The Wilderness Anthology:
A Preservation of Sonic Landscapes for String Quartet and Prerecorded Audio

by

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A composition submitted in partial fulfillment
of the requirements for the degree of
Doctor of Musical Arts
(Music Composition)
in The University of Michigan
2016

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Professor Evan K. Chambers, Co-Chair
Associate Professor Mark A. Clague
Professor Kristen P. Kuster
Assistant Professor Richard L. Neitzel
Associate Professor Erik R. Santos

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DEDICATION

The Wilderness Anthology is dedicated to those seeking adventure in life and those working to preserve our remaining wilderness.

ACKNOWLEDGMENTS

Thank you to countless people who helped in the process of this dissertation including Audrey Kelley my partner in life and adventure for accompanying me and helping record sounds in the Amazon. To my guides Cleaver and Hugo, thank you for preventing certain death. To Mike Harlin and Sam McPhee, thank you for your support recording audio in the Book Cliffs. Thank you to my family who generously and selflessly encouraged my pursuit of a life in the arts from a very early age. Thank you to my mom Judy Harlin who sought out my first composition teacher Alexei Girsh. To my co-advisors, Michael Daugherty and Evan Chambers; Evan for his support of this idea from the beginning and his help in distilling this project into a cohesive dissertation, and Michael Daugherty for his open ears and feedback from the concert perspective. Thank you, to my committee members Kristen Kuster, Erik Santos, Richard Neitzel, and Mark Clague for their guidance. *The Wilderness Anthology* was made possible through the generous support from the Graham Sustainability Institute DOW Doctoral Fellowship and the Rackham Predoctoral Fellowship. Lastly, thank you to the pioneers in the field of acoustic ecology and soundscape ecology R. Murray Schafer and Bernie Krause for inspiring this work.

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ABSTRACT

The Wilderness Anthology (2014-16) is a music composition for string quartet and pre-recorded audio soundscapes from the Peruvian Amazon Rainforest and Book Cliffs in the Utah and Colorado. The work employs audio from these environmentally imperiled disappearing soundscapes (sum total of audio in a given environment) with live string quartet drawing relationships between sounds found in the natural world and those in the concert hall.

Though almost entirely overlooked in the field of sustainability, soundscapes are a critical component of an ecosystem, a potential indicator of biodiversity, a valuable tool in predator and prey dynamics, and a clear signal in a frequently visually cluttered or camouflaged landscape. The Book Cliffs and portions of the Amazon where these recordings were gathered are virtually uninhabited but under continual pressure for resource extraction. Through a combination of habitat loss, species decline, ecological destruction, and resource extraction, soundscapes are becoming less apparent and acoustically diverse. Human generated noise masks sound from biological and geographic sources, while technology increasingly insulates humans inside of an artificial sound environment. This lack of attention and awareness coupled with noise pollution and environmental degradation is permanently altering soundscapes and ecosystems. *The Wilderness Anthology* focuses listener's attention on this issue.

The Wilderness Anthology employs the transcription of bird calls, imitation of a soundscape by the performers, and evokes the visual and the romanticized ideal of humans in nature. Evocation is achieved through suspended harmonic rhythm, heightened activity, and string harmonics simulating tinnitus which is apparent in quiet places.

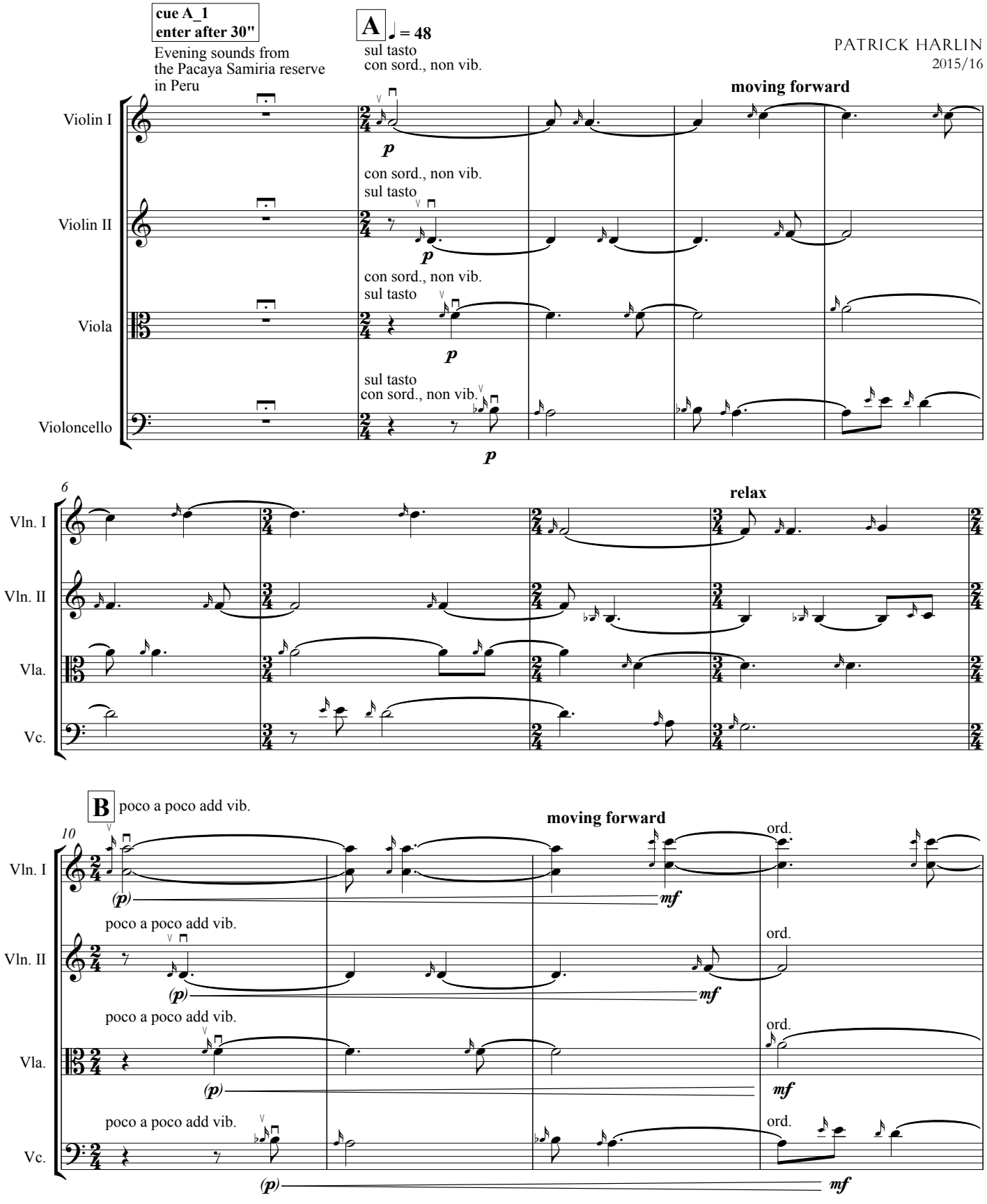
The Wilderness Anthology has seven movements: Reverence: Dusk, Jungle Disco, Ecstatic, Static, Machinal, Nightscape, and Reverence: Dawn. It was premiered on April 3rd, 2016 by Grace Kim, Lijia Phang, Kristina Willey, and Richard Narroway.

It is ideally performed in a concert hall with a high fidelity audio system for audio playback. The work can be performed with or without projected images. The audio was recorded on location in 2013-14 with a SoundDevices 702 recorder and a pair of DPA 4006 stereo microphones. The audio is packaged in a MaxMSP patch and triggered by a Logidy midi-pedal.

THE WILDERNESS ANTHOLOGY

I. REVERENCE/DUSK

PATRICK HARLIN
2015/16



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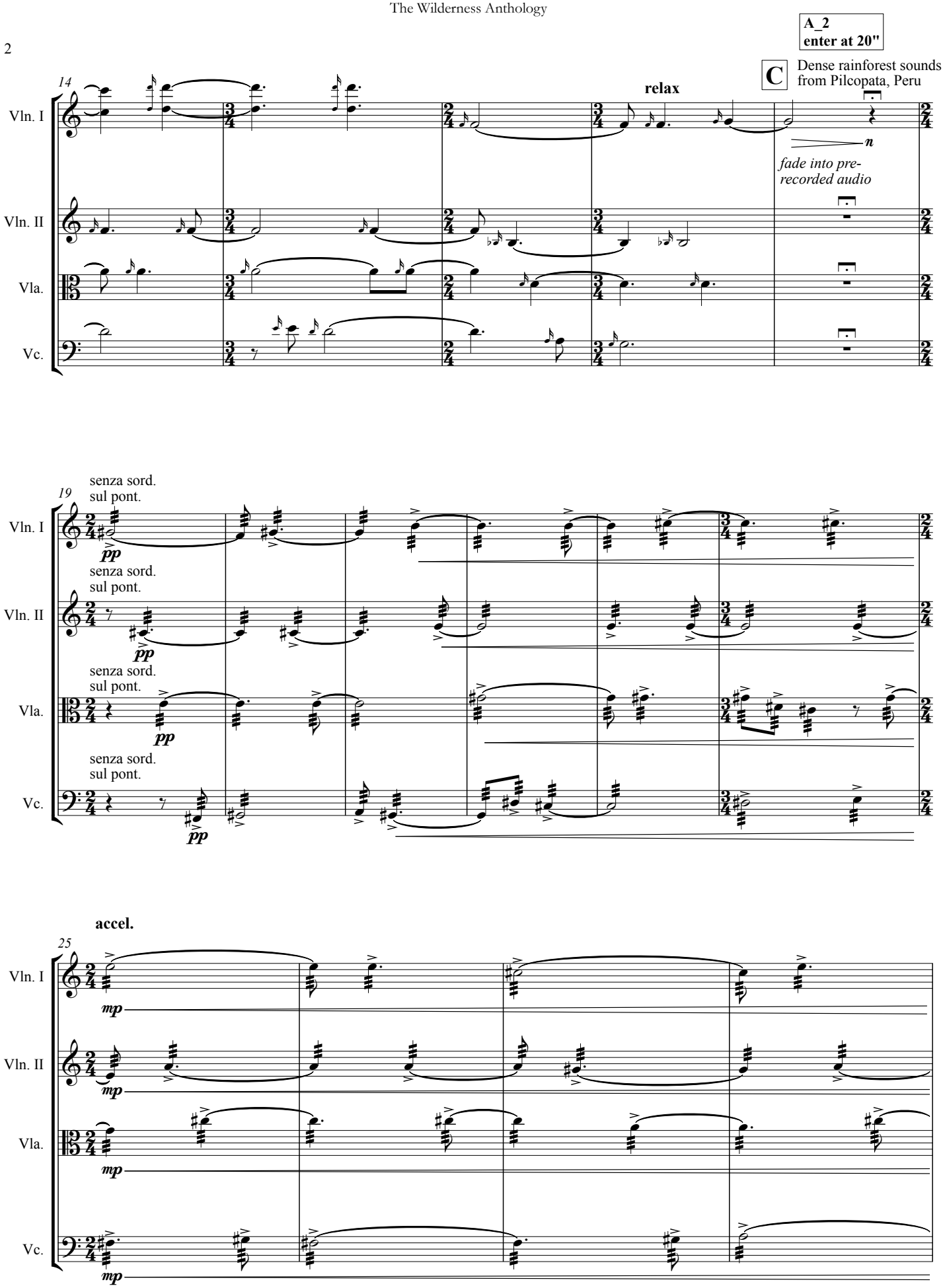
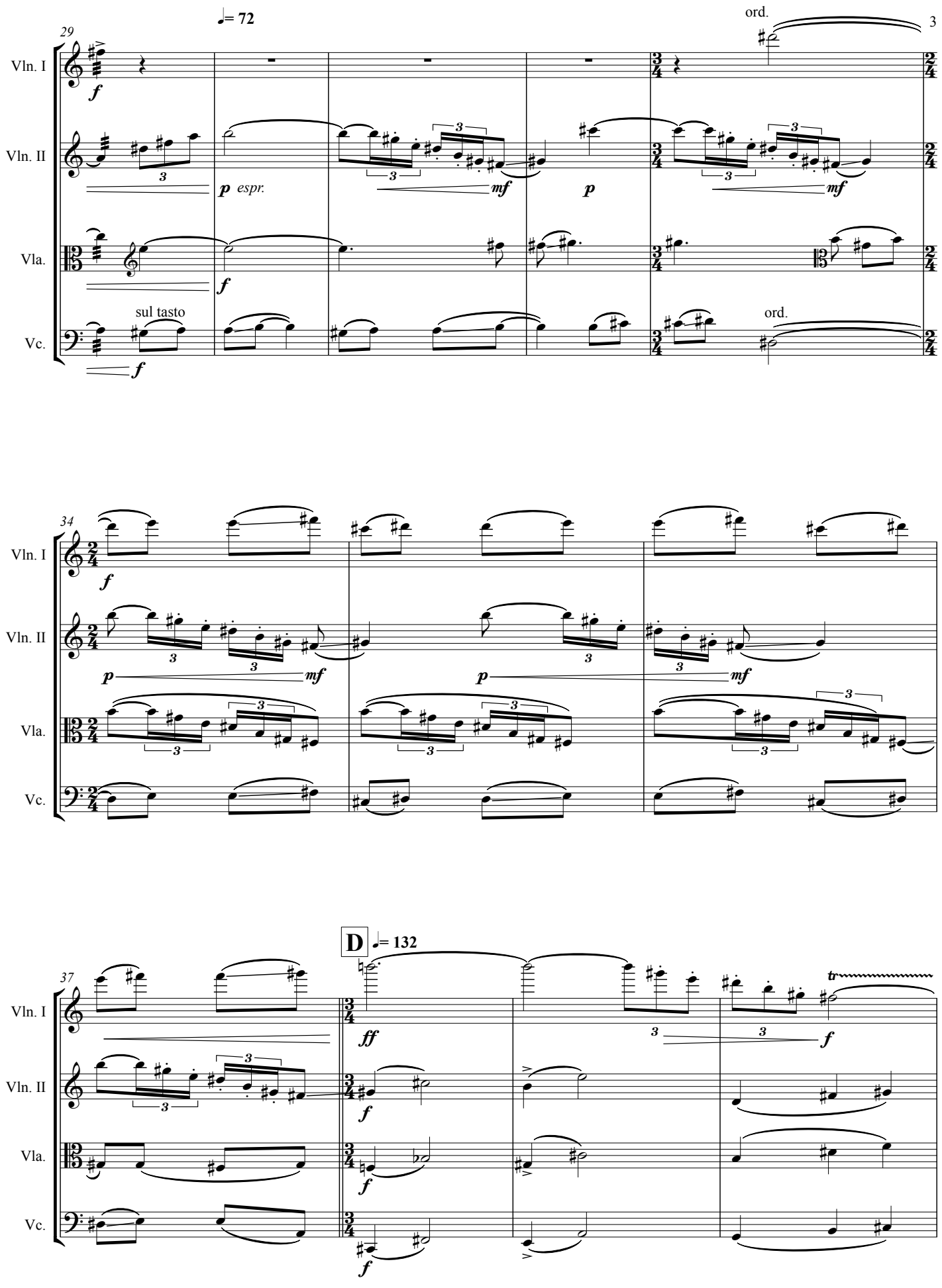
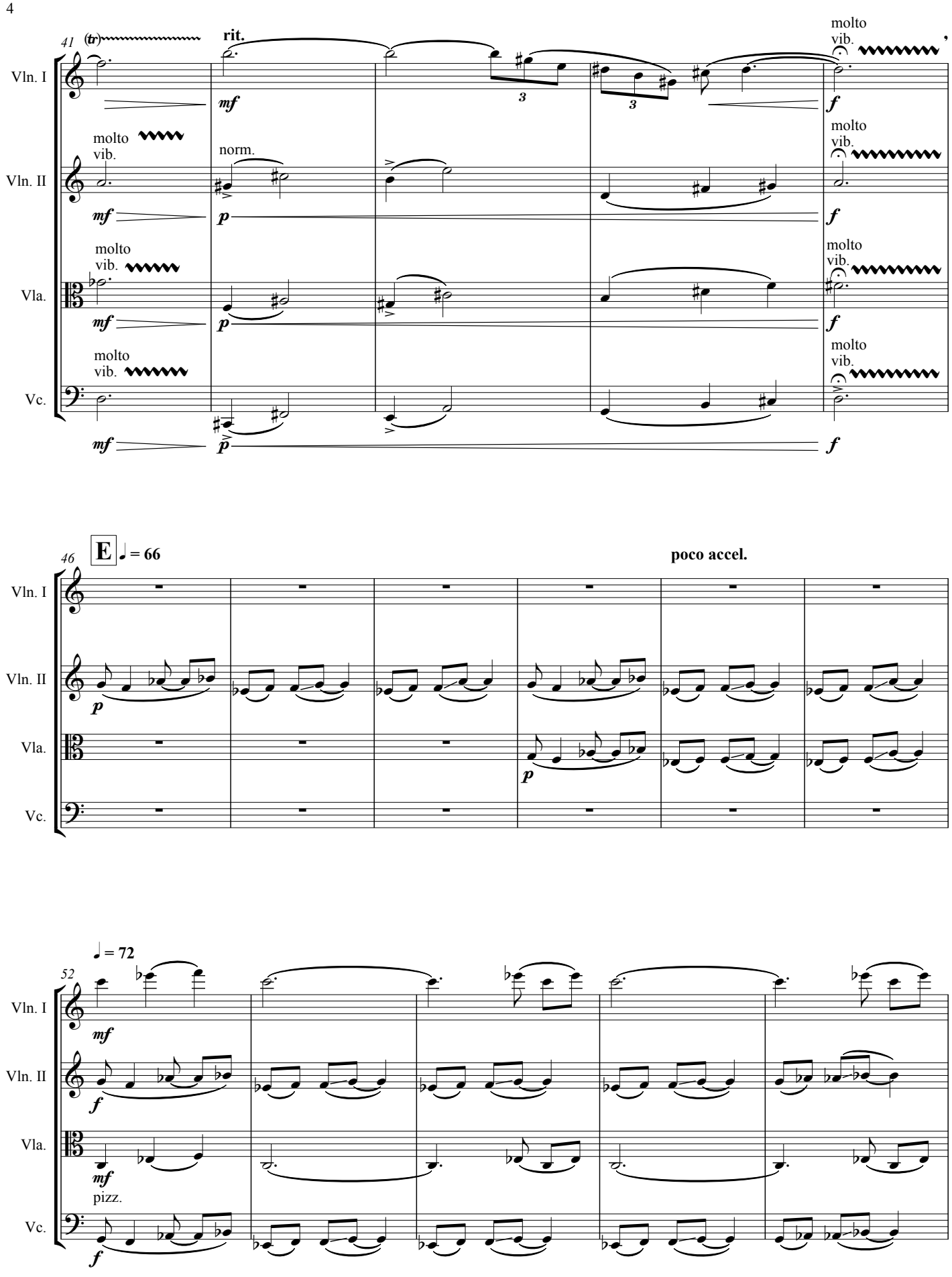
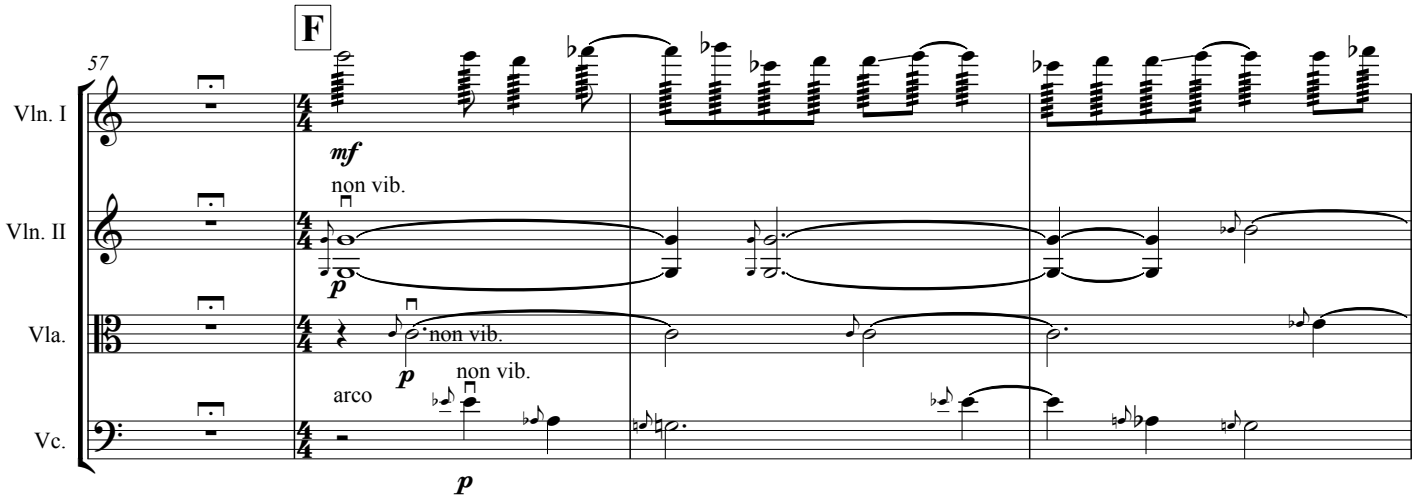

A_2
enter at 20"
C
Dense rainforest sounds from Pilcopata, Peru
14
relax
Vln. I
Vln. II
Vla.
Vc.
n
fade into pre-recorded audio
19
senza sord.
sul pont.
pp
25
accel.
mp


♩= 72
29
Vln. I
Vln. II
Vla.
Vc.
f
p espr.
mf
p
mf
f
sul tasto
f
ord.
ord.
3
34
Vln. I
Vln. II
Vla.
Vc.
f
p
mf
p
mf
D
♩= 132
37
Vln. I
Vln. II
Vla.
Vc.
ff
f
f
f
f
tr

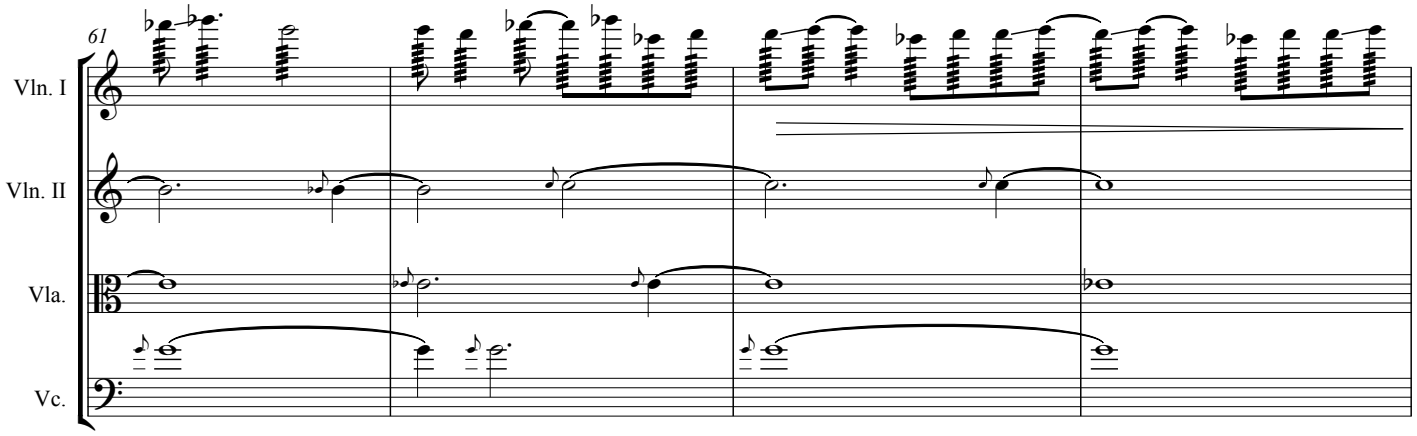

41
(tr)
rit.
molto vib.
Vln. I
Vln. II
Vla.
Vc.
norm.
mf
p
f
3
46
E
♩ = 66
poco accel.
52
♩ = 72
pizz.

A_3
enter after 15"

Birdcalls from the Pilcopata Nature Preserve.



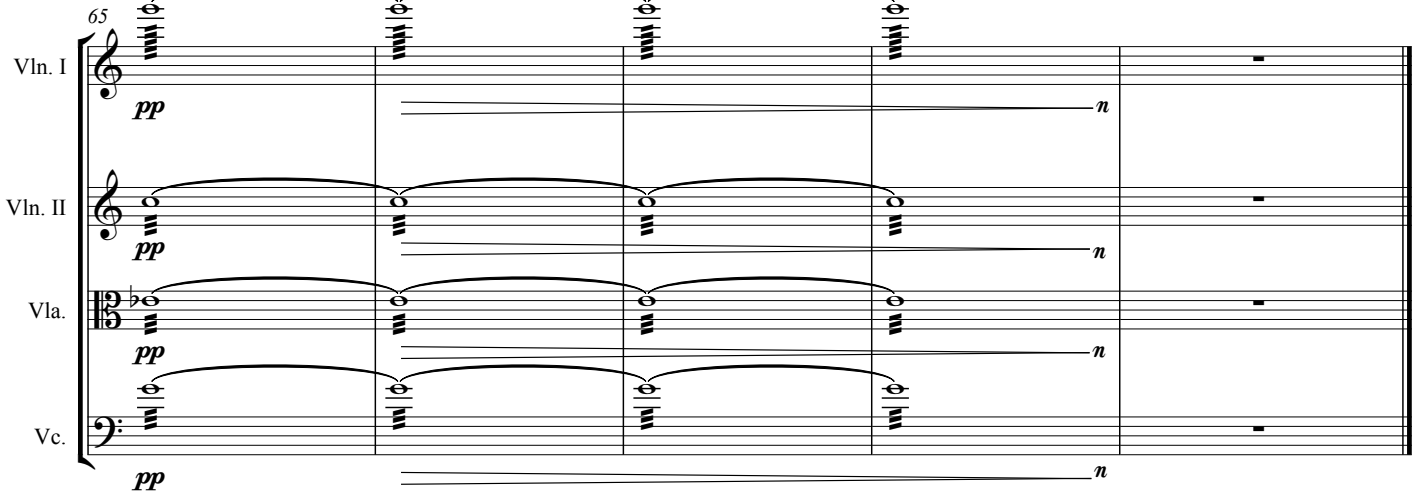
rit.



cue B_1
Jungle Disco

Sounds from the Amazon blend the bass line of the local discoteque.

attacca



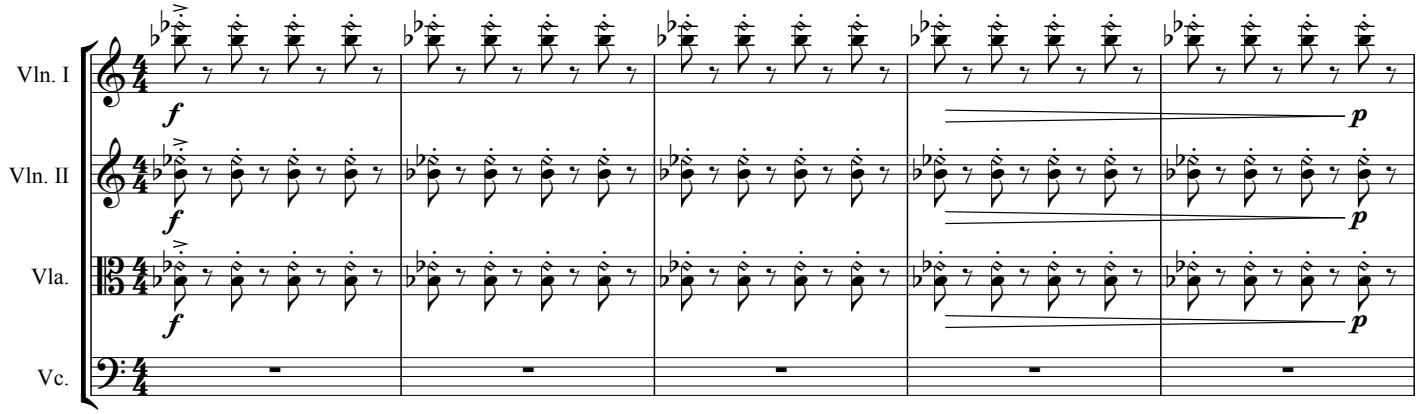
II. JUNGLE DISCO

(cont'd) B_1
Jungle Disco

Cue Continued, sounds from the Amazon blend the bass line of the local discoteque.

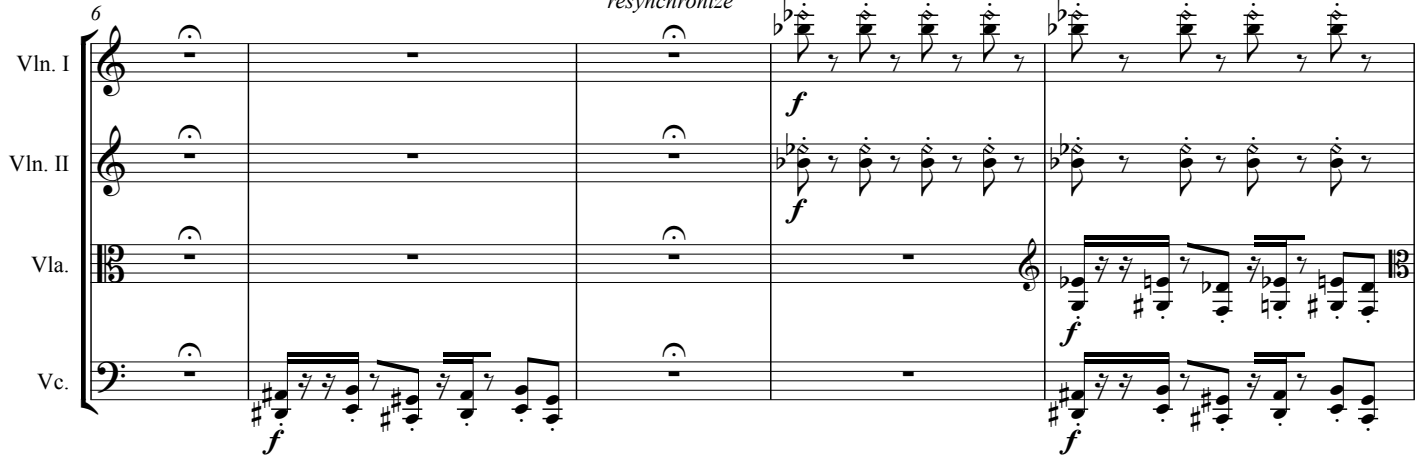
♩ = 116

sync with rhythm of the pre-recorded audio

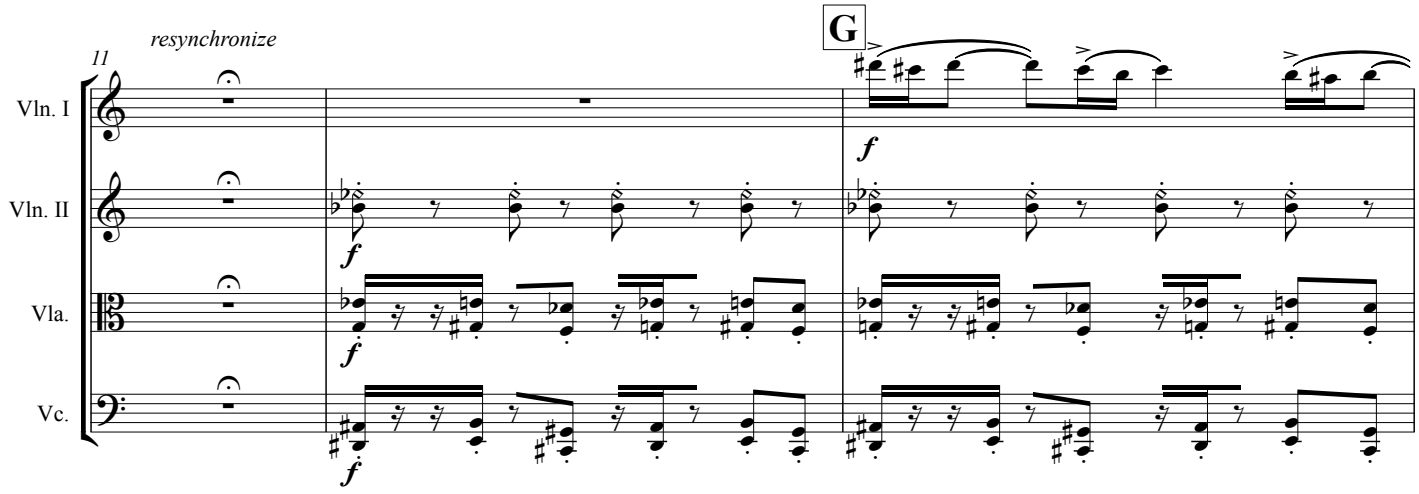


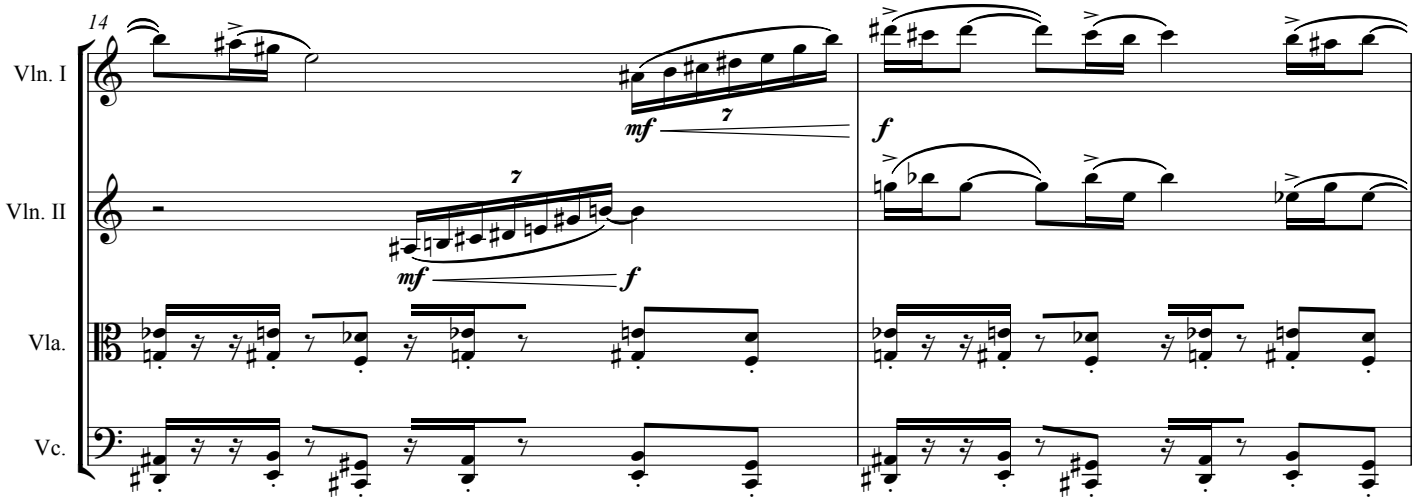
resynchronize with pre-recorded audio

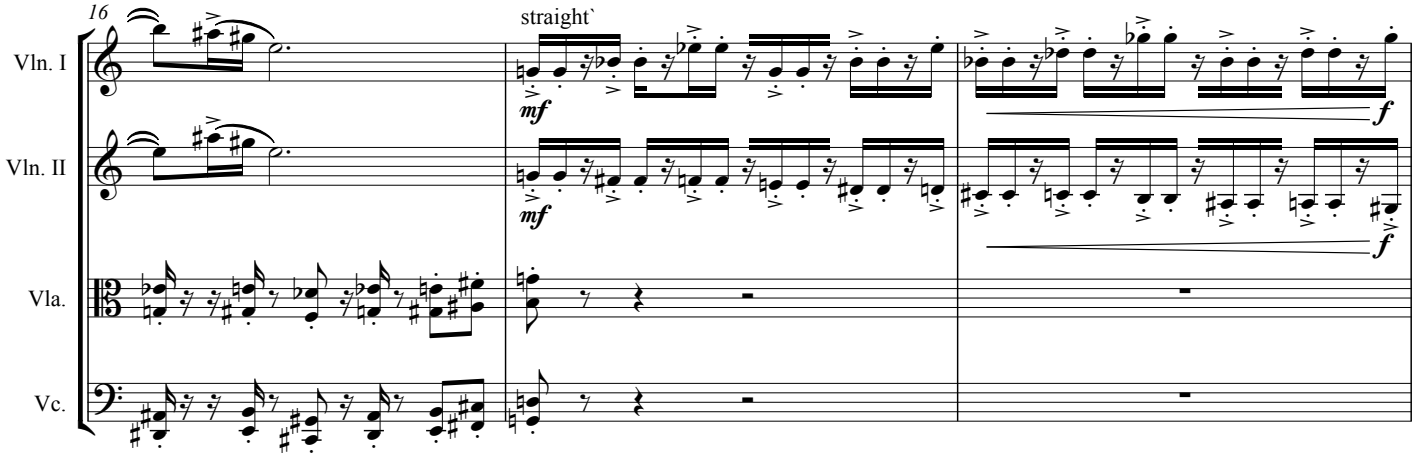
resynchronize

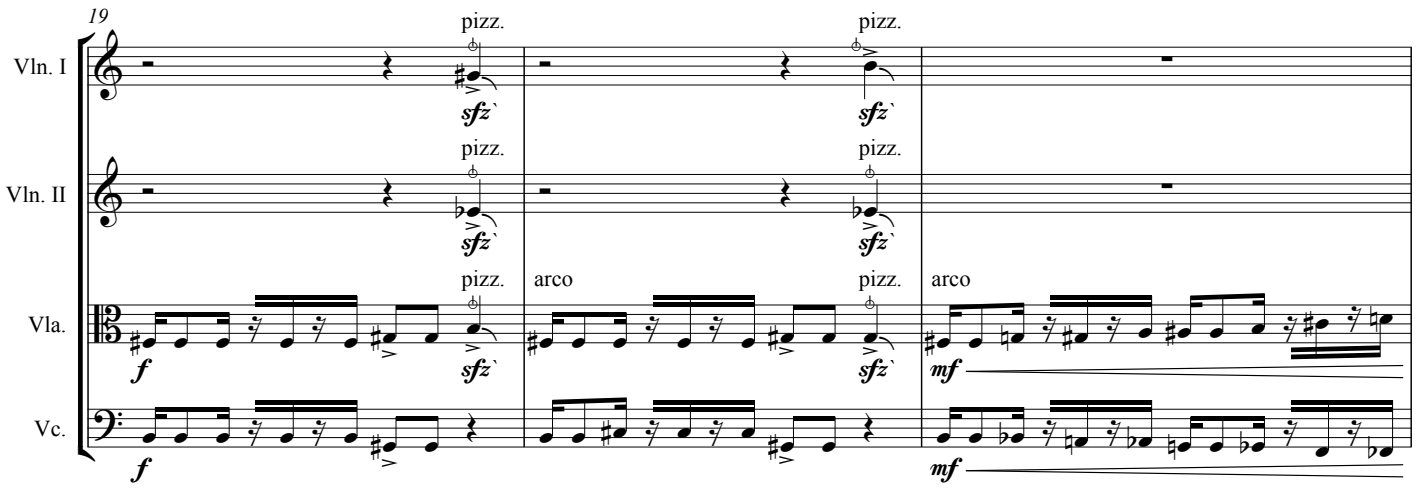


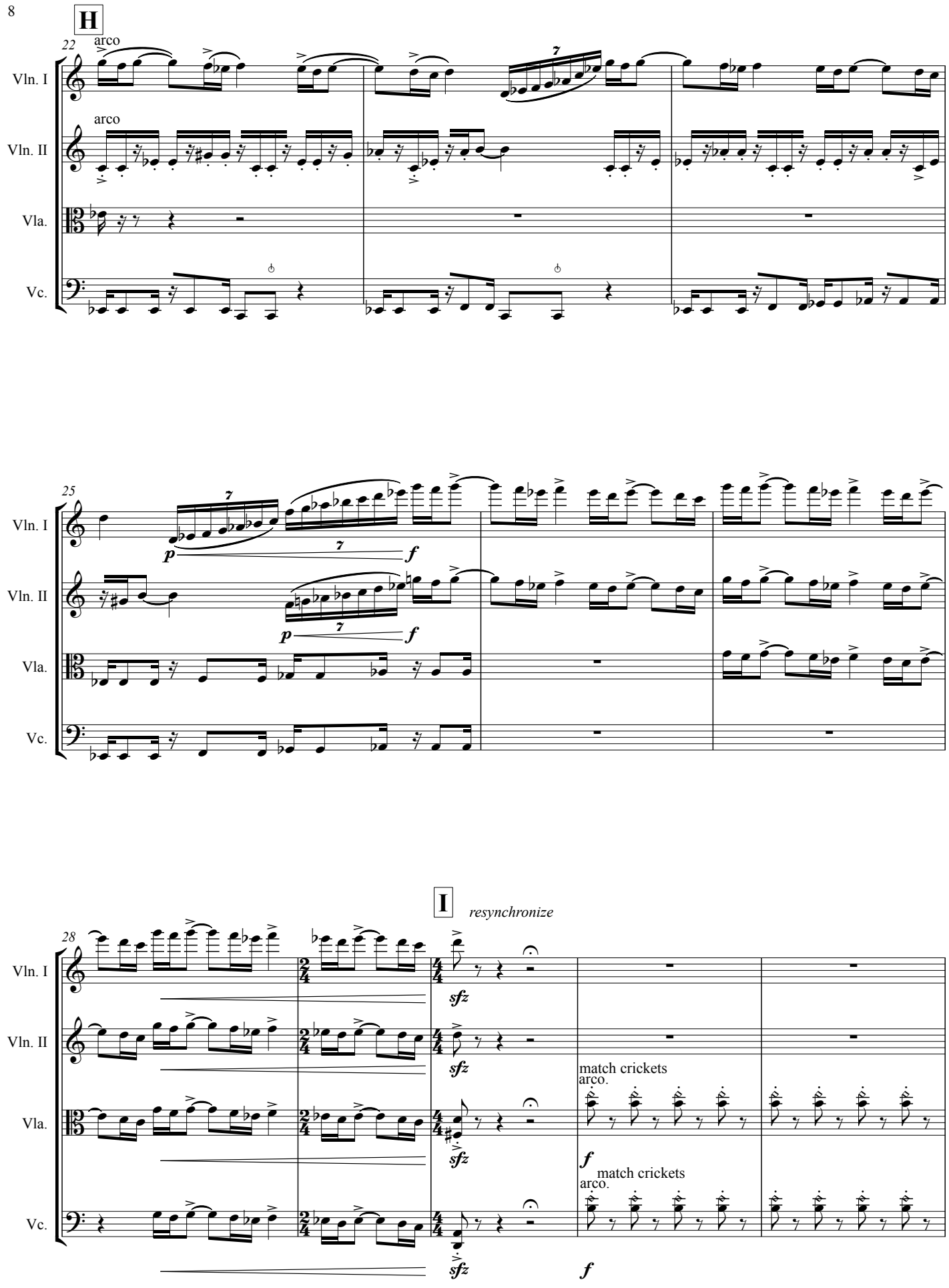
resynchronize

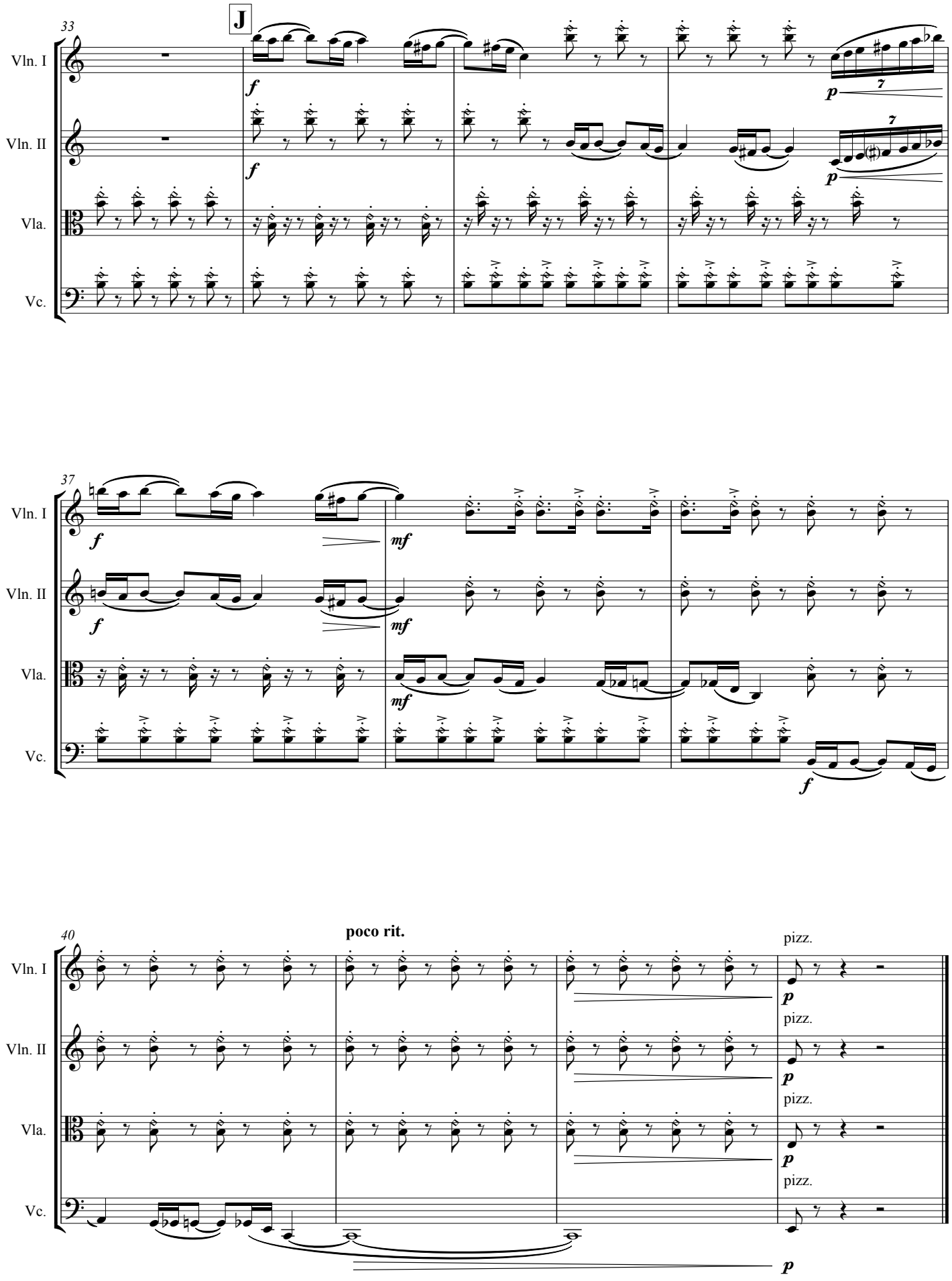



14
Vln. I
Vln. II
Vla.
Vc.
mf
7
f

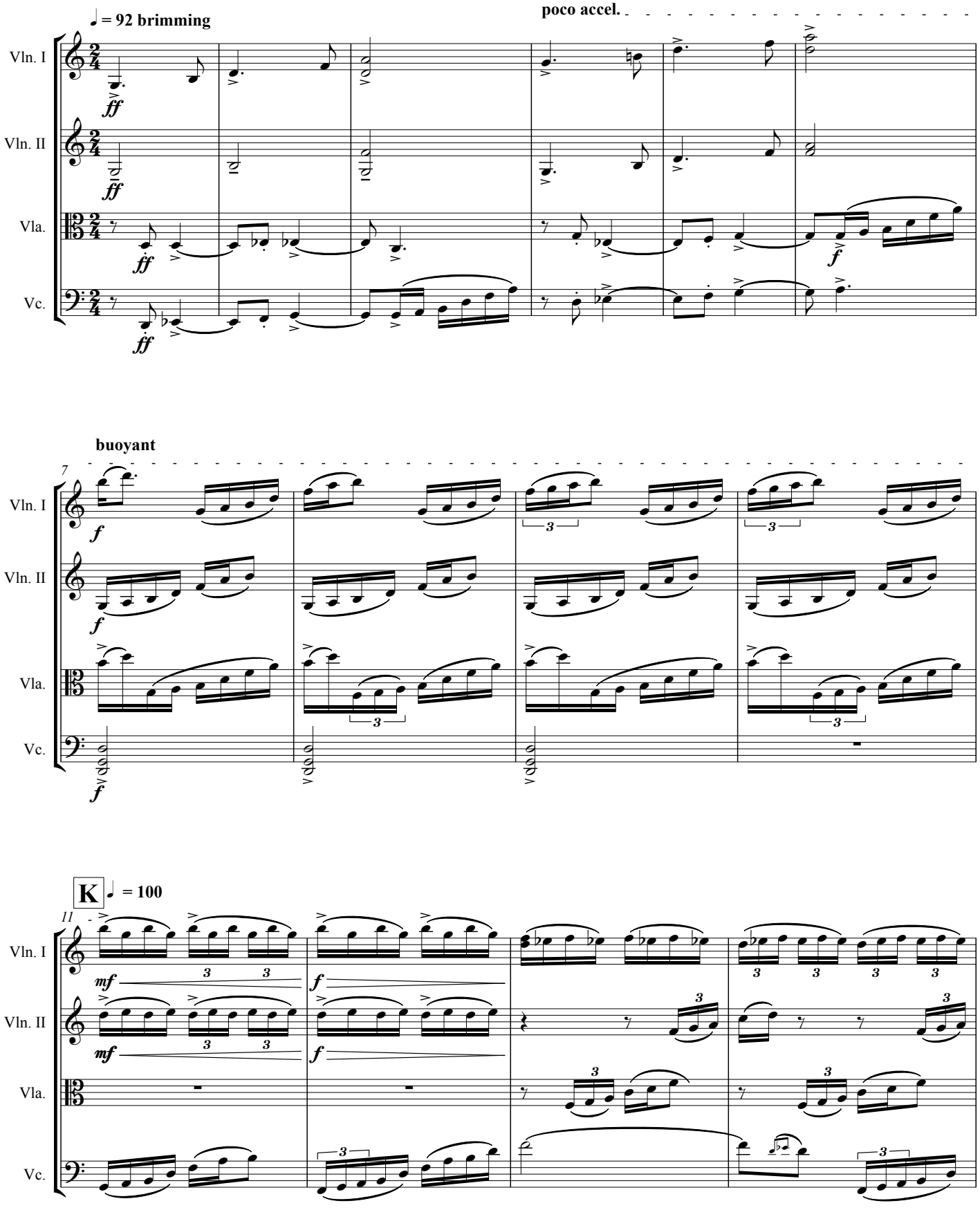

16
straight`
Vln. I
Vln. II
Vla.
Vc.
mf
f

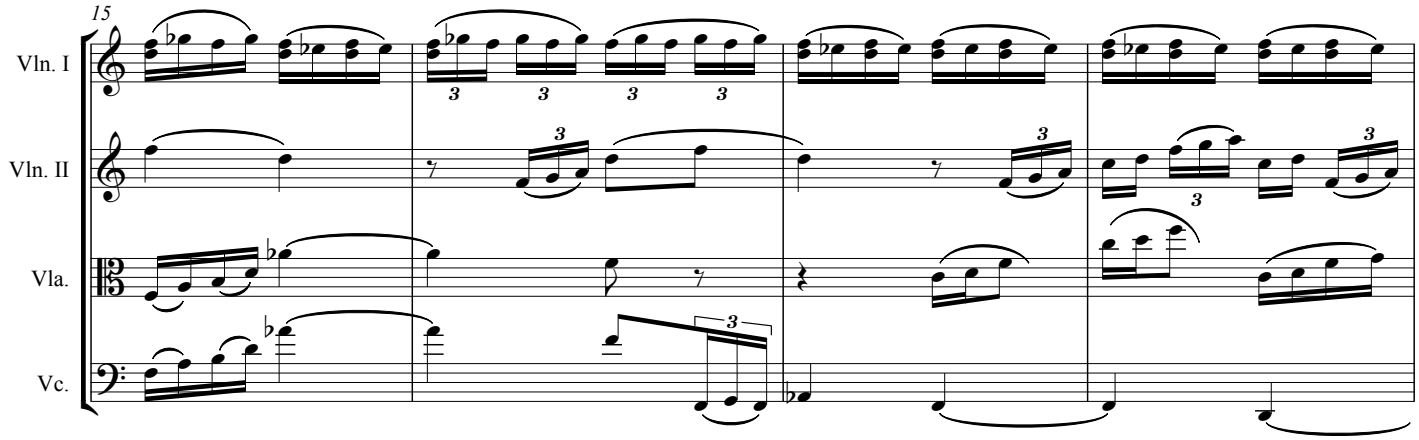

19
pizz.
arco
Vln. I
Vln. II
Vla.
Vc.
sfz`
f
mf

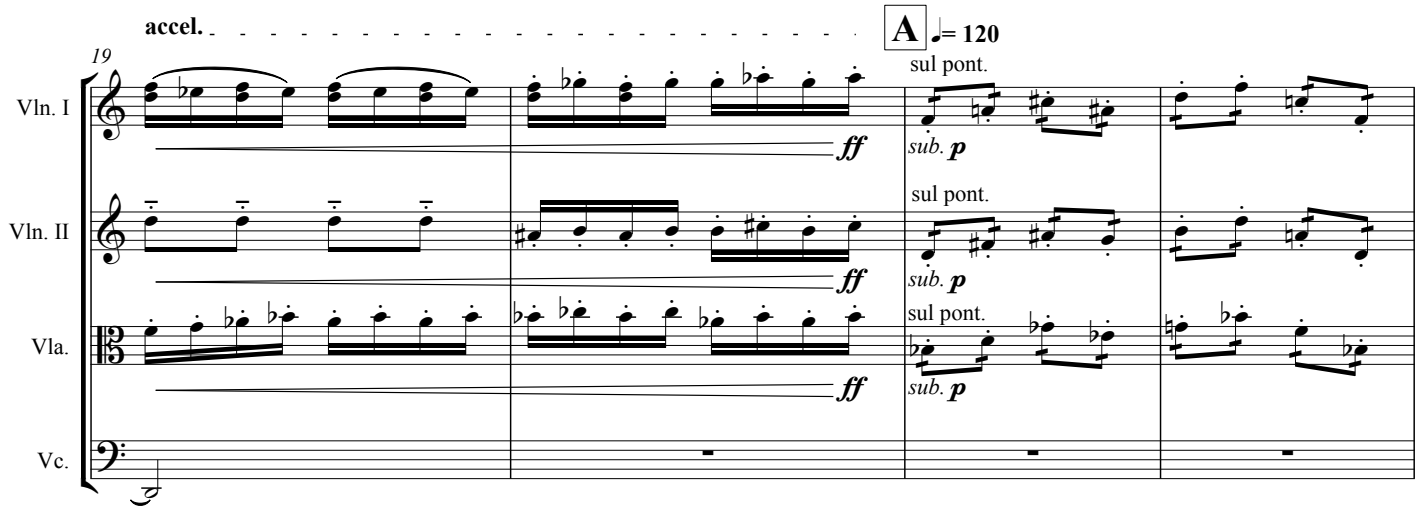

H
22
arco
Vln. I
arco
Vln. II
Vla.
Vc.
25
7
p
f
Vln. I
Vln. II
Vla.
Vc.
I
resynchronize
28
sfz
Vln. I
Vln. II
Vla.
Vc.
match crickets
arco.
f

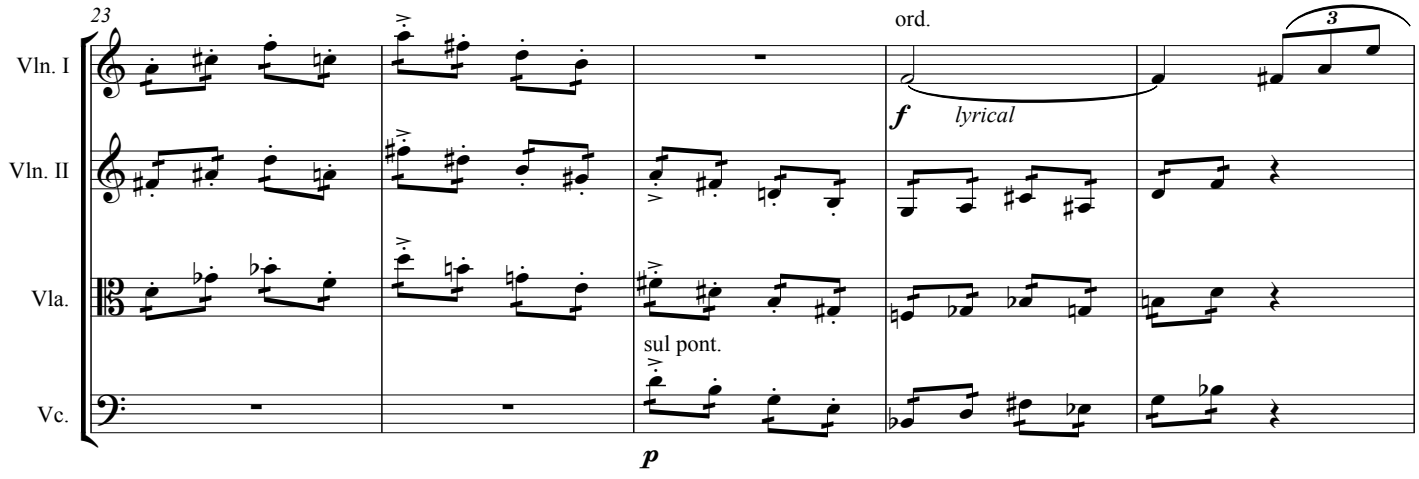

33
J
Vln. I
Vln. II
Vla.
Vc.
f
p
7
37
mf
40
poco rit.
pizz.

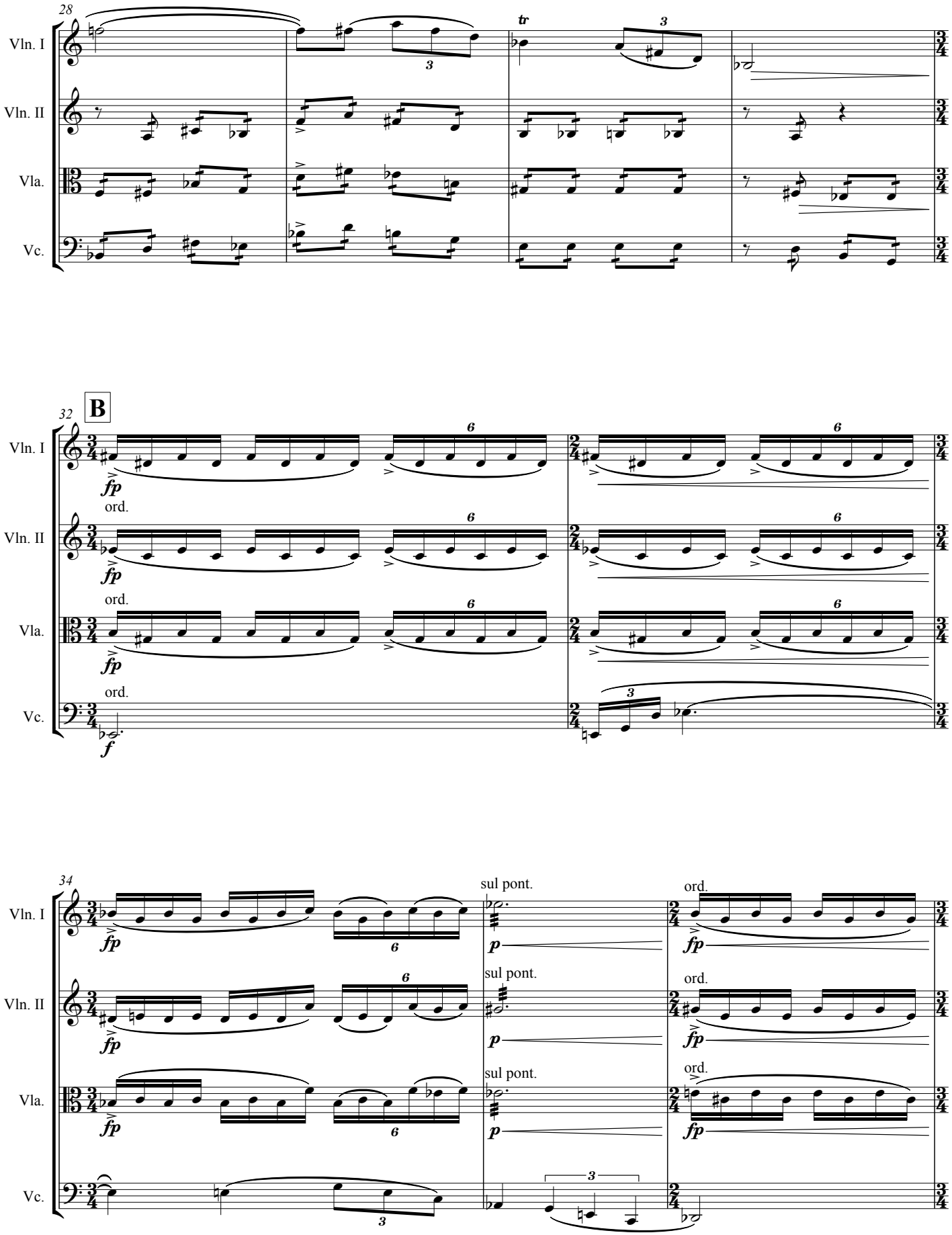
III. ECSTATIC

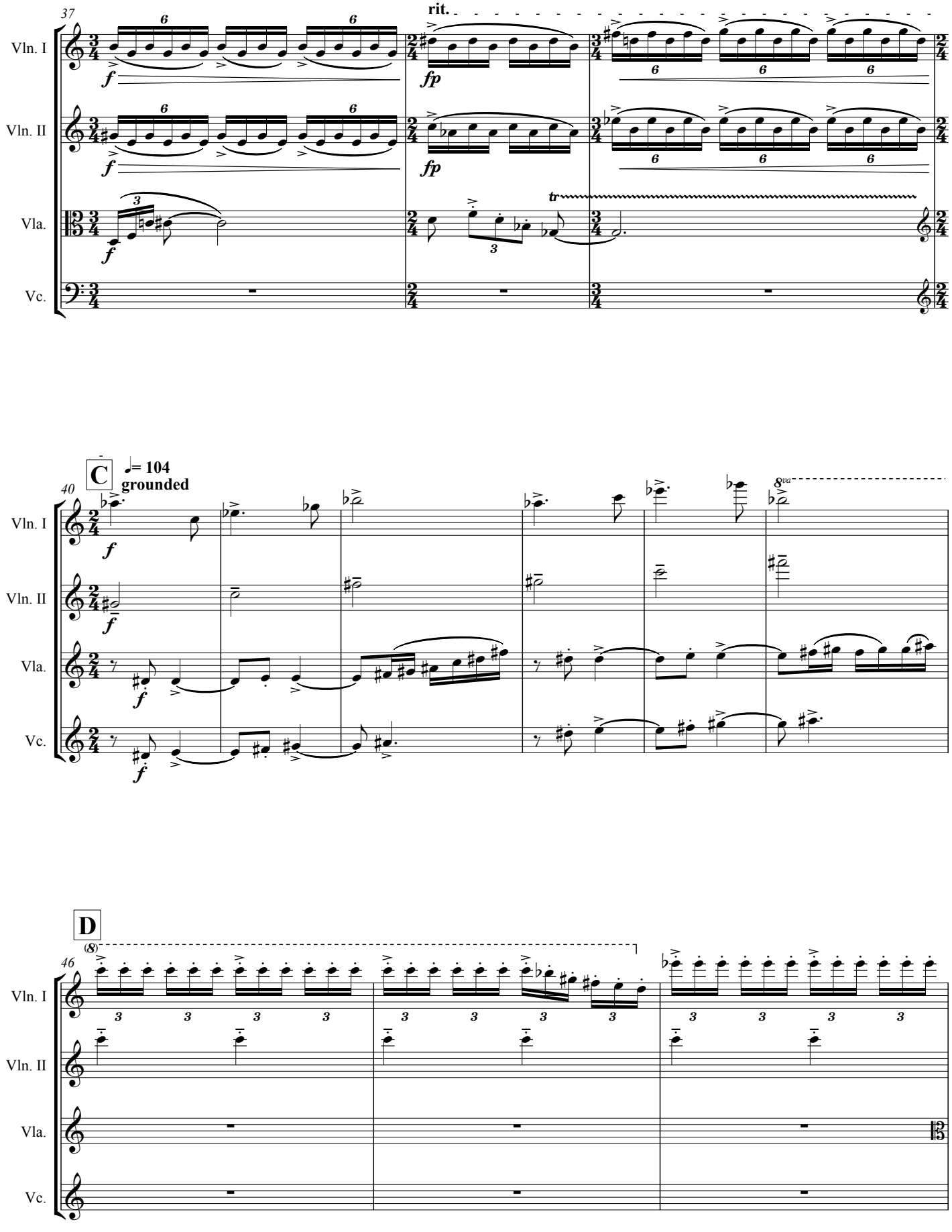


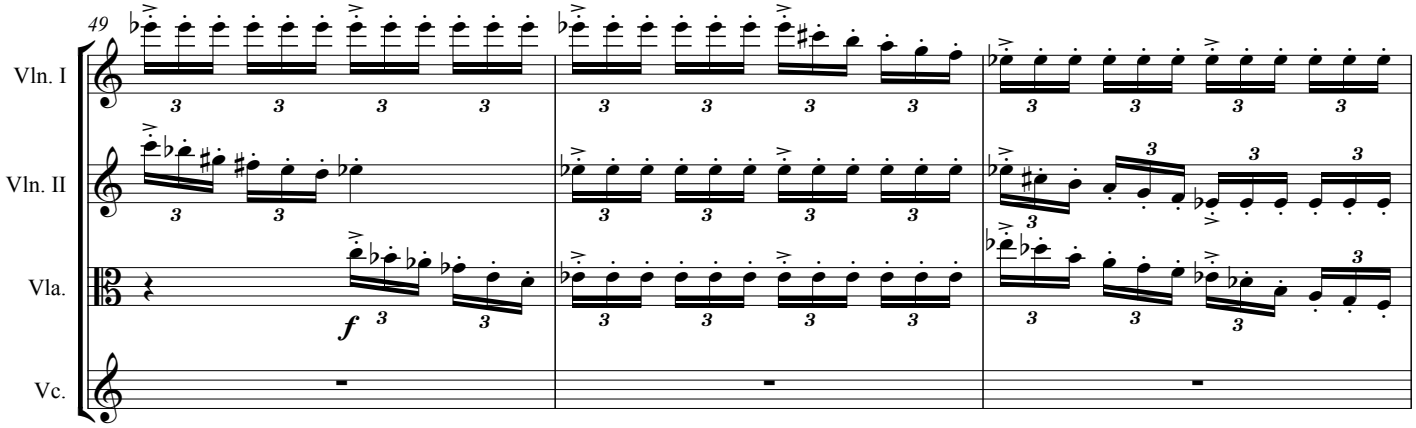

15
Vln. I
Vln. II
Vla.
Vc.

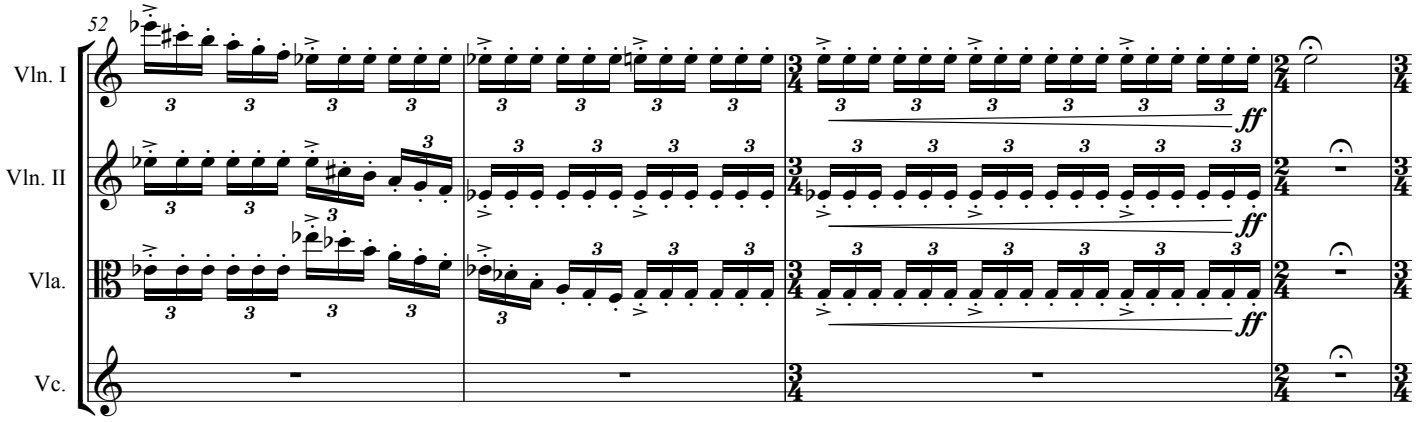

accel.
A
= 120
19
Vln. I
Vln. II
Vla.
Vc.
ff
sub. p
sul pont.

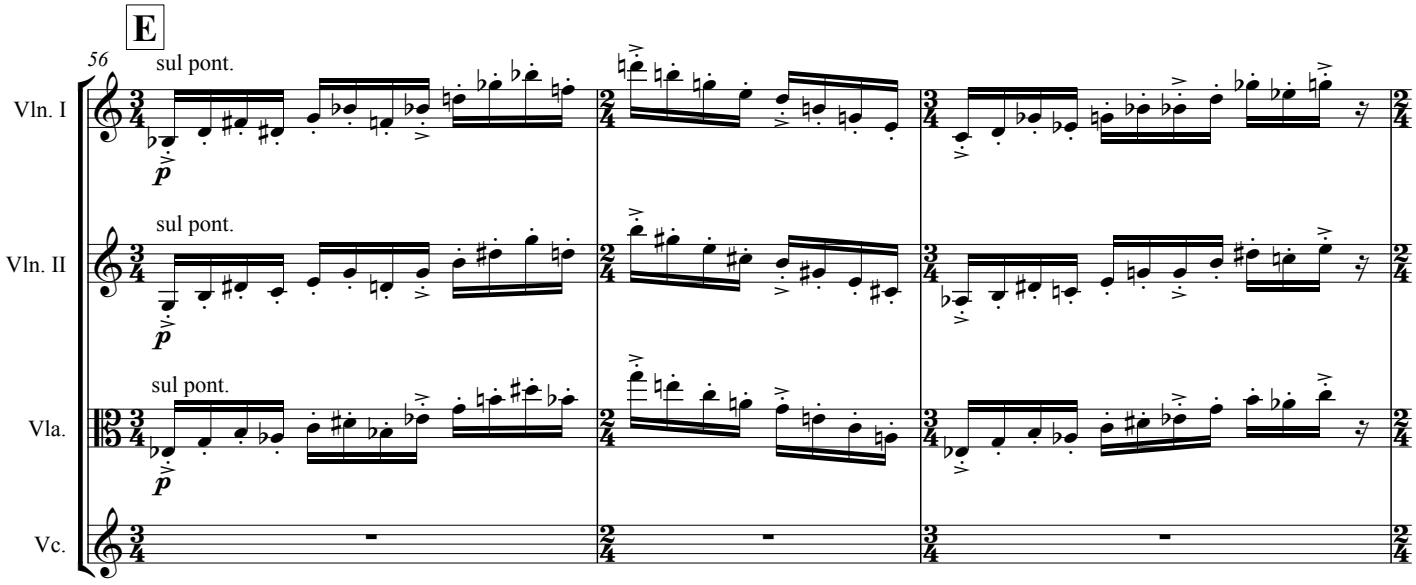

23
Vln. I
Vln. II
Vla.
Vc.
ord.
f
lyrical
sul pont.
p

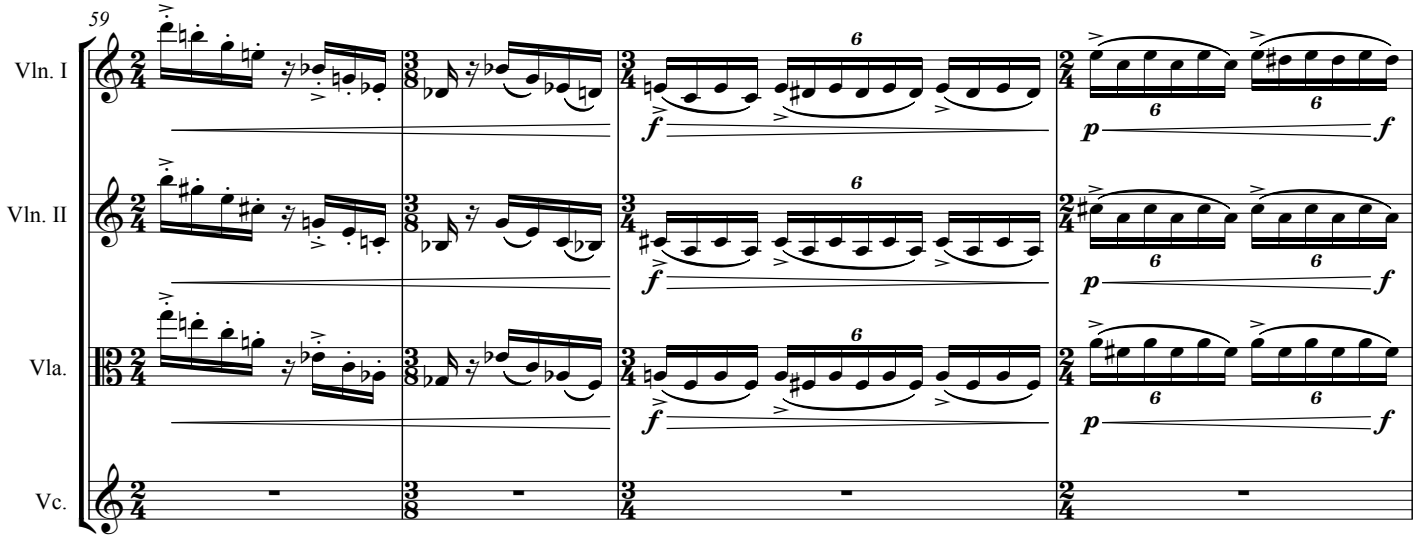

28
Vln. I
Vln. II
Vla.
Vc.
tr
32
B
ord.
fp
f
34
sul pont.
p
ord.

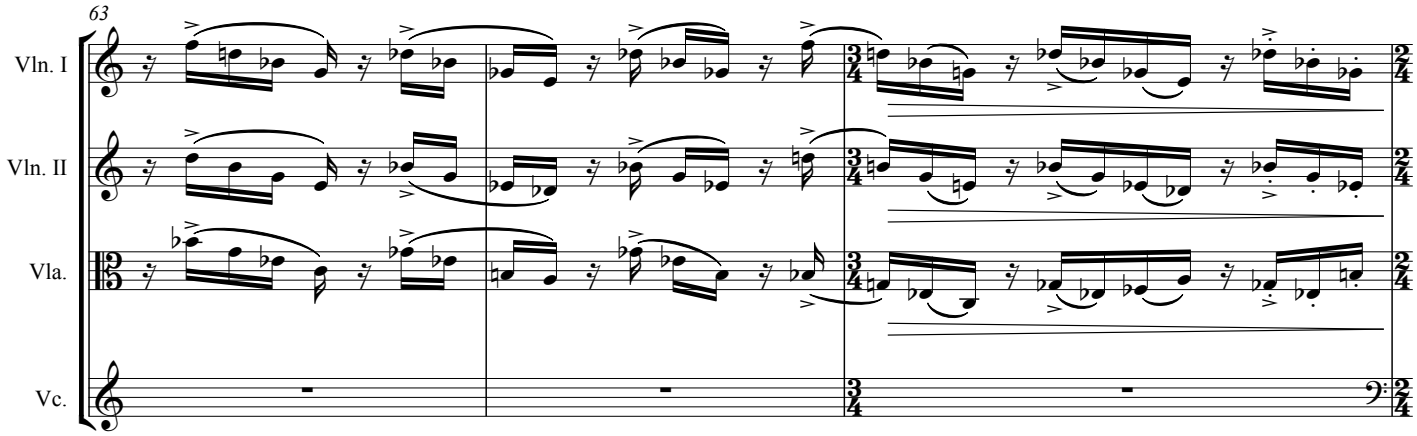

37
rit.
Vln. I
Vln. II
Vla.
Vc.
C
= 104
grounded
40
8va
D
(8)
46

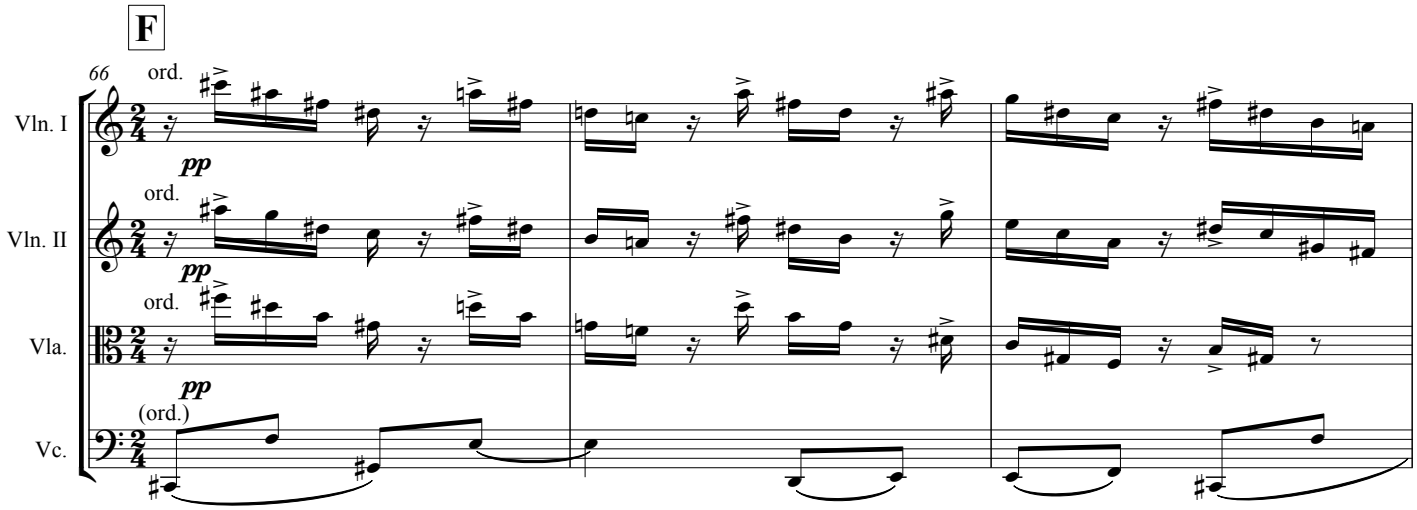

49
Vln. I
Vln. II
Vla.
Vc.
f

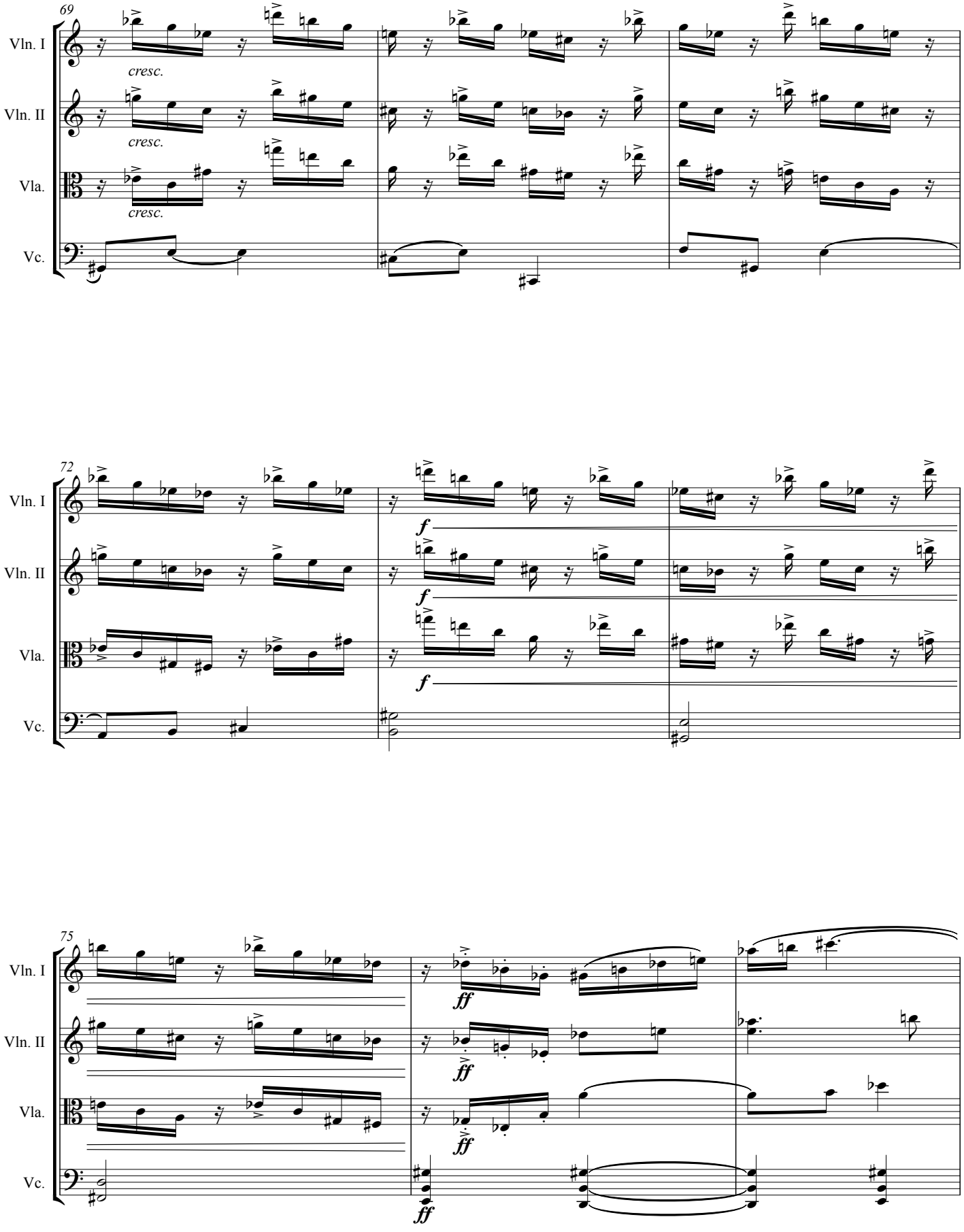

52
Vln. I
Vln. II
Vla.
Vc.
ff

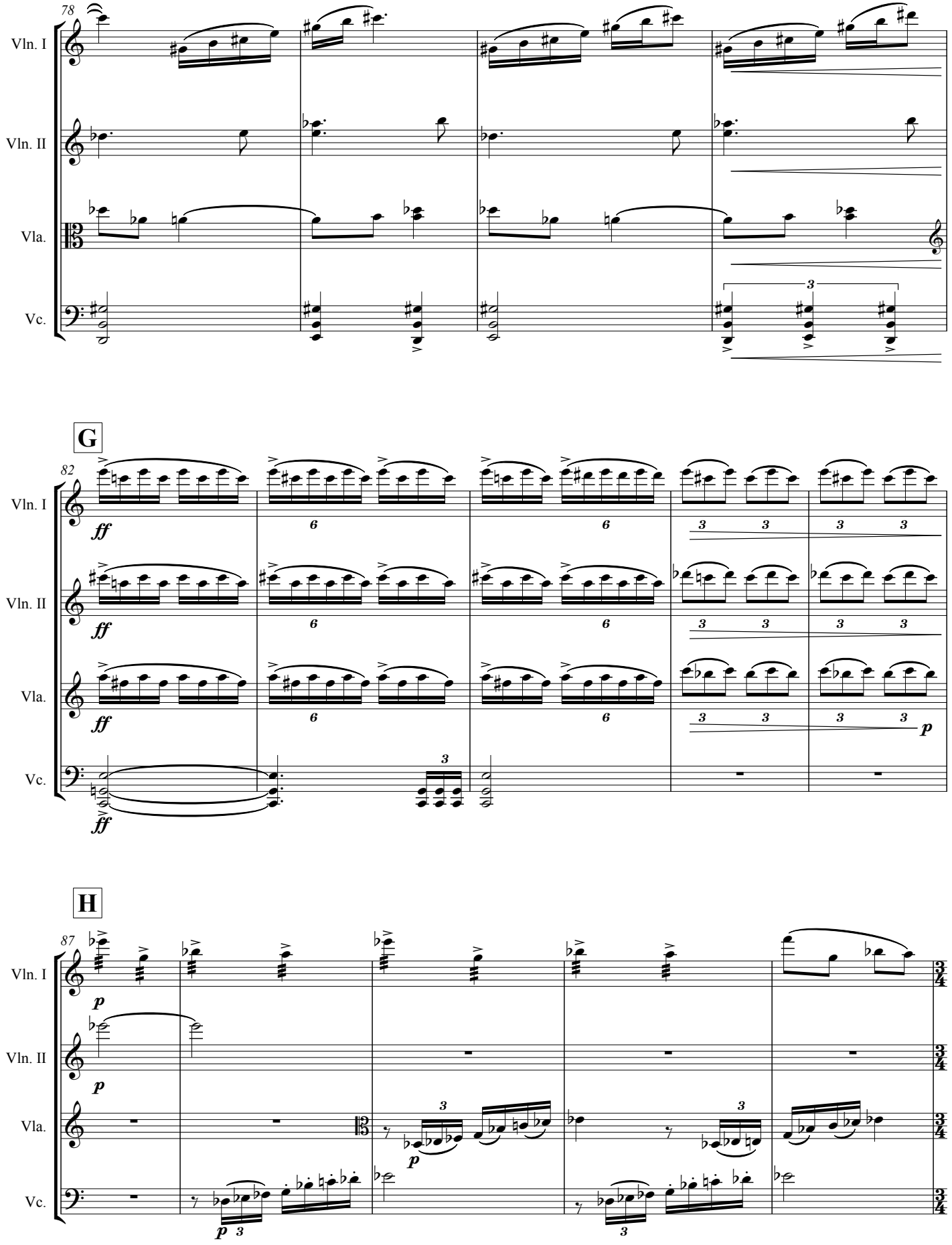

E
56
sul pont.
Vln. I
Vln. II
Vla.
Vc.
p

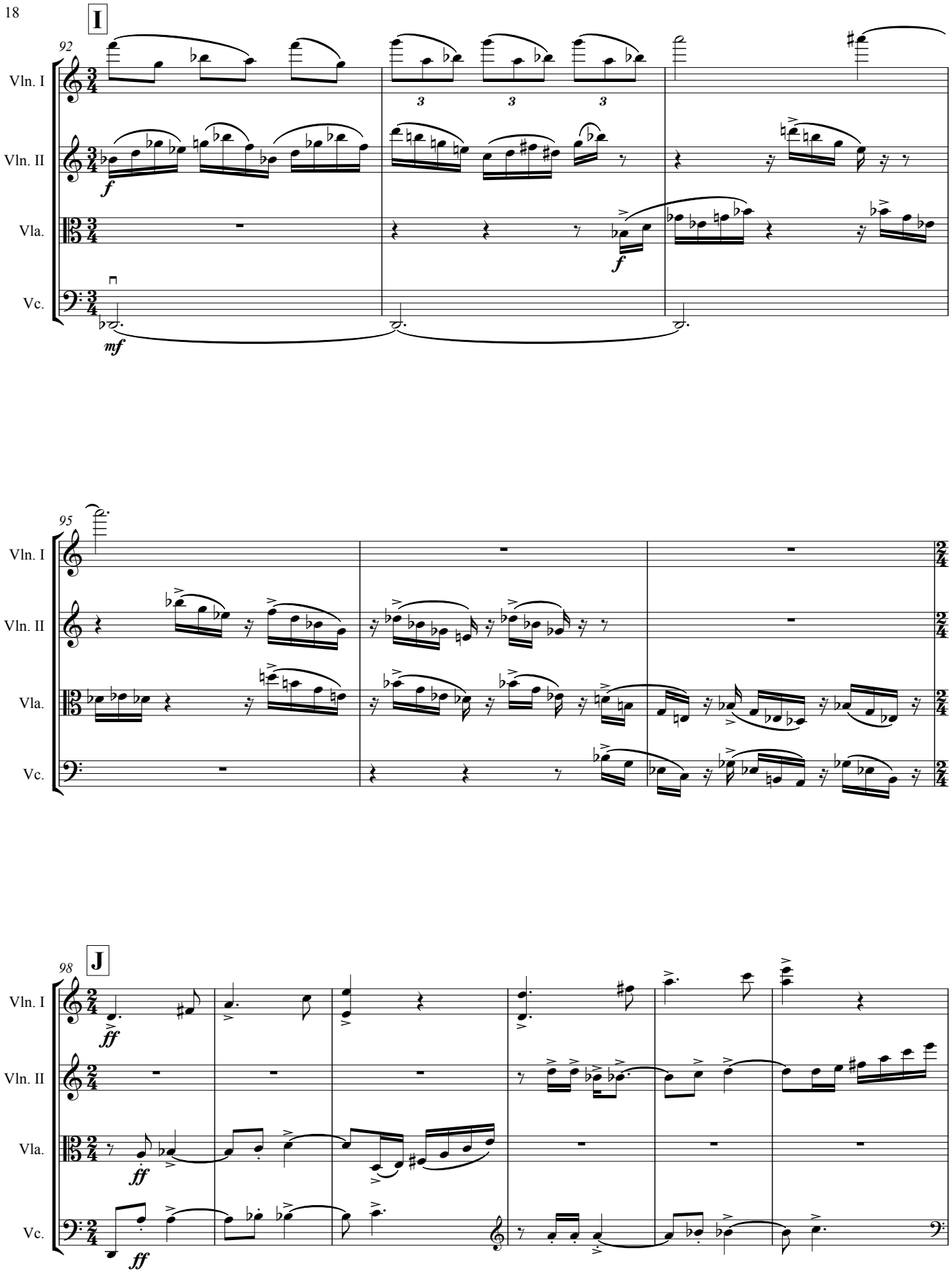

59
Vln. I
Vln. II
Vla.
Vc.
f
p
f

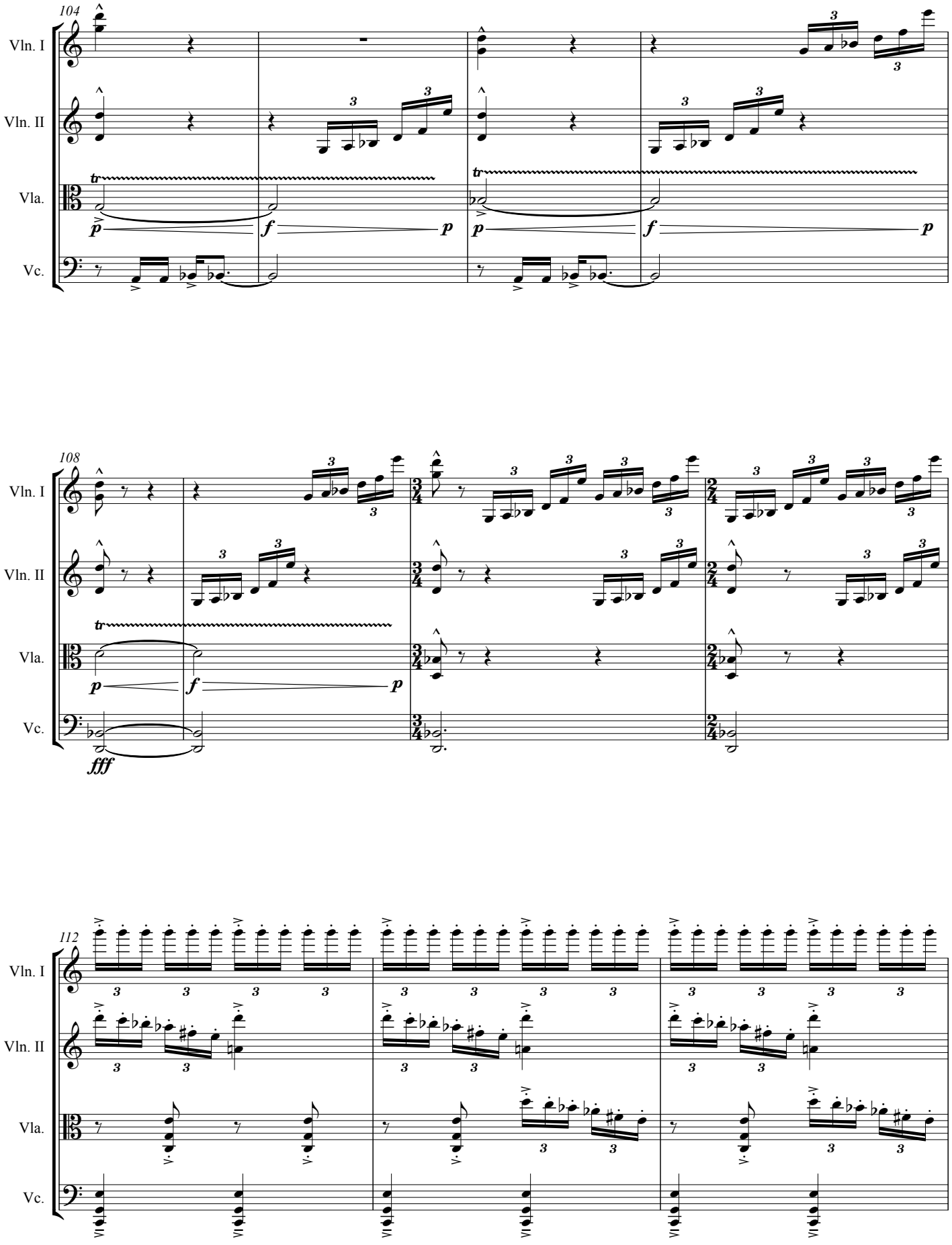

63
Vln. I
Vln. II
Vla.
Vc.

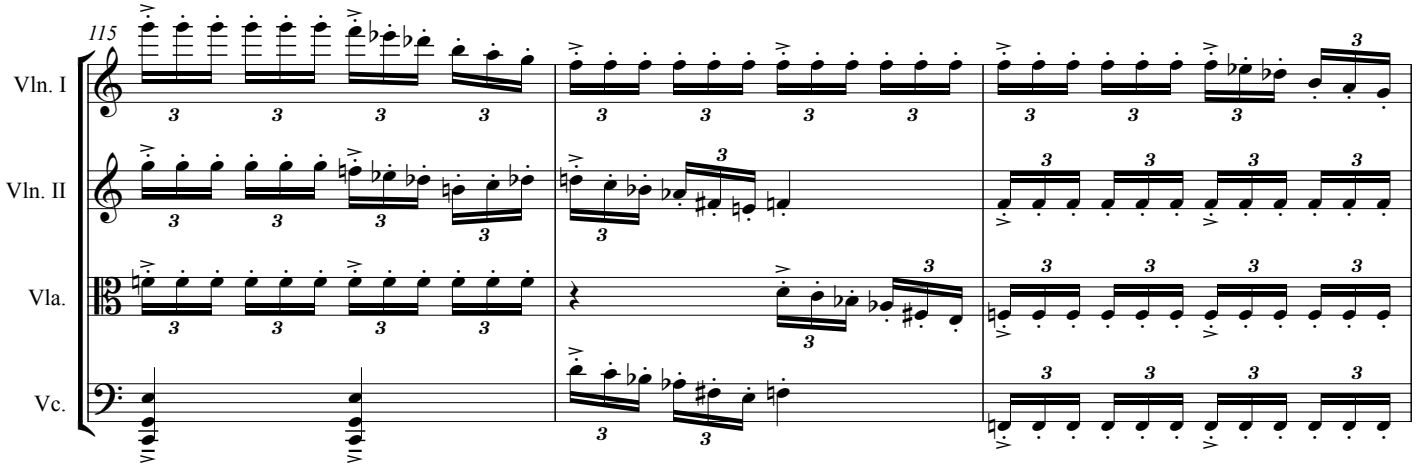

F
66
ord.
Vln. I
pp
ord.
Vln. II
pp
ord.
Vla.
pp
(ord.)
Vc.

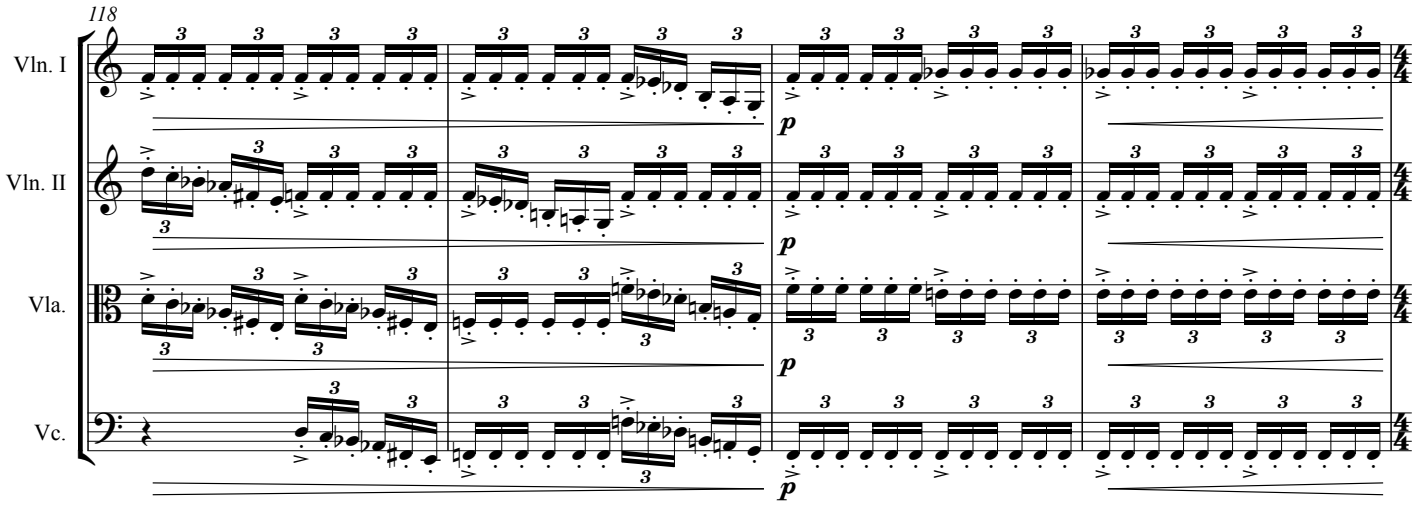

69
Vln. I
Vln. II
Vla.
Vc.
cresc.
cresc.
cresc.
72
f
f
f
75
ff
ff
ff
ff

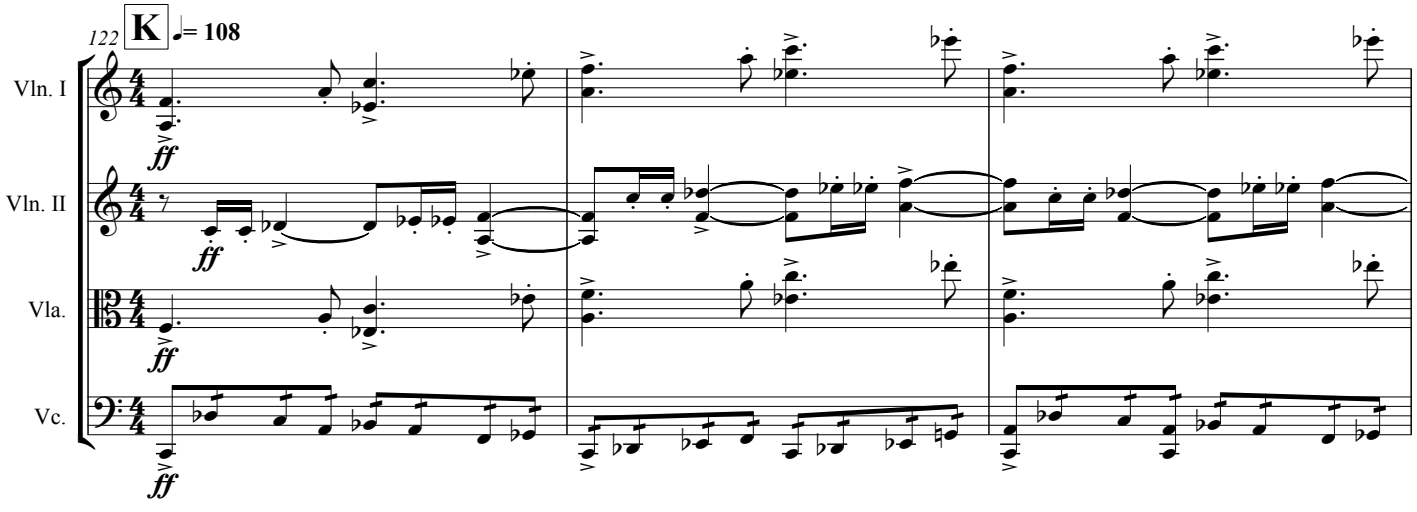

78
Vln. I
Vln. II
Vla.
Vc.
3
G
82
ff
6
3
p
H
87
p
3

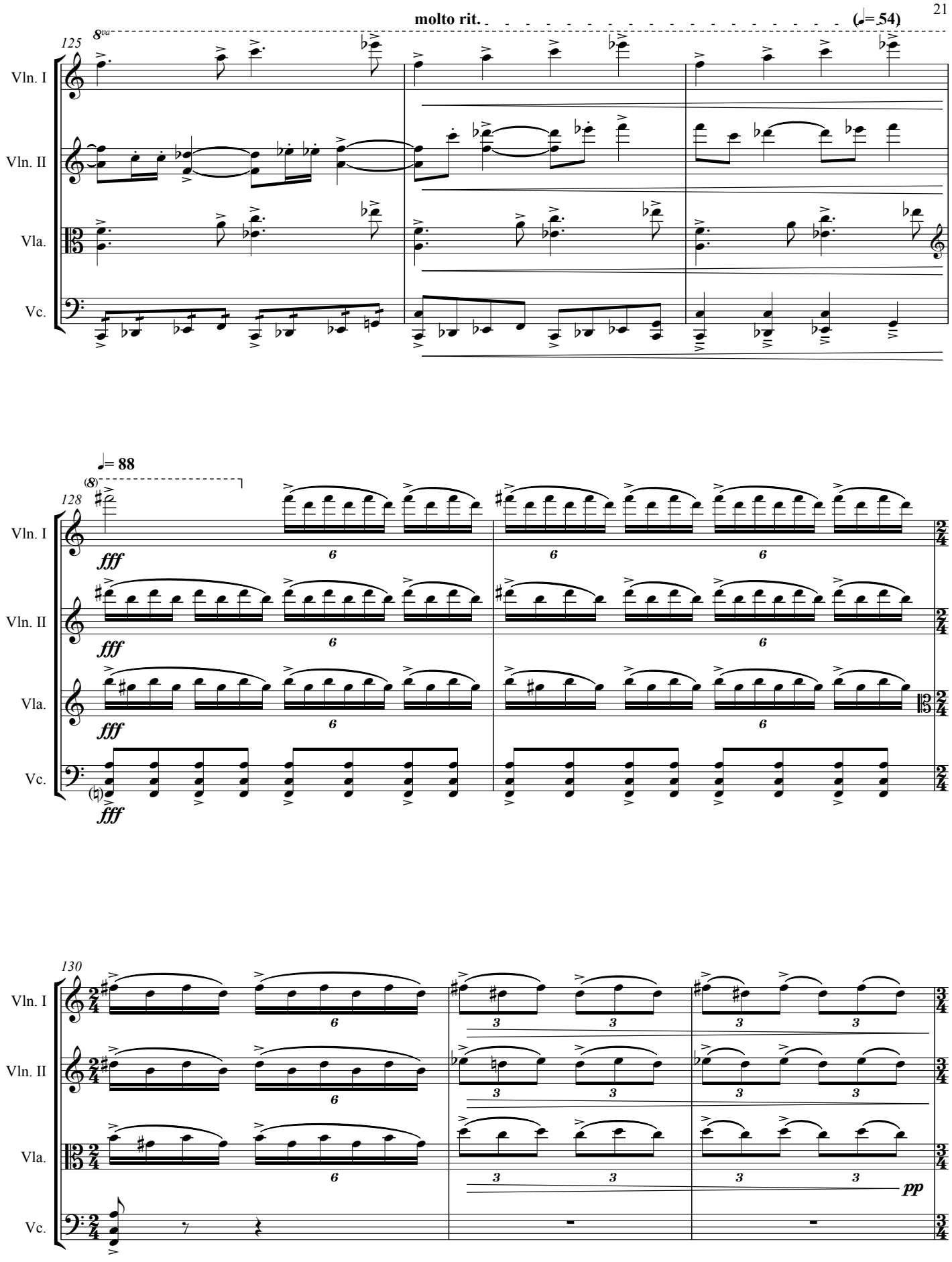

I
92
Vln. I
Vln. II
Vla.
Vc.
f
f
mf
95
Vln. I
Vln. II
Vla.
Vc.
J
98
Vln. I
Vln. II
Vla.
Vc.
ff
ff
ff

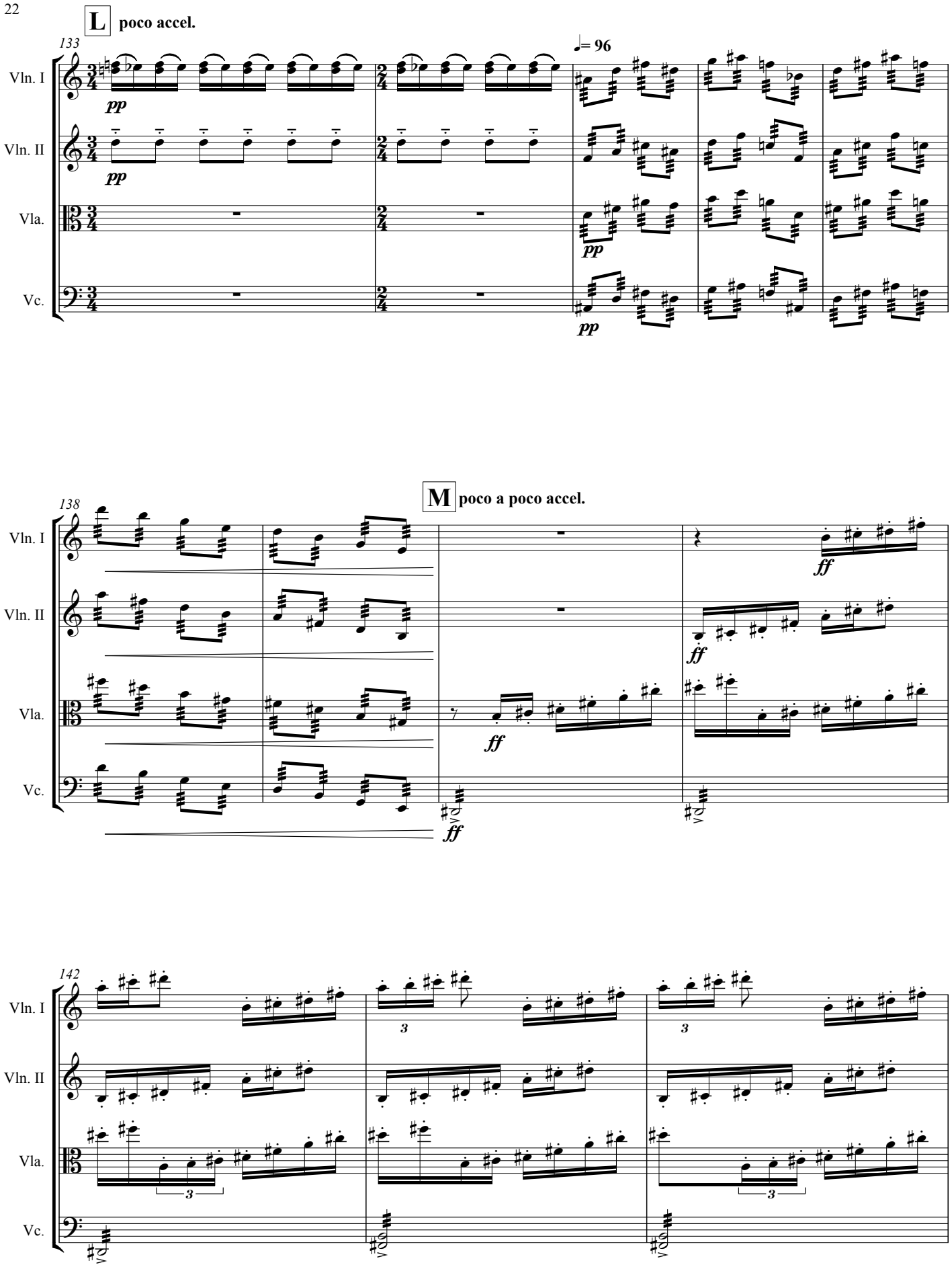

104
Vln. I
Vln. II
Vla.
Vc.
108
112

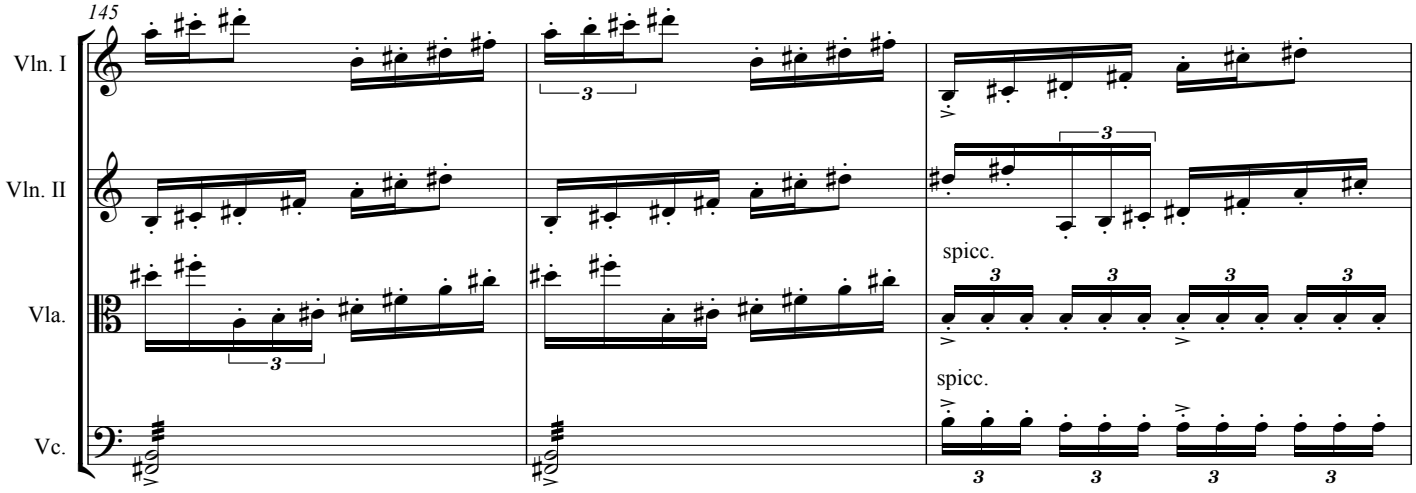

115
Vln. I
Vln. II
Vla.
Vc.

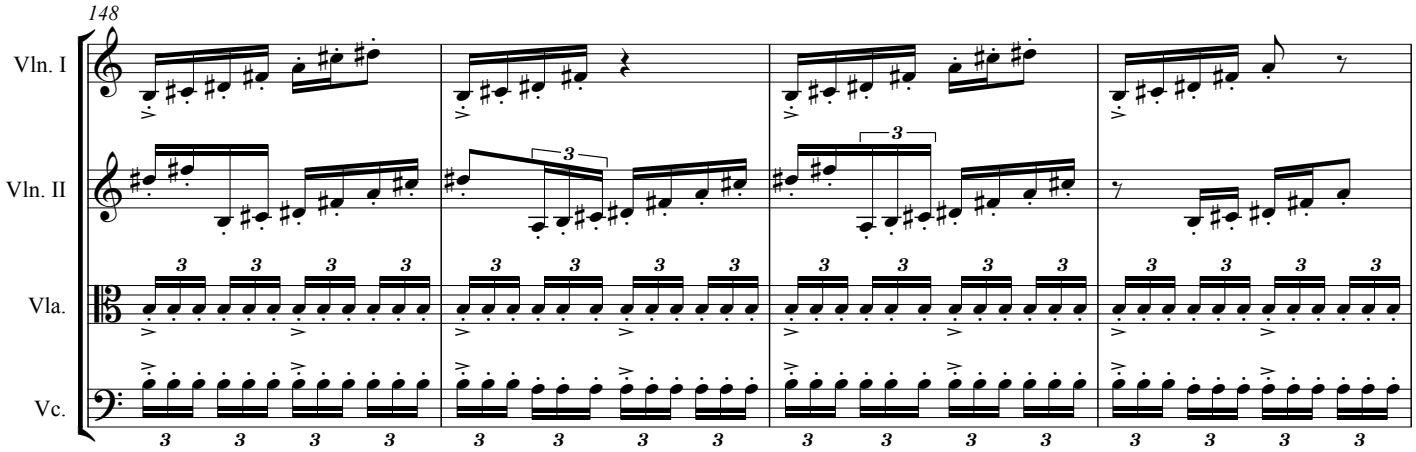

118
Vln. I
Vln. II
Vla.
Vc.
p
p
p
p

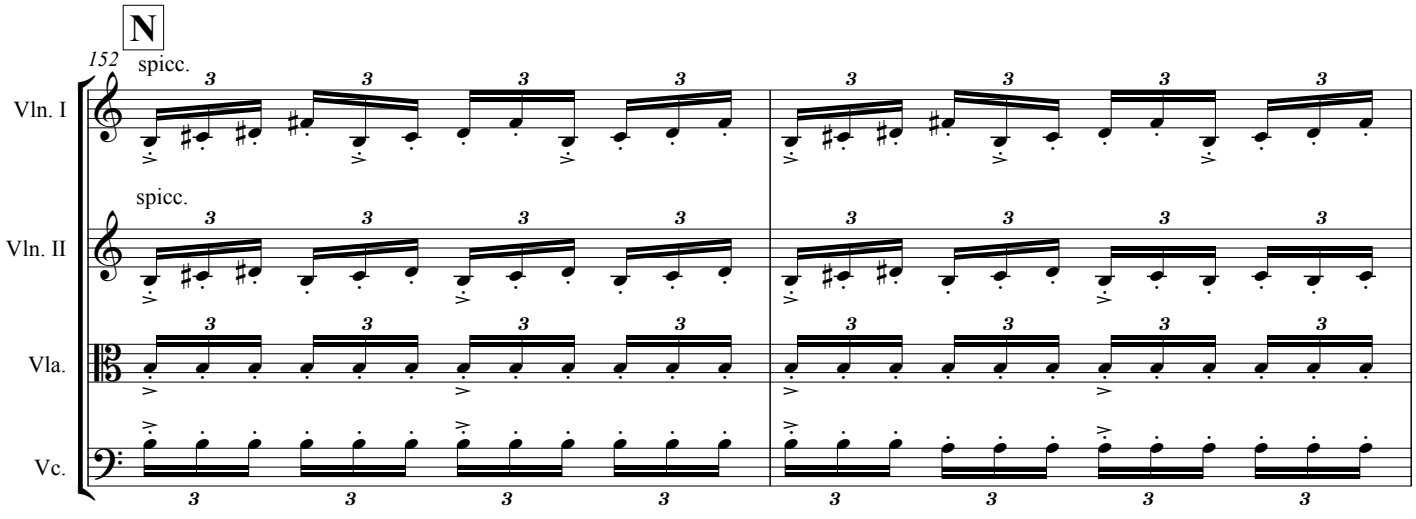

122
K
♩= 108
Vln. I
Vln. II
Vla.
Vc.
ff
ff
ff
ff

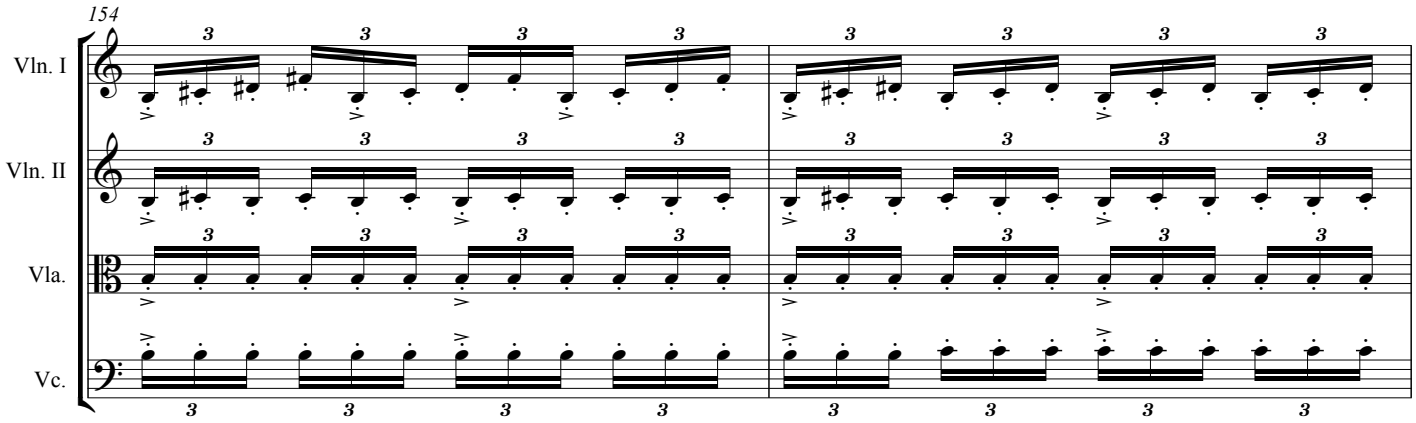

molto rit.
(♩= 54)
125
8va
Vln. I
Vln. II
Vla.
Vc.
♩= 88
(8)
128
fff
6
130
3
pp

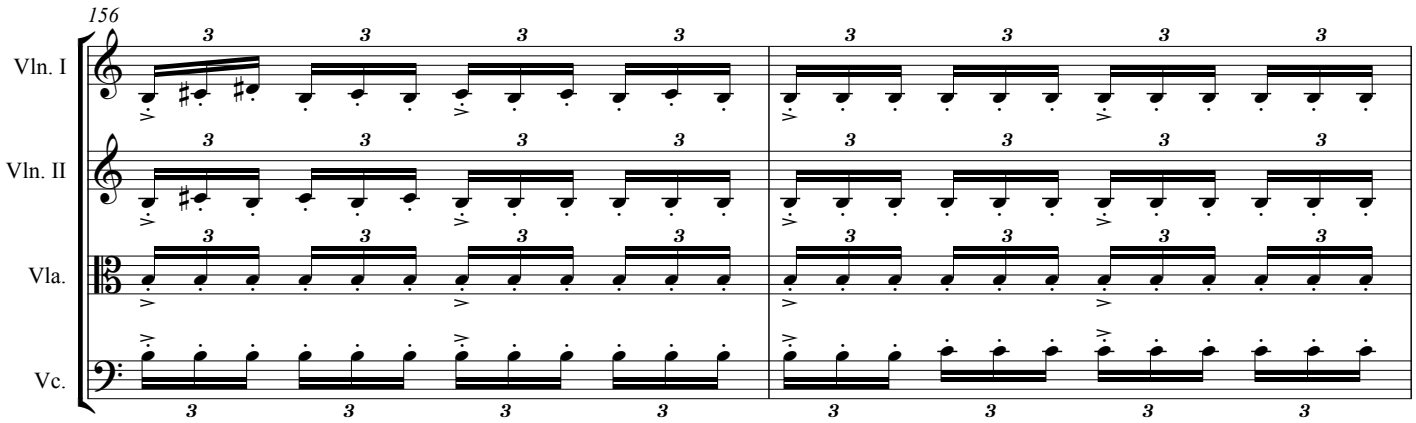

L
poco accel.
133
♩= 96
Vln. I
Vln. II
Vla.
Vc.
pp
M
poco a poco accel.
138
ff
142
3

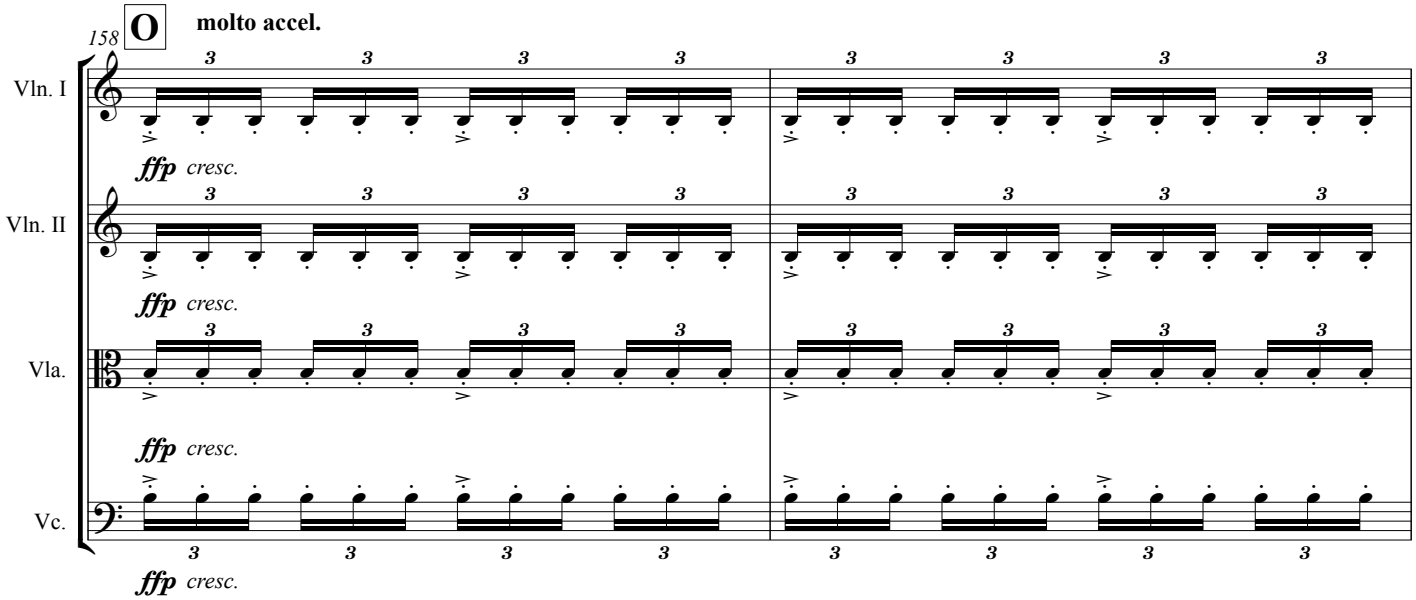

145
Vln. I
Vln. II
Vla.
Vc.
spicc.
spicc.

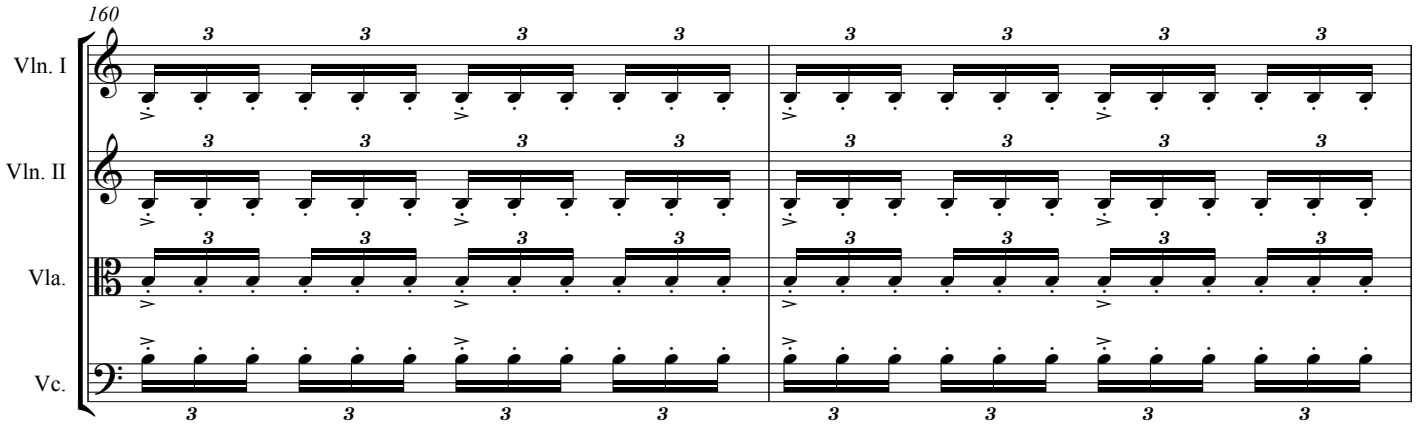

148
Vln. I
Vln. II
Vla.
Vc.

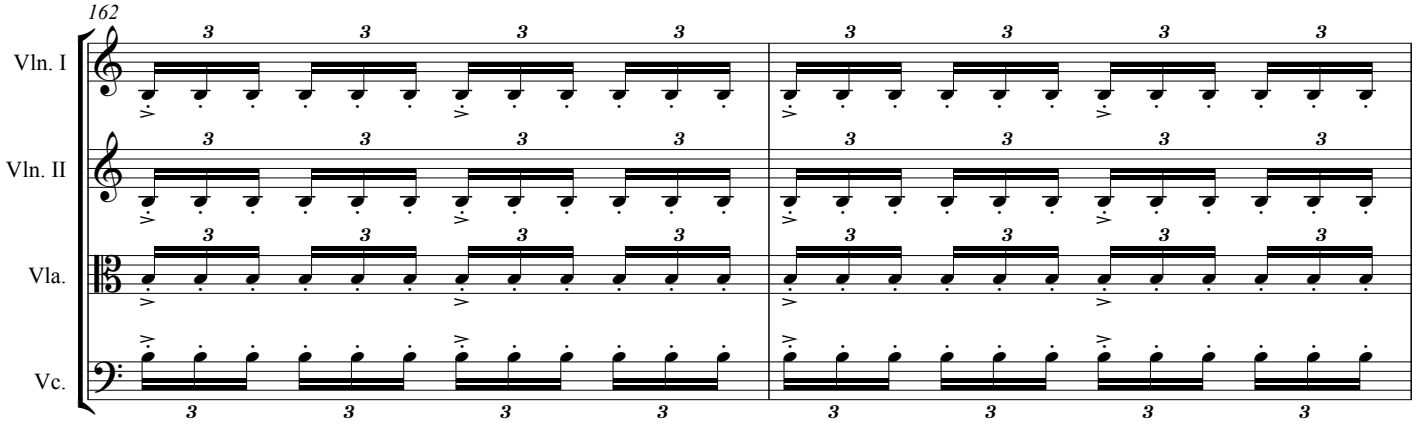

N
152
spicc.
Vln. I
spicc.
Vln. II
Vla.
Vc.

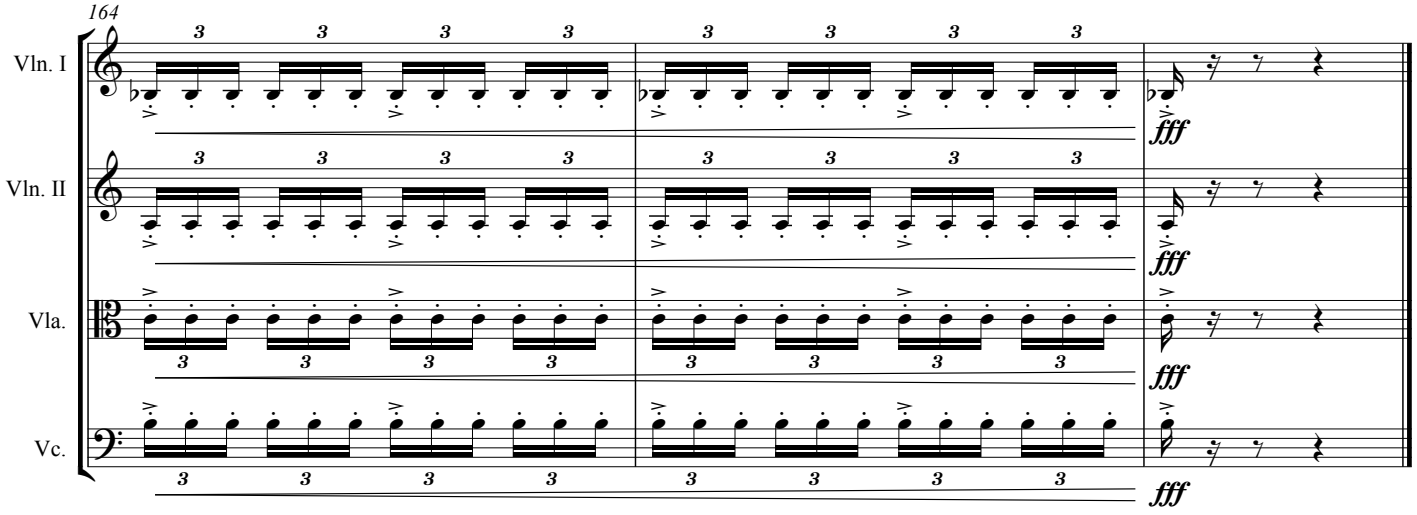

154
Vln. I
Vln. II
Vla.
Vc.


156
Vln. I
Vln. II
Vla.
Vc.


158
O
molto accel.
Vln. I
ffp cresc.
Vln. II
ffp cresc.
Vla.
ffp cresc.
Vc.
ffp cresc.


160
Vln. I
Vln. II
Vla.
Vc.

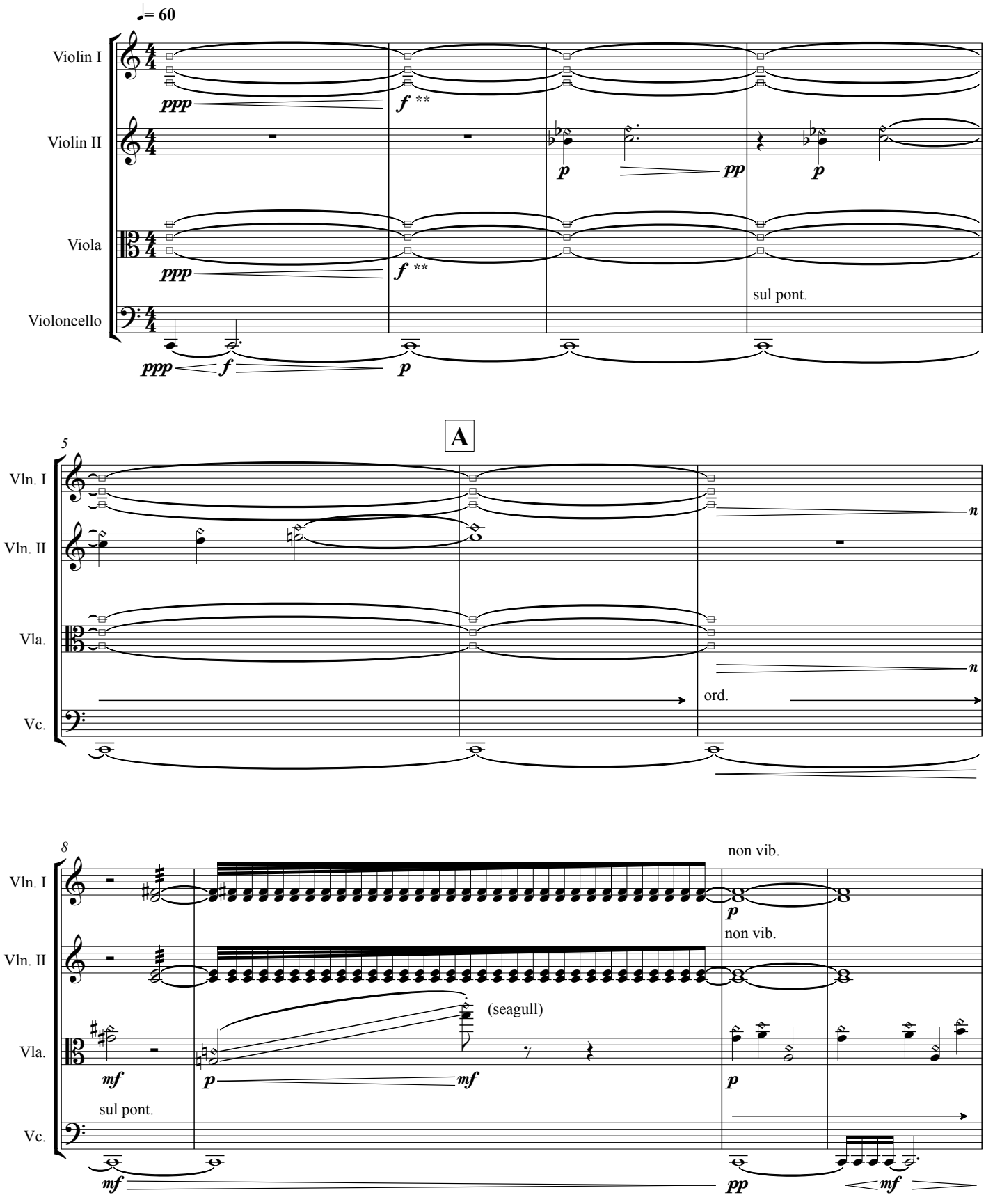

162
Vln. I
Vln. II
Vla.
Vc.

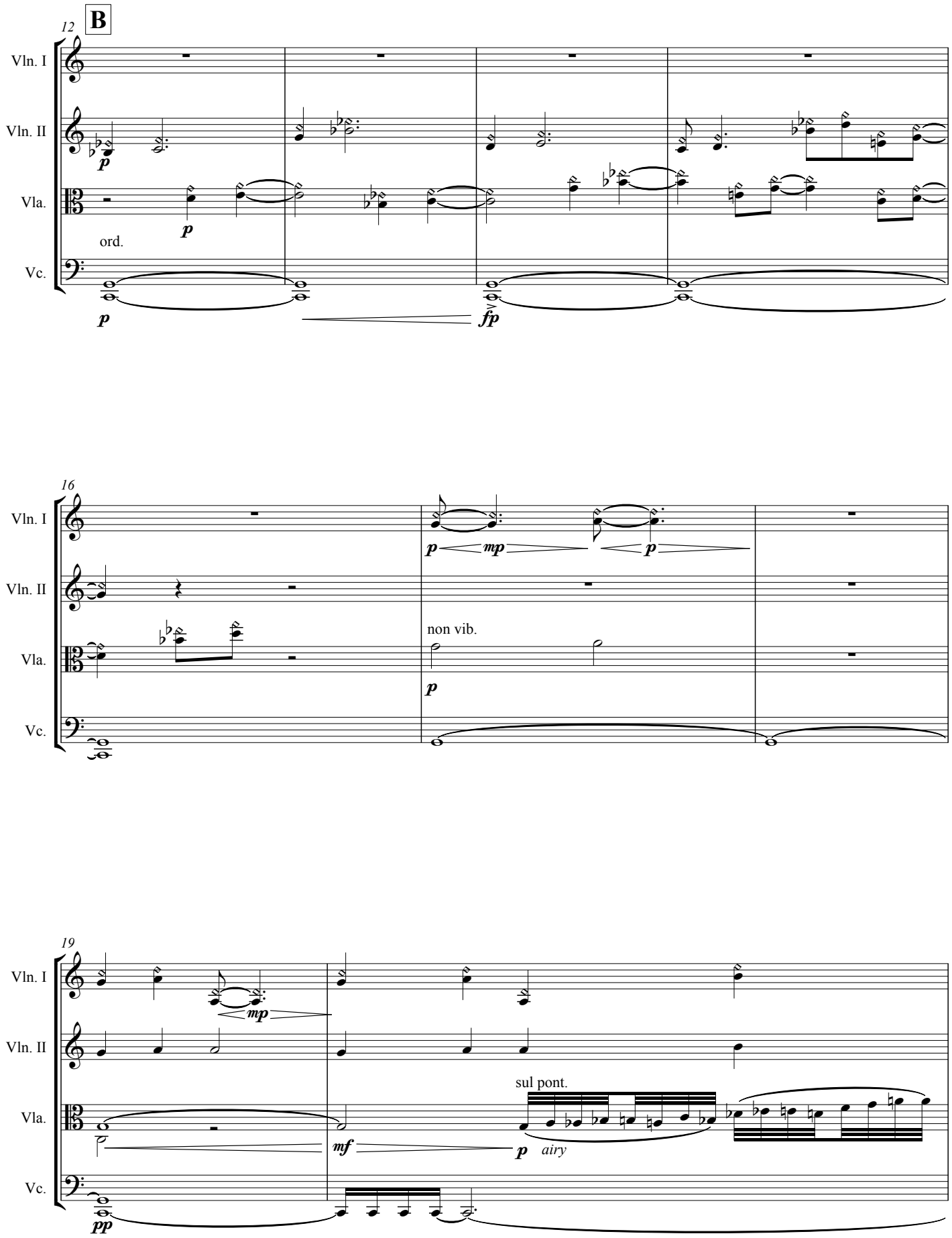

164
Vln. I
Vln. II
Vla.
Vc.
fff

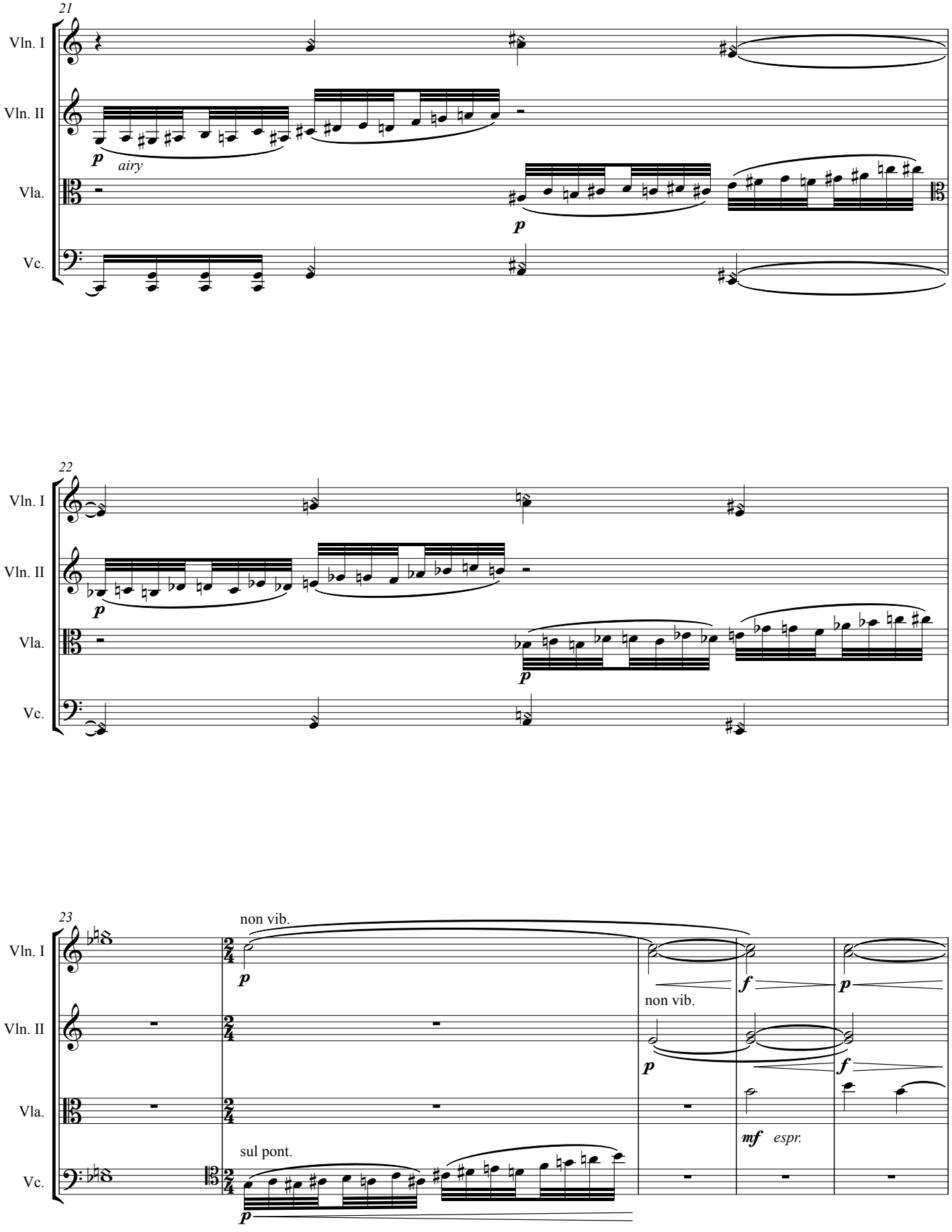
IV. STATIC

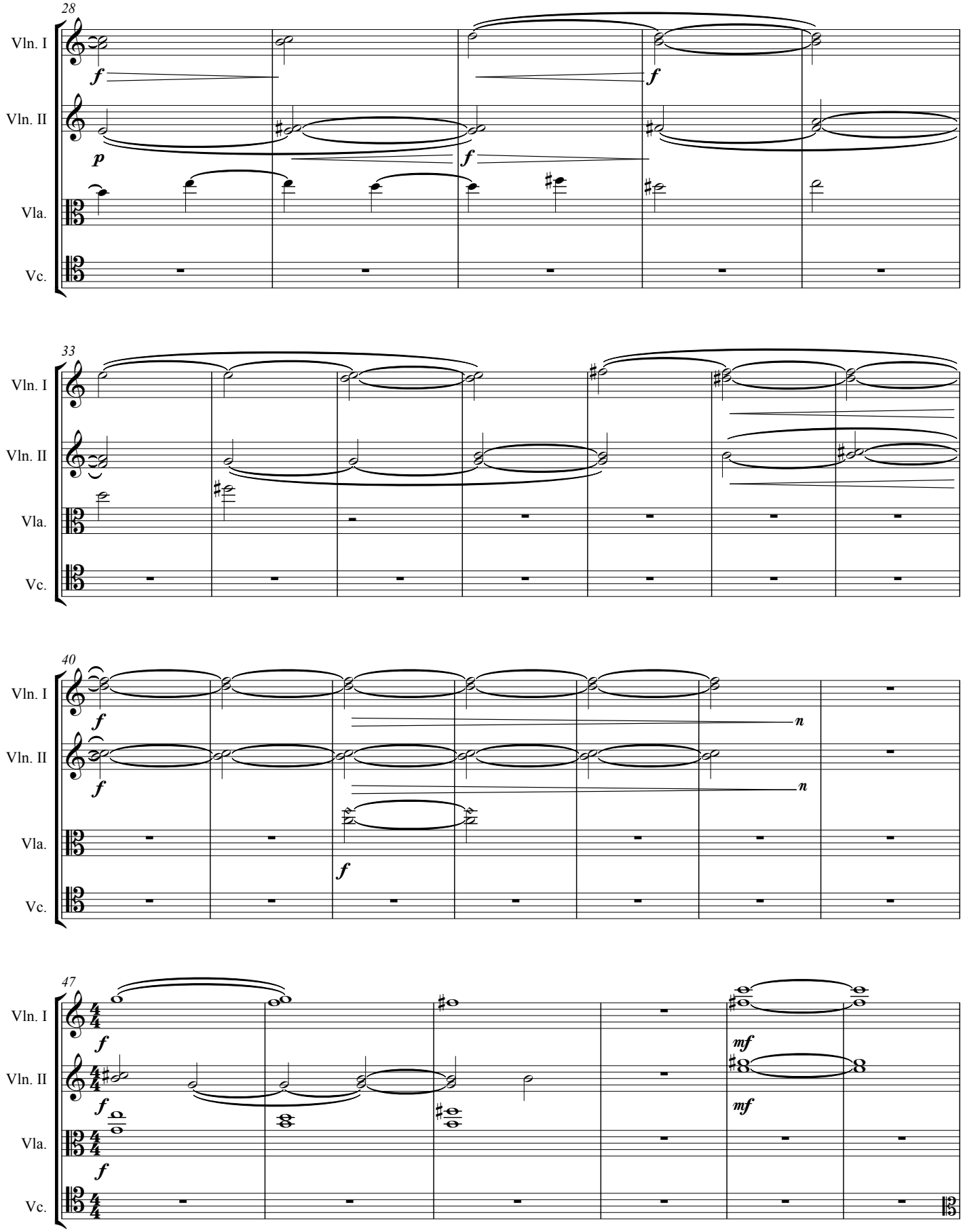
BOOKCLIFFS

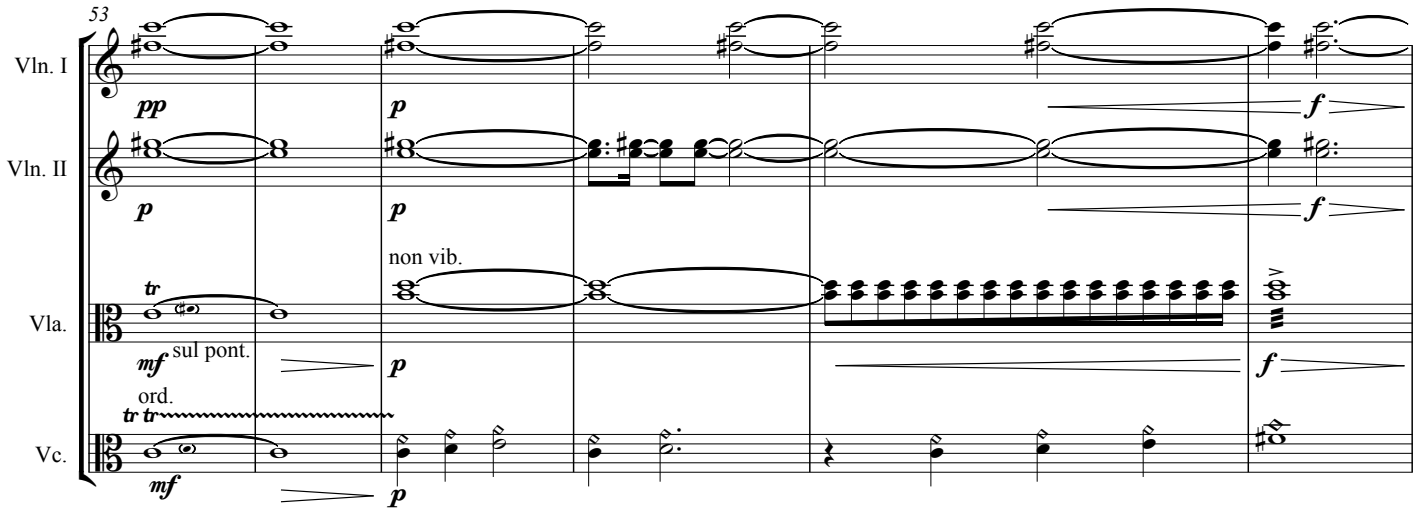
cue A_4 Wind of the high plains
desert in the Book Cliffs, Utah

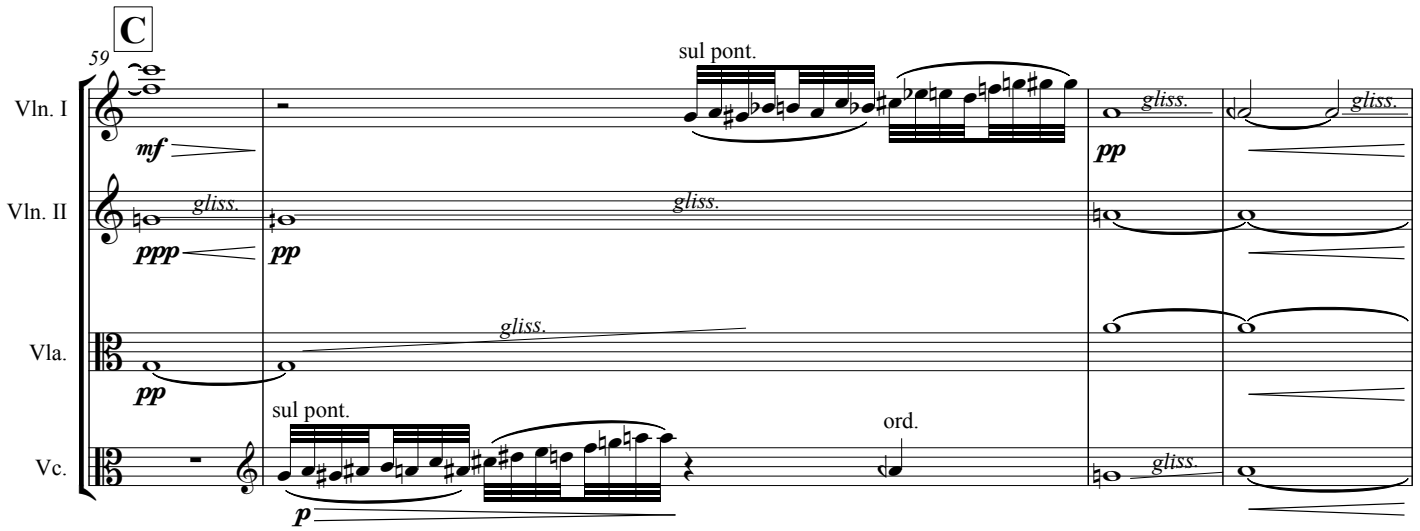


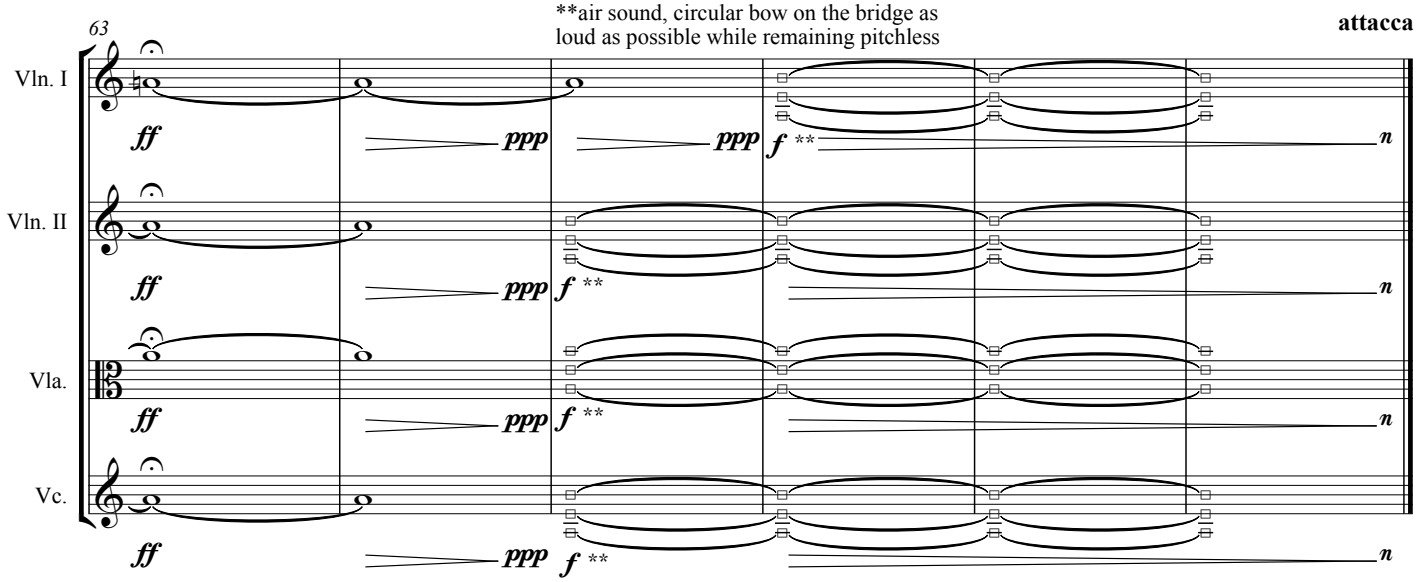

12
B
Vln. I
Vln. II
Vla.
Vc.
p
ord.
fp
16
mp
non vib.
19
sul pont.
airy
mf
pp


21
Vln. I
Vln. II
Vla.
Vc.
p
airy
p
22
Vln. I
Vln. II
Vla.
Vc.
p
p
23
Vln. I
Vln. II
Vla.
Vc.
non vib.
p
f
p
non vib.
p
f
mf
espr.
sul pont.
p

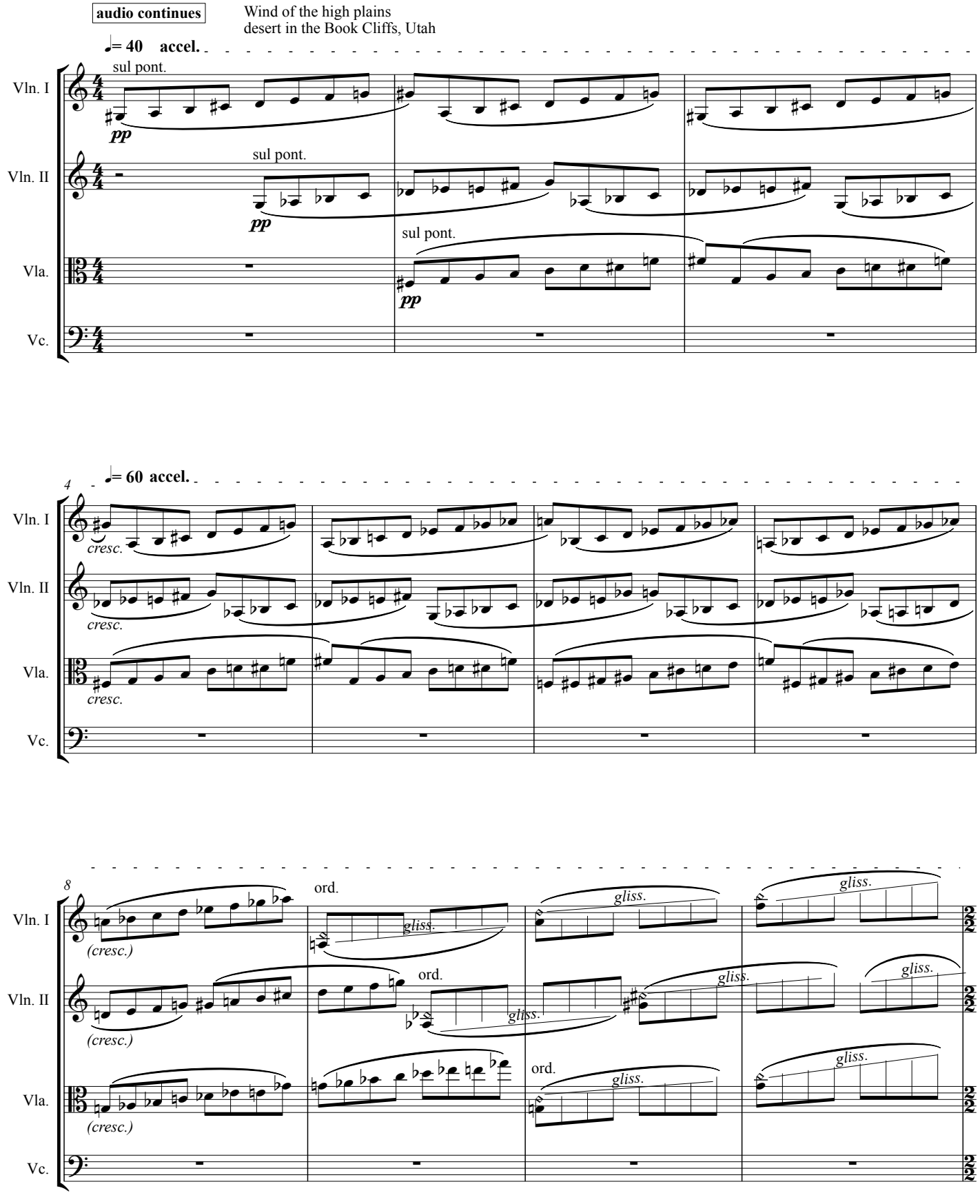

28
Vln. I
Vln. II
Vla.
Vc.
f
p
33
40
n
47
mf

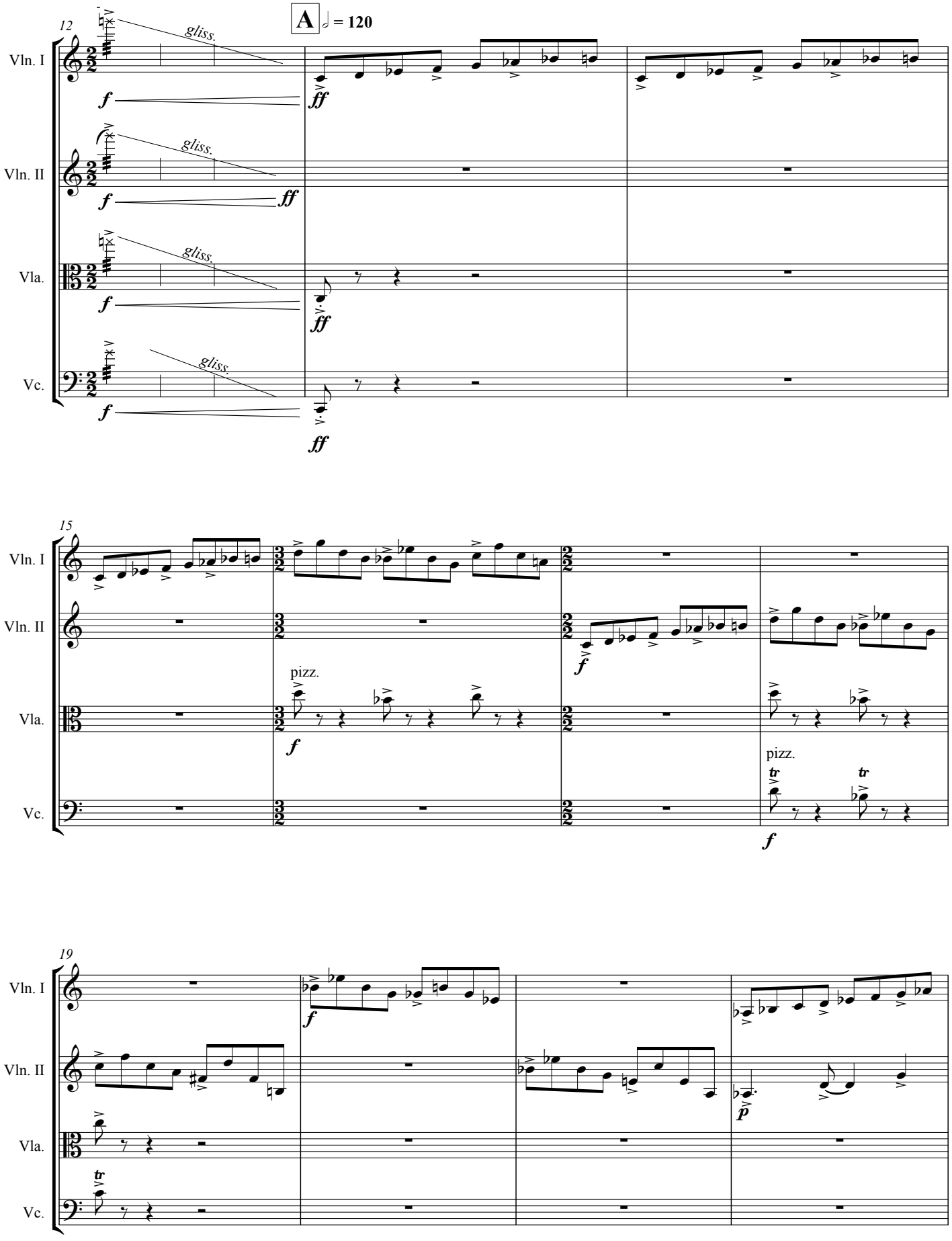

53
Vln. I
Vln. II
Vla.
Vc.
pp
p
f
non vib.
tr
mf
sul pont.
ord.
tr tr

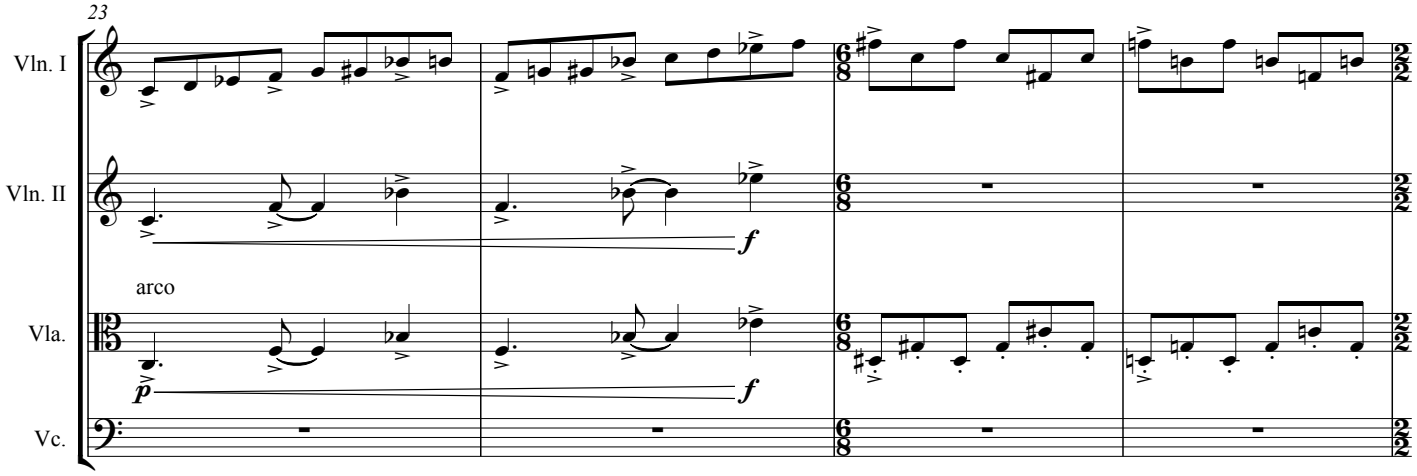

C
59
Vln. I
Vln. II
Vla.
Vc.
mf
sul pont.
gliss.
pp
ppp
ord.

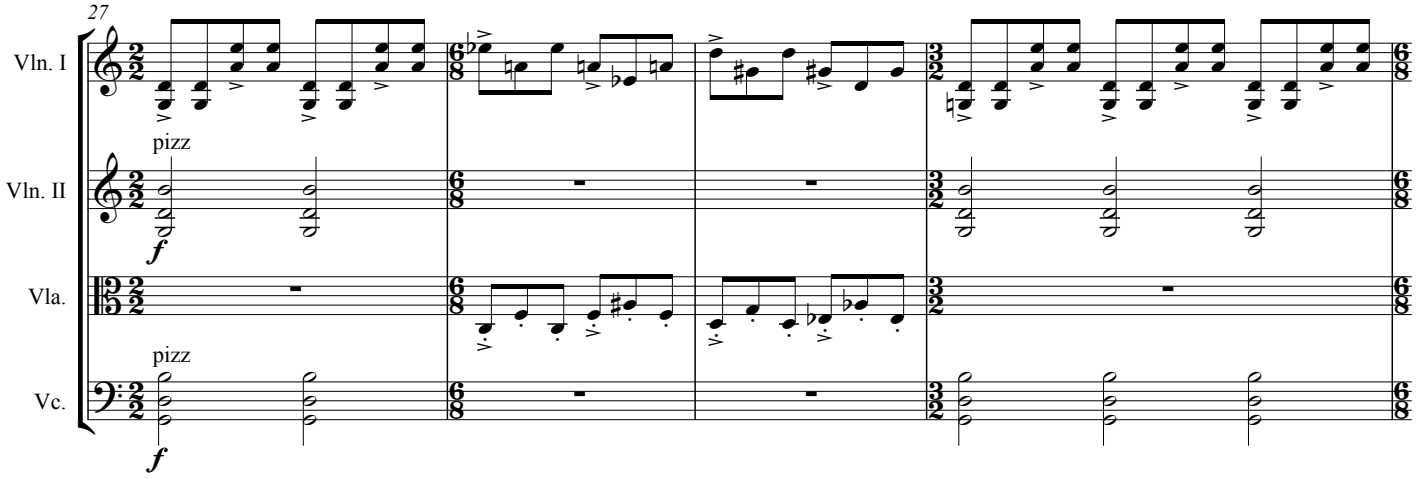

63
**air sound, circular bow on the bridge as loud as possible while remaining pitchless
attacca
Vln. I
Vln. II
Vla.
Vc.
ff
ppp
f **
n

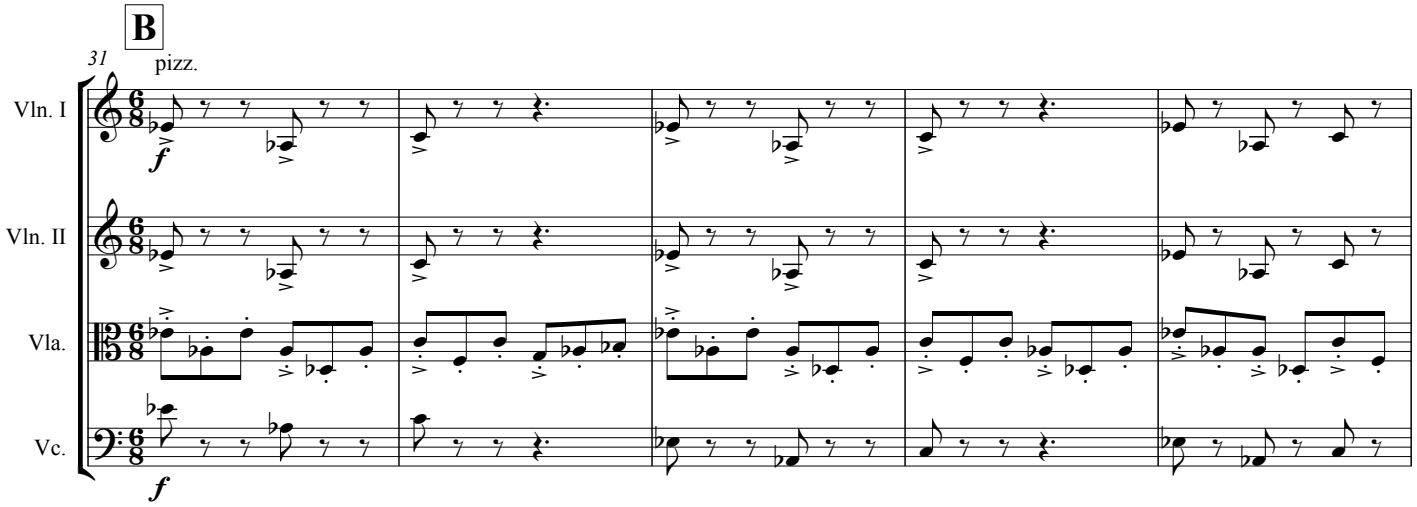
V. MACHINAL

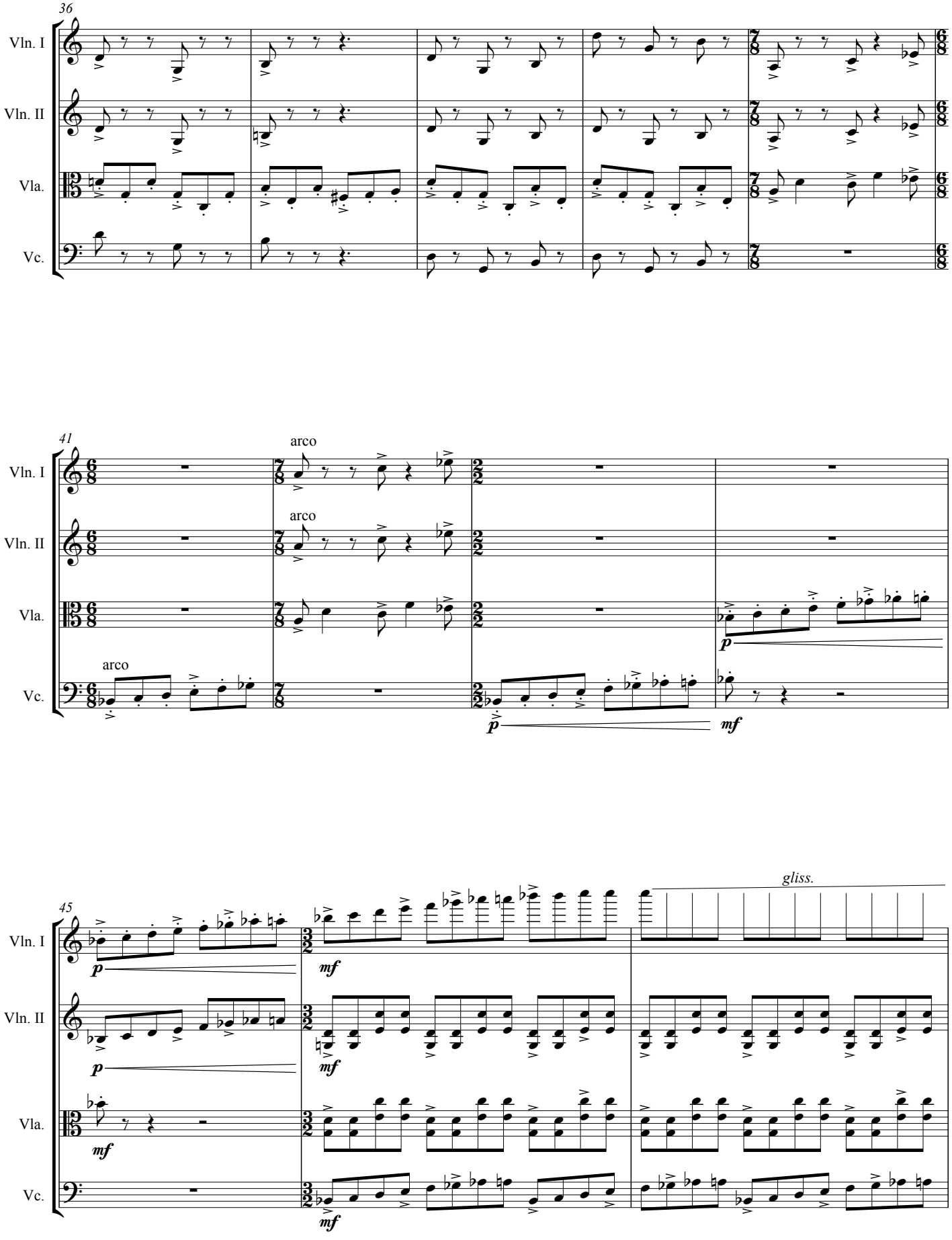

audio continues
Wind of the high plains
desert in the Book Cliffs, Utah
♩= 40 accel.
Vln. I
Vln. II
Vla.
Vc.
sul pont.
pp
4
♩= 60 accel.
cresc.
8
ord.
gliss.
(cresc.)


12
A
♩ = 120
Vln. I
Vln. II
Vla.
Vc.
gliss.
f
ff
15
pizz.
tr
19
p


23
Vln. I
Vln. II
arco
Vla.
Vc.
f
p
f


27
Vln. I
pizz
Vln. II
Vla.
pizz
Vc.
f
f


B
31
pizz.
Vln. I
Vln. II
Vla.
Vc.
f
f


36
Vln. I
Vln. II
Vla.
Vc.
41
arco
arco
arco
p
p
mf
45
gliss.
p
mf
p
mf
mf
mf

* as high as possiblw

gliss. *

48

Vln. I

Vln. II

Vla.

Vc.

f

50

Vln. I

Vln. II

Vla.

Vc.

f

C **cue A_5**
match machine

Shale oil well in the Book Cliffs, rhythmic
one of between 1.1 and 1.7 million wells nationally

54

Vln. I

Vln. II

Vla.

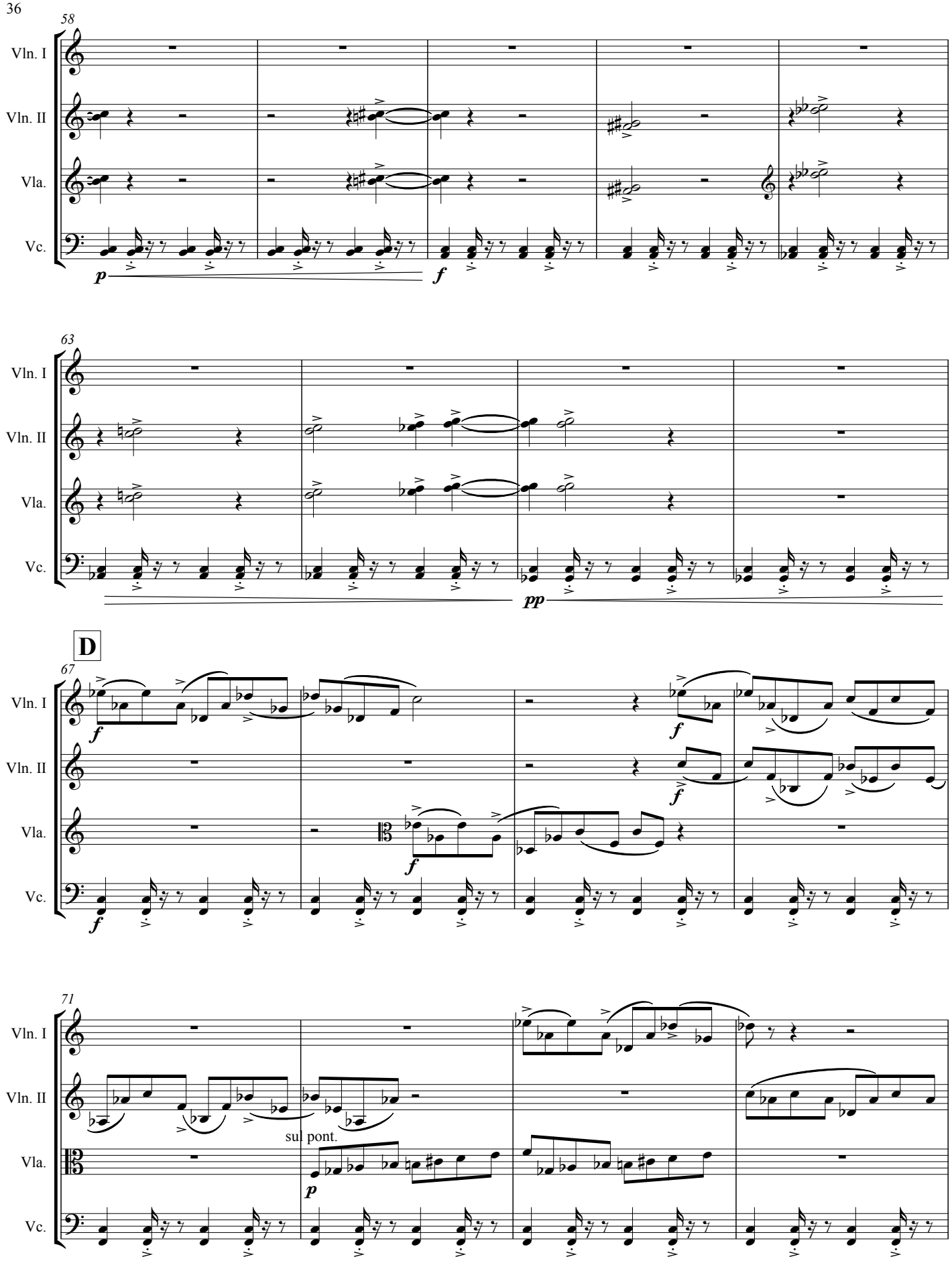
Vc.

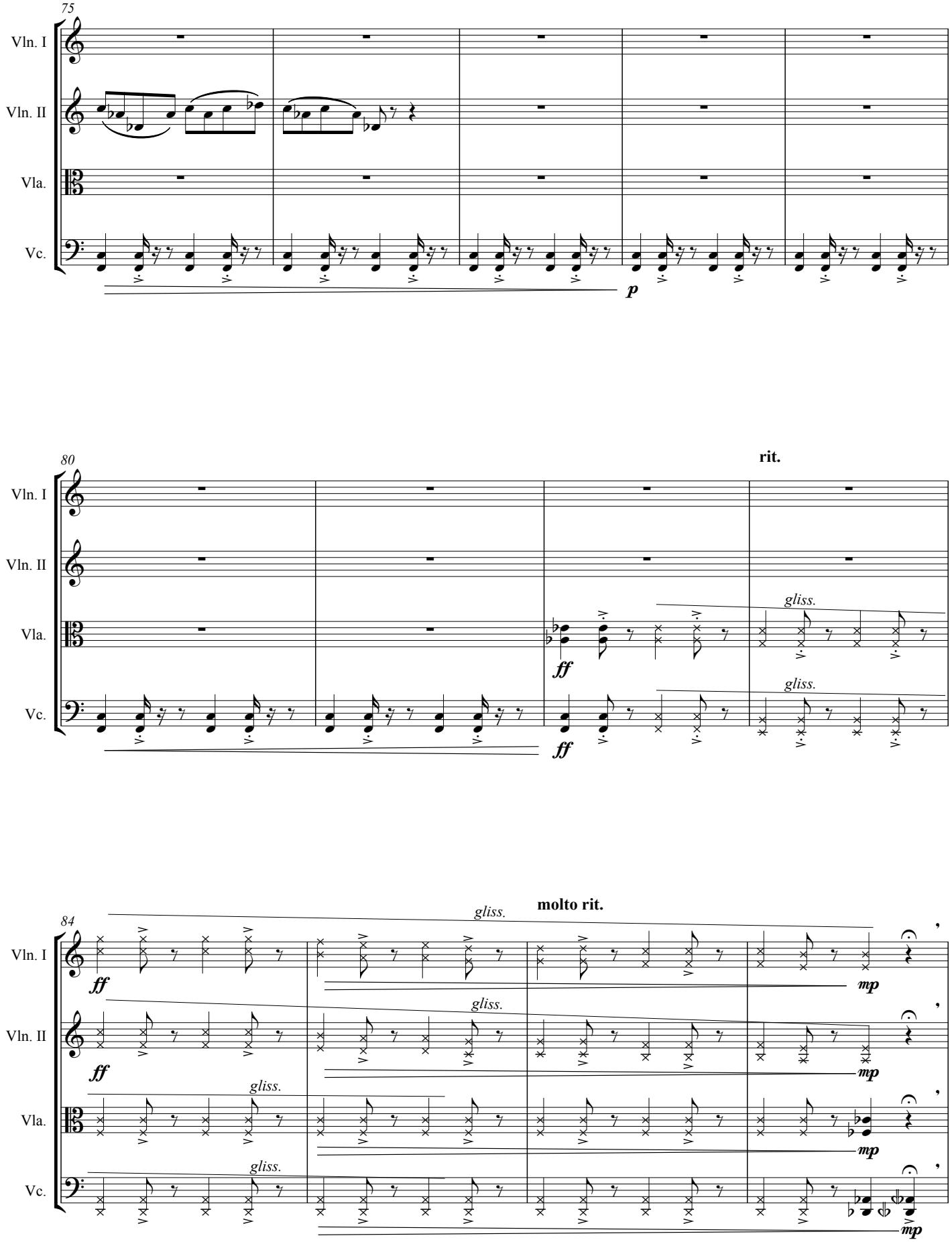
ff

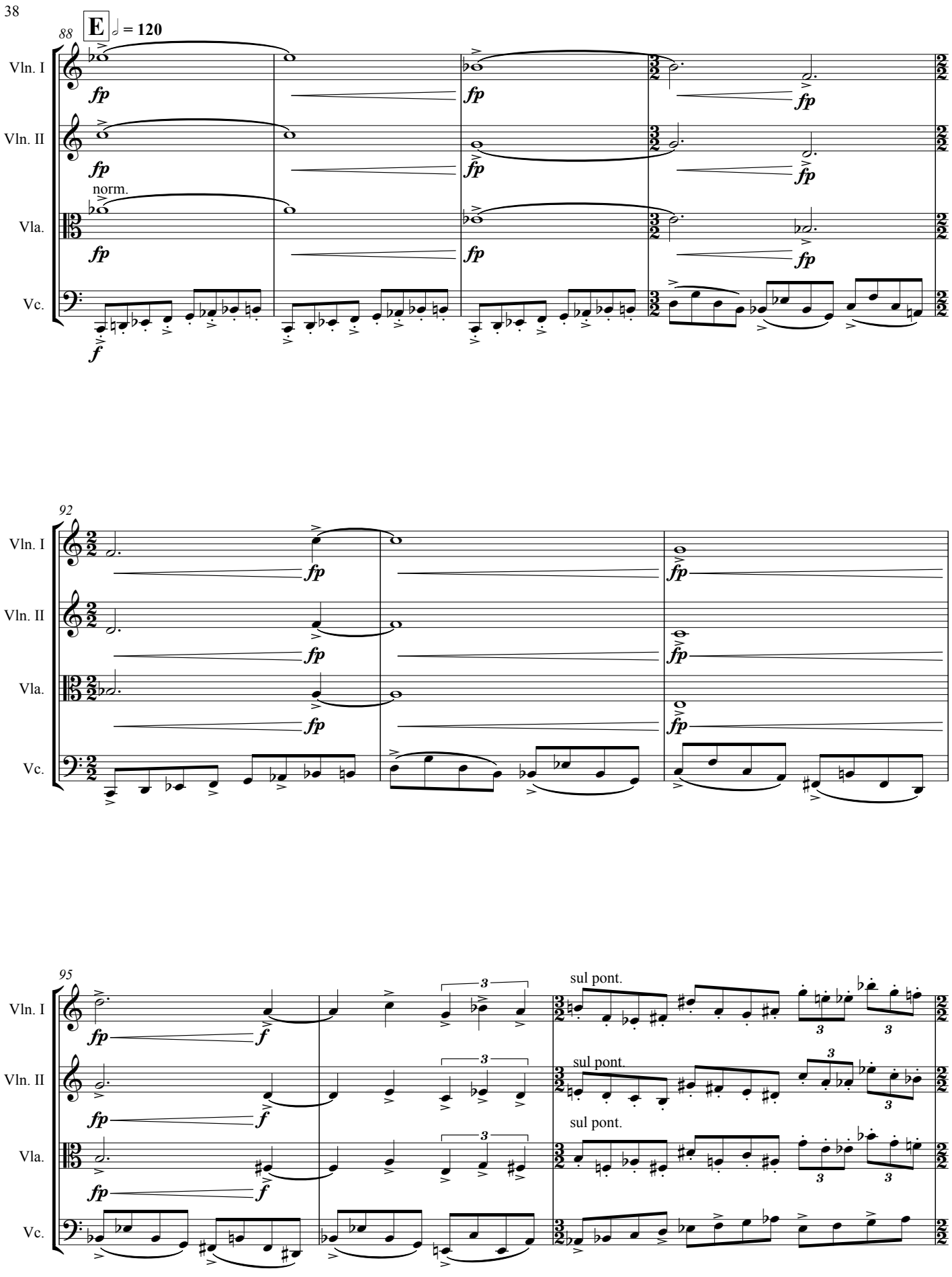
ffp

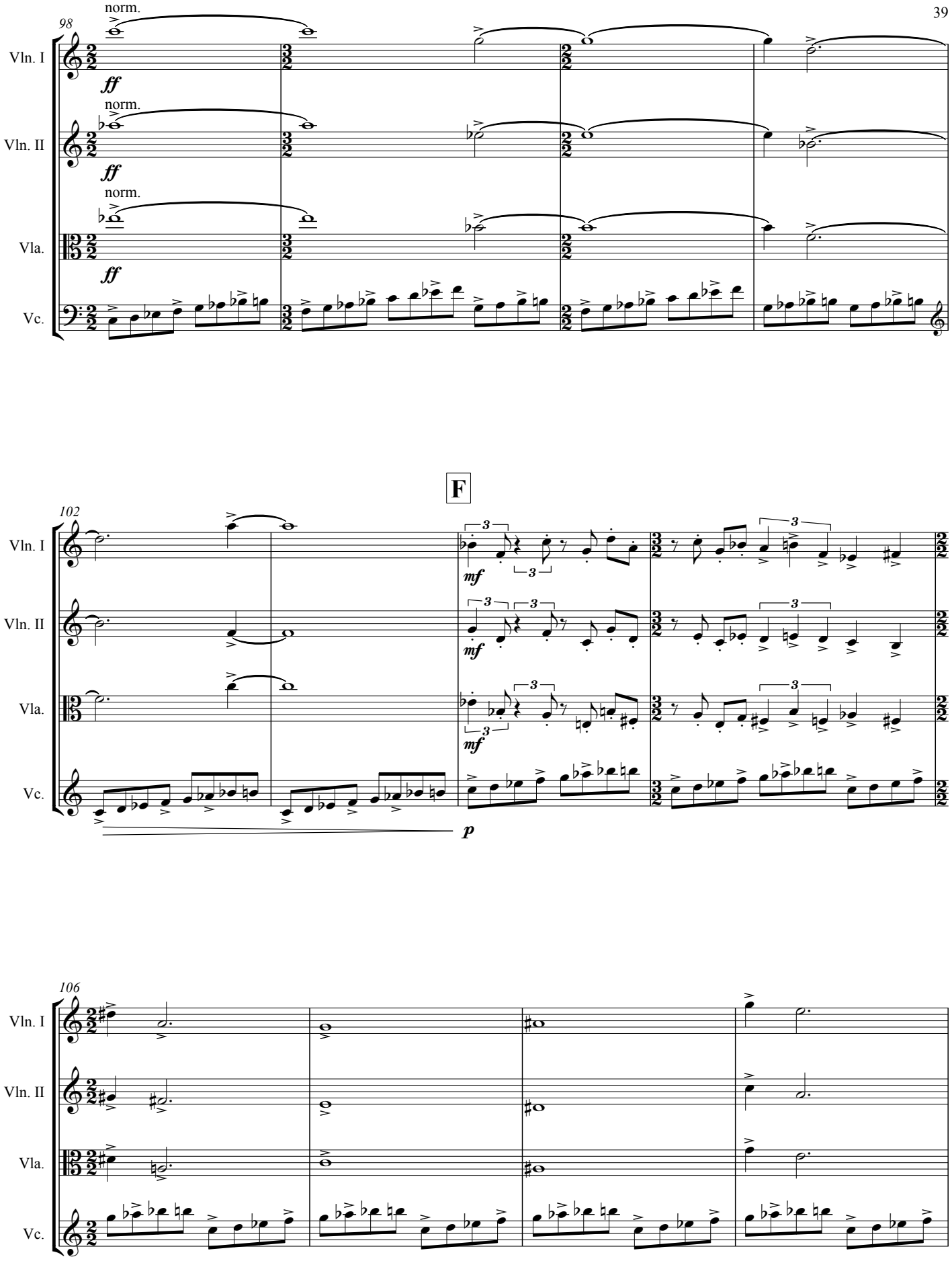
f

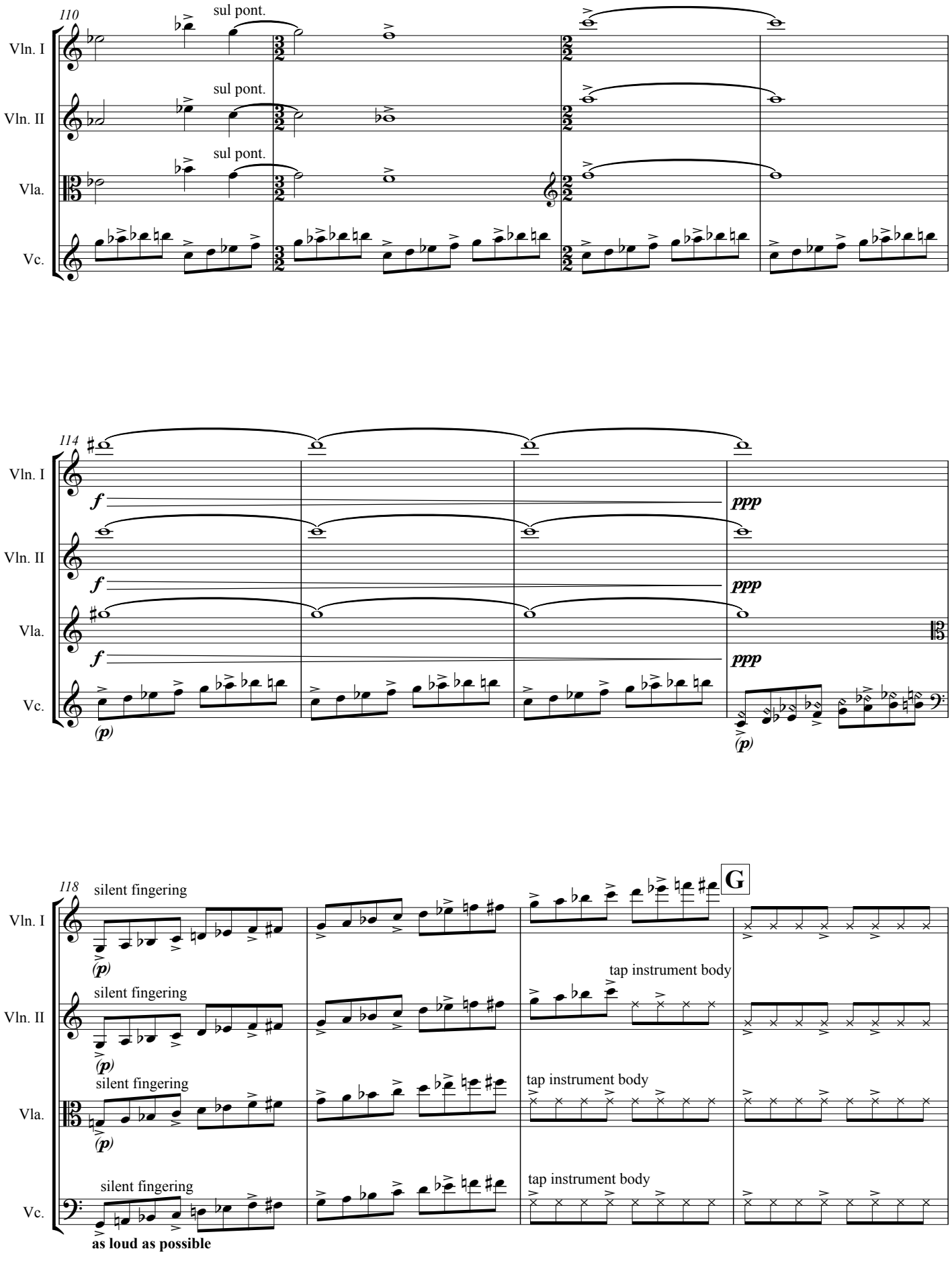
sim.

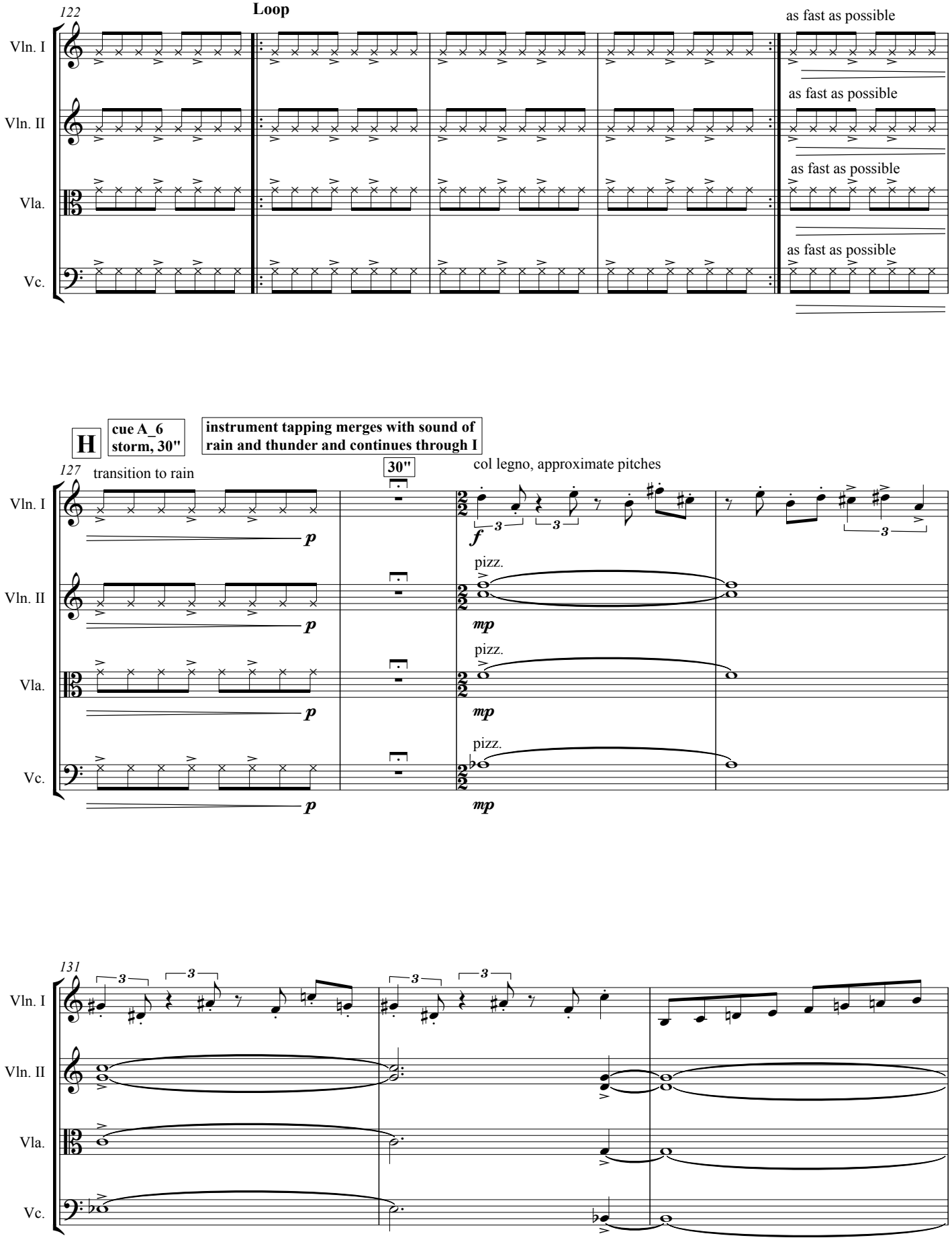

58
Vln. I
Vln. II
Vla.
Vc.
p
f
63
pp
D
67
71
sul pont.

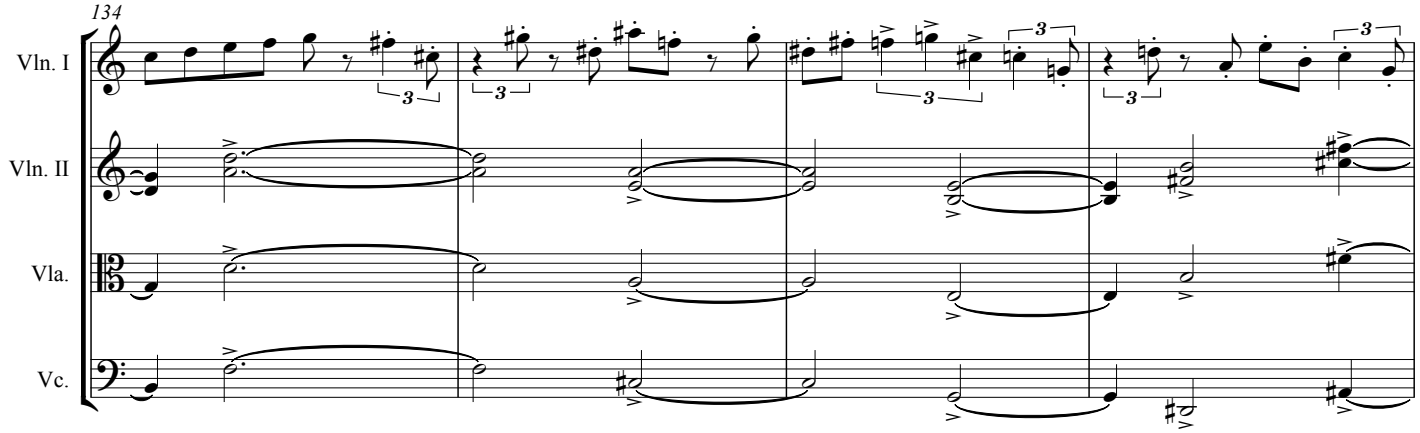

75
Vln. I
Vln. II
Vla.
Vc.
p
80
rit.
ff
gliss.
84
molto rit.
mp

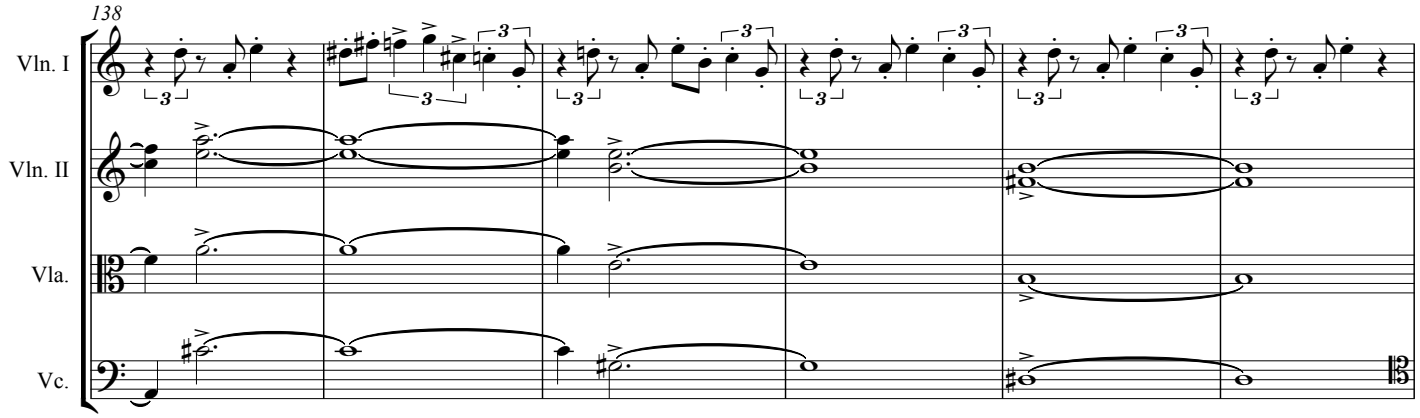

88
E
♩ = 120
Vln. I
Vln. II
Vla.
Vc.
fp
f
norm.
92
95
sul pont.
3

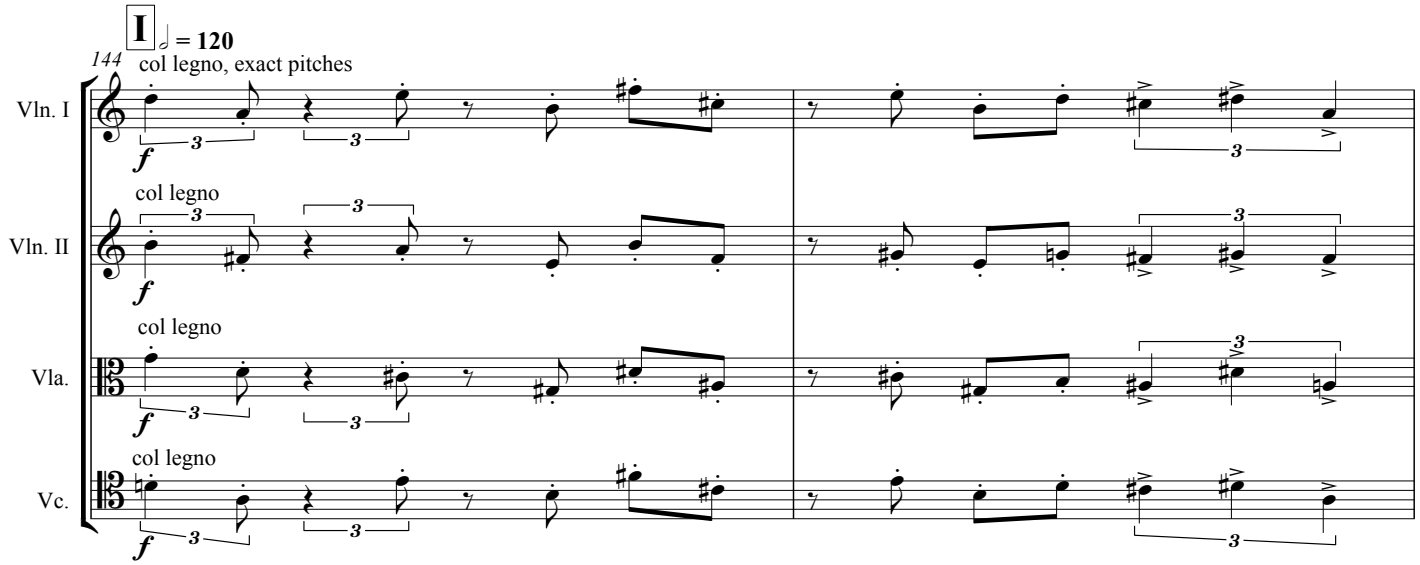

98
norm.
Vln. I
ff
norm.
Vln. II
ff
norm.
Vla.
ff
Vc.
F
102
Vln. I
mf
Vln. II
mf
Vla.
mf
Vc.
p
106
Vln. I
Vln. II
Vla.
Vc.

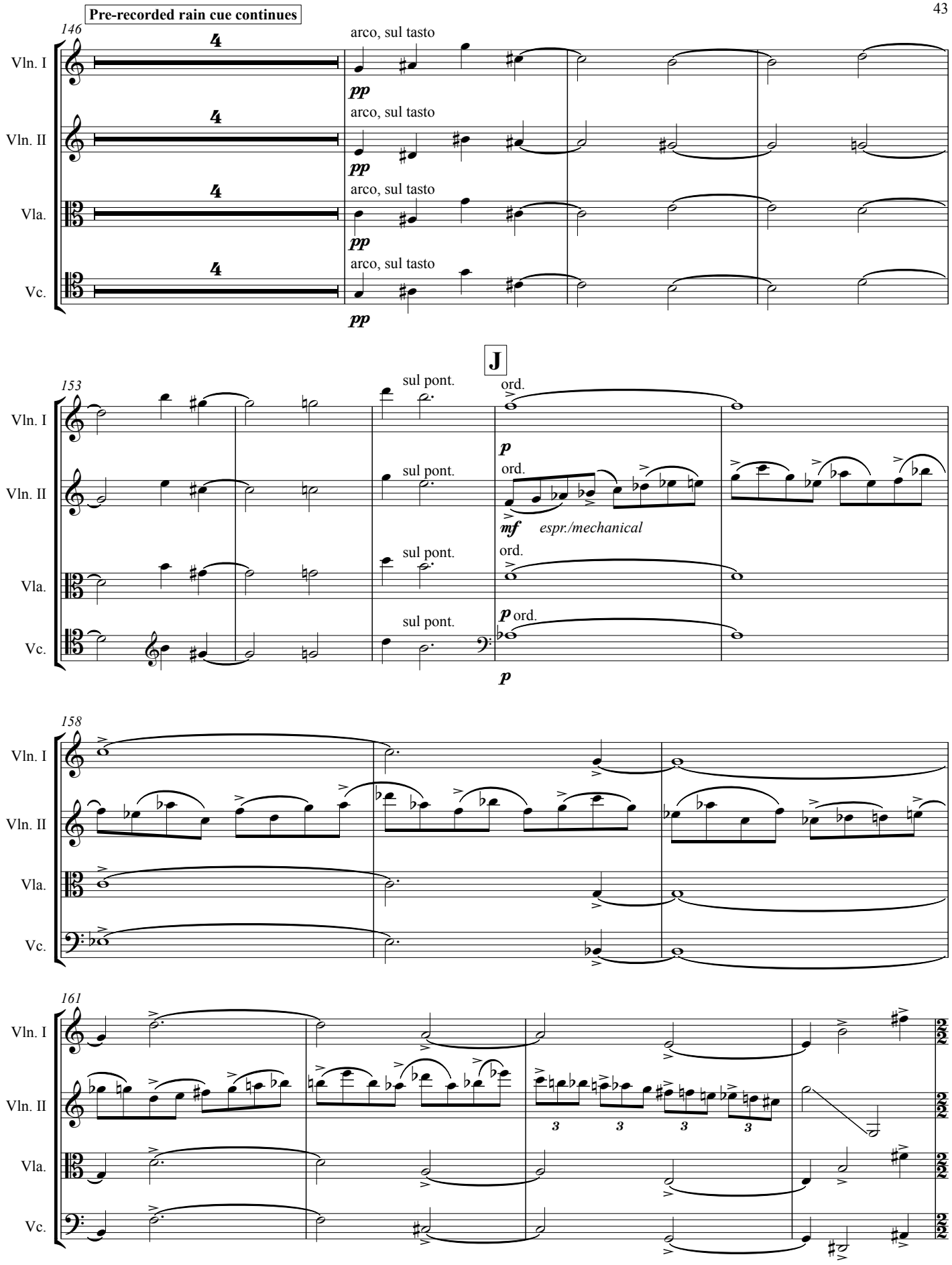

110
sul pont.
Vln. I
sul pont.
Vln. II
sul pont.
Vla.
Vc.
114
Vln. I
f
ppp
Vln. II
f
ppp
Vla.
f
ppp
Vc.
(p)
(p)
118
G
silent fingering
Vln. I
(p)
tap instrument body
silent fingering
Vln. II
(p)
silent fingering
tap instrument body
Vla.
(p)
silent fingering
tap instrument body
Vc.
as loud as possible


122
Loop
as fast as possible
Vln. I
Vln. II
Vla.
Vc.
H
cue A_6
storm, 30"
instrument tapping merges with sound of
rain and thunder and continues through I
127
transition to rain
30"
col legno, approximate pitches
pizz.
131


134
Vln. I
Vln. II
Vla.
Vc.

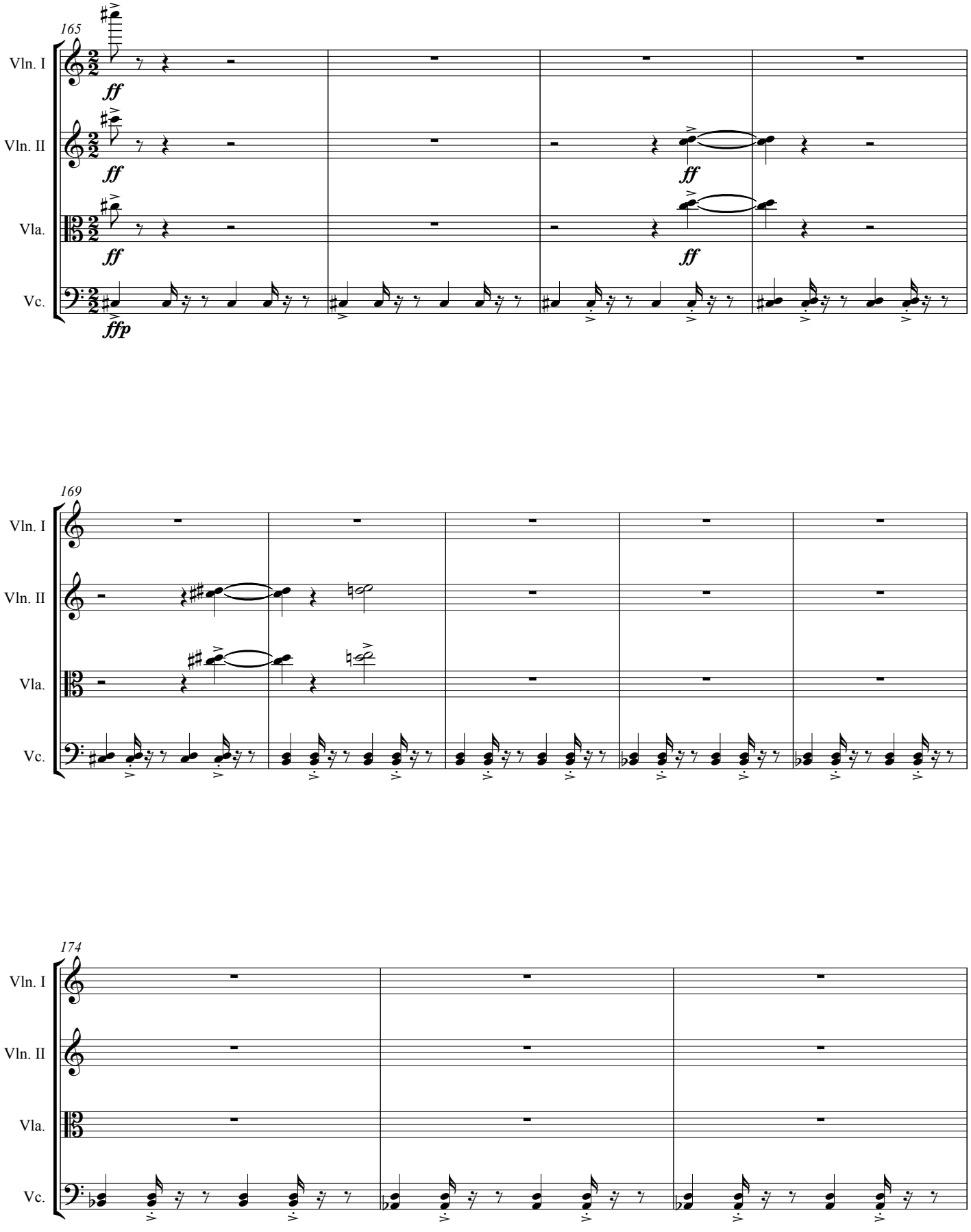

138
Vln. I
Vln. II
Vla.
Vc.

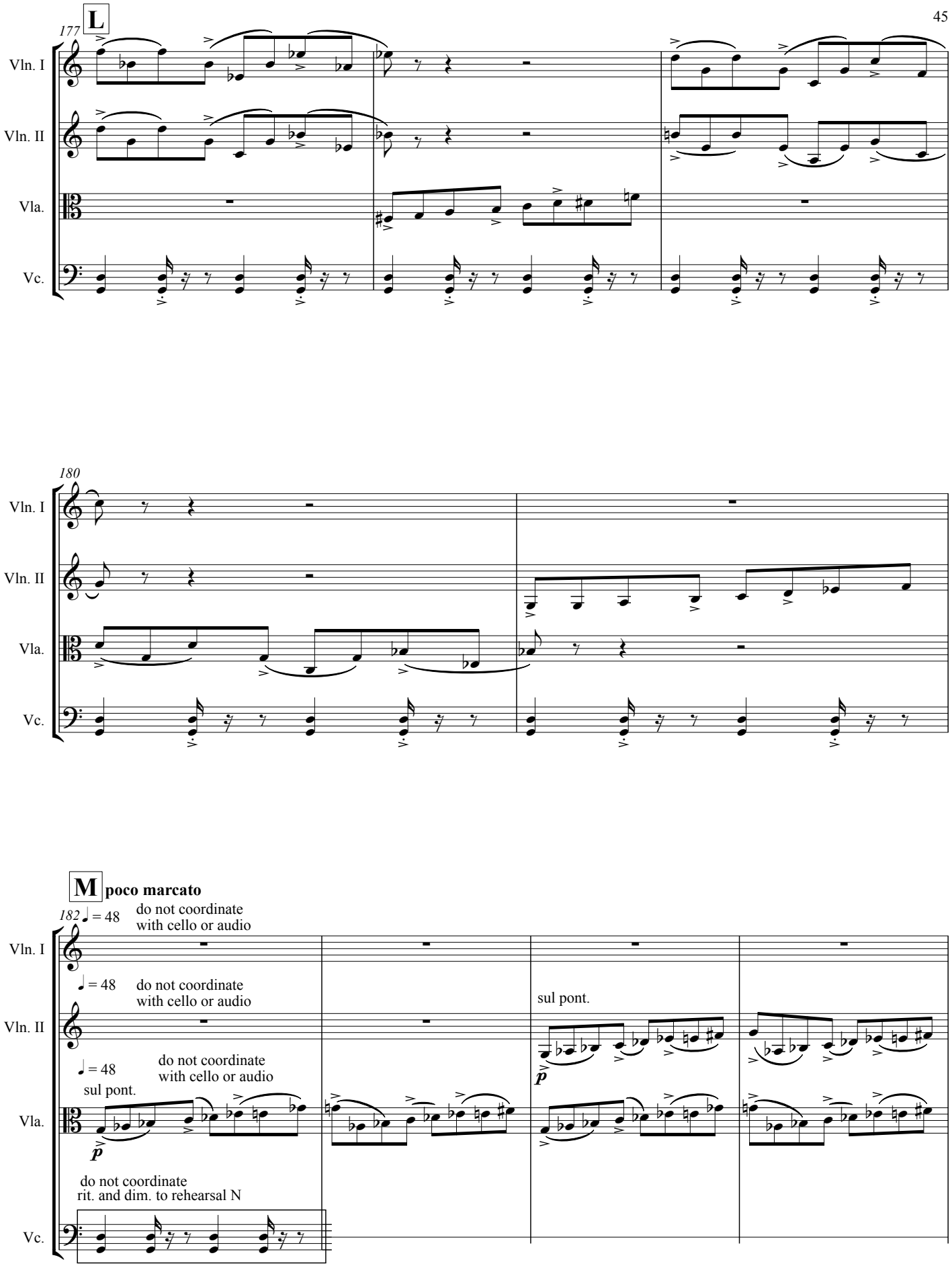

I
= 120
144
col legno, exact pitches
Vln. I
col legno
Vln. II
col legno
Vla.
col legno
Vc.

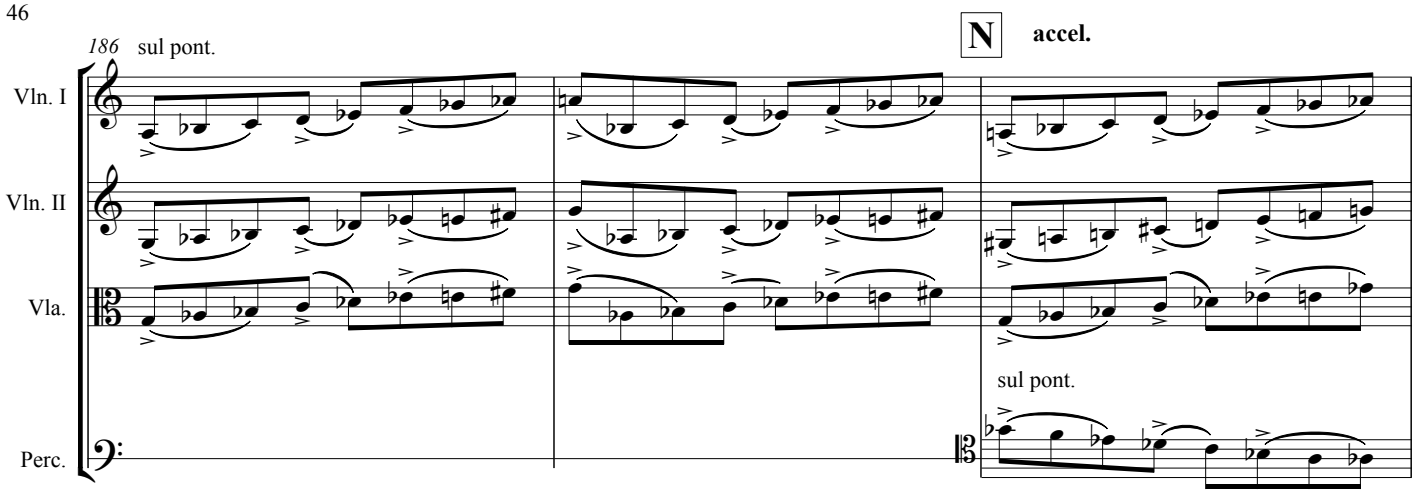

Pre-recorded rain cue continues
146
Vln. I
Vln. II
Vla.
Vc.
4
arco, sul tasto
pp
J
153
sul pont.
ord.
p
mf
espr./mechanical
158
161
3

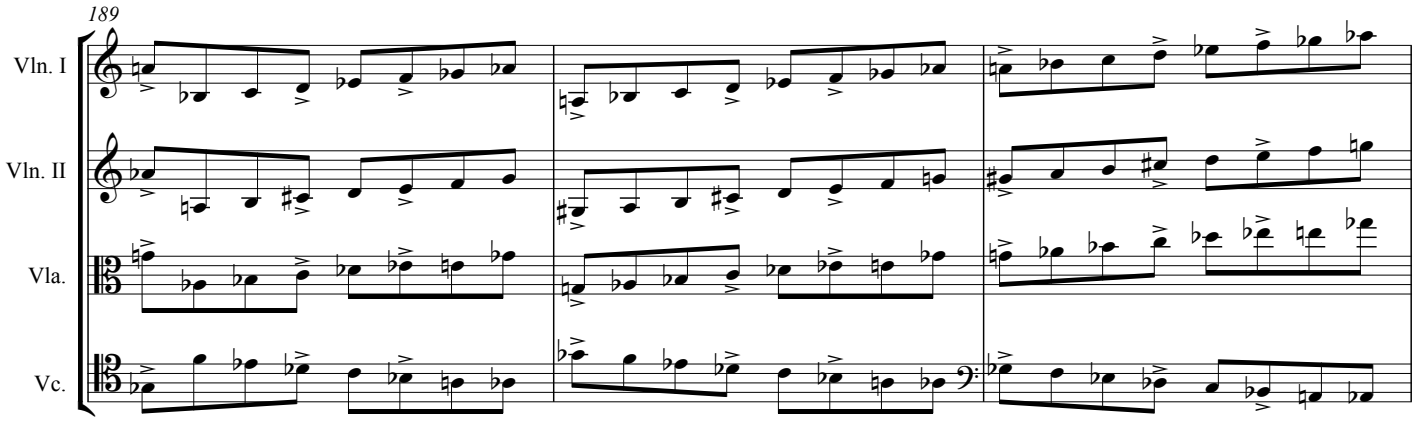
K **cue B_2 match machine**

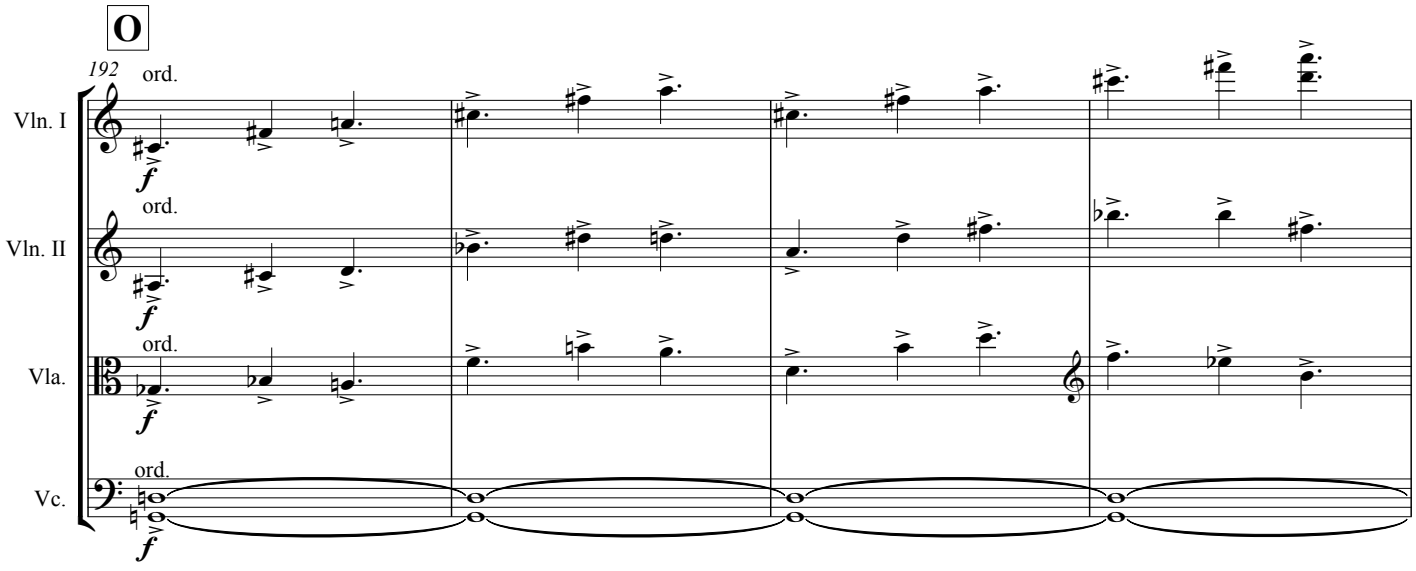
Shale oil well in the Book Cliffs, rhythmic

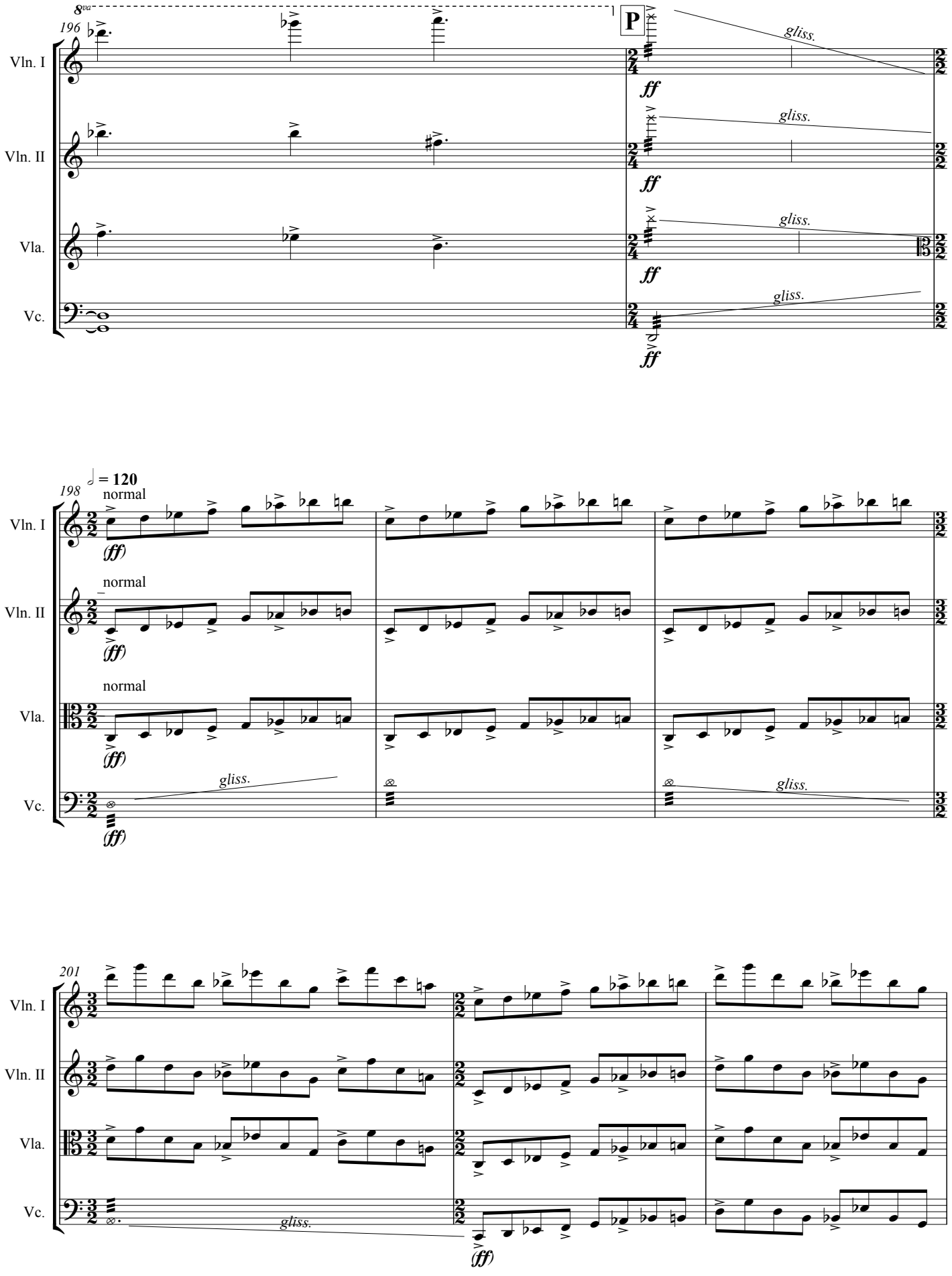


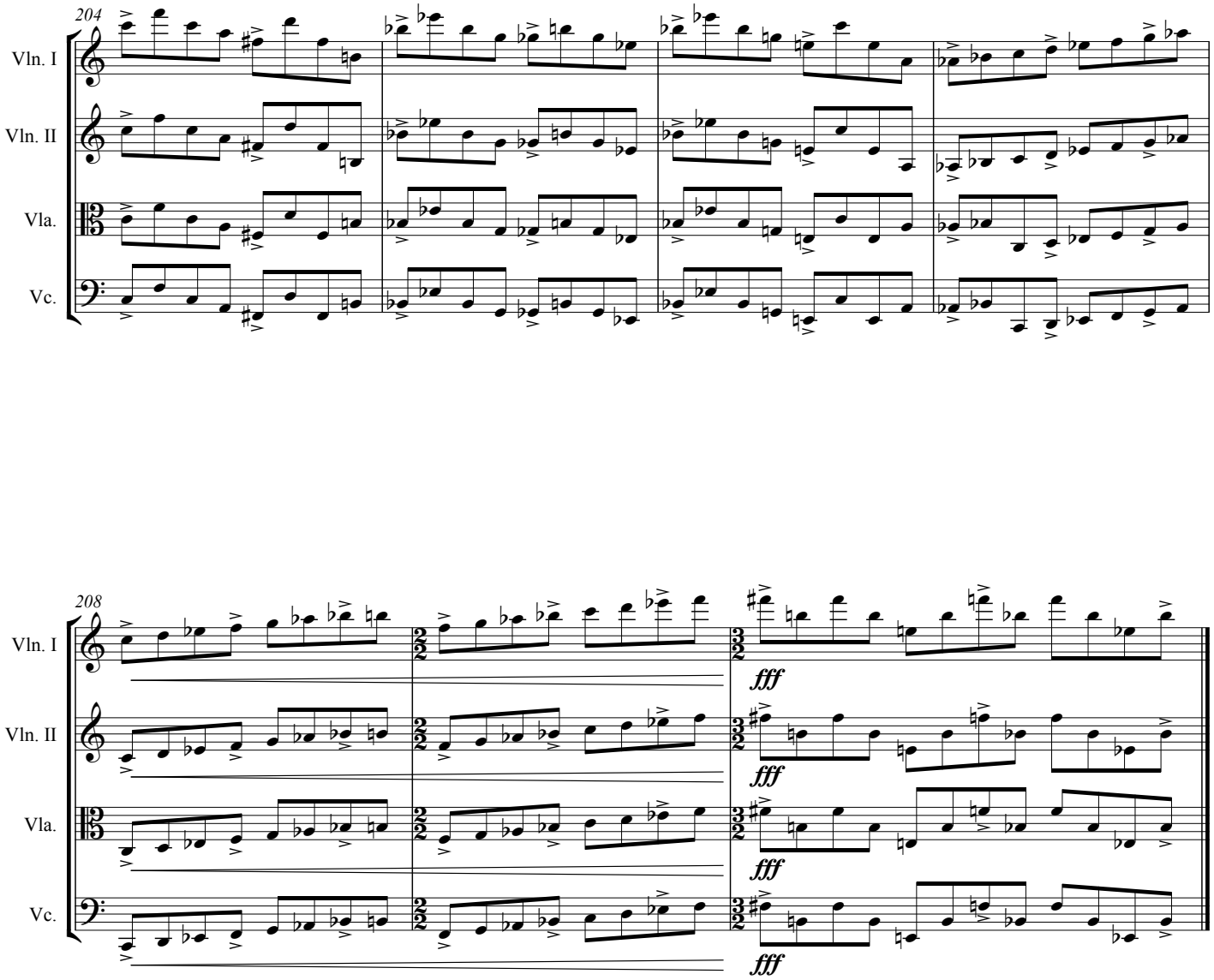

L
177
Vln. I
Vln. II
Vla.
Vc.
180
Vln. I
Vln. II
Vla.
Vc.
M
poco marcato
182
♩ = 48
do not coordinate
with cello or audio
Vln. I
♩ = 48
do not coordinate
with cello or audio
Vln. II
sul pont.
♩ = 48
do not coordinate
with cello or audio
sul pont.
Vla.
p
p
do not coordinate
rit. and dim. to rehearsal N
Vc.


186
sul pont.
N
accel.
Vln. I
Vln. II
Vla.
Perc.
sul pont.

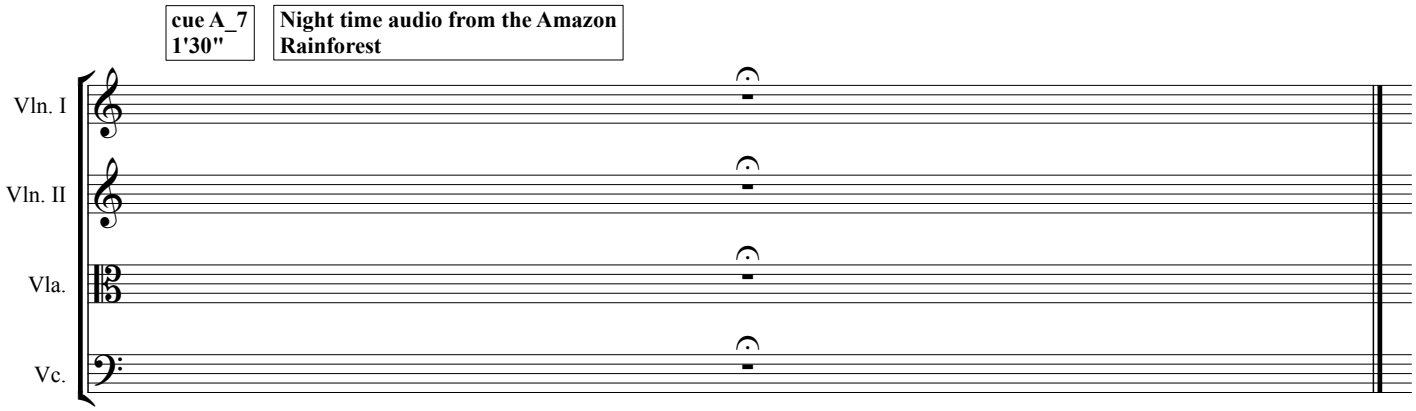

189
Vln. I
Vln. II
Vla.
Vc.


O
192
ord.
Vln. I
Vln. II
Vla.
Vc.
f

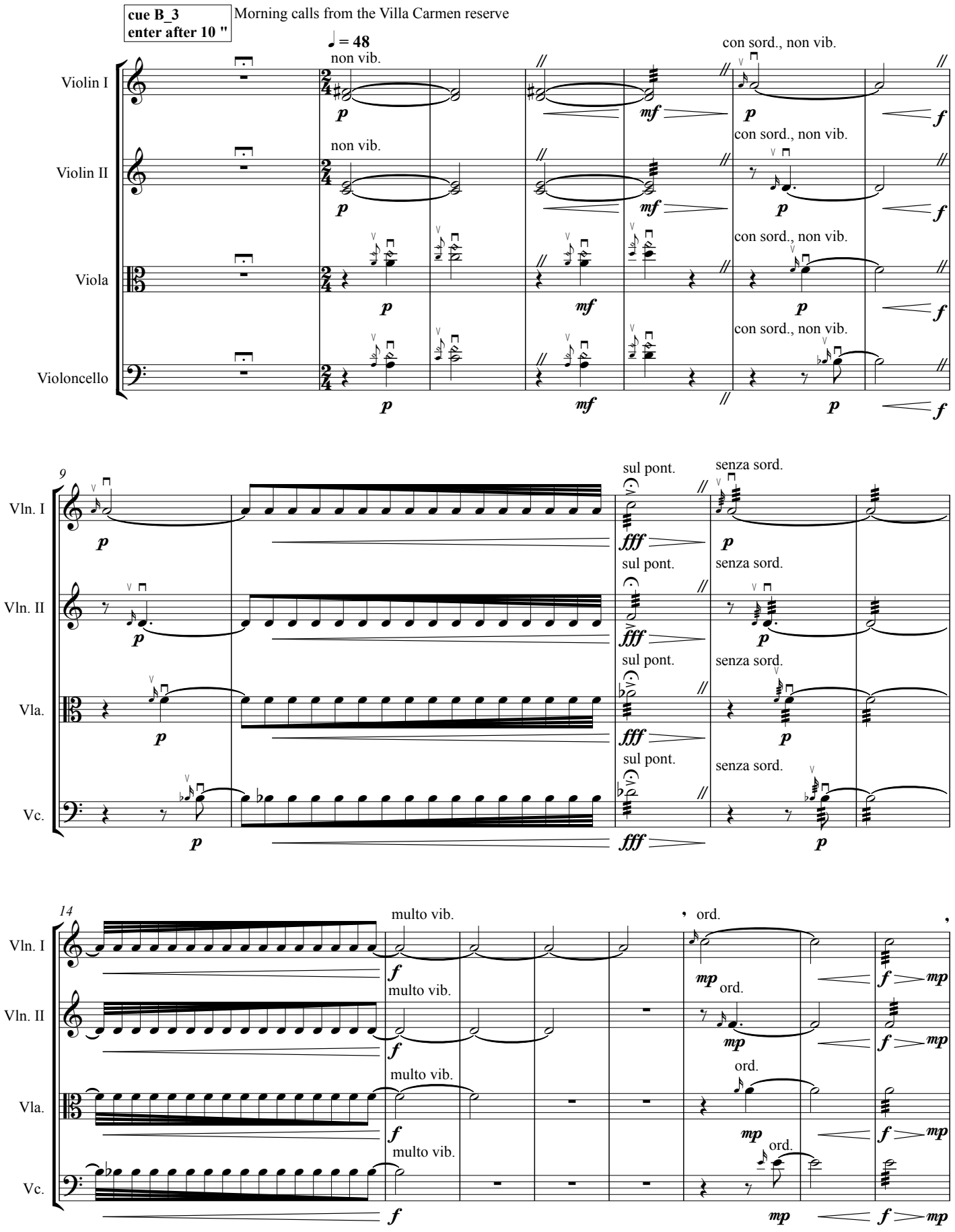

8va
196
P
Vln. I
Vln. II
Vla.
Vc.
gliss.
ff
198
♩ = 120
normal
(ff)
201
(ff)

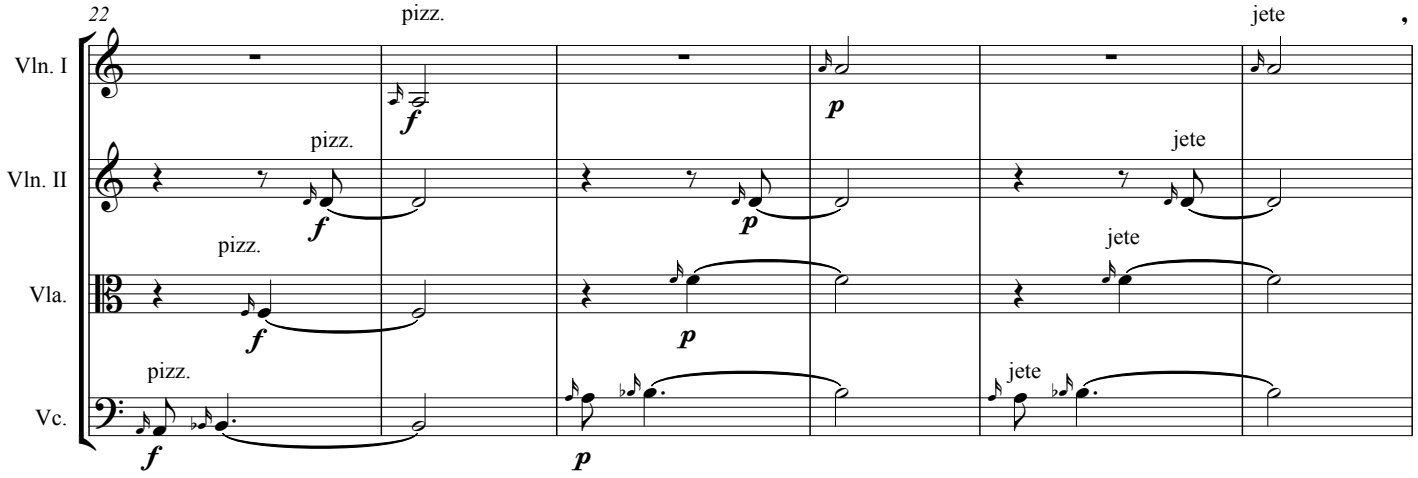

204
Vln. I
Vln. II
Vla.
Vc.
208
fff

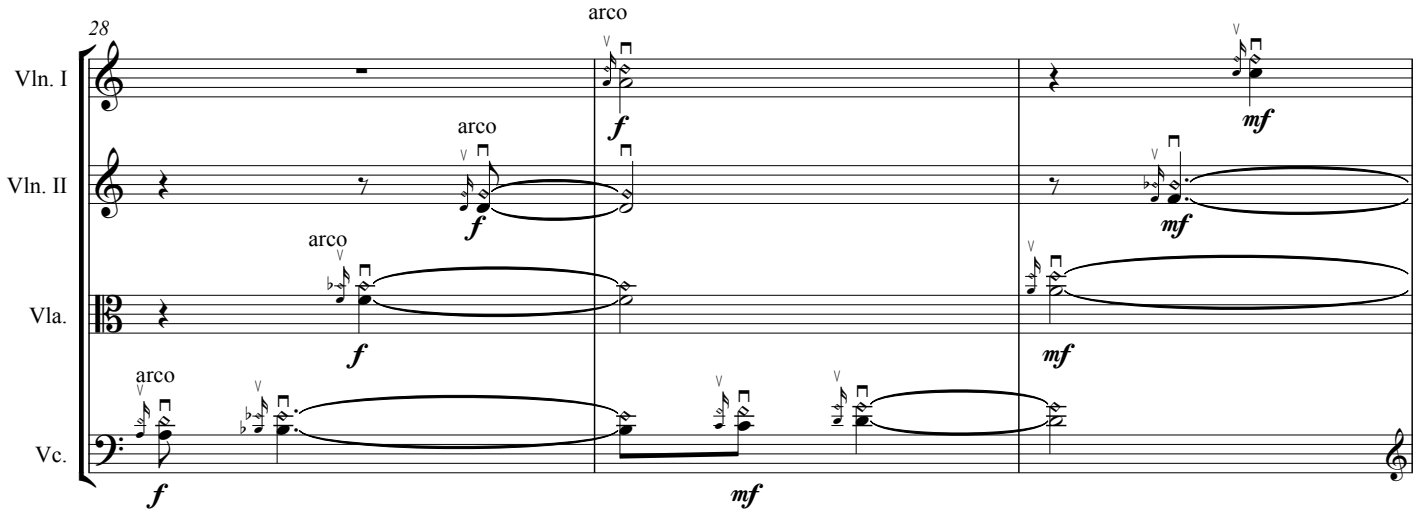
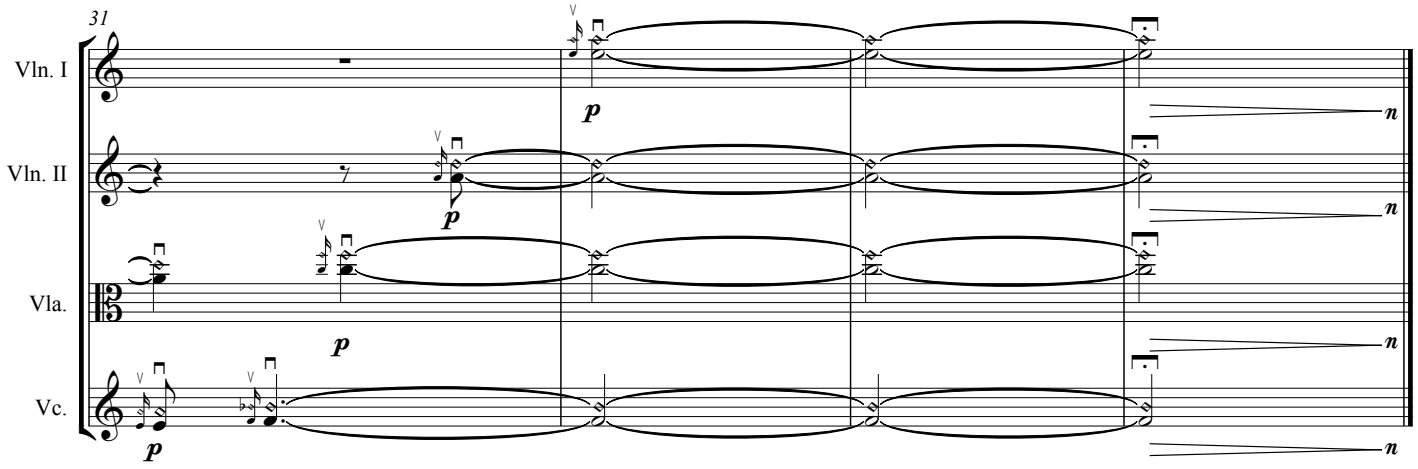
VI. NIGHTSCAPE



VII. REVERENCE/DAWN







Match diminuendo with pre-recorded audio fade