Rand Steiger

A Menacing Plume

for flute (piccolo and alto), oboe (cor anglais), clarinet (bass clarinet),

2 percussion, piano, violin, viola, cello and electronics

Premiere: March 24, 2011; Merkin Hall, New York City; Scott Voyles conducting the Talea ensemble; Miller Puckette, computer music programming

Program Note: From the moment I read about the explosion of the Deepwater Horizon oil platform (April 20, 2010), I was filled with a sense of dread. I thought immediately of the strange, unworldly creatures that thrive in the ocean's depths, as well as those that swim near the surface or fly above it. My feeling of horror grew as we read day after day of the massive, uninhibited flow of oil from the sea floor, and the unregulated use of chemical dispersants (which we now know will linger longer than the oil itself, with as yet unknown consequences.) After a few weeks, news reports described huge plumes of oil gathering in the gulf and drifting out into the Atlantic Ocean. It was impossible to know how large these were or how deadly they would be, but that image of a menacing plume, obliterating life in its wake, stayed with me. Although in many of my earlier works I have reflected on the natural world, I have never before attempted so directly, almost literally, to narrate something like this event in musical terms.

My piece begins with an image of the vast undisturbed surface of the sea as the blinding, bright morning light first arises, followed by a flock of seabirds that soar above. Then layers of material emerge though all the instruments, inspired by the diversity and complexity of undersea life. Finally, an ominous darkness enters and ultimately squeezes out all life.

In addition to the conventional instruments on stage, you will hear two vibraphones with specially tuned bars that enable just intonation. We will also be deploying digital signal processing to transform the sound of the instruments in a variety of ways (just-tuned harmonizing, delays, filters, etc.)

I would like to thank Talea, and Miller Puckette for their inspiring collaboration. I dedicate this performance to the memory of my friend, the composer Arthur Jarvinen, who recently passed away at the untimely age of 54.

Dynamics: The dynamic marking ***n*** is frequently used to indicate notes that begin imperceptibly and gradually fade in over the length of the indicated crescendo. Similarly, decrescendos that end at a rest without a dynamic marking indicate a complete diminuendo to silence. Please note the starting and ending points of these transitions precisely.

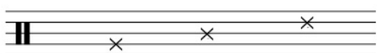
Accidentals and Microtonality: Accidentals carry through the length of the bar, but only in the octave in which they appear. The backwards filled-in flat is used to indicate -31 cents (7th partial) in string harmonics.

Flute: Triangular note heads indicate a tongue ram, and X note heads indicate a key click.

Strings: Jeté, or "thrown bow" technique is used often in all the string parts. This is indicated by a slur following the note with a series of dots underneath it. The motion begins at the indicated note, and the bow is then allowed to freely bounce as long as possible after the note begins. **OP** over a note indicates over-pressure, or "bow distortion" which should always produce noise and not a clear pitch. This notation only applies to the note it appears above unless continued with a bracket.

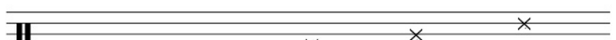
Percussion:

percussion 1 suspended cymbals:



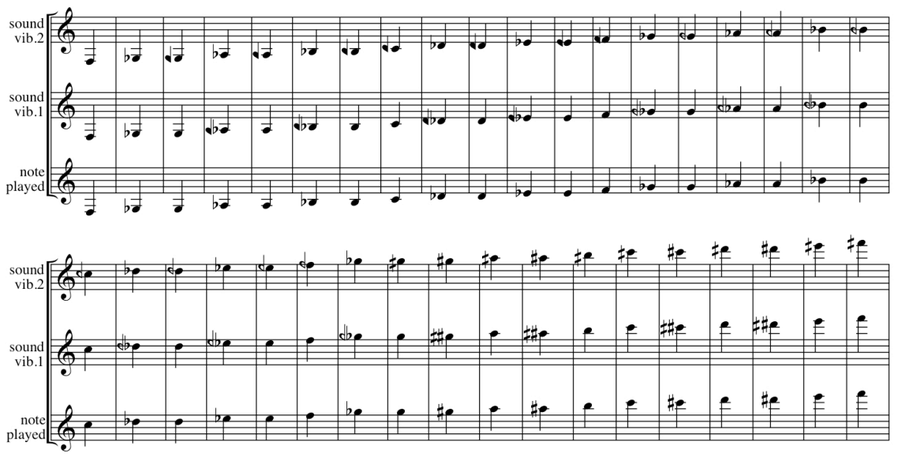
large cymbal | medium cymbal | small cymbal

percussion 2:



E crotale | Chinese cymbal | large cymbal | medium cymbal | small cymbal

Choice of mallets is left to the discretion of the performers. Please note that 5 bass bows are needed for the final section of the piece (2 for each percussionist and 1 for the pianist who assists percussion 1). The two vibraphones must be the Musser M-55 Pro Vibe model. The composer will supply a custom tuned set of bars to replace one set on each instrument (diatonic set on Vibraphone 2 and sharp/flat set on vibraphone 1). The following chart shows the actual sound this will produce for each played note (quarter sharps = +41 cents, backwards flat = -49 cents, filled backwards flat = -31 cents):



Electronics:

A laptop computer running Miller Puckette's Pd software is used for digital signal processing of the sound of the instruments in a variety of ways throughout the piece. Hypercardioid microphones (preferably ones attached to the instruments to avoid bleeding in of other sounds) are to be used on the winds and string instruments, connected to the computer audio interface (no mics are needed for piano or percussion). Two channels of processed sound are then returned to the house system. Great care is to be taken when setting the level of the signal processing amplification. The sound from the speakers should not be louder than the original acoustical sound of the instruments. Ideally, the listener will hear the natural sound of the ensemble, along with a "halo" of transformed sound, blending together equally. Monitor speakers are not necessary for the performers. The ensemble should follow the indicated dynamics and balance and tune in the usual manner. The electronic processing follows the performance, and therefore the conductor has complete interpretive freedom.

More details about the electronics are available in a separate document. A few general notes are provided here. Throughout the piece the strings are slightly amplified, and a halo of resonance is generated using resonant filters in a variety of ways. The winds from 25 - 95 are treated with an echo process (delay with feedback) and stereo panning. A similar process is applied to the alto flute starting at 157. All the winds from 54-62 and 100-142, and the Cor Anglais only from 142-240, are harmonized with one or two just-tuned intervals (producing a chord with the same timbre). Starting at measure 221 the computer begins to introduce sustained pitches in the same range as the ensemble and then gradually widening and growing denser and louder and arriving at a thick mass of sound at 242. After the strings reenter at 243, this starts to fade away gradually (low frequencies first) and when it is completely inaudible, the conductor begins again at measure 245.

Stage Diagram:

Please note: to avoid sound getting into each others microphones the players should be as far apart from one another as possible (with the exception of the strings, who may sit close together, but as far as possible form the other instruments).

Contact:

For further information please contact the composer by email to this address:
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Additional information may be found on the following web site:
http://rand.info

Rand Steiger

A Menacing Plume

flute

oboe

clarinet in B♭

piano

percussion 1

percussion 2

violin

viola

violoncello

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13

fl.

ob.

cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

accel. ♩=48 ♩=44

cor anglais

to piccolo

to oboe

bass clarinet

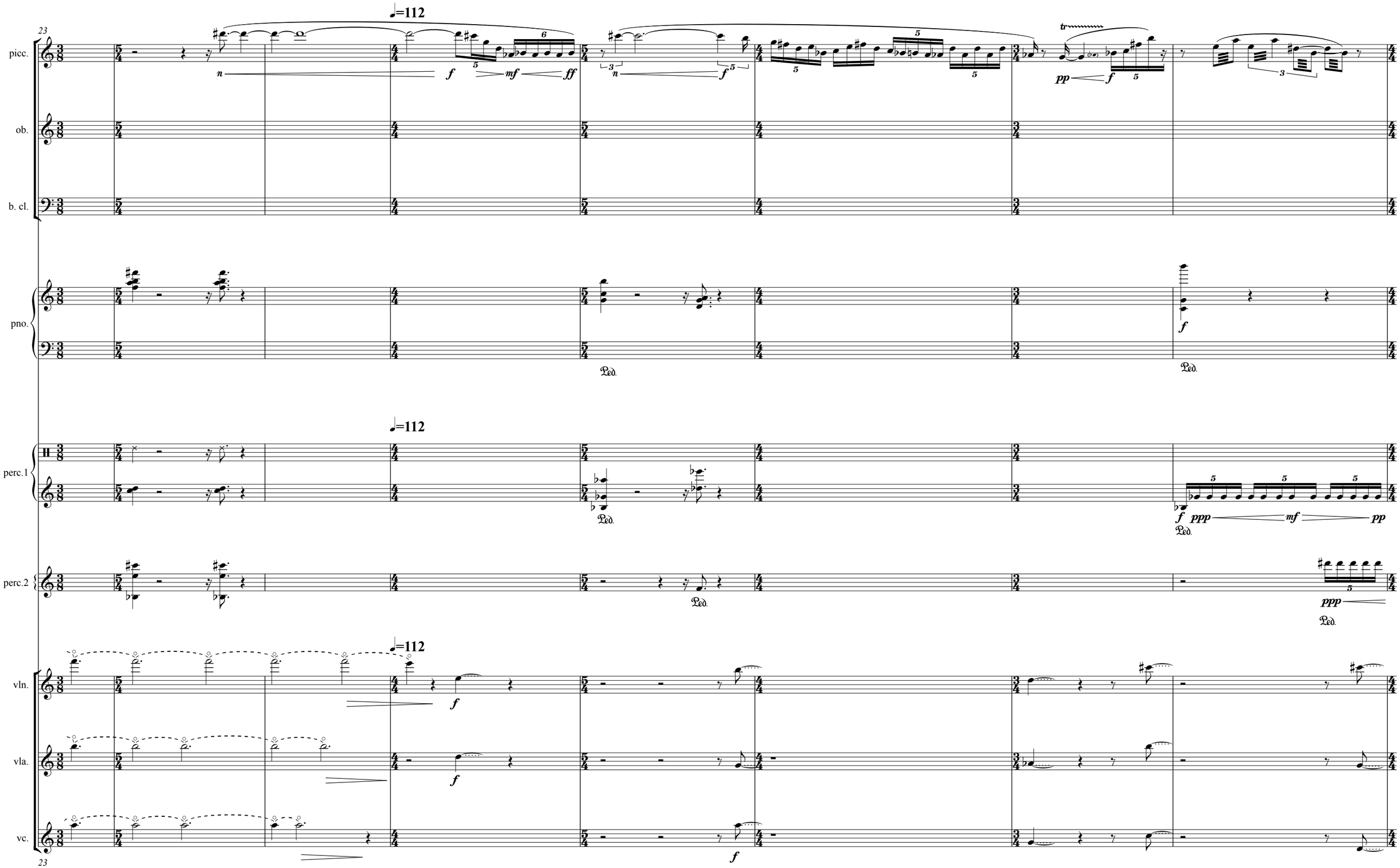
to B♭ clarinet

accel. ♩=48 ♩=44

accel. ♩=48 ♩=44

loco

13


23
♩=112
picc.
ob.
b. cl.
pno.
perc.1
perc.2
vln.
vla.
vc.
Ped.

31

picc.

ob.

oboe

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

31

38

picc.

ob.

clarinet in B♭

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

38

44

picc.

ob.

cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

44

50

picc.

ob.

cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

rit.

rit.

50

55

♩=80

accel.

picc.

ob.

cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

(harmonic glissando)

(harmonic glissando)

55

62

♩=112

picc.

ob.

cl.

pno.

Ped.

♩=112

perc.1

perc.2

♩=112

vln.

vla.

vc.

62

67

picc.

ob.

cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

67

72

picc.

ob.

cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

72

77

picc.

ob.

cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

77

82

picc.

ob.

cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

(hold pedal until sound completely fades)

(hold pedal until sound completely fades)

82

88

picc.

ob.

cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

88

93

(tr)

to flute

♩=90

flute

picc.

ob.

cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

sul pont.

ord.

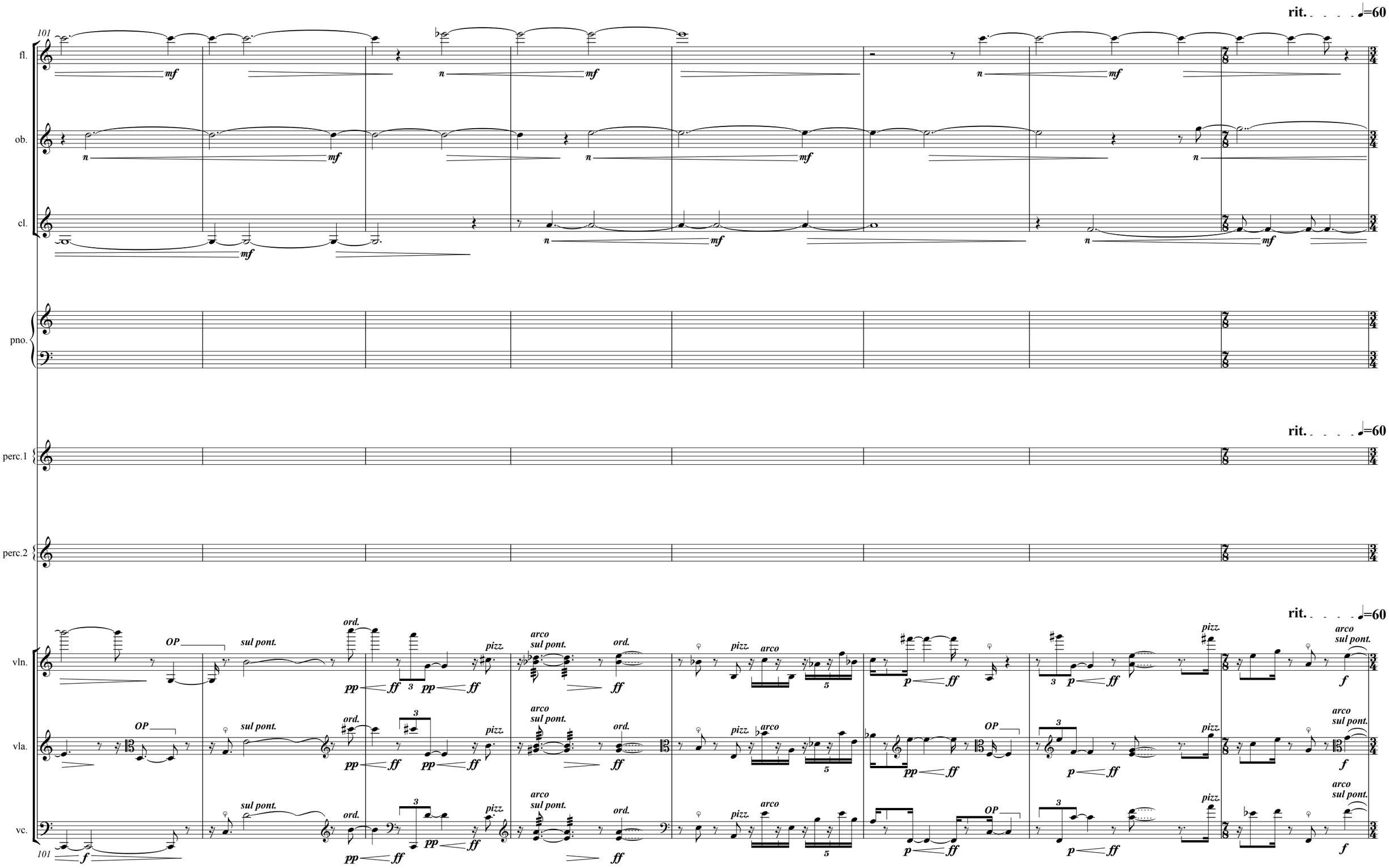
pizz.

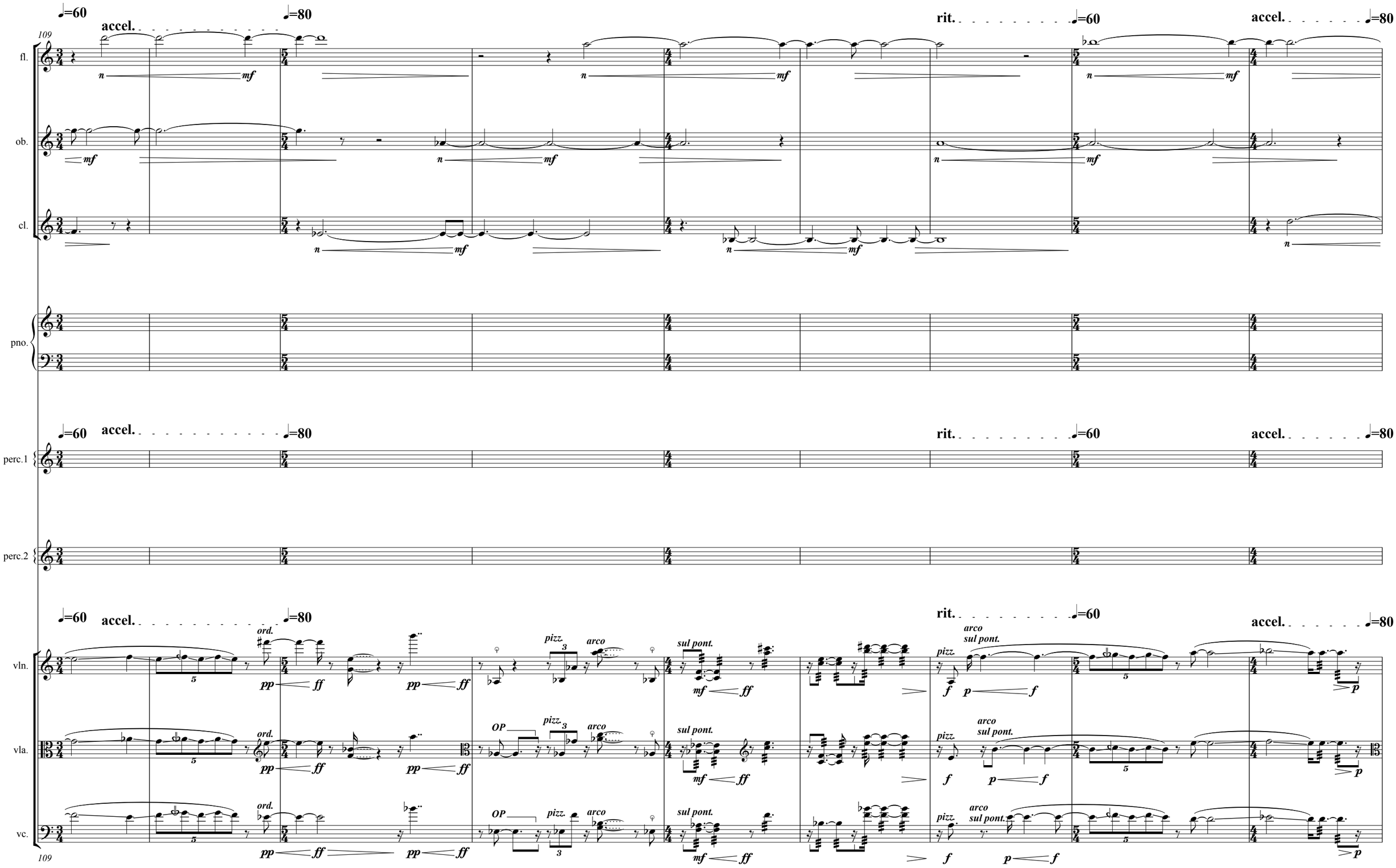
arco

sul pont. (¼-tone gliss)

OP

93


rit. ♩=60
101
fl.
ob.
cl.
pno.
perc.1
perc.2
vln.
vla.
vc.
OP
sul pont.
ord.
pizz.
arco
pp
ff
p
f
mf
n



♩=60
accel.
♩=80
rit.
♩=60
accel.
♩=80
109
fl.
ob.
cl.
pno.
perc.1
perc.2
vln.
vla.
vc.
ord.
pizz.
arco
sul pont.
OP

118

♩=80 ♪=♪ rit. ♩=48

fl.

ob.

cl.

to b. cl.

bass clarinet

pno.

♩=80 ♪=♪ rit. ♩=48

perc.1

with bow

(hold pedal through m.145)

perc.2

with bow

(hold pedal through m.145)

♩=80 ♪=♪ rit. ♩=48

vln.

vla.

vc.

OP

pizz.

arco non vib.

arco ord.

sul pont.

ord.

sim.

118

127

rit. ♩=40

fl.

ob.

b. cl.

pno.

rit. ♩=40

perc.1

perc.2

rit. ♩=40

vln.

vla.

vc.

127

135

fl.

ob.

to cor anglais

b. cl.

pno.

perc.1

perc.2

vln.

sul pont.

vla.

sul pont.

vc.

sul pont.

135

accel. ♩=90

142

to alto flute

fl.

cor anglais

c. a.

b. cl.

pno.

accel. ♩=90

perc.1

perc.2

accel. ♩=90

vln.

vla.

vc.

142

151

fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

151

♩=80

alto flute

(:♩)

pizz. arco sul pont. OP

159

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

159

166

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

166

172

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

172

178

A. Fl.

c. a.

b. cl.

pno.

secure pedal with weight (through end of piece)

with medium mallets

perc.1

secure pedal with weight (through end of piece)

with medium mallets

perc.2

vln.

vla.

vc.

178

185

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

185

192

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

192

197

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

197

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

209

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

(hold pedal through m.243)

215

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

arco
sul pont.

pizz.

ord.

arco
OP

215

221

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

221

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

231

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

231

234

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

234

238

A. Fl.

c. a.

b. cl.

8va

sfzp ff ff pos.

(15)

pno.

perc.1

perc.2

vln.

vla.

vc.

15"

238

243

A. Fl.

c. a.

b. cl.

pno.

perc.1

perc.2

vln.

vla.

vc.

243

wait for
electronics to
completely fade out

=26

=40

go to vibraphone 1

vibraphone with
2 bows

pianist bows on
vibraphone 1
(pedal held with weight)

vibraphone with 2 bows

(pedal held with weight)

I

III

IV

n

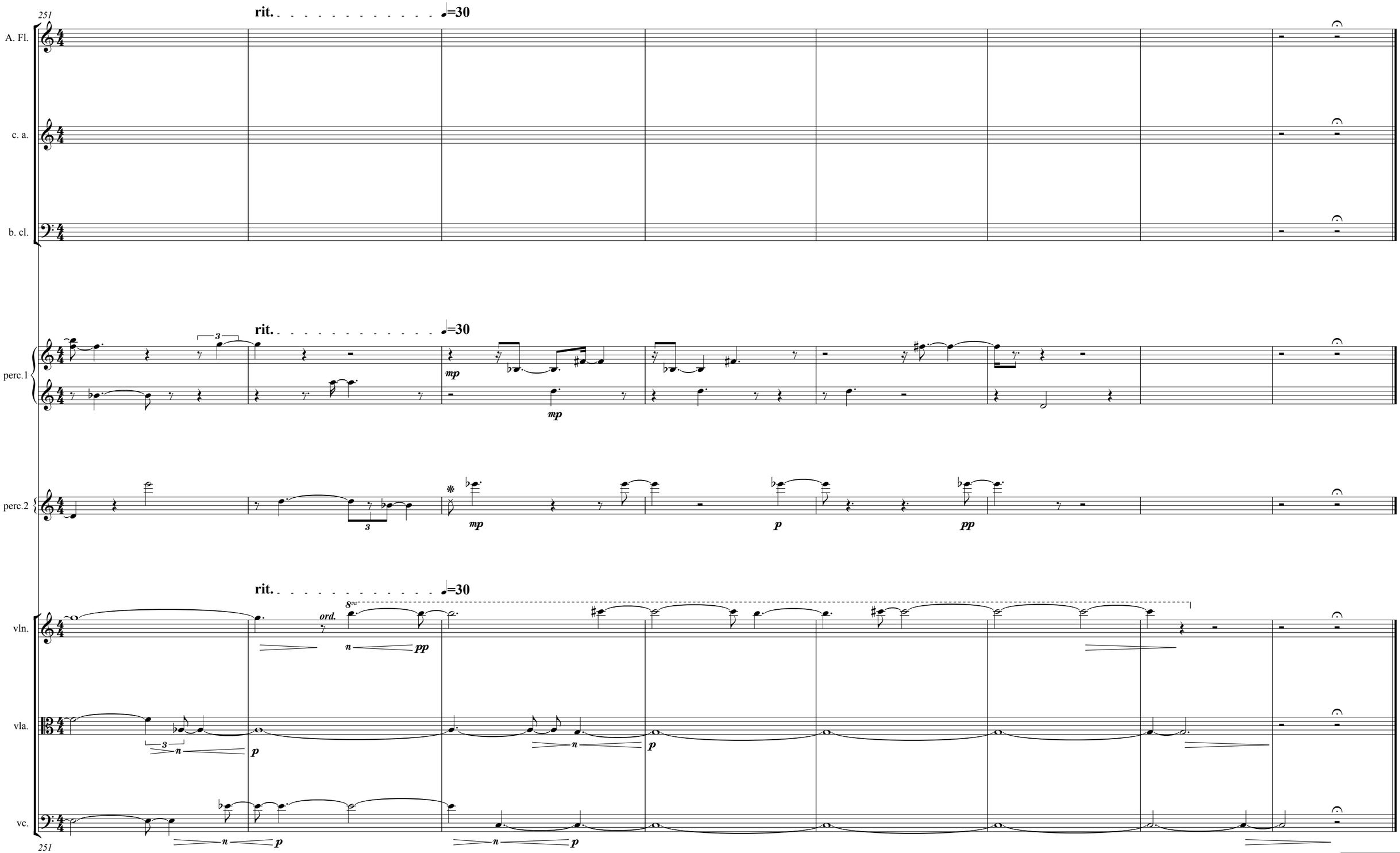
f

mp

p

non vib.

3



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