*Marc Sabat*

# reminded of charlemagne palestine

*trio for violin, cello and piano*

PLAINSOUND MUSIC EDITION

# reminded of charlemagne palestine (2007)

*trio for violin, cello and piano*

*for Aki Takahashi and Rohan de Saram*
*with thanks to Tashi Wada*

## NOTES ABOUT THE INTERPRETATION

Tempo is free: as swiftly as accurate intonation permits, but taking time whenever necessary. Each pitch may be considered to have a 'virtual fermata' which may be held whenever more time is needed to clearly focus the indicated just interval ratio. As the music becomes more densely notated, it does not necessarily have to be played faster.

For the most part, overlapping tones produce 'tuneable intervals' which may be precisely realized by ear. Arrows to pitches in the piano part indicate tuneable relationships when the intervals between the string instruments are too complex to be directly realized. Vertical dotted lines indicate pitches which form near-unisons between the piano and strings.

For the most part, the string players determine the timing and flow of musical phrases. When tuning to a piano pitch, it is advisable to enter rather swiftly to hear the desired harmonic relationship. In exceptional cases it may be decided by the players that the pianist should even repeat certain tones to facilitate the tuning jobs.

In the first part of the piece, which lasts until the last system of page 7, the pianist has two kinds of notes: small black pitches and larger white ones. Certain noteheads are marked with an 'x' above them – these are pitches which may be placed freely in time. All other notes are to be played like a short digital delay, placed slightly after the corresponding notes in the strings. The intervals will sometimes be consonant, more often they may be quite complex microtonal dissonances, rippling against the pure intervals between the two strings.

The tones with small noteheads should overlap somewhat (without pedal), but are not to be sustained indefinitely. Larger noteheads, which are generally also louder in volume, are tuning reference tones. They should facilitate the string players' intonation and provide more stable harmonic reference points. Such pitches should be sustained as long as possible (also without pedal). Whenever precise cut-offs are desired, they are indicated with commas and/or horizontal lines extending from the respective pitches.

In the second part of the piece, the pianist introduces a new texture: loud dyads marked as ‘grace-notes’ – these ought to be placed slightly before the corresponding string pitches, which are generally form a combination tone with the respective dyad.

In the final section, which begins in the second system of page 11, the strings and piano both change to a slow tremolo. The tempo of this pulsing changes from pitch to pitch in discrete steps (the strings should not gradually change speed as they glissando). The speeds (in Hertz, or pulses per second, are indicated above each new note). The strings should produce as much sustained tone as possible (not a noisy scrubbing). The pianist should execute the tremolo of each pitch with a one finger technique.

The pianist plays with a half-depressed pedal until the end of the piece, allowing a unison resonance to build over the course of each tremolo but without muddying the successive tones. Each tone should overlap the next one somewhat, in a manner similar to the small black noteheads played in the beginning of the piece.

As before, points of unison between the piano and strings are indicated with vertical lines. In some cases, the pianist is asked to ‘catch’ the unison point within a string glissando. Black noteheads mark non-unisons which form tuneable intervals to the strings. These should be synchronized with the strings’ changes (namely, changes of speed). As before, there are also occasional dyads, and these may be placed slightly before the strings.

The overall duration of the piece will vary from interpretation to interpretation, but in all cases should be played with the awareness of a single continuous phrase which unfolds a complex of tonal neighborhoods centered around A-220 Hz.

Berlin, 24 June 2007

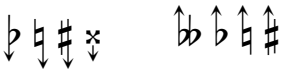
# ACCIDENTALS

## EXTENDED HELMHOLTZ-ELLIS JI PITCH NOTATION

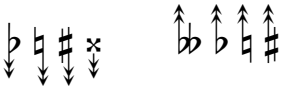
*for Just Intonation*
*designed by Marc Sabat and Wolfgang von Schweinitz*

***The exact intonation of each pitch may be written out by means of the following harmonically-defined signs:***

*Pythagorean series of fifths – the open strings*
*( … c g d a e … )*



*lowers / raises by a syntonic comma*
*81 : 80 =* ***circa 21.5 cents***



*lowers / raises by two syntonic commas*
***circa 43 cents***

*lowers / raises by a septimal comma*
*64 : 63 =* ***circa 27.3 cents***

*lowers / raises by two septimal commas*
***circa 54.5 cents***

*raises / lowers by an 11-limit undecimal quarter-tone*
*33 : 32 =* ***circa 53.3 cents***

*lowers / raises by a 13-limit tridecimal third-tone*
*27 : 26 =* ***circa 65.3 cents***

*lowers / raises by a 17-limit schisma*
*256 : 255 =* ***circa 6.8 cents***



*raises / lowerss by a 19-limit schisma*
*513 : 512 =* ***circa 3.4 cents***

*raises / lowers by a 23-limit comma*
*736 : 729 =* ***circa 16.5 cents***

*In addition to the harmonic definition of a pitch by means of its accidentals, it is also possible to indicate its absolute pitch-height as a cents-deviation from the respectively indicated chromatic pitch in the 12-tone system of Equal Temperament.*

*The attached arrows for alteration by a syntonic comma are transcriptions of the notation that Hermann von Helmholtz used in his book "Die Lehre von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik" (1863). The annotated English translation "On the Sensations of Tone as a Physiological Basis for the Theory of Music" (1875/1885) is by Alexander J. Ellis, who refined the definition of pitch within the 12-tone system of Equal Temperament by introducing a division of the octave into 1200 cents. The sign for a septimal comma was devised by Giuseppe Tartini (1692-1770) – the composer, violinist and researcher who first studied the production of difference tones by means of double stops.*

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*for Aki Takahashi and Rohan de Saram*
*with thanks to Tashi Wada*

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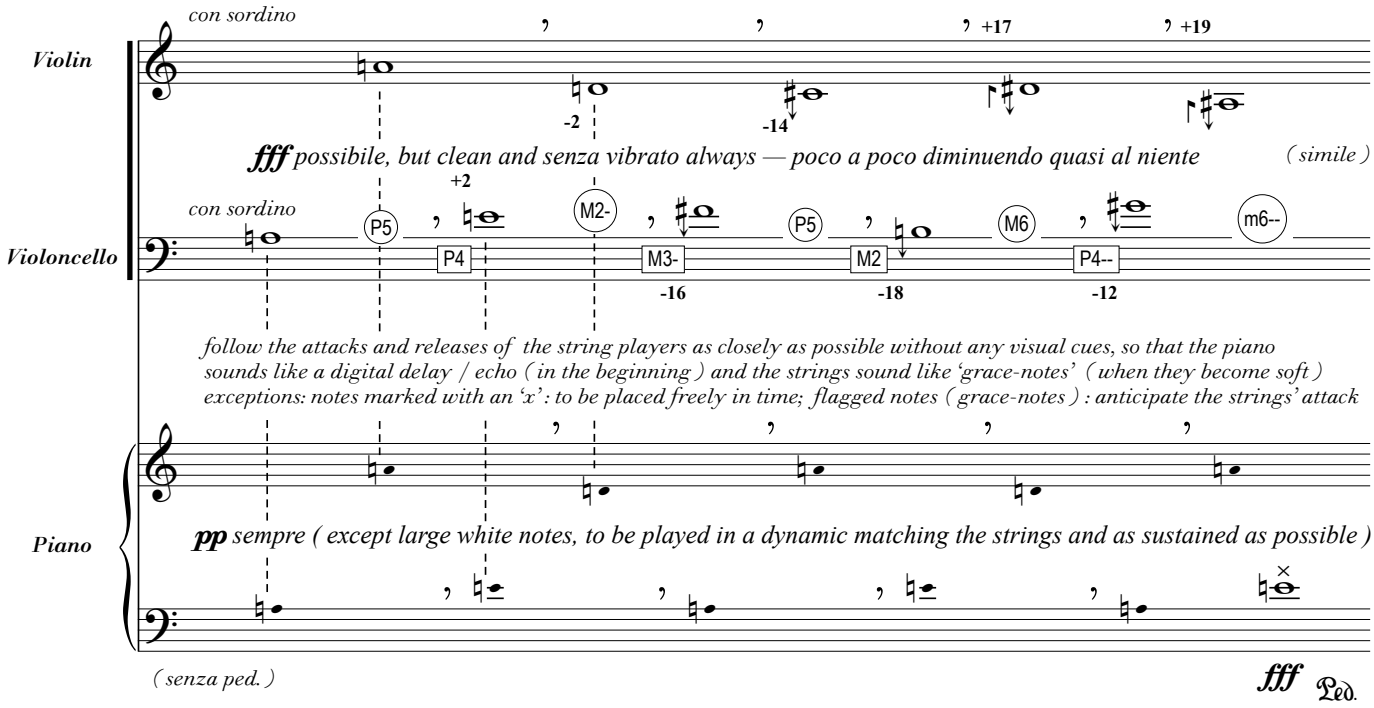
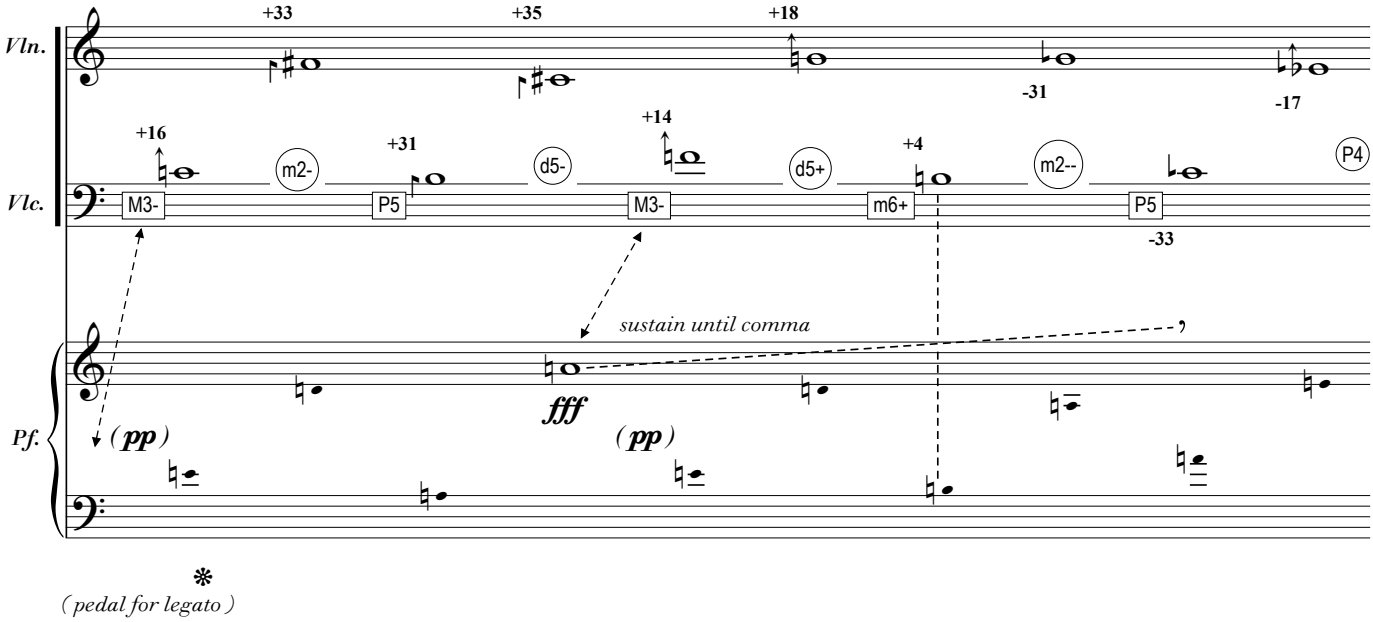
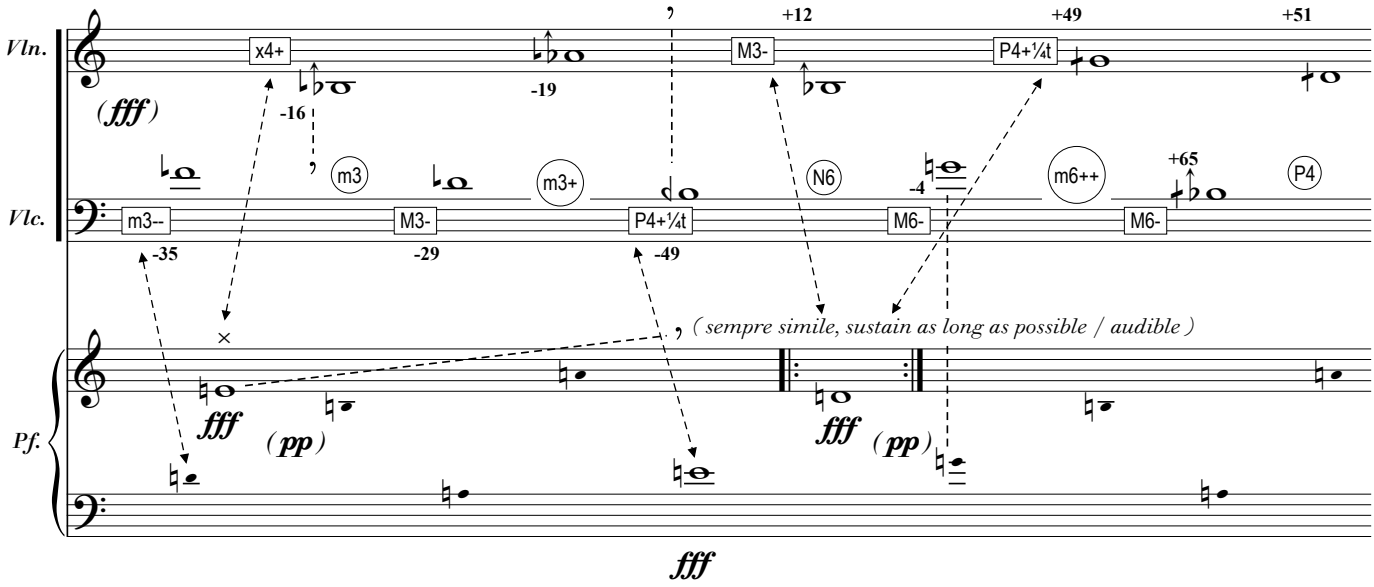
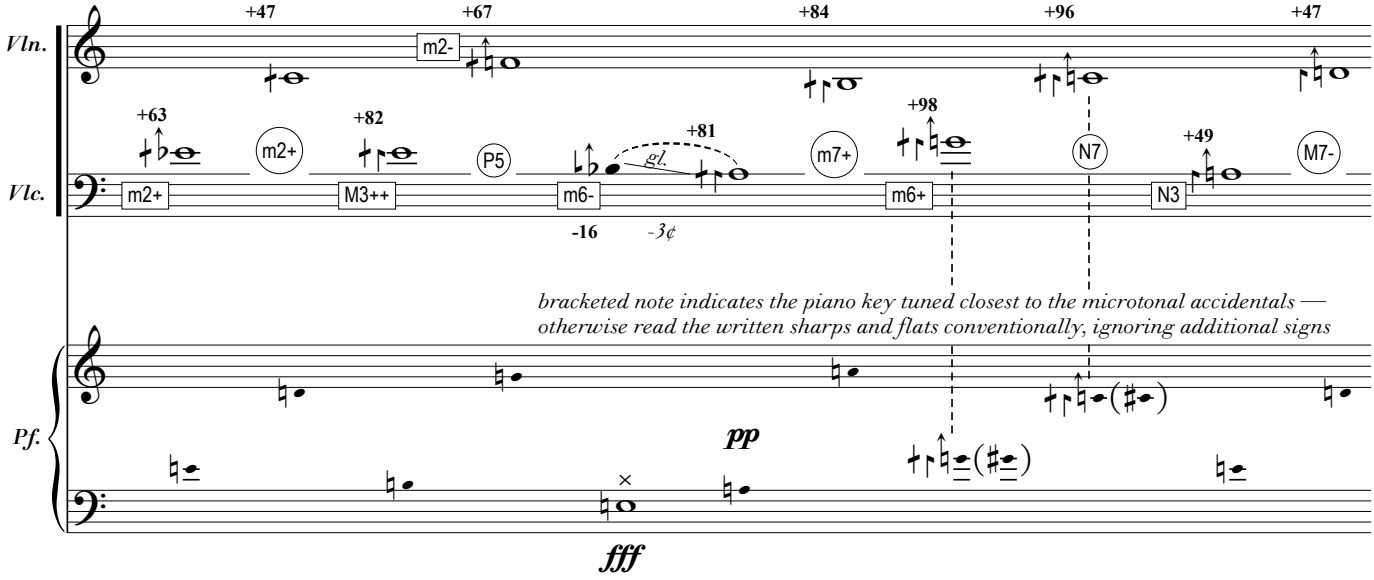
**Tempo is free : as swiftly as accurate intonation permits, but take time whenever necessary**

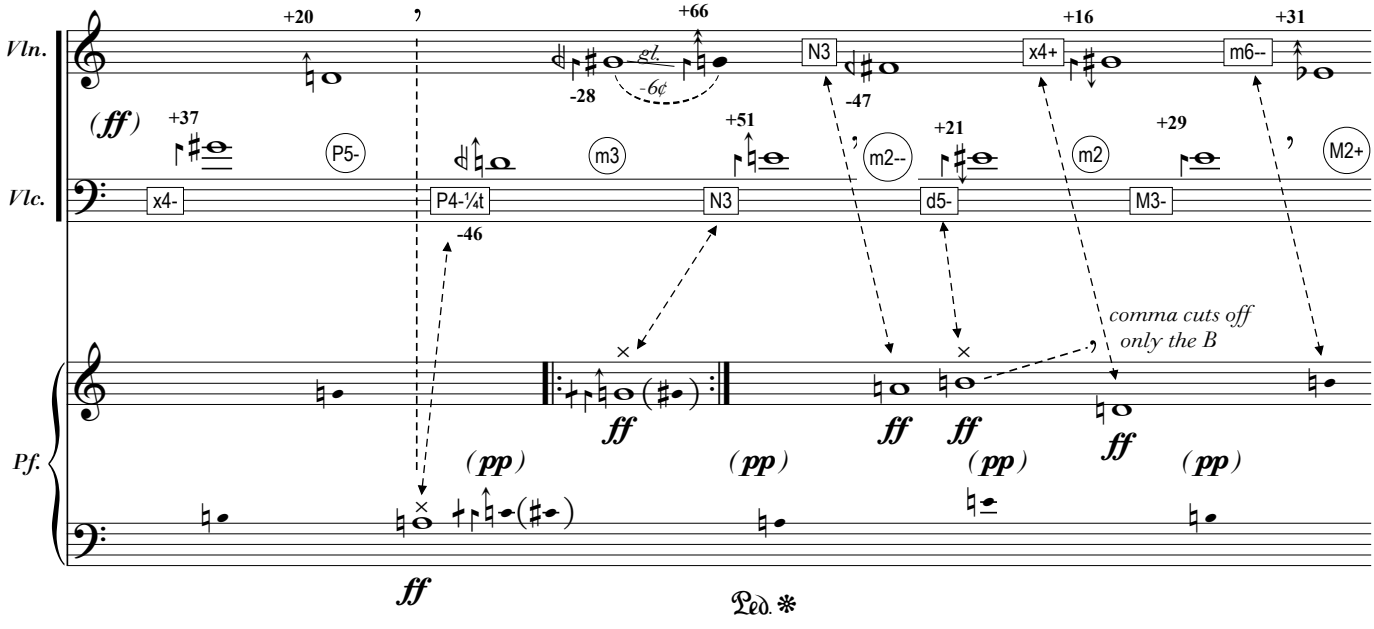
*violin and cello may need to use digital tuners with clip microphones and analog readouts to achieve desired accuracy of intonation*
*each note to be sustained without vibrato until tuning stabilizes — slight tapering at end of tone and a slight pause before next tone*

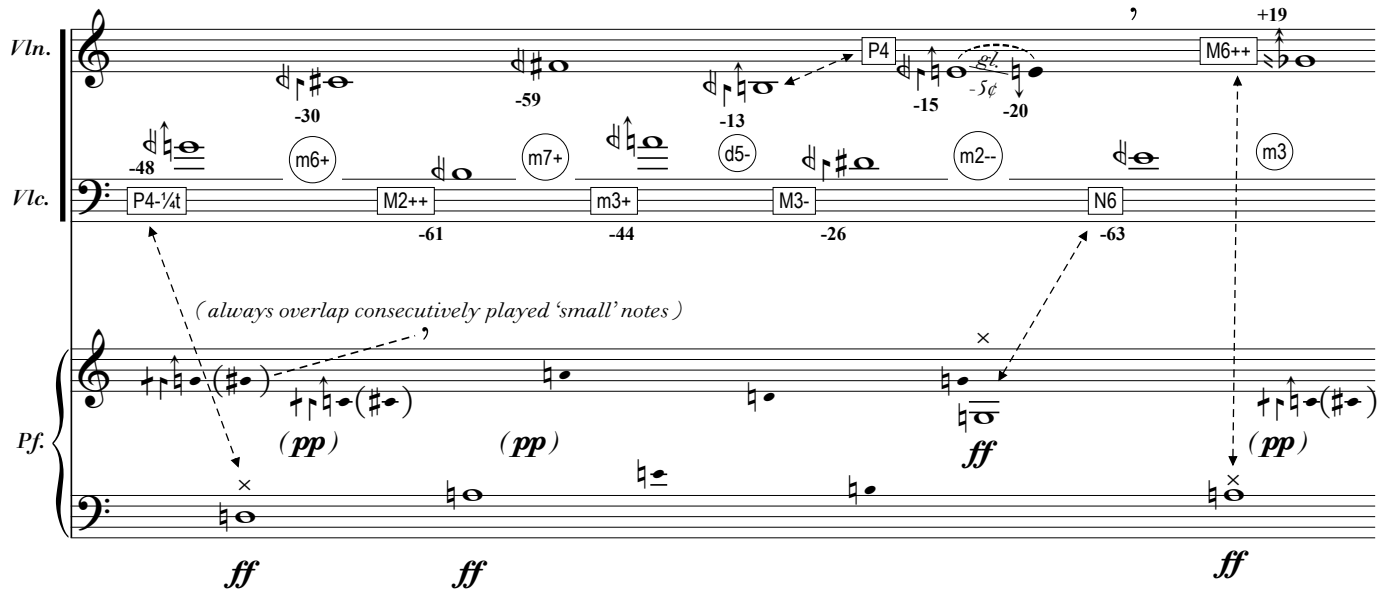


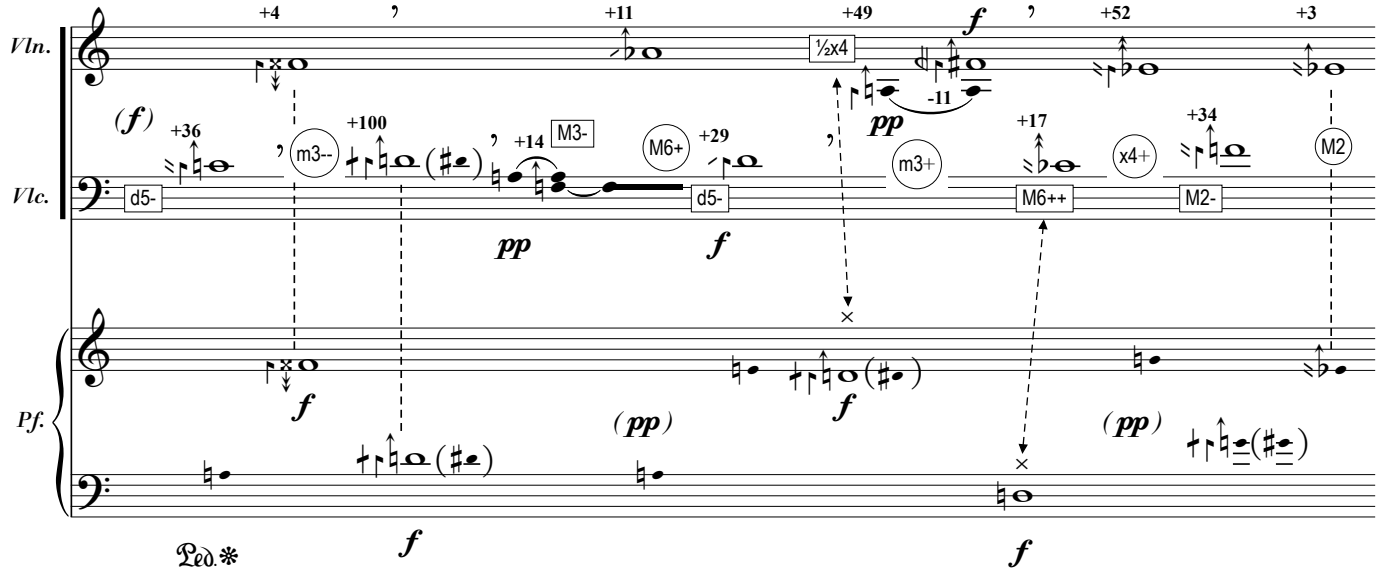

Vln.
Vlc.
Pf.
(fff)
x4+
-16
-19
M3-
+12
P4+¼t
+49
+51
m3
m3+
N6
-4
m6++
+65
P4
m3--
-35
M3-
-29
P4+¼t
-49
M6-
M6-
( sempre simile, sustain as long as possible / audible )
fff
(pp)
fff
(pp)
fff

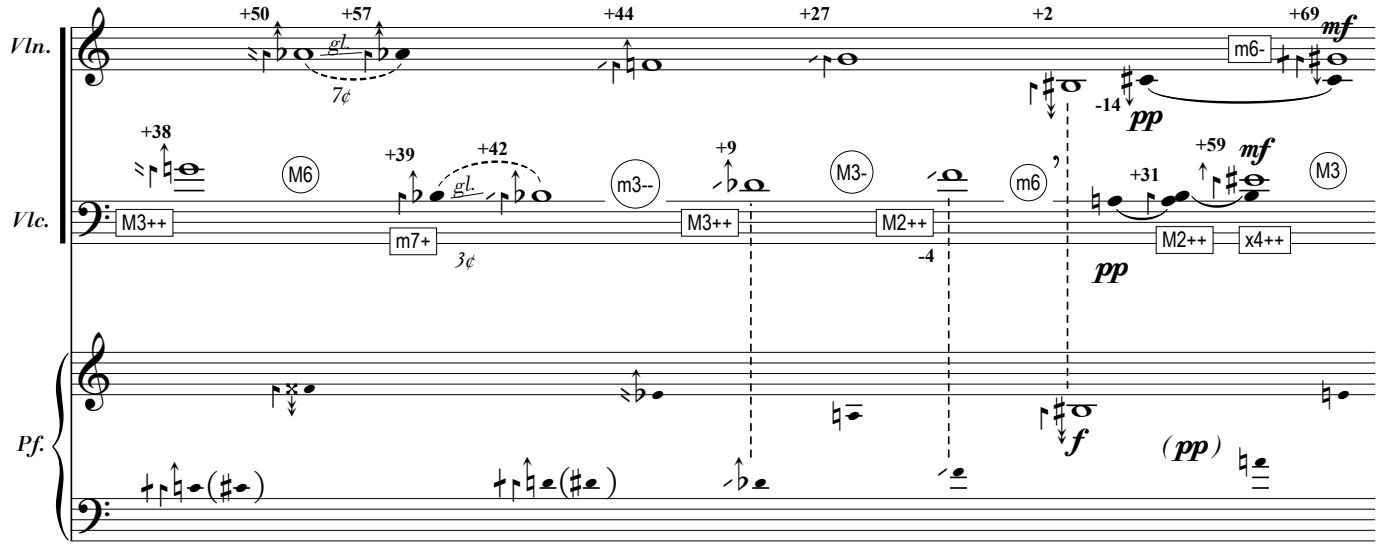

Vln.
Vlc.
Pf.
+47
+67
m2-
+84
+96
+47
+63
m2+
+82
P5
+81
gl.
m7+
+98
N7
+49
M7-
m2+
M3++
m6-
-16
-3¢
m6+
N3
bracketed note indicates the piano key tuned closest to the microtonal accidentals —
otherwise read the written sharps and flats conventionally, ignoring additional signs
pp
fff

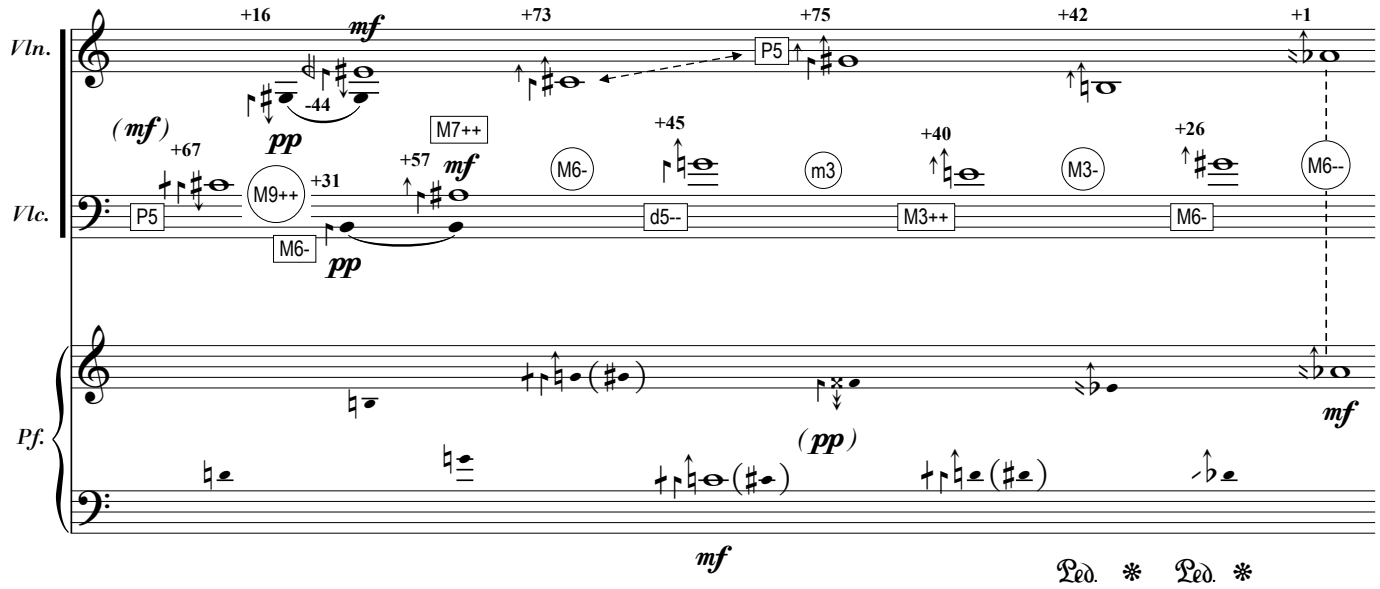

Vln.
Vlc.
Pf.
+20
+66
gl.
-28
-6¢
N3
-47
+16
x4+
+31
m6--
(ff)
+37
P5-
m3
+51
m2--
+21
m2
+29
M2+
x4-
P4-¼t
-46
N3
d5-
M3-
comma cuts off
only the B
ff
(pp)
ff
(pp)
ff
(pp)
ff
(pp)
ff
Ped. *

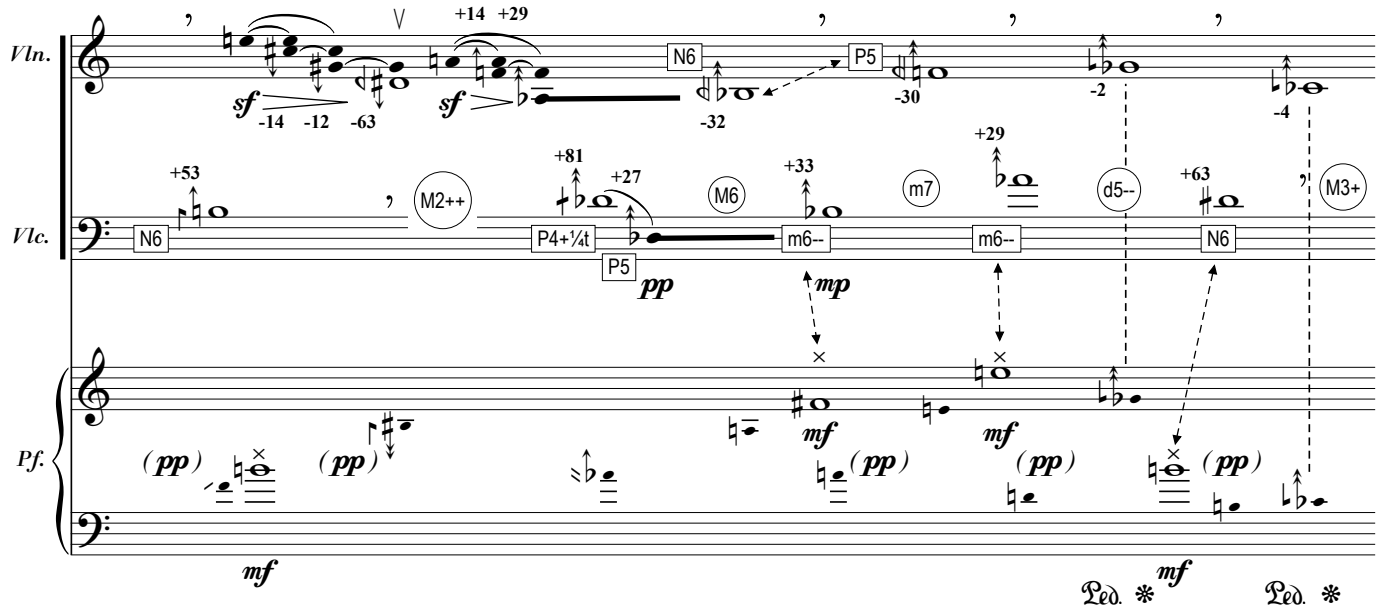


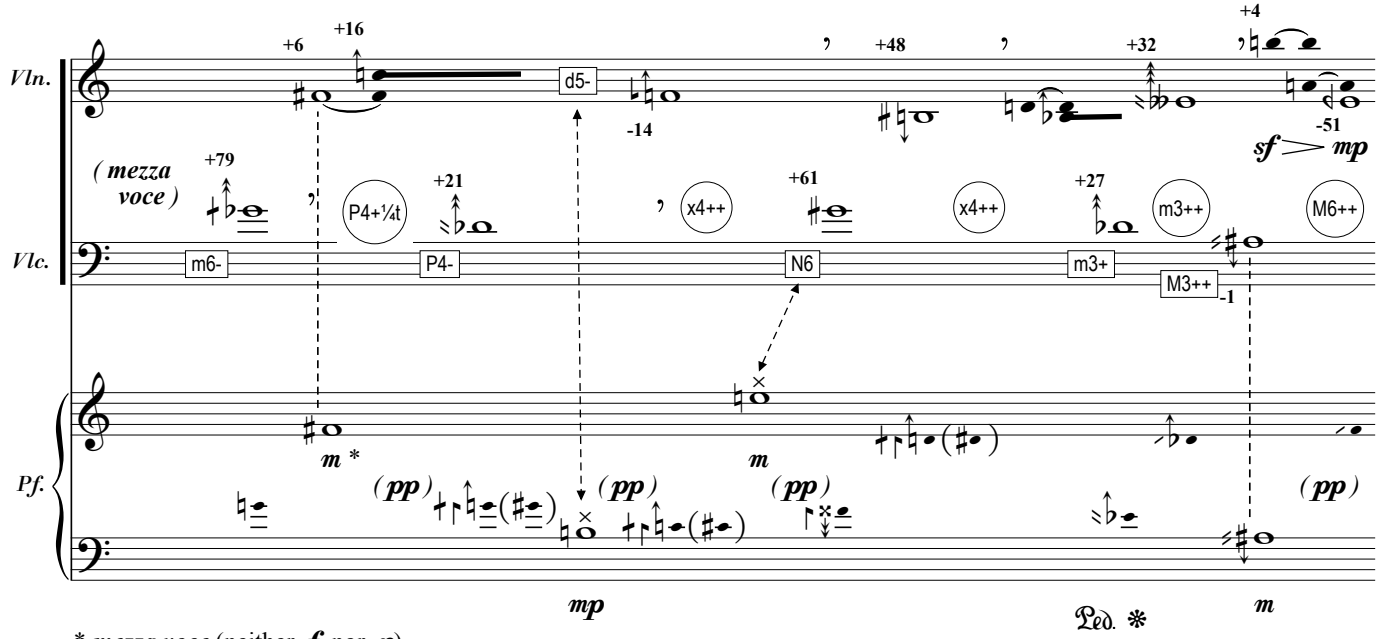

*black noteheads in the strings indicate tuneable paths between the primary ( white ) noteheads : in general they are to be played softly continue to allow tones to overlap between cello and violin as long as intonation requires, unless a comma indicates a specific cut-off*



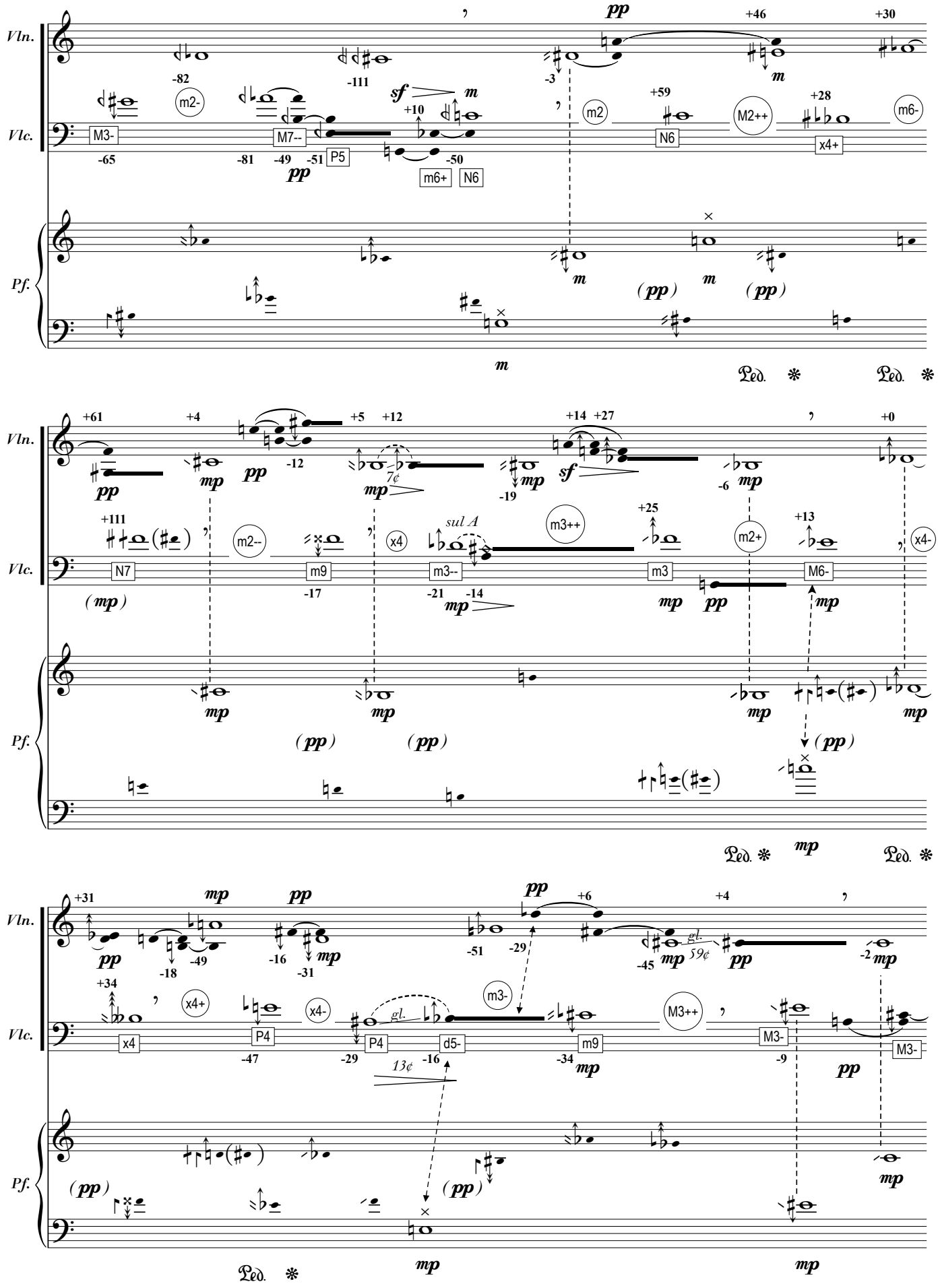



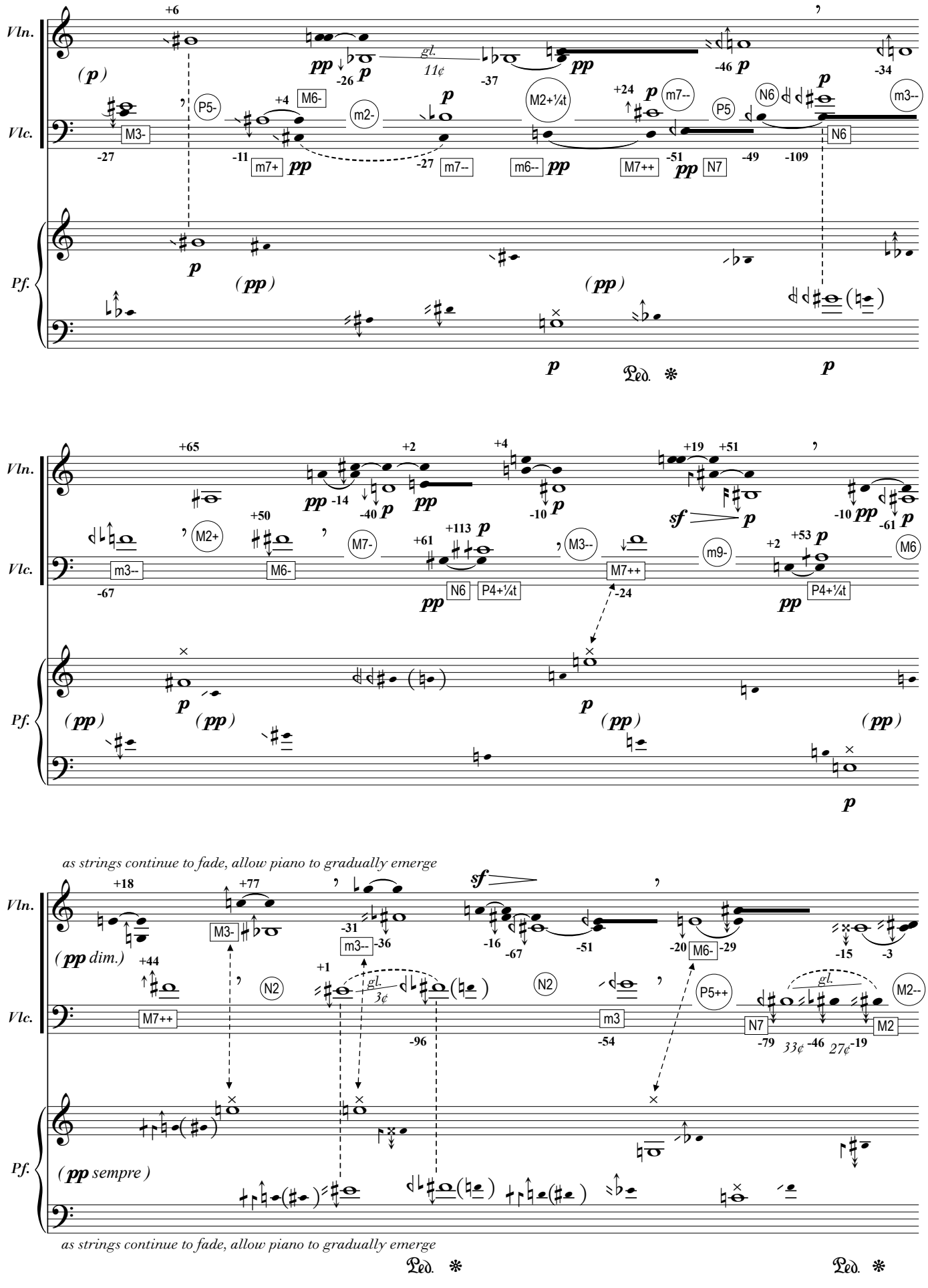


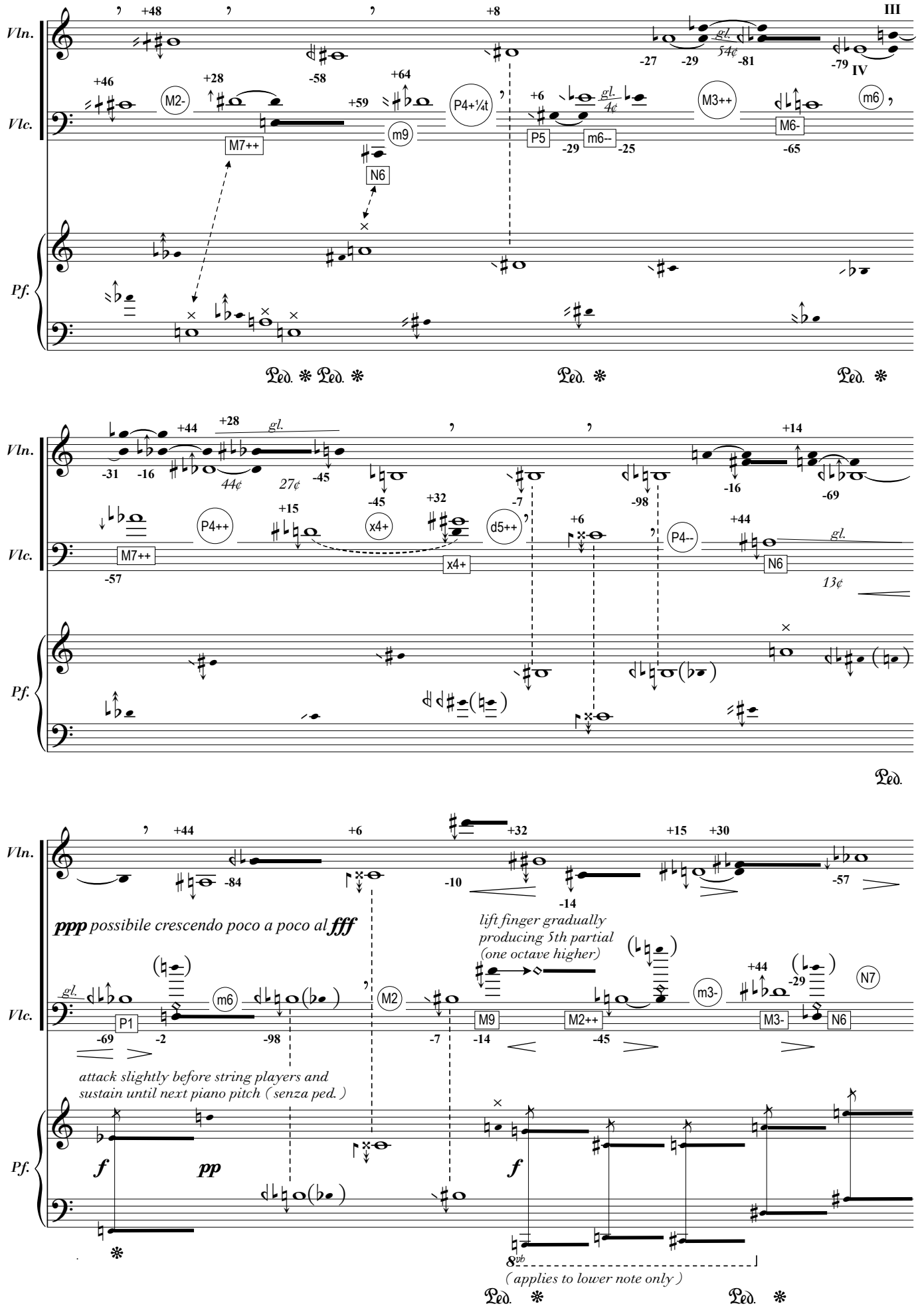



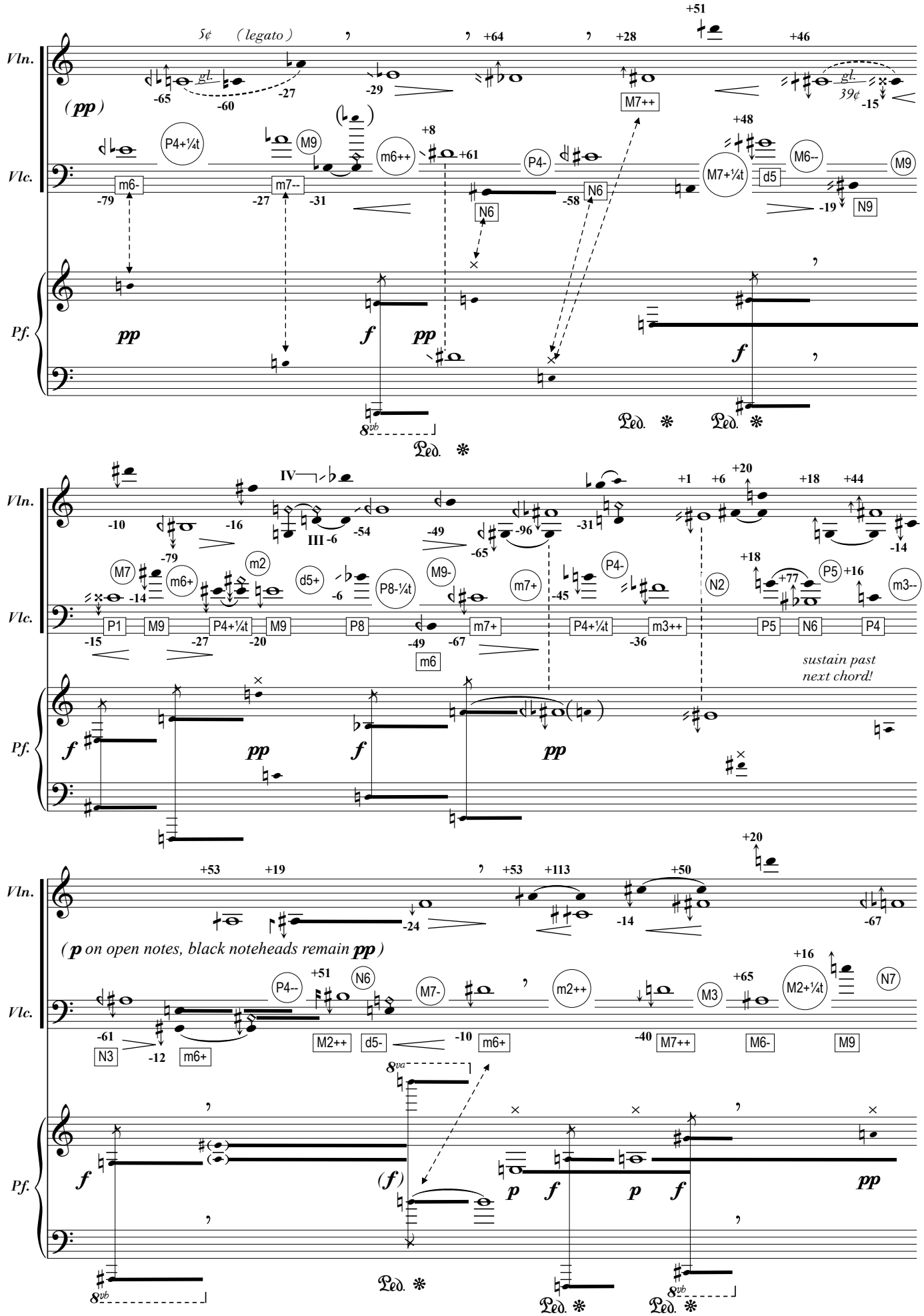



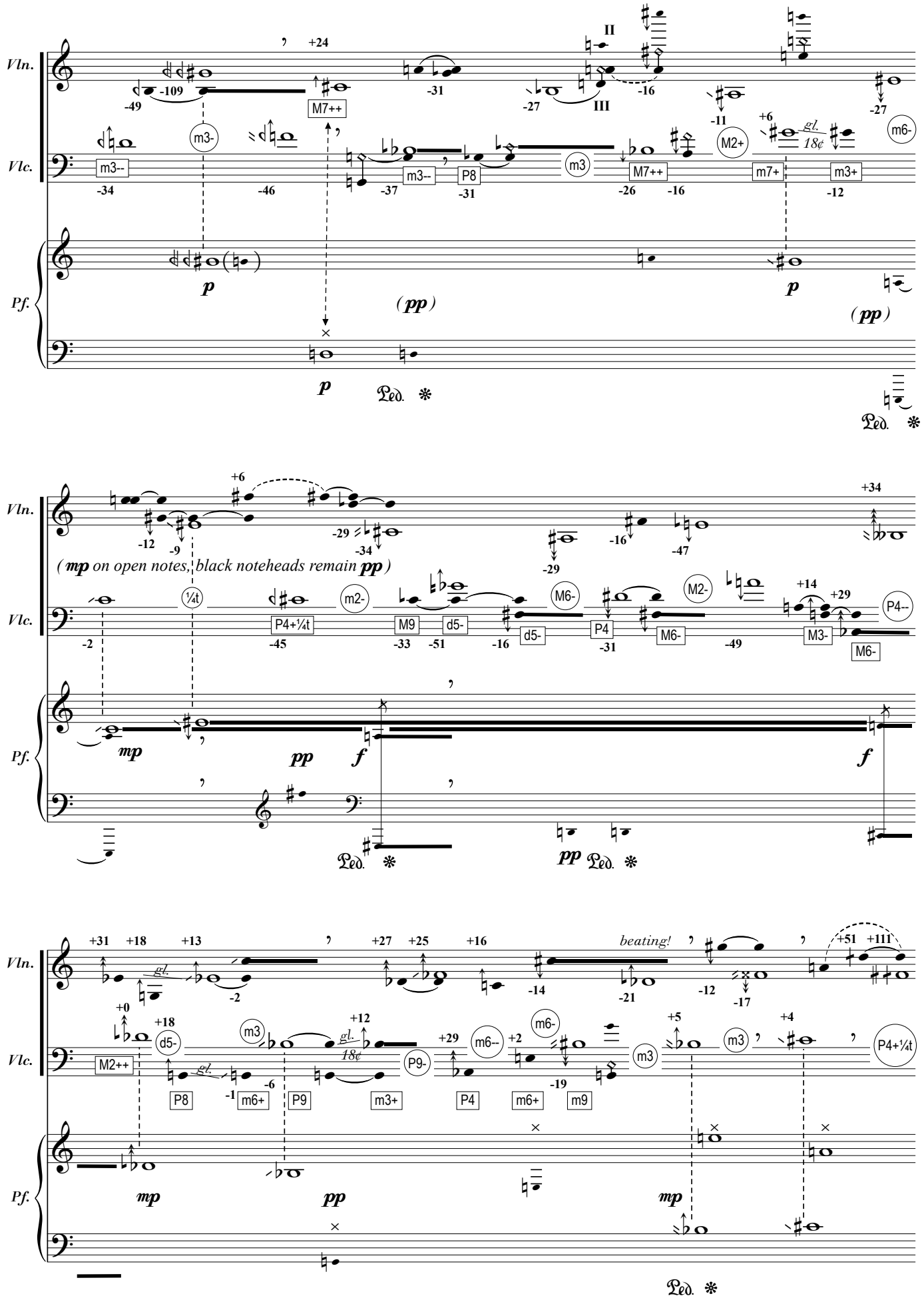

* ***mezza voce*** (neither ***f*** nor ***p***)

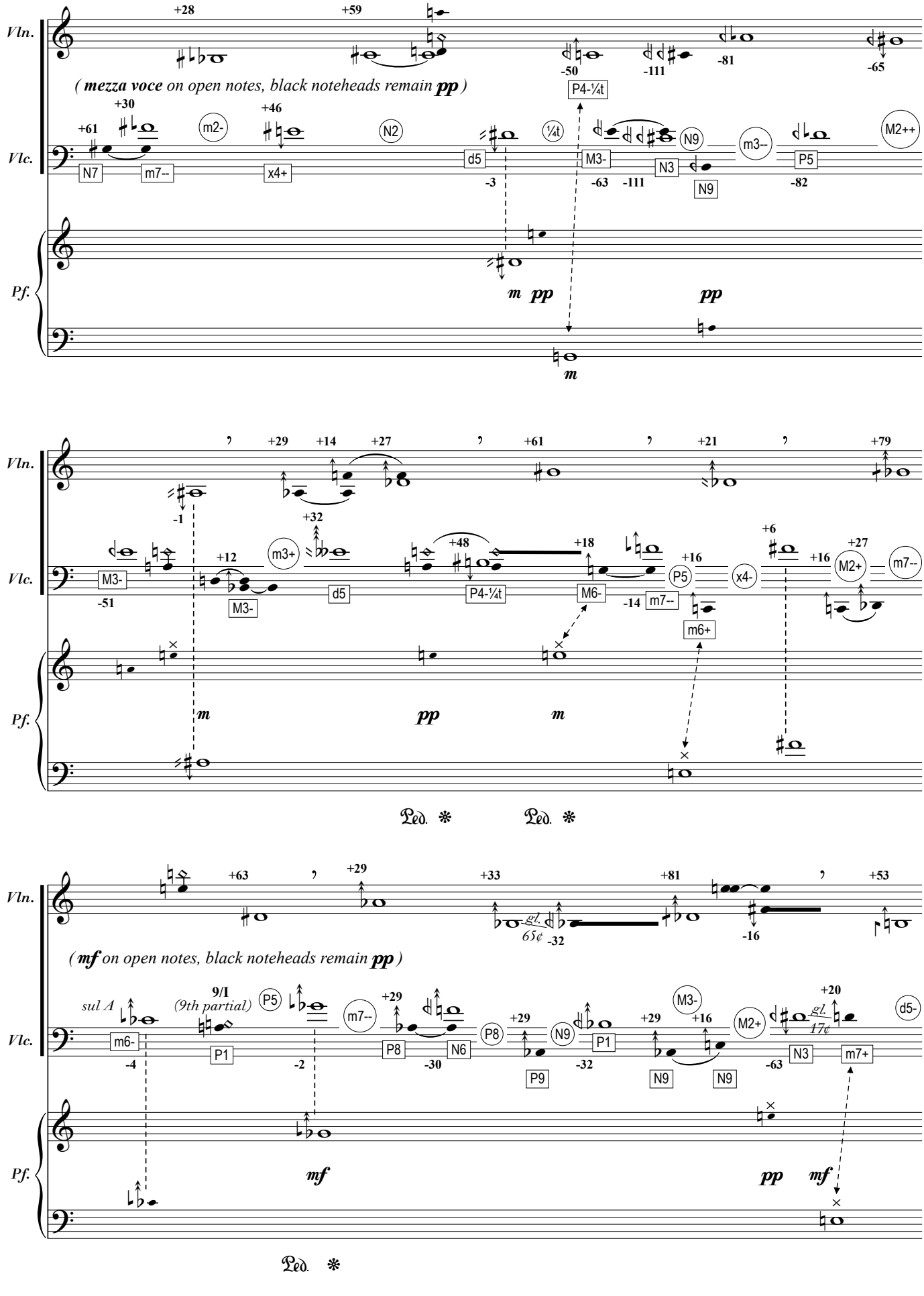

Vln.
Vlc.
Pf.
pp
sf
m
mp
(pp)
(mp)
Ped.
m2-
M3-
M7--
P5
m6+
N6
m2
M2++
m6-
x4+
m2--
N7
m9
x4
m3--
sul A
m3++
m3
m2+
M6-
x4-
7¢
gl.
59¢
13¢
x4+
P4
d5-
m3-
M3++
M3-

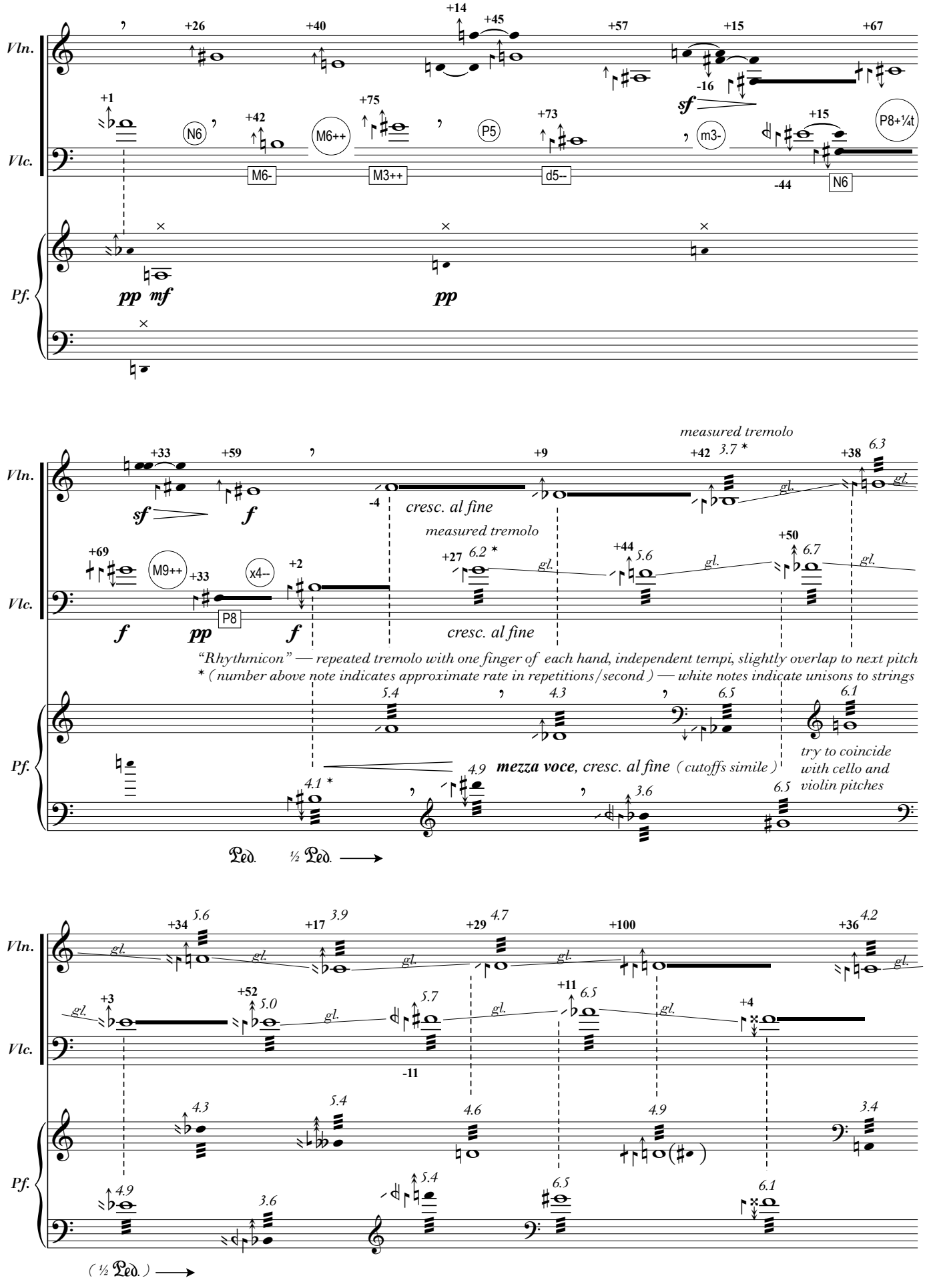

Vln.
Vlc.
Pf.
as strings continue to fade, allow piano to gradually emerge
( pp dim.)
( pp sempre )
as strings continue to fade, allow piano to gradually emerge
Ped.
Ped.

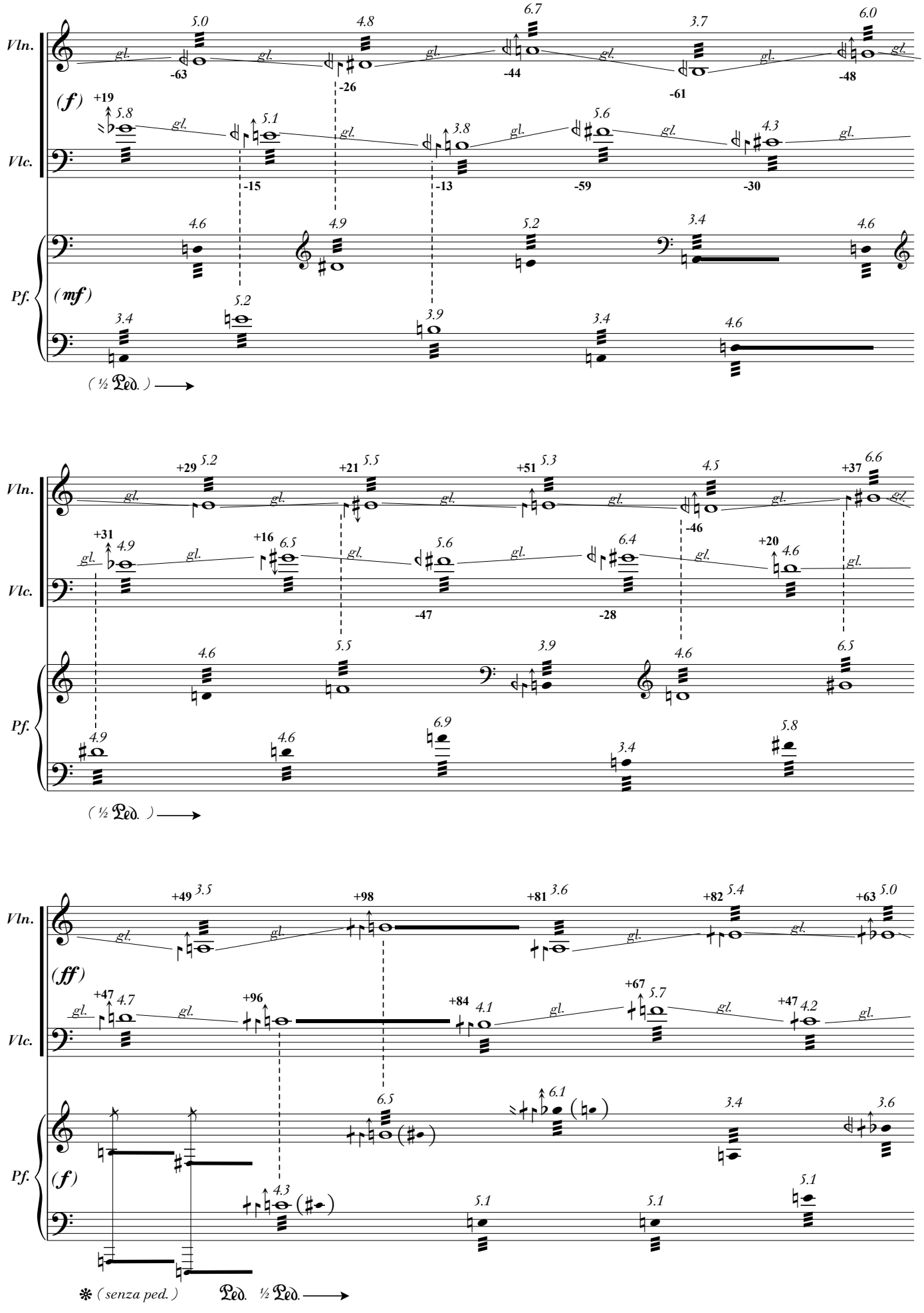

Vln.
Vlc.
Pf.
III
IV
gl.
54¢
M2-
M7++
N6
m9
P4+¼t
P5
m6--
M3++
M6-
m6
Ped. * Ped. *
Ped. *
Ped. *
44¢
27¢
gl.
13¢
P4++
x4+
d5++
P4--
Ped.
ppp possibile crescendo poco a poco al fff
lift finger gradually
producing 5th partial
(one octave higher)
P1
M2
M9
M2++
m3-
M3-
N7
attack slightly before string players and
sustain until next piano pitch ( senza ped. )
f
pp
f
8vb
( applies to lower note only )
Ped. *
Ped. *

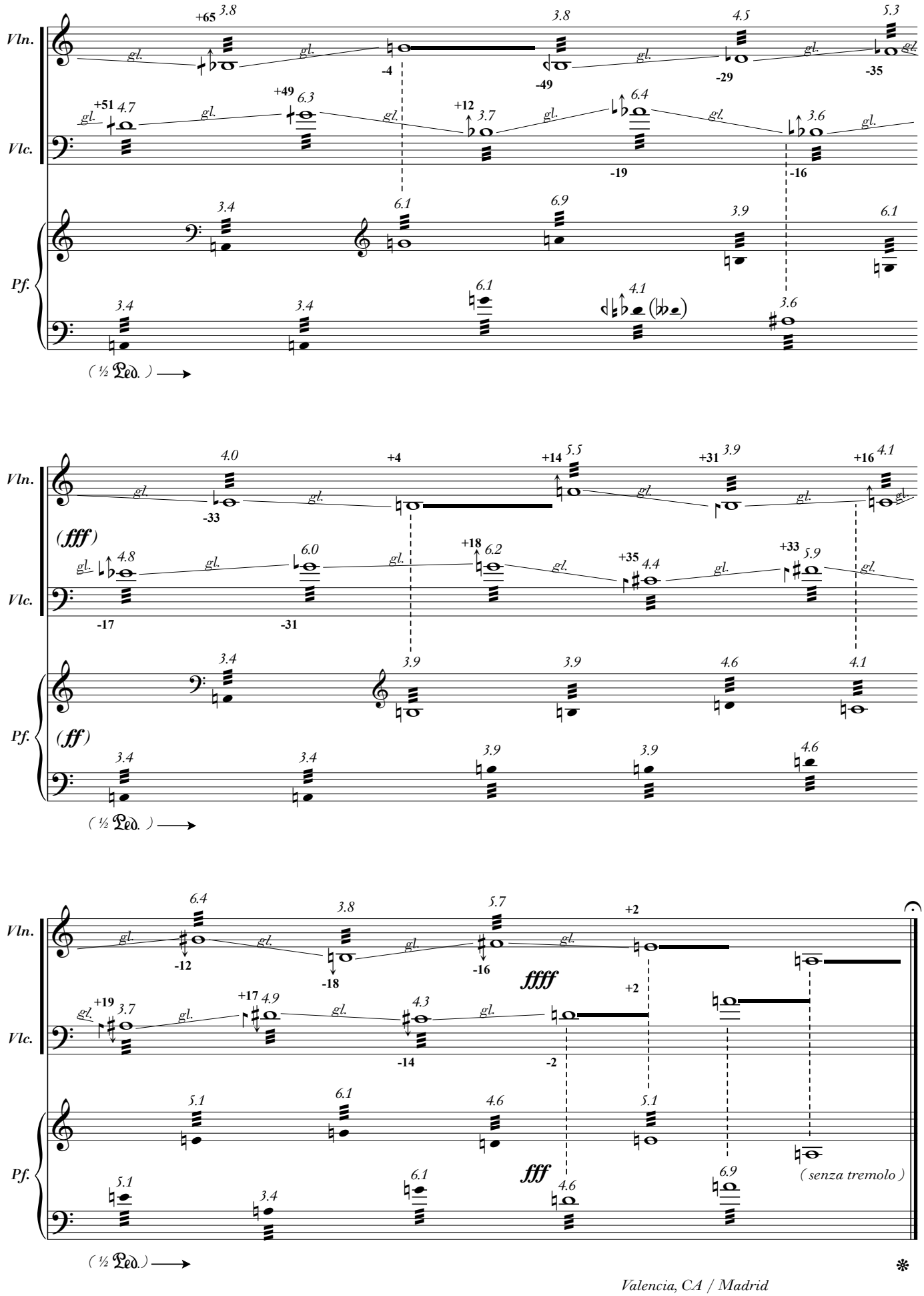

Vln.
Vlc.
Pf.
5¢ ( legato )
( pp )
gl.
39¢
P4+¼t
M9
m6++
P4-
M7++
M7+¼t
d5
M6--
m6-
m7--
N6
N9
pp
f
Ped.
IV
III
M7
m6+
m2
d5+
P8-¼t
M9-
m7+
N2
P5
m3--
P1
P4
m6
sustain past
next chord!
( p on open notes, black noteheads remain pp )
N3
M2++
d5-
M7-
m2++
M3
M2+¼t
N7
M6-
(f)


Vln.
Vlc.
Pf.
II
III
gl.
18¢
M7++
m3-
m3--
P8
m3
M2+
m7+
m3+
m6-
p
(pp)
Ped.
( mp on open notes, black noteheads remain pp )
¼t
P4+¼t
m2-
M9
d5-
M6-
P4
M2-
P4--
M3-
mp
pp
f
beating!
M2++
P9-
m6--
m6+
m9
P4+¼t


Vln.
Vlc.
Pf.
( mezza voce on open notes, black noteheads remain pp )
( mf on open notes, black noteheads remain pp )
sul A
9/I
(9th partial)
gl. 65¢
gl. 17¢
Ped.
Ped.
Ped.


Vln.
Vlc.
Pf.
+1
+26
+40
+14
+45
+57
+15
+67
-16
sf
+42
+75
+73
+15
N6
M6++
P5
m3-
P8+¼t
M6-
M3++
d5--
-44
N6
pp mf
pp
+33
+59
+9
+42
3.7 *
+38
6.3
measured tremolo
sf
f
-4
cresc. al fine
gl.
+69
M9++
+33
x4--
+2
+27
6.2 *
+44
5.6
+50
6.7
P8
f
pp
f
cresc. al fine
"Rhythmicon" — repeated tremolo with one finger of each hand, independent tempi, slightly overlap to next pitch
* ( number above note indicates approximate rate in repetitions/second ) — white notes indicate unisons to strings
5.4
4.3
6.5
6.1
4.9
mezza voce, cresc. al fine ( cutoffs simile )
try to coincide with cello and violin pitches
4.1 *
3.6
6.5
Ped.
½ Ped.
+34
5.6
+17
3.9
+29
4.7
+100
+36
4.2
+3
+52
5.0
5.7
+11
6.5
+4
-11
4.3
5.4
4.6
4.9
3.4
4.9
3.6
5.4
6.5
6.1
( ½ Ped. )


Vln.
Vlc.
Pf.
(f)
(mf)
(ff)
gl.
-63
-26
-44
-61
-48
-15
-13
-59
-30
-46
-47
-28
( ½ Ped. )
( ½ Ped. )
✻ ( senza ped. )
Ped. ½ Ped.




*Valencia, CA / Madrid*
*February - April 2007, revised December 2007*