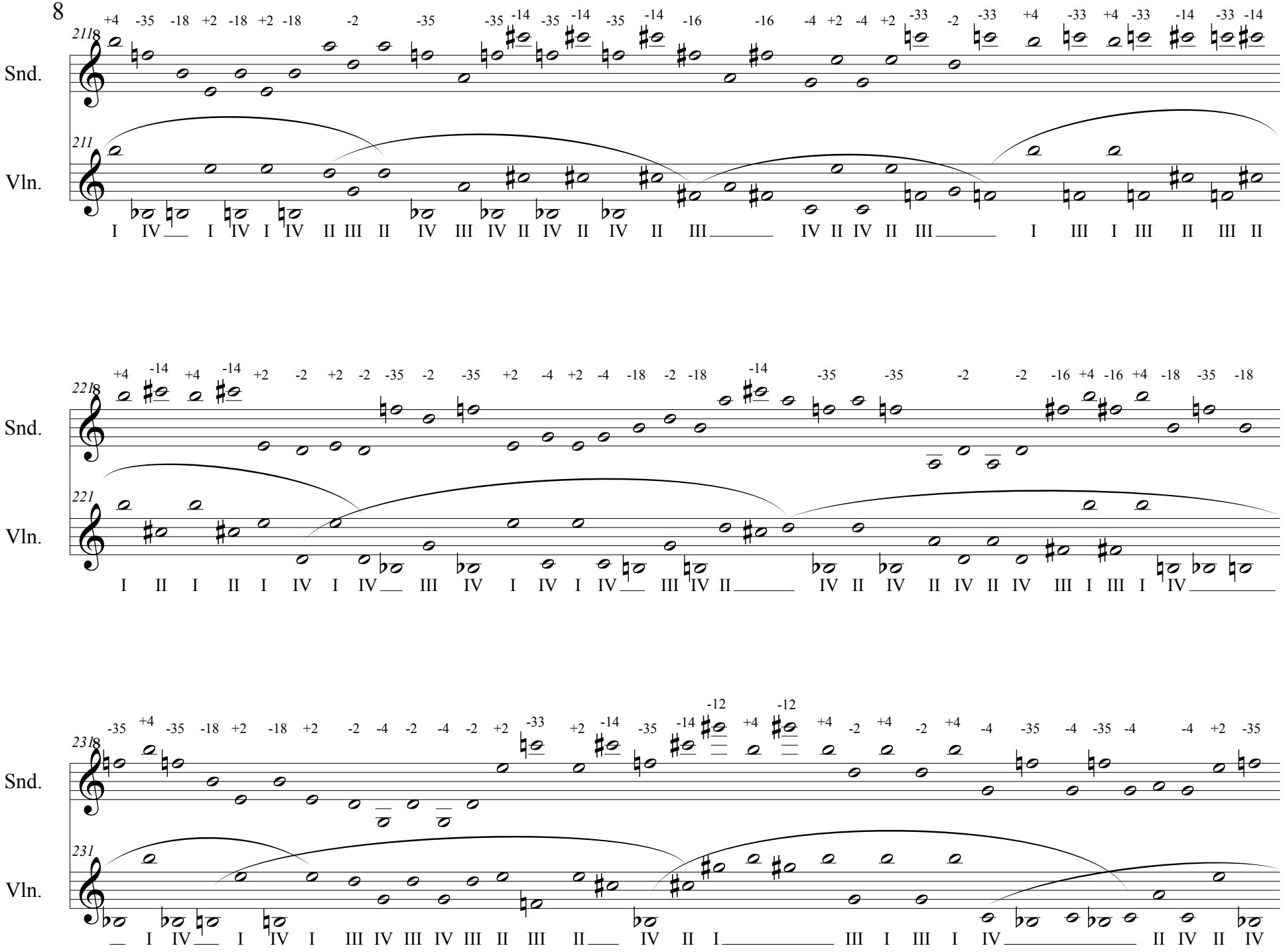

61
Snd.
Vln.
71
Snd.
Vln.
81
Snd.
Vln.

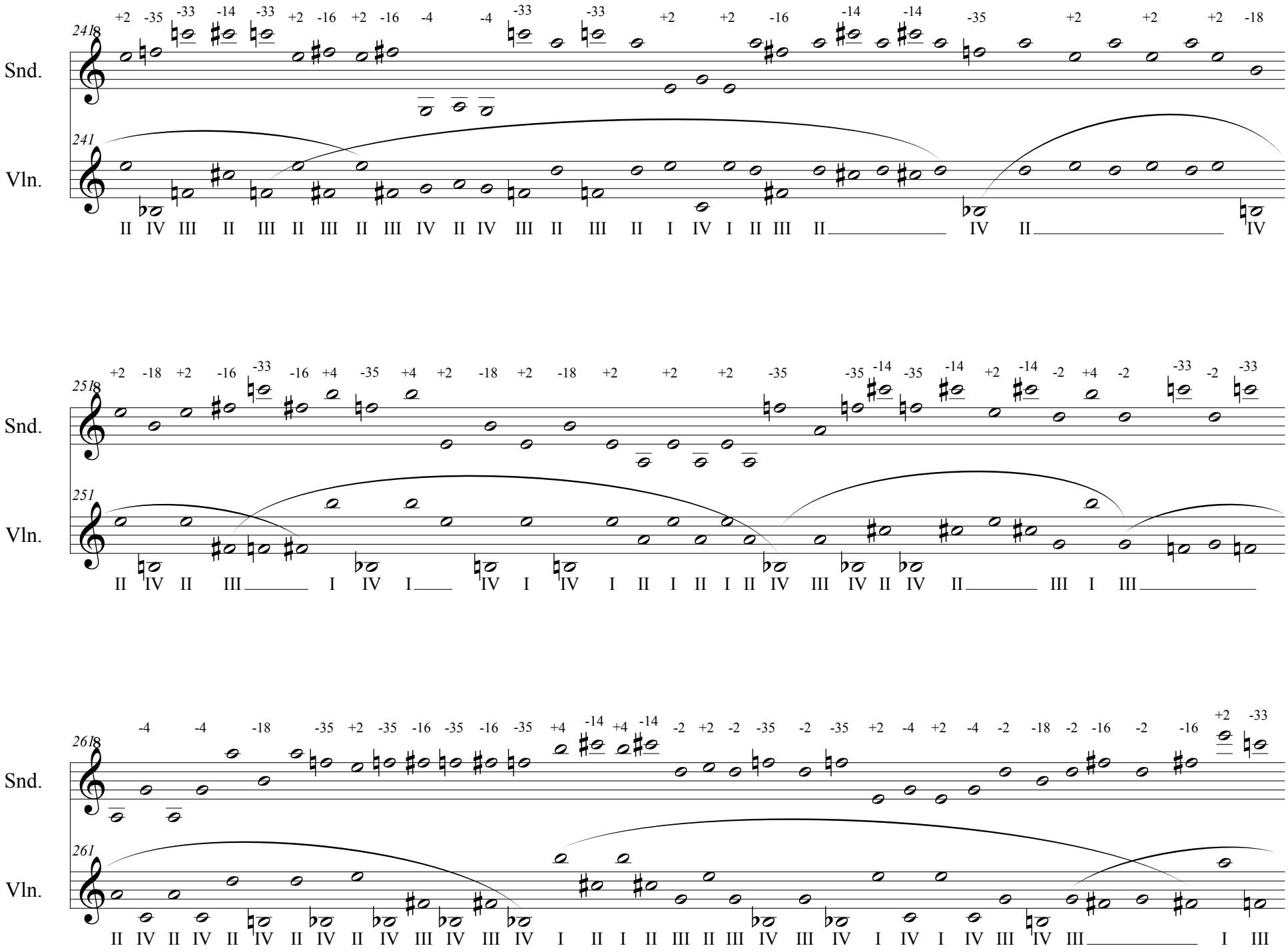

91
Snd.
Vln.
-18 -2 -18 -16 -2 -16 -2 +2 -33 +2 +4 +2 +4 +2 +4 -16 +4 -16 +4 -33 -16 -33 +4 -35 +4 -33 +4 -33 -14 -33 -14 +4 -14 +4
IV III IV III I III I III I III I IV I III I III II III II I II I
101
Snd.
Vln.
-4 -4 -33 -33 -4 +2 -4 +2 -14 +2 -14 -14 -35 -35 -35 +2 +2 -18 +2 -18 -35 -18 -35 -18 +4 -35 +4
IV III IV III II III IV I IV I II I II IV II IV II IV II IV II IV I IV I
111
Snd.
Vln.
+2 -18 +2 -18 -35 +2 -35 -16 -35 -16 -14 +4 -14 +4 -14 +4 -2 +2 -2 +2 -35 -2 -35 -4 +2 -4 -18 -2 -18 -2 -14 -14 -35
I IV I IV II IV III IV III II I II I II I III II III II IV III IV I IV III IV III II IV II

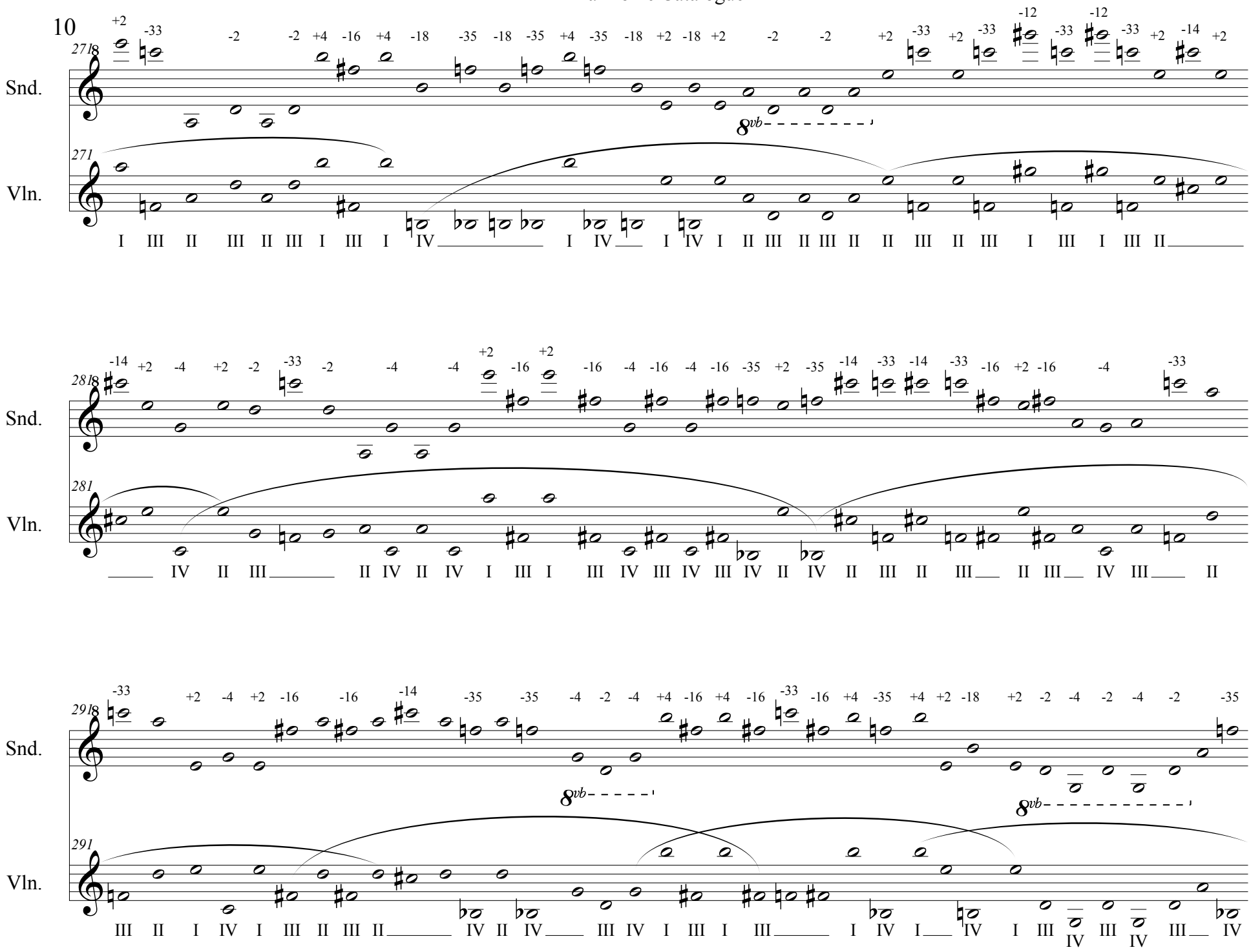

121
Snd.
Vln.
131
Snd.
Vln.
141
Snd.
Vln.

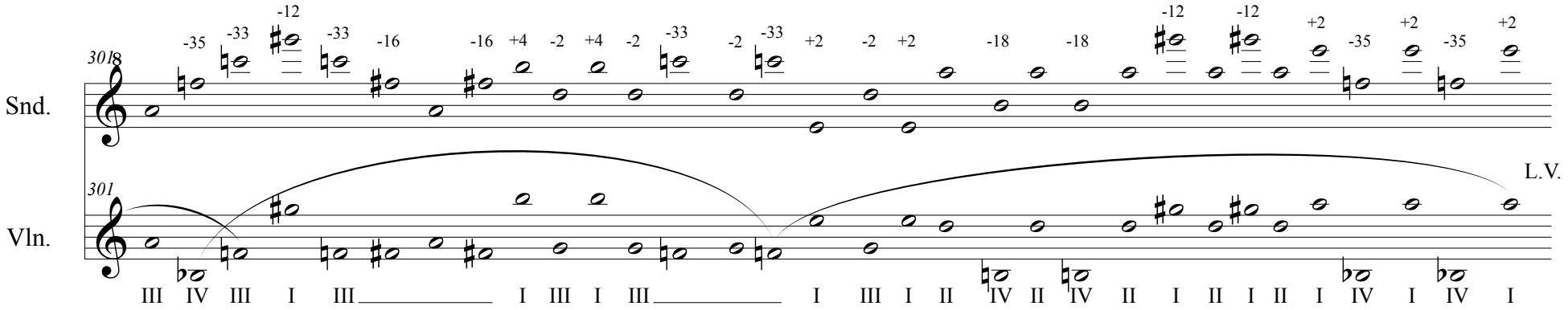

151
Snd.
Vln.
-2 -16 +2 -33 +2 -33 +4 +2 +4 +2 -18 +2 -33 -16 -33 -35 +4 -35 -18 +2 -18 +2 +2 +2 -35 -14 -35 -14 +2 -35 +2
I III I III I II IV II III IV I IV I IV I II I II I III IV III II IV II IV II
161
Snd.
Vln.
-35 -16 -35 -16 -18 +4 +4 +4 -33 -33 -4 +2 -4 -16 -16 -12 +2 -12 +2 -35 -2 -2 -18 +2
IV III IV III IV III I II I II I III II III IV I IV III II III II I II IV II III IV II
171
Snd.
Vln.
8vb
-18 -16 -33 -16 +4 -35 +4 -18 +2 -18 +2 -2 -2 +2 -33 +2 -33 -12 -33 -12 -14 +2 -14 +2 +4 -33 +4 -33 -14 -33 -14 +2
IV III I IV I IV I IV I II III II III II II III II III I III I II I III I III II III II


Snd.
Vln.
181
191
201
8vb


211
Snd.
Vln.
+4 -35 -18 +2 -18 +2 -18 -2 -35 -35 -14 -35 -14 -35 -14 -16 -16 -4 +2 -4 +2 -33 -2 -33 +4 -33 +4 -33 -14 -33 -14
I IV I IV I IV II III II IV III IV II IV II IV II III I III I III II III II
221
Snd.
Vln.
+4 -14 +4 -14 +2 -2 +2 -2 -35 -2 -35 +2 -4 +2 -4 -18 -2 -18 -14 -35 -35 -2 -2 -16 +4 -16 +4 -18 -35 -18
I II I II I IV I IV III IV I IV I IV III IV II IV II IV II IV II IV III I III I IV
231
Snd.
Vln.
-35 +4 -35 -18 +2 -18 +2 -2 -4 -2 -4 -2 +2 -33 +2 -14 -35 -14 -12 -12 +4 +4 -2 +4 -2 +4 -4 -35 -4 -35 -4 -4 +2 -35
I IV I IV I III IV III IV III II III II IV II I III I III I IV II IV II IV


241
Snd.
Vln.
+2 -35 -33 -14 -33 +2 -16 +2 -16 -4 -4 -33 -33 +2 +2 -16 -14 -14 -35 +2 +2 +2 -18
II IV III II III II III II III IV II IV III II III II I IV I II III II IV II IV
251
Snd.
Vln.
+2 -18 +2 -16 -33 -16 +4 -35 +4 +2 -18 +2 -18 +2 +2 +2 -35 -35 -14 -35 -14 +2 -14 -2 +4 -2 -33 -2 -33
II IV II III I IV I IV I IV I II I II I II IV III IV II IV II III I III
261
Snd.
Vln.
-4 -4 -18 -35 +2 -35 -16 -35 -16 -35 +4 -14 +4 -14 -2 +2 -2 -35 -2 -35 +2 -4 +2 -4 -2 -18 -2 -16 -2 -16 +2 -33
II IV II IV II IV II IV II IV III IV III IV I II I II III II III IV III IV I IV I IV III IV III I III


271
Snd.
Vln.
8vb
I III II III II III I III I IV I IV I IV I II III II III II II III II III I III I III II
281
Snd.
Vln.
IV II III II IV II IV I III I III IV III IV III IV II IV II III II III II III IV III II
291
Snd.
Vln.
8vb
8vb
III II I IV I III II III II IV II IV III IV I III I III I IV I IV I III IV III IV III IV


Snd.
Vln.
301
L.V.
-35 -33 -12 -33 -16 -16 +4 -2 +4 -2 -33 -2 -33 +2 -2 +2 -18 -18 -12 -12 +2 -35 +2 -35 +2
III IV III I III I III I III I III I II IV II IV II I II I II I IV I IV I

Some Perfect Chords

for String Trio

Hollas Longton

Duration: ~21'

Playing Instructions:

- Each chord is to be played for 5-7 seconds with a short rest between each chord. An entire chord and rest unit should be about 11 seconds. Don't be metronomic about it, but try to keep the chords relatively even in length.
- All chords are to be played downbow, as an exhale without accent. Chords should have a round, throbbing sound without a harsh beginning or end.
- Numbers above notes indicate cent deviations from the tempered scale. One cent is equal to $1/100^{th}$ of a semitone, 1200 cents being equal to one octave.
- String numbers are indicated with roman numerals.
- Each instrument has both an upper sounding staff and a lower fingering staff.
- Diamond noteheads indicate finger placement, while solid noteheads indicate open strings. Two diamond noteheads show both possible finger placements, both of which will produce the same sounding pitch.

This piece is made entirely of chords of natural harmonics and open strings. The chords are what I have termed 'Perfect' in that the difference between the higher two voices equals the lower voice and/or the sum of the lower two voices equals the higher voice. I have further defined the 'Perfect Chords' with the following formulas, where a, b, and c are frequency or harmonic numbers:

Perfect Chord: $a + b = c$

where $c > b > a > 0$

The non-octave rule is a further mathematical formula for preventing the same pitch class and cent deviation from occurring more than once within a chord.
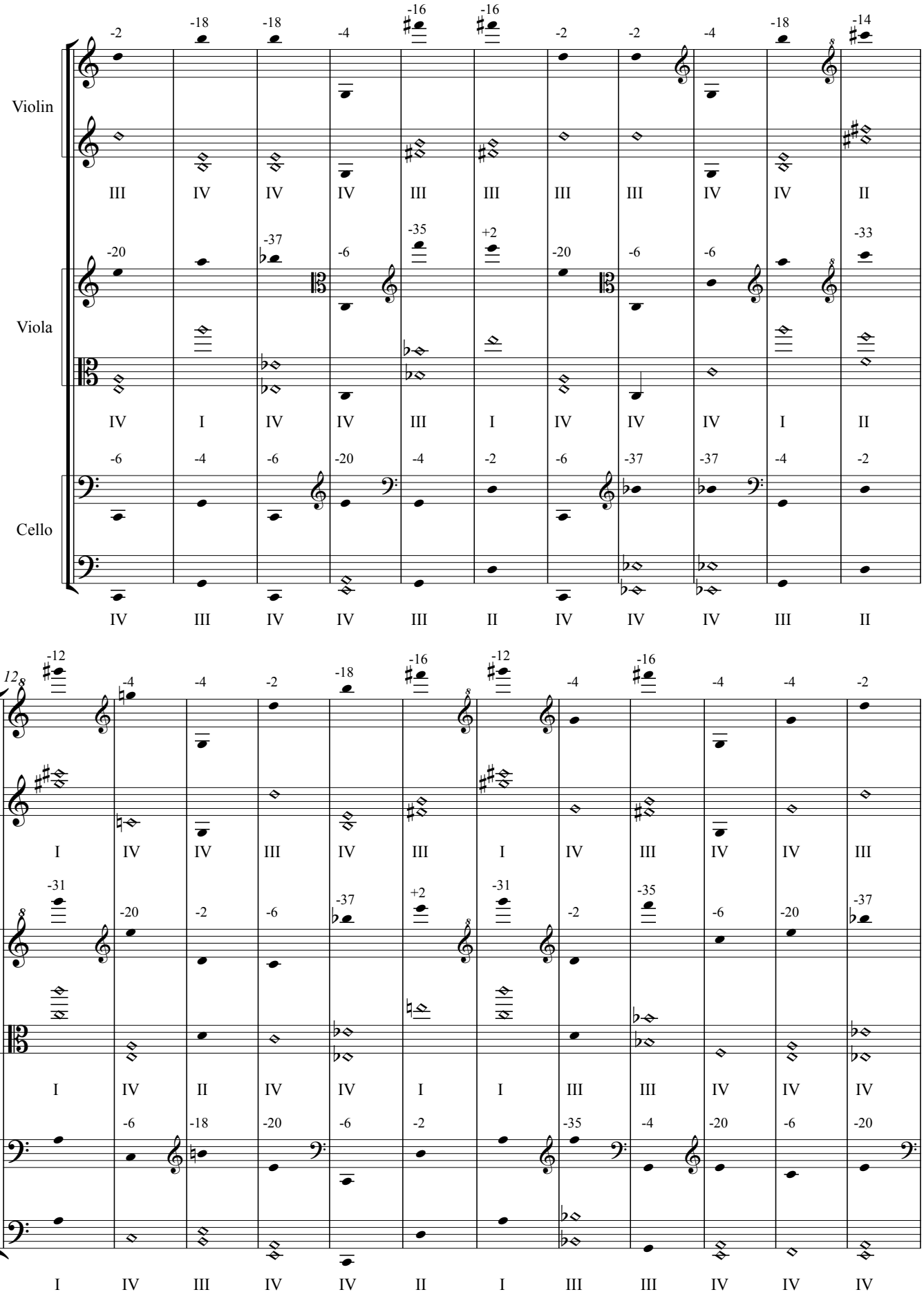
Non-Octave Rule: $a \neq b*2^n$
$a \neq c*2^n$
$b \neq c*2^n$

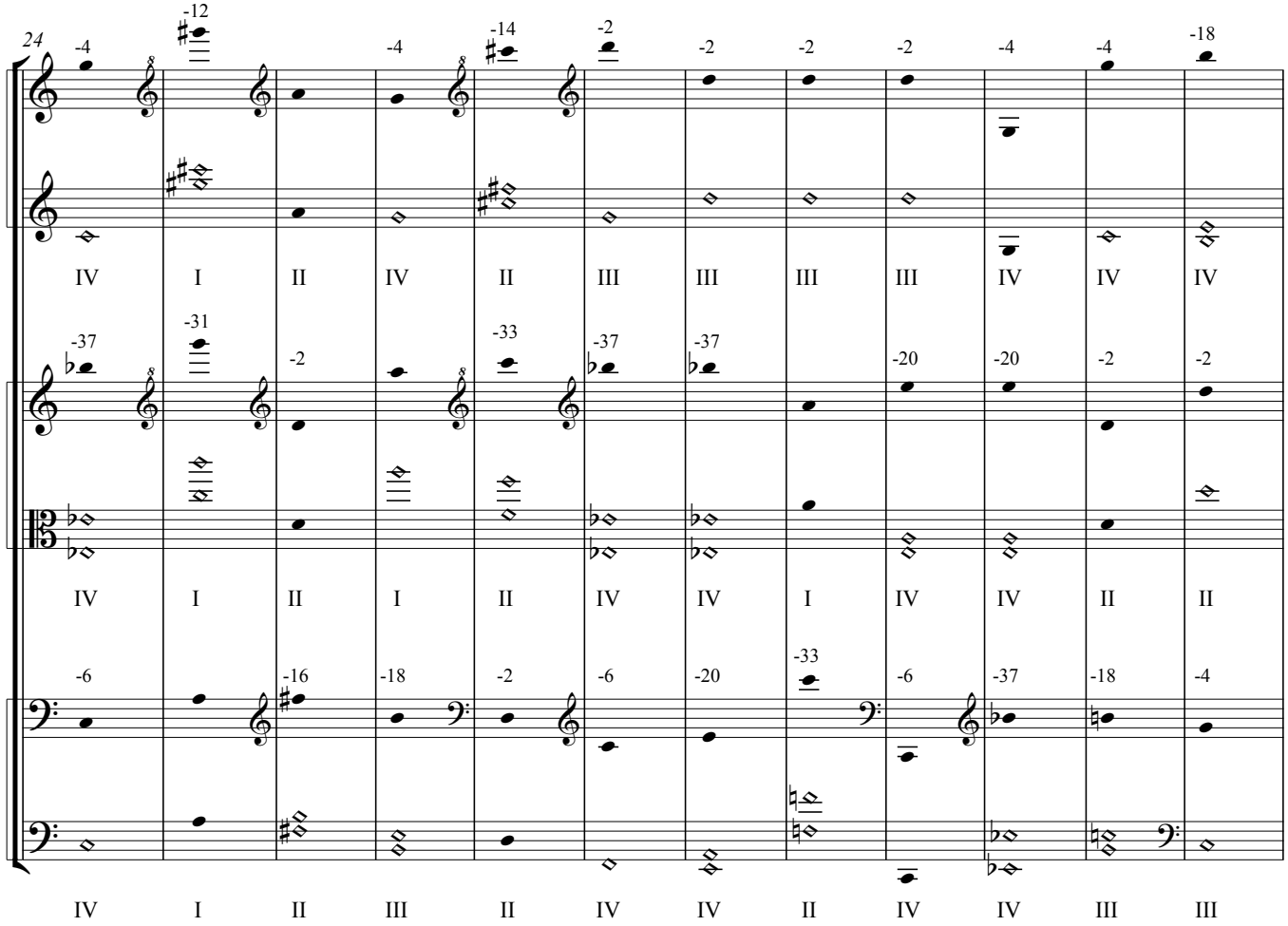
where n is any integer

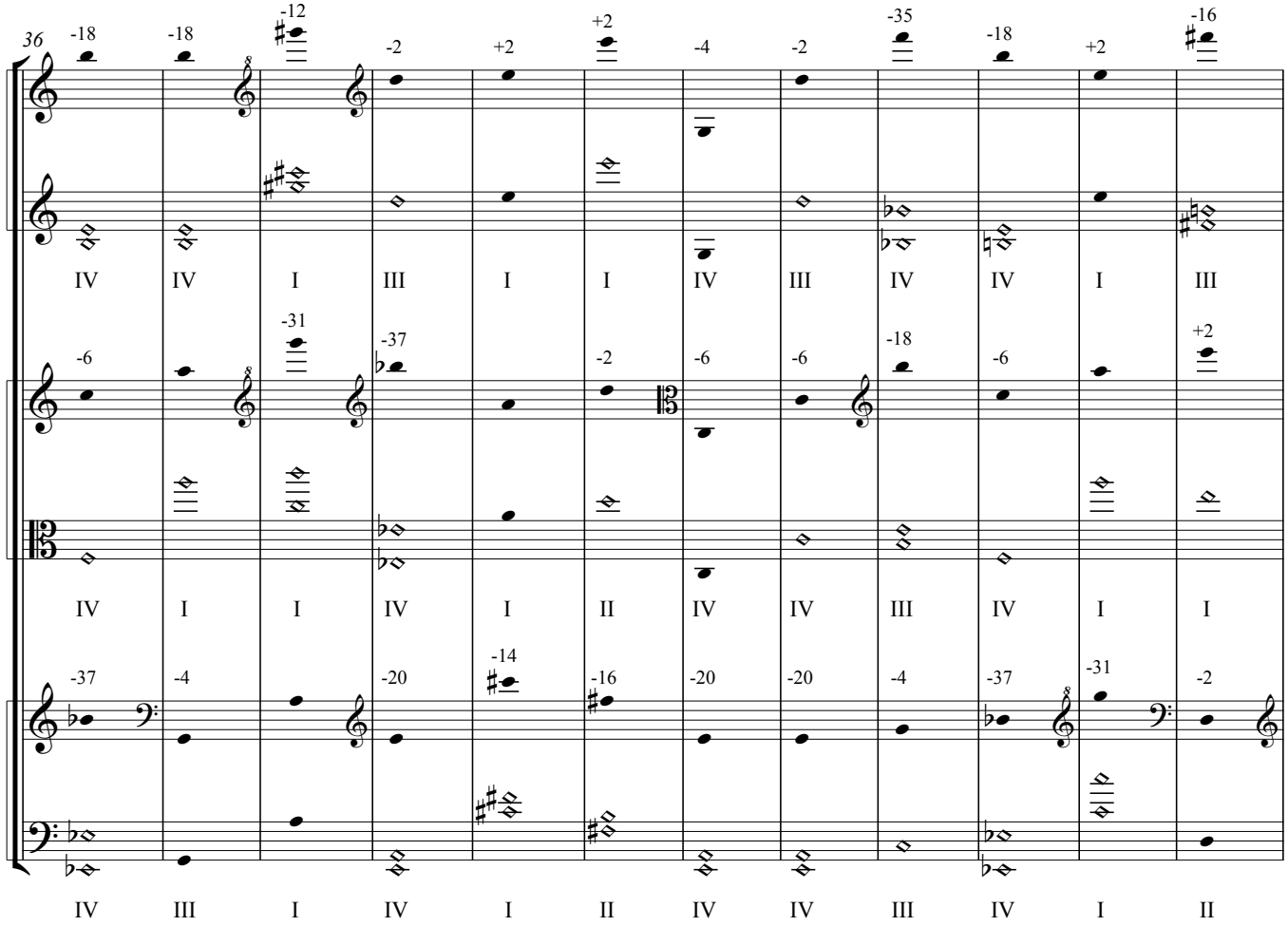
The form is defined by the lowest pitch in any given chord. Starting with the lowest lowest pitch, the series of lowest pitches rises in repeated upward scales. The scales gradually rise higher and higher in a regular fashion, with every lowest pitch always recurring, but at an ever decreasing rate.

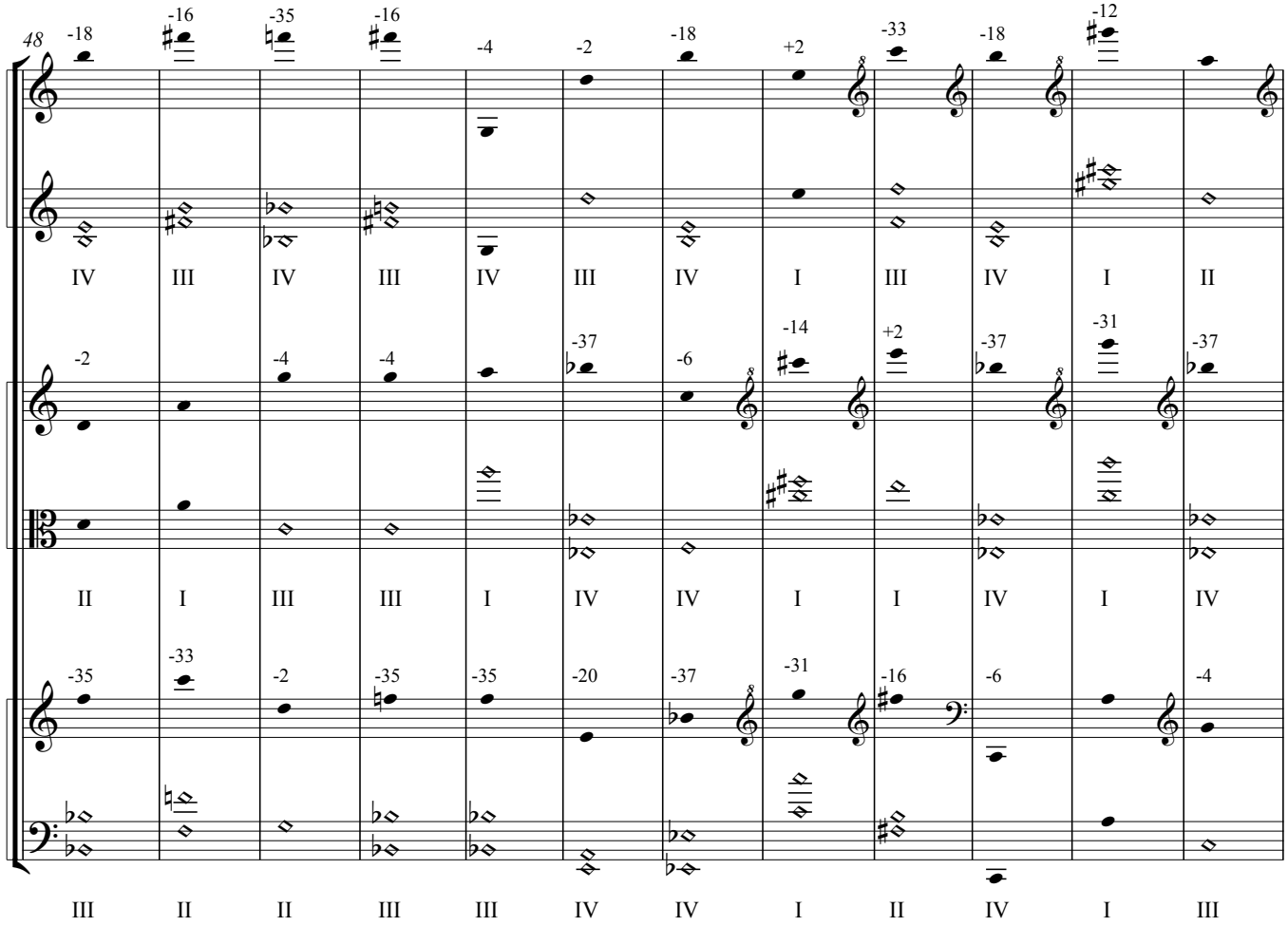
Some Perfect Chords

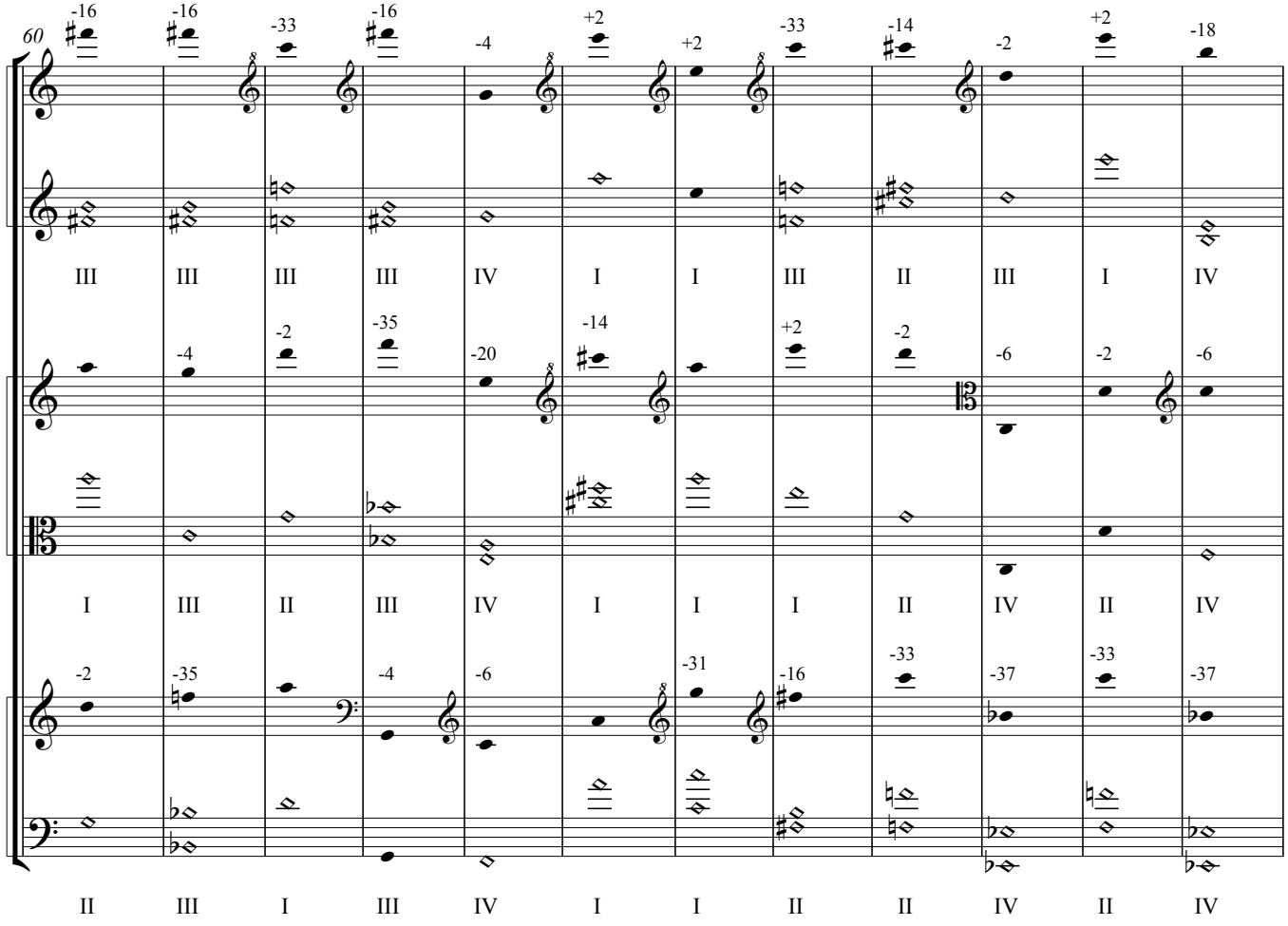
Hollas Longton
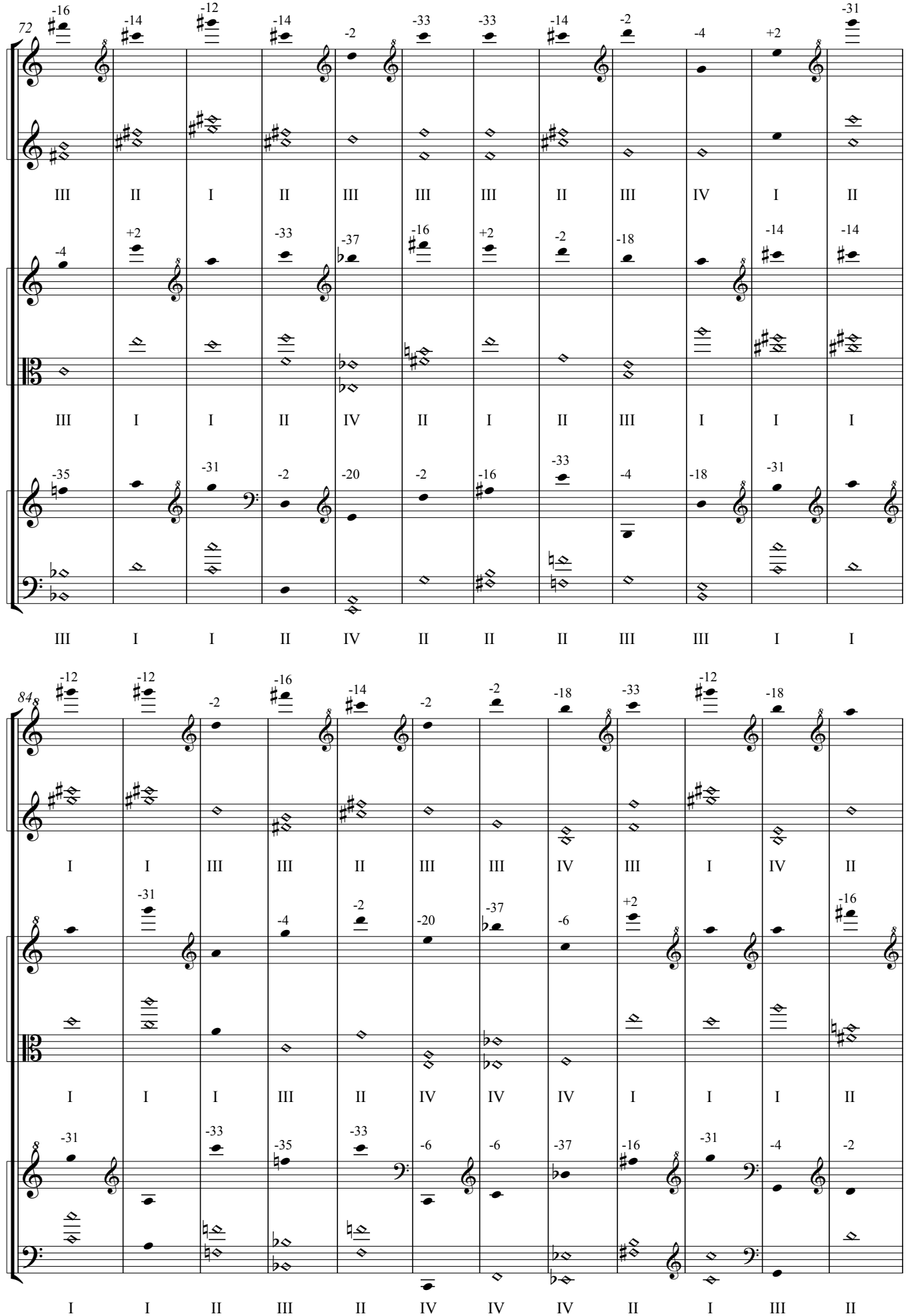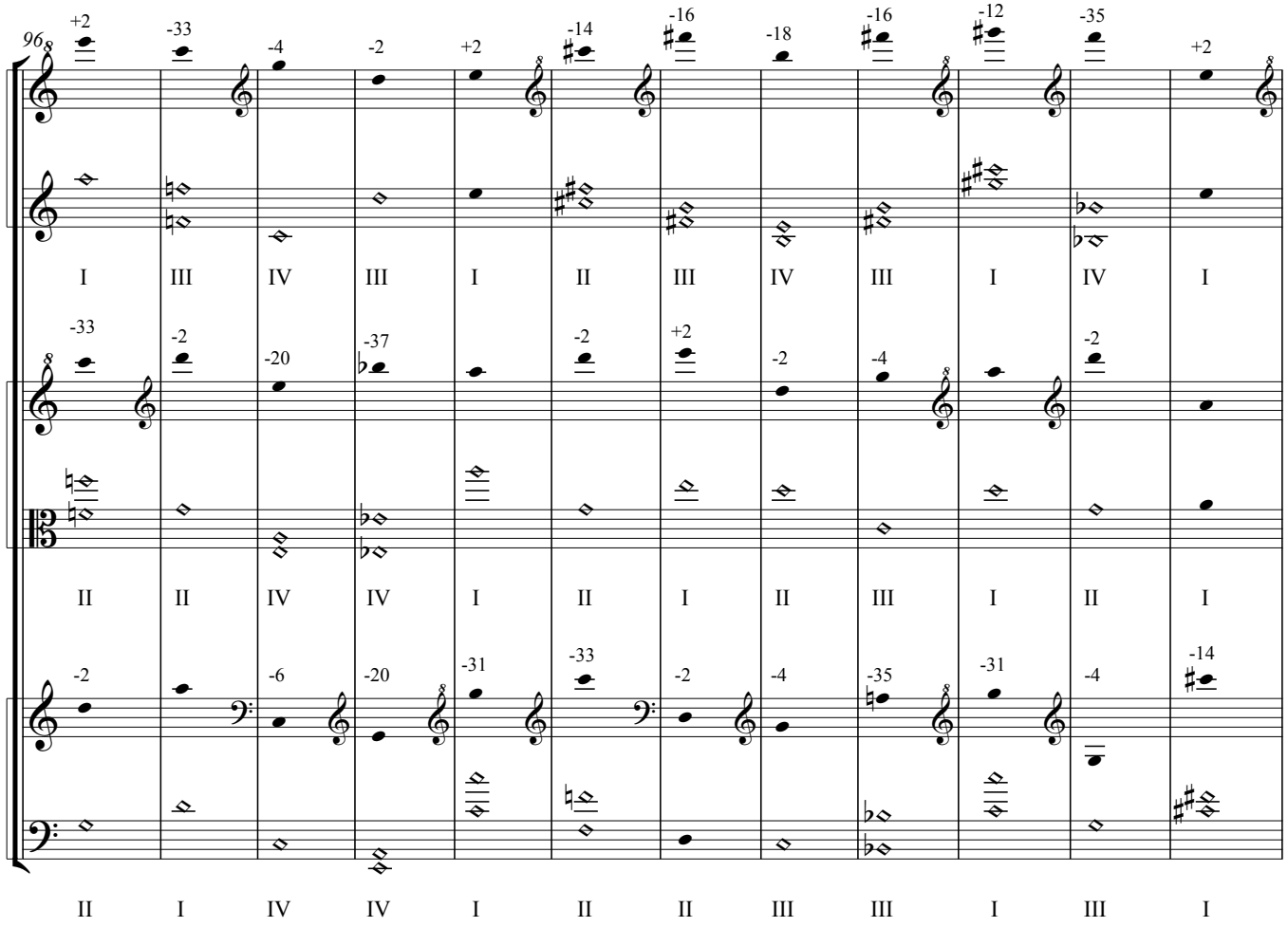



24
-4 -12 -4 -14 -2 -2 -2 -2 -4 -4 -18
IV I II IV II III III III III IV IV IV
-37 -31 -2 -33 -37 -37 -20 -20 -2 -2
IV I II I II IV IV I IV IV II II
-6 -16 -18 -2 -6 -20 -33 -6 -37 -18 -4
IV I II III II IV IV II IV IV III III
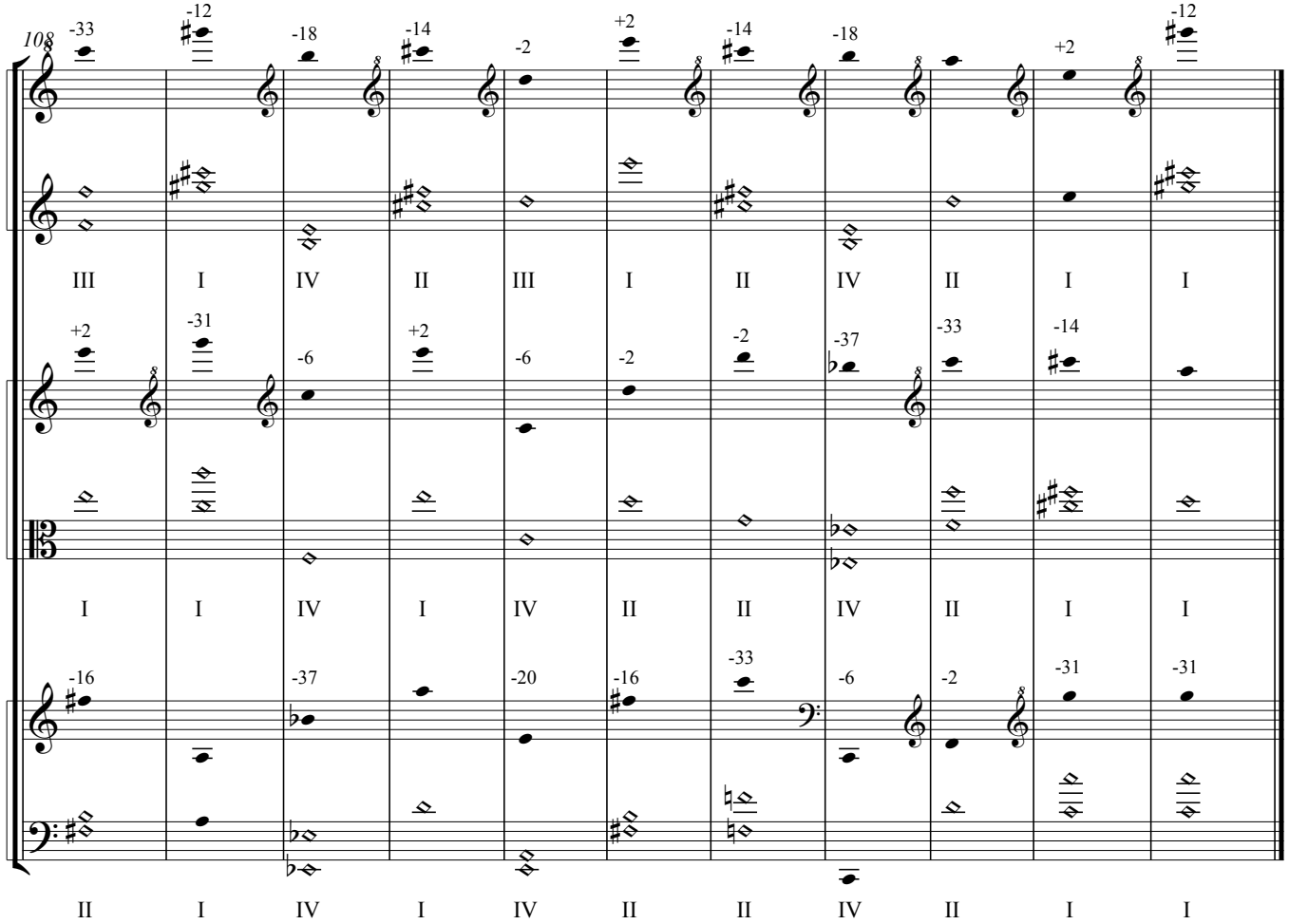

36
-18 -18 -12 -2 +2 +2 -4 -2 -35 -18 +2 -16
IV IV I III I I IV III IV IV I III
-6 -31 -37 -2 -6 -6 -18 -6 +2
IV I I IV I II IV IV III IV I I
-37 -4 -20 -14 -16 -20 -20 -4 -37 -31 -2
IV III I IV I II IV IV III IV I II


48
-18 -16 -35 -16 -4 -2 -18 +2 -33 -18 -12
IV III IV III IV III IV I III IV I II
-2 -4 -4 -37 -6 -14 +2 -37 -31 -37
II I III III I IV IV I I IV I IV
-35 -33 -2 -35 -35 -20 -37 -31 -16 -6 -4
III II II III III IV IV I II IV I III


60
-16 -16 -33 -16 -4 +2 +2 -33 -14 -2 +2 -18
III III III III IV I I III II III I IV
-4 -2 -35 -20 -14 +2 -2 -6 -2 -6
I III II III IV I I I II IV II IV
-2 -35 -4 -6 -31 -16 -33 -37 -33 -37
II III I III IV I I II II IV II IV


72
84


96
+2 -33 -4 -2 +2 -14 -16 -18 -16 -12 -35 +2
I III IV III I II III IV III I IV I
-33 -2 -20 -37 -2 +2 -2 -4 -2
II II IV IV I II I II III I II I
-2 -6 -20 -31 -33 -2 -4 -35 -31 -4 -14
II I IV IV I II II III III I III I


108
-33 -12 -18 -14 -2 +2 -14 -18 +2 -12
III I IV II III I II IV II I I
+2 -31 -6 +2 -6 -2 -2 -37 -33 -14
I I IV I IV II II IV II I I
-16 -37 -20 -16 -33 -6 -2 -31 -31
II I IV I IV II II IV II I I

Notre Dame

violin, bass flute, electric guitar, and piano

Hollas Longton

Duration: 10’

- The G-string of the Violin is tuned down to E (165 Hz).

- The Electric Guitar and the Piano are both played using Ebows and slides (for the Piano this should be a metal ball or heavy slide). If the Piano is too cumbersome, another Electric Guitar with slide and Ebow can be used.

  This piece consists of the interval of a perfect fifth (from Bb to F) and its inversion (from F to Bb). The lowest F is approximately 174 Hz (a perfect fifth below middle C), while the highest Bb is approximately 466 Hz (just above the violin A-string). Lower pitches are much preferred. Only two pitches (frequencies rather than pitch classes) can be played at any given time. Two players should play each pitch, although the flute will have to breathe. For this reason players should enter one at a time slowly. (It may also be a good idea for the guitar and the piano to be on separate pitches, due to their stability and purity of tone.) Once all the players have entered and a fifth or a fourth has been established, concentrate on tuning it perfectly so that clear sum tones (and possibly also difference tones) are audible. Once the artefacts of the two pitches begin to be audible, very gradually and slowly slide away from the pitch. Do NOT slide farther than a quarter tone away from the pitch. It is generally a good idea to have one person sliding and one remaining relatively stable on each pitch. Beats and other effects will begin to jump out of the texture once the sliding begins. When you hear something interesting, try to stay with it awhile until something else happens. This should happen without conscious thought and intent, but as if by accident. Repeat this process again and again. Every now and then change your pitch and your instrument pairing. Make sure that you do not end up with more than two people on a single pitch, or all four players on different pitches. To this end it is best to enter slowly one at a time when changing pitches.

  The piece is made up of two sections. Each section is five minutes long. There is a brief silence of ~10 seconds between sections. At the start of each new section change your pitch. When doing this enter one at time as at the start. Keep in mind the rules set out previously. This piece may also be cut up and individual sections used as interludes within a concert. In this case more than two sections may be played.

  (If you want an external structure added to this piece, use the neume notation from very early manuscripts (from around the year 1100) as a graphic score, setting the entire range as a semitone.)

Dissonance for Violin

Hollas Longton

- The piece is made up of at least two sections of approximately five minutes in length each. Within each section the violinist is playing continuously. Between sections there should be a pause of 10-20 seconds, after which point the violinist should begin playing again.
- This piece consists of two components: a bowed *legato* tone played on the violin's lowest string and a sine-tone chord.
- The G-string of the violin should be tuned down one octave and a fourth to a low D (73 Hz). It may be useful to tune this string slightly flat so that the addition of normal bow weight will not make the string sound sharp.
- The sine-tone chord is made up of mistuned harmonics of this same low D. These mistuned harmonics will beat against the real harmonics of the violin D.
- The violin may need to be amplified to make the acoustic artefacts which result from the combination of the violin tone and the sine-tone chord more audible.
- Because the acoustics of the room can alter the sound greatly, the audience may be invited to stand up and move around the space to explore this environment more actively.

The basic form of the piece is as follows: a Max/MSP patch containing the sine-tone chord is started and the chord is gradually faded in. After a few seconds the violinist plays the open low D-string continuously and as *legato* as possible. After establishing a relatively stable tone, the violinist should listen for and seek out interesting acoustic effects which result from the interaction of the violin tone and the sine-tone chord. They may do this by altering their tone in two ways: by changing the relative strengths of the harmonics of the tone by changing the contact point of the bow, or by changing the fundamental frequency by changing the amount of bow pressure. These two methods of tone alteration may be done separately or together. The violinist should listen carefully to the various acoustic effects which result from these interactions. The job of the violinist is to seek out and sustain interesting acoustic situations (a beating frequency, a consonance, a resonance, etc.) for as long as possible. When their current acoustic situation becomes difficult, or some other interesting acoustic phenomenon appears, the violinist should move to try to sustain it. The violinist should repeat this process indefinitely, each time trying to hold on to some new acoustic situation which interests them. After approximately five minutes the violinist should stop playing for 10-20 seconds (the demarcation between sections), after which they should begin this process again.

Unlike some of the other 'Dissonance' pieces the violinist does not necessarily need to purposefully alter their tone to find interesting acoustic artefacts. Instead, the act of trying to sustain the low D will result in accidental alterations to the tone. You will fail repeatedly and constantly in attempting to sustain a constant smooth *legato* tone. It is up to the violinist to use these errors to explore new acoustic situations.

Dissonance for Uilleann Pipes

for Flaithri Neff

Hollas Longton

- This piece aims to explore the natural acoustic possibilities of the uilleann pipes.

- This piece is made up of at least two sections of approximately five minutes in length each. Within each section the piper plays continuously. Between sections there should be a pause of 10-20 seconds, after which the piper should begin playing again. The drones need not be set back to the correct tuning before beginning the next section.

- Unlike the other pieces in the 'Dissonance' series, this piece has no accompanying sine-tone chord. The regulators of the uilleann pipes function as the stable element of this piece.

- The piper plays all three drones and two regulators throughout. Two possible chords for the regulators are indicated on the attached page (marked A and B). Regulators are to be played normally throughout.

- The drones are to be gradually detuned extremely slowly by gradually unscrewing and screwing them from the instrument. The drones may be detuned to any cent deviation with the given ranges, not only to the tunings of the noteheads. Furthermore, the drones need not be detuned to their maximum ranges, this is simply a guide to help you. Some drones may not be able to be detuned to these maximum ranges.

- On the attached page, the given maximum ranges of detunings for the drones are indicated. Numbers above the noteheads indicate cent deviations from the equal-tempered scale (one cent equals 1/100th of a semitone, and 1200 cents equals one octave).

How To Play:

To begin the piece play the drones and regulators as is (without detuning). Once you have a sound established, begin to very slowly detune your drones by unscrewing them as smoothly as possible. As you do this, try to listen for interesting acoustic effects which result (e.g. a beating frequency, a difference tone, etc.). As something interesting appears, either set the drone where it is or explore the situation further by gradually slowing the speed of your unscrewing (or change direction and begin to slowly screw the drone back in). Once you have found something of interest, either leave the drone where it is and begin detuning another drone or return it to somewhere more neutral sounding and then begin detuning another drone. Repeat this process indefinitely. After five minutes, you should take a 10-20

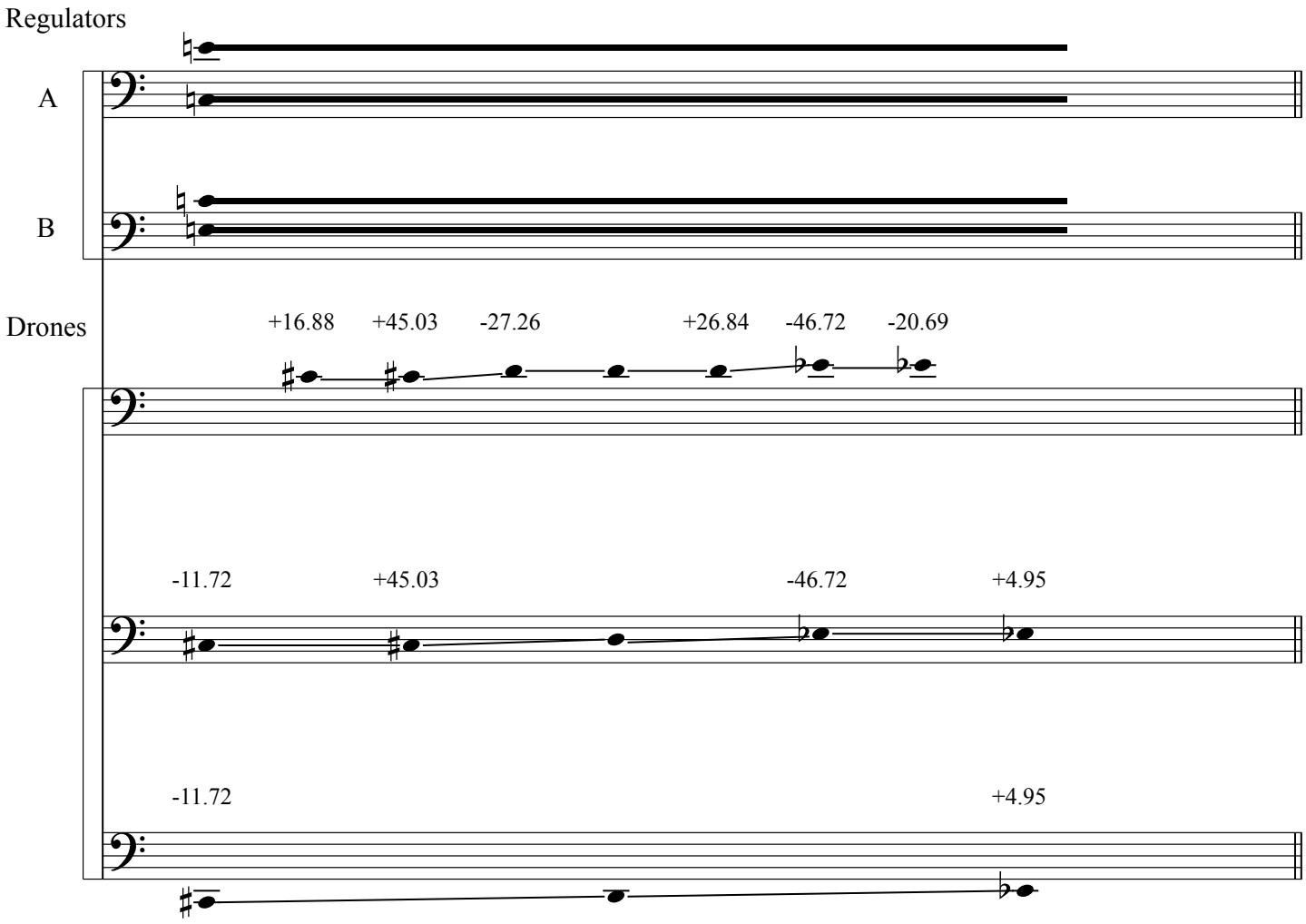
second rest before beginning to play again. You may end the piece after at least two sections of five minutes each have been played.

This piece is more of an environment to explore than a strict structure. This process of exploration should happen naturally, as if by accident and not from any conscious guidance. Since there is virtually no amount of detuning of the drones which will not produce some kind of beating or other interesting acoustical effect, the job of the piper is not to try to find consonance but rather to explore the situation in which they find themselves: its consonances, dissonances, and everything in between.

Dissonance for Uilleann Pipes

for Flaithri Neff

Hollas Longton



Dissonance for Bass Flute

for Susan Geaney

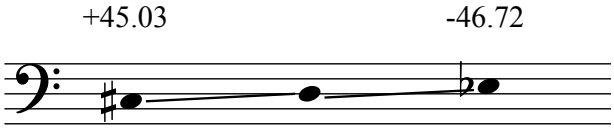
Hollas Longton

- The piece is made up of at least two sections of approximately five minutes in length each. Within each section the flautist plays as continuously as possible (circular breathing is permitted though not necessary). Between sections there should be a pause of 10-20 seconds, after which they should begin playing again.

- This piece consists of two components: long sustained bass flute tones centred around a low D (147 Hz) and a sine-tone chord made up of mistuned harmonics of the same low D. These mistuned harmonics will beat against the real harmonics of the bass flute D.

- The bass flute should be amplified if at all possible, but should not come out of the same loudspeakers as the sine-tone chord. The amplitude of both the bass flute and the sine-tone chord should be quite loud, but the bass flute should be a little louder than the sine-tone chord to allow the more subtle effects of the piece to become audible.

- The flautist may play any pitch within the range indicated:



- Numbers above the noteheads indicate cent deviations from the equal-tempered scale (one cent equals 1/100th of a semitone)

- For practice, the flautist may use a tuner with a cent readout to help them to get a feel for this pitch range.

The basic form of the piece is as follows: a Max/MSP patch containing the sine-tone chord is started and the chord is gradually faded in. After a few seconds the flautist plays the low D in a *legato* manner beginning in the centre of the pitch range using long breaths without accent. After establishing a tone, they should seek out interesting acoustic effects which result from their interaction with the sine tone chord (beating frequencies, summation tones, difference tones, etc.) by altering their tone in two ways: by changing the relative strengths of the harmonics of the tone (by changing their dynamic level), or by sliding their pitch very slowly away from the central D. These two methods of tone alteration may be done separately or

together. As the flautist alters his or her tone, they should listen carefully to the various acoustic effects which result from their interactions with the sine tones and try to find some acoustic artefact in the sound which interests them. Once this happens, they should try to hold on to this artefact for some time before altering their tone again to explore more acoustic effects. This should happen naturally, as if by accident and not from any conscious guidance. Repeat this process indefinitely. After approximately five minutes the flautist should stop playing for 10-20 seconds (the demarcation between sections) before beginning this process again. The piece may end after at least two sections of five minutes each are played.

This piece is more of an environment than a strict structure. The flautist should find that there is no fundamental pitch or dynamic level which does not produce some kind of beating with the sine tone chord. The job of the flautist is not to try to find consonance, but rather to explore the situation in which they find themselves, its consonances, dissonances, and everything in between. Because the acoustics of the room can alter the sound greatly, the audience may be invited to stand up and move around the space to explore this environment more actively.

Dissonance

for any number of sustaining instruments of continuously variable pitch
with or without sine-tone chords

Hollas Longton

Introduction:

This is a generalized score which describes how to play solos, duos, trios, quartets, or works for larger ensembles based on a set of pieces for solo instruments and static sine-tone chords. These sine-tone chords are made up of mistuned harmonics from harmonic series built on the same pitch as that being played by the solo instrument. The harmonics and resonances of the instruments create beating frequencies and other acoustic effects when played in combination with the sine-tone chords.

Originally, all the sine-tone chords were composed specifically for each solo instrument. After some experimentation I found that different and surprising acoustic effects could result from different pairings of sine-tone chords and instruments. The only remaining stipulation for a sine-tone chord/instrument(s) pairing is that at least one instrument must use a pitch range which is centred on the same pitch as the fundamental of the sine-tone chord. The Max/MSP patches used to generate these sine-tone chords are included as separate files.

General Instructions:

- At least two sections of approximately five minutes in length each must be played. Within each section the performers are playing continuously. Between sections there should be a pause of 10-20 seconds, after which point they should begin playing again.
- The following pages of music notation contain the pitch ranges for this series of works. These ranges constitute the maximum ranges of the instruments and should not be read as either linear pitch material (read left to right) or as restricted only to those pitches marked with noteheads. The noteheads only serve as markers by which to measure your own pitch with others. Any pitch on or between noteheads is permitted.
- Numbers above noteheads indicate cent deviations from the equal-tempered scale (100 cents equals one semitone, 1200 cents equals one octave).
- Tuners may be used for practice but should not be used in performance.
- Mutes may be used to aid the audibility of acoustic phenomena.

Stipulations for Creating Ensembles:

- Choose any combination of instruments of continuously variable pitch able to play at least one D and one A from the pitch ranges given.
- Use of sine tones is optional when performing the piece as an ensemble.

- When incorporating sine tones into an ensemble version, only sine tones based on a D harmonic series are allowed. You must use a sine tone set belonging to an instrument whose pitch range is centred on the same octave D as an instrument in the ensemble.
- When a single instrument plays two different pitches simultaneously, this is understood as two players.

Duos:

- At least one instrument in the duo should be able to sustain their pitch constantly, while the other may be a wind instrument.

Trios:

- Play adjacent pitch ranges (D/A/D), or play only one D and one A so that the D lies at the bottom. In this instance the D should be doubled.

Quartets and Larger Ensembles:

- All pitch ranges should either be adjacent to one another (alternating D's and A's), or consist of one D and one A, each doubled, tripled, etc. by an instrument of a different timbre.
- Although it is possible for some pitch ranges to be doubled but not others, the number of doublings of D's and A's in the ensemble should be approximately even.

How to Play:

If playing this work with a sine-tone chord, the chord should be started (faded in) a few seconds before the players begin to play. The players begin by starting simultaneously on the centre of their given pitch range and continue playing as *legato* as possible in a *mezzo forte* or *mezzo piano* dynamic. Try to adjust the dynamics so that all the instruments are heard and there is a blended sound. After sustaining and holding this pitch for at least ten seconds, the players may then begin to slide extremely slowly from the centre of their given pitch range, staggering their movements away from the starting pitch. Pay very close attention to beats, harmonics, localization effects, and any other acoustic phenomena you can hear as you and the players around you slide away from your starting pitches. String players may also explore different contact points (especially extreme *ponticello*) to bring out higher harmonics and facilitate acoustic phenomena (although this should be done carefully and gradually). If two or more wind instruments are playing the same pitch, they should stagger and taper their entrances so that at all times at least one instrument is playing and the transition between instruments is fluid. Continue playing as legato as possible, listening as closely as possible. After you have traveled some distance away from your starting pitch (though within the allowable range), feel free to change direction or slow down your glissando. As you do this, keep listening for interesting acoustic phenomena as you did at the start. You may change the direction of your glissando, speed up, or slow down as you please. Continue this exploration for approximately five minutes, at which point you should make a pause of 10-20 seconds. After the pause the instruments should begin again together (as at the start) in the centre of

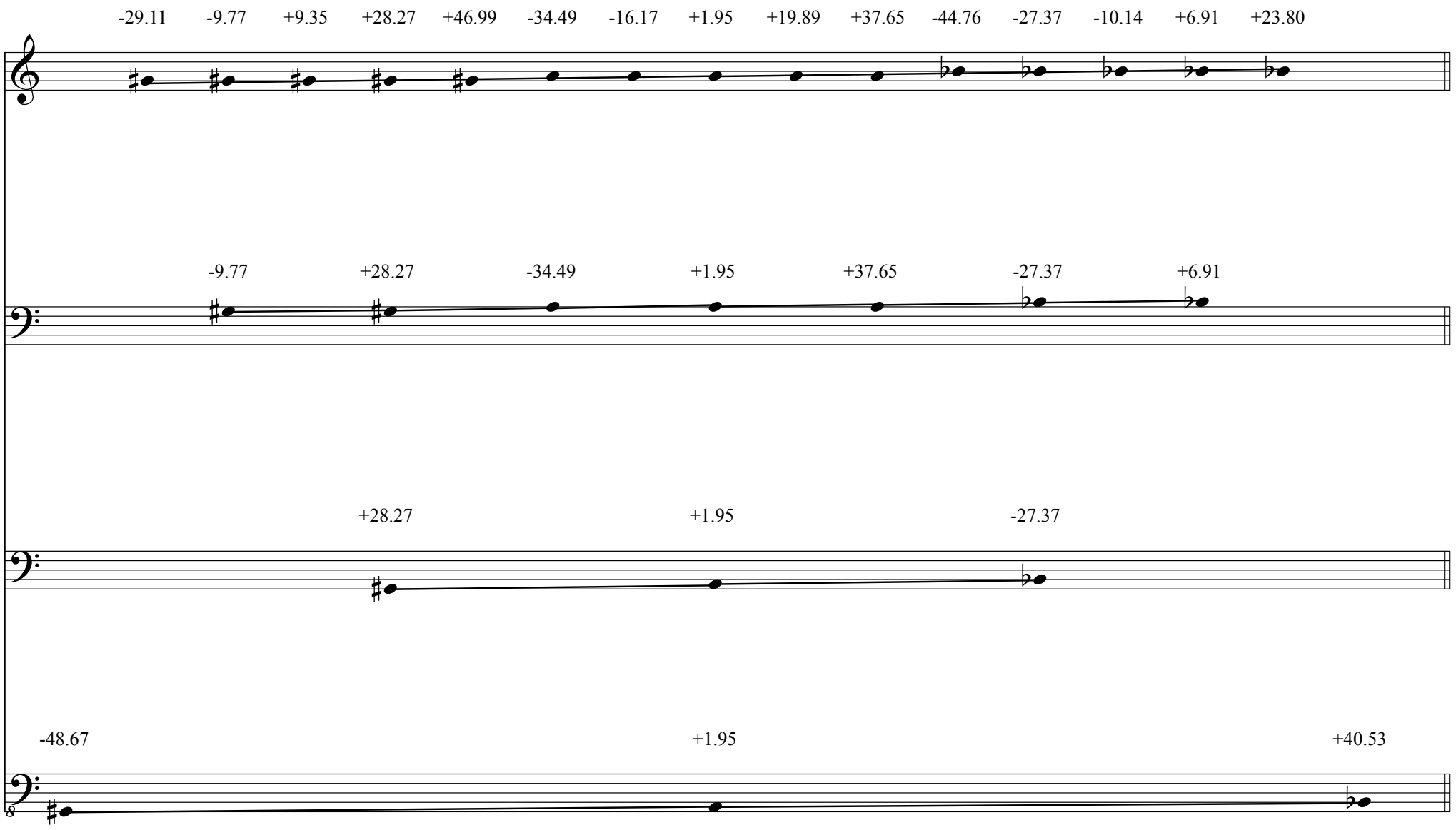
the pitch range, and repeat the process as previously described. At the beginning of each new section, players may switch which pitch ranges they are playing (octave and pitch name). These changes should also be worked out beforehand so that the stipulations as to doublings (see above) hold true. The piece ends after two or more sections are played, though they need not directly follow one another.

The task of the performance is to seek out interesting acoustic phenomena and hold on to them for as long as possible. Since all the players in the ensemble will be listening for and favouring different acoustic phenomena, the resulting texture will constantly change. This will result in acoustic phenomena constantly appearing and disappearing. Because each performer of this work is seeking out acoustic phenomena which interest them individually, the larger the ensemble, the faster the texture can change. Members of larger ensembles should take care to move their pitches even slower than if they were in a smaller ensemble. The apparent futility of this process of constant flux should not demoralize the players. It is up to them to use this acoustic dynamism to explore new acoustic situations.

These pieces may be performed in a wide variety of settings, from the traditional concert hall to more installation-oriented settings such as an art gallery, a school, an alley, a car park, an abandoned Soviet missile silo, etc. When performing multiple solo works in the same venue, players and sound systems should be spaced out so that only a small amount of sound bleeds from one space to the other. Simultaneous performances of solos and ensembles or ensembles and ensembles may be done in the same acoustic space without restriction, with or without synchronization of the beginnings and endings of sections. Because the acoustics of the room can alter the sound greatly, the audience may be invited to stand up and move around the space to explore this environment more actively.

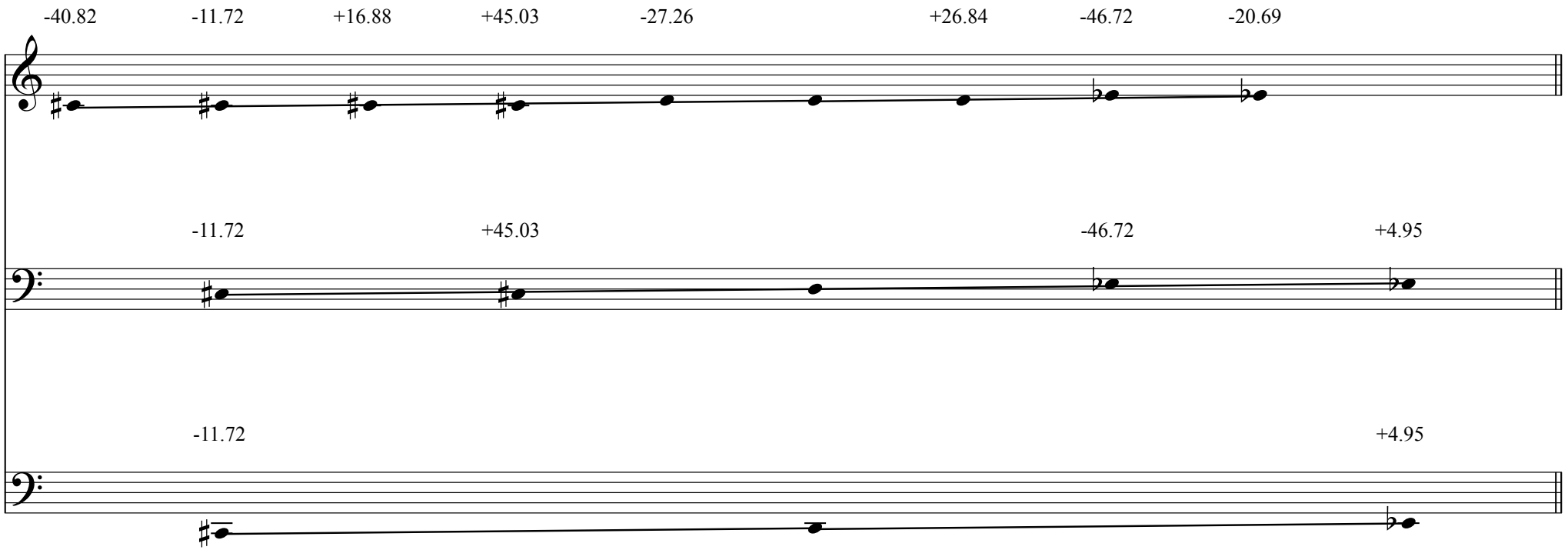
Dissonance Pitch Ranges (A)

Hollas Longton



Dissonance Pitch Ranges (D)

Hollas Longton



Three Nocturnes

after Taylan Susam

solo piano

Hollas Longton

Duration: 10-15’

- These three pieces are an homage to the Nocturnes of Taylan Susam. They follow Susam's basic downward scale form, but incorporate additional pitches in the right hand which add timbre, beating, and dissonance.

- The sustain pedal is held down throughout. Between movements the pianist should wait until the sound has completely died out before starting the next movement.

- Accidentals apply only to the notes they directly precede. Precautionary accidentals are also sometimes marked.

- The pitches of the right hand are composed so that they blend with the left hand to create an artificial timbre. When this timbral effect is executed, the right hand should become almost inaudible. The dynamic marking at the start of each movement should then only serve as a guide. In performance the pianist should freely but minutely vary the dynamics to create this effect. As the pitches fall down the range of the piano, this effect will become more and more difficult to execute.
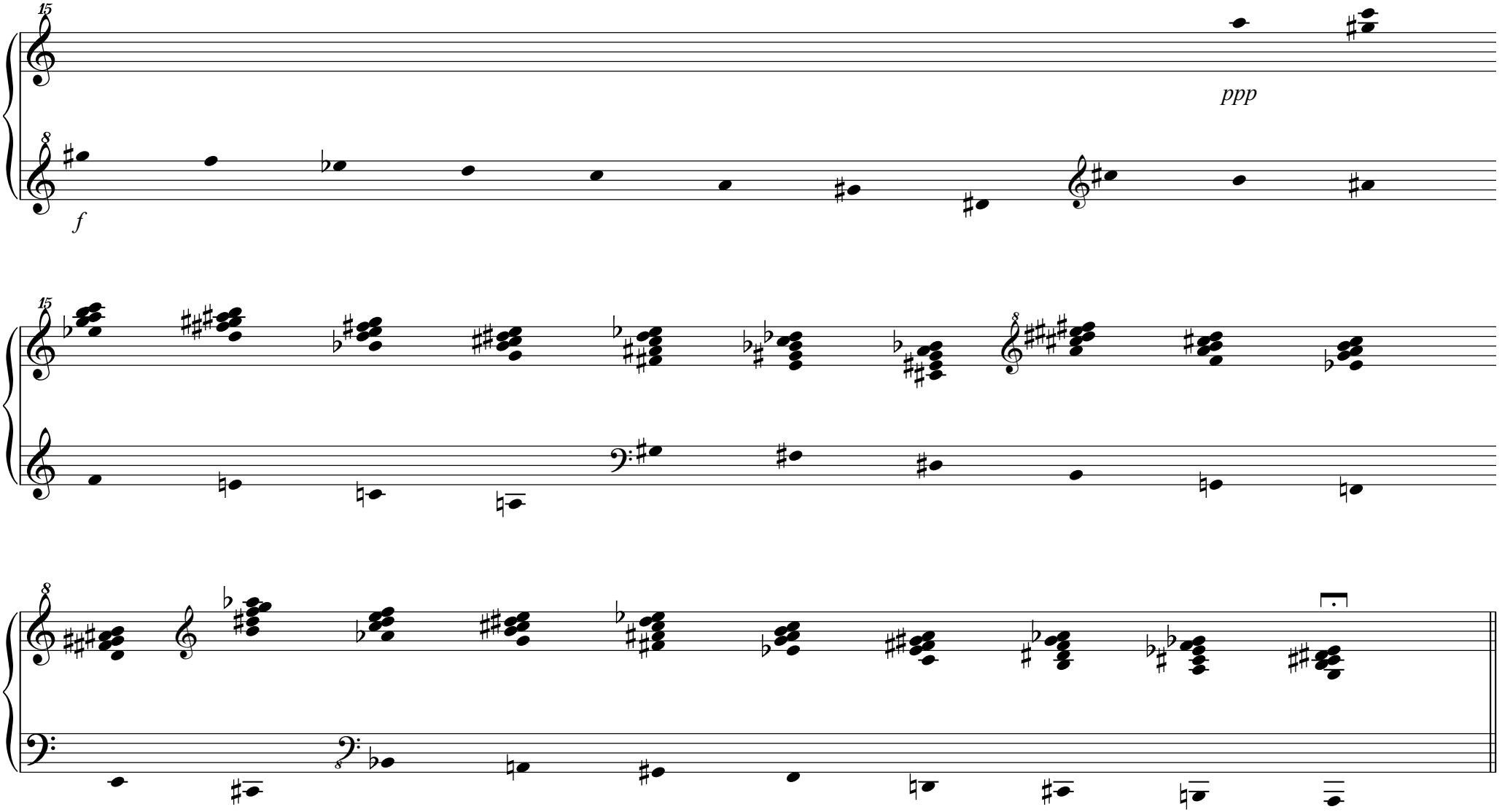
- The tempo of this piece is defined by the dynamics. The pianist should play each successive chord only after the sound of the left hand of the previous chord has decayed by three dynamic levels. Generally this will result in a very slow tempo, but this tempo should vary slightly as the dynamics vary slightly. Especially near the end of each piece, the piano timbres will lose their clarity and become quite muddy. At the same time changing chords will become quite dissonant and beating will become audible as the notes of right hand sustain longer.

Three Nocturnes
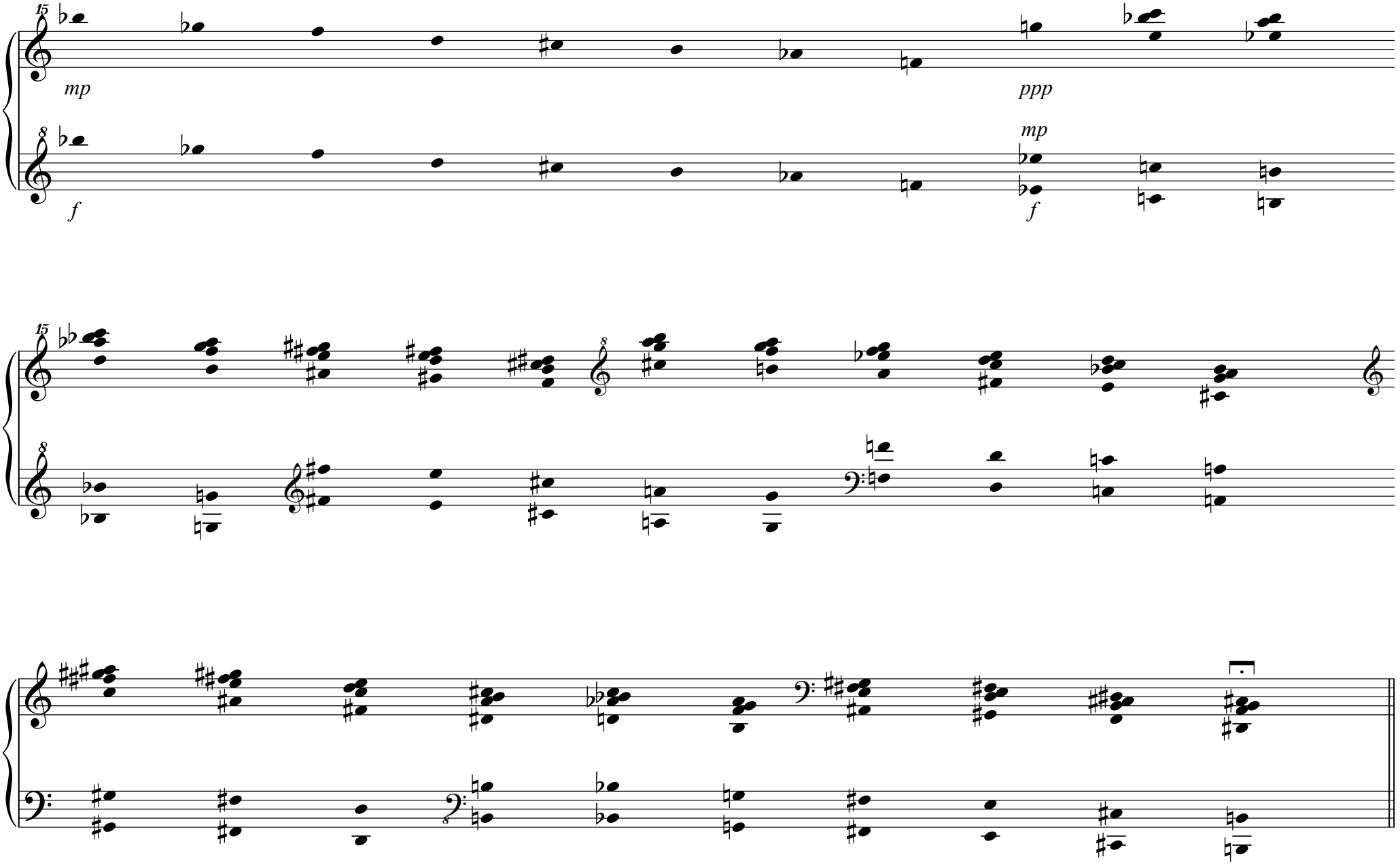
after Taylan Susam

Hollas Longton
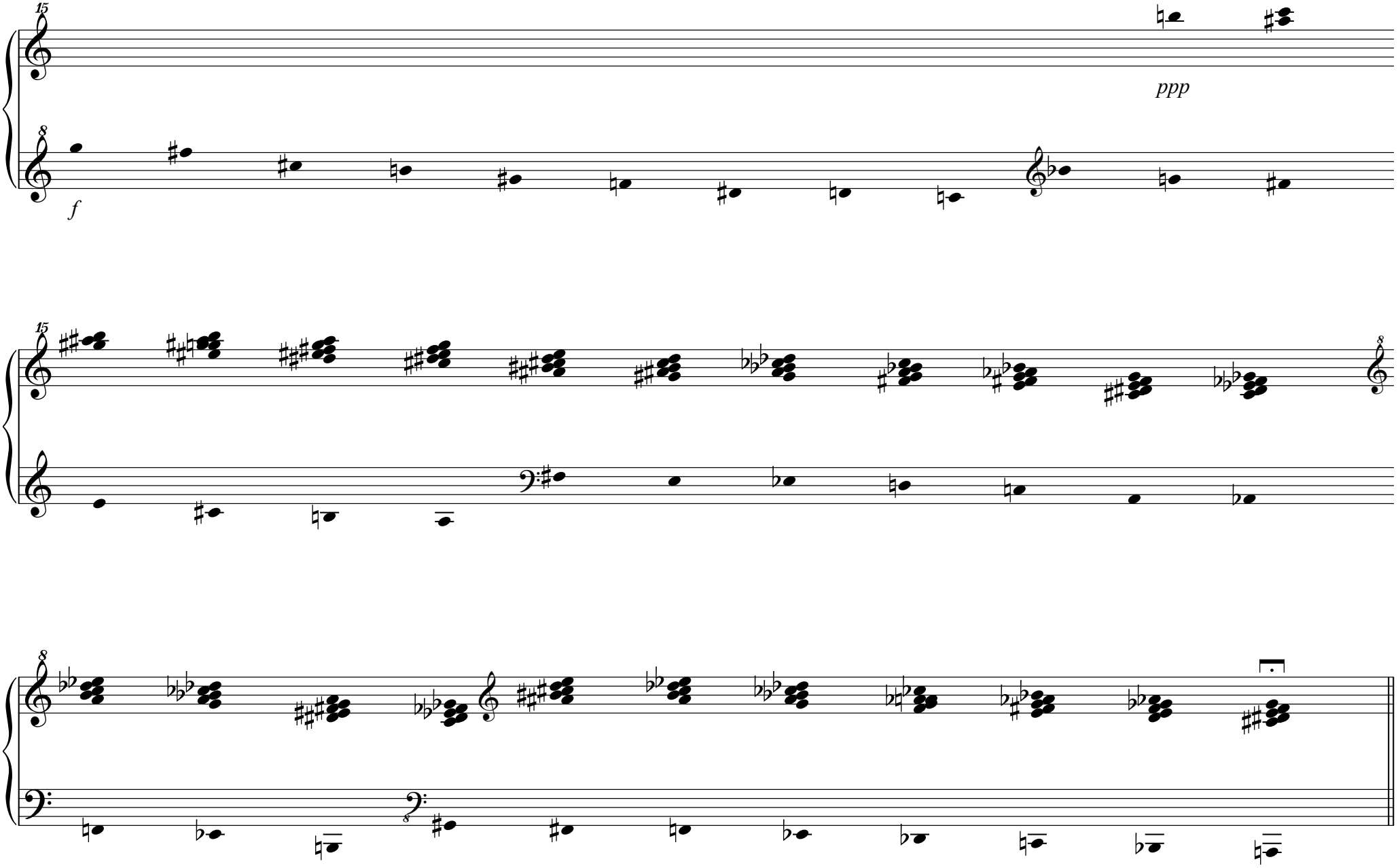
I



II



III



Some Imperfect Chords

for String Trio

Hollas Longton

Duration: ~53'

Playing Instructions:

- Each chord is to be played for 5-7 seconds with a short rest between each chord. An entire chord and rest unit should be about 11 seconds. Don't be metronomic about it, but try to keep the chords relatively even in length.
- All chords are to be played downbow, as an exhale without accent. Chords should have a round, throbbing sound without a harsh beginning or end.
- Numbers above notes indicate cent deviations from the tempered scale. One cent is equal to $1/100^{th}$ of a semitone, 1200 cents being equal to one octave.
- String numbers are indicated with roman numerals.
- Each instrument has both an upper sounding staff and a lower fingering staff.
- Diamond noteheads indicate finger placement, while solid noteheads indicate open strings. Two diamond noteheads show both possible finger placements, both of which will produce the same sounding pitch.

Like its sister piece 'Some Perfect Chords', 'Some Imperfect Chords' is made entirely of chords of natural harmonics and open strings. The chords are what I have termed 'Imperfect' because they do not follow the 'Perfect Chord' formula of a + b = c, where a, b, and c are frequency or harmonic numbers. Instead, 'Imperfect Chords' are defined with the following formula:

Imperfect Chord: c - b = a(2^n) (where n is any integer)

'2^n' indicates that the lowest note (a) can be transposed up or down octaves, which also means the rule c > b > a > 0 no longer applies.

The non-octave rule is a further mathematical formula for preventing the same pitch class and cent deviation from occurring more than once within a chord.
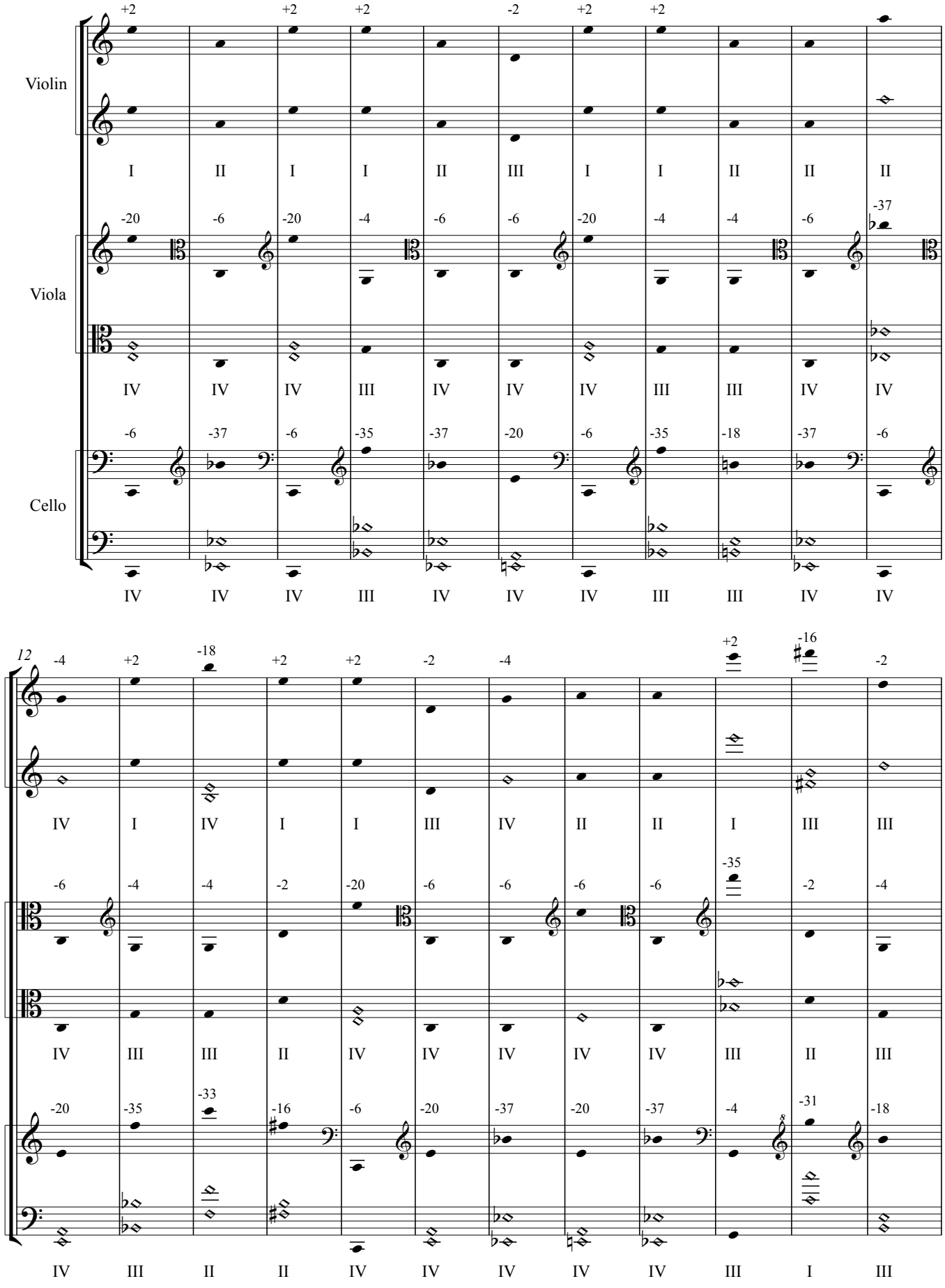
Non-Octave Rule: $a \neq b*2^n$
$a \neq c*2^n$
$b \neq c*2^n$
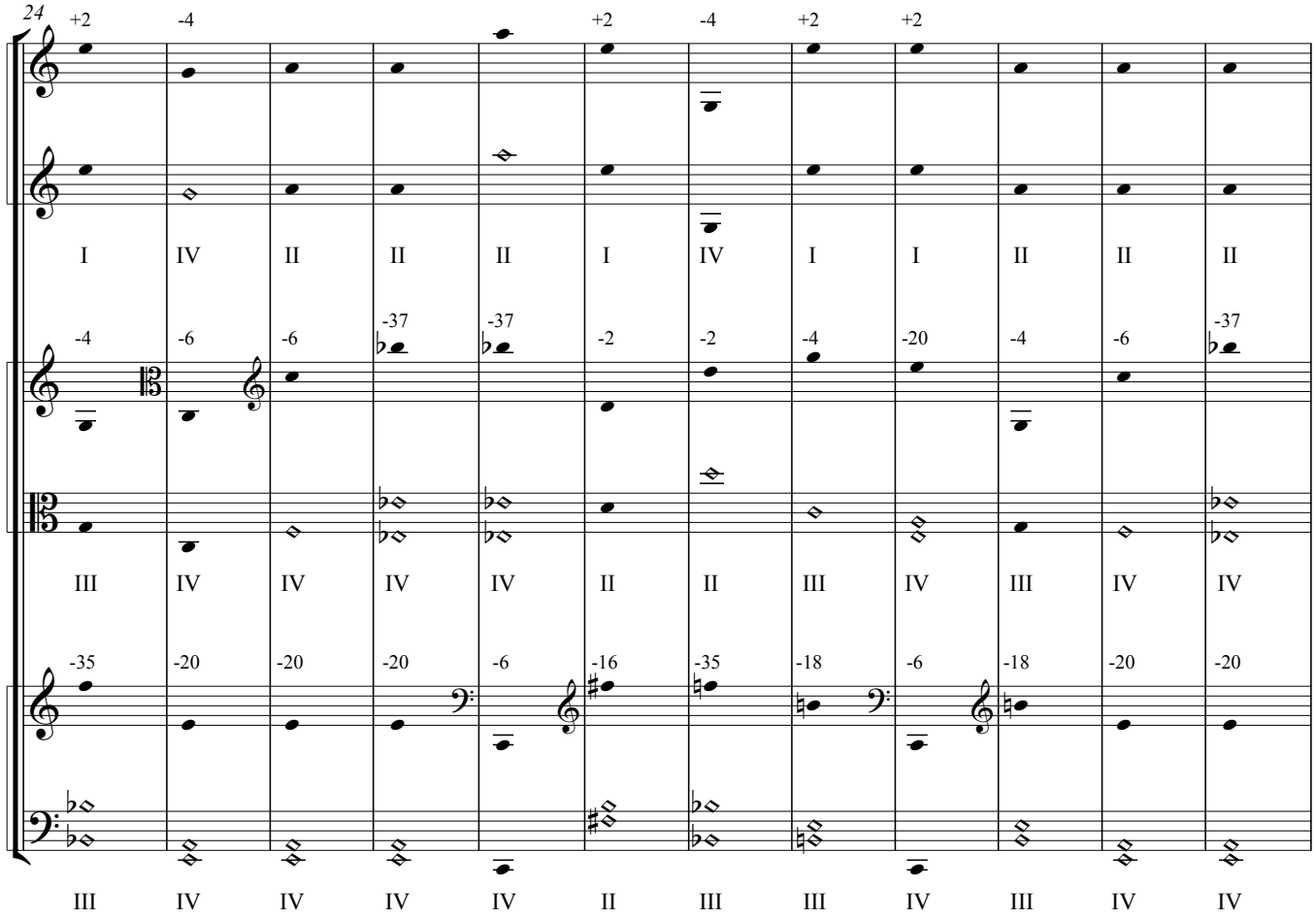
This looser formula gives a much larger selection of chords than 'Some Perfect Chords', but for this sacrifices a sense of purity.

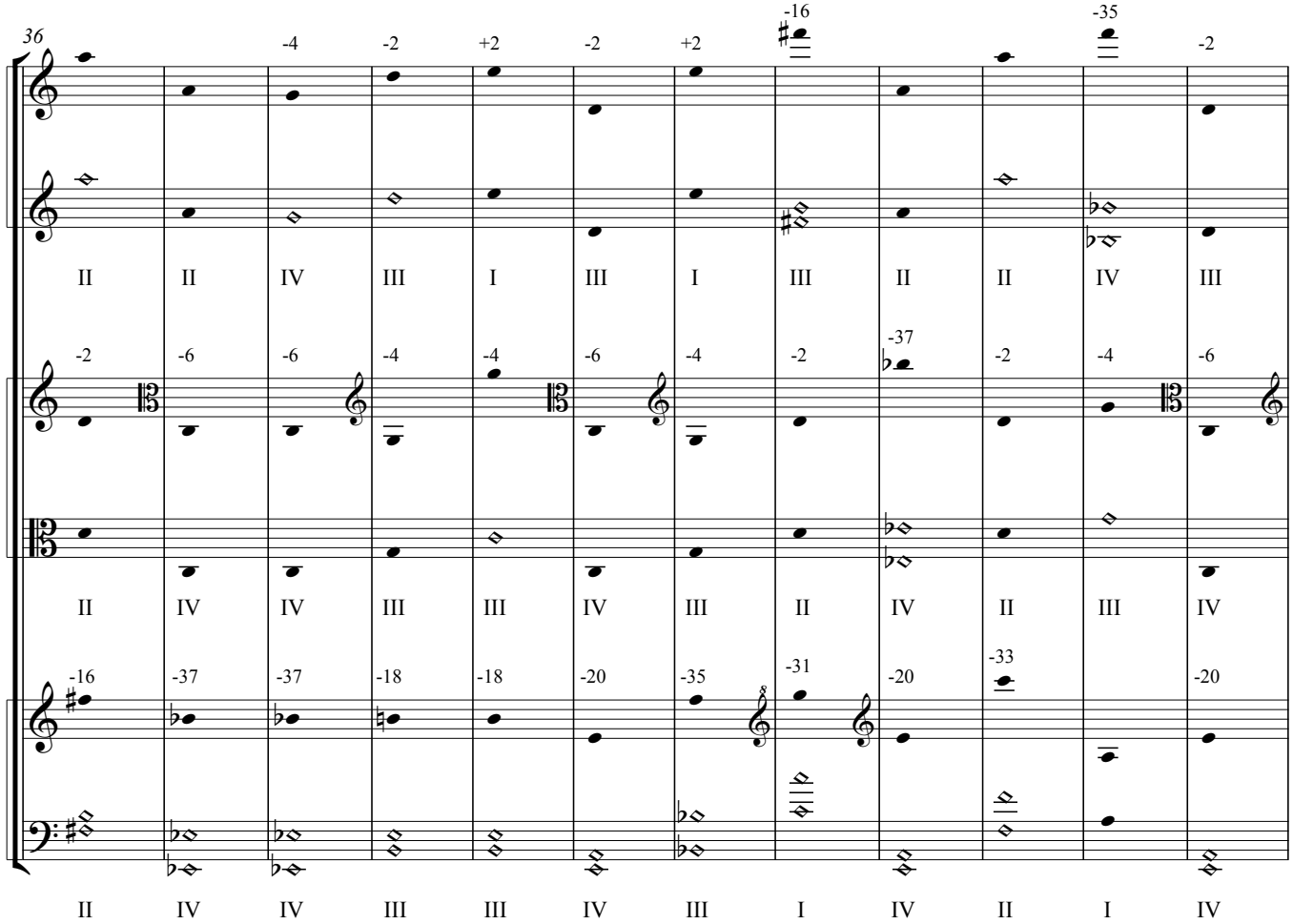
The form is defined by the lowest pitch in any given chord. Starting with the lowest lowest pitch, the series of lowest pitches rises in repeated upward scales. The scales gradually rise higher and higher in a regular fashion, with every lowest pitch always recurring, but at an ever decreasing rate.

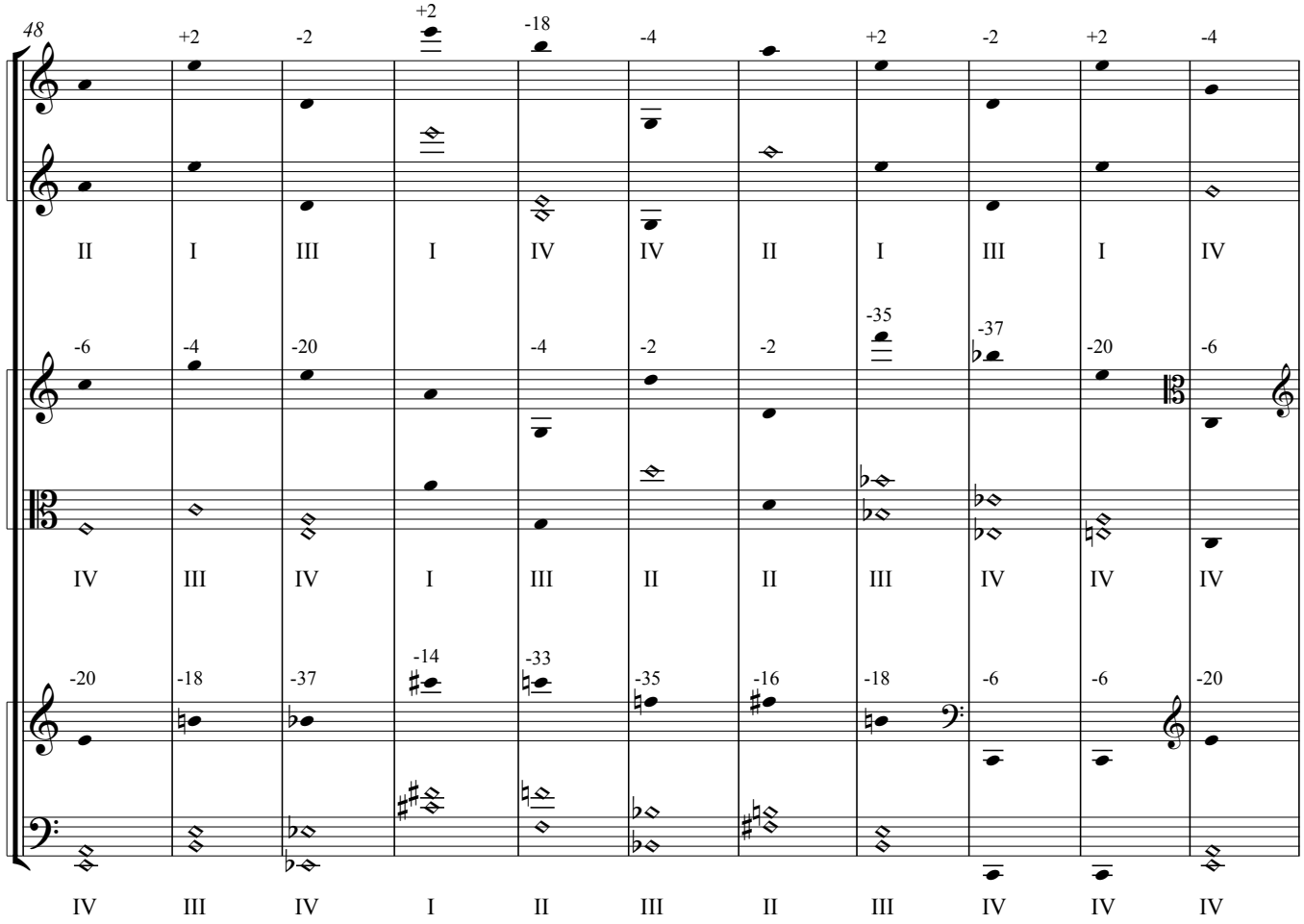
Some Imperfect Chords

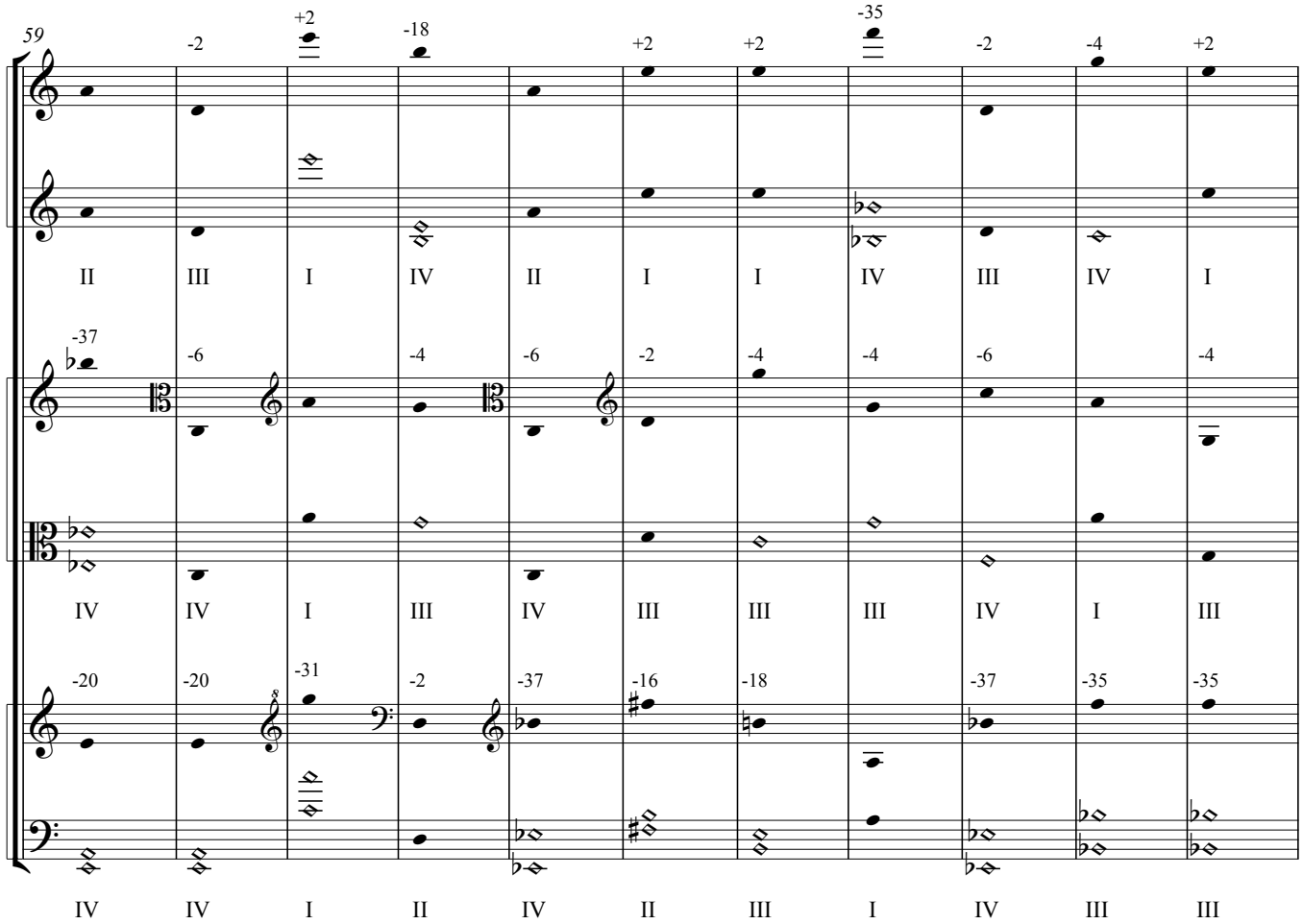
Hollas Longton

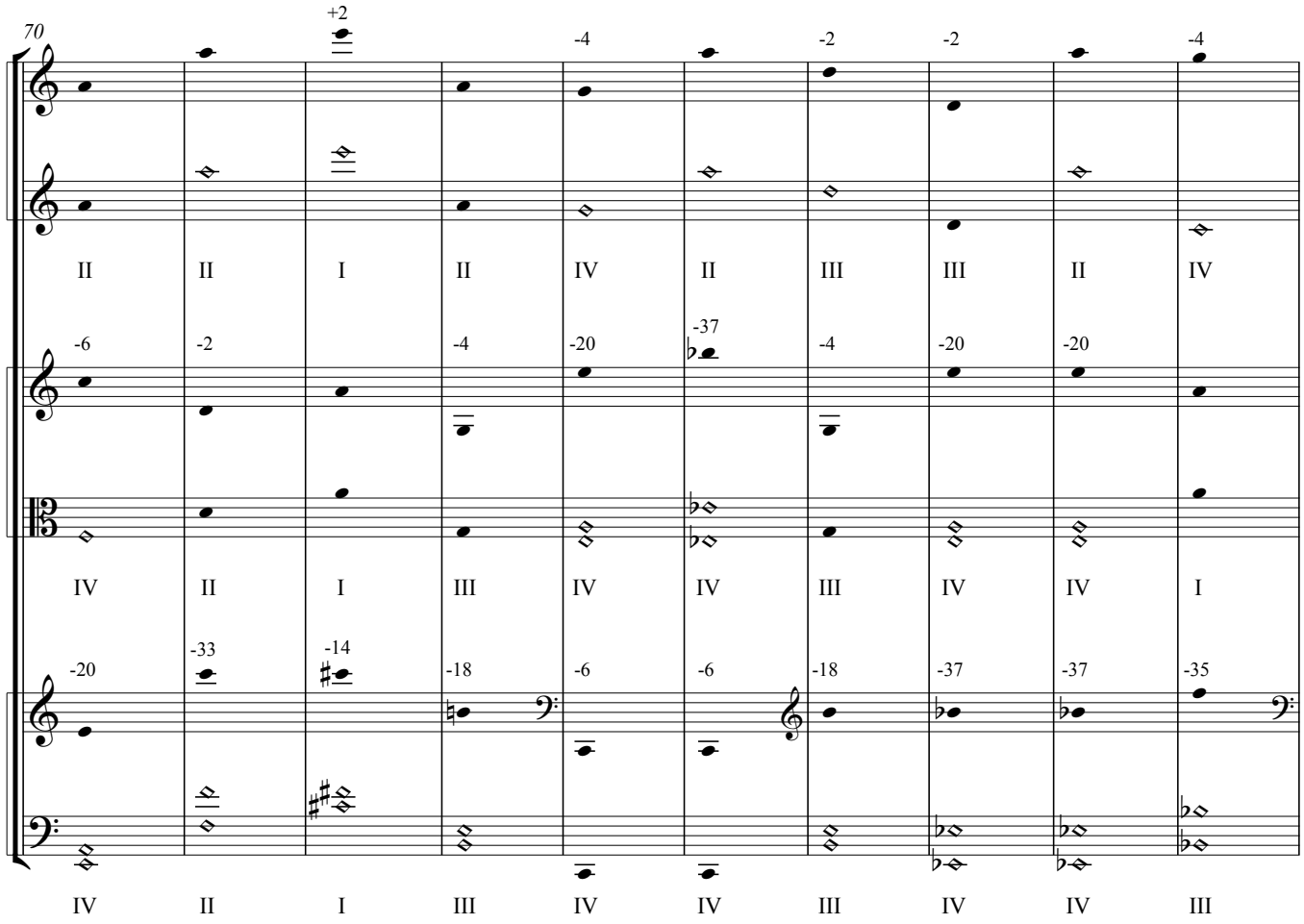


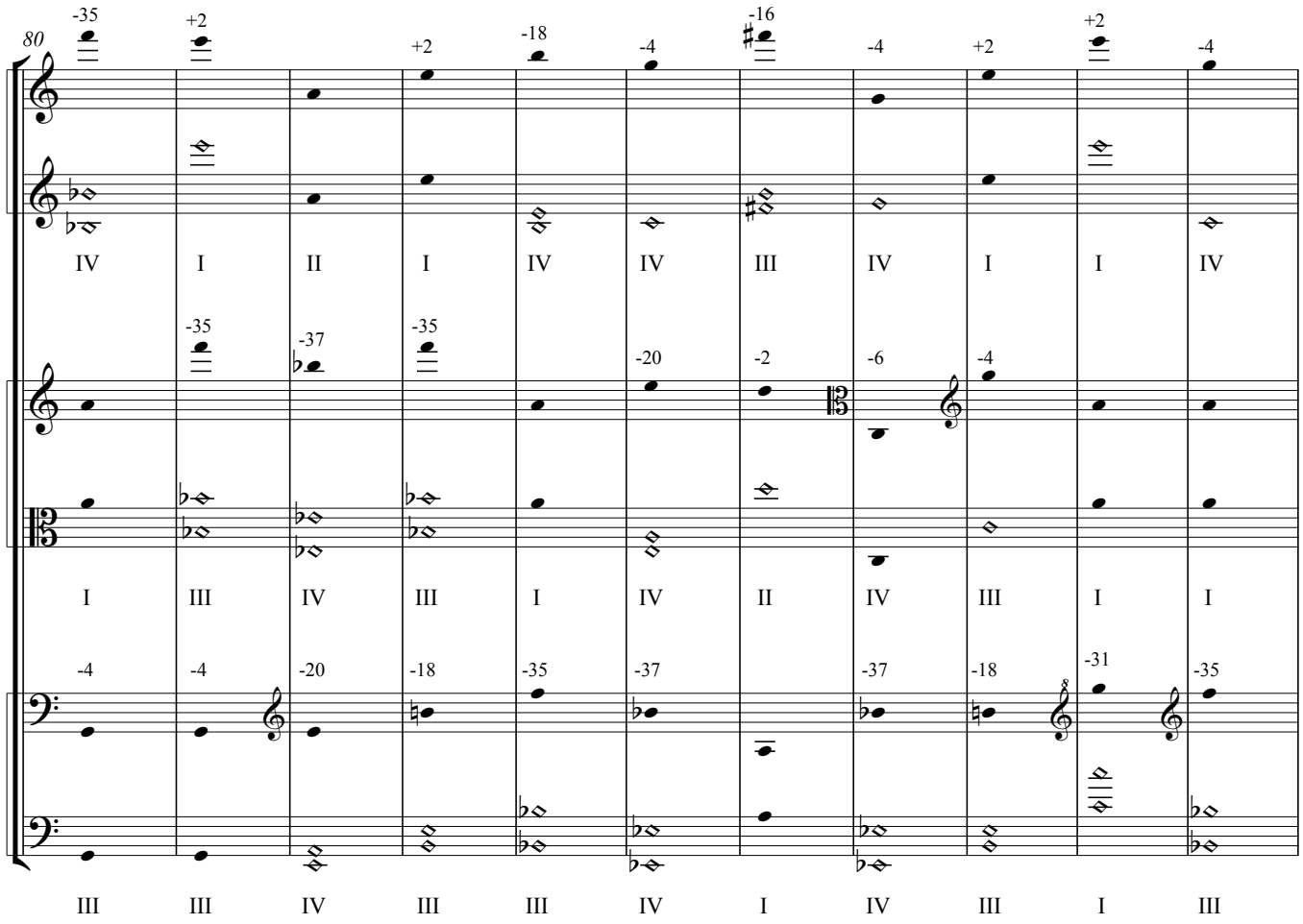

24
+2 -4 +2 -4 +2 +2
I IV II II II I IV I I II II II
-4 -6 -6 -37 -37 -2 -2 -4 -20 -4 -6 -37
III IV IV IV IV II II III IV III IV IV
-35 -20 -20 -20 -6 -16 -35 -18 -6 -18 -20 -20
III IV IV IV IV II III III IV III IV IV

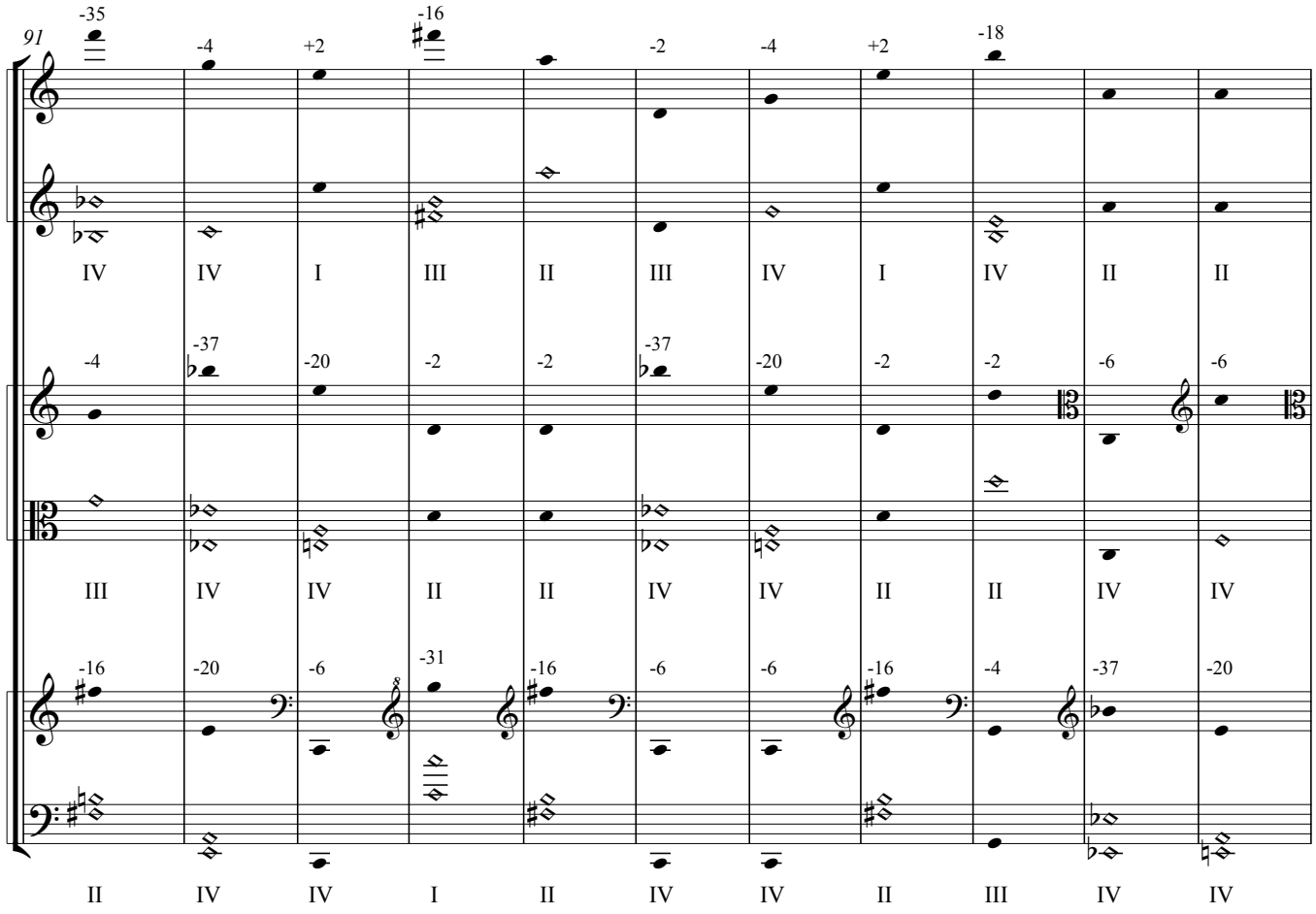

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II II IV III I III I III II II IV III
-2 -6 -6 -4 -4 -6 -4 -2 -37 -2 -4 -6
II IV IV III III IV III II IV II III IV
-16 -37 -37 -18 -18 -20 -35 -31 -20 -33 -20
II IV IV III III IV III I IV II I IV

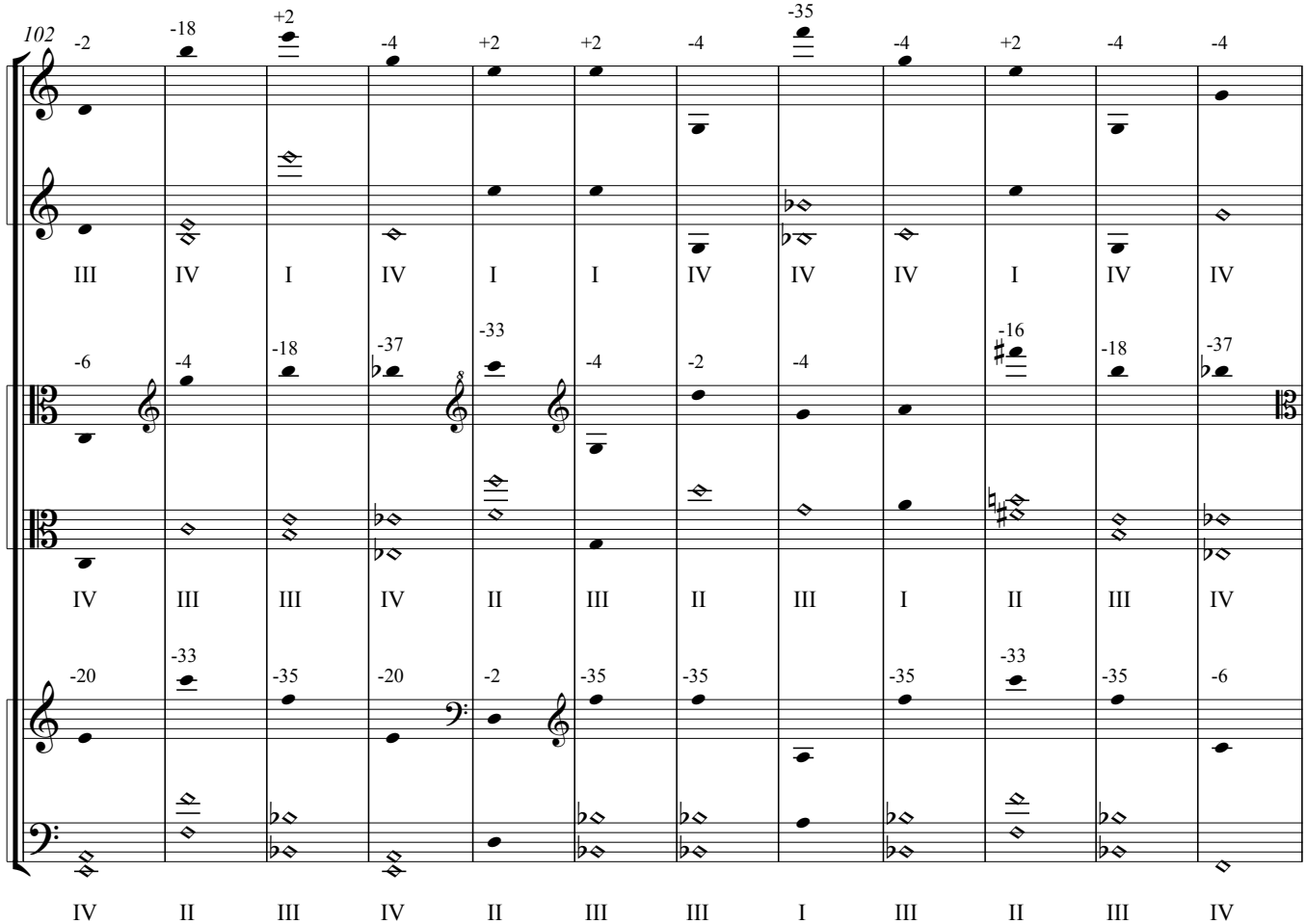

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+2 -2 +2 -18 -4 +2 -2 +2 -4
II I III I IV IV II I III I IV
-6 -4 -20 -4 -2 -2 -35 -37 -20 -6
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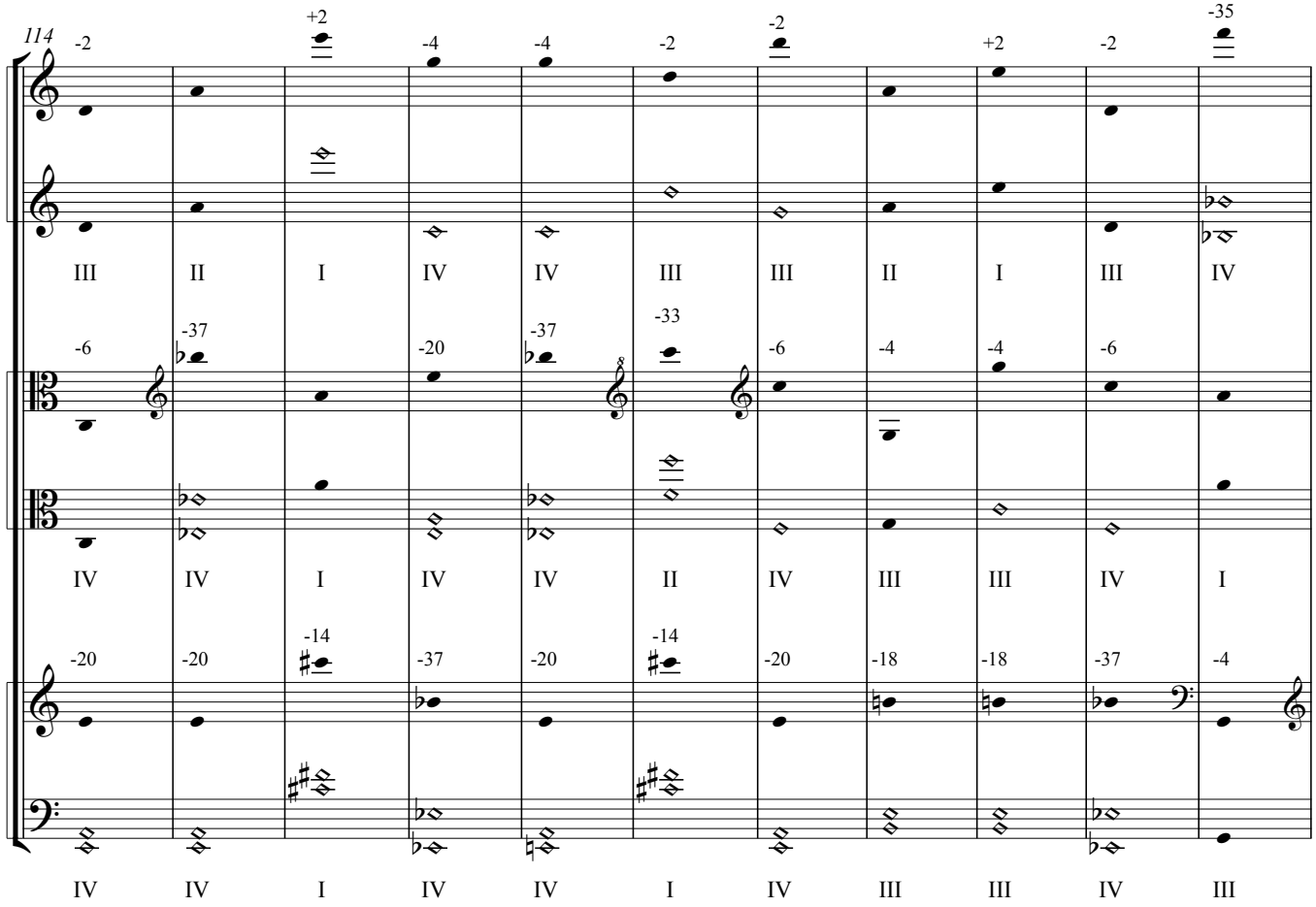

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IV IV I II IV II III I IV III III
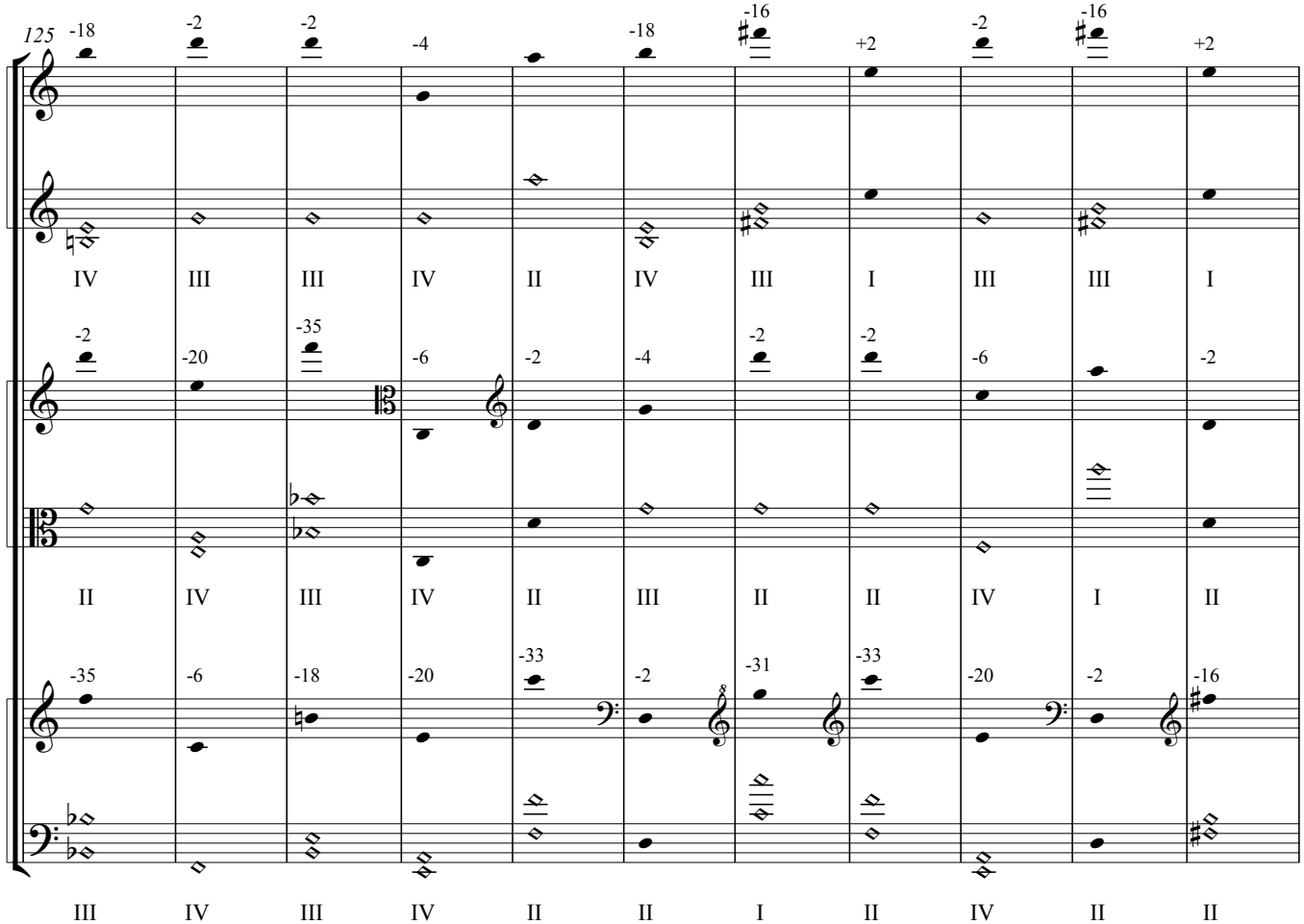

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+2
-4
-2
-2
-4
II II I II IV II III III II IV
-6 -2 -4 -20 -37 -4 -20 -20
IV II I III IV IV III IV IV I
-20 -33 -14 -18 -6 -6 -18 -37 -37 -35
IV II I III IV IV III IV IV III
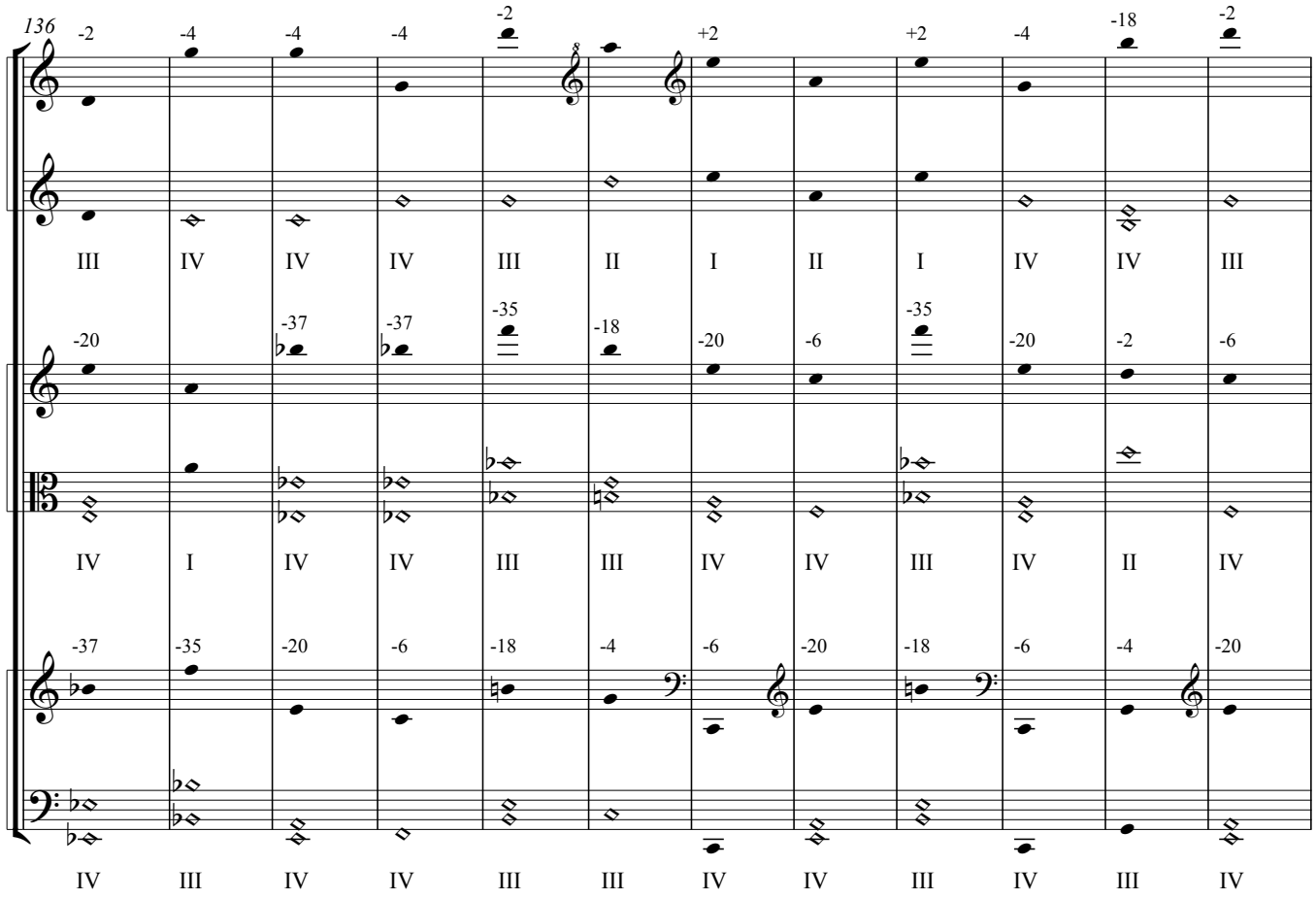

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IV I II I IV IV III IV I I IV
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I III IV III I IV II IV III I I
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III III IV III III IV I IV III I III

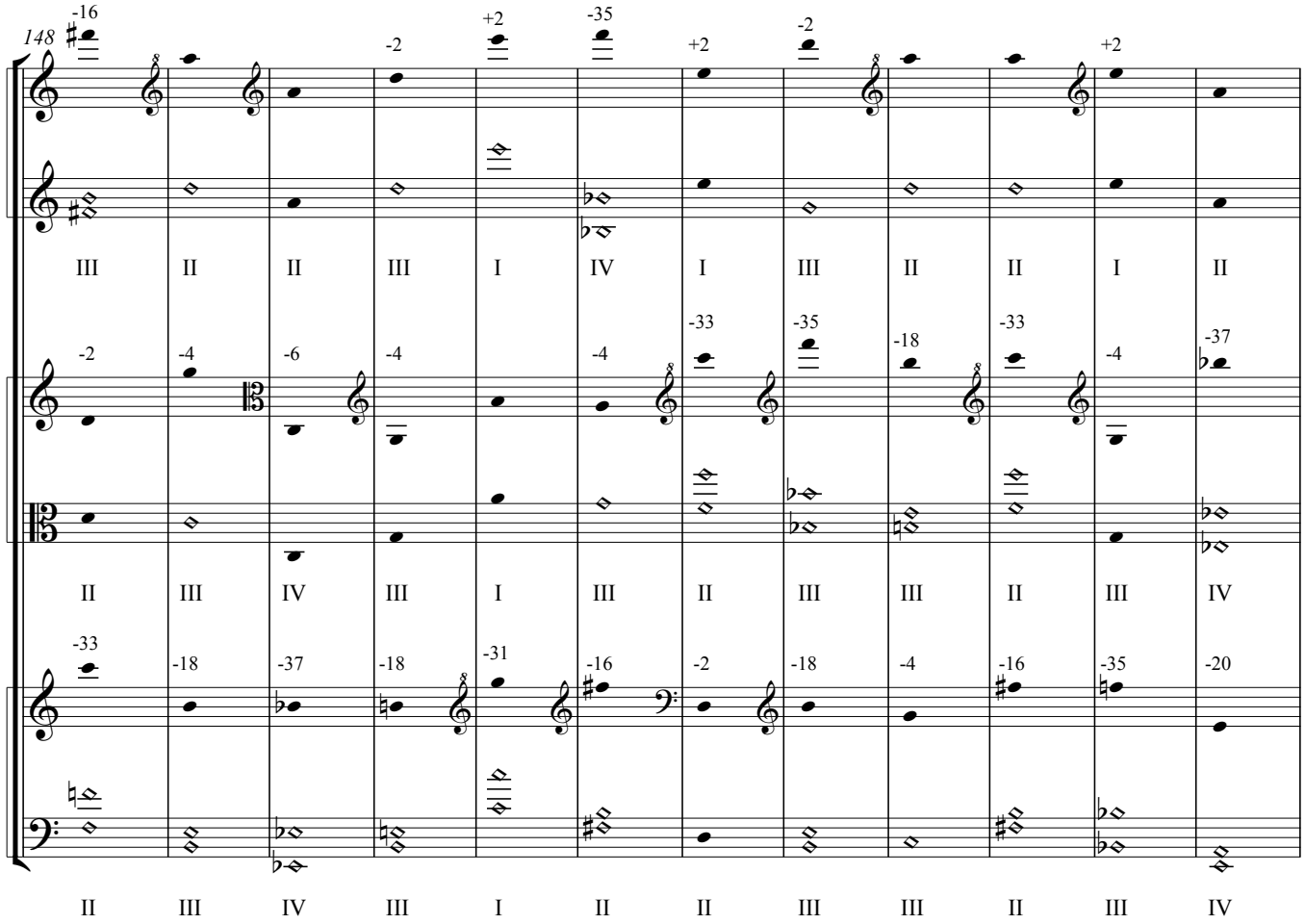

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-16 -20 -6 -31 -16 -6 -6 -16 -4 -37 -20
II IV IV I II IV IV II III IV IV

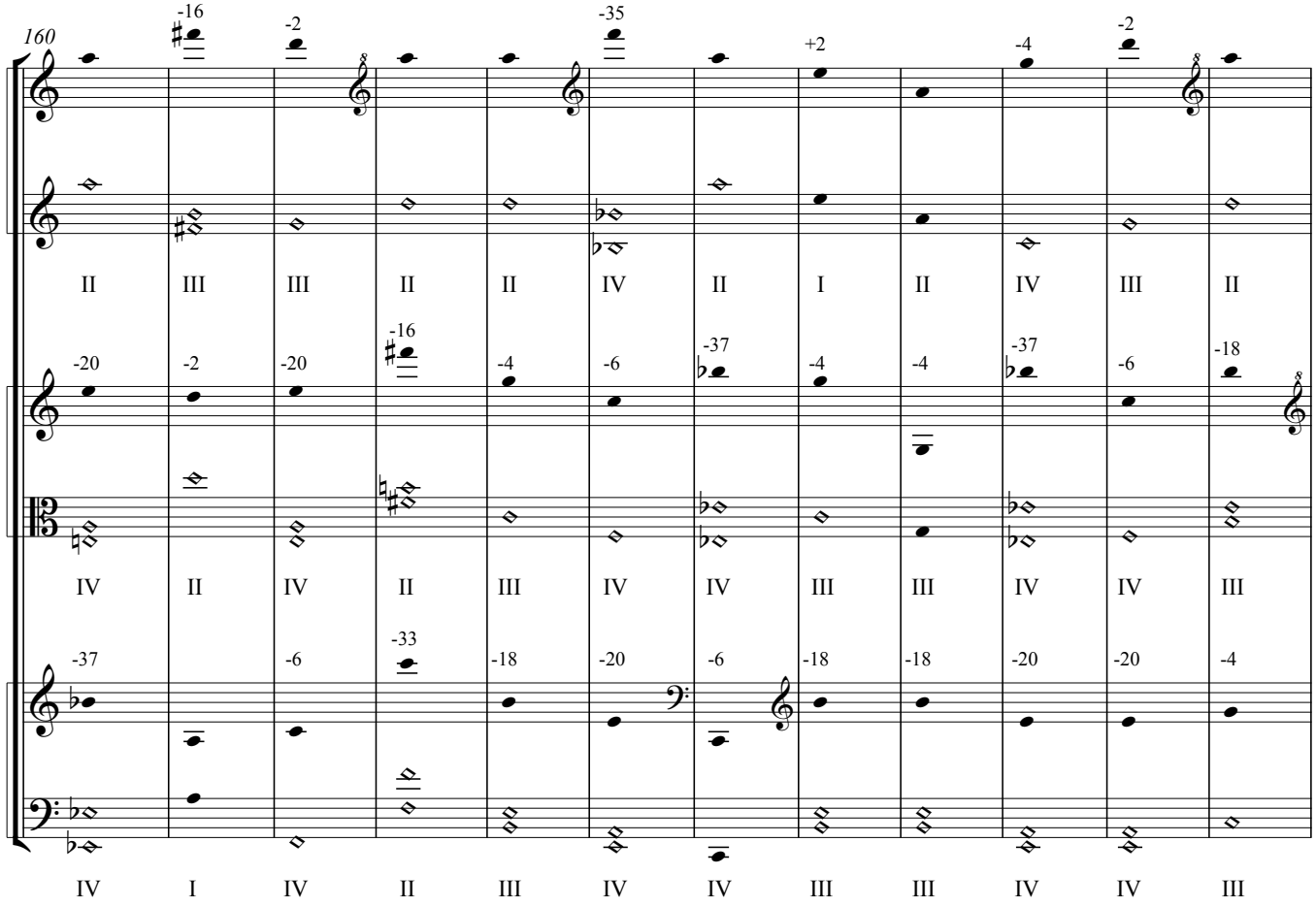

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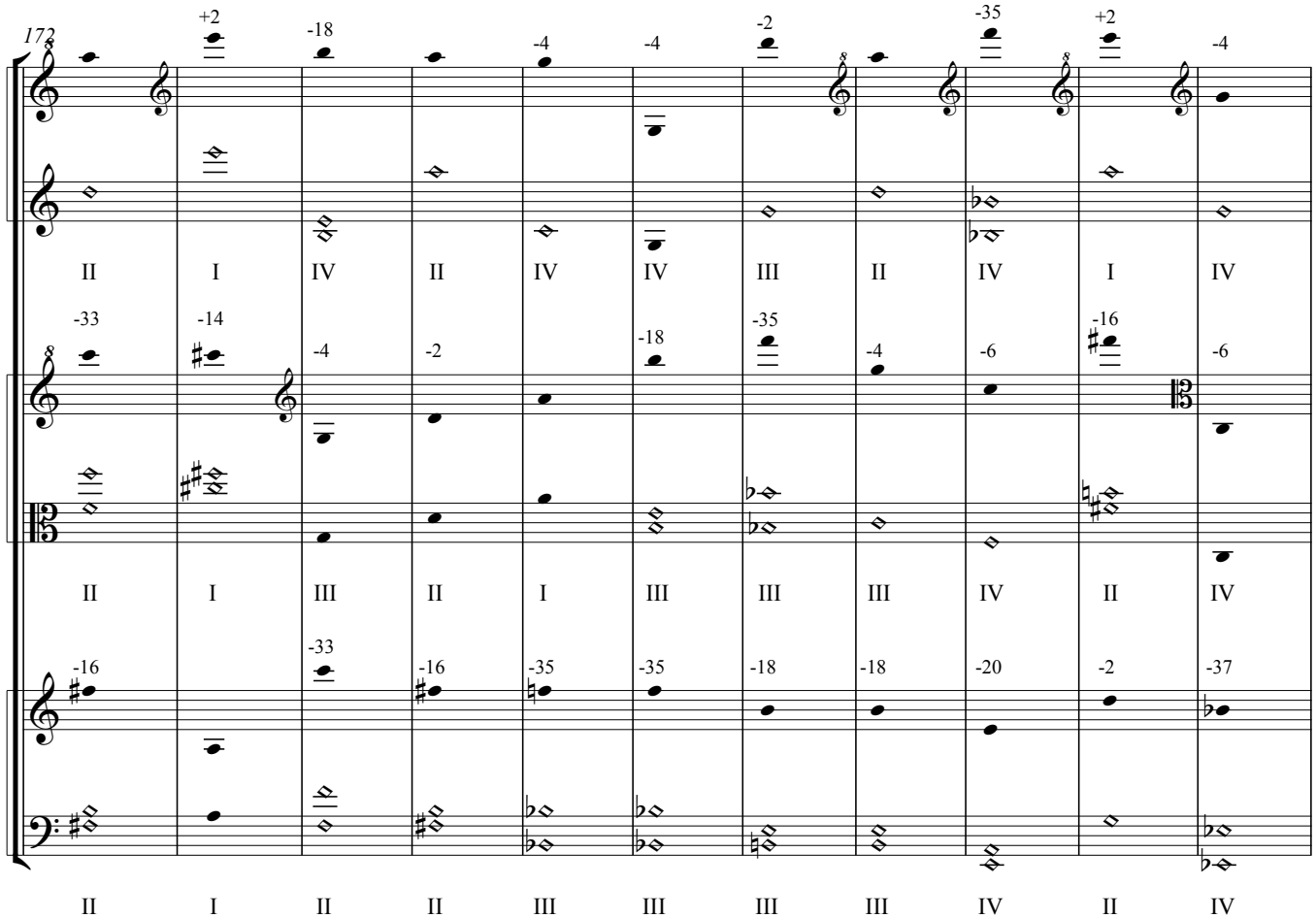

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IV IV I IV IV I IV III III IV III

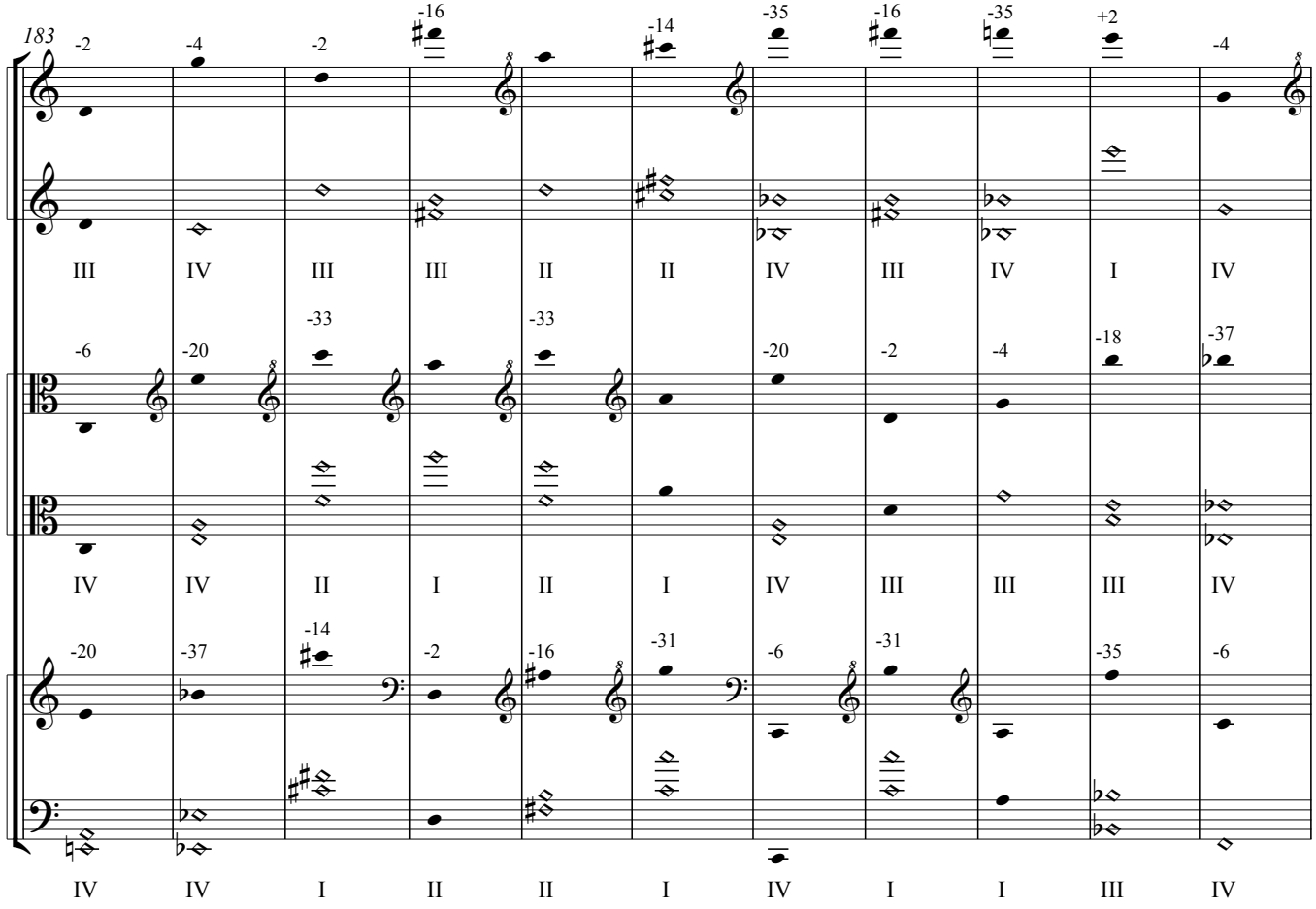

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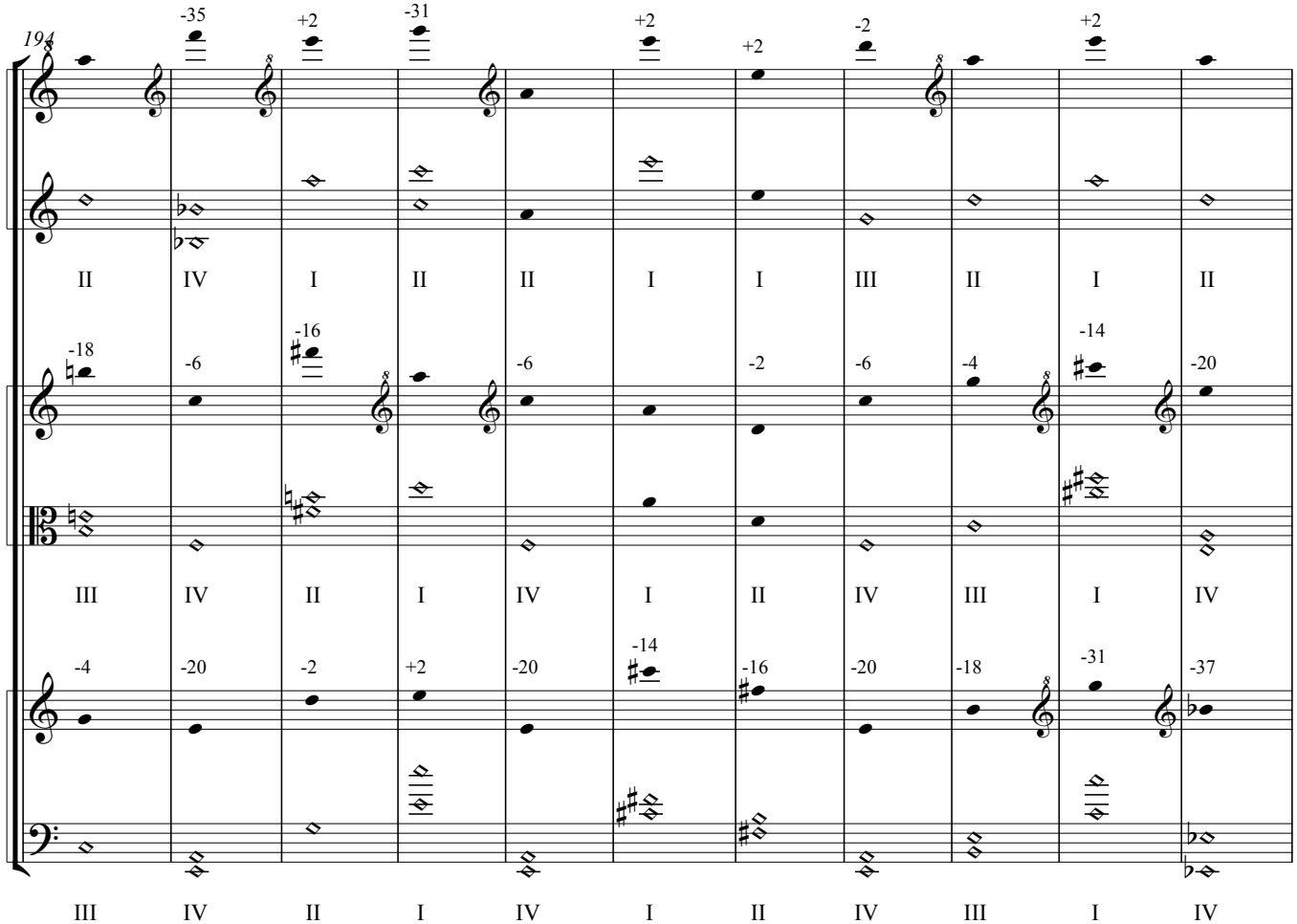

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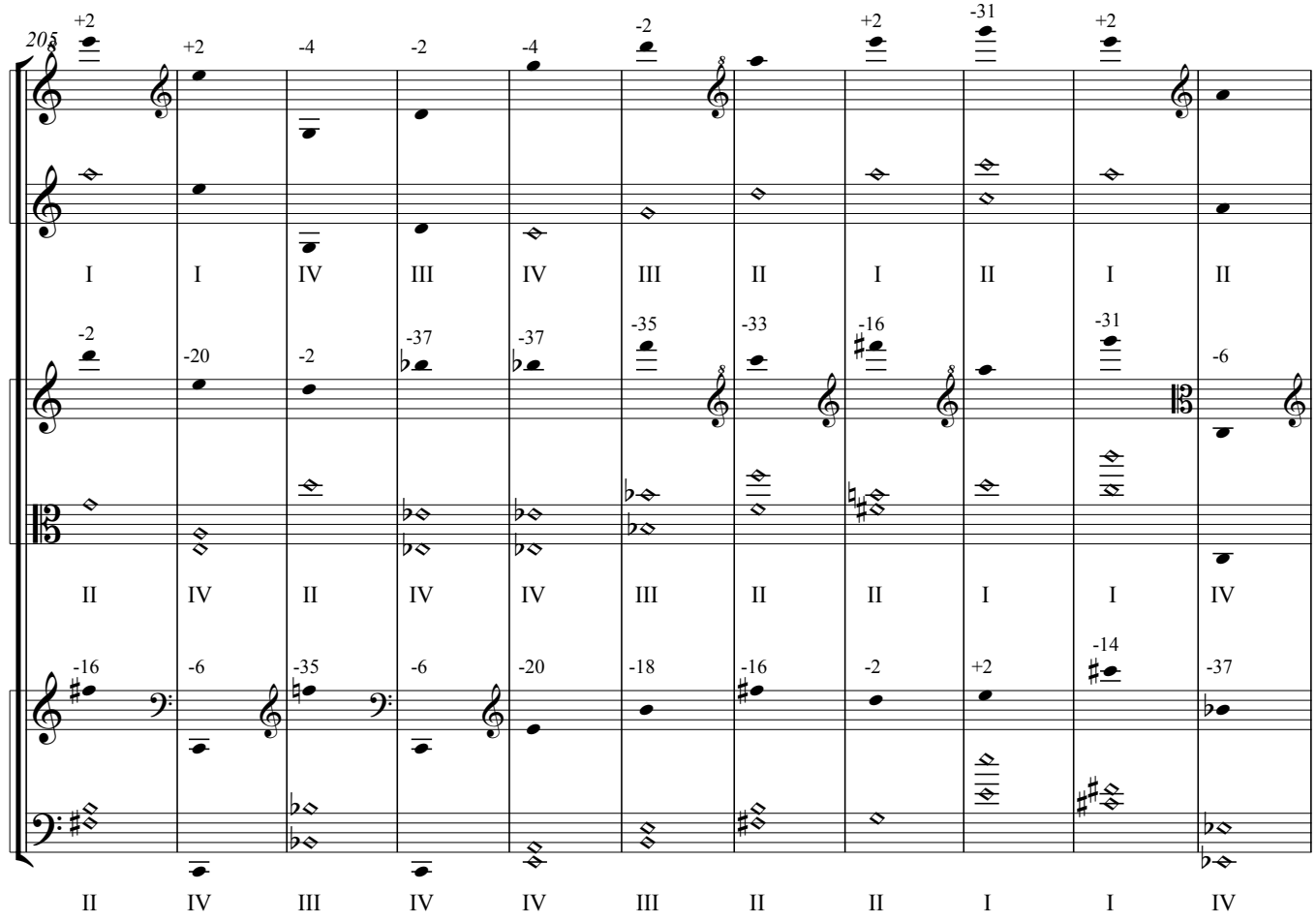

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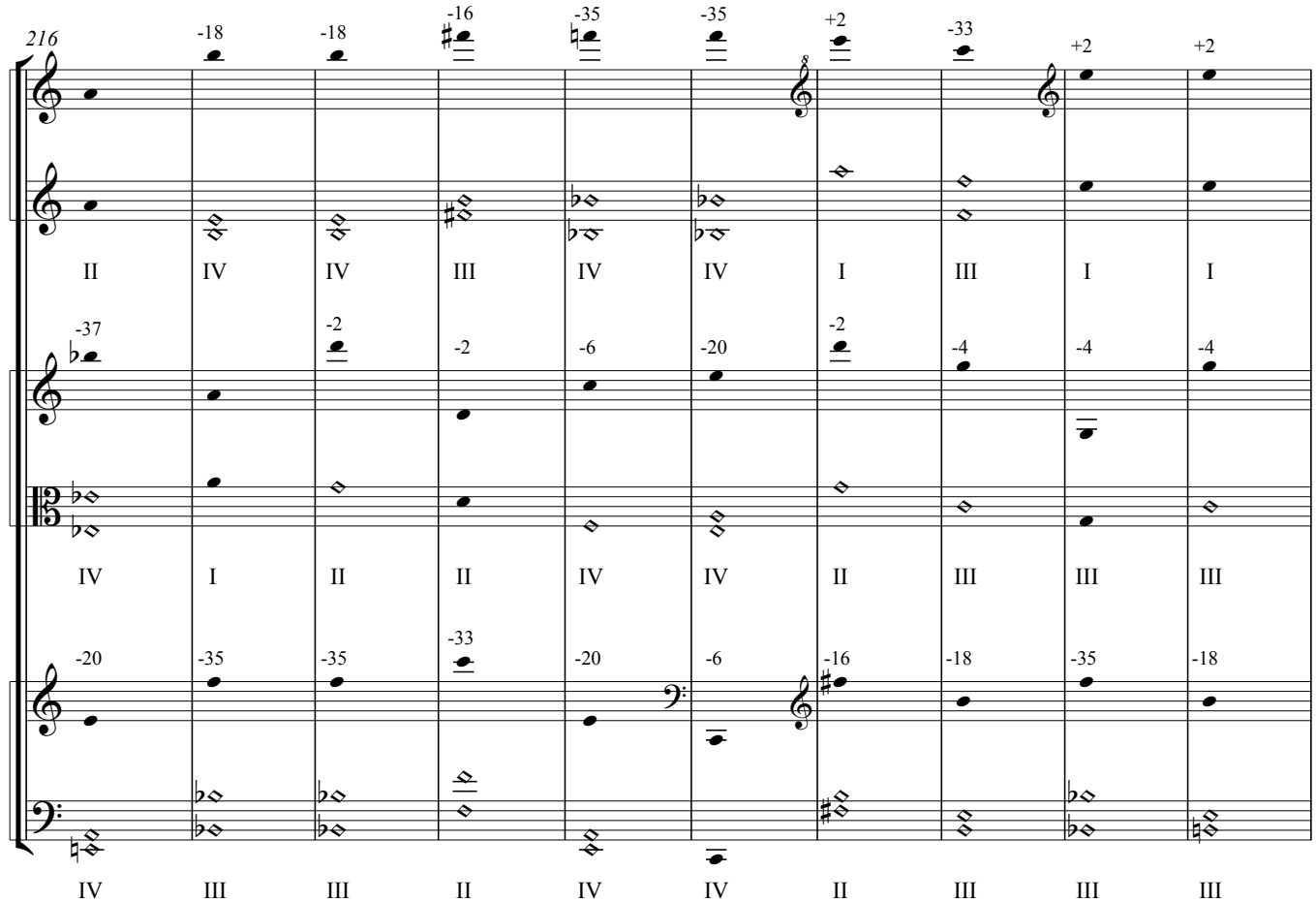

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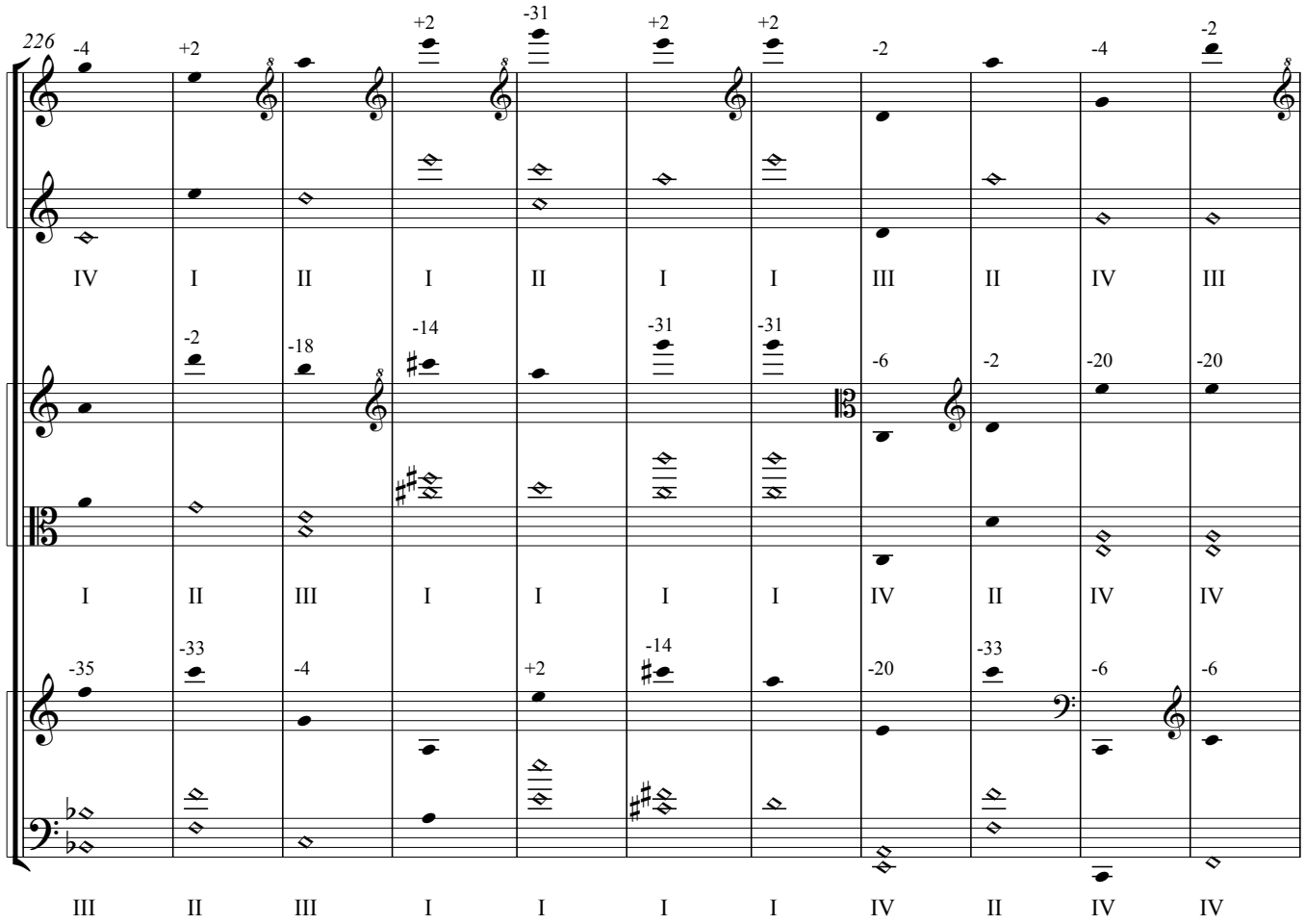

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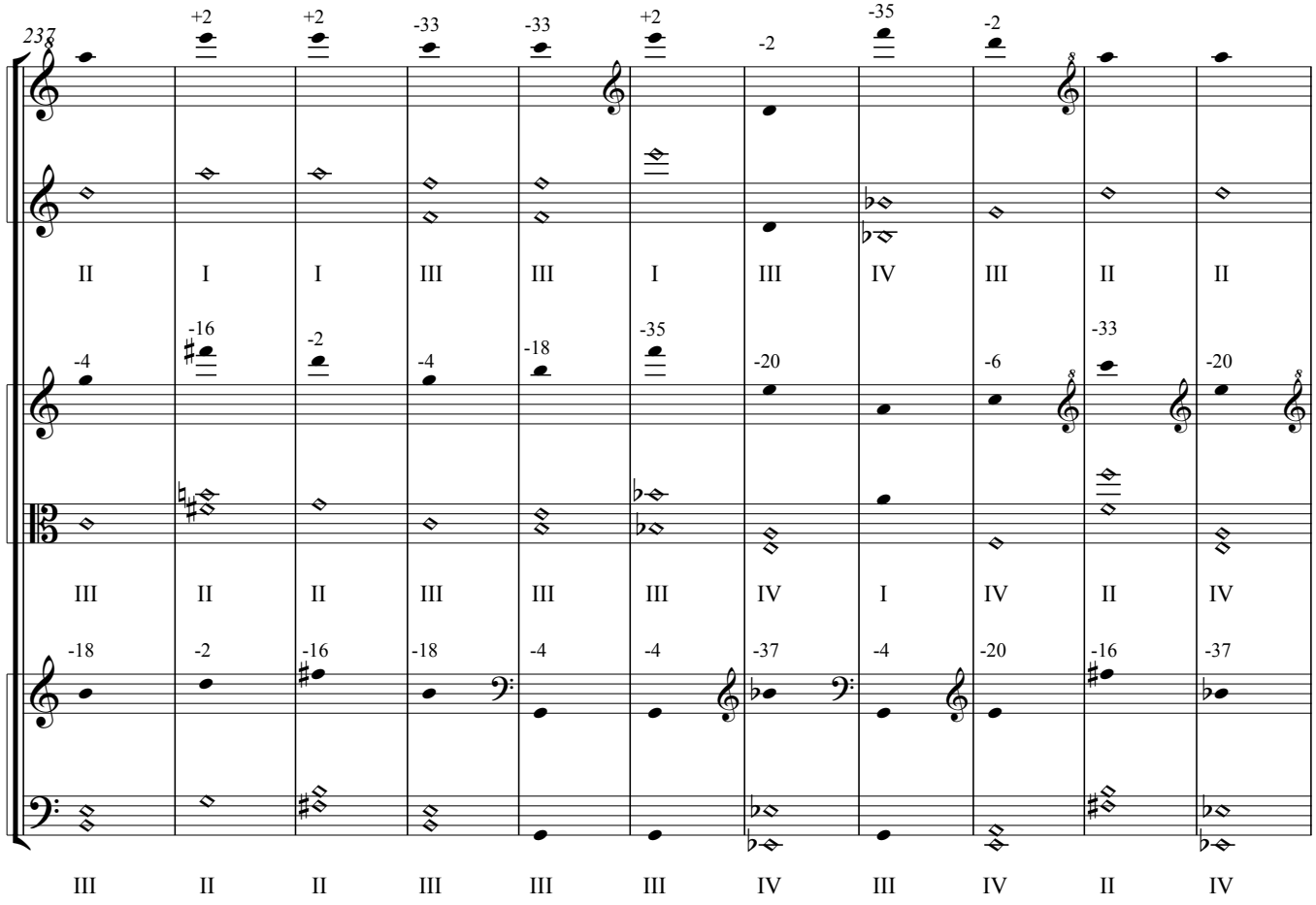

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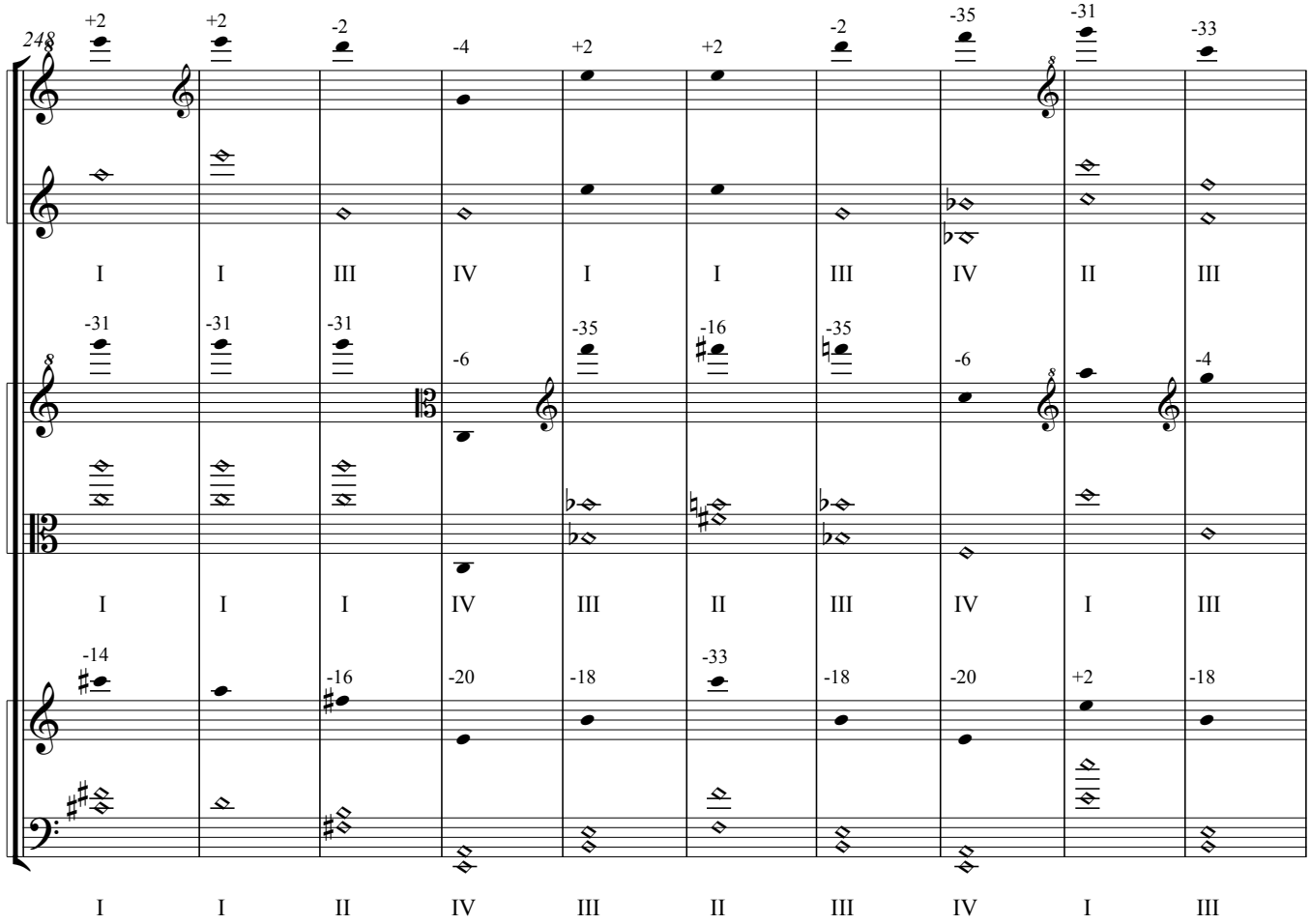

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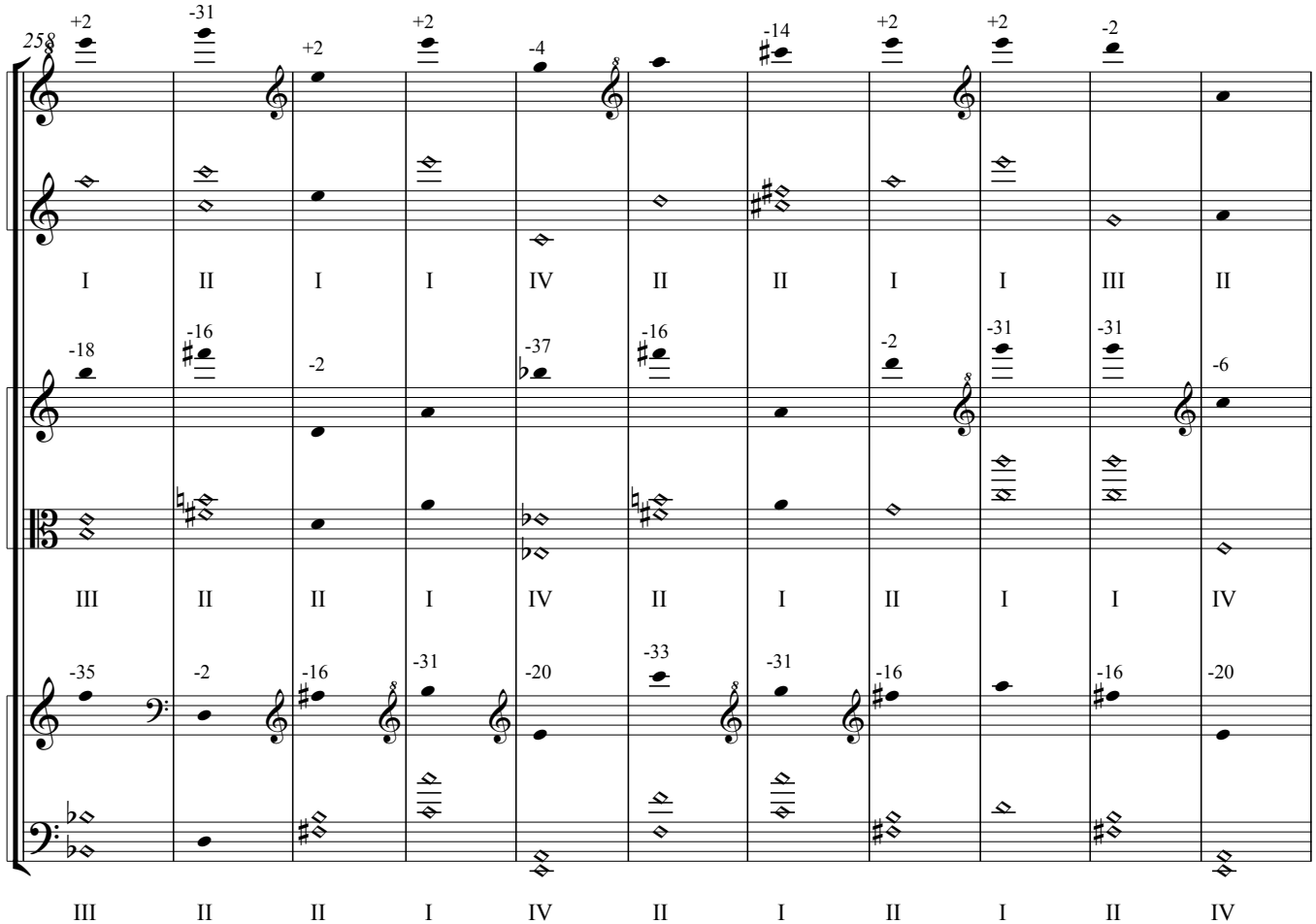

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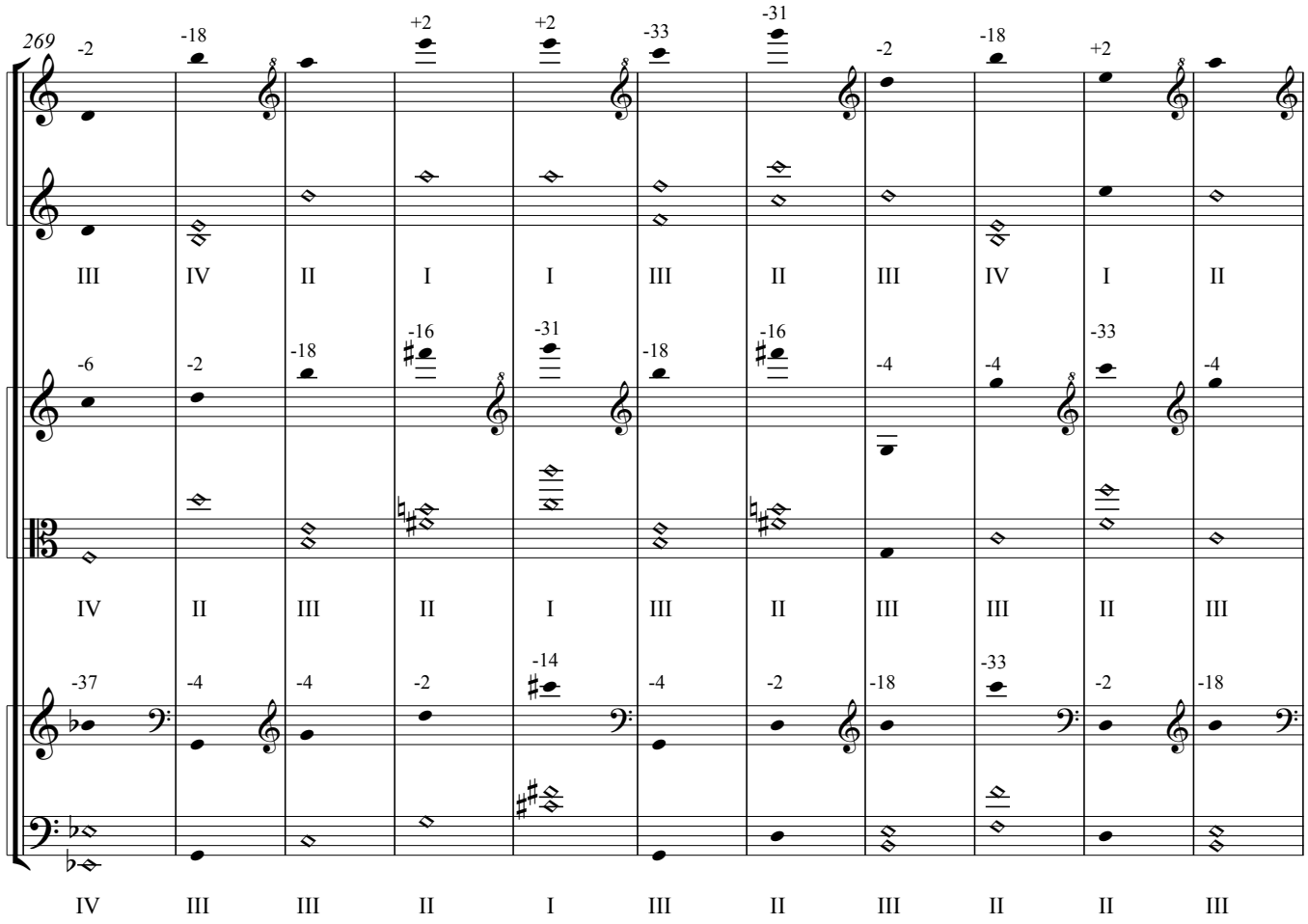

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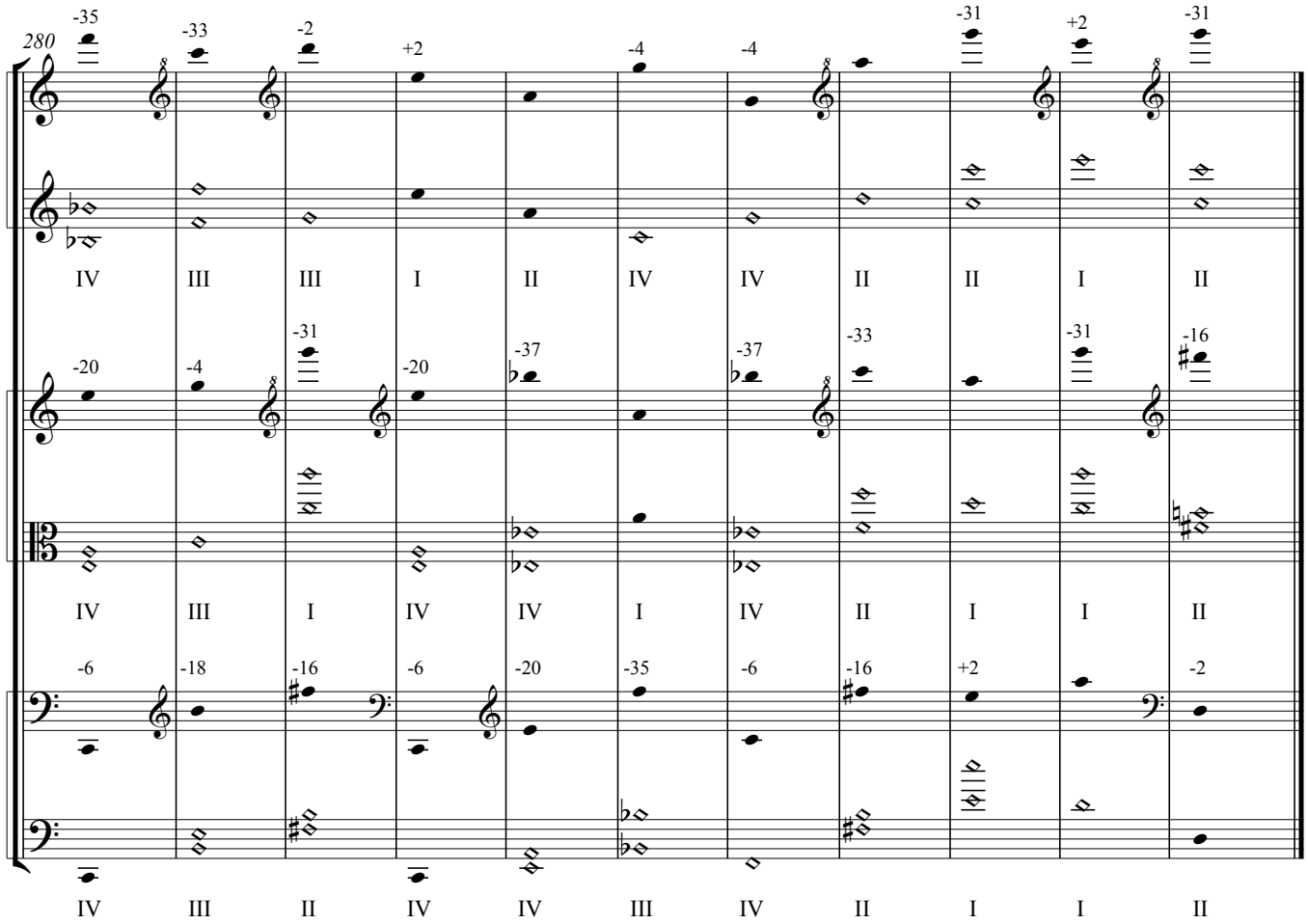

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-35 -33 -4 +2 -14 -20 -33 -6 -6
III II III I I I I IV II IV IV


237
+2 +2 -33 -33 +2 -2 -35 -2
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III II II III III III IV I IV II IV
-18 -2 -16 -18 -4 -4 -37 -4 -20 -16 -37
III II II III III III IV III IV II IV


248
+2 +2 -2 -4 +2 +2 -2 -35 -31 -33
I I III IV I I III IV II III
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I I I IV III II III IV I III
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I I II IV III II III IV I III


258
+2 -31 +2 +2 -4 -14 +2 +2 -2
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III II II I IV II I II I I IV
-35 -2 -16 -31 -20 -33 -31 -16 -16 -20
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269
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-37 -4 -4 -2 -14 -4 -2 -18 -33 -2 -18
IV III III II I III II III II II III


280
-35 -33 -2 +2 -4 -4 -31 +2 -31
IV III III I II IV IV II II I II
-20 -4 -31 -20 -37 -37 -33 -31 -16
IV III I IV IV I IV II I I II
-6 -18 -16 -6 -20 -35 -6 -16 +2 -2
IV III II IV IV III IV II I I II