Tremor Transducer

Music for chamber ensemble and live electroacoustics

Dedicated to the memory of Jonathan Kramer
Written for NeXT Ens

By
Douglas Geers

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Tremor Transducer (ca. 15 minutes)

Notes:

Instrumentation:
Tremor Transducer is scored for the following instrumentation:

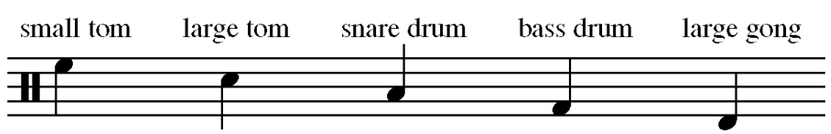
- Flute, doubling piccolo
- Percussion (marimba/drum set)
- Violin
- Violincello
- Piano
- Computer (operated by pianist)

If possible, all instruments in the ensemble should be close miked and amplified, to mix the acoustic and electronic sounds thoroughly.

Notes on the percussion:
The percussion part is written for a single player, doubling on marimba (with gong) and a set of drums (small and large toms, snare drum, and bass drum).

A five-octave marimba is ideal for the piece (C2 to C7), but it has been written to allow for one with a range of four octaves and a fourth (C2 to F6). A number of places are indicated in the score where one ought to transpose the marimba up an octave if playing a five-octave instrument.

The allocation of drums on the staff is as follows:



The bass drum may be played either with a hand mallet or foot pedal-operated mallet (as when playing a jazz or pop drum kit).

The gong is only played in the coda of the piece, and should be played via a soft mallet attached to a bass drum foot pedal, so that the percussionist may continue using both hands to play a marimba trill throughout.

Technical Needs for Computer and Audio Amplification:
This piece includes a live computer part, created by a Max/MSP instrument written by the composer and obtainable from him. The computer listens to the ensemble performance via a microphone and synthesizes its material from this audio.

Computer/Audio Equipment Required:

- Macintosh G4 (or PC equivalent) or newer computer running at 1GHz or faster and with 512MB or more RAM.
- Audio I/O for computer. Although the standard Macintosh audio I/O can be used, a professional-quality digital audio converter (MOTU 828 or 896, Hammerfall Digiface, M-Audio 410, etc.) would be preferred. The computer audio outputs a stereo signal.
- Microphone to capture ensemble performance for computer, plus necessary cables/adapters to get this signal into computer. A condenser microphone is preferable. Ideally the microphone should be located in the center of the ensemble, pointed so that its pickup pattern captures the ensemble but avoids any other sound sources. However, placement and directionality of the microphone may need to be adjusted in order to avoid feedback.
- Audio mixer and stereo speaker system.

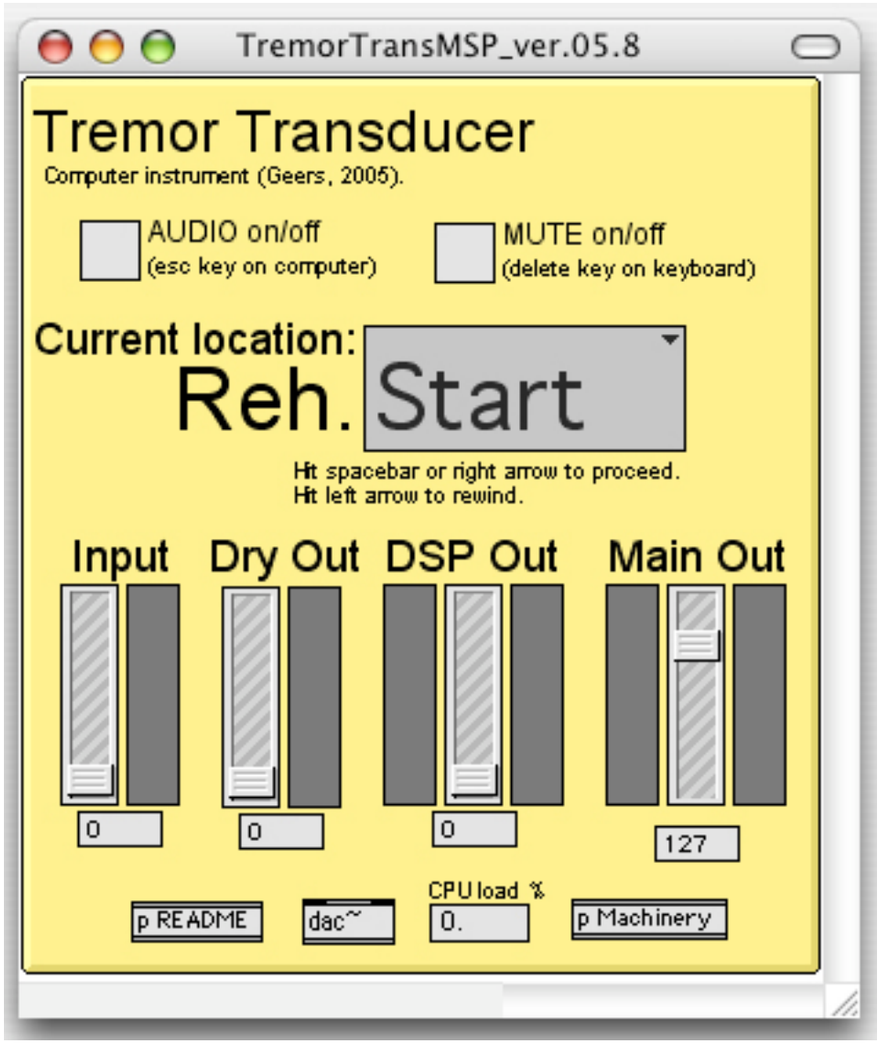
Operation of the Computer:
The computer instrument presents the user with a simple interface indicating On/Off, score rehearsal numbers, and audio levels (see next page). The computer may be operated either by a member of the ensemble or an additional musician. Operation consists of turning on the patch and forwarding its settings using either the computer spacebar or right arrow key as the piece progresses, according to the DSP preset numbers (DSP 01, DSP 02, etc.) shown on the computer's staff in the score.

Details of setup and operation of the computer instrument are located inside the box labeled "README" near the bottom of the interface. Double-click this box to read its contents.

Audio I/O settings may be adjusted by double-clicking on the box labeled "dac~" near the bottom of the interface.

Sub-patches of the instrument are located inside the box labeled "Machinery" near the bottom of the interface. Double-click to view these. Performers shouldn't have to change settings in here, but it is available just in case.

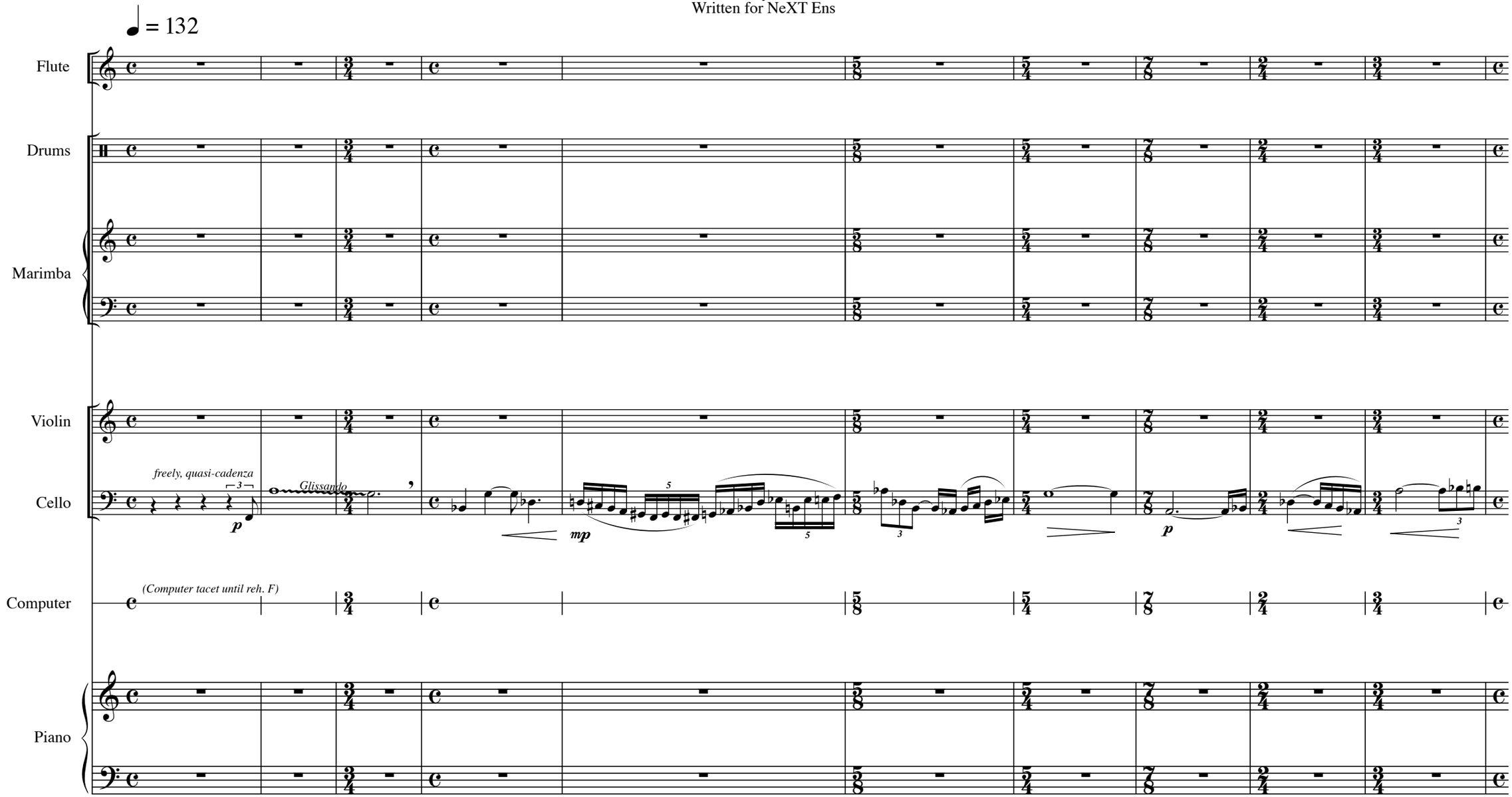
Computer Instrument interface for *Tremor Transducer:*



Tremor Transducer

Dedicated to the memory of Jonathan D. Kramer
Written for NeXT Ens

Douglas Geers
November, 2004



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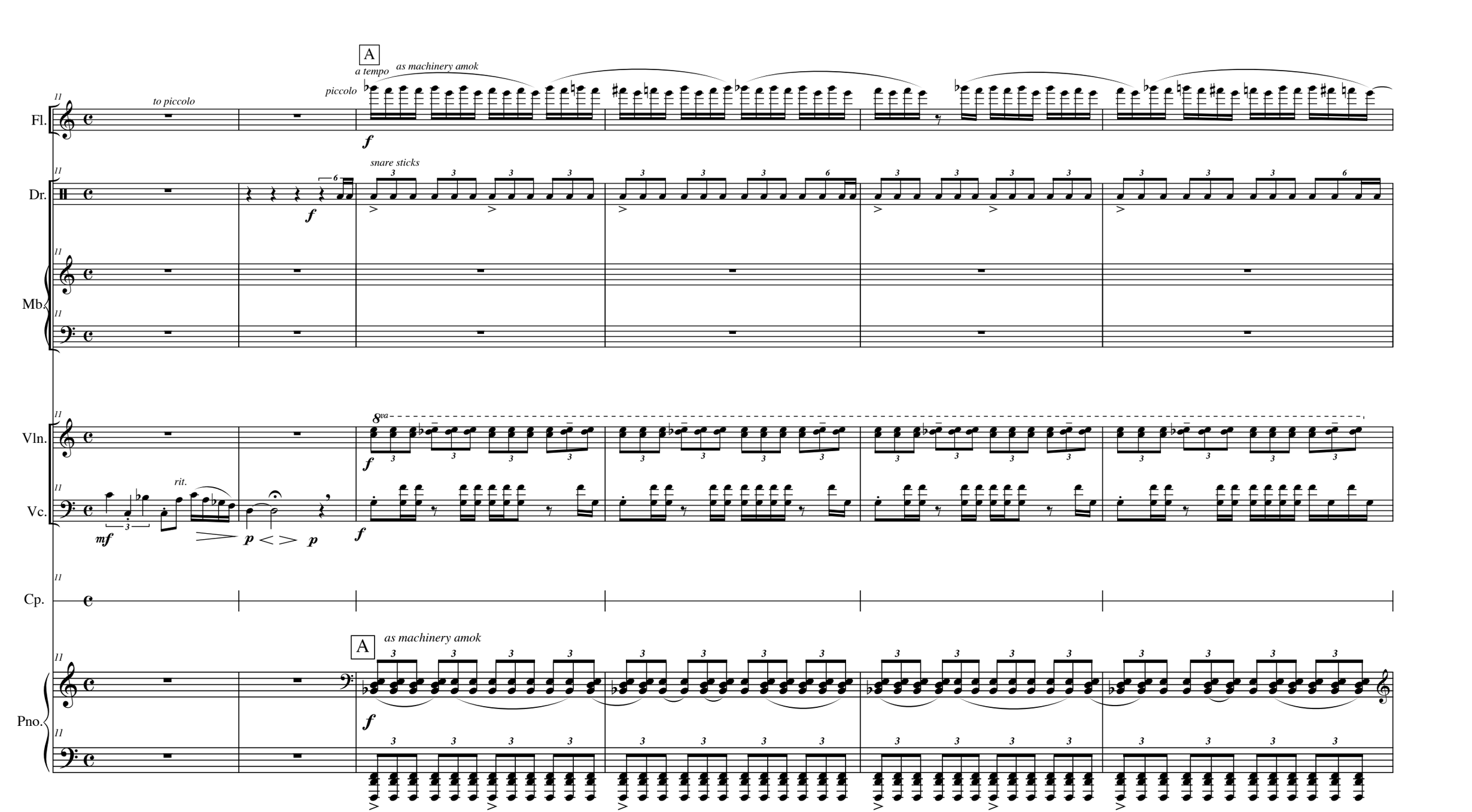
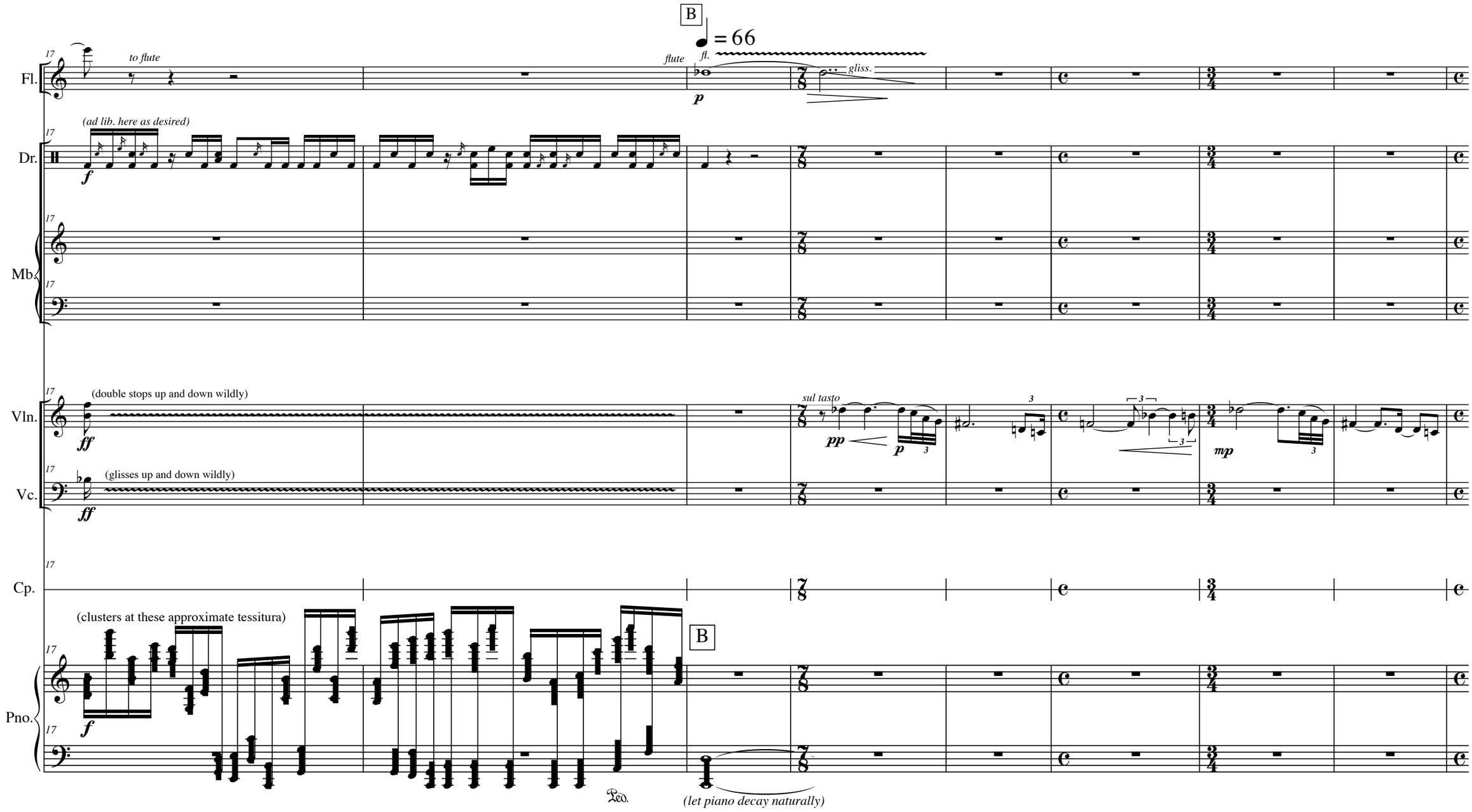
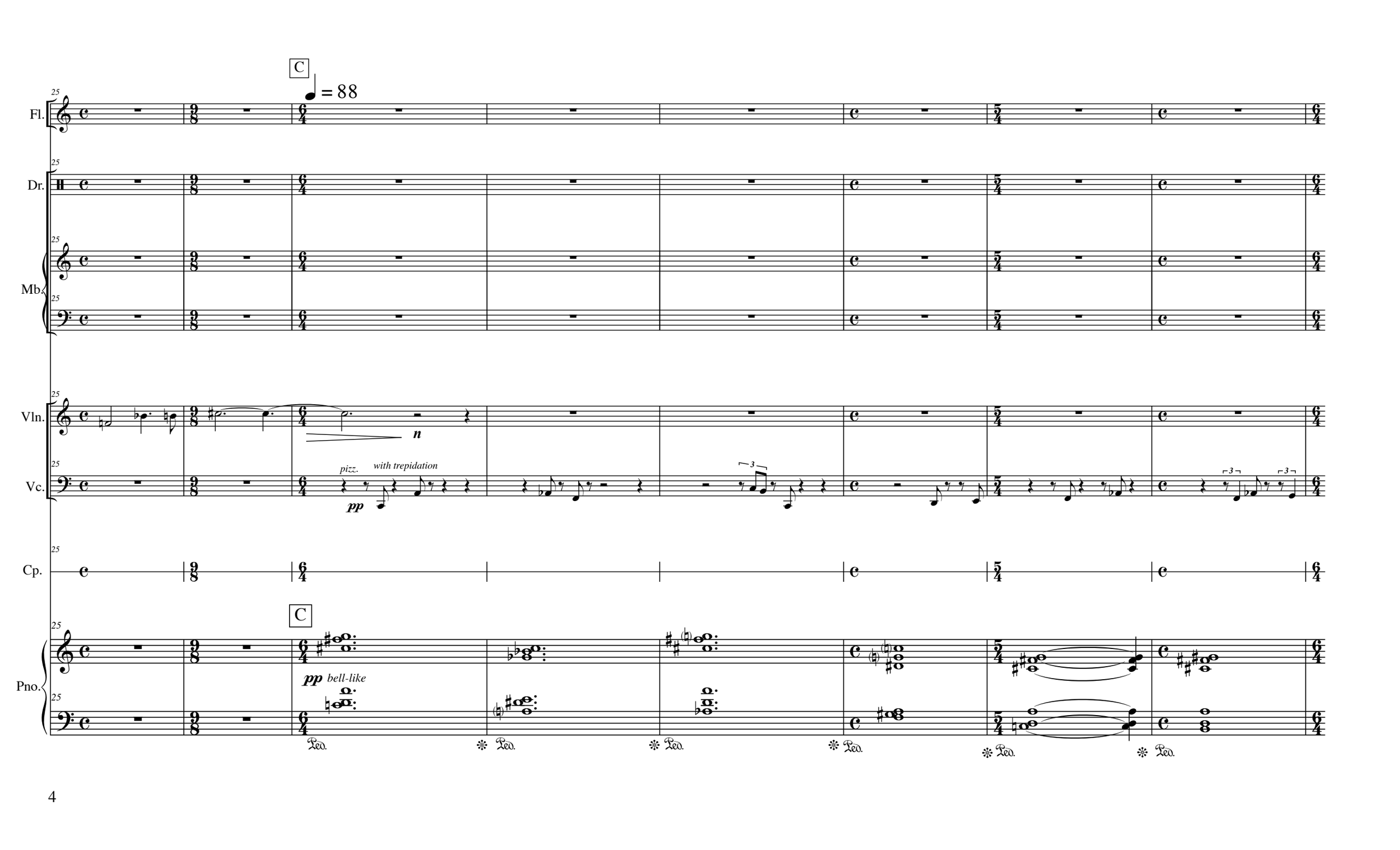
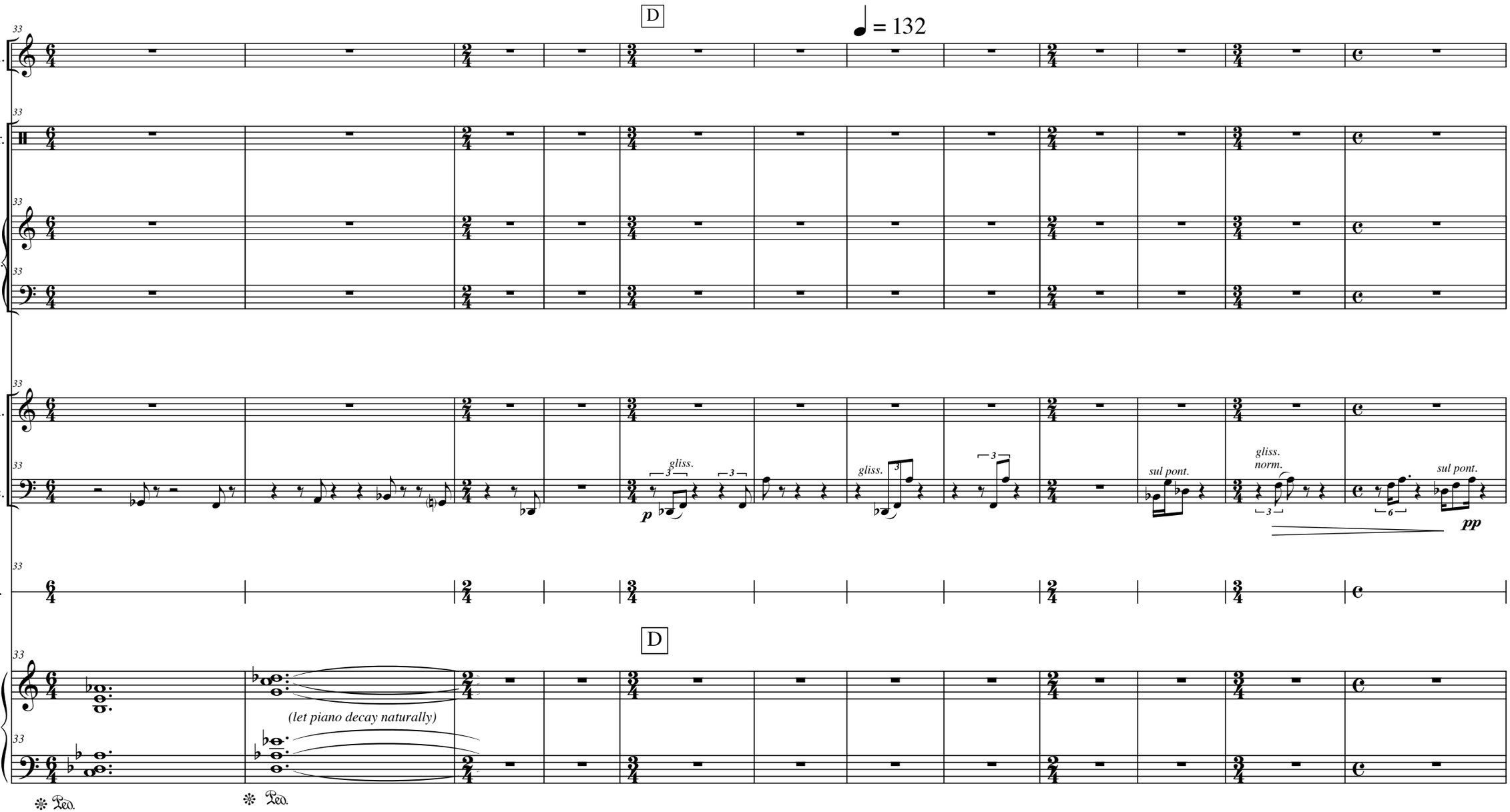
Rev. 1.15, 11/2005.

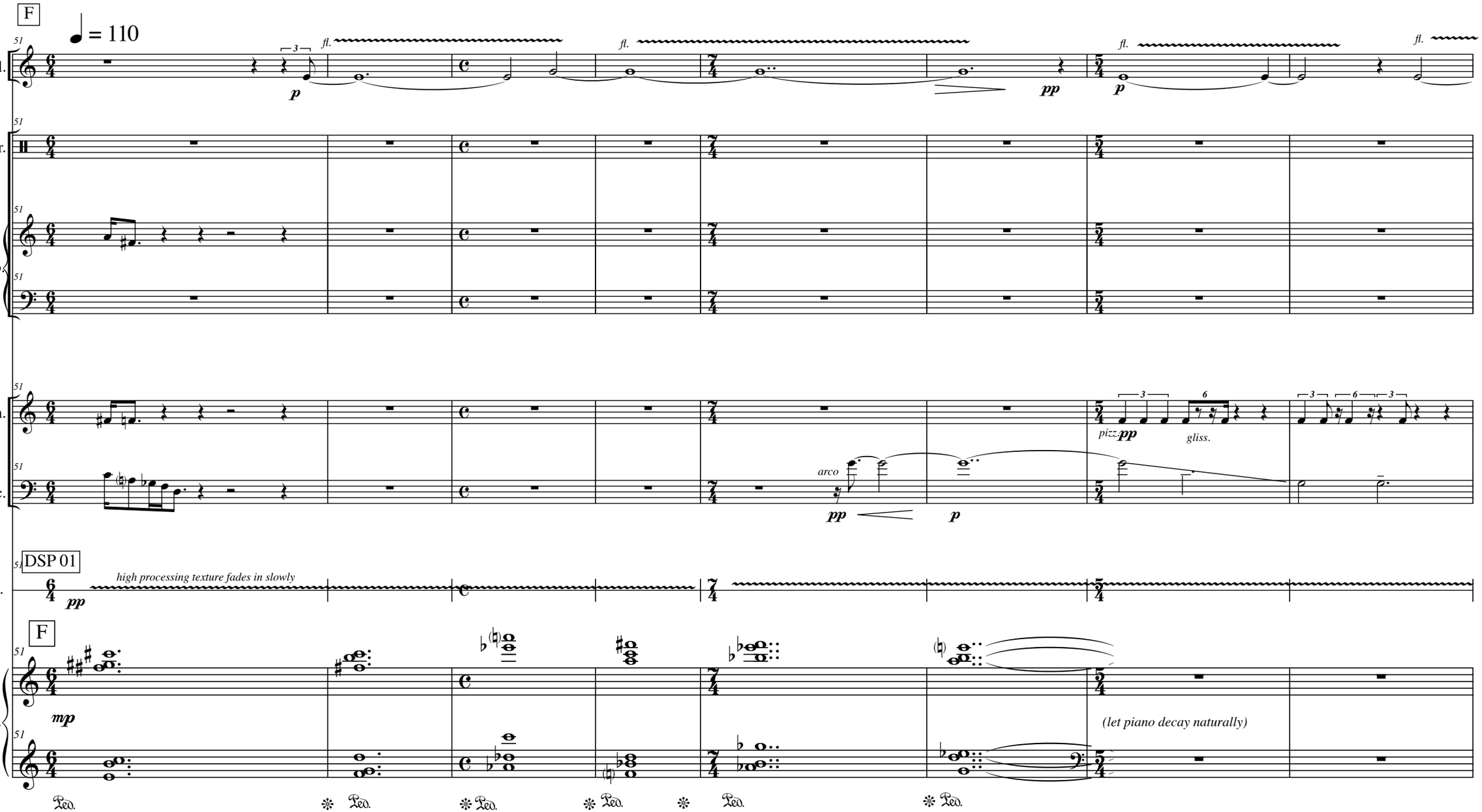

A
a tempo
as machinery amok
piccolo
to piccolo
Fl.
snare sticks
Dr.
Mb.
8va
Vln.
rit.
Vc.
Cp.
A
as machinery amok
Pno.

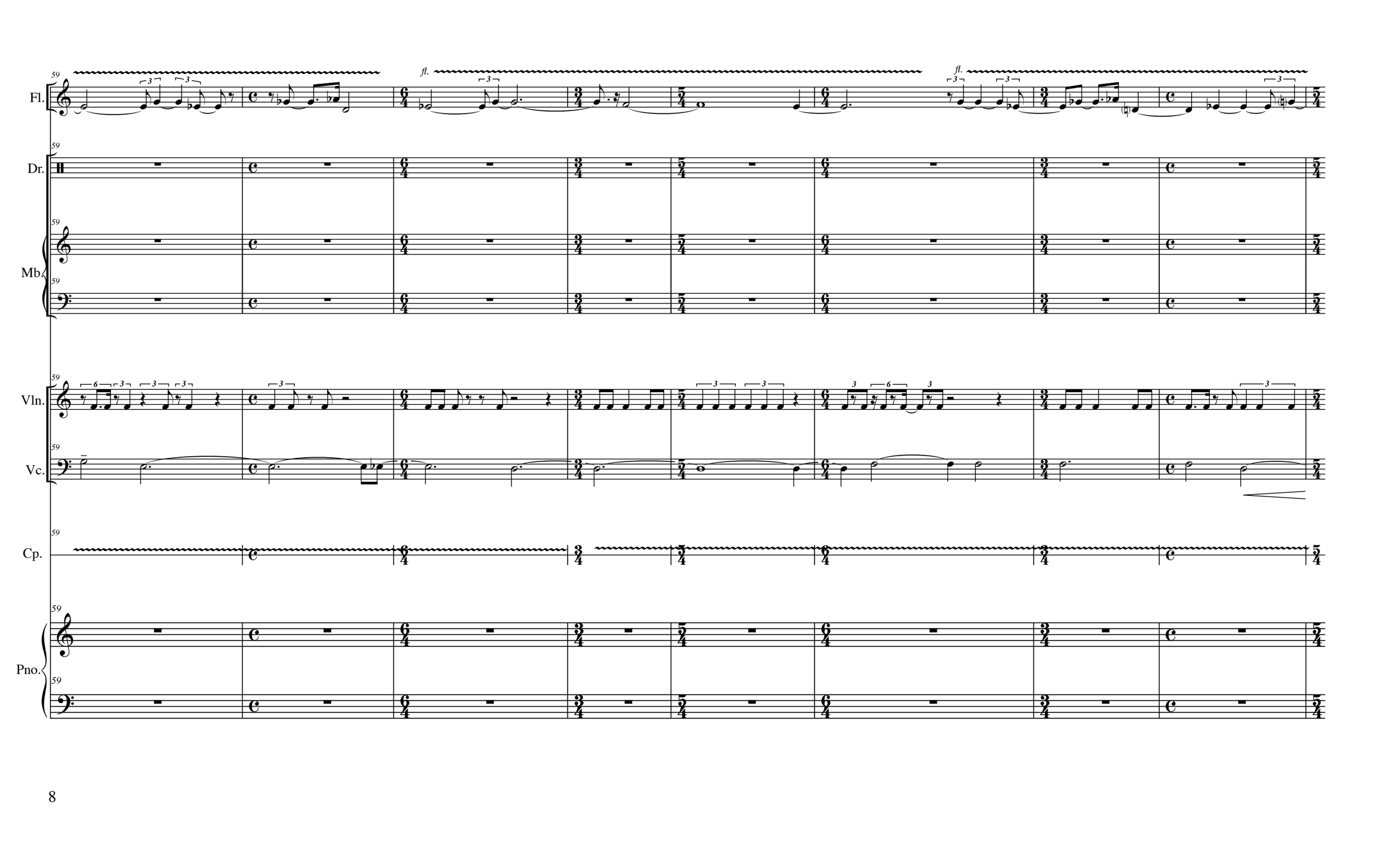

B
= 66
17
Fl.
to flute
flute
fl.
gliss.
p
(ad lib. here as desired)
Dr.
f
Mb.
Vln.
(double stops up and down wildly)
ff
sul tasto
pp
p
mp
Vc.
(glisses up and down wildly)
ff
Cp.
(clusters at these approximate tessitura)
Pno.
f
B
Ped.
(let piano decay naturally)

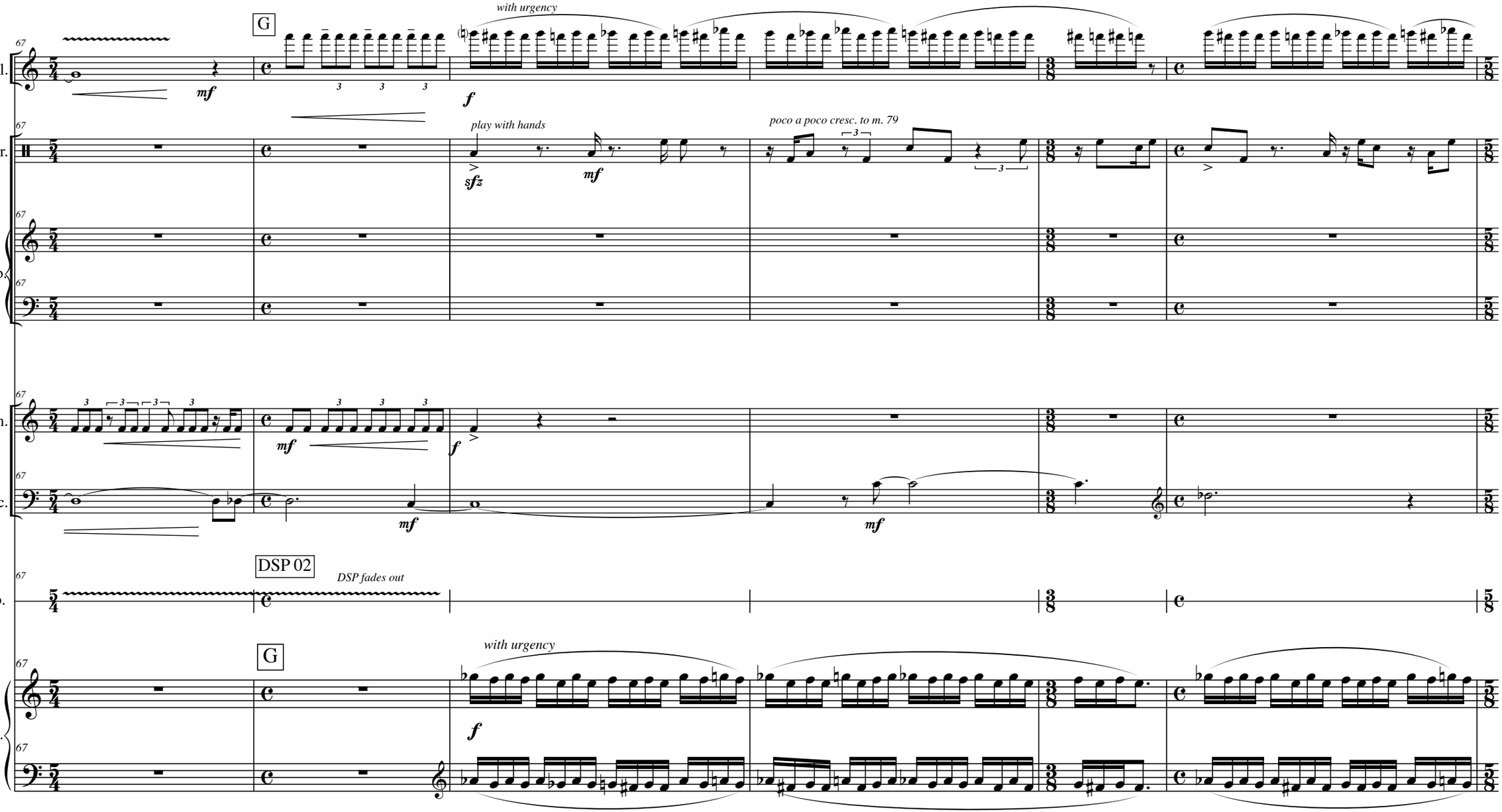

C
♩ = 88
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
pizz.
with trepidation
pp
n
C
pp bell-like
Ped.

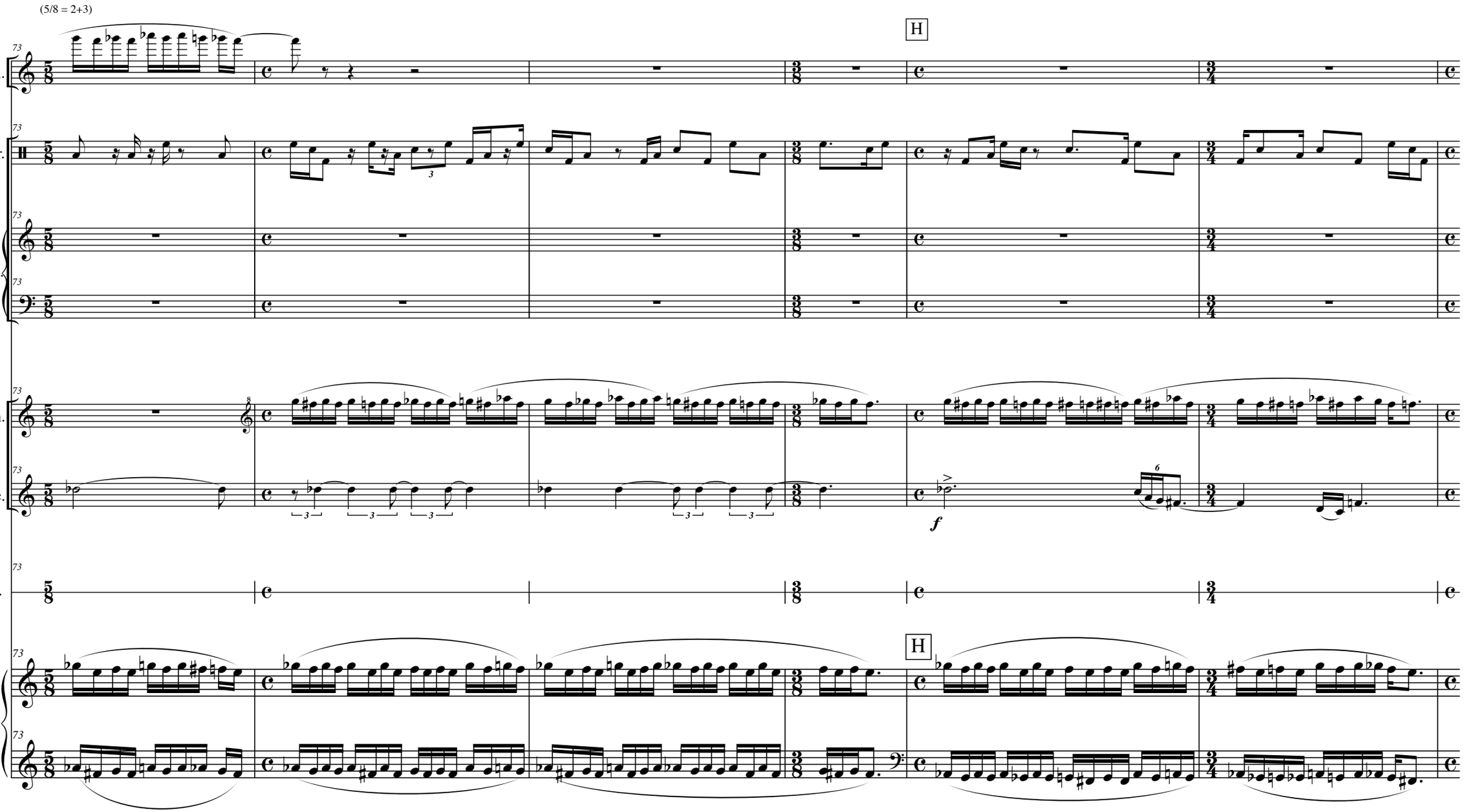

D
♩ = 132
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
gliss.
gliss.
sul pont.
gliss.
norm.
sul pont.
p
pp
(let piano decay naturally)
Ped.
Ped.

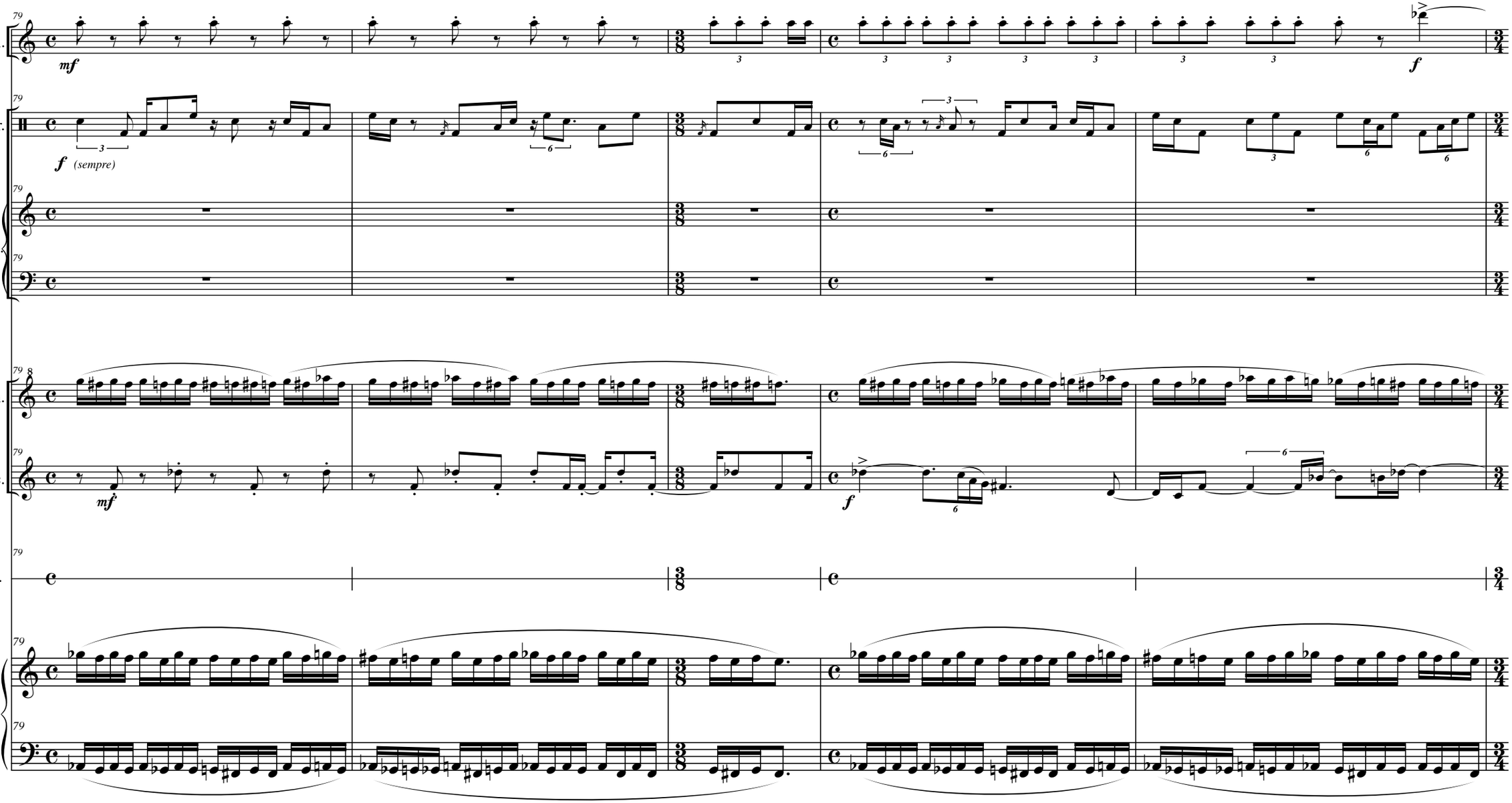
E
Like scurrying insects
Fl.
Dr.
Mb.
pp
Vln.
sul pont.
pizz.
mp
Vc.
norm.
to sul pont.
sul pont.
mp
Cp.
E
Pno.

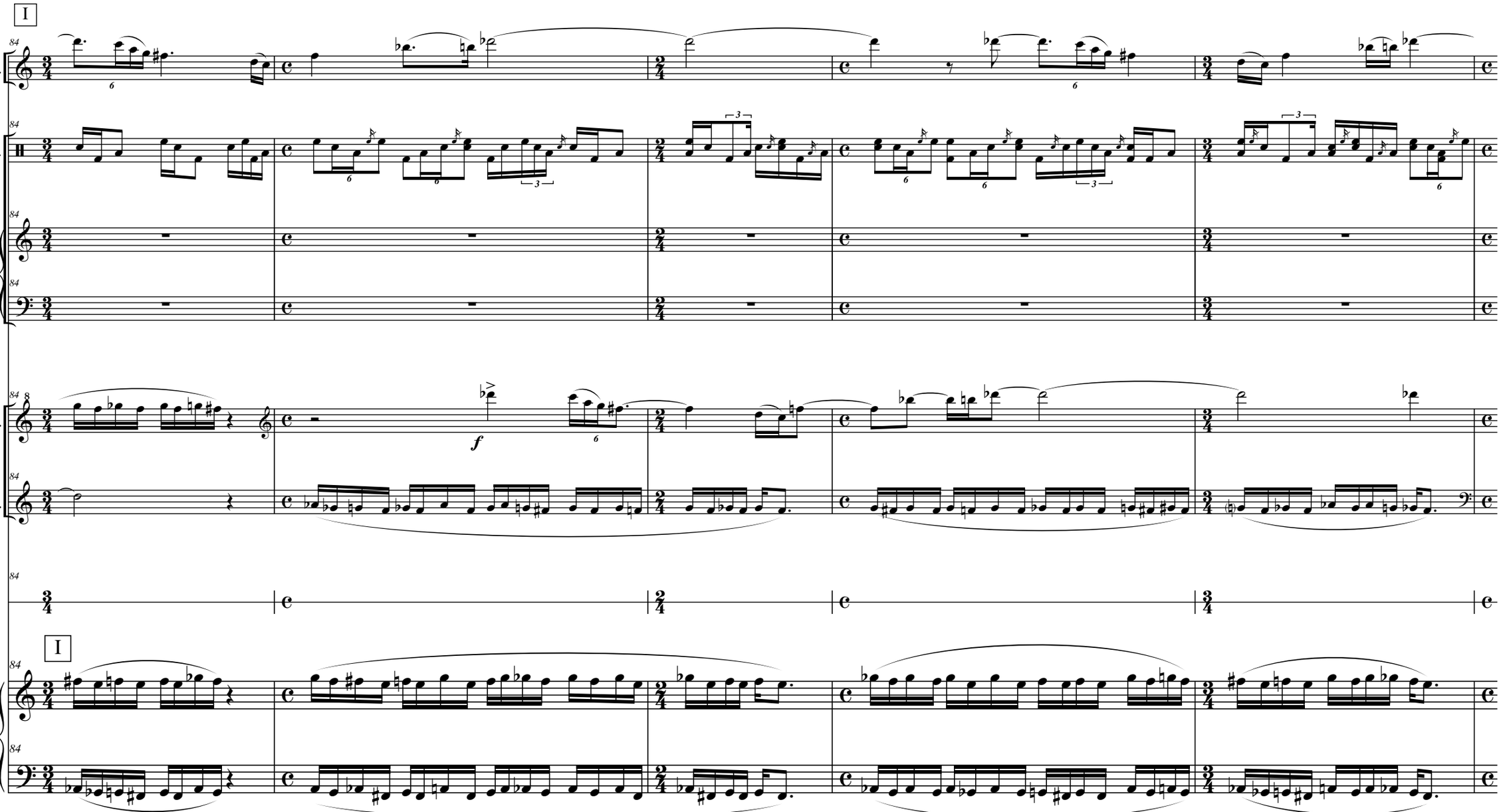

F
♩ = 110
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
DSP 01
high processing texture fades in slowly
Pno.
fl.
pizz.
gliss.
arco
(let piano decay naturally)


Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
fl.
fl.

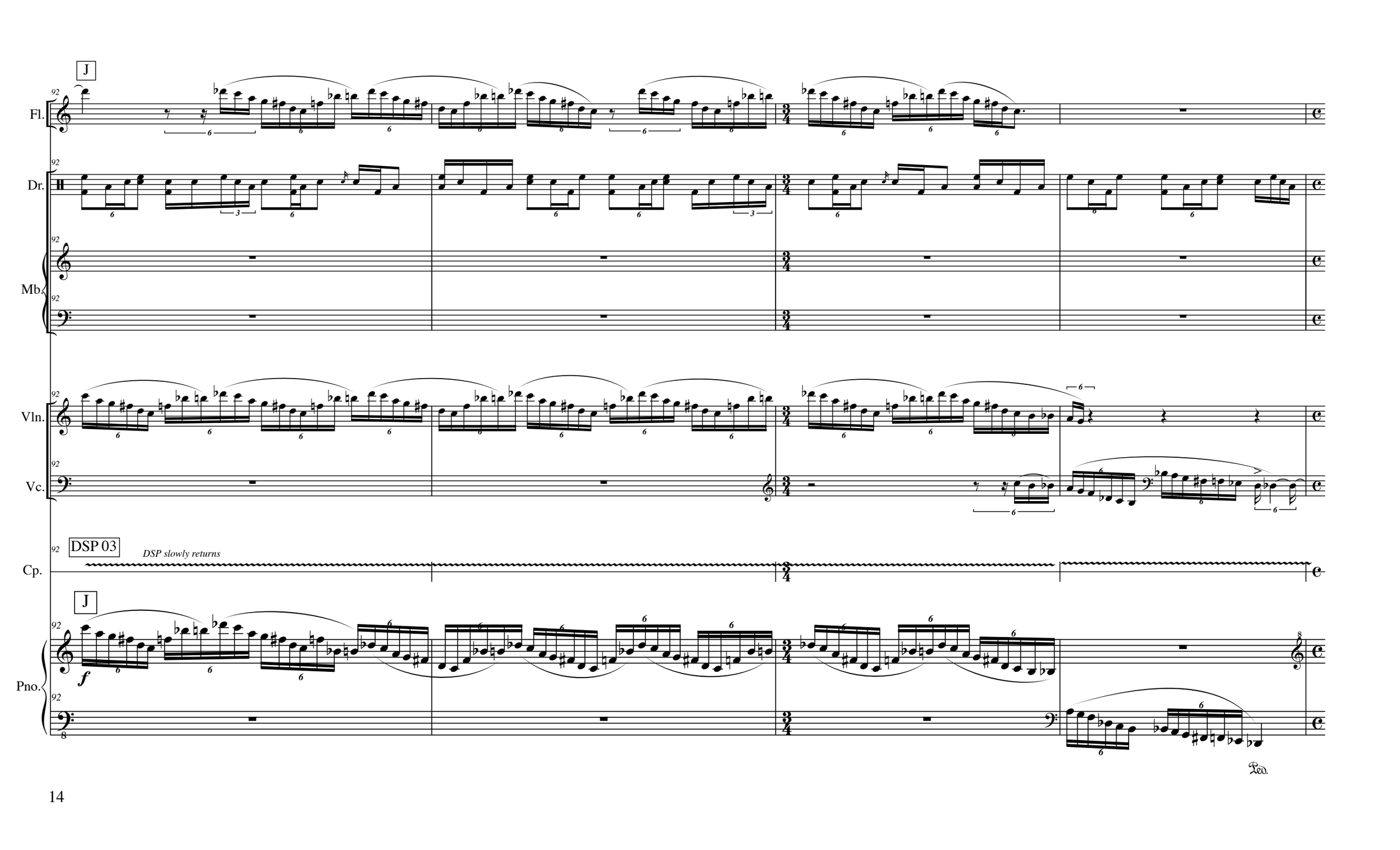

Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
G
with urgency
play with hands
poco a poco cresc. to m. 79
DSP 02
DSP fades out
G
with urgency

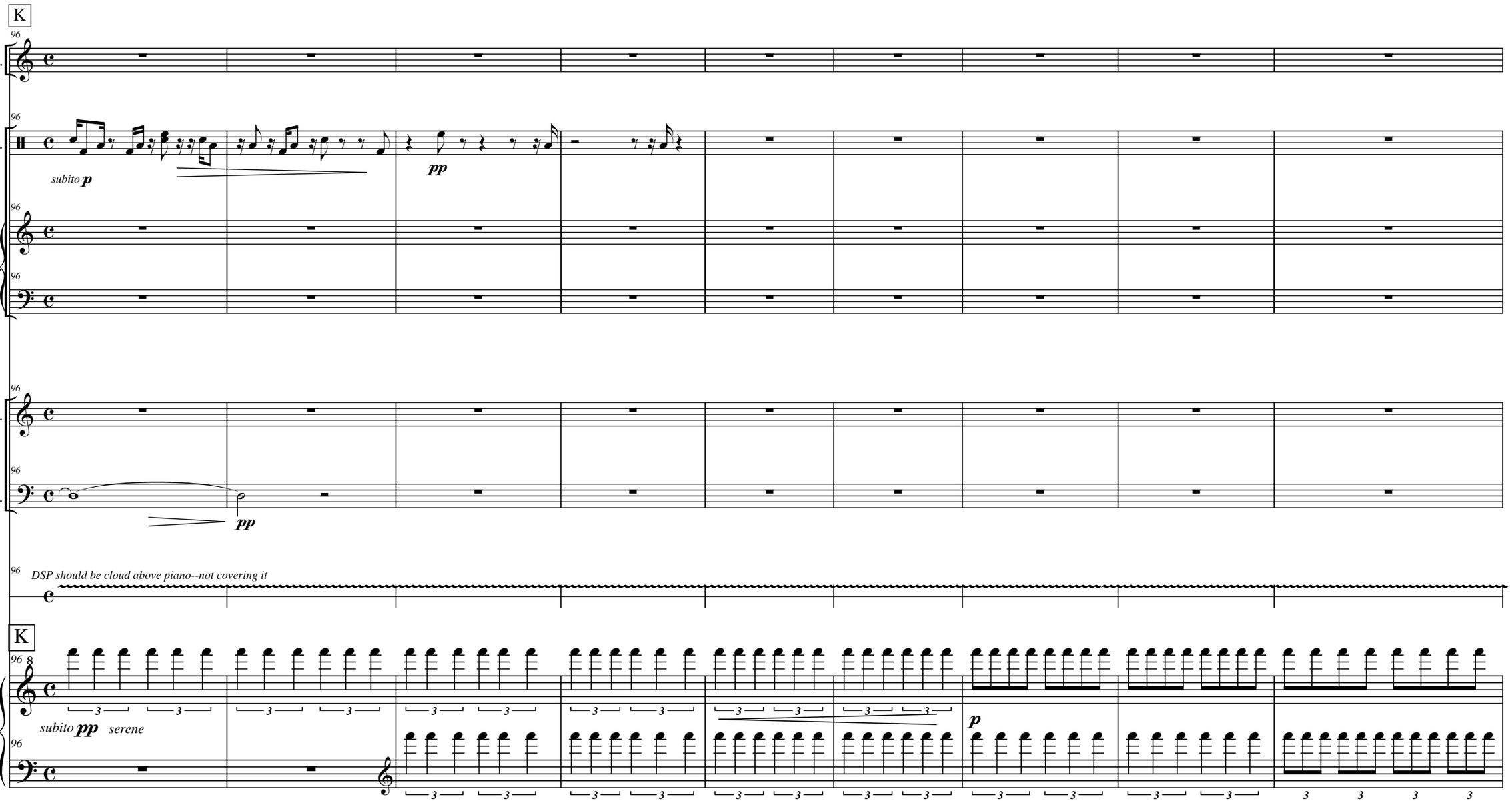

(5/8 = 2+3)
H
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
f


Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
79
mf
f
(sempre)

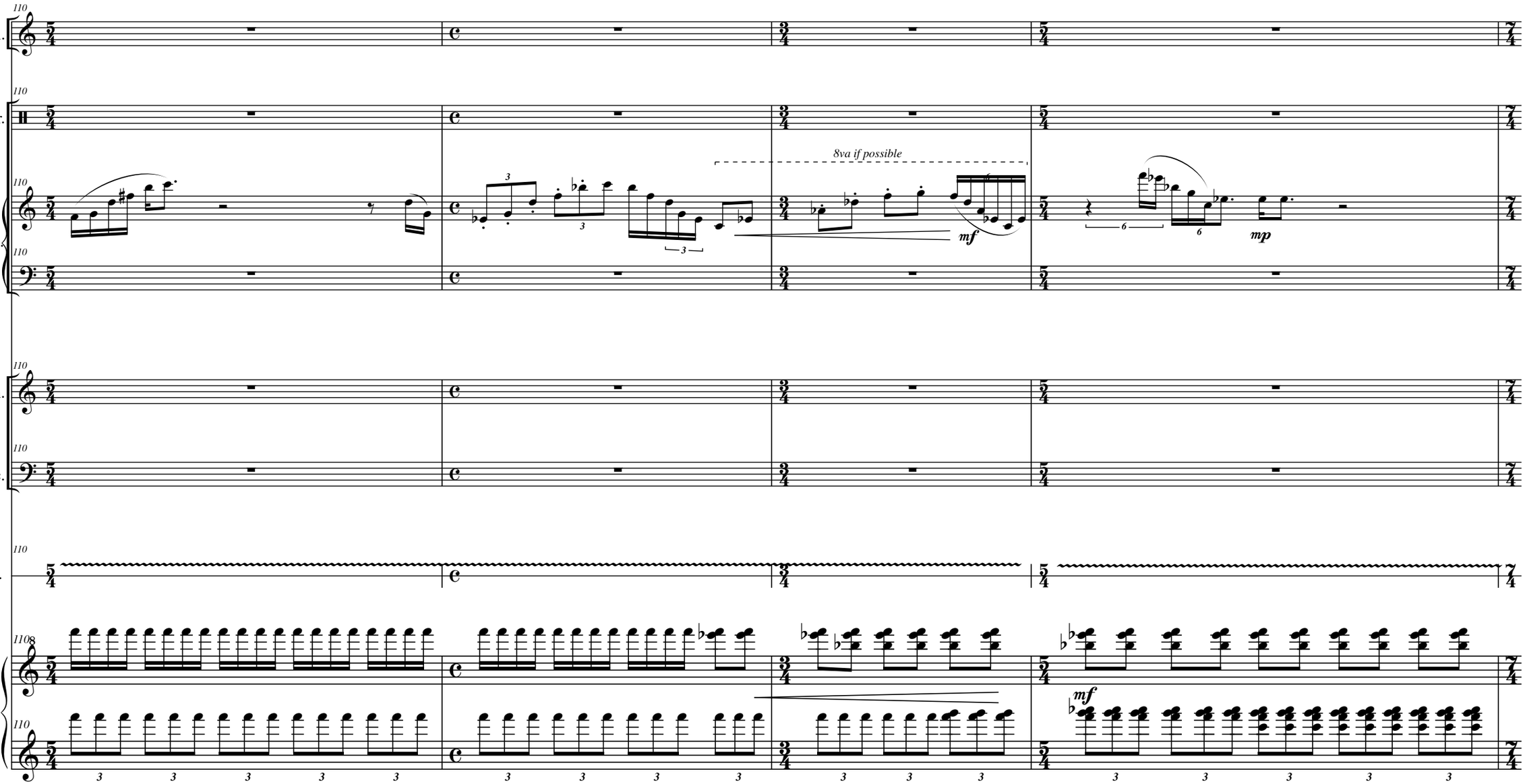

I
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
I
Pno.
f

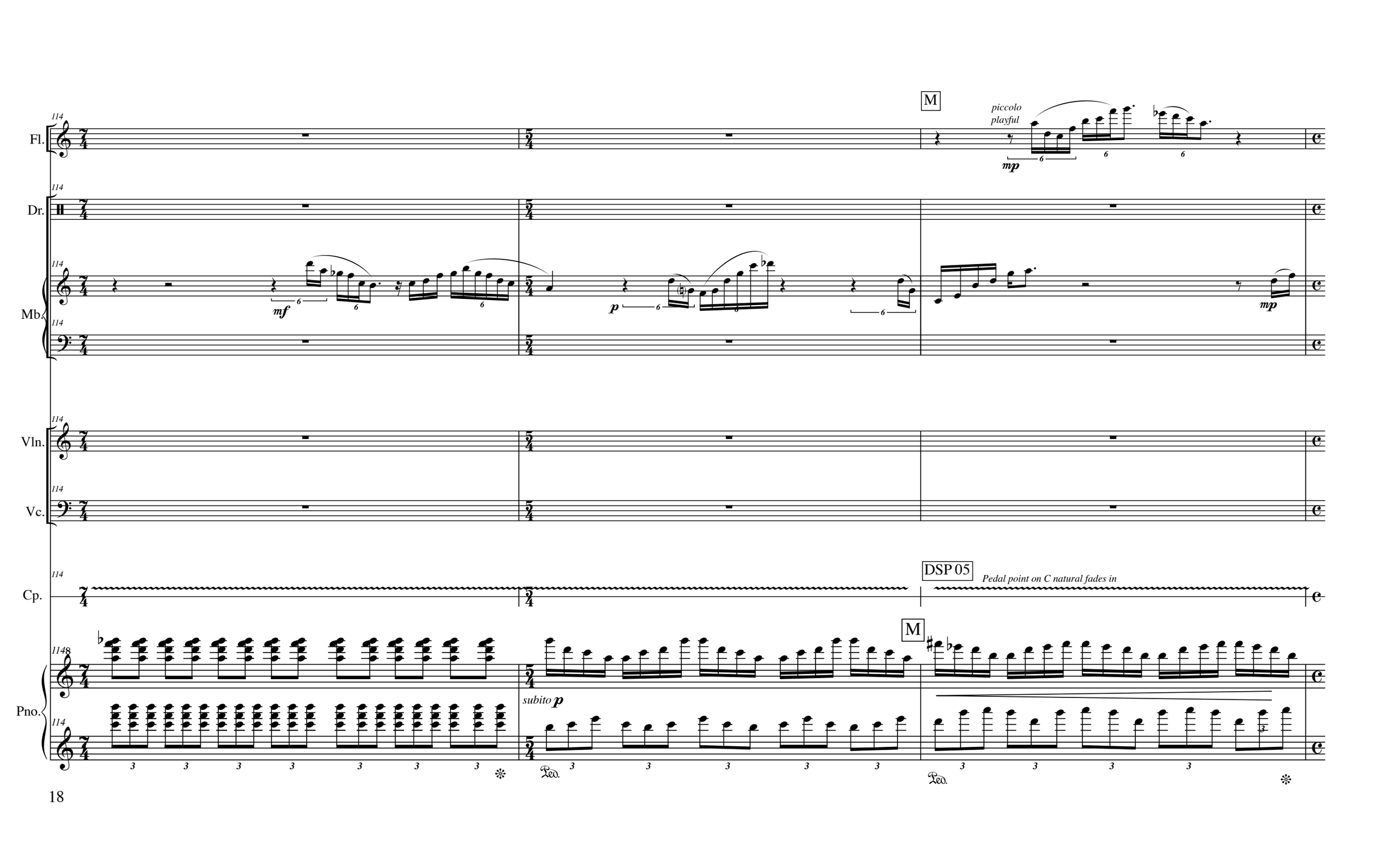
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
89
(clusters at these approximate tessitura)
Ped.

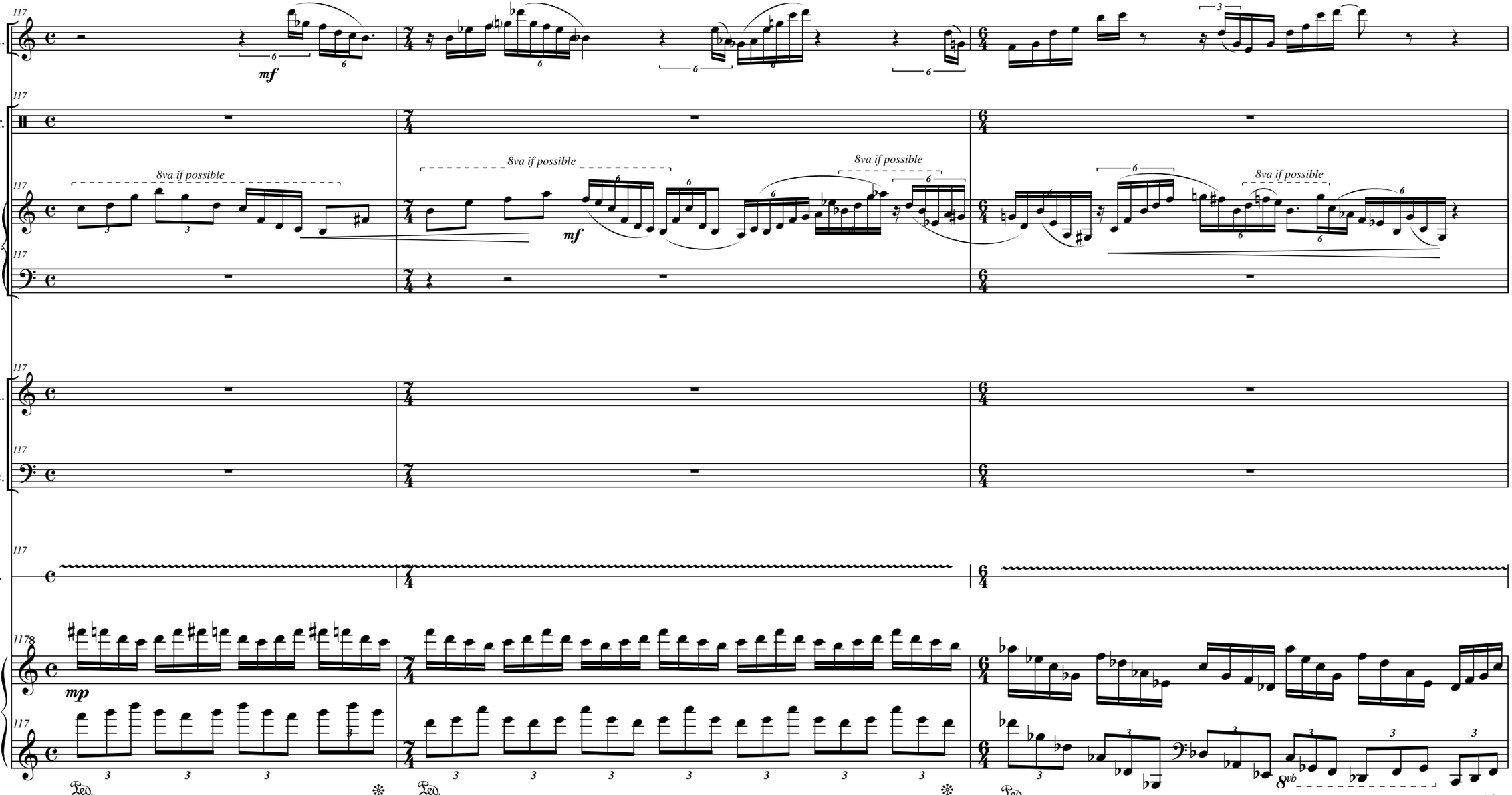

J
Fl.
Dr.
Mb.
Vln.
Vc.
DSP 03
DSP slowly returns
Cp.
J
Pno.
f
Ped.

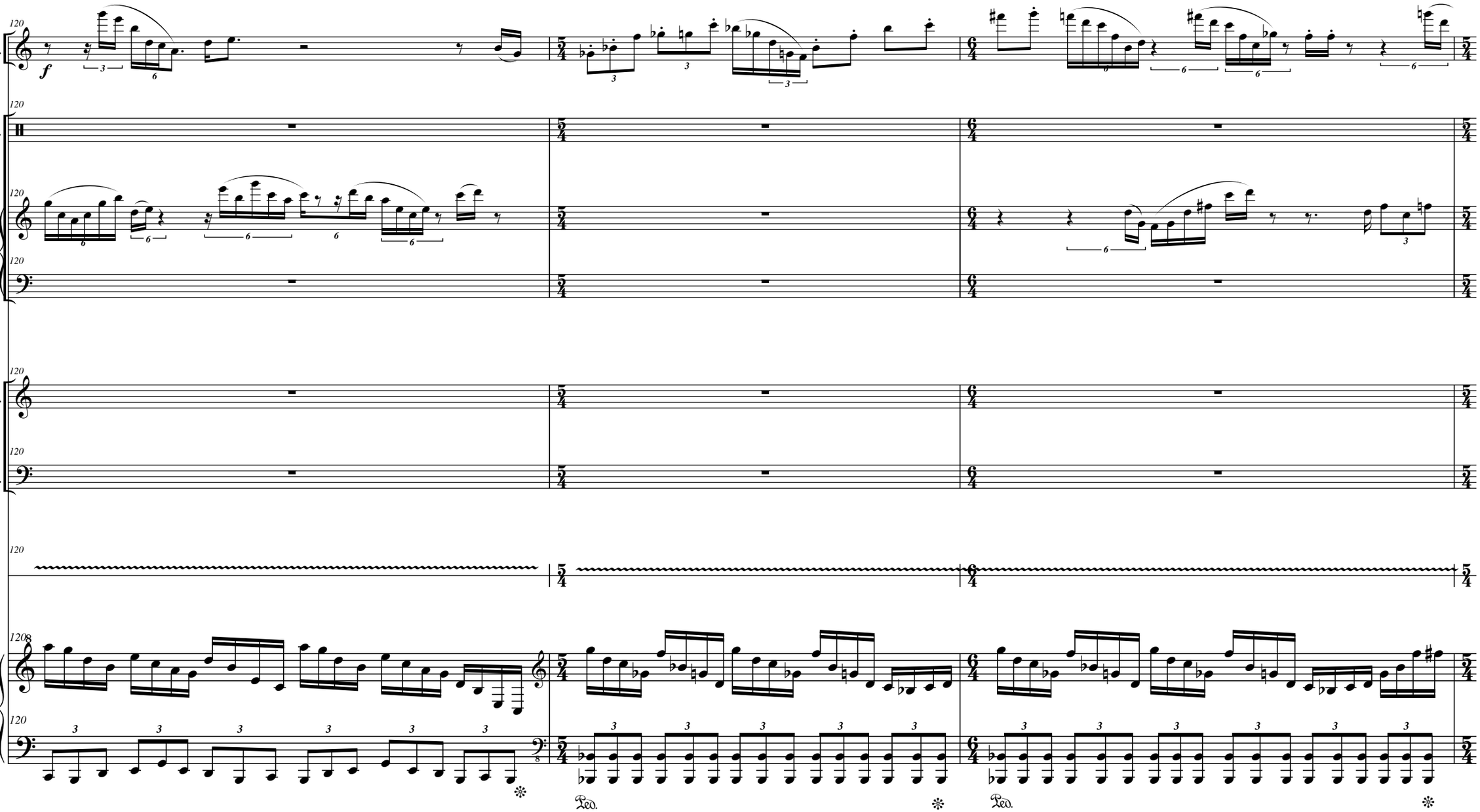

K
Fl.
Dr.
subito p
pp
Mb.
Vln.
Vc.
pp
Cp.
DSP should be cloud above piano--not covering it
K
Pno.
subito pp serene
p

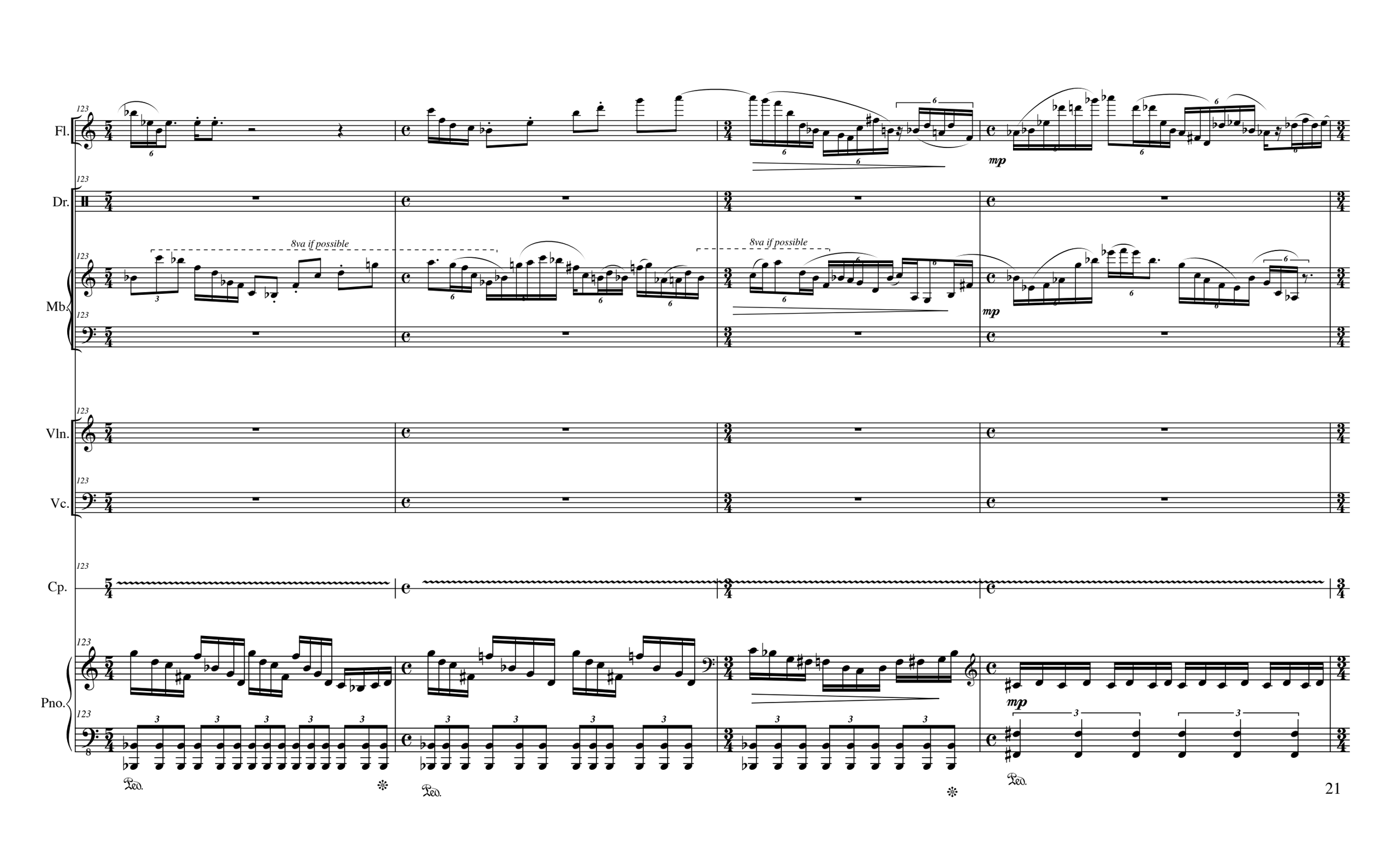
L
Fl.
Dr.
Mb.
playful
mp
Vln.
Vc.
DSP 04
DSP thins and moves to very high register
Cp.
(cue others)
L
Pno.
mp


Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
110
8va if possible
mf
mp
mf

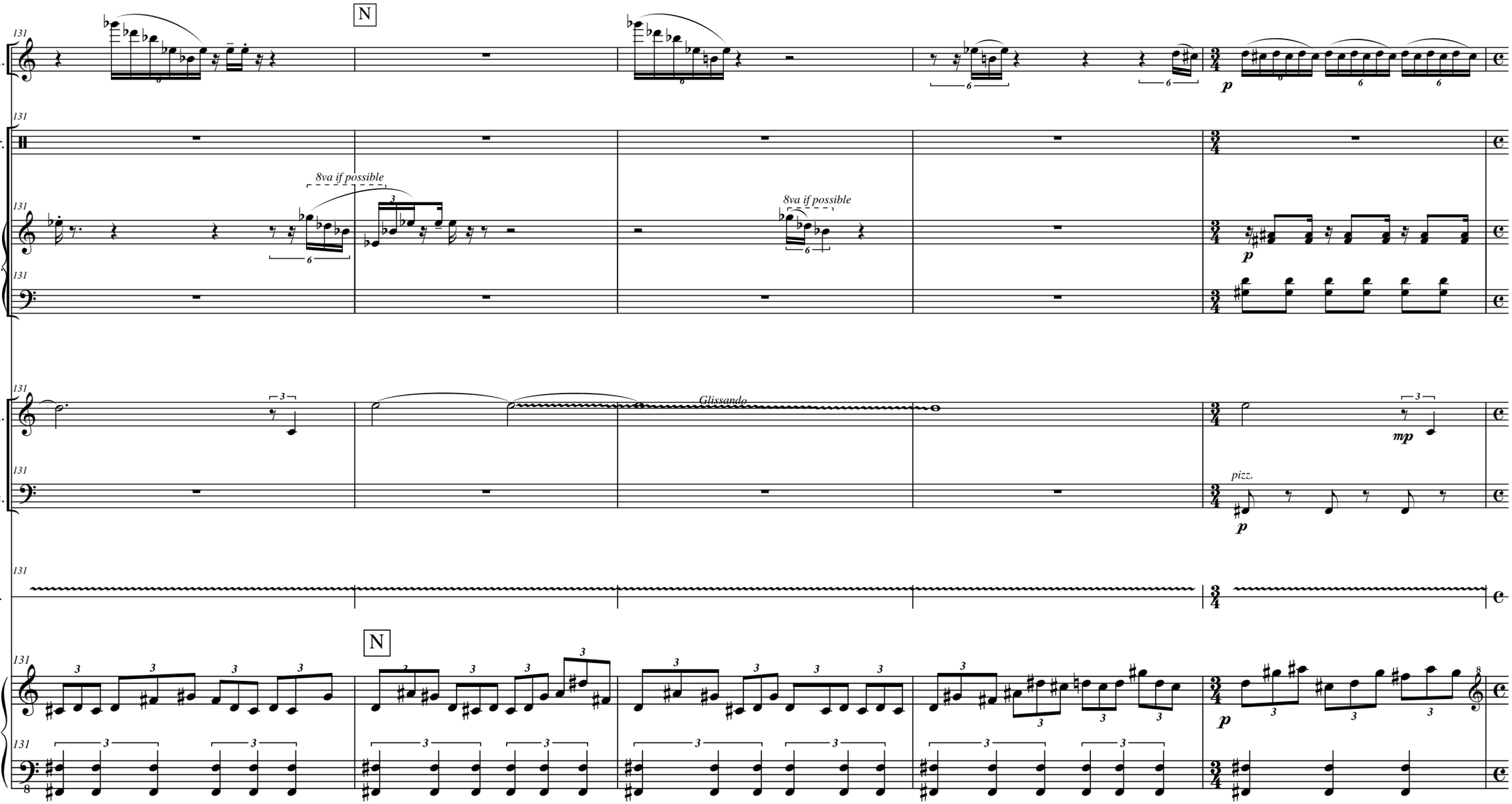

M
piccolo
playful
mp
Fl.
Dr.
mf
p
mp
Mb.
Vln.
Vc.
DSP 05
Pedal point on C natural fades in
Cp.
M
Pno.
subito p
Ped.
Ped.

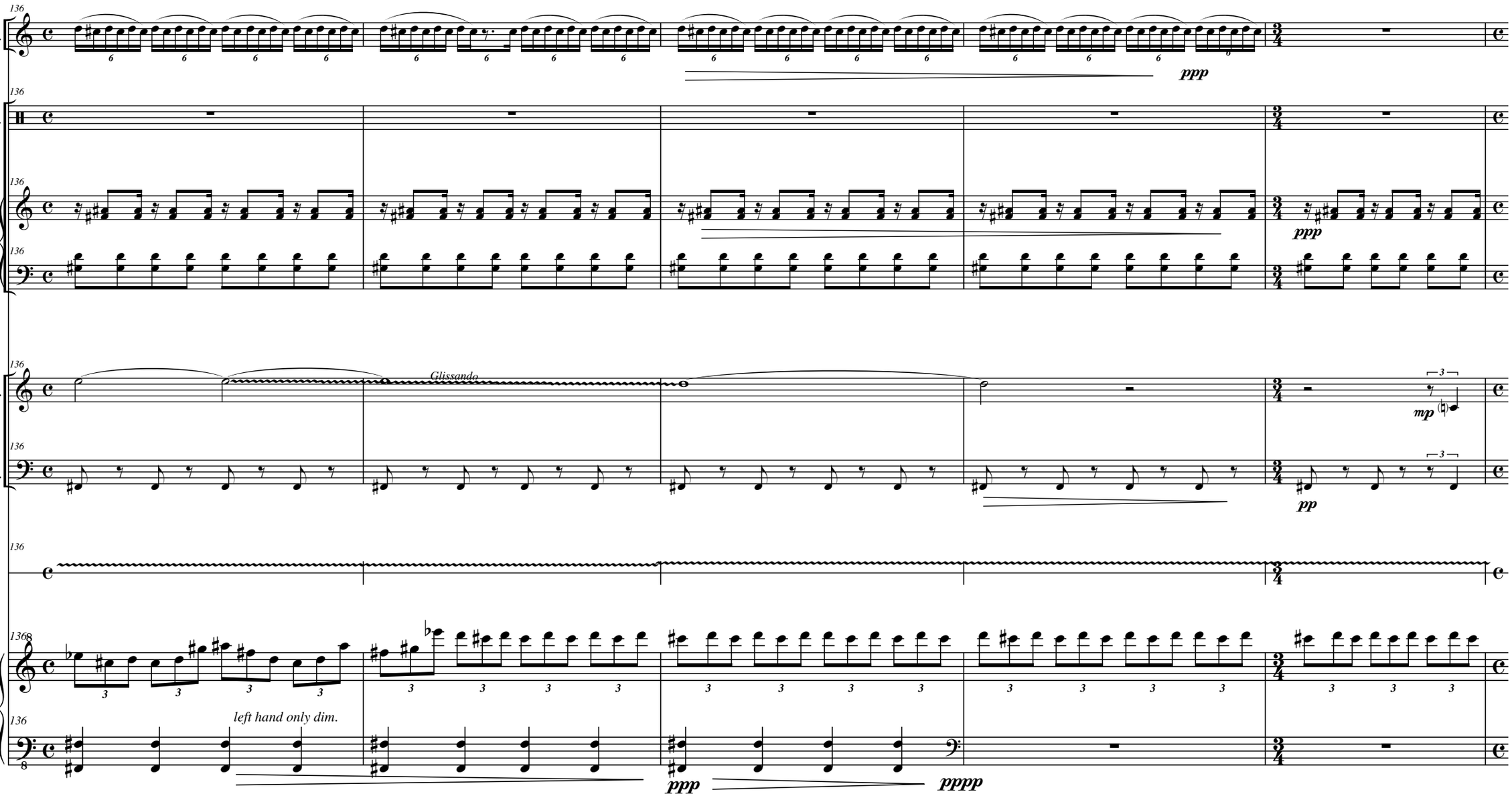

Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
117
mf
8va if possible
mf
f
mp
Ped.
8vb

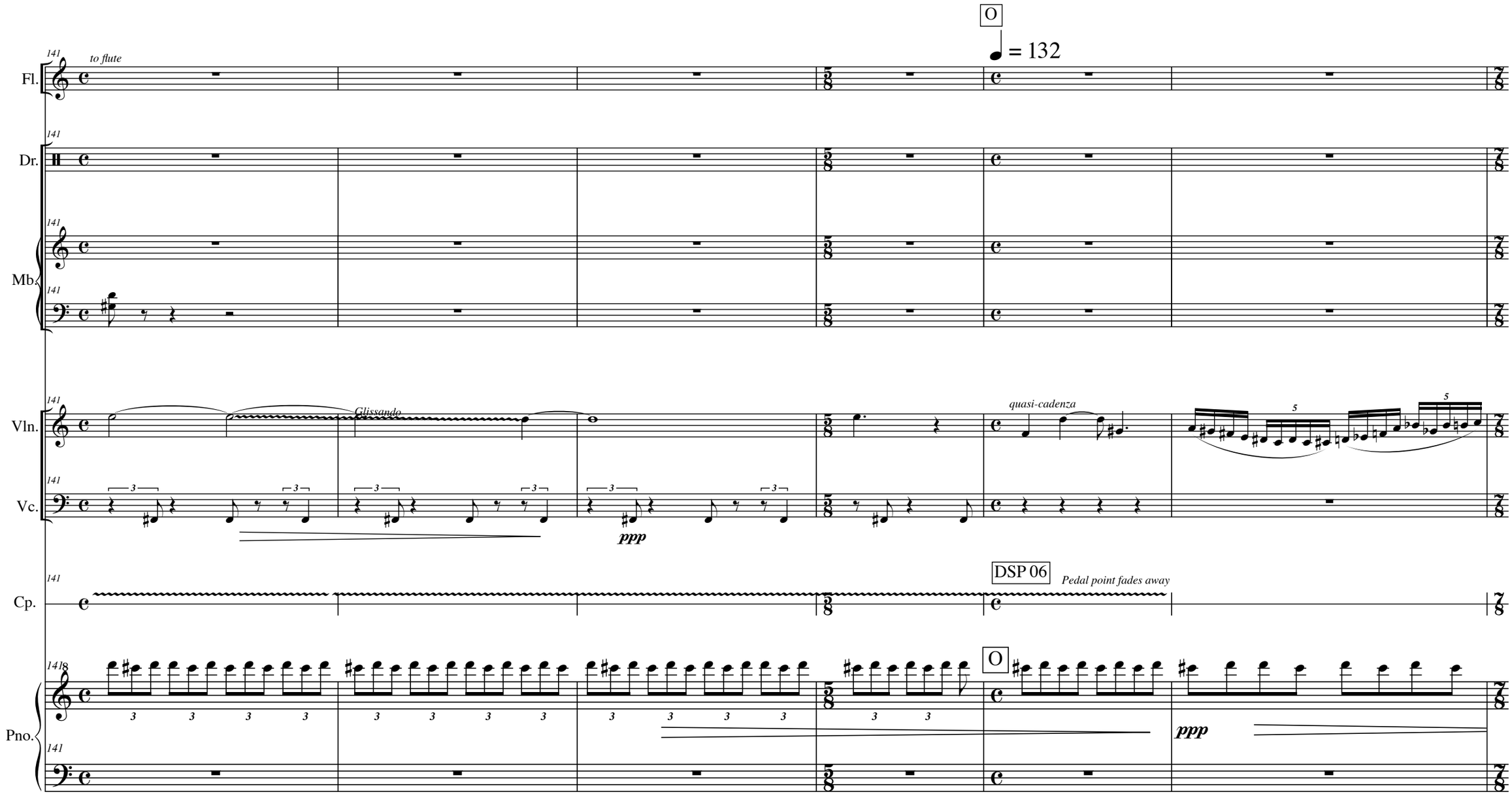

Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
120
f
Ped.
Ped.

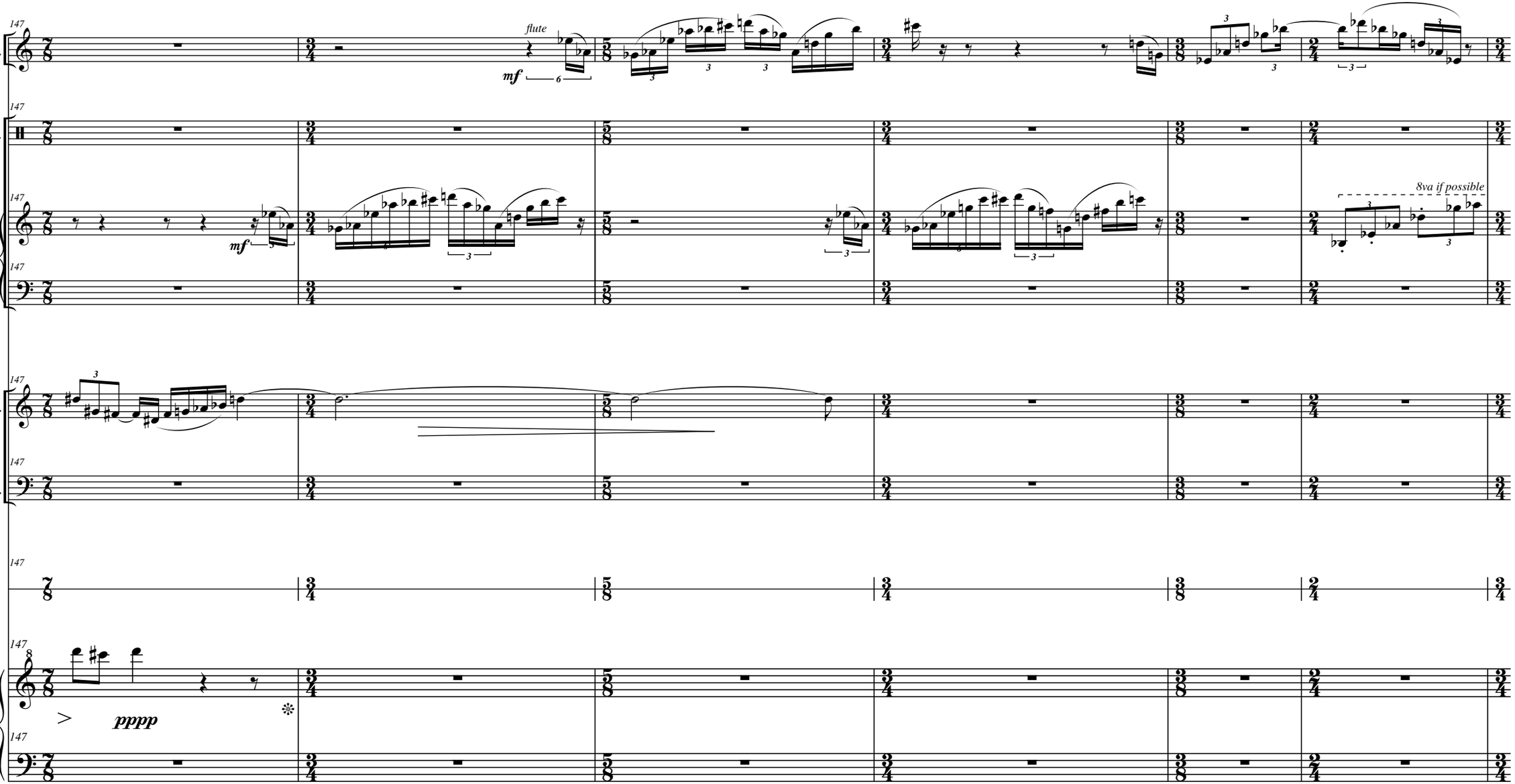

Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
8va if possible
8va if possible
mp
mp
Ped.
Ped.
Ped.

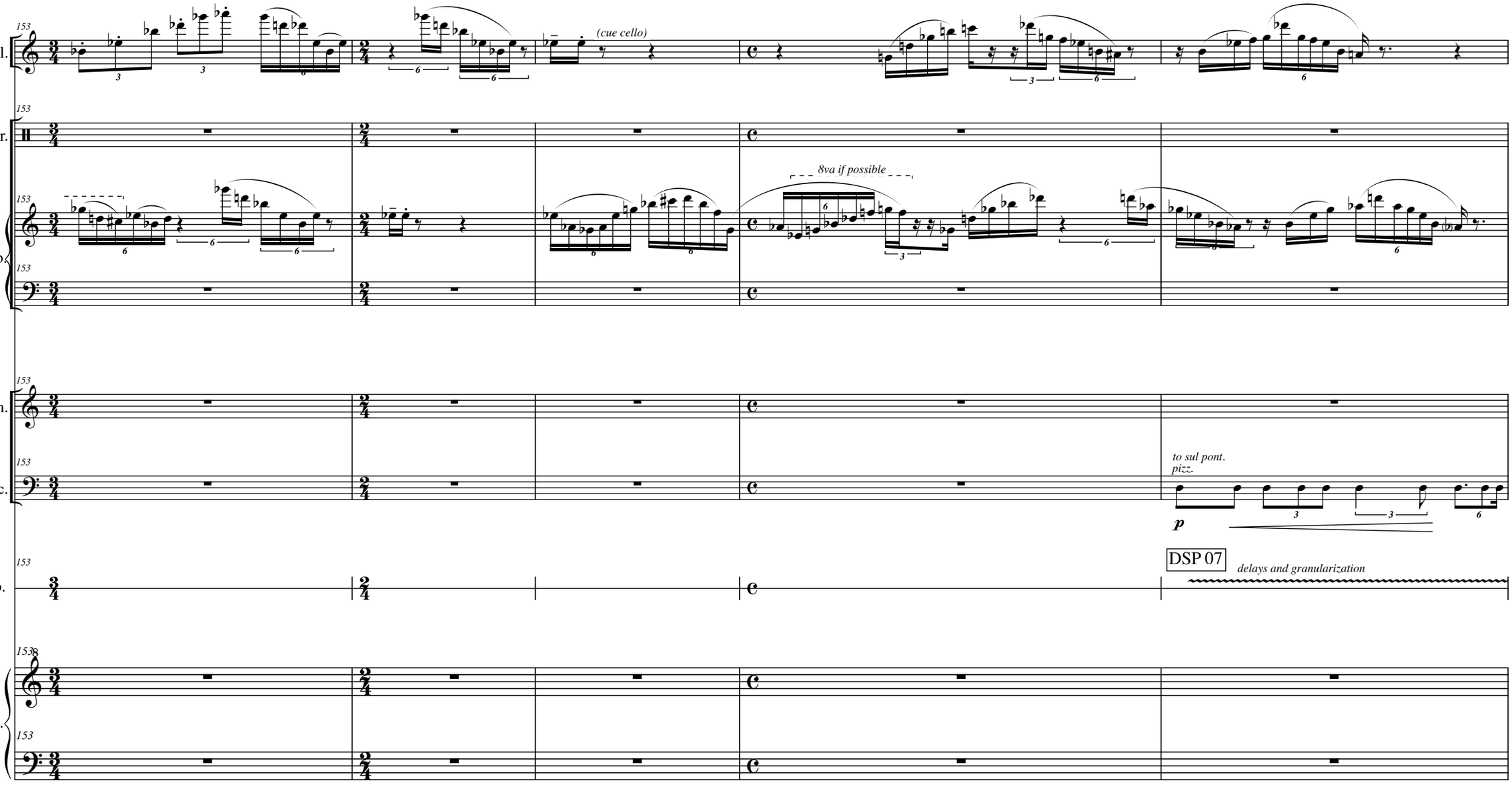
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
127
8va if possible
8va if possible
8va if possible
8va if possible
Glissando
(cue others)

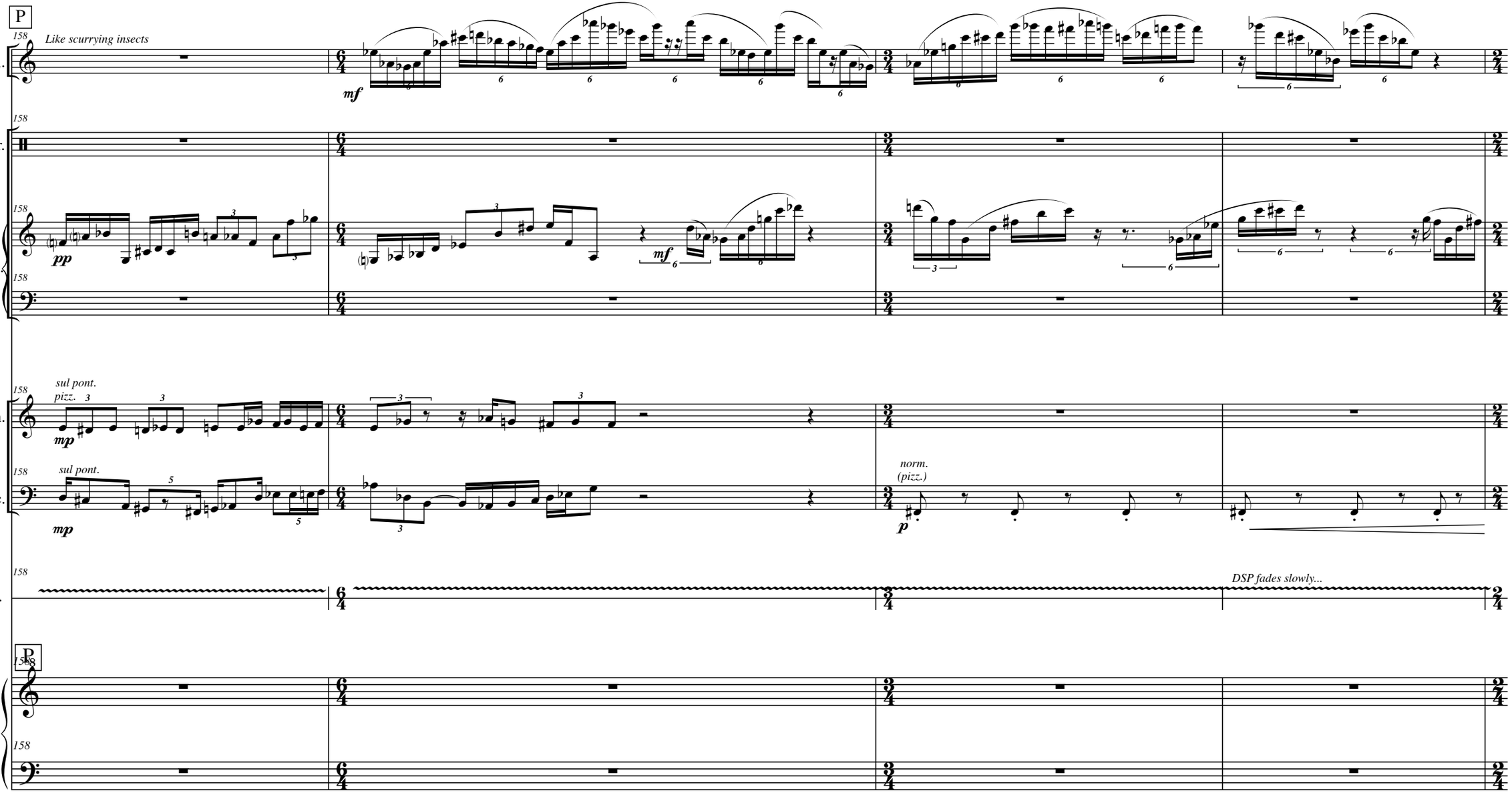

N
Fl.
Dr.
8va if possible
8va if possible
Mb.
Vln.
Glissando
Vc.
pizz.
Cp.
N
Pno.
Ped.

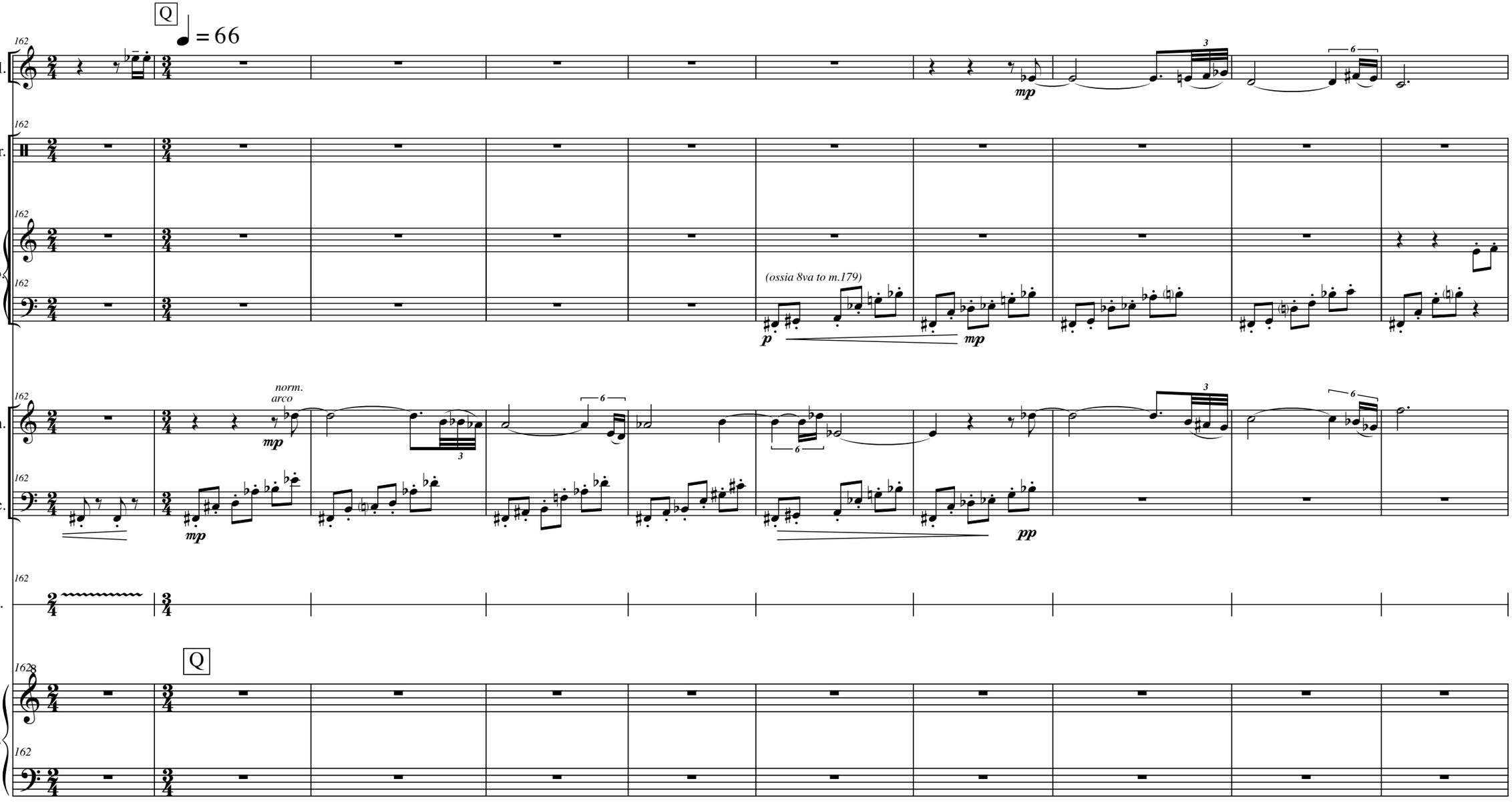

136
Fl.
ppp
Dr.
Mb.
ppp
Vln.
Glissando
mp
Vc.
pp
Cp.
Pno.
left hand only dim.
ppp
pppp

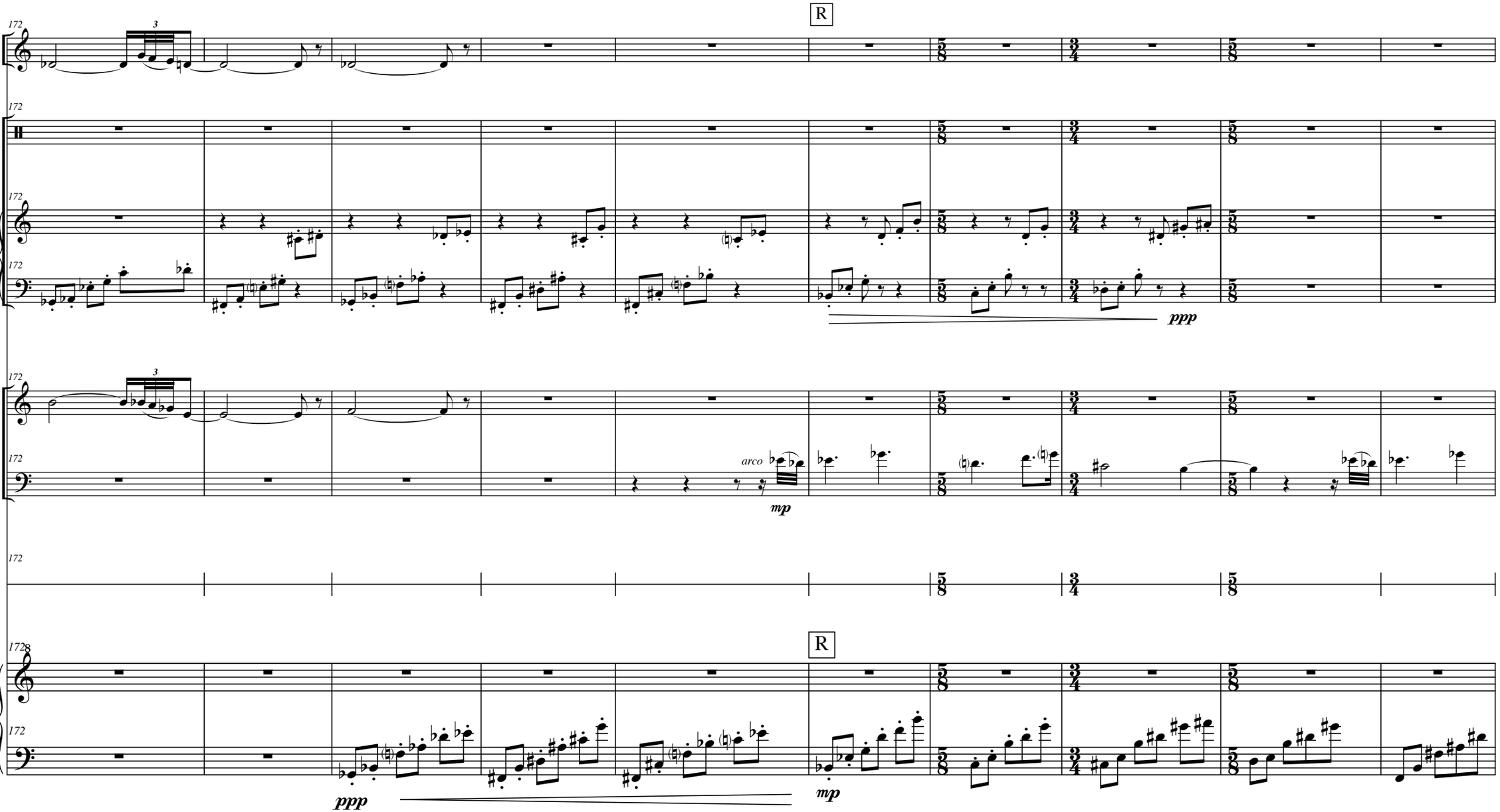

O
= 132
141
to flute
Fl.
Dr.
Mb.
Vln.
Vc.
Glissando
ppp
quasi-cadenza
5
5
Cp.
DSP 06
Pedal point fades away
1418
O
Pno.
ppp

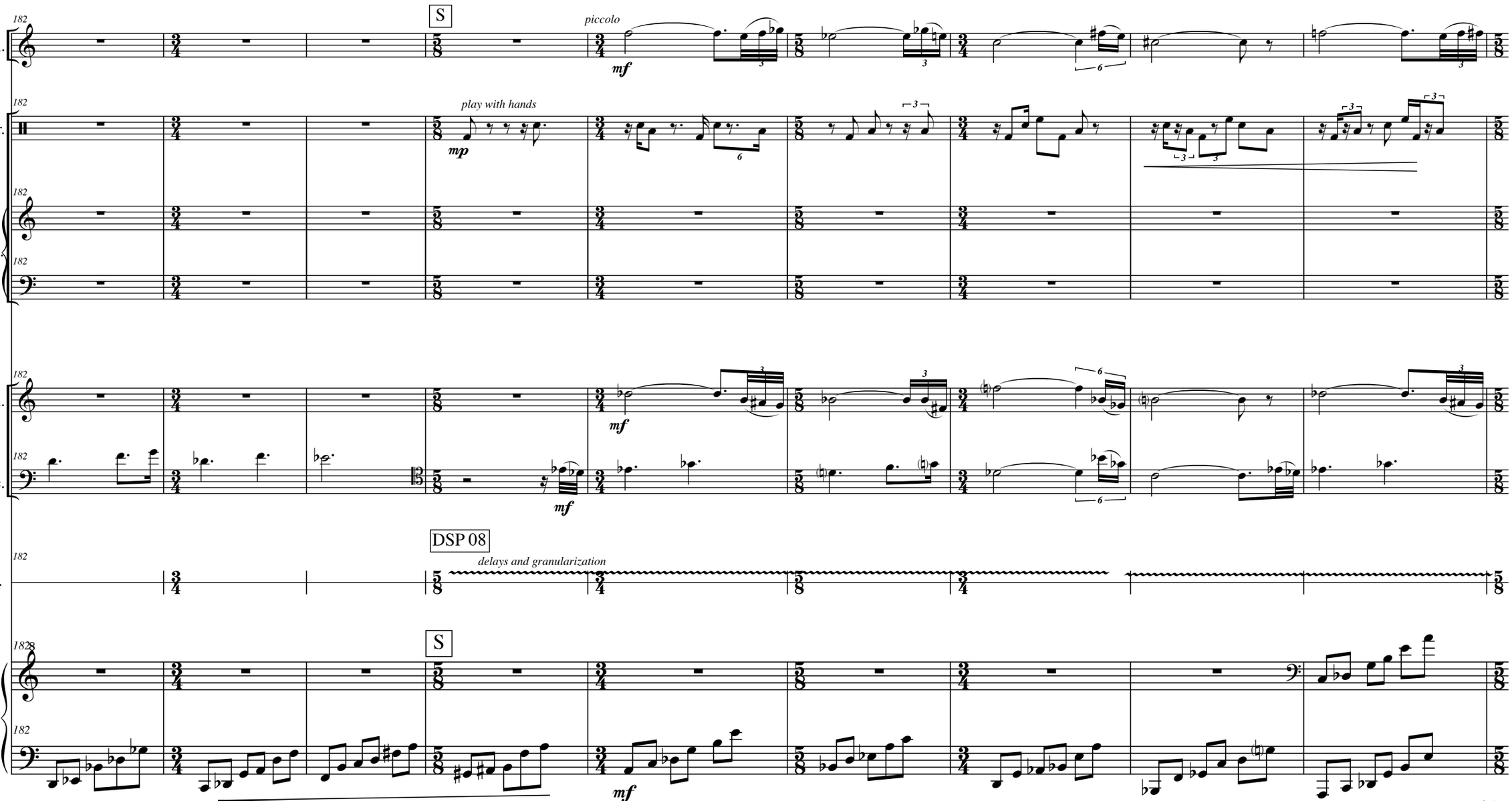

147
Fl.
flute
mf
Dr.
Mb.
8va if possible
Vln.
Vc.
Cp.
Pno.
pppp

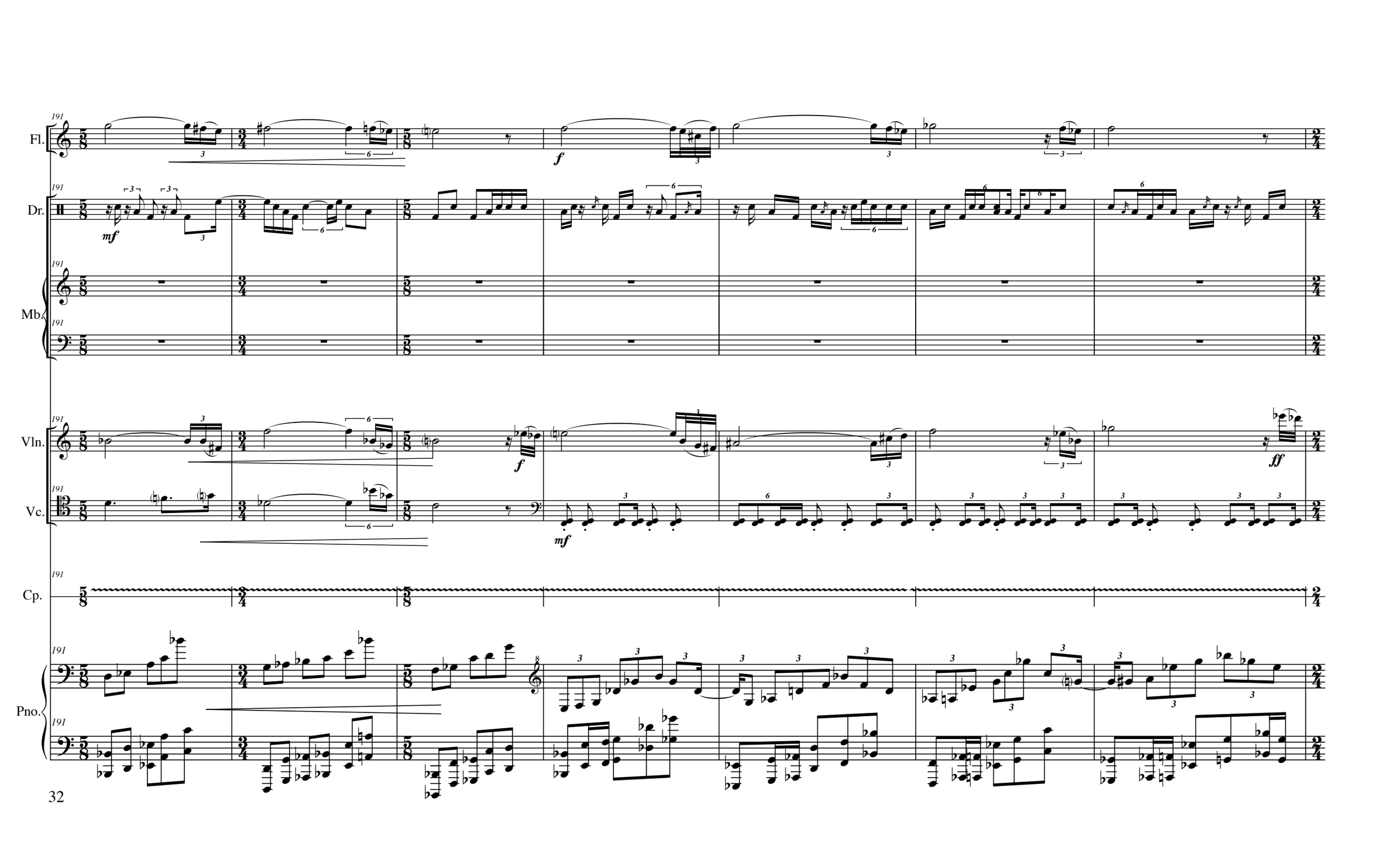

153
Fl.
(cue cello)
Dr.
8va if possible
Mb.
Vln.
Vc.
to sul pont.
pizz.
p
Cp.
DSP 07
delays and granularization
Pno.

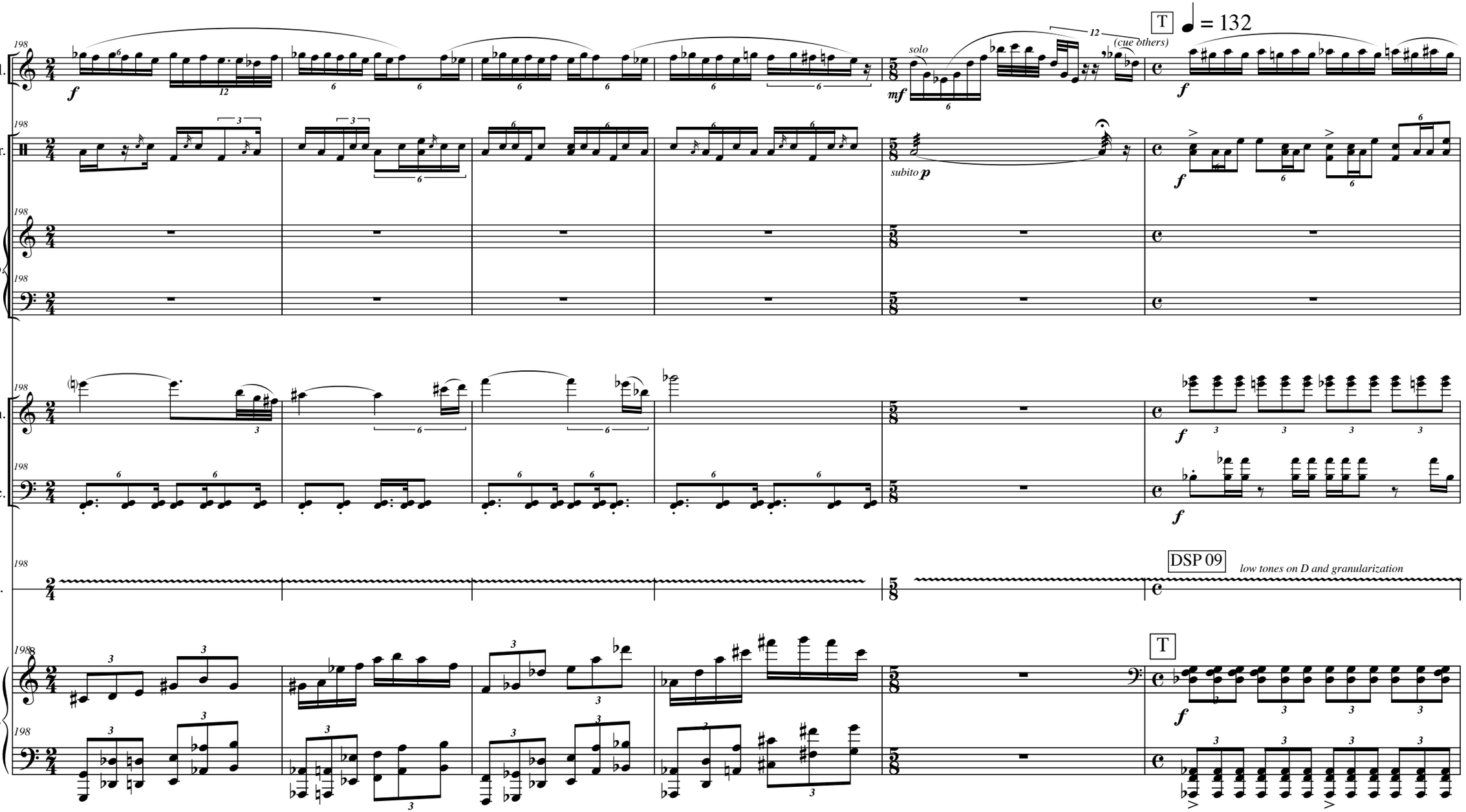

P
158
Like scurrying insects
Fl.
mf
Dr.
Mb.
pp
mf
sul pont.
pizz.
mp
Vln.
sul pont.
Vc.
mp
norm.
(pizz.)
p
Cp.
DSP fades slowly...
P
Pno.

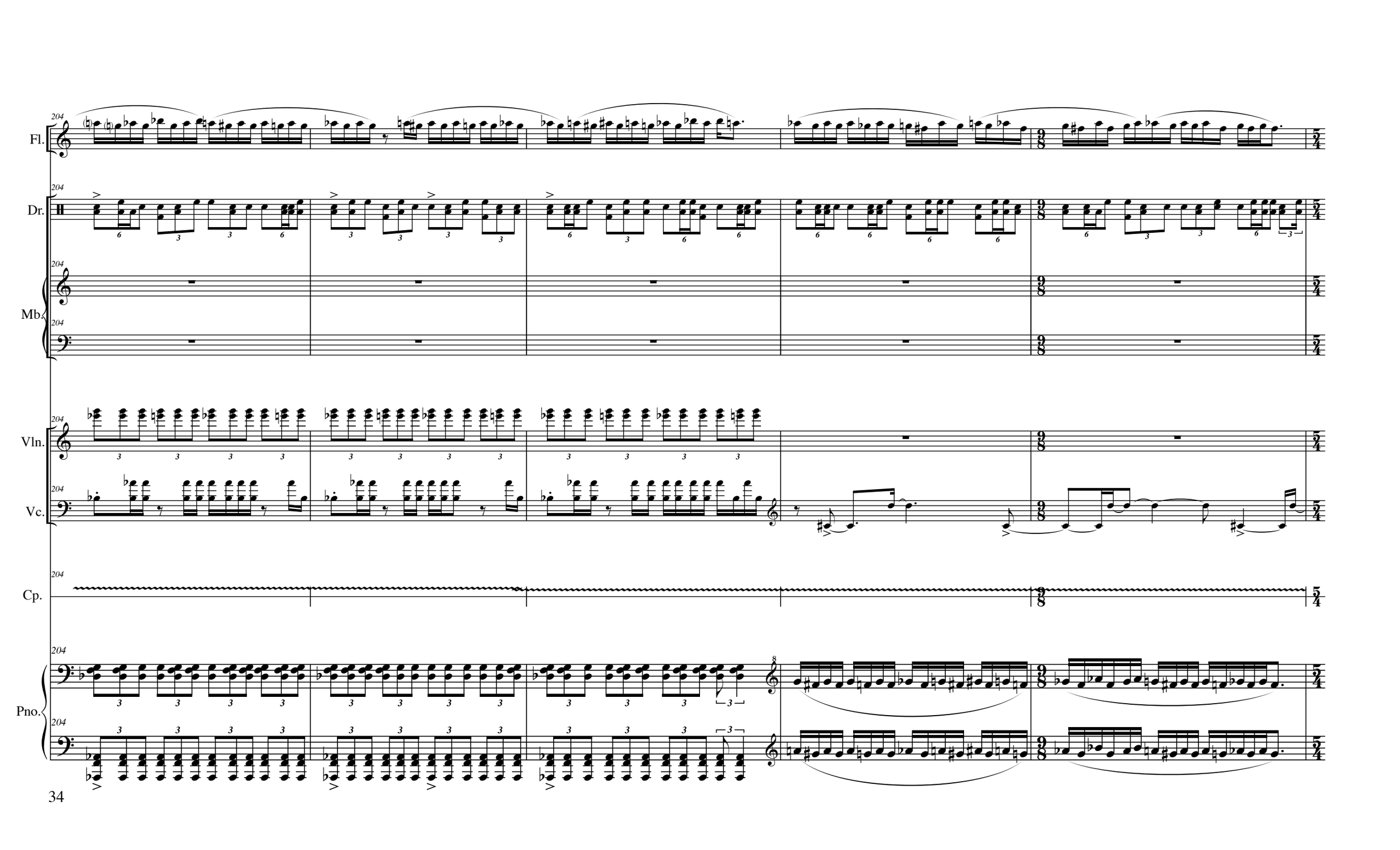

Q
♩ = 66
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
norm.
arco
(ossia 8va to m.179)
mp
p
pp
Q

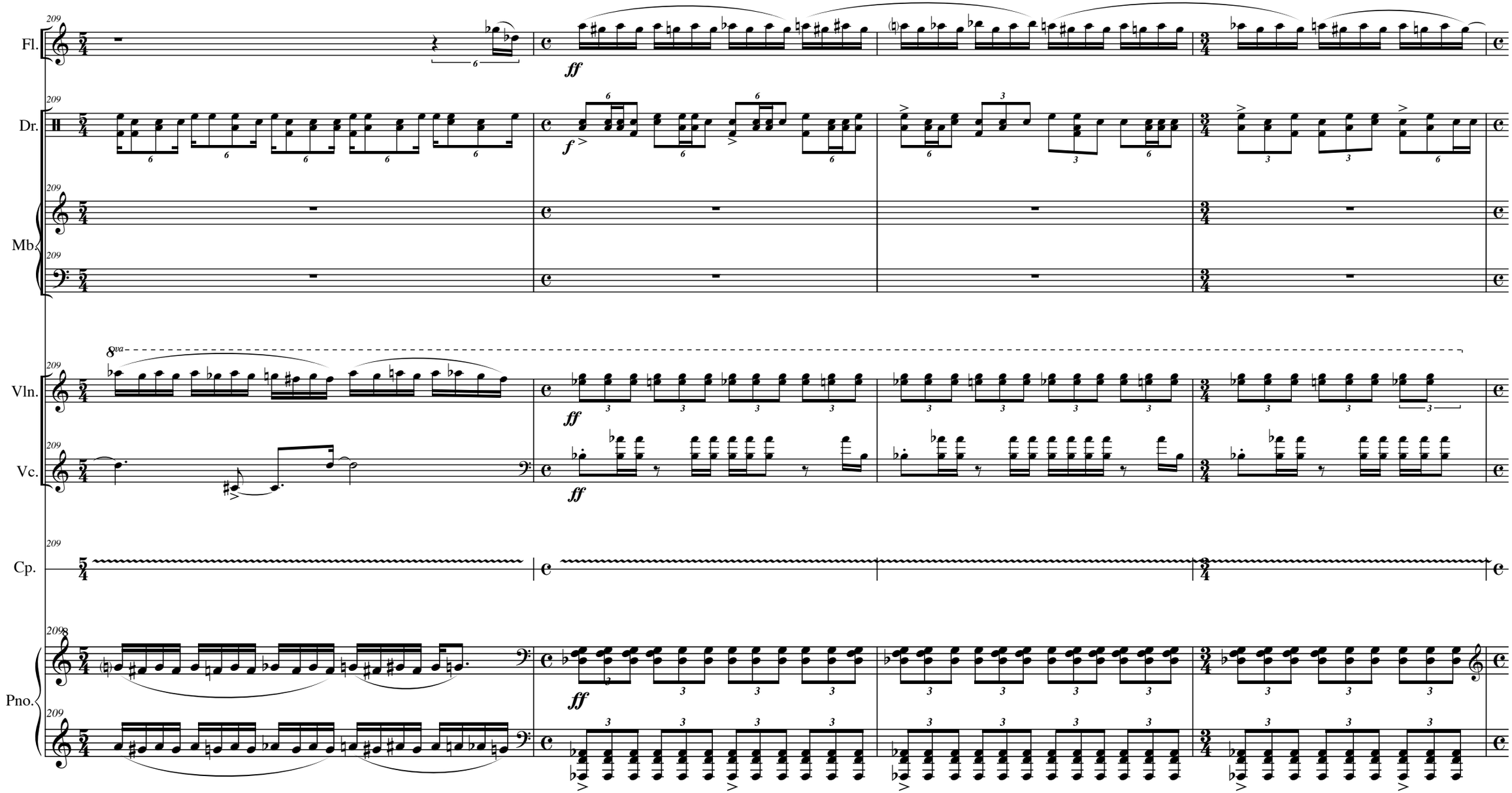

R
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
172
3
arco
mp
ppp
R
mp
ppp

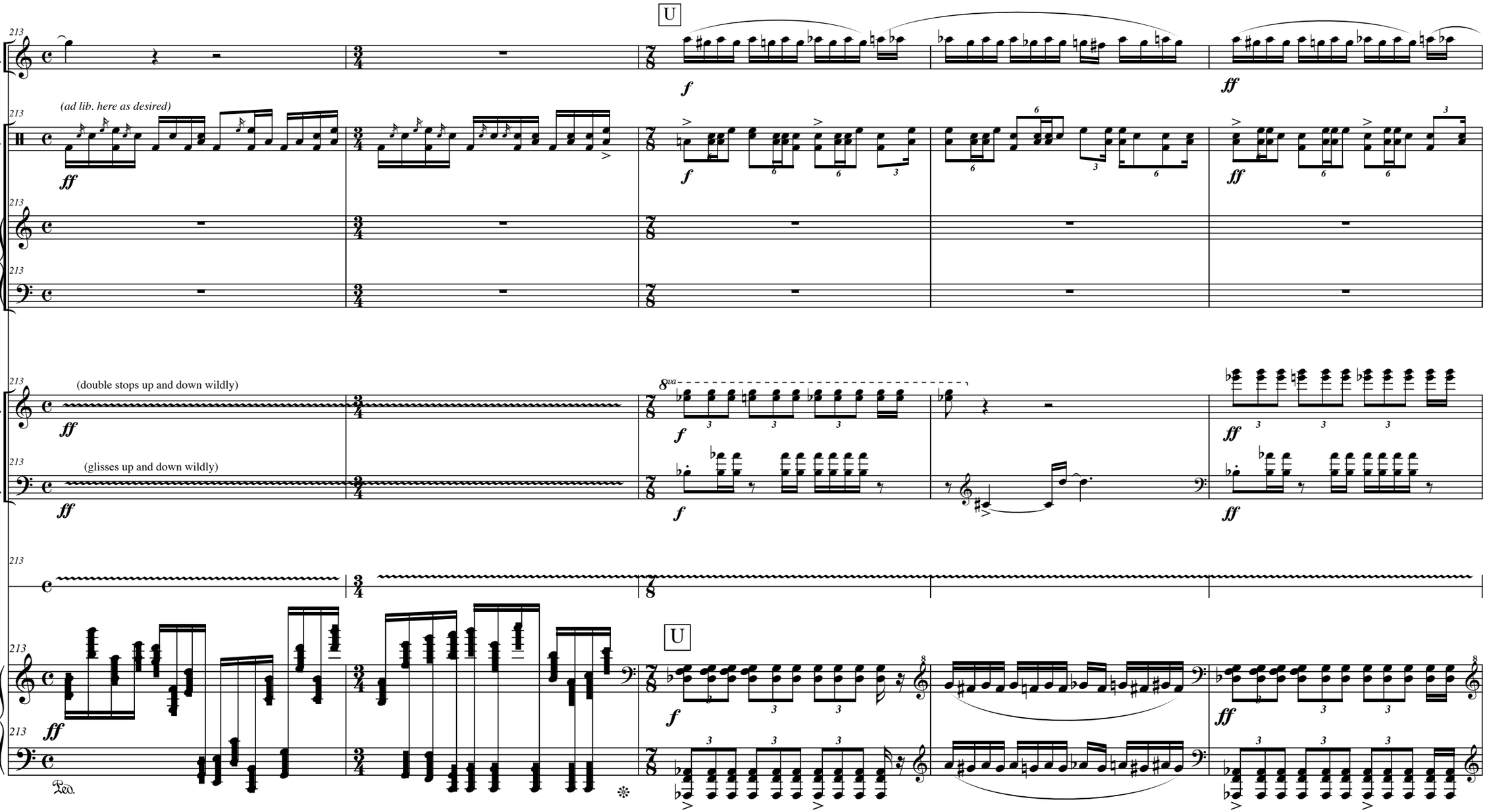

182
Fl.
S
piccolo
mf
182
Dr.
play with hands
mp
182
Mb.
182
182
Vln.
mf
182
Vc.
mf
DSP 08
182
Cp.
delays and granularization
182
S
182
Pno.
mf

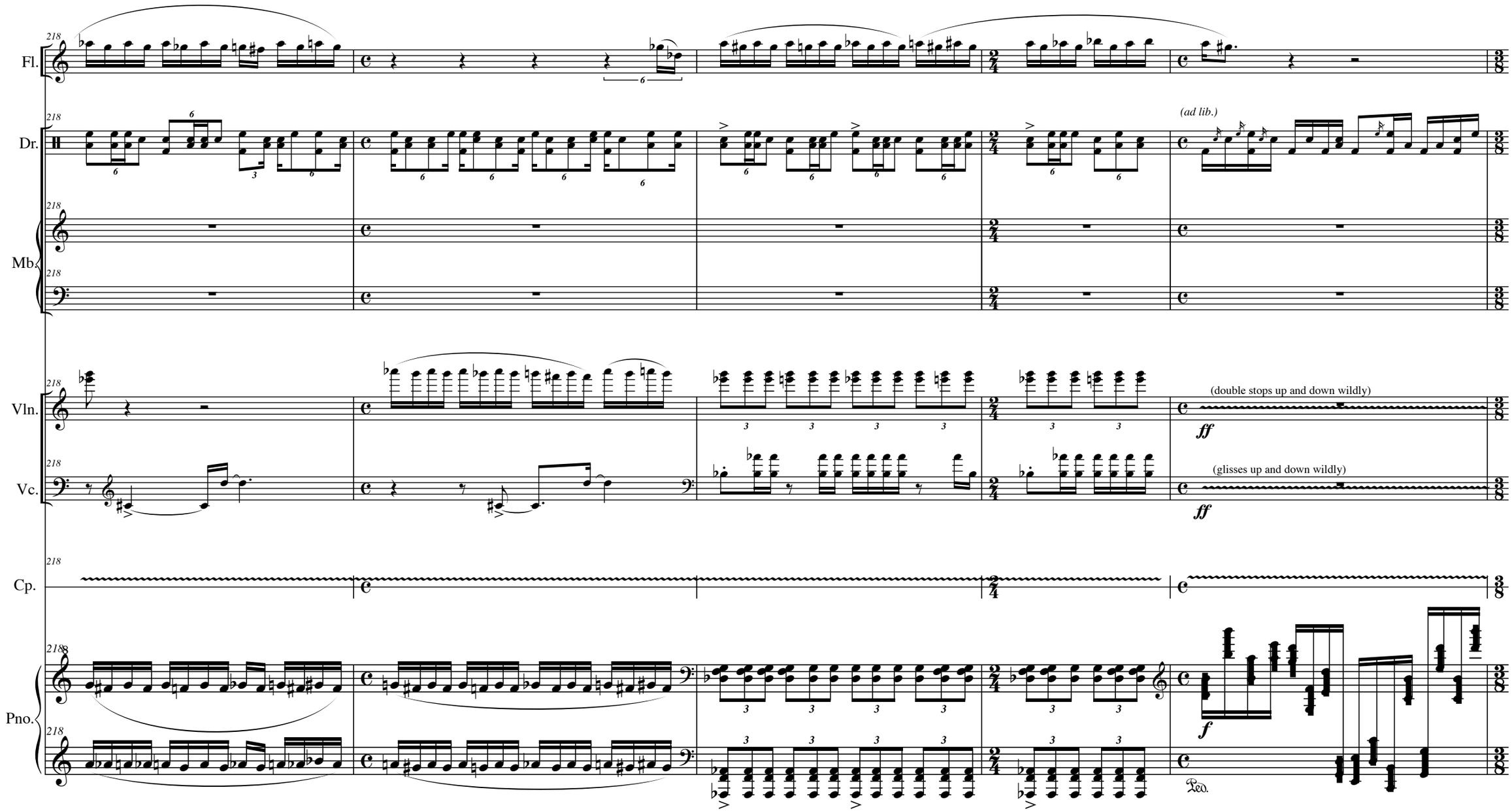

Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
191
mf
f
mf
f
ff

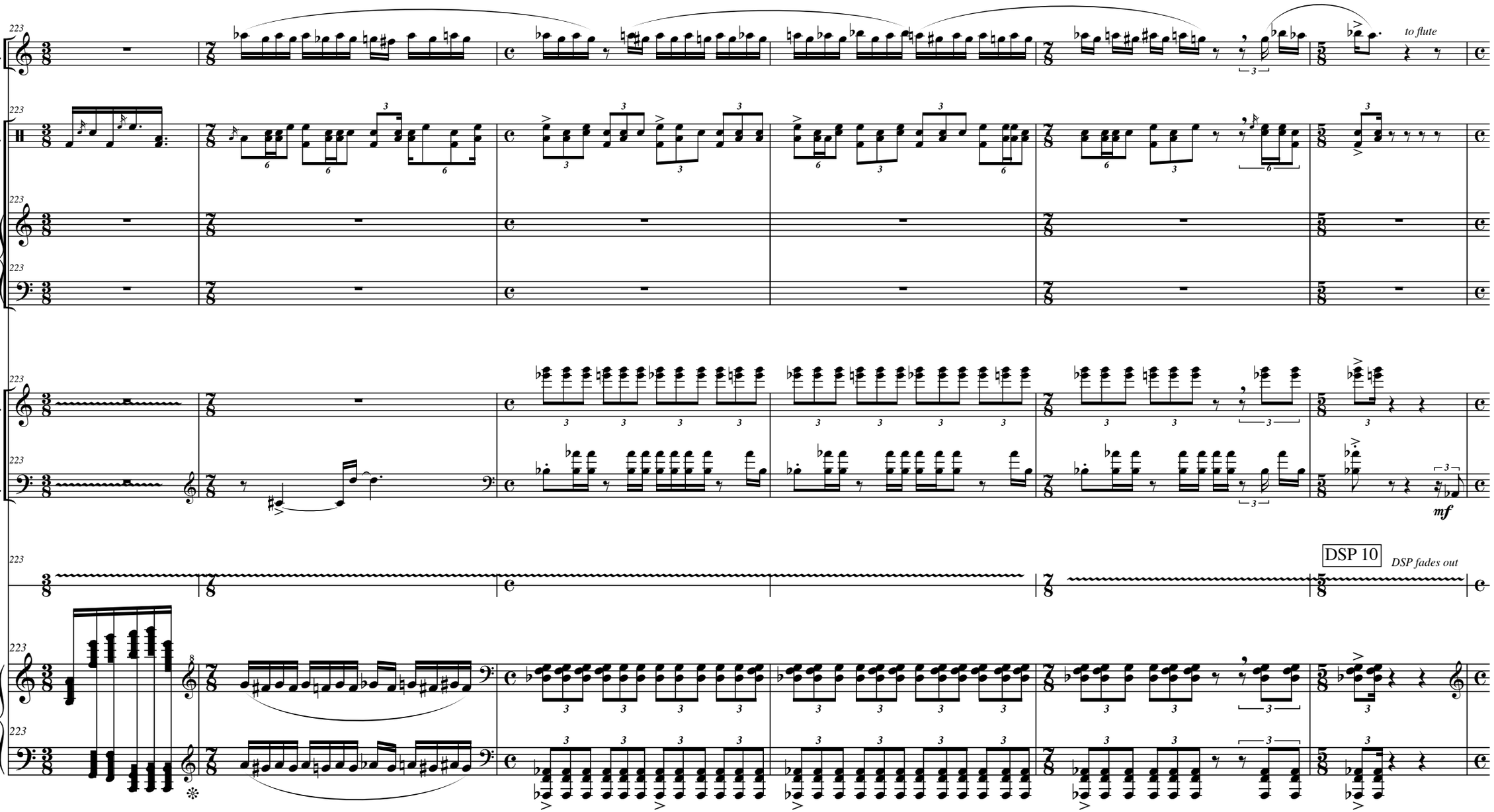

T
♩ = 132
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
198
solo
(cue others)
subito p
DSP 09
low tones on D and granularization

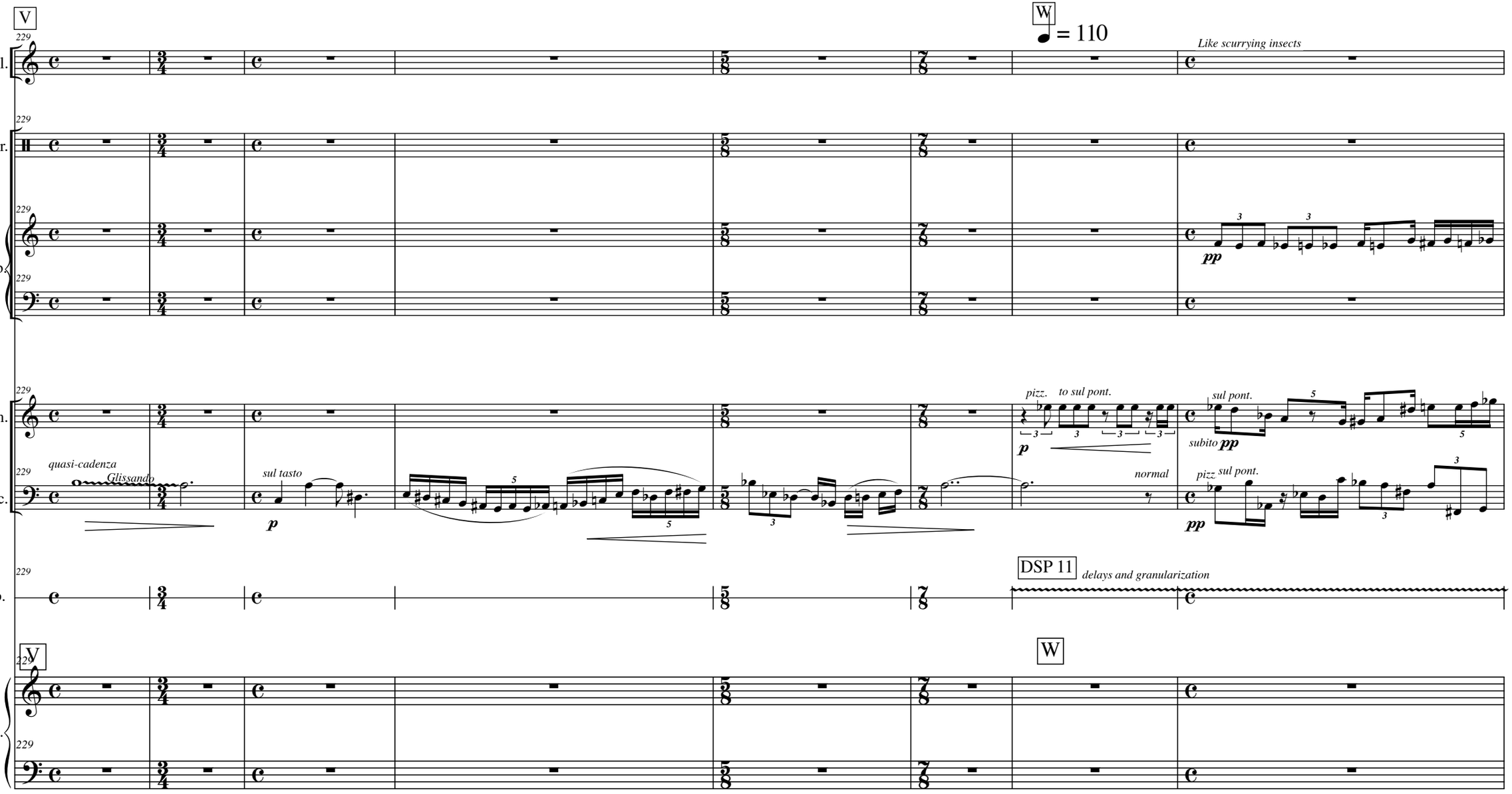

Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.

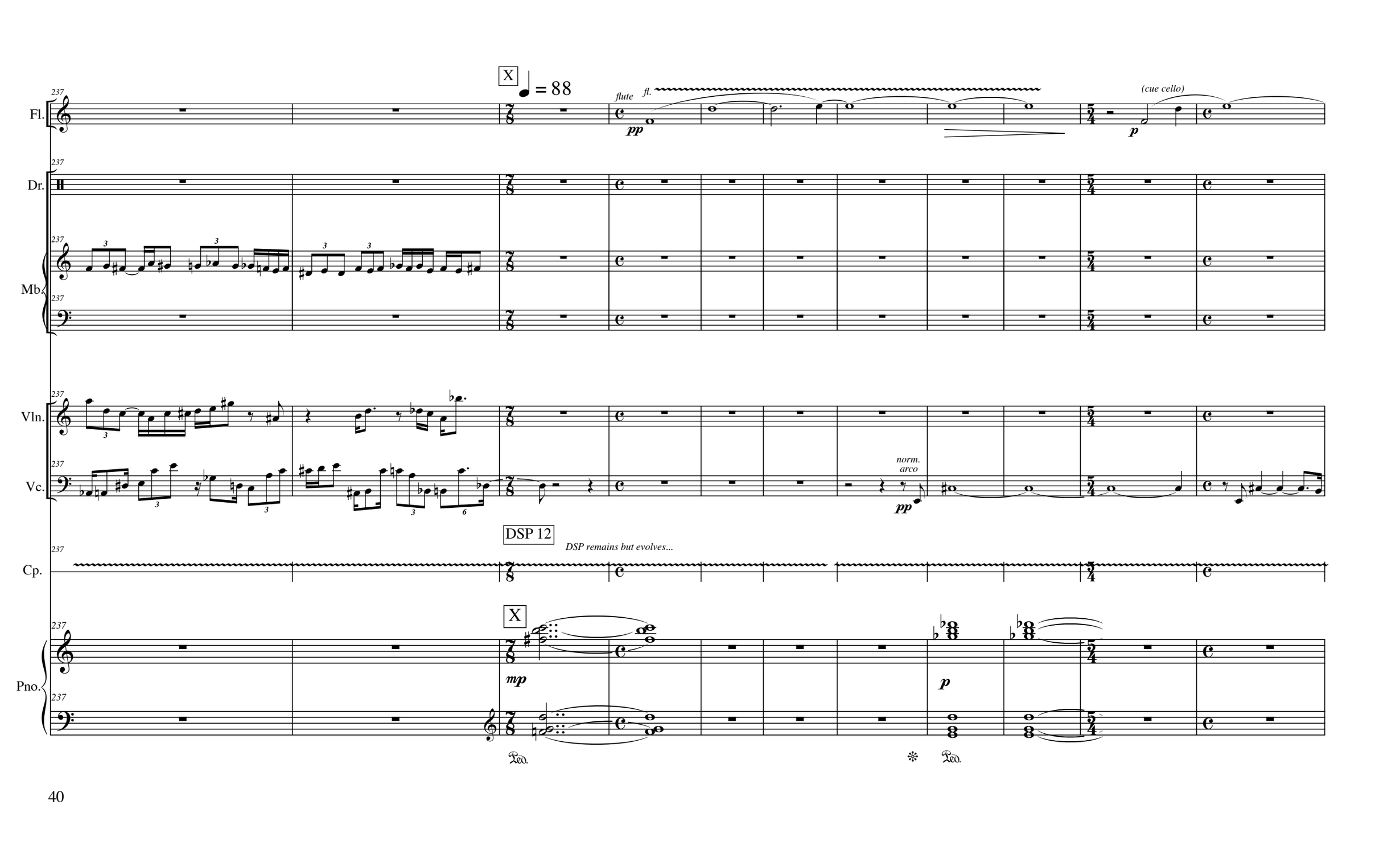

Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
209
ff
f
8va

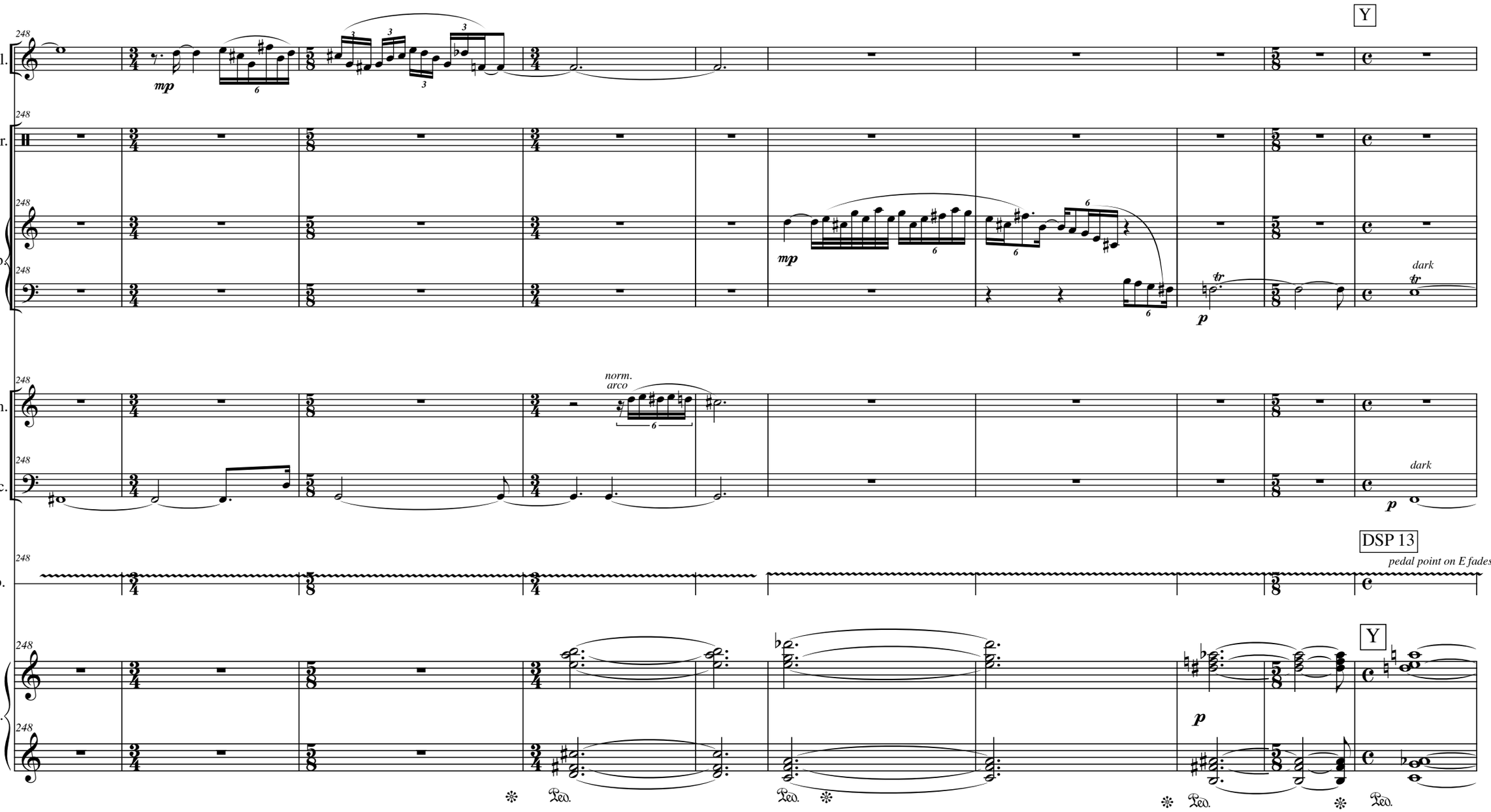

213
Fl.
U
f
ff
(ad lib. here as desired)
Dr.
Mb.
(double stops up and down wildly)
Vln.
8va
(glisses up and down wildly)
Vc.
Cp.
Pno.
Ped.


218
Fl.
Dr.
(ad lib.)
Mb.
Vln.
(double stops up and down wildly)
ff
Vc.
(glisses up and down wildly)
ff
Cp.
Pno.
f
Ped.

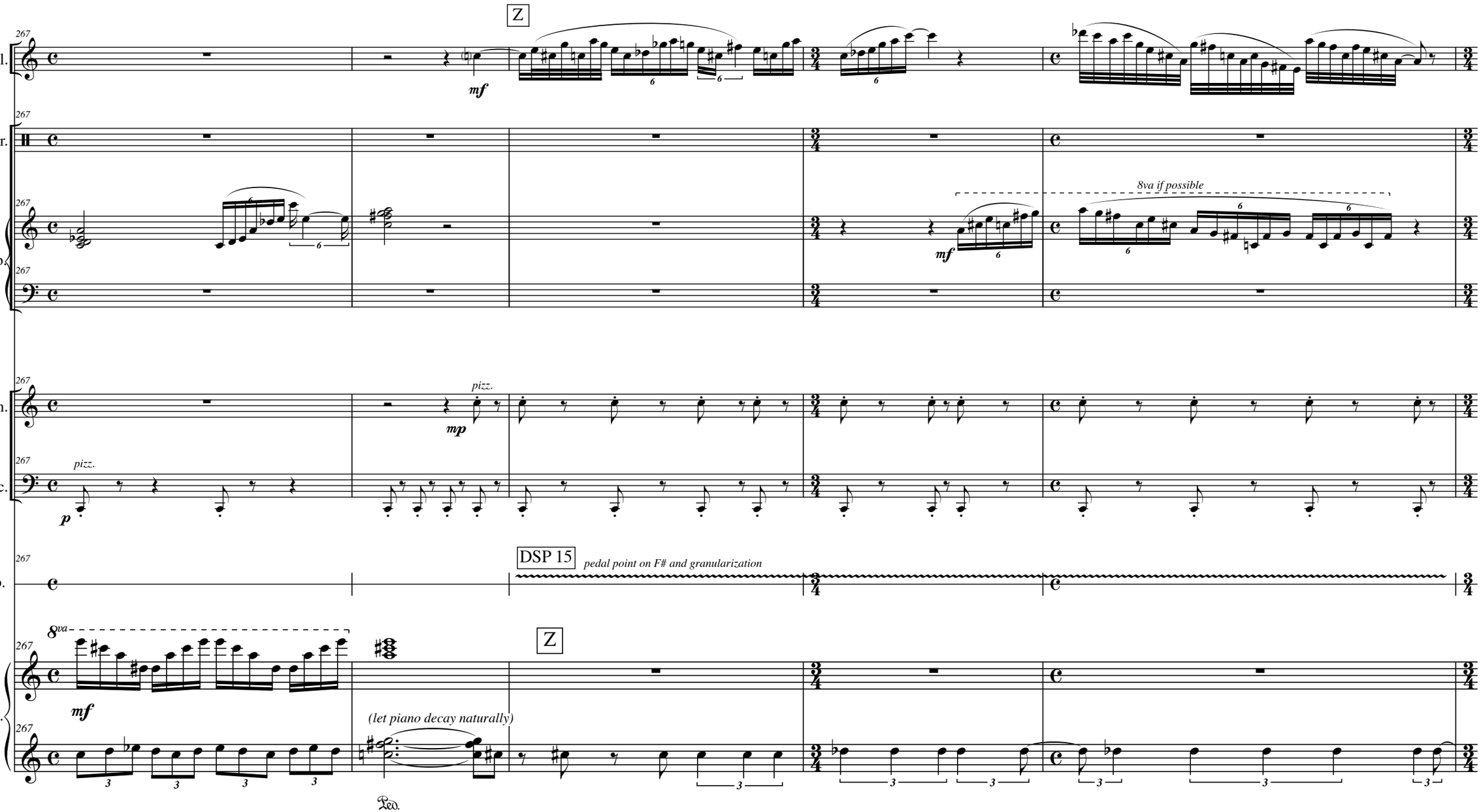

223
Fl.
to flute
Dr.
Mb.
Vln.
Vc.
mf
Cp.
DSP 10
DSP fades out
Pno.

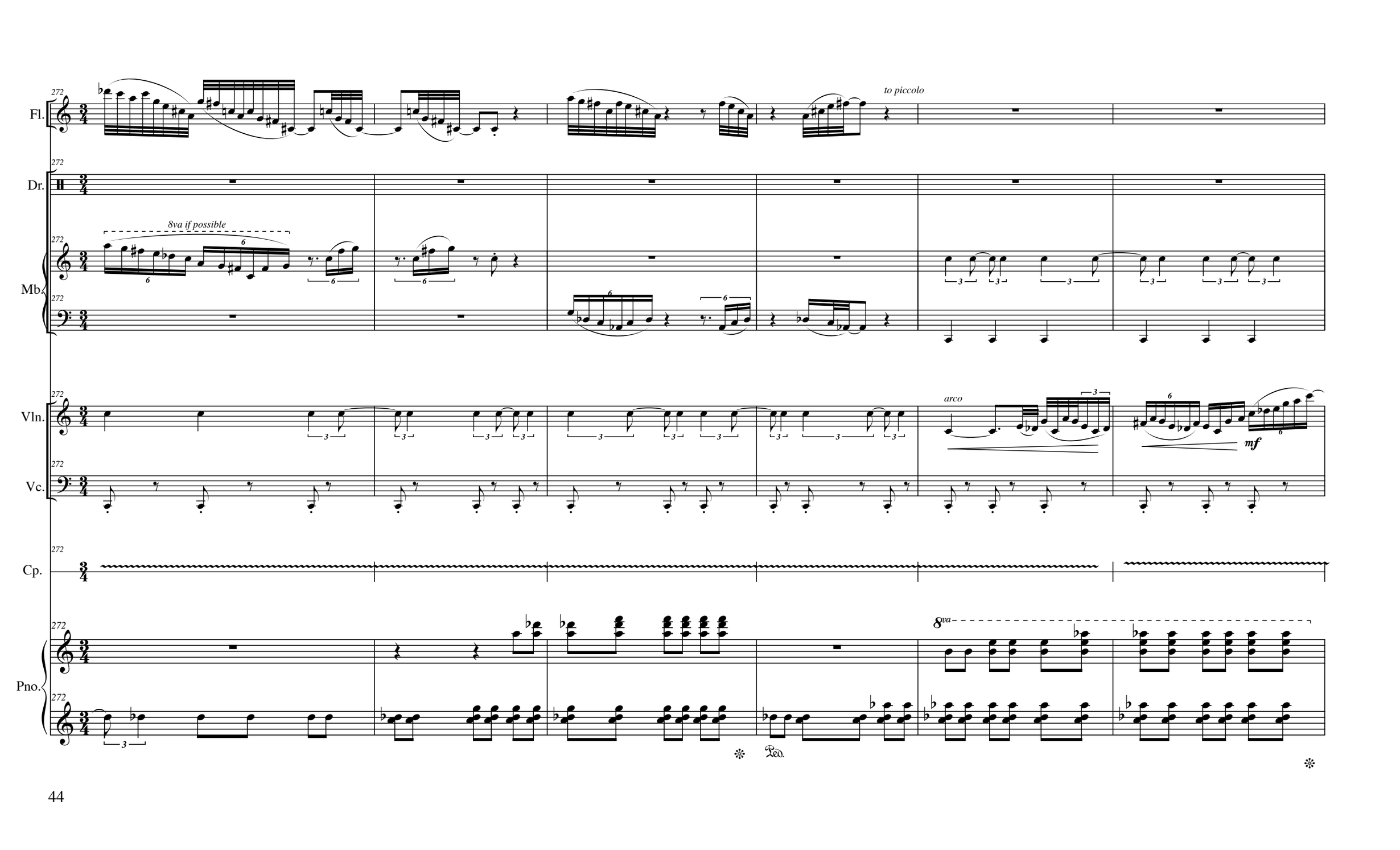

V
W
♩ = 110
Like scurrying insects
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
quasi-cadenza
Glissando
sul tasto
pizz.
to sul pont.
normal
sul pont.
subito
pizz sul pont.
DSP 11
delays and granularization

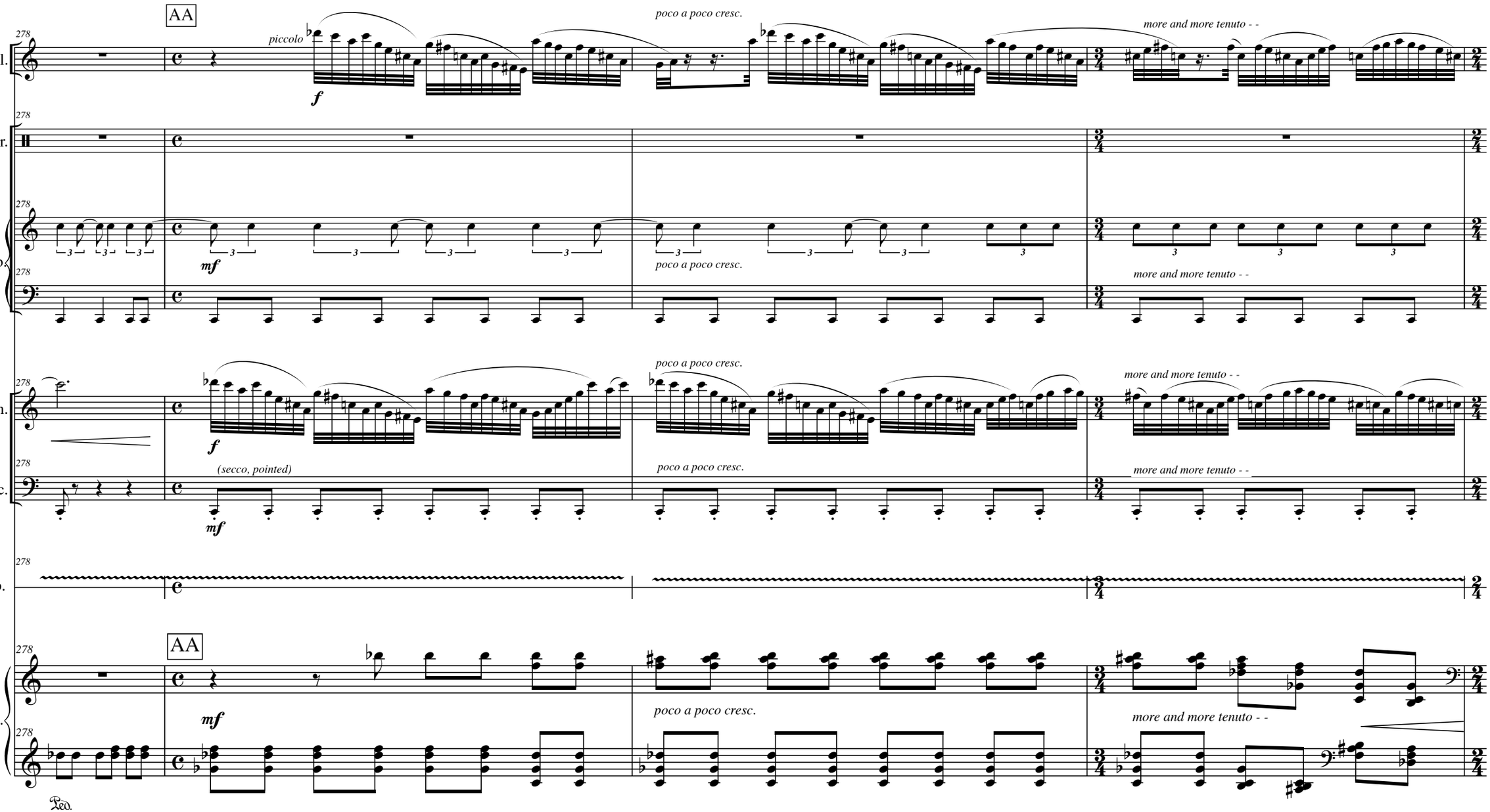

X
♩ = 88
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
237
flute
fl.
pp
(cue cello)
p
norm.
arco
pp
DSP 12
DSP remains but evolves...
X
mp
p
Ped.
Ped.

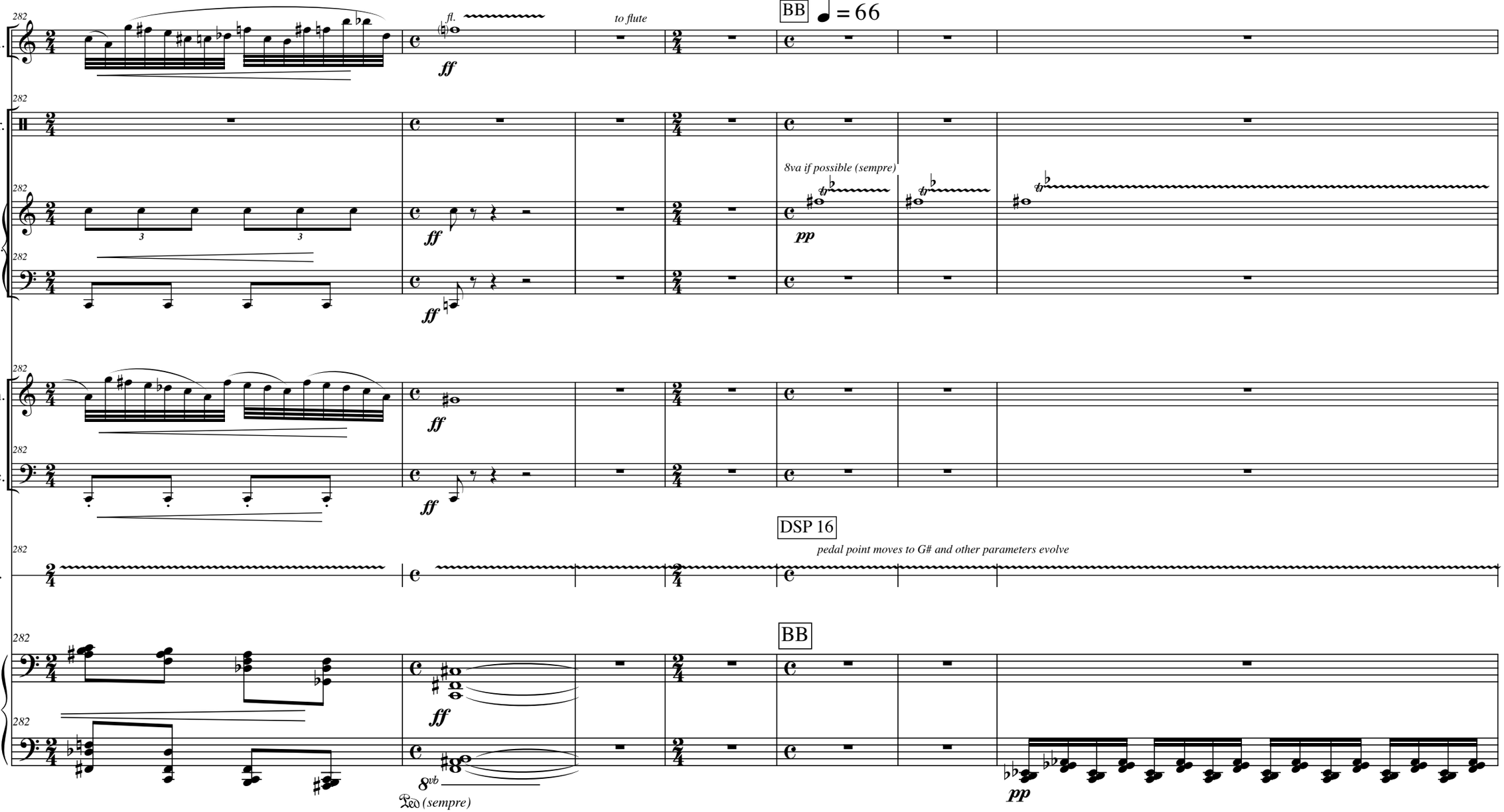

Y
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
248
mp
norm.
arco
dark
p
DSP 13
pedal point on E fades in
Ped.

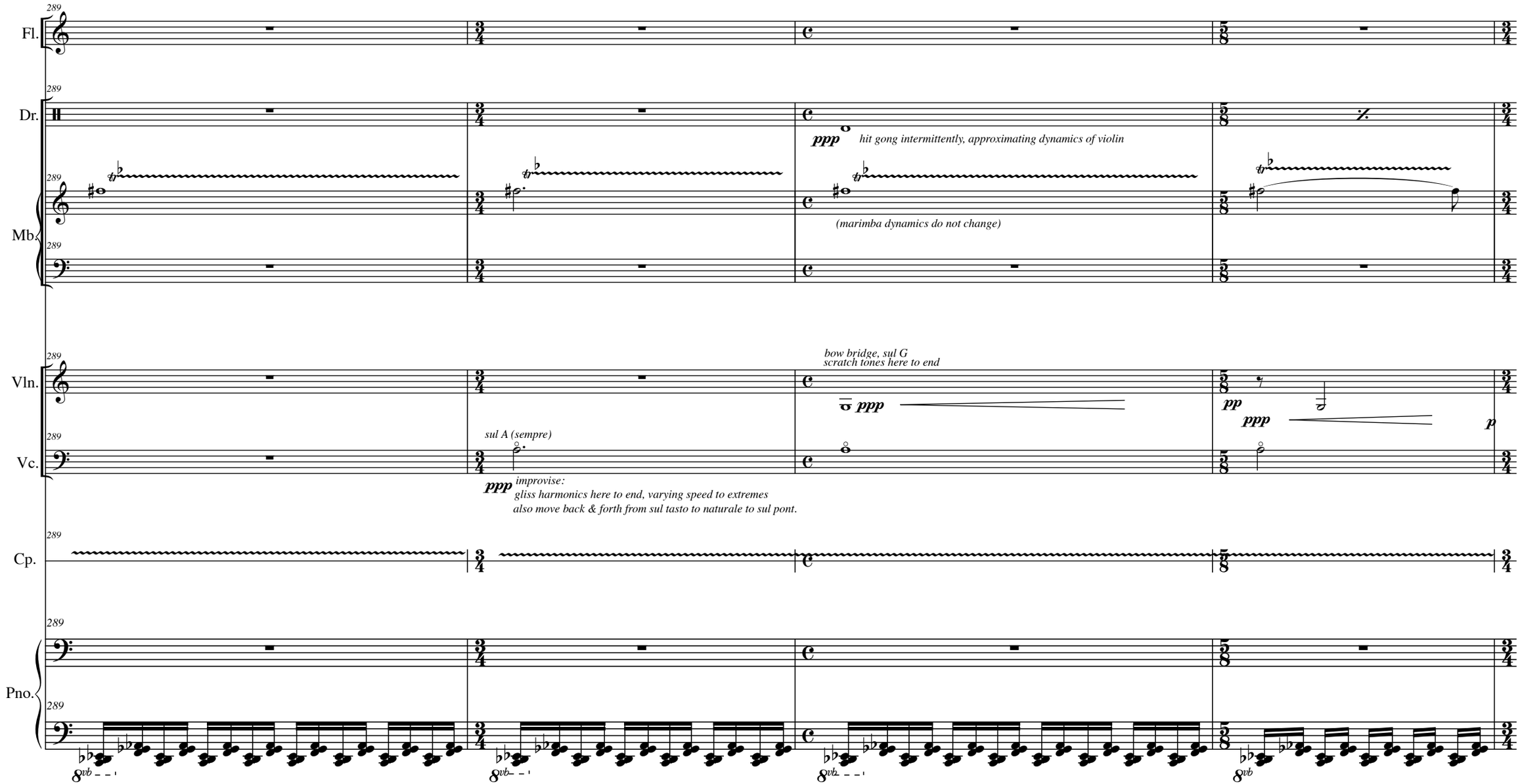
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
dark
fl.
p
mf
tr
DSP 14
Pedal point fades away
Ped.


Z
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
267
mf
mp
p
pizz.
8va if possible
DSP 15
pedal point on F# and granularization
8va
(let piano decay naturally)
Ped.


Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
272
to piccolo
8va if possible
arco
mf
8va
Ped.


AA
piccolo
f
poco a poco cresc.
more and more tenuto - -
278
Fl.
Dr.
Mb.
mf
Vln.
(secco, pointed)
Vc.
Cp.
Pno.
Ped.


Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
282
fl.
ff
to flute
BB
= 66
8va if possible (sempre)
pp
DSP 16
pedal point moves to G# and other parameters evolve
BB
8vb
Ped (sempre)
pp


289
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
ppp
hit gong intermittently, approximating dynamics of violin
(marimba dynamics do not change)
bow bridge, sul G
scratch tones here to end
pp
ppp
p
sul A (sempre)
improvise:
gliss harmonics here to end, varying speed to extremes
also move back & forth from sul tasto to naturale to sul pont.

flute: Improvise--Intermittently play key clicks audibly, using rhythms from gestures from mm. 116-130

continue, ad. lib.

293

Fl.

Dr.

Mb.

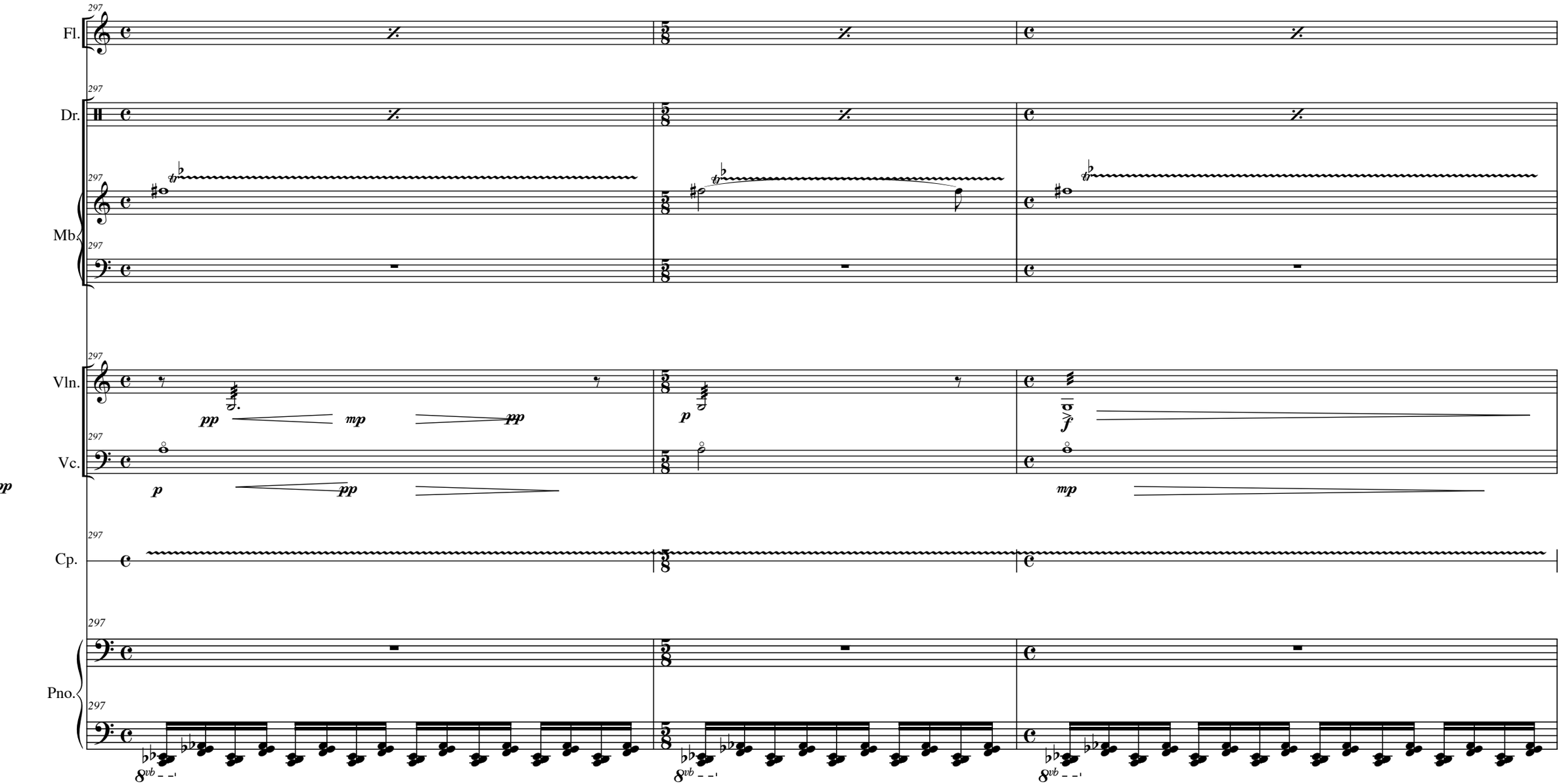
Vln.

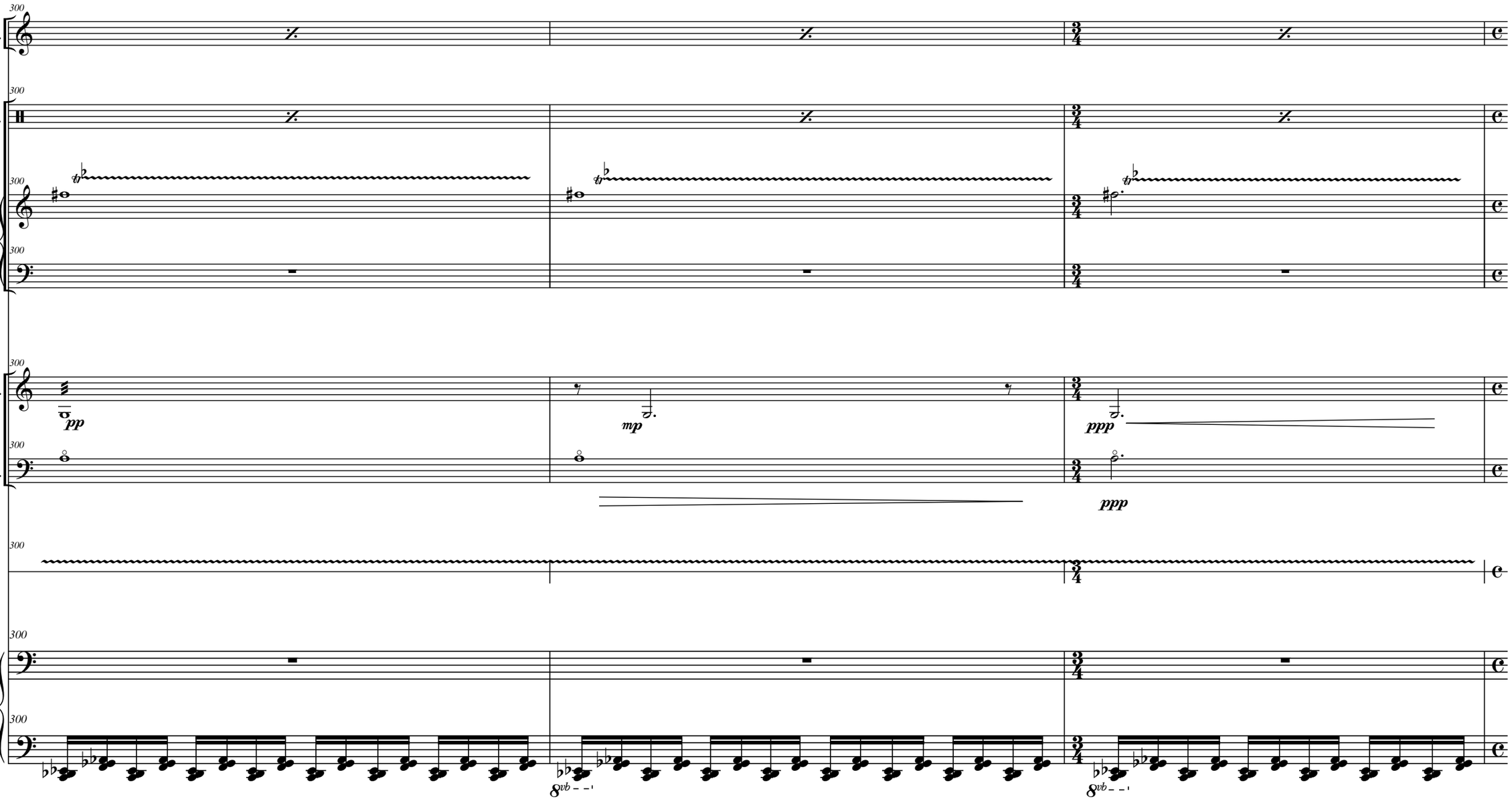
Vc.

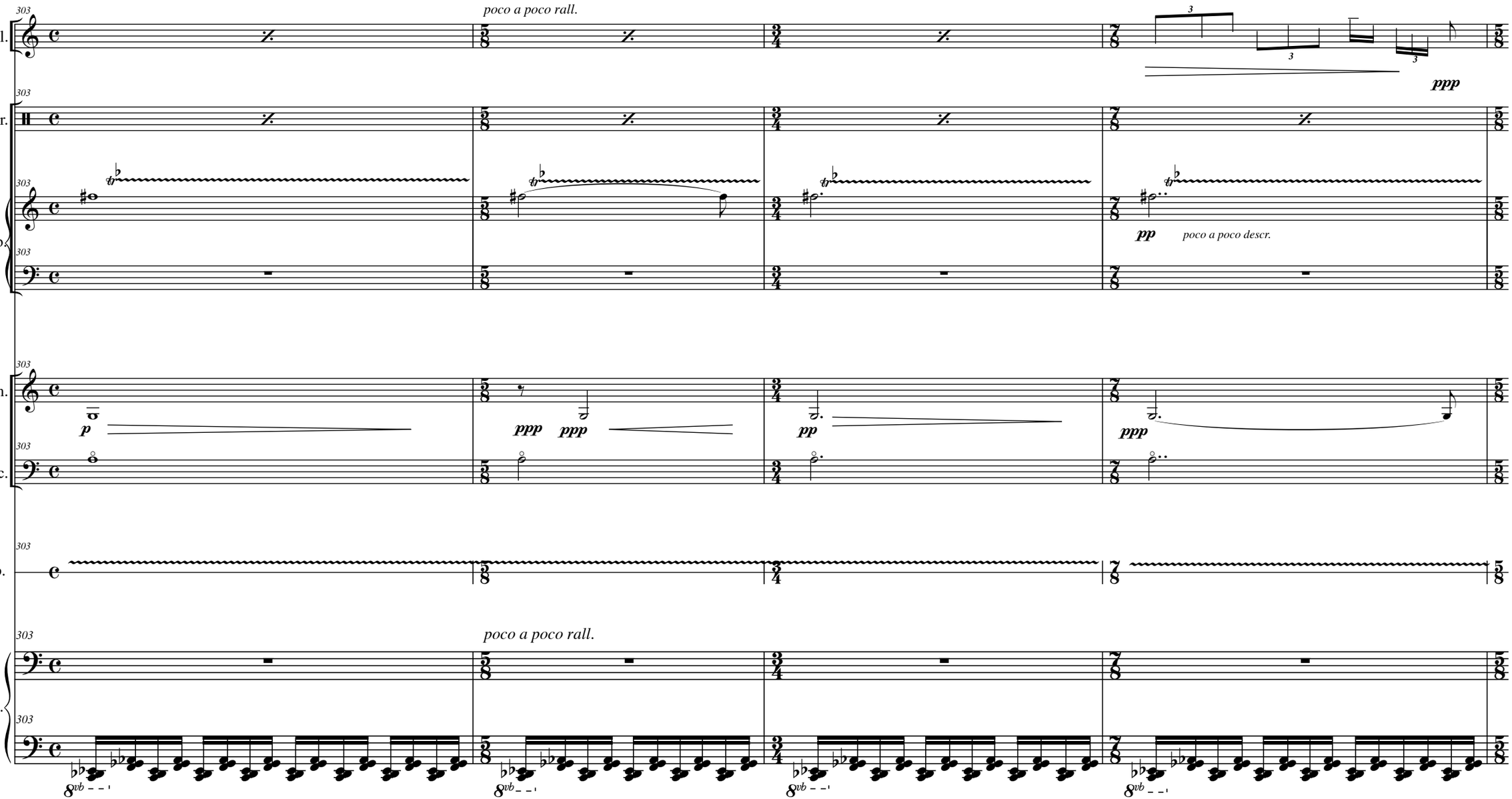
Cp.

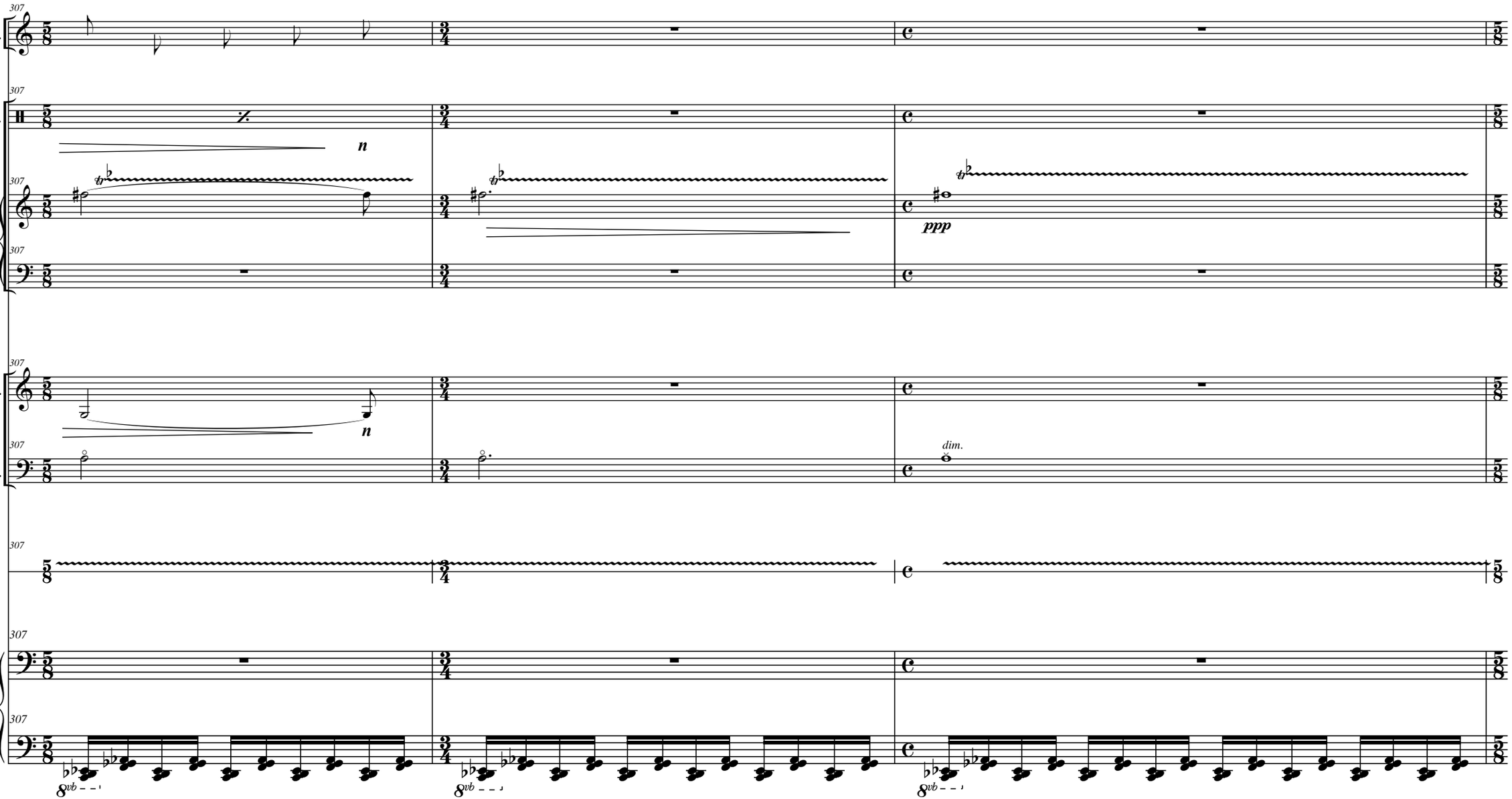
Pno.

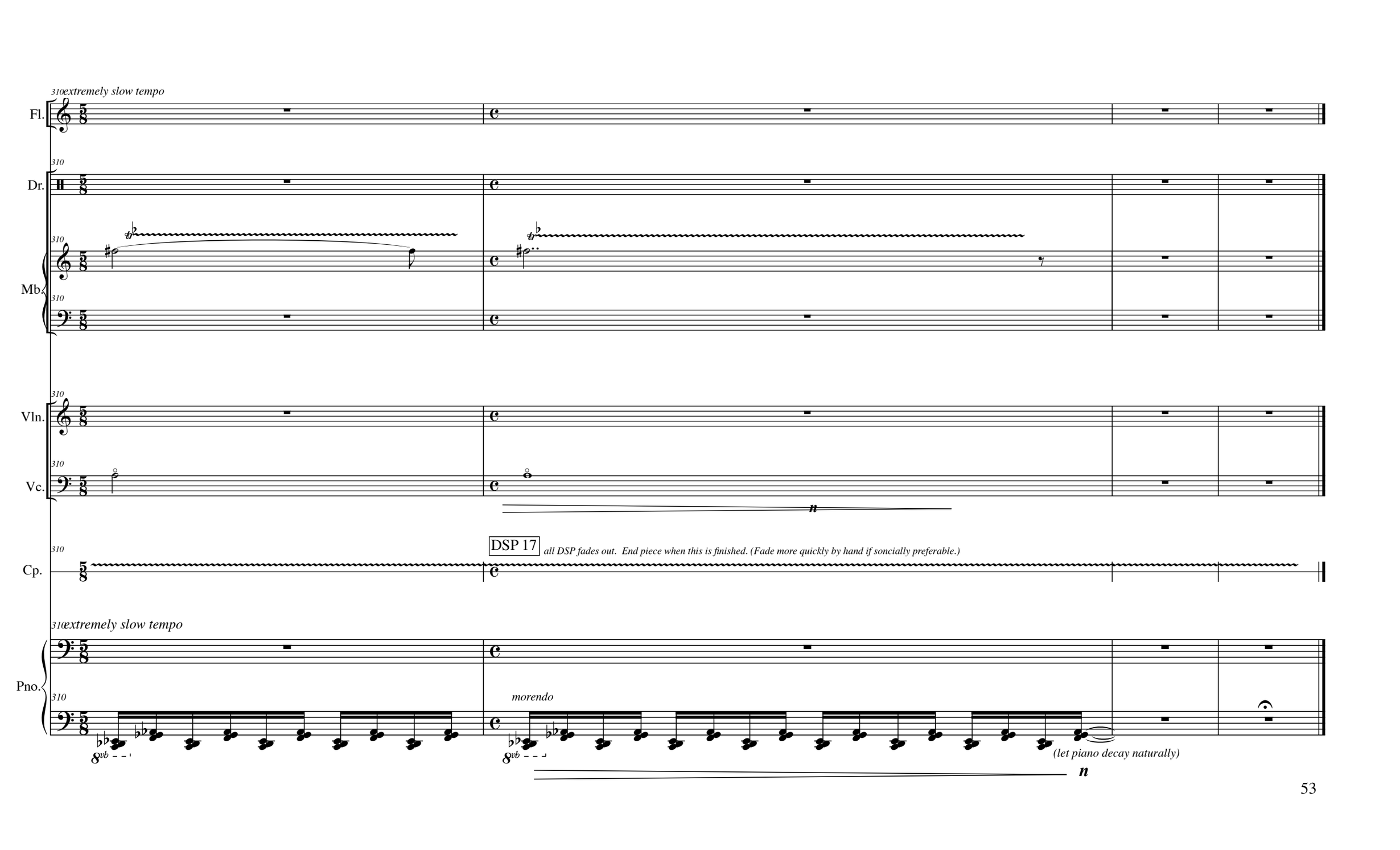
p *ppp* *mf* *pp* *mf* *pp* *pp* *mp* *pp*


297
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
pp
mp
pp
p
pp
p
mp
f
8vb


Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
300
pp
mp
ppp
ppp
8vb
8vb


303
Fl.
poco a poco rall.
ppp
303
Dr.
303
Mb.
pp
poco a poco descr.
303
Vln.
p
ppp
ppp
pp
ppp
303
Vc.
303
Cp.
303
poco a poco rall.
Pno.
303
8vb
8vb
8vb
8vb


307
Fl.
Dr.
Mb.
Vln.
Vc.
Cp.
Pno.
n
ppp
dim.
8vb


310 extremely slow tempo
Fl.
310
Dr.
310
Mb.
310
310
Vln.
310
Vc.
n
310
Cp.
DSP 17
all DSP fades out. End piece when this is finished. (Fade more quickly by hand if soncially preferable.)
310 extremely slow tempo
Pno.
310
morendo
8vb
8vb
(let piano decay naturally)
n