Four Lines

David Rosenboom
(2001)

String Quartet Version

Performance Notes

The score is to be played in loose synchrony with a stereo, digitally synthesized, audio track containing electronic sounds. Listen for meaningful coincidences and overlapping resonances. Try to stay in sync as closely as possible, though perfection is not the object. For reference, the notes that are contained in the score also initiated the synthesis of corresponding electronic sounds, though their dynamic evolution may make this more or less easy to follow at times. Optionally, and by prior agreement, each player may depart from the score at a prearranged point to improvise a solo, while the other players continue playing the score. The soloist should rejoin the score at another prearranged point.

For synchronization with the digital audio track, use a tempo close to MM=100. Accidentals apply only to the notes they precede.

Each player, in a manner suiting their instrument and their interpretation of the music, may freely determine articulations. Dynamics provide general guidelines only, and it is intended that articulations, dynamics, timbre, bowing effects, and tone quality transitions be shaped through improvisation in response to and in interaction with the electronic lines. These interpretations may be extreme.

The sounds of each stringed instrument in the quartet may also be expanded through use of electronic signal processing. One example using pitch shifters controlled by envelope followers is shown in the score. Players may choose other options, including pedals they can operate themselves. In the example shown, players control the processing by means of their performed dynamics. Whatever method is used, it is the quartet players who should be influencing the signal processing applied to their instruments.

Four Lines is an extension of ideas contained in my earlier composition *Two Lines* (1989). It is about exploring the meaning of stability and instability in strict and open forms. As in *Two Lines*, hearing unpredictable and fascinating musical details emerge from superimposing multiple interpretations of common musical materials is part of the intent. In this case, the composition of two sets of superimposed lines—string quartet and electronics—was inspired by the juxtaposition of continuity and extremes in sounds associated with mappings of electrical, event-related potentials (ERPs) recorded from the brains of two performers participating in my self-organizing chamber opera *On Being Invisible II (Hypatia Speaks to Jefferson in a Dream)* (1994-1995). The wonder of appreciating imperfections in something produced through the application of great discipline and effort is part of the joy.

Four Lines was originally conceived for two or four instruments or multiples of these groups. Five versions have been arranged: 1) for two high-range and two low-range instruments or multiples of these pairs, 2) for two high-range instruments or multiples of two, 3) for two pianos or other keyboards or multiples of two, 4) for four Bb trumpets/piccolo trumpets or multiples of four, and 5) for string quartet.

Sound Files

Three digital sound files are available from the composer: 1) the electronic sound track to play with (Four Lines Elec Perf.aif), 2) a metronome click track at 100 bpm that may be used in performance to stay in close synchronization with the electronic track (Four Lines Click.aif), and 3) a voice track that gives starting cues for a two-bar lead-in and announces bar numbers at every tenth bar. If these files are used together, their starting points must be precisely aligned. Note that the first electronic sound synchronizes with the first note in the Violin 1 part, which does not occur on the downbeat of Bar 1. Playback of files 2) and. 3) may be routed to earphones (single sided) worn by the performers, if desired, but should not be heard by the audience.

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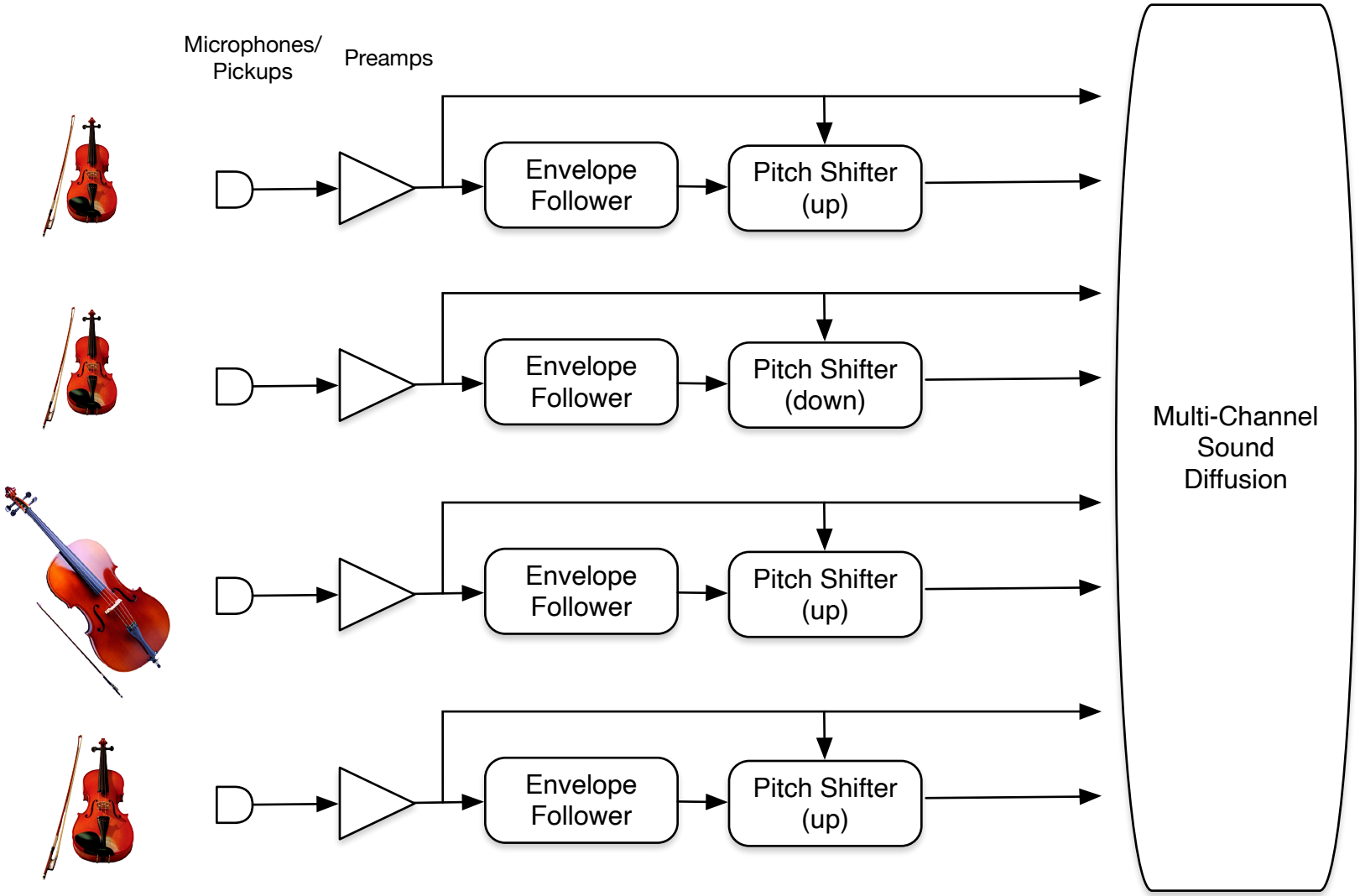
String Quartet

Processing Option Example



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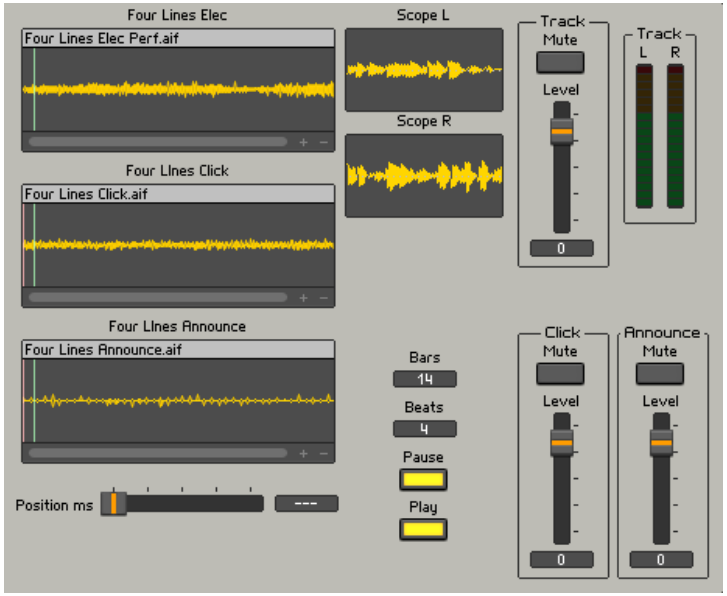
Examples of Instruments Programmed in Reaktor Software

Control panel for an instrument implementing two stereo pitch shifters controlled by envelope followers. Two such instruments could be used to process the four instruments in a string quartet independently. Players may develop other methods.



An instrument used to play the electronic track, metronome click track, and starting cues and bar number announcements track out of independent audio channels to aid in synchronization. Performers may devise other methods.

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Play with a sense of constant forward motion and intense concentration, while being subtle, energetic, contrasting, unpredictable and surprising.

Dynamics provide general guidelines only, and it is intended that articulations, dynamics, timbre, and tone quality transitions be shaped through improvisation in response to and in interaction with the electronic lines. These interpretations may be extreme. Open improvisations may be inserted according to agreements. Very shrort notes may be played pizzicato ad libitum. To synchronize precisely with the electronic tracks, a tempo of quarter note = 99.96 BPM is required. A 100 BPM approximation is usually acceptable.

Align first note with first electronic sound.

Fast/Very Fast

Violin 1

Violin 2

Viola

Violincello

Vln 1

Vln 2

Vla

Vcl

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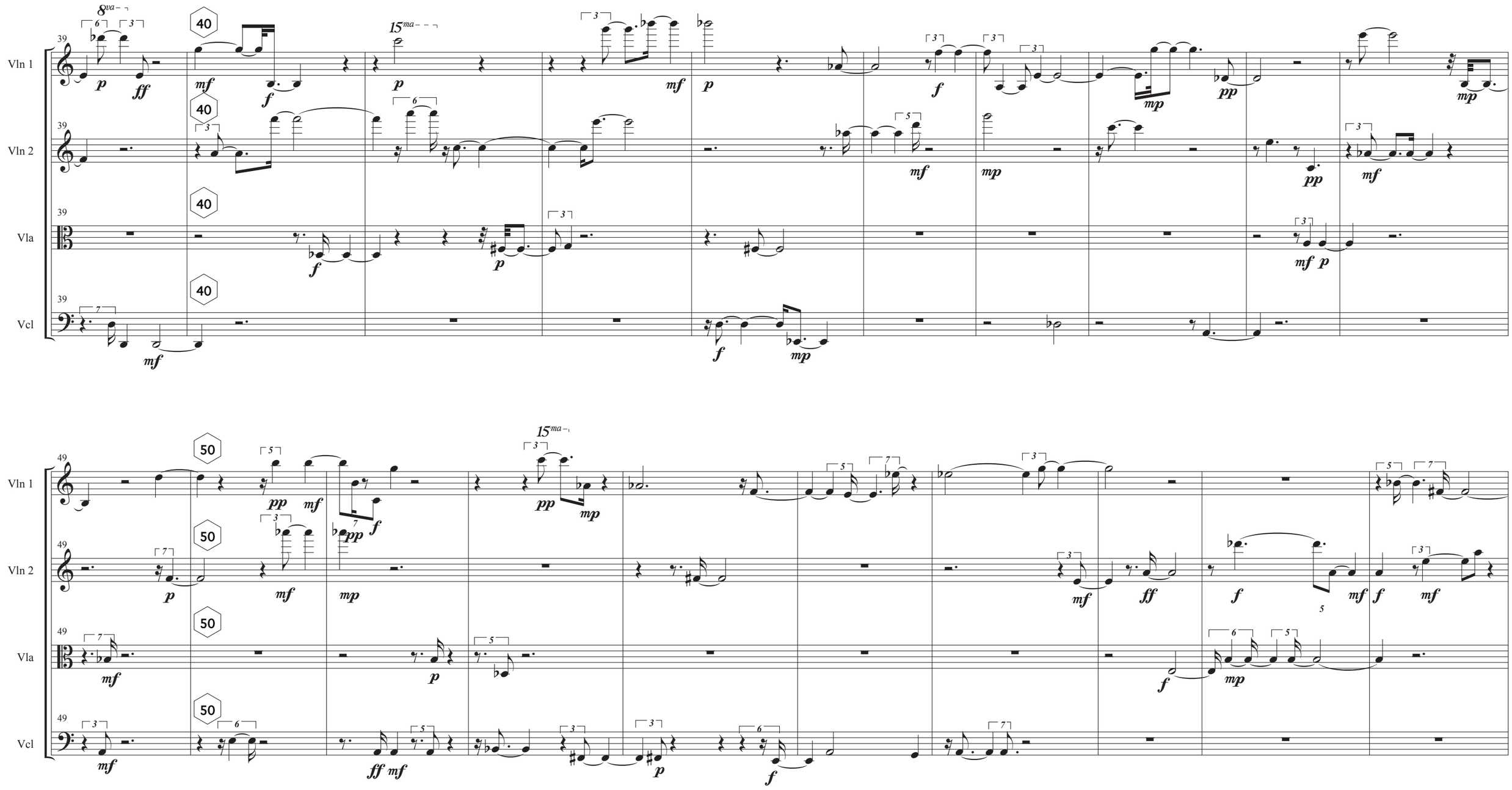
Vln 1
Vln 2
Vla
Vcl
20
30


Vln 1
Vln 2
Vla
Vcl
39
40
49
50
8va
15ma

Vln 1
Vln 2
Vla
Vcl

60

70

78

Vln 1

Vln 2

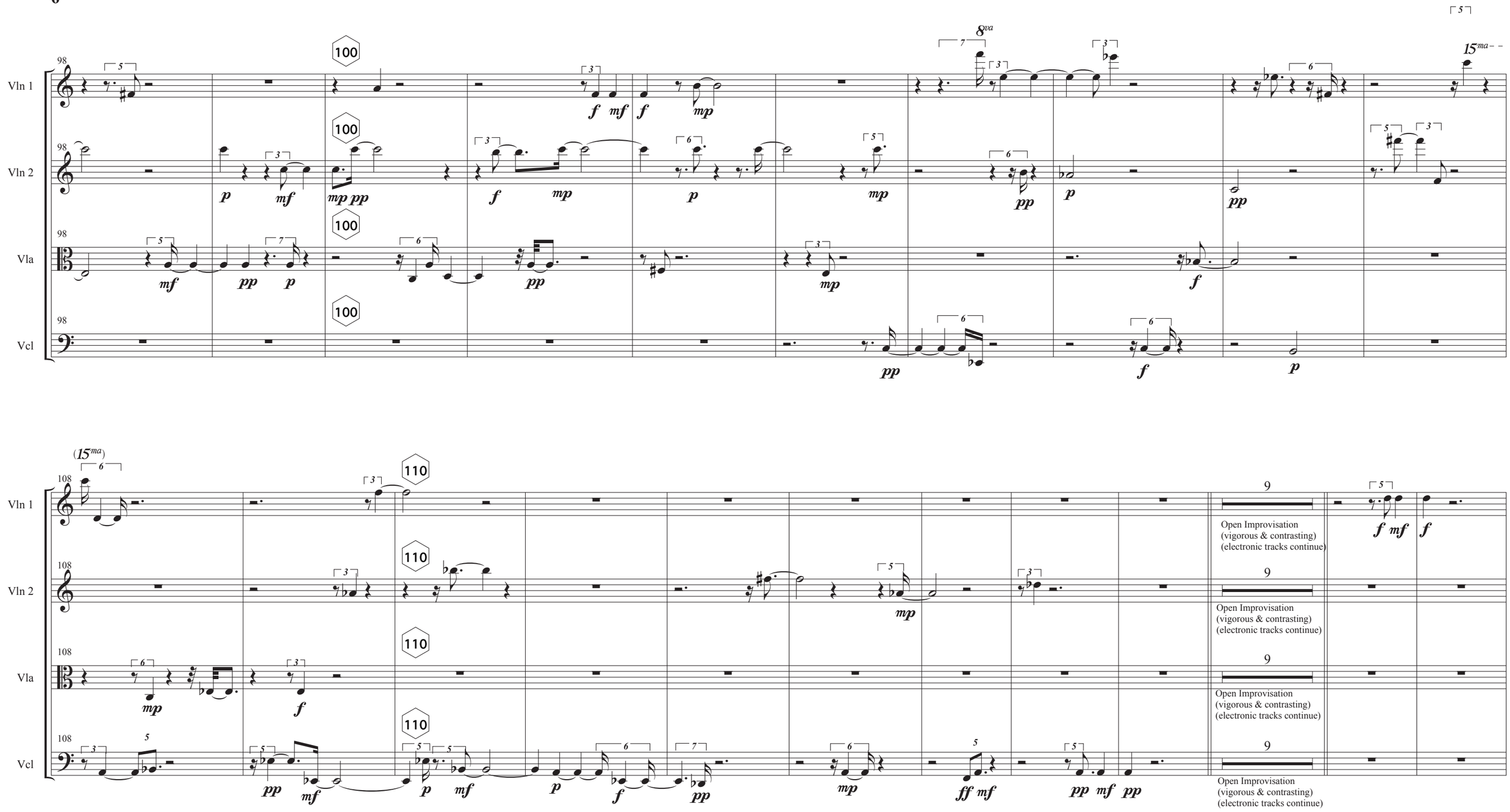
Vla

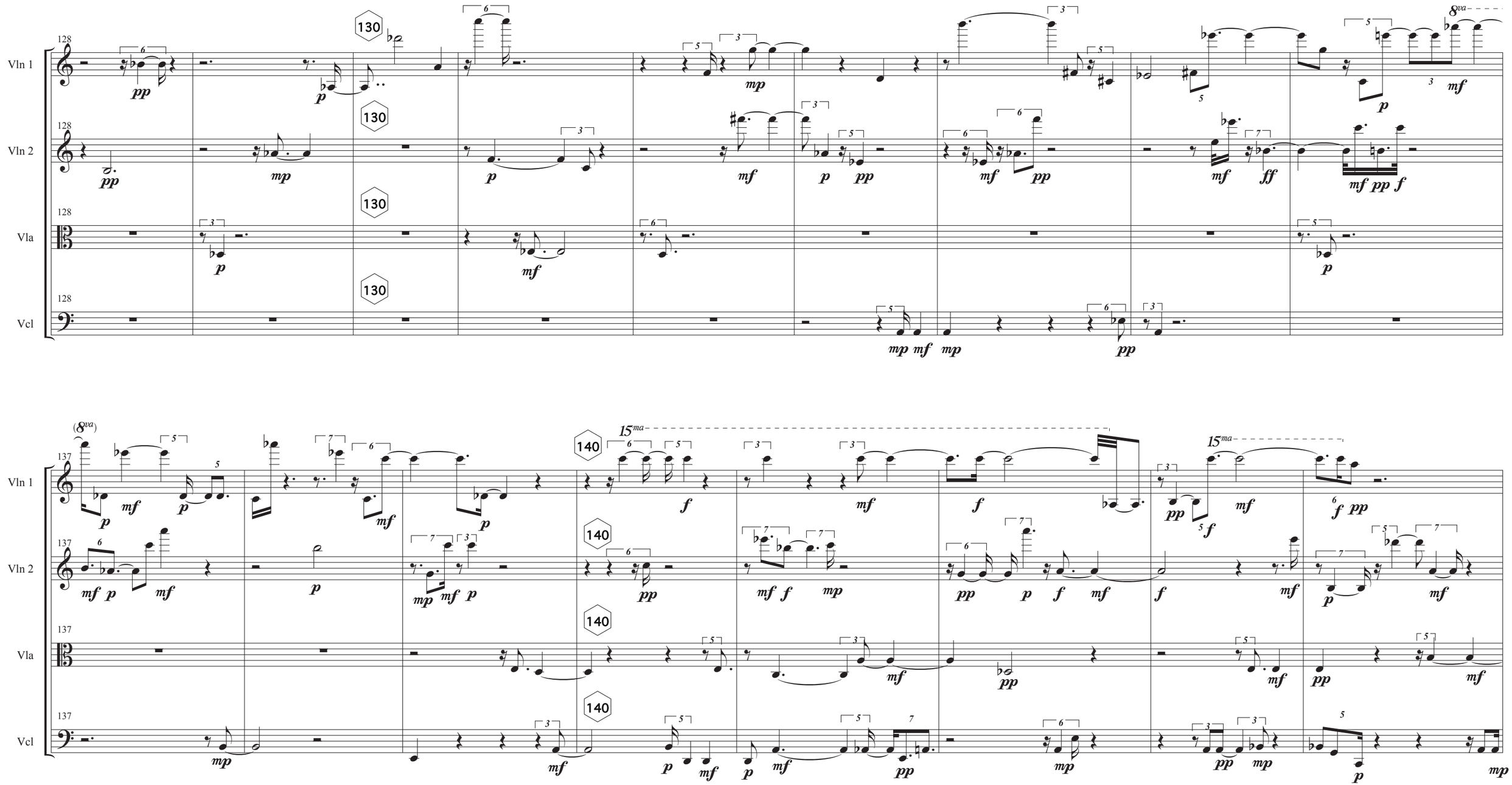
Vcl

80

88

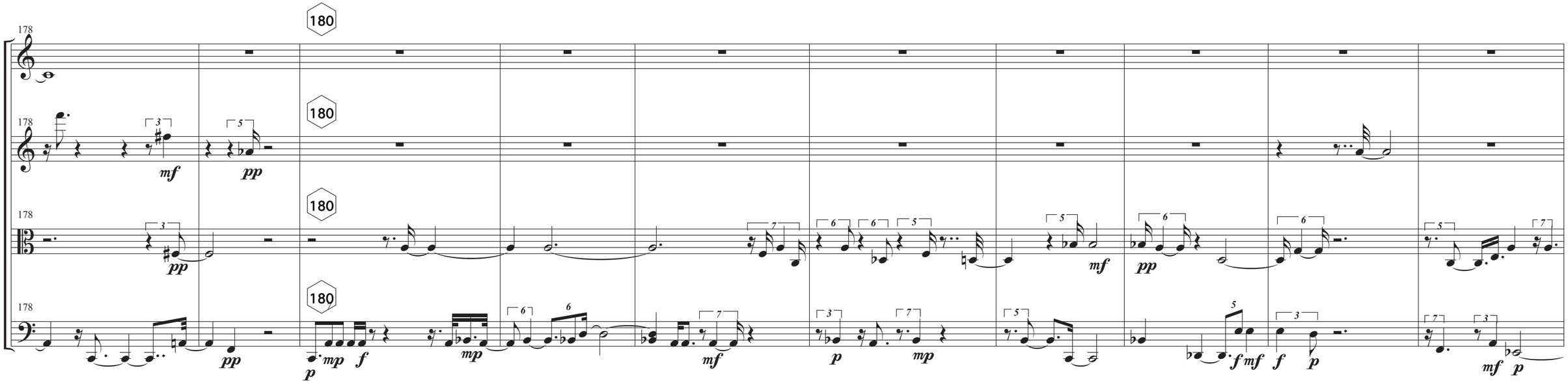
90

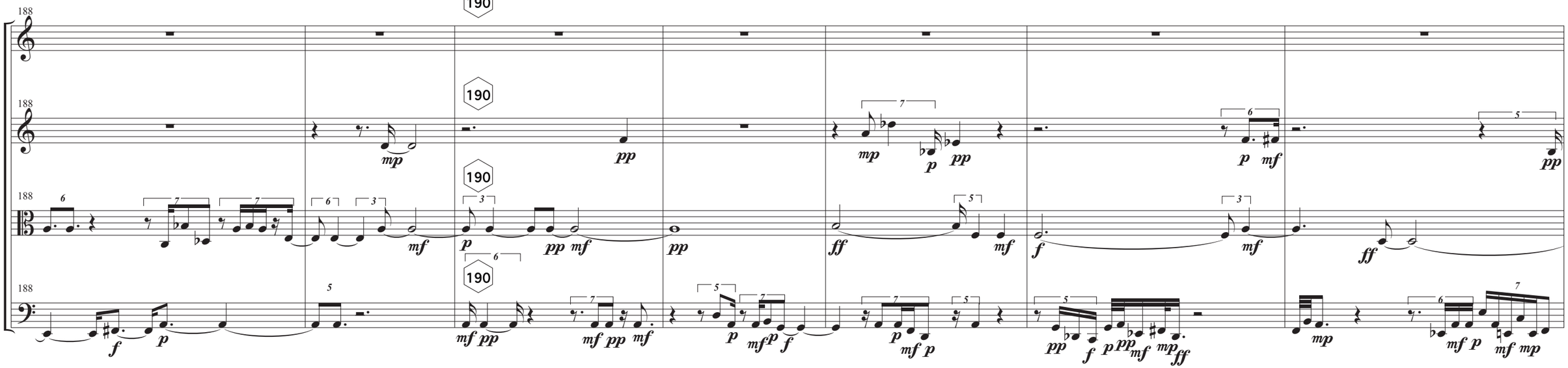

Vln 1
Vln 2
Vla
Vcl
98
100
8va
15ma
(15ma)
108
110
9
Open Improvisation
(vigorous & contrasting)
(electronic tracks continue)


Vln 1
Vln 2
Vla
Vcl
128
130
137
140
8va
15ma
(8va)

Vln 1
Vln 2
Vla
Vcl
145
150
153
160

Vln 1
Vln 2
Vla
Vcl


178
180
Vln 1
Vln 2
Vla
Vcl
mf
pp
mp
f
p


188
190
Vln 1
Vln 2
Vla
Vcl
mp
pp
mf
p
f
ff

195

Vln 1

Vln 2

Vla

Vcl

200

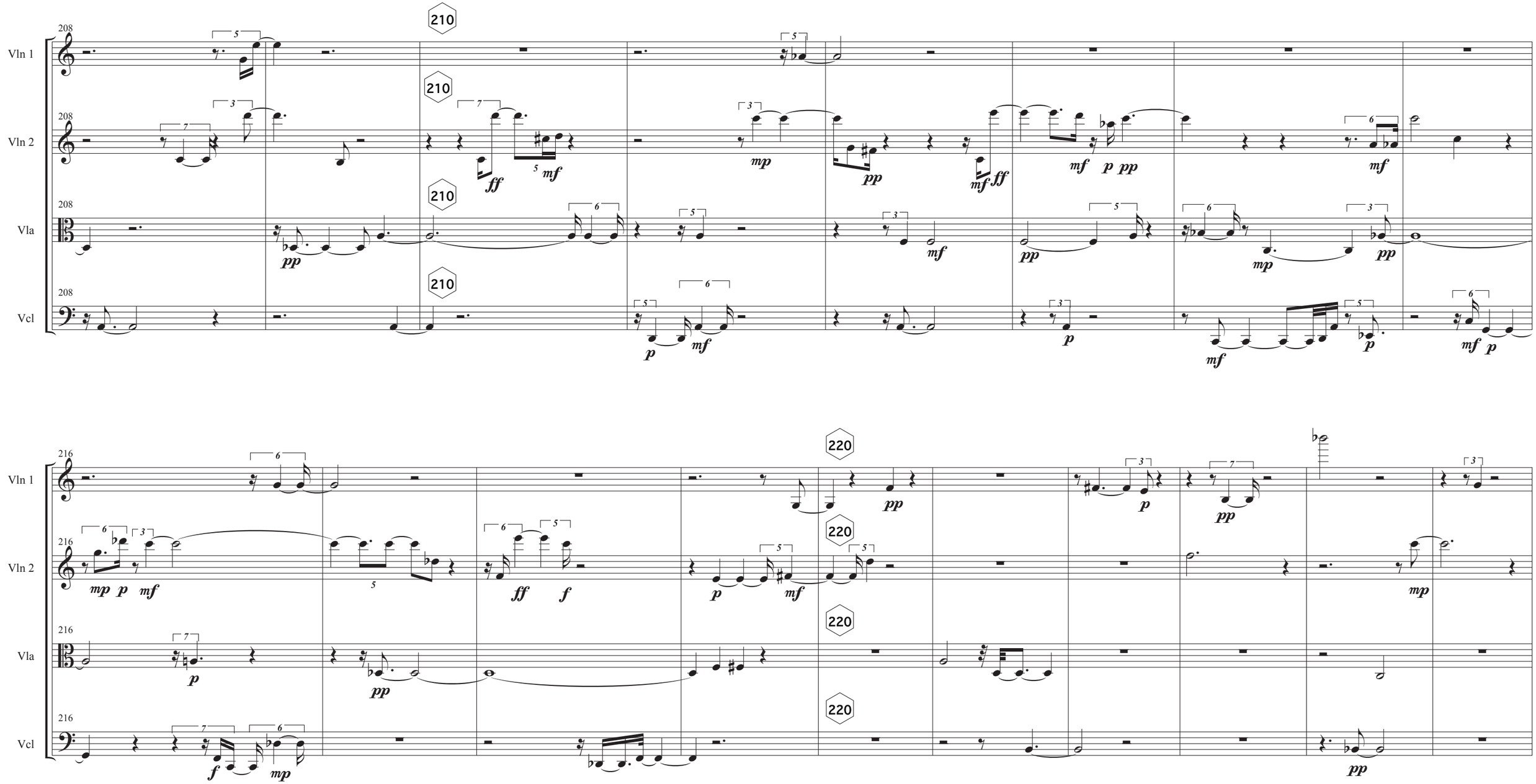
8va

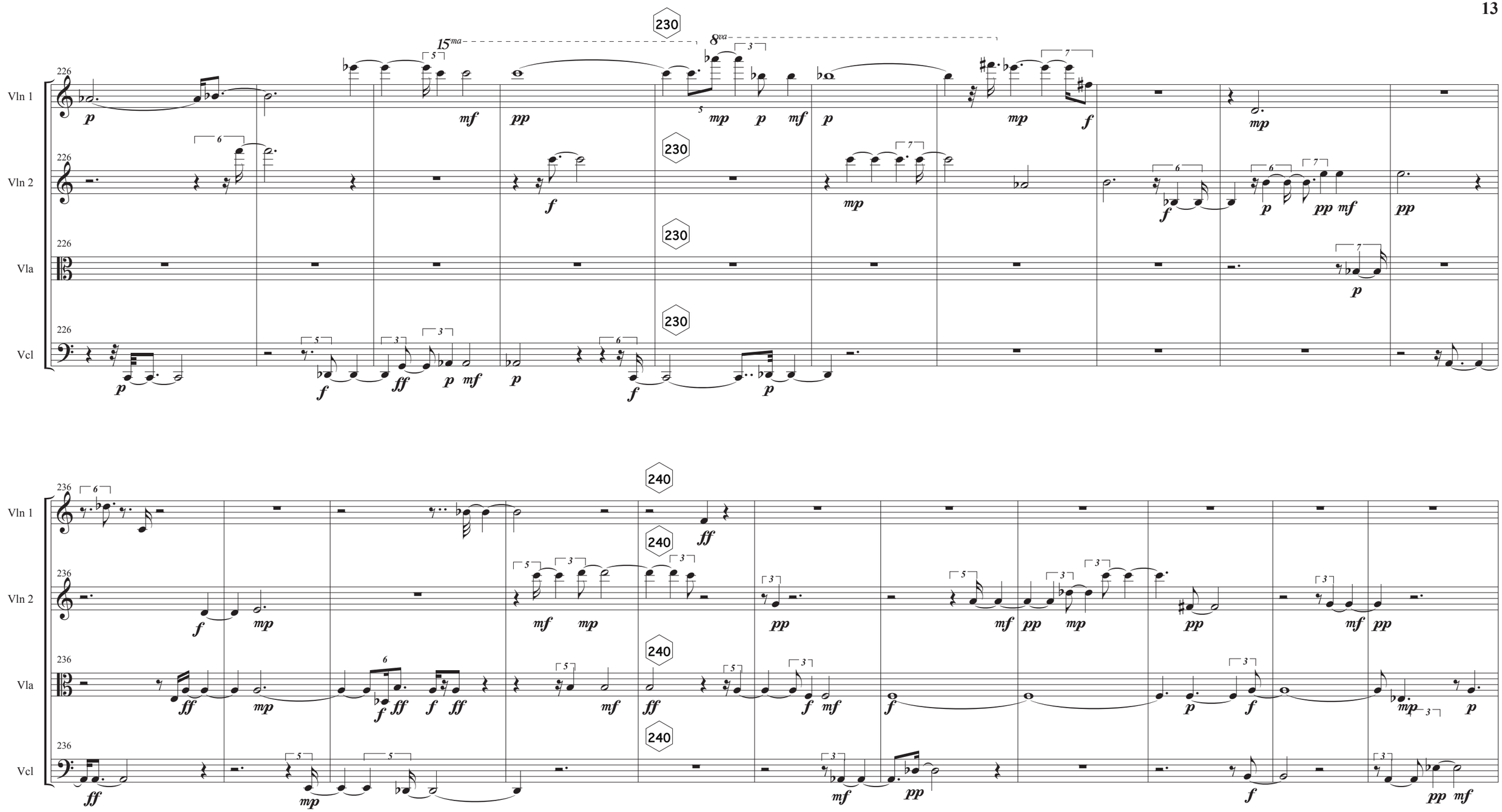
Vln 1

Vln 2

Vla

Vcl


Vln 1
Vln 2
Vla
Vcl
208
210
216
220


Vln 1
Vln 2
Vla
Vcl
226
230
240
15ma
8va
236

247

Vln 1

Vln 2

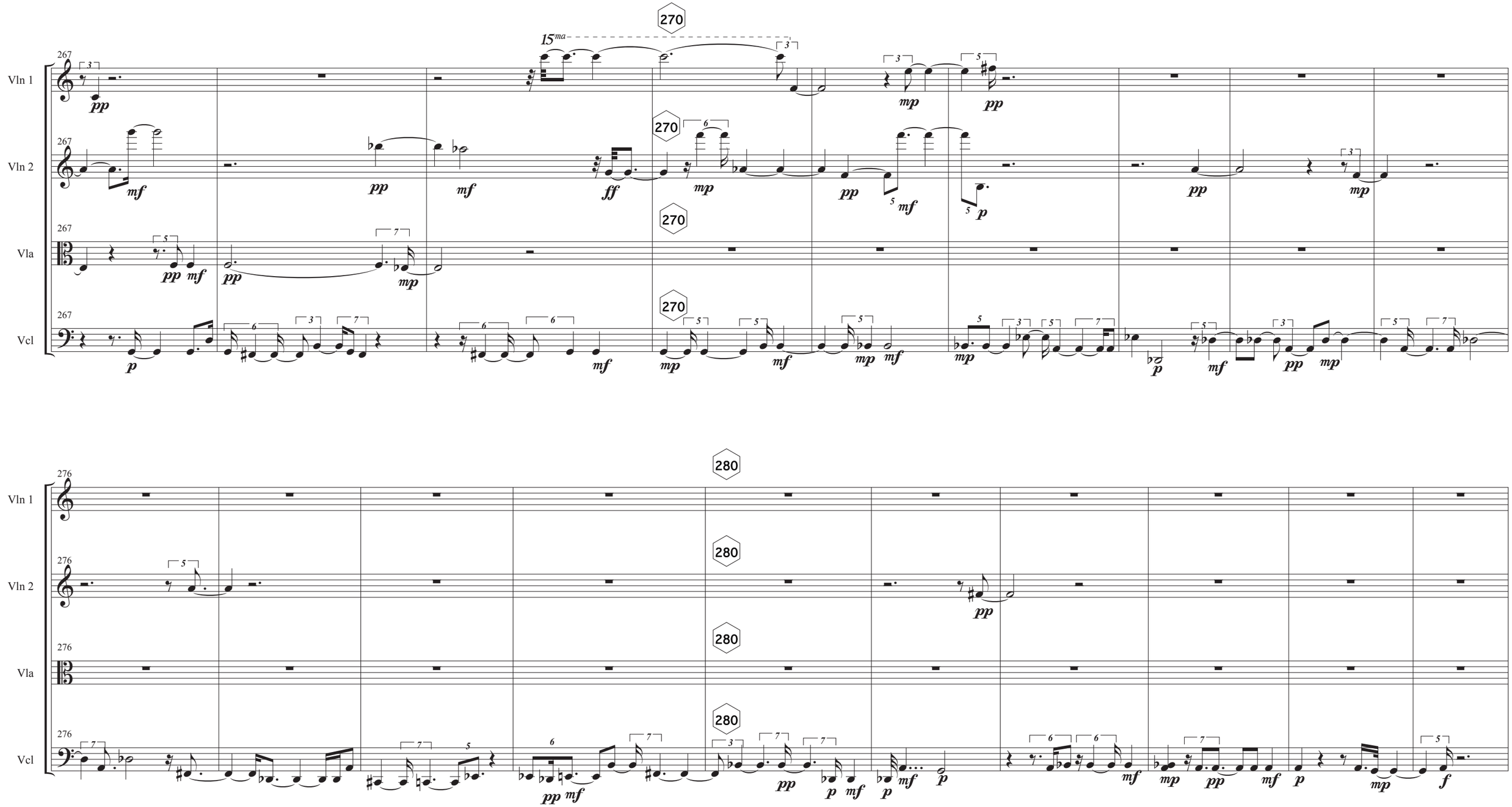
Vla

Vcl

250

258

260


Vln 1
Vln 2
Vla
Vcl
267
270
15ma
276
280

286

Vln 1

Vln 2

Vla

Vcl

290

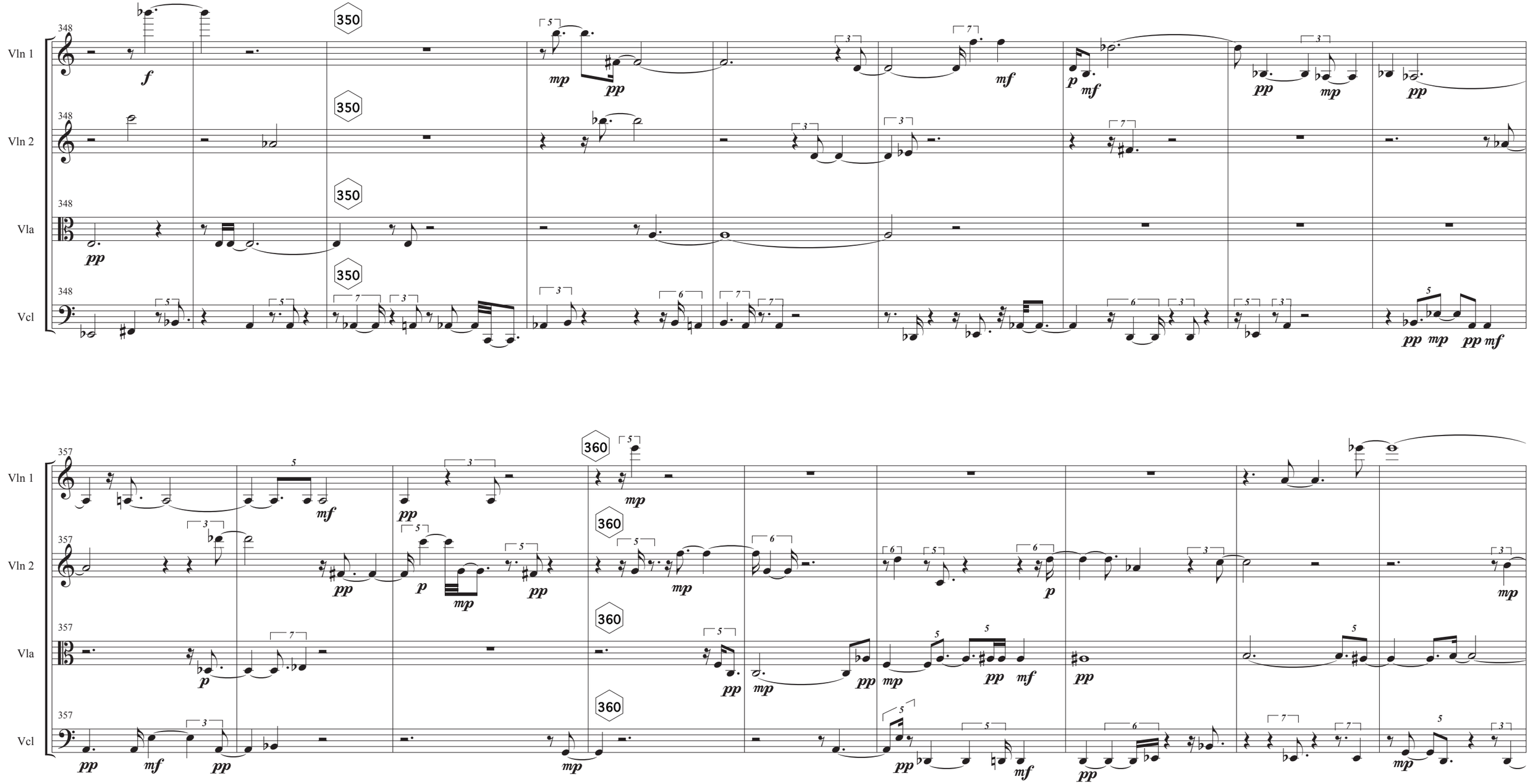
15ma

296

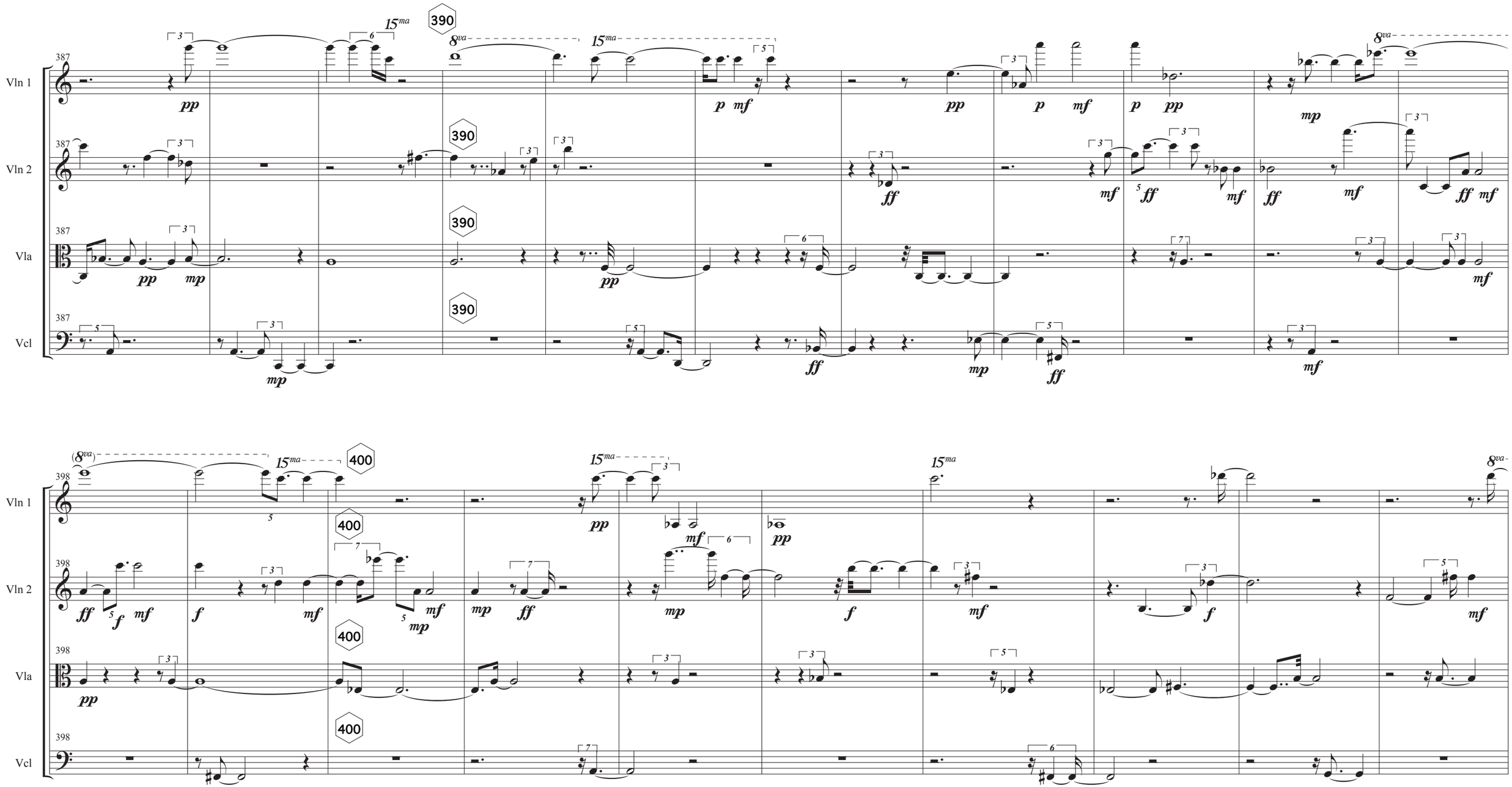
300

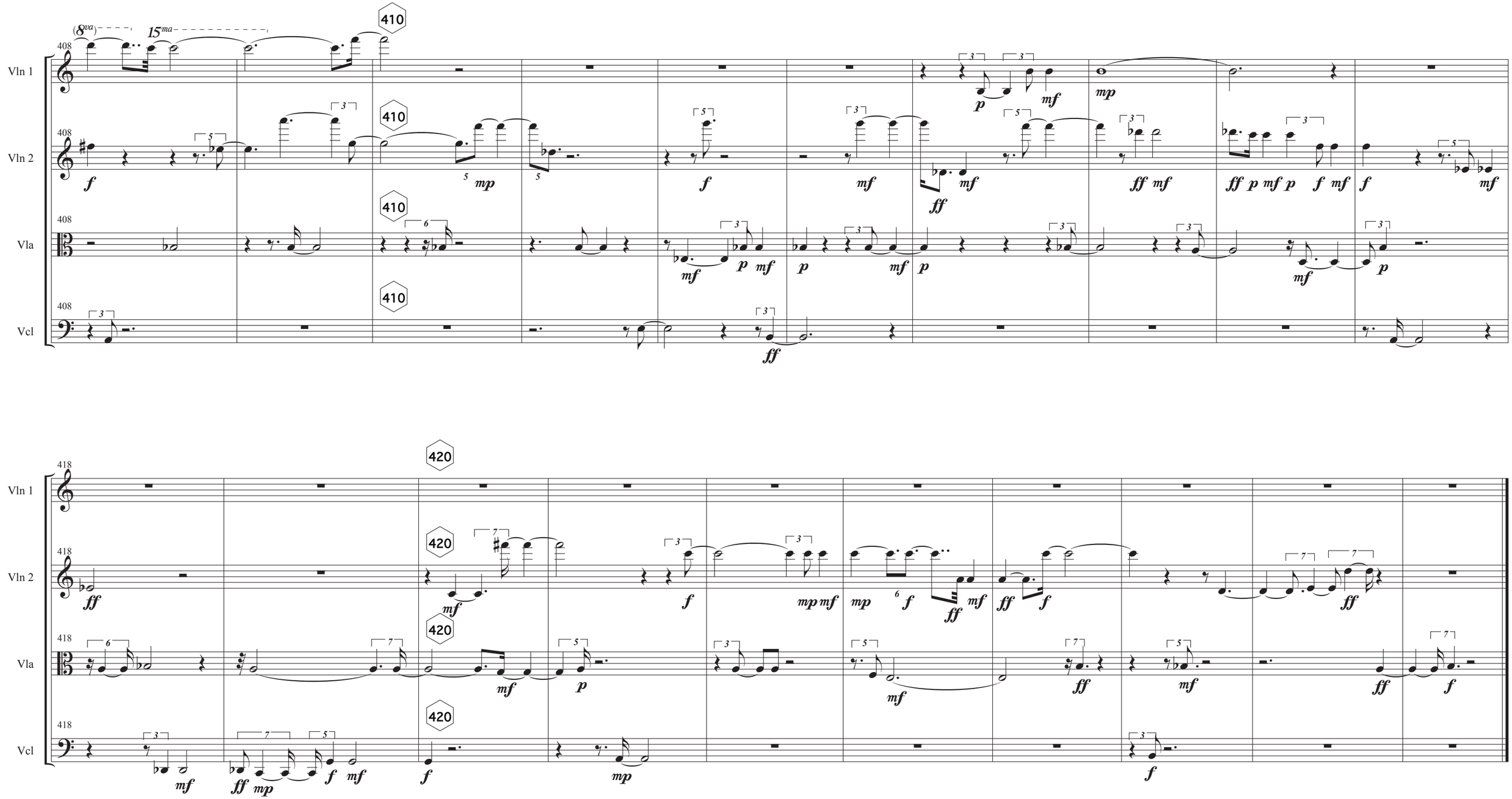
Vln 1
Vln 2
Vla
Vcl
305
310
315
320
15ma
8va

Vln 1
Vln 2
Vla
Vcl
326
330
15ma
337
340


348
Vln 1
Vln 2
Vla
Vcl
350
357
360

Vln 1
Vln 2
Vla
Vcl
366
370
377
380


Vln 1
Vln 2
Vla
Vcl
387
390
398
400
15ma
8va
(8va)


Vln 1
Vln 2
Vla
Vcl
408
410
418
420