Andrew Lovett

On the Curves of the Winds

for cello and computer

(2013)

SCORE

On the Curves of the Winds (2013) for cello and computer

Composed at CCRMA, Stanford University, California, January to April 2013
Revised, January 2016 (Princeton).

Samples: Chris Chafe (cello) and Roberto Fernandez (flute).
Additional samples: Judith MItchell (cello), Damien Royannais (saxophone), Tim Palmer (percussion).

Samples recorded by Jay Kadis and the composer.

Duration: 13.30

For Chris and June

Performance Instructions:

This piece is intended for playback through a multi-speaker system.

The computer part consists of twelve audio channels which may be mixed during performance or pre-mixed during rehearsal. Playback from a laptop requires an audio interface, preferably with ten outputs.
For full details see appendix 1.

A stereo version is available for rehearsal purposes (see appendix 2).

The cello is amplified. Careful use of digital reverb is encouraged, which should be varied during the course of the performance.

Although the computer playback is fixed, there is scope for flexibility in timing and (micro-) tuning by the performer. Long pauses by the player (while the computer-part continues) are indicated by a tail-less solid note with a line following. The solo part should fade into the computer part very gradually (usually there is a computer component corresponding to the pitched note).
Approximate pitches are indicated by cross note-heads and high indeterminate pitches are indicated by arrowhead note-heads. In these passages, rhythm and timing may be very flexible, too.

The score contains a simplified transcription of the computer part, with timings corresponding to the fixed taped-part.

Theatre:
There is, potentially, a theatrical element. The performer may use props, costume-elements and lighting to create an impression that s/he is flying an early biplane (constructed of wood and string). During pauses - especially the long pause at letter X - the performer may be preoccupied adjusting some aspect of the craft. A lighting plot may be created to help reinforce this idea.

[revised version January 2016]

Programme note:

A bird maintains itself in the air by imperceptible balancing, when near to the mountains or lofty ocean crags; it does this by means of the curves of the winds which as they strike against these projections, being forced to preserve their first impetus bend their straight course towards the sky with divers revolutions, at the beginning of which the birds come to a stop with their wings open, receiving underneath themselves the continual buffetings of the reflex courses of the winds.

— Leonardo da Vinci

Andrew Lovett moved from the UK to live in Princeton (joining the Music Department at Princeton University as a Professional Specialist) in September 2009. He composes chamber-opera, chamber music and electroacoustic music. His work has been performed in Germany, France, Switzerland, Portugal, Spain, Sweden, Japan, Canada, Cuba, the USA and throughout the UK.
Lonely Sits the City (2009), for solo voice and surround-sound electronics, was premiered at the Junction, Cambridge by The Electric Voice Theatre.
Abraham On Trial (2005), an opera for five singers, electroacoustic music and digital video, was performed at the Junction Theatre, Cambridge by The Electric Voice Theatre, directed by Patrick Morris.
The Colour of Sadness (2003) for soprano saxophone and electronics, was premiered by Damien Royannais and recorded by for AMPublishing.
Unknown Terrors (2000) for cello, keyboard and electronics was premiered by Judith Mitchell and Clive Williamson and broadcast on Radio 3.
Voyage (1997) for ensemble and electroacoustic music was performed by the London Sinfonietta at the South Bank Centre, London in April 1999, conducted by Martyn Brabbins.

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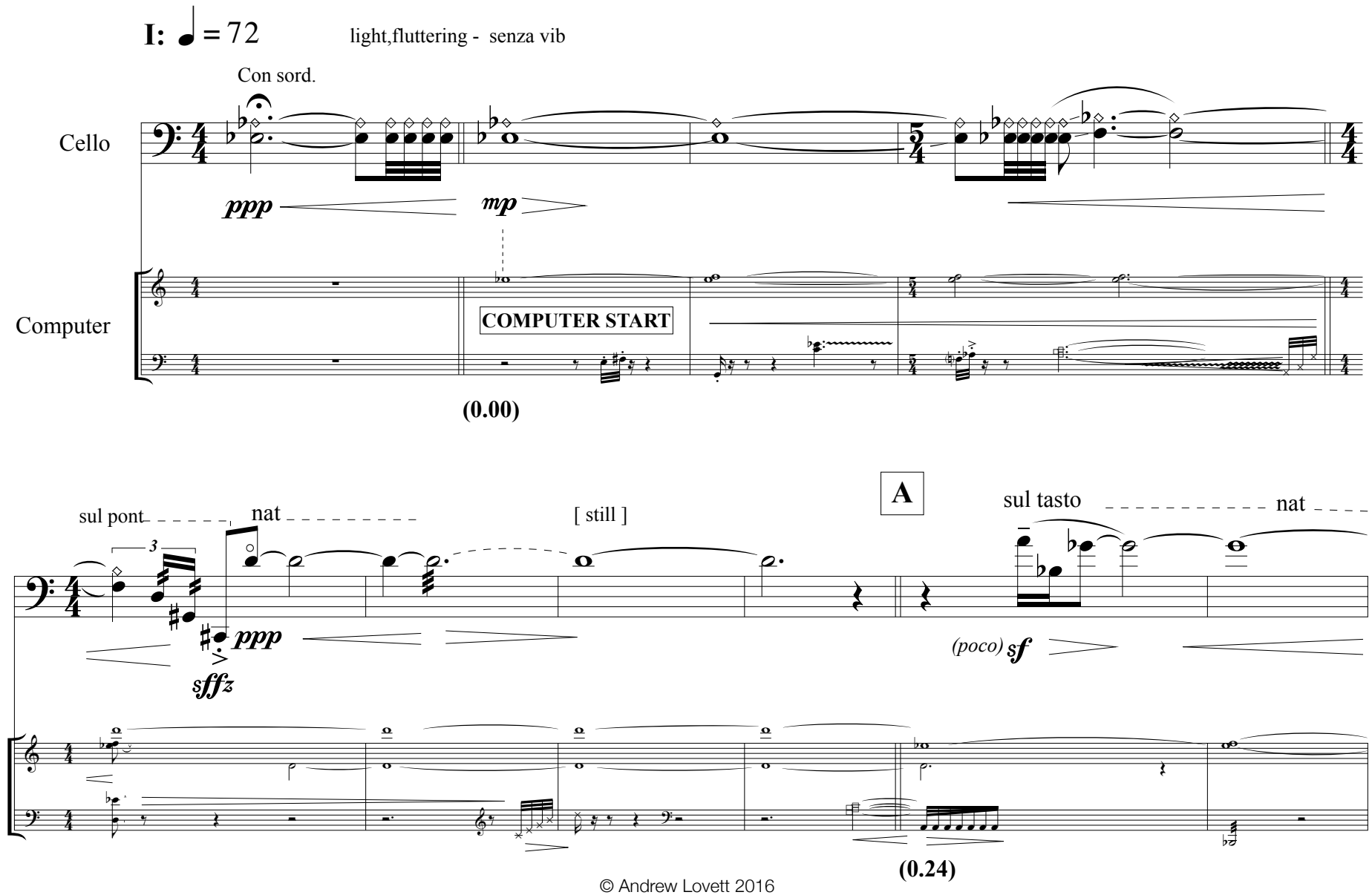

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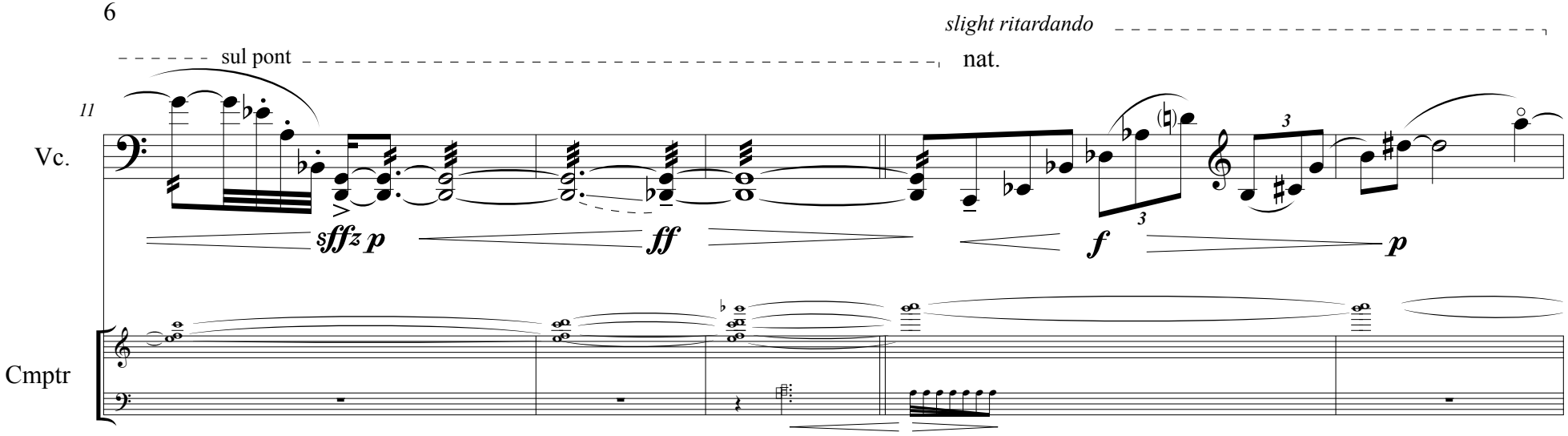
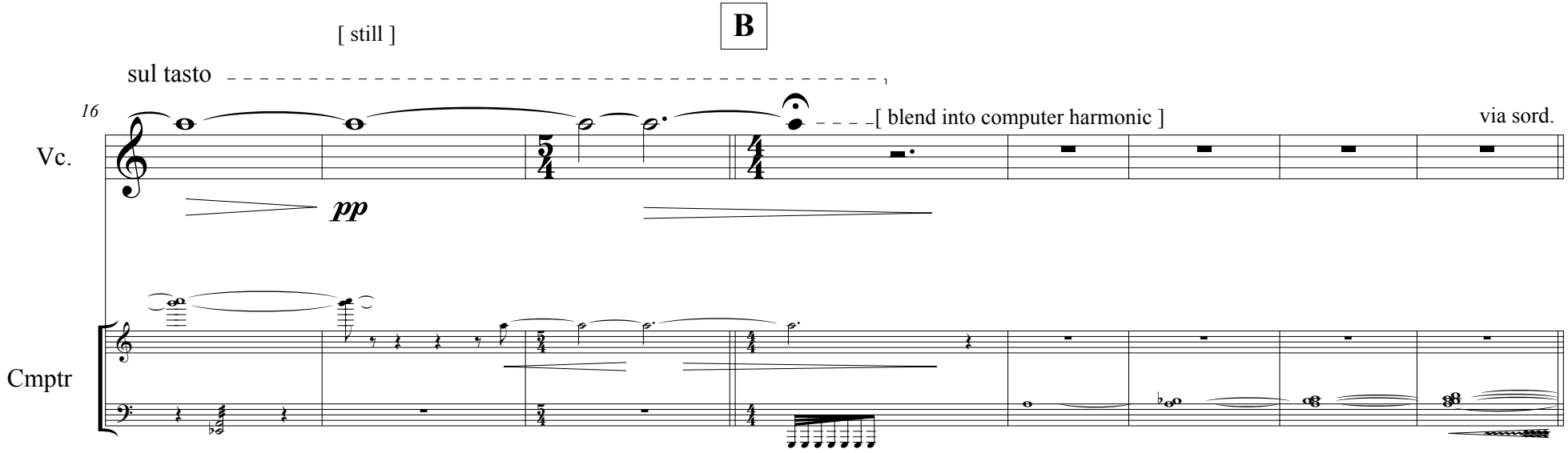
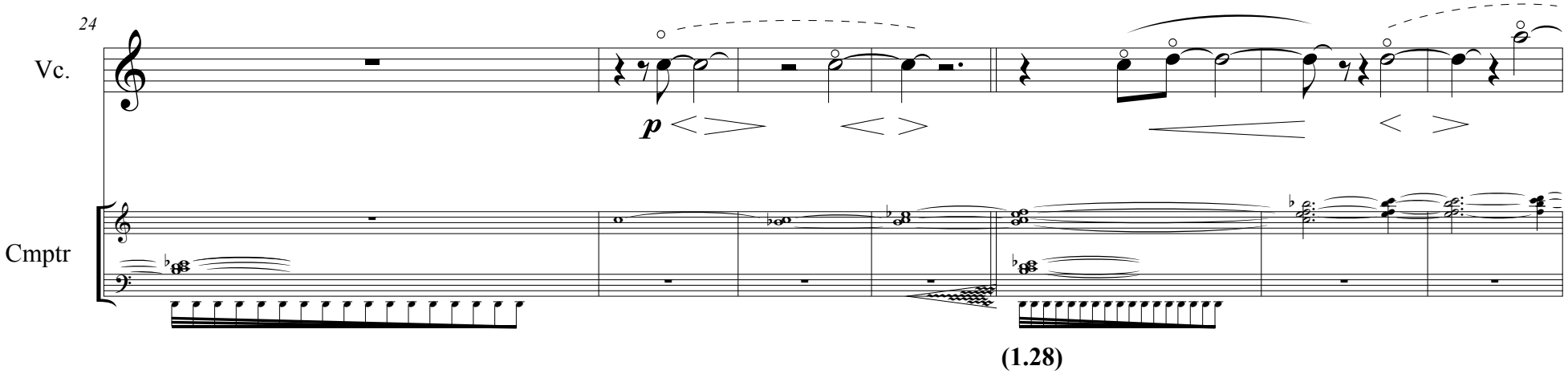

slight ritardando
sul pont
nat.
11
Vc.
sffz p
ff
f
p
Cmptr

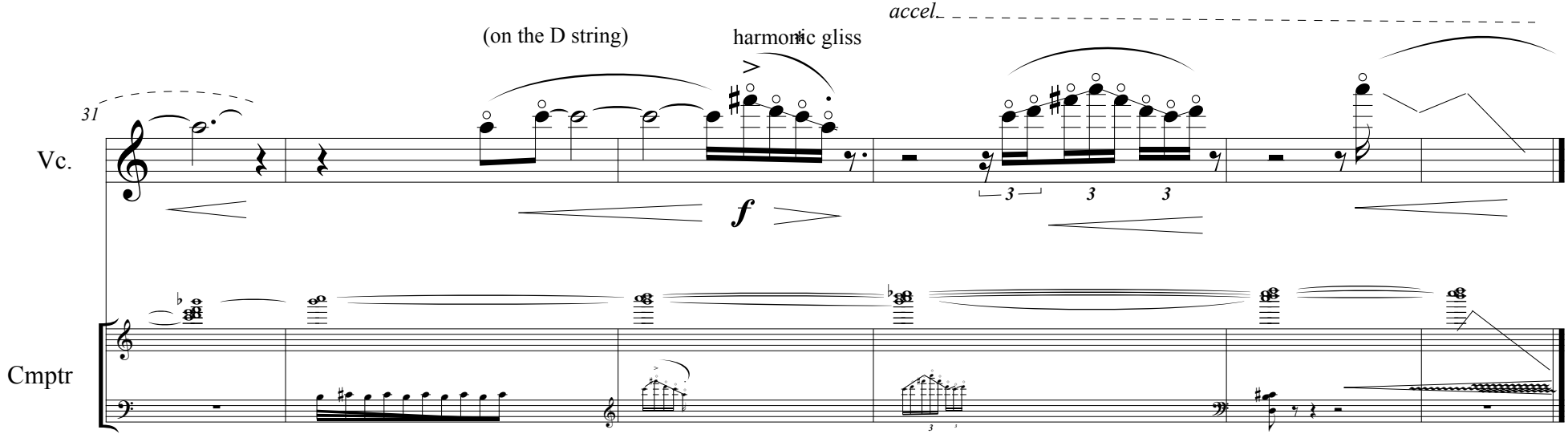
(0.41)


[still]
B
sul tasto
16
[blend into computer harmonic]
via sord.
Vc.
pp
Cmptr

(0..58)



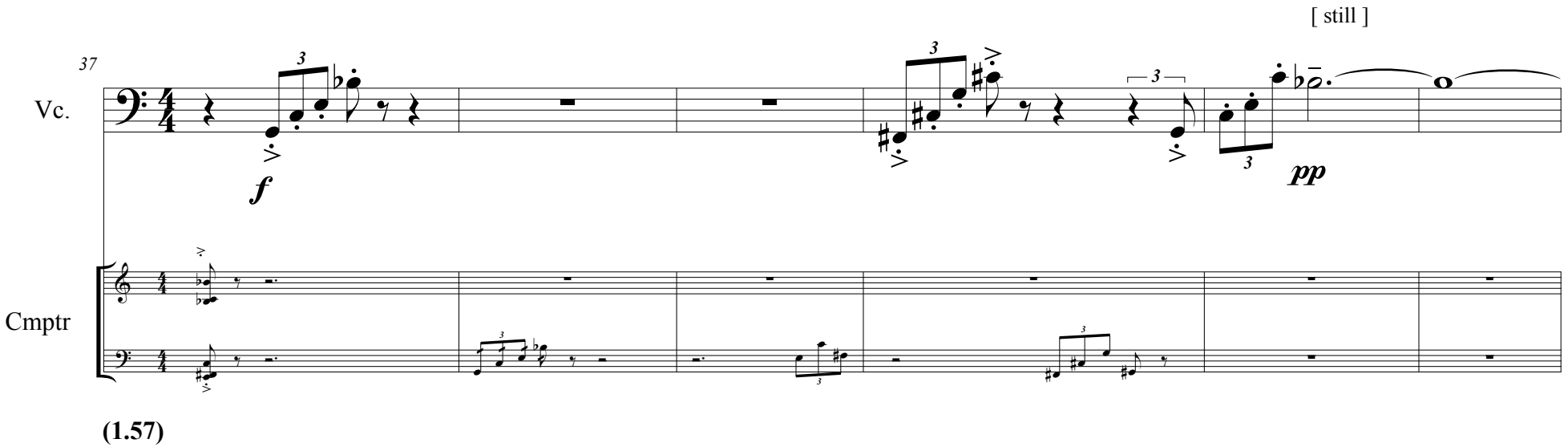
(1.28)



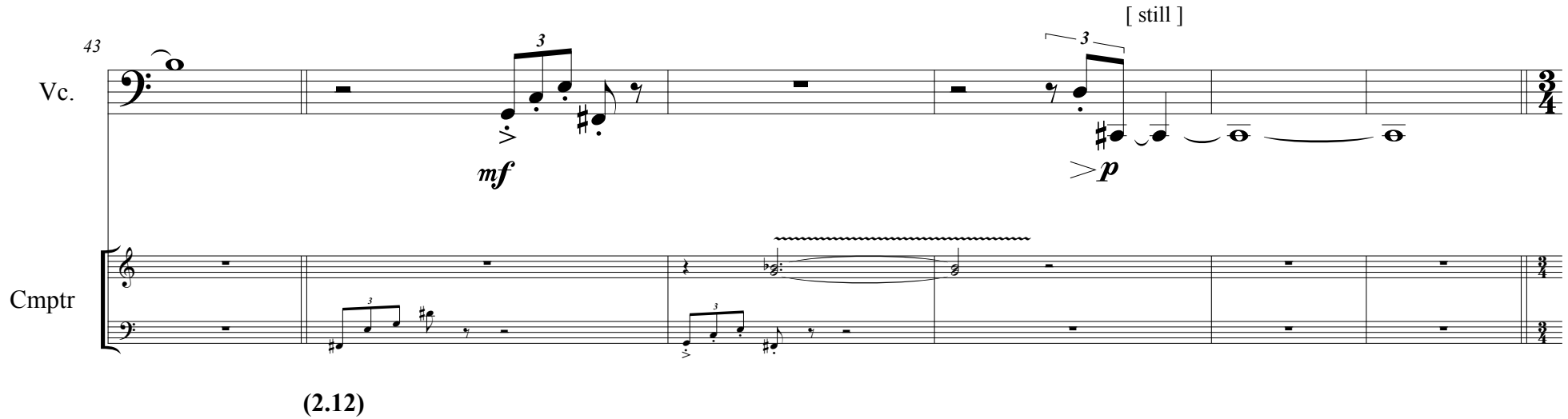
* Harmonic glissandi can be approximate (notes and timing) - follow the glisandi in the computer part.

II: ♩ = 112

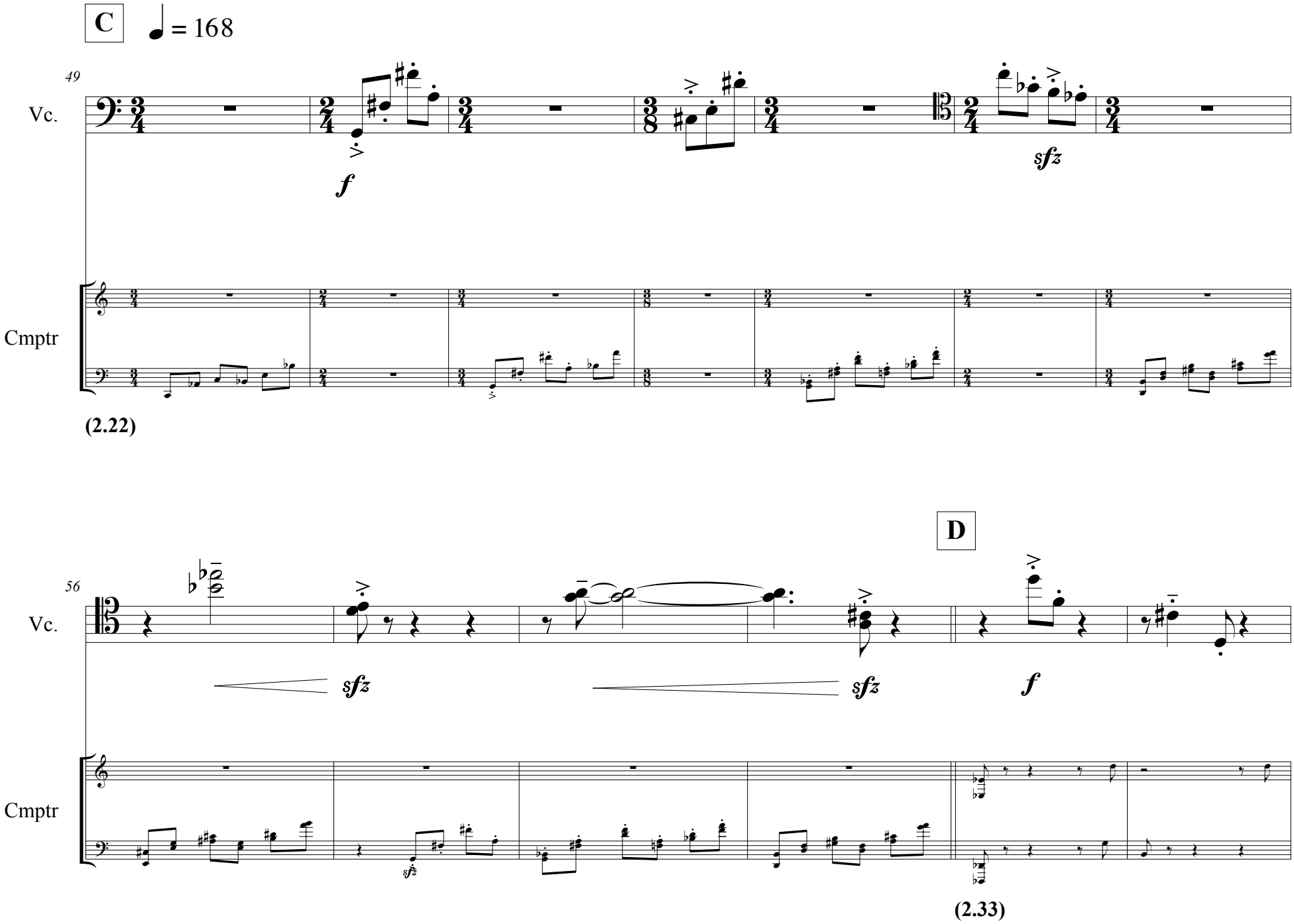
stronger and more energetic alternating with moments of stillness

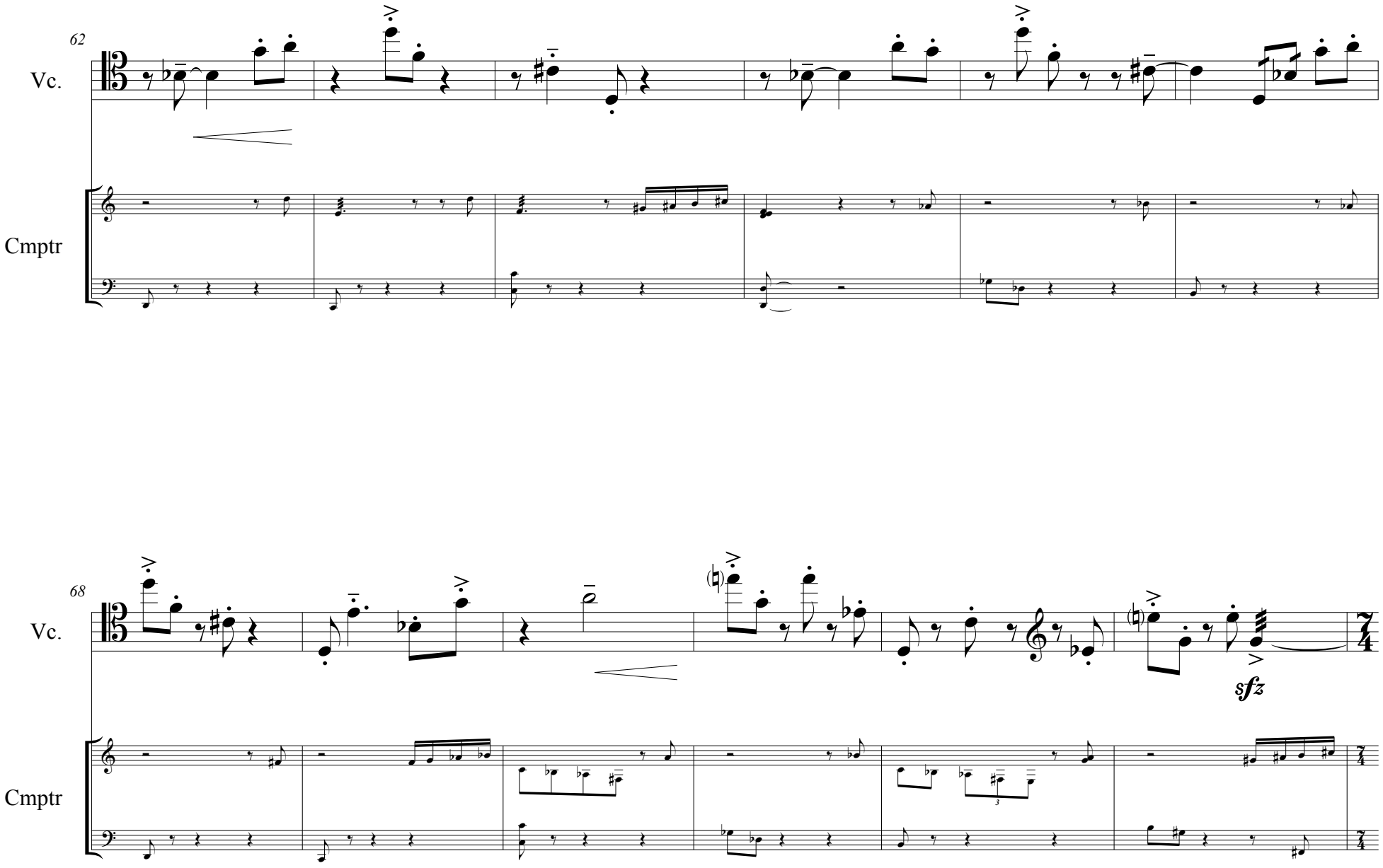


(1.57)



(2.12)


C
♩ = 168
49
Vc.
Cmptr
f
sfz
(2.22)
D
56
Vc.
Cmptr
sfz
sfz
f
(2.33)


62
Vc.
Cmptr
68
Vc.
Cmptr
sfz

E

accel.

74

Vc.

Cmptr

f

(2.51)

79

repeat - irrgularly

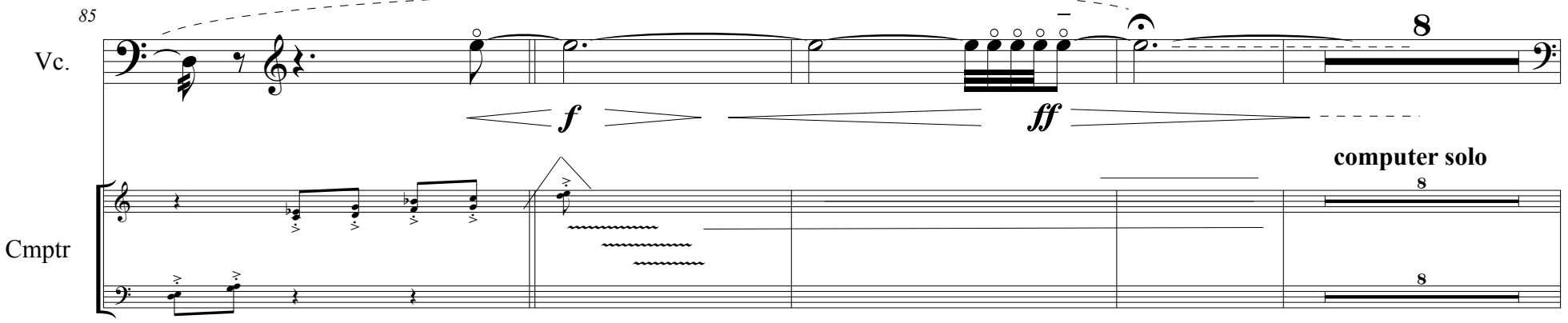
Vc.

Cmptr

sfz

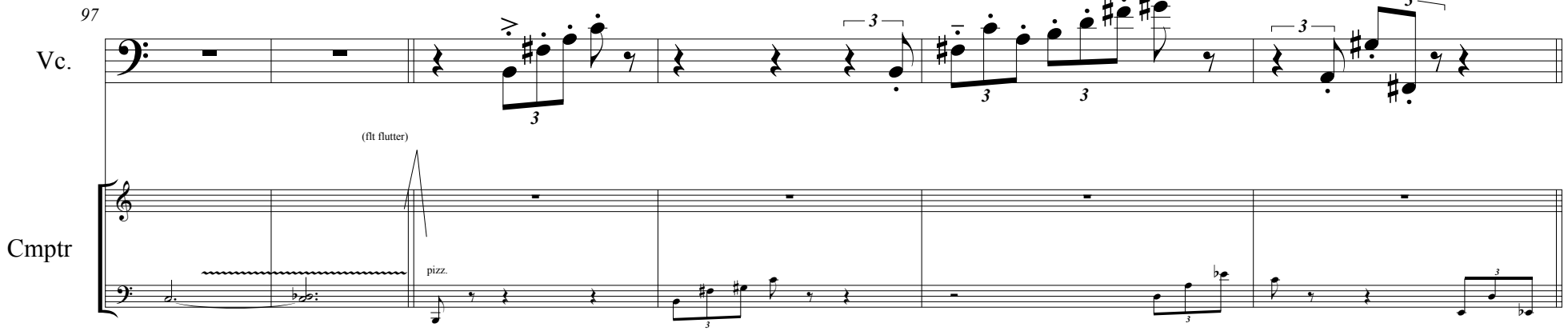
F ♩ = 72

hold note (ad lib) blending with computer sounds...

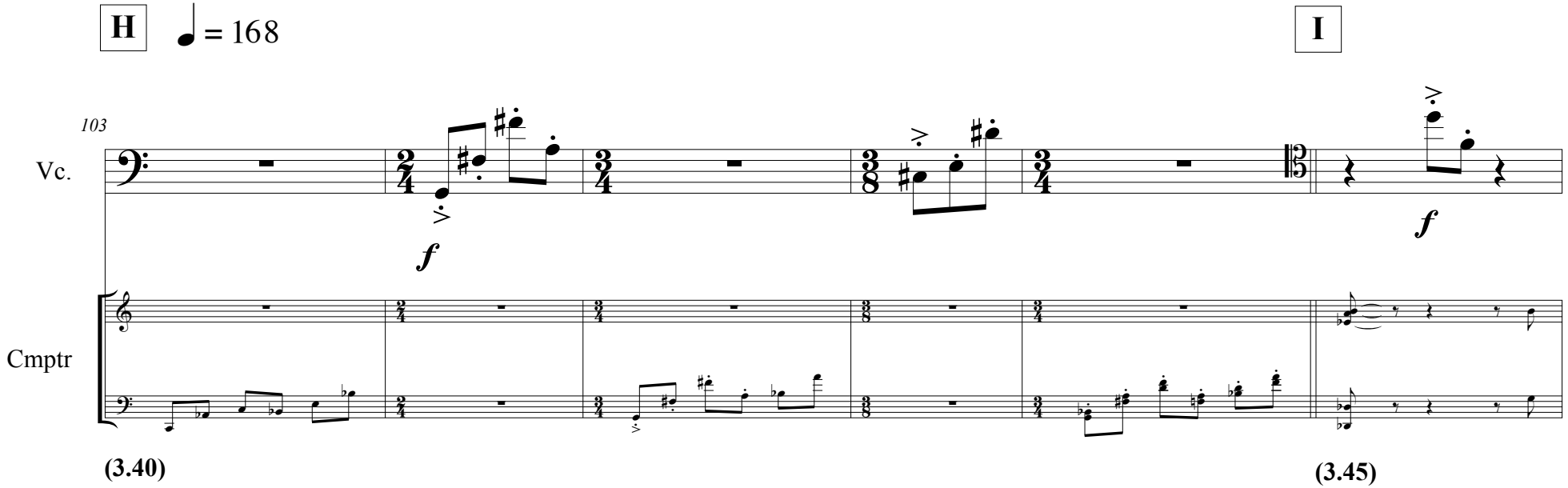


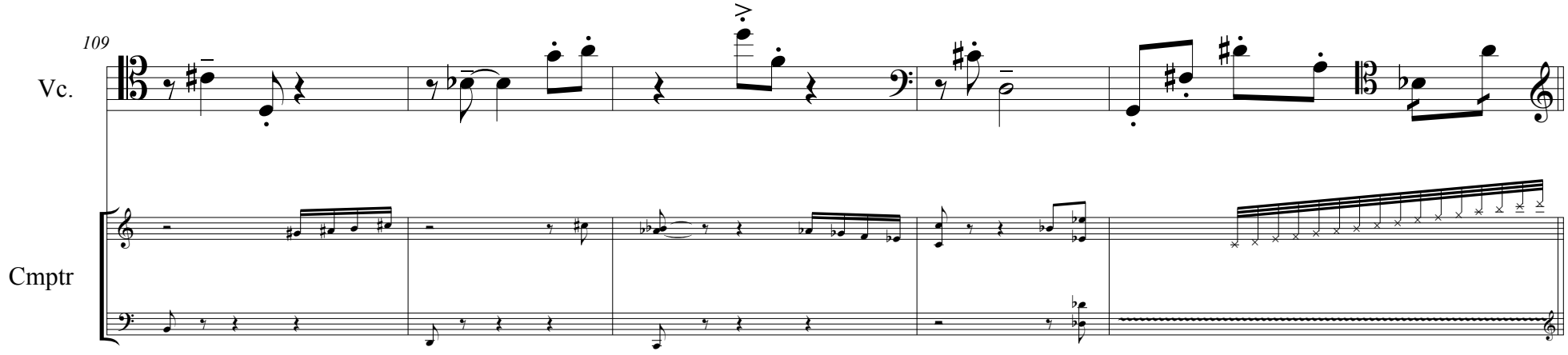
(3.01)

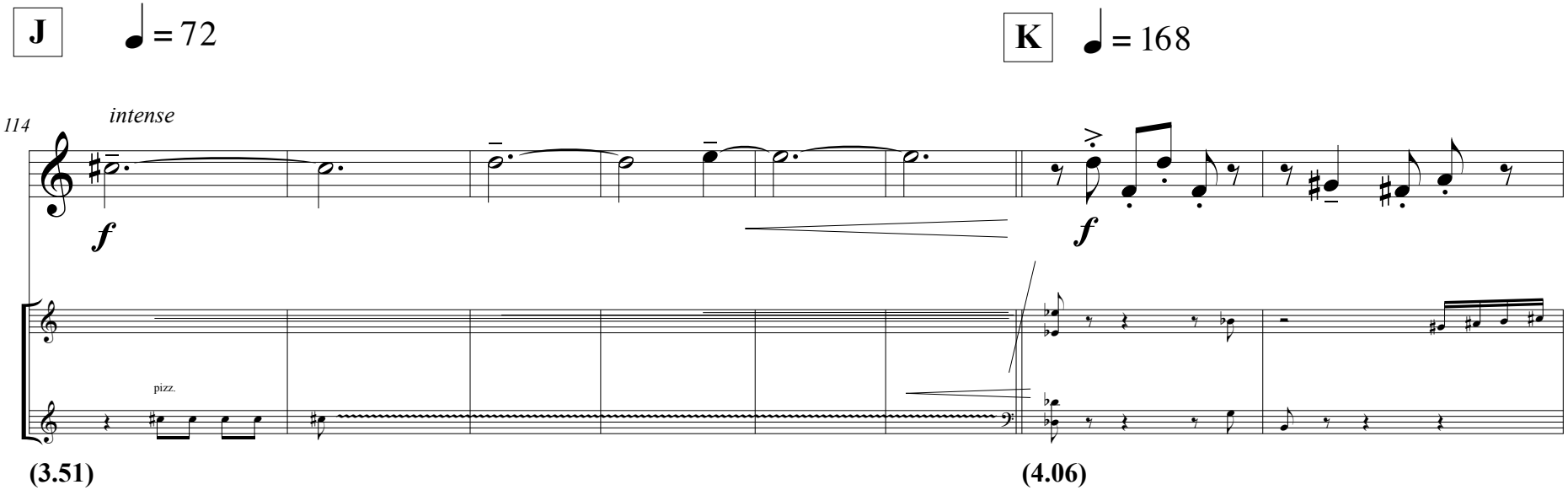
G ♩ = 112

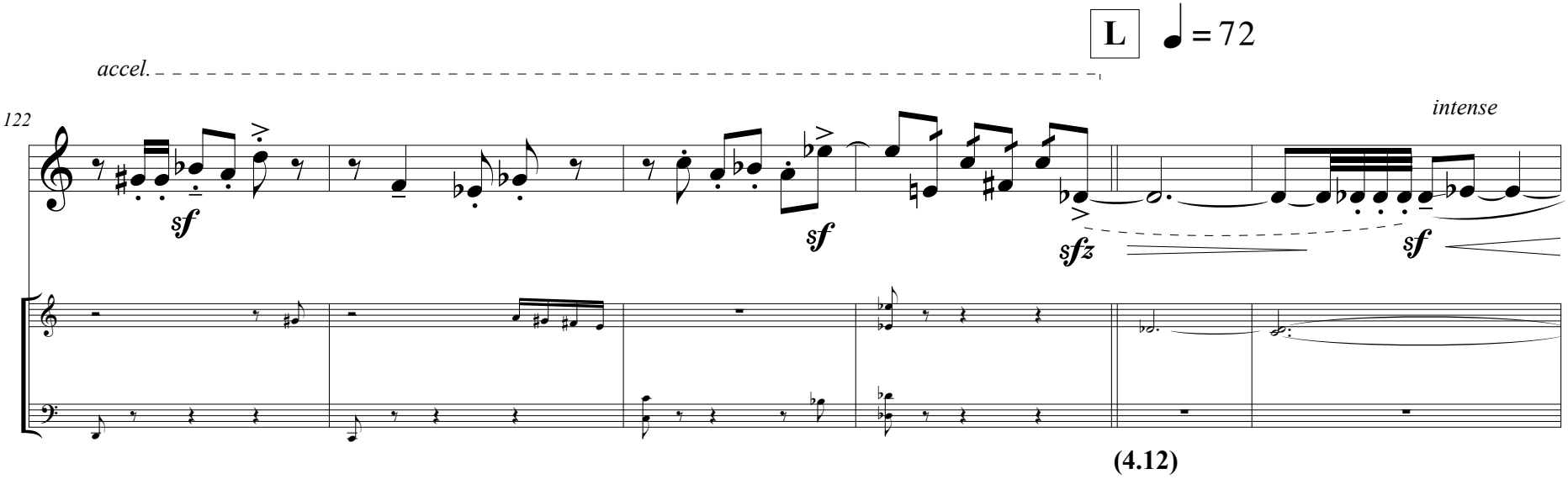


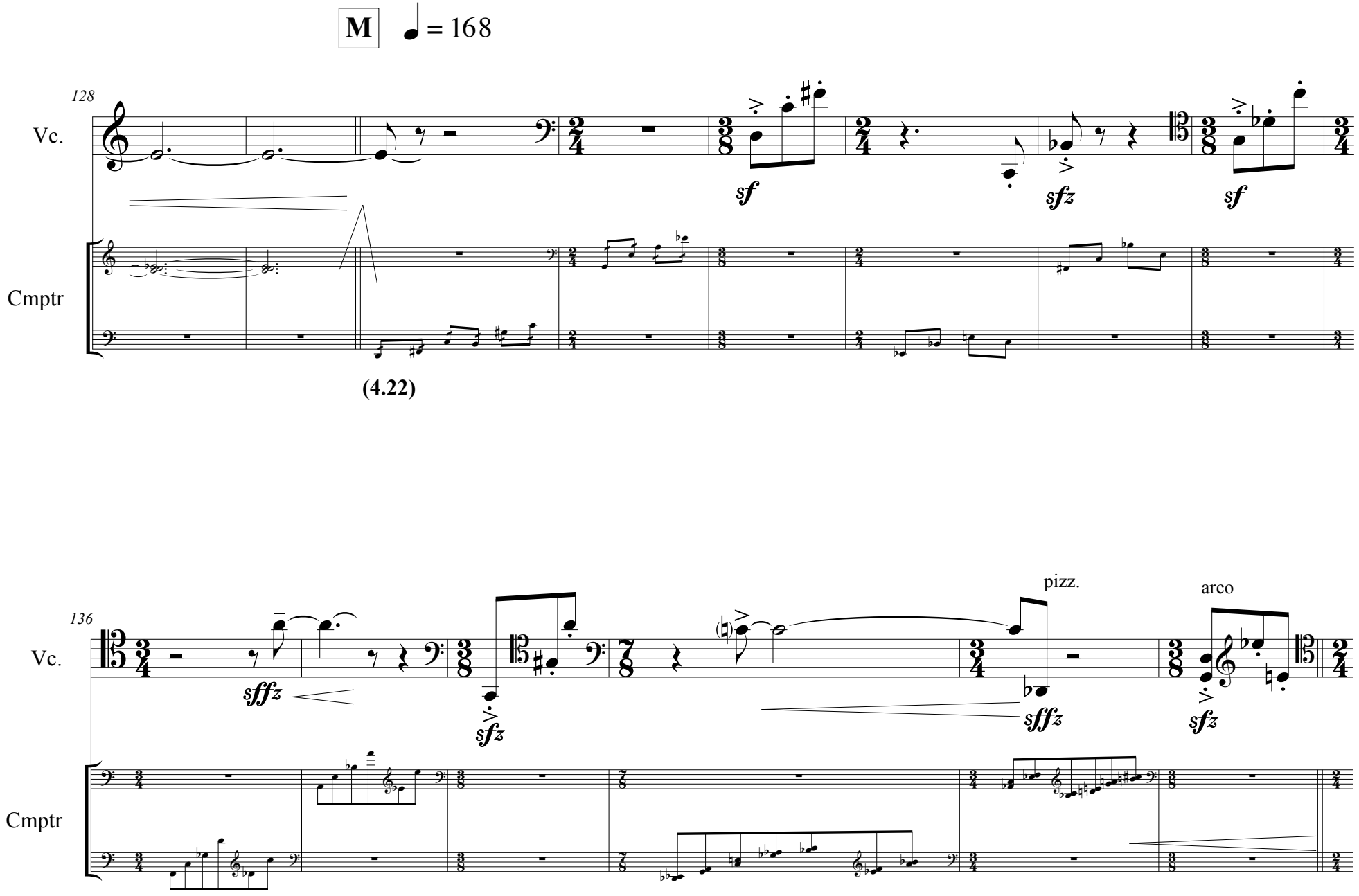
(3.34)


H
= 168
I
103
Vc.
Cmptr
f
f
(3.40)
(3.45)


109
Vc.
Cmptr

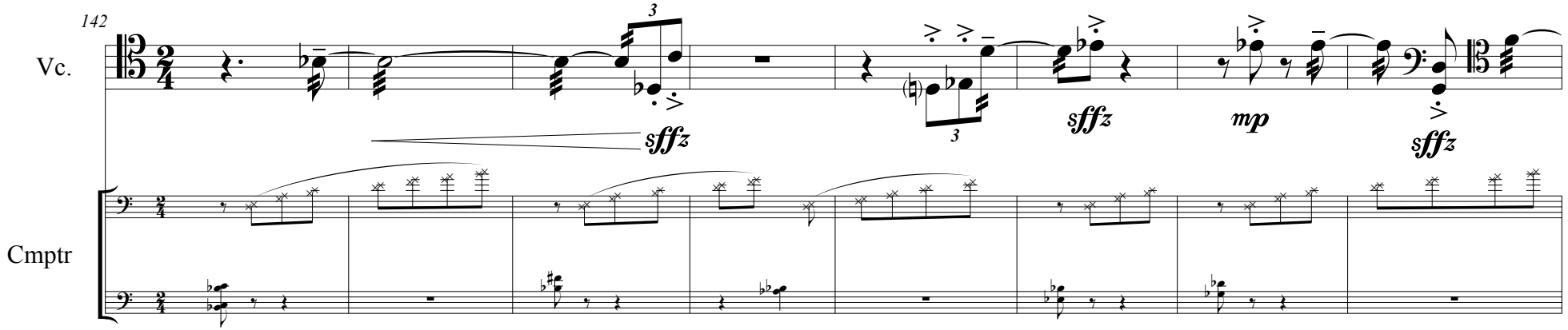

J
= 72
K
= 168
114
intense
Vc.
f
f
Cmptr
pizz.
(3.51)
(4.06)


L
= 72
accel.
122
intense
Vc.
sf
sf
sfz
sf
Cmptr
(4.12)

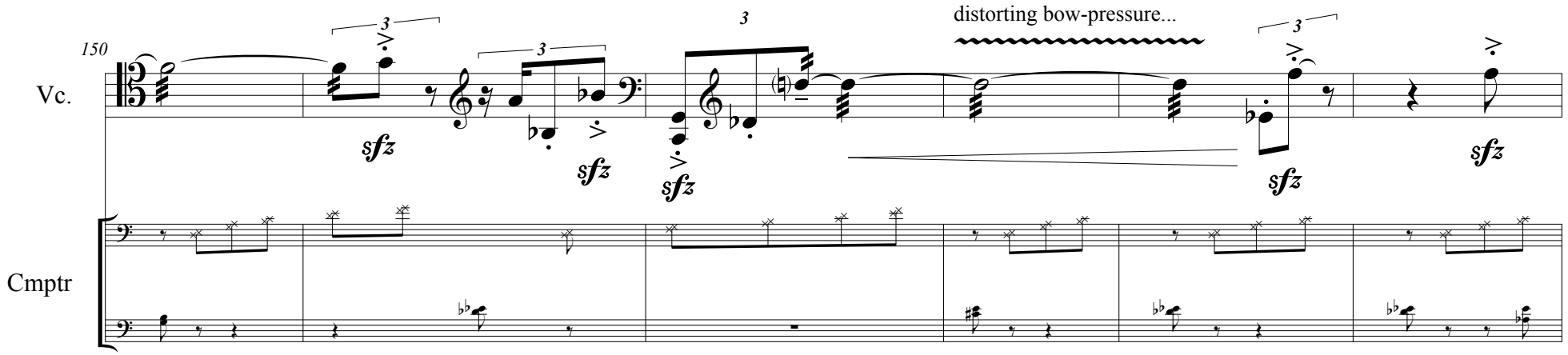

M
♩ = 168
128
Vc.
Cmptr
sf
sfz
sf
(4.22)
136
Vc.
Cmptr
sffz
sfz
sfffz
pizz.
arco
sfz

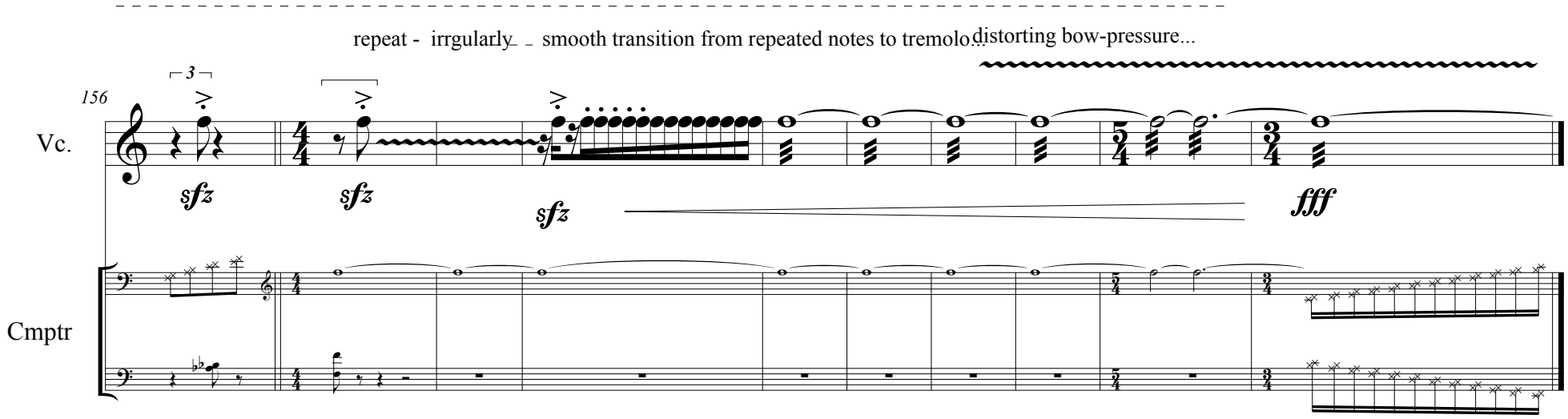
N

accel.


142
Vc.
Cmptr
sffz
sffz
mp
sffz

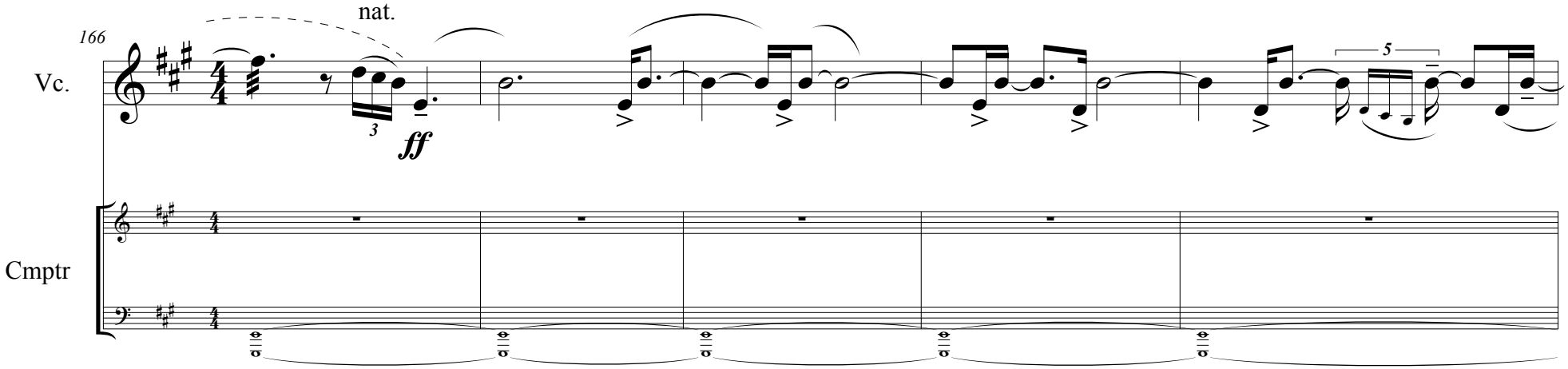
(4.32)


150
Vc.
Cmptr
distorting bow-pressure...
sfz
sfz
sfz
sfz
sfz

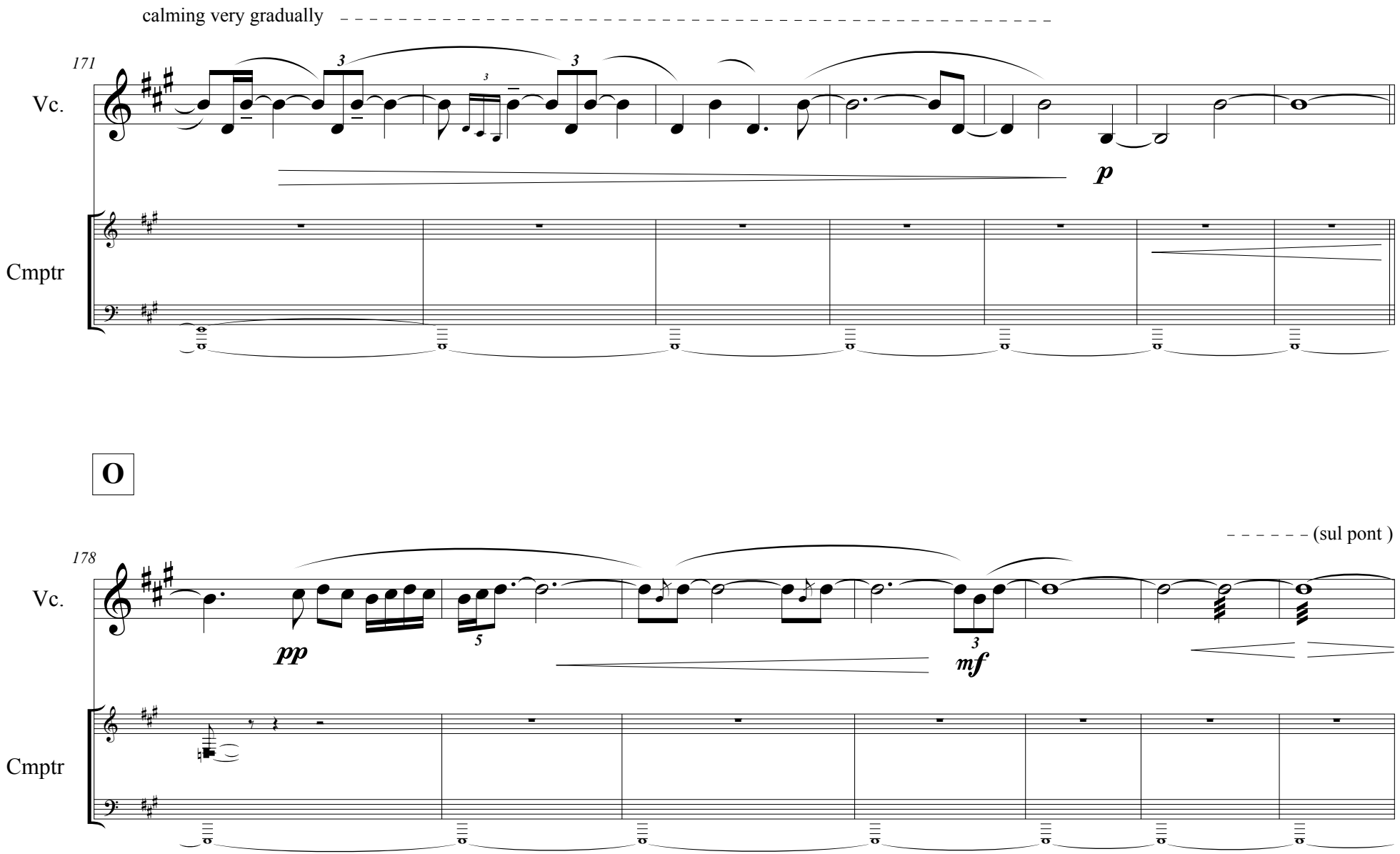


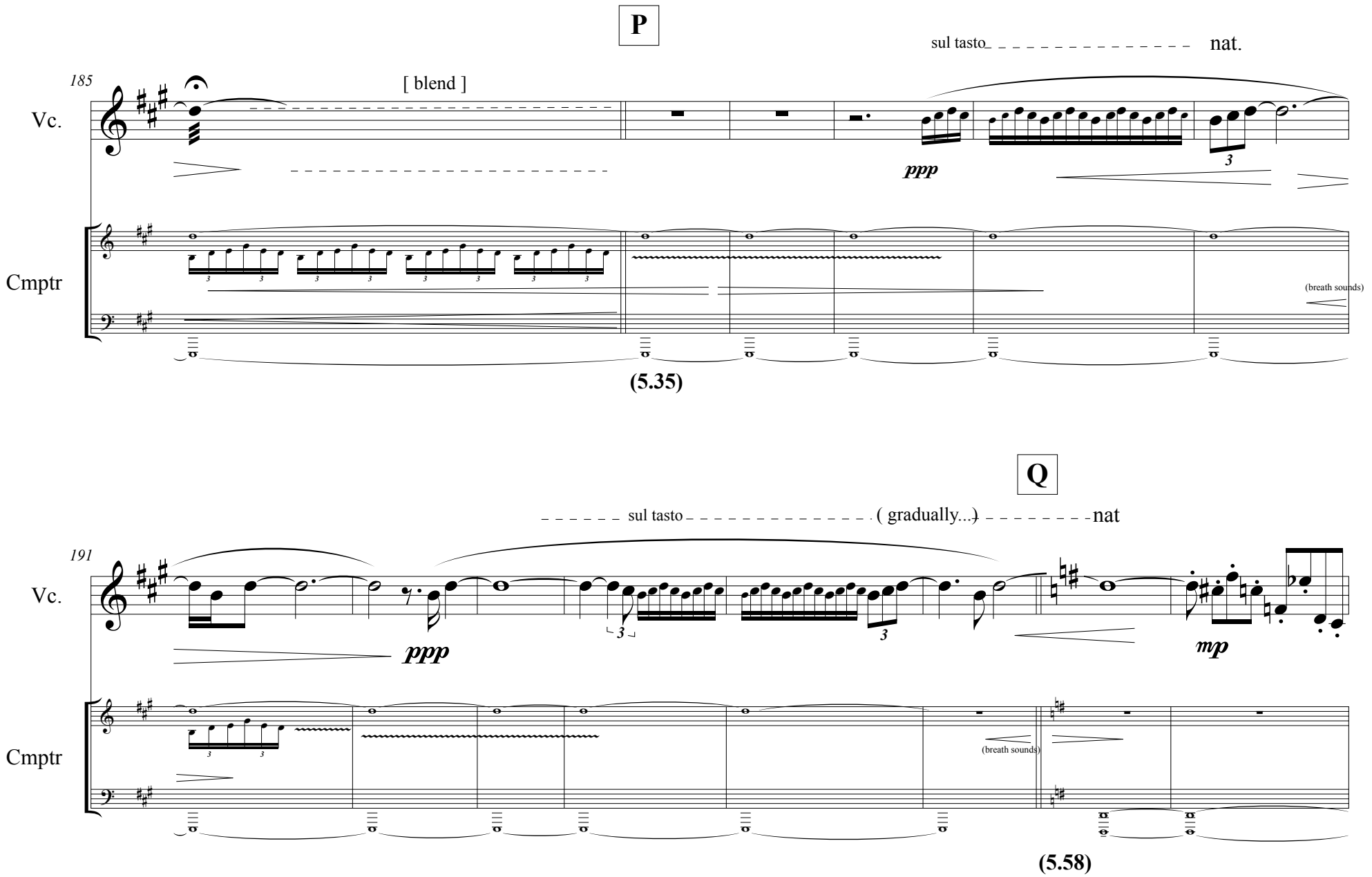
III: ♩ = 112

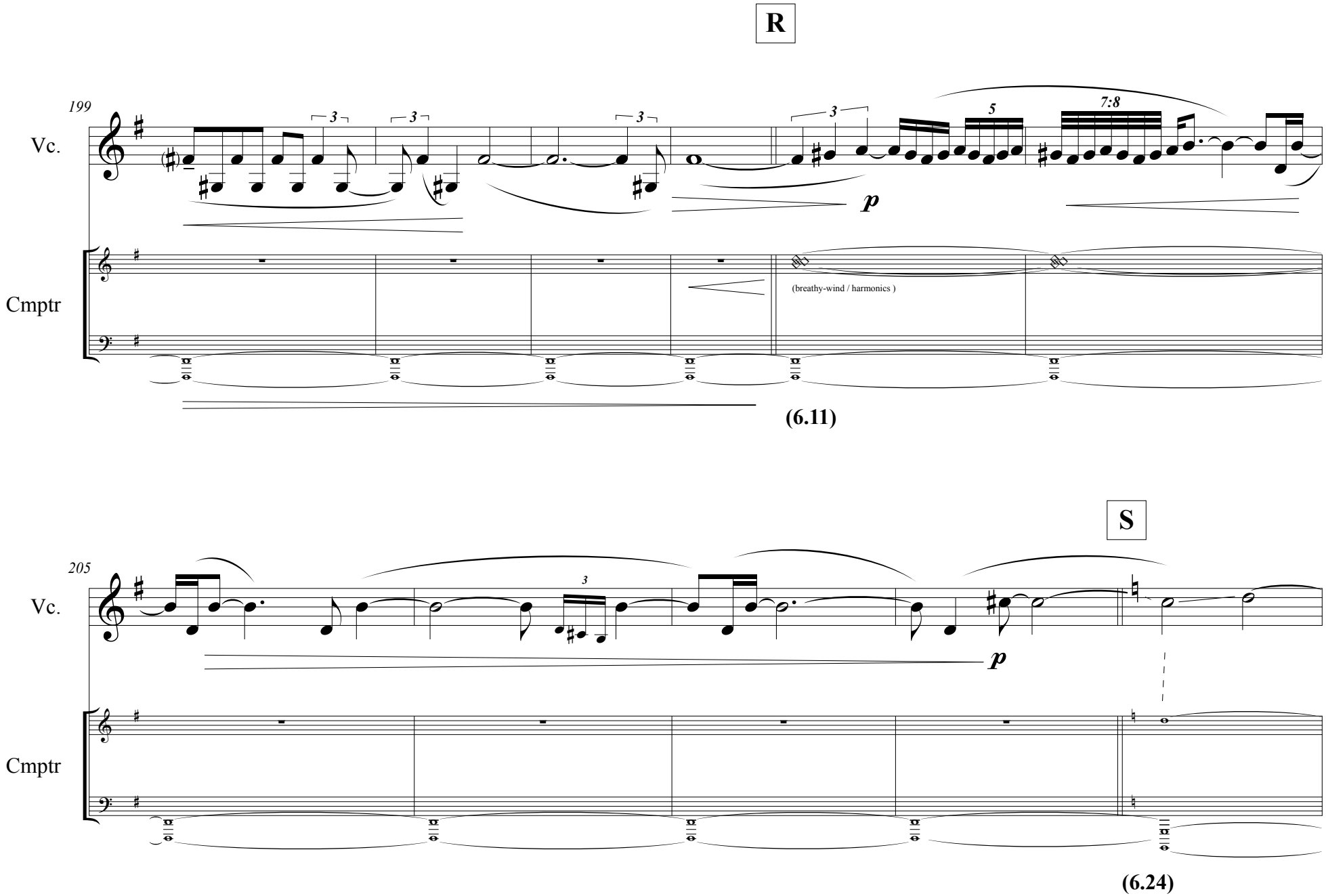
powerful and commanding - gradually calming...

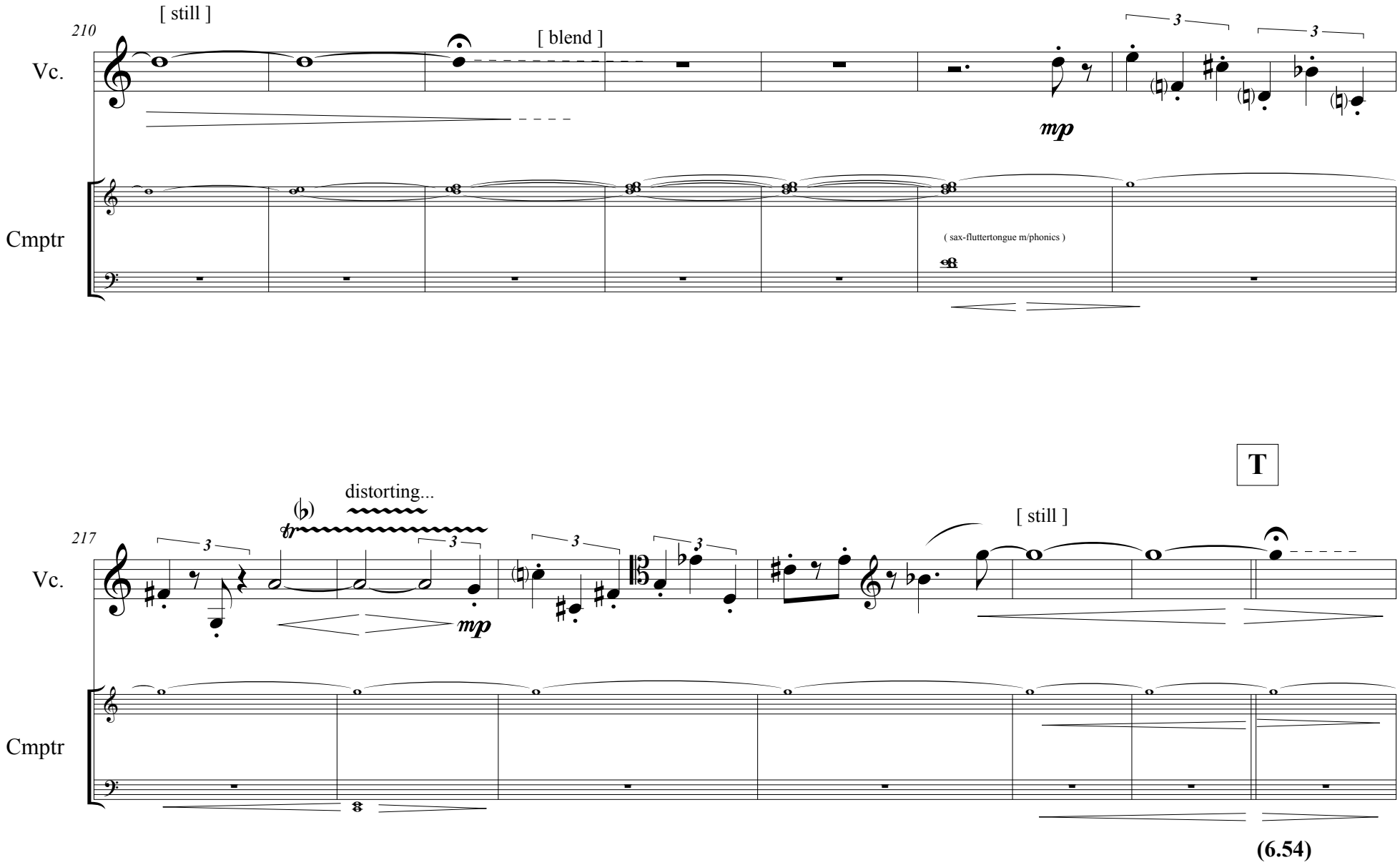


(4.52)

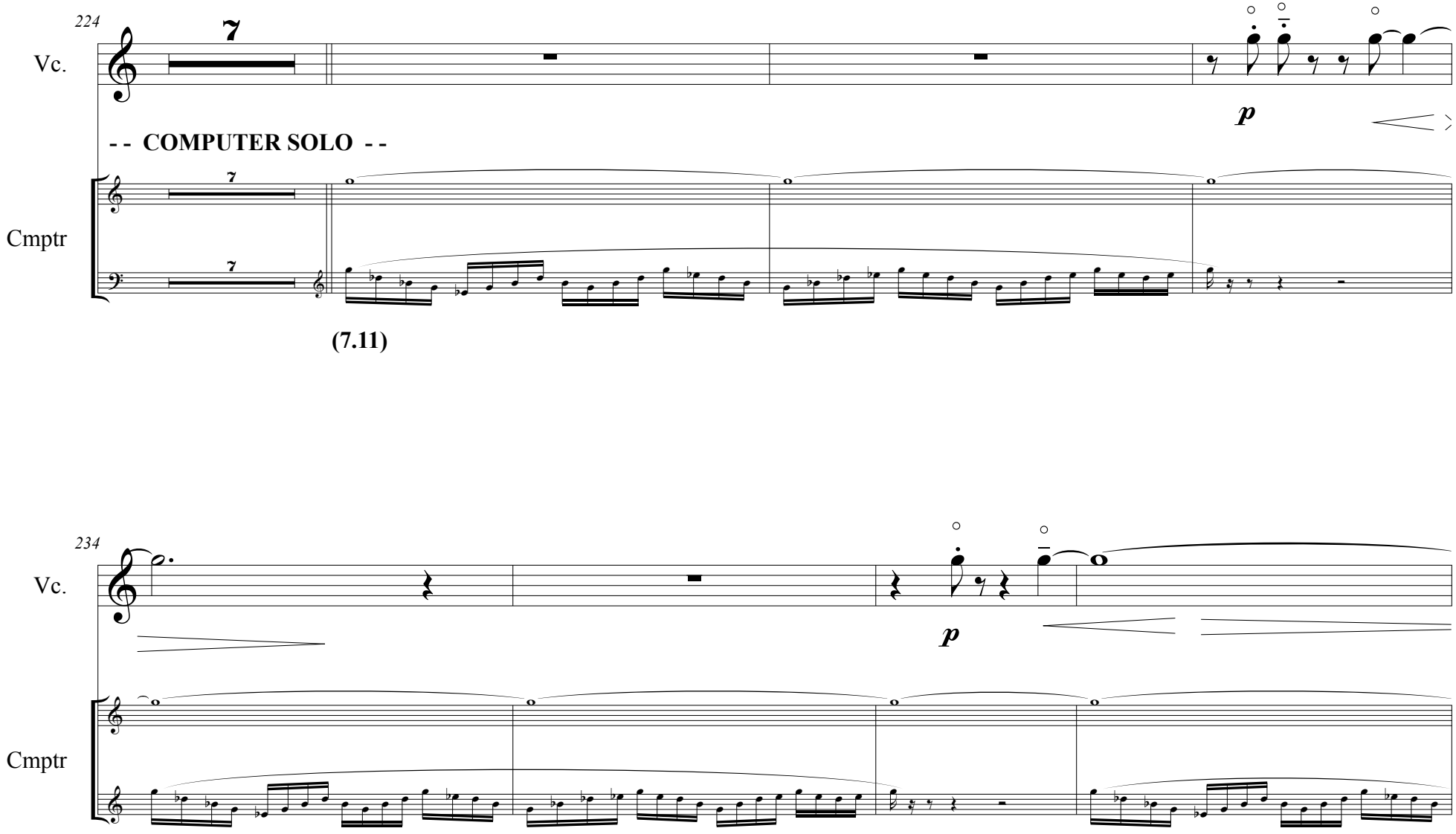

calming very gradually
171
Vc.
Cmptr
p
O
178
Vc.
Cmptr
pp
mf
(sul pont)
(5.18)

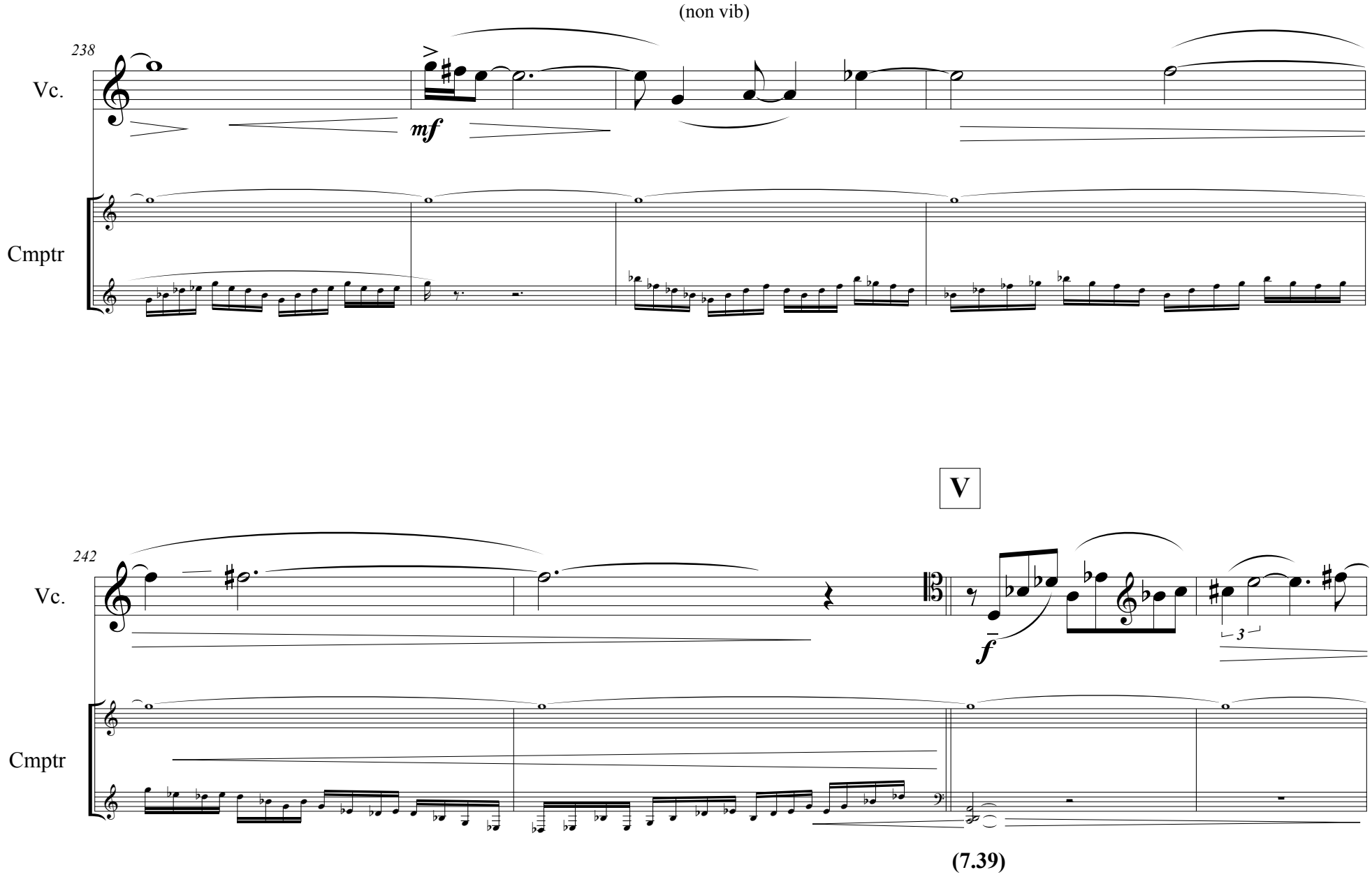

P
sul tasto
nat.
185
[blend]
Vc.
ppp
3
Cmptr
(breath sounds)
(5.35)
Q
sul tasto
(gradually...)
nat
191
Vc.
ppp
3
3
mp
Cmptr
(breath sounds)
(5.58)


R
199
Vc.
Cmptr
3
3
3
3
5
7:8
p
(breathy-wind / harmonics)
(6.11)
S
205
Vc.
Cmptr
3
p
(6.24)

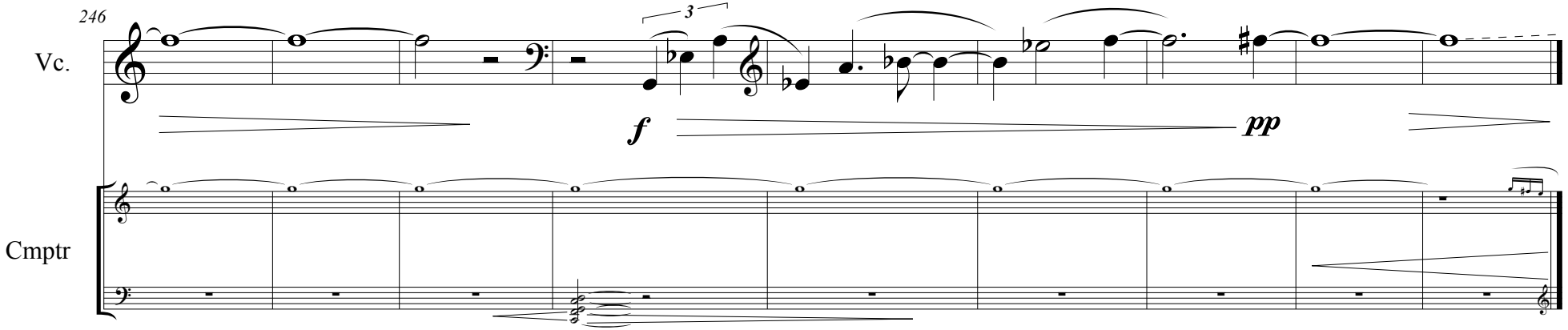

[still]
210
[blend]
Vc.
mp
3
3
Cmptr
(sax-fluttertongue m/phonics)
T
distorting...
217
[still]
Vc.
mp
Cmptr
(6.54)

U





(7.39)

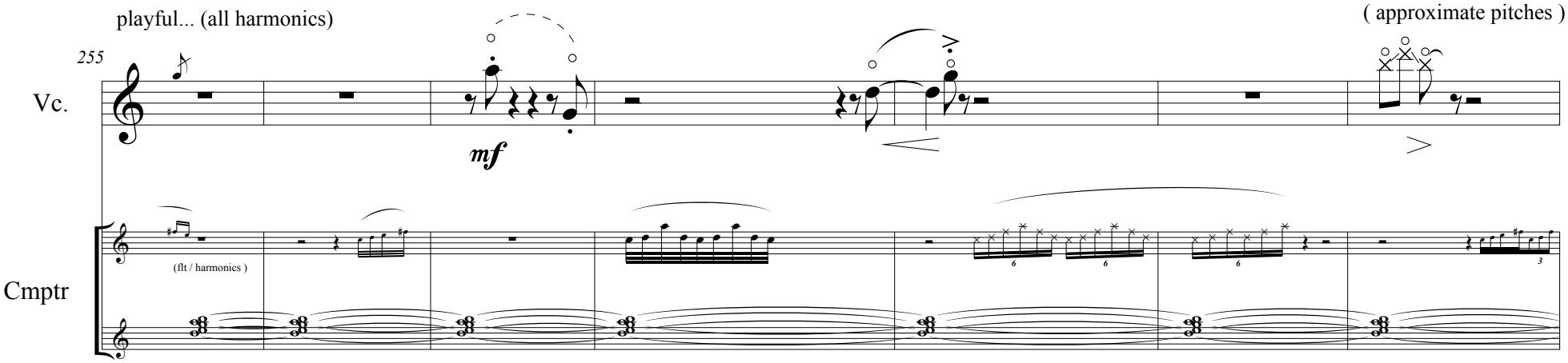


(In section 4, exact pitch and timing are not essential - follow and respond to the surround-sounds)

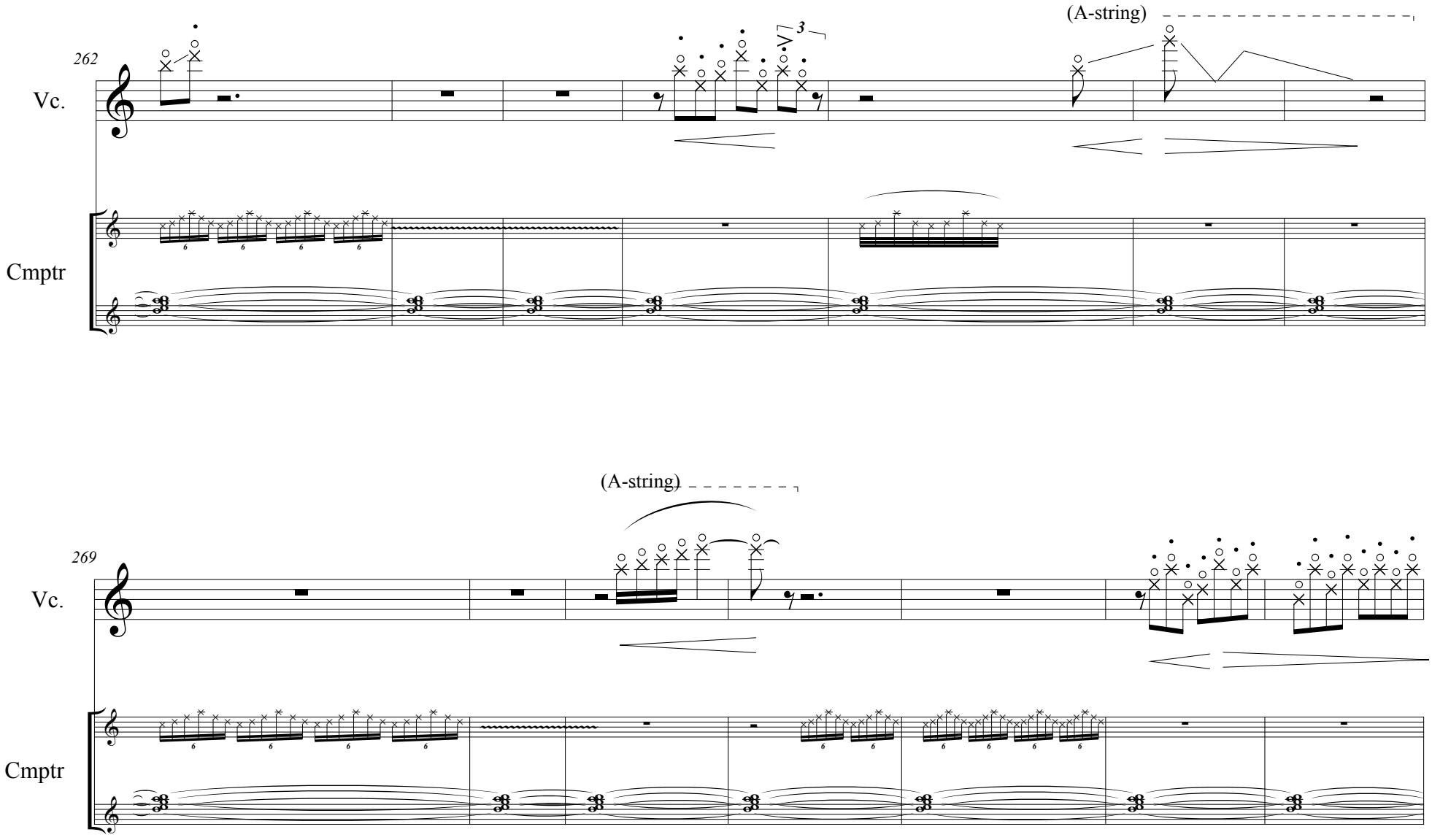
IV: (same tempo)

playful... (all harmonics)

(approximate pitches)



(8.03)


(A-string)
262
Vc.
3
Cmptr
(A-string)
269
Vc.
Cmptr

(A-string)

276

Vc.

Cmptr

W suddenly tense...

(short, hard pizzicato notes - as high as possible - alternating across strings...)

pizz.

280

Vc.

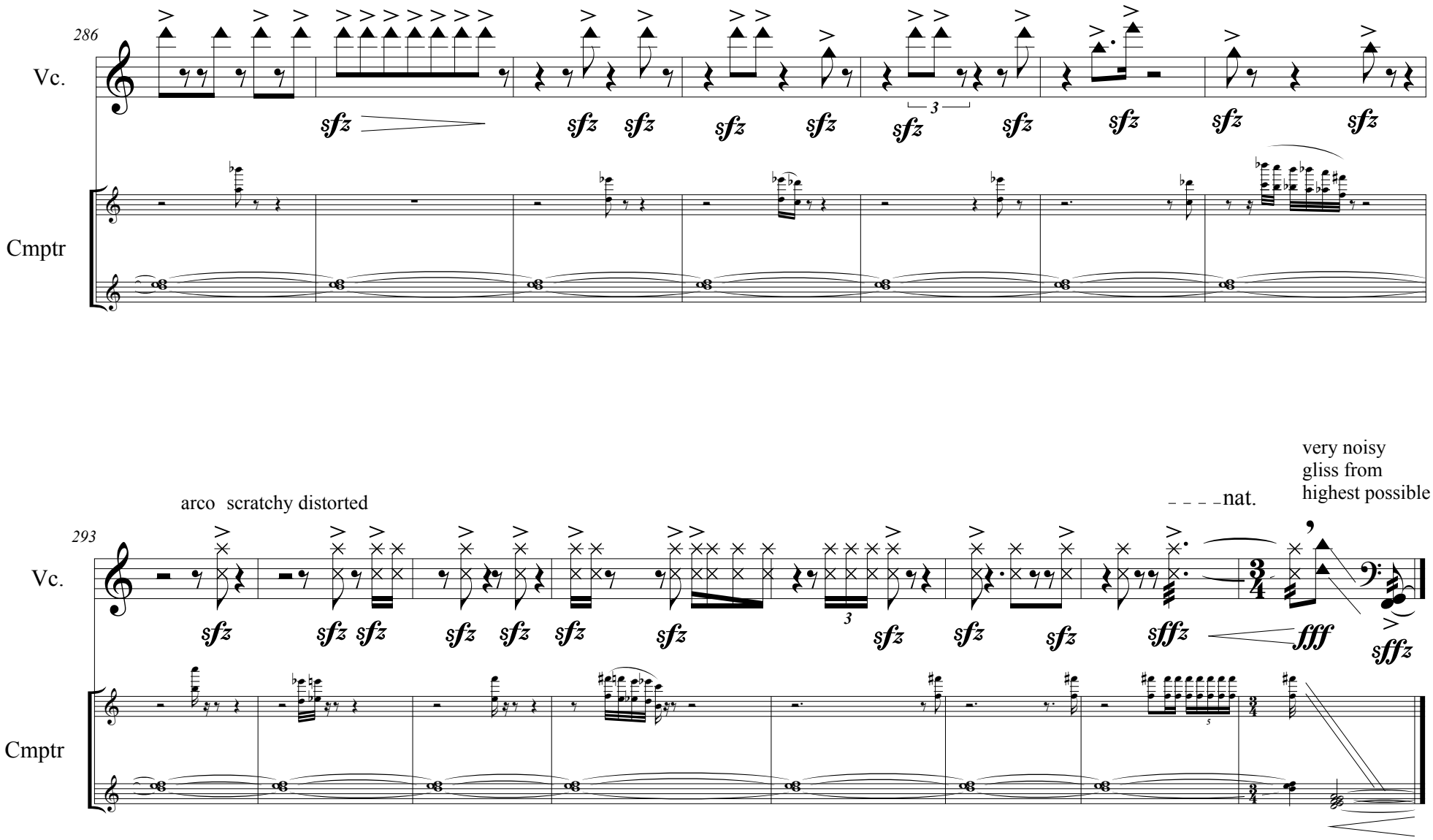
sfz *sfz*

3

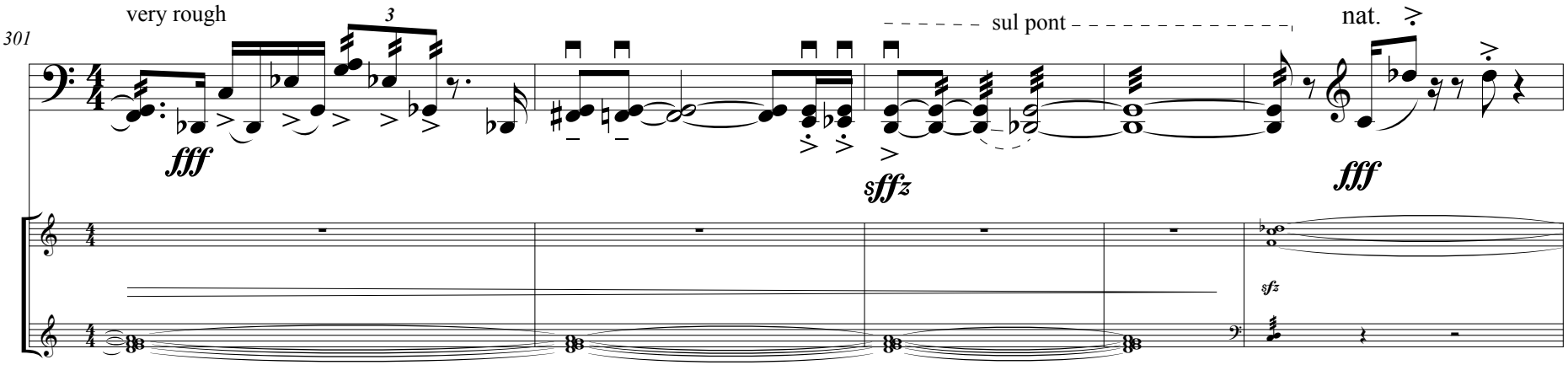
(very hard taut pizzicato)

Cmptr

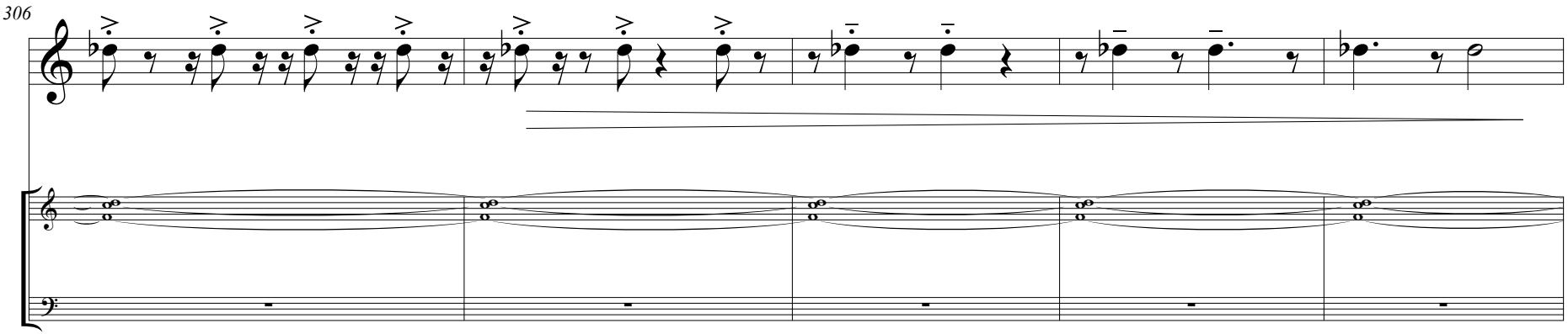
(8.56)


286
Vc.
Cmptr
sfz
3
arco scratchy distorted
293
Vc.
Cmptr
sfz
3
sffz
fff
nat.
very noisy
gliss from
highest possible

V: ♩ = 72

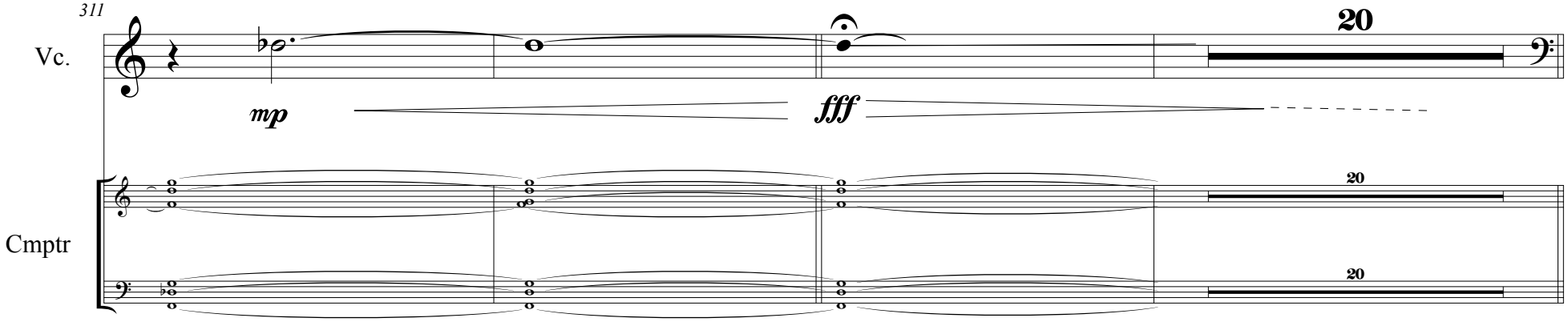

very rough
3
301
sul pont
nat.
Vc.
fff
sffz
fff
Cmptr
sfz

(9.40)


306
Vc.
Cmptr

X **-- COMPUTER SOLO --**

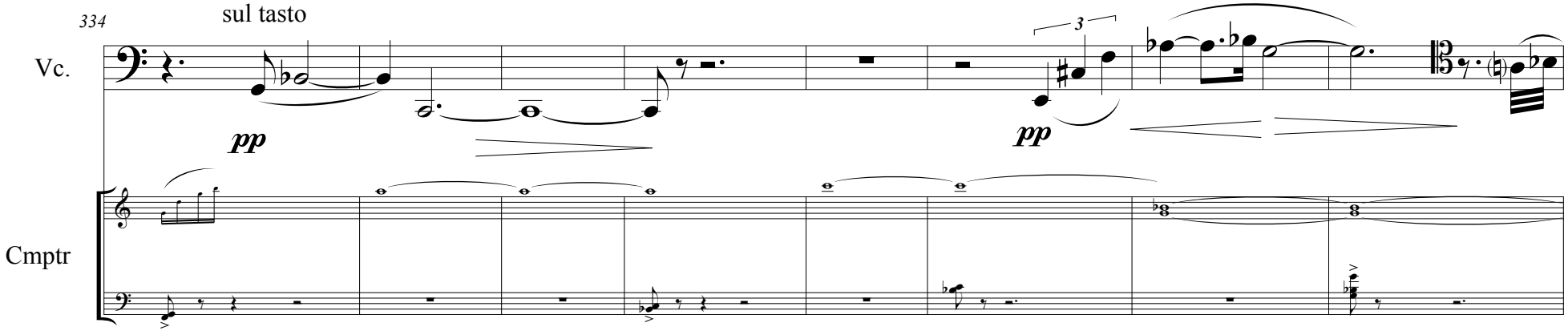
very long hold - gradually blending into computer



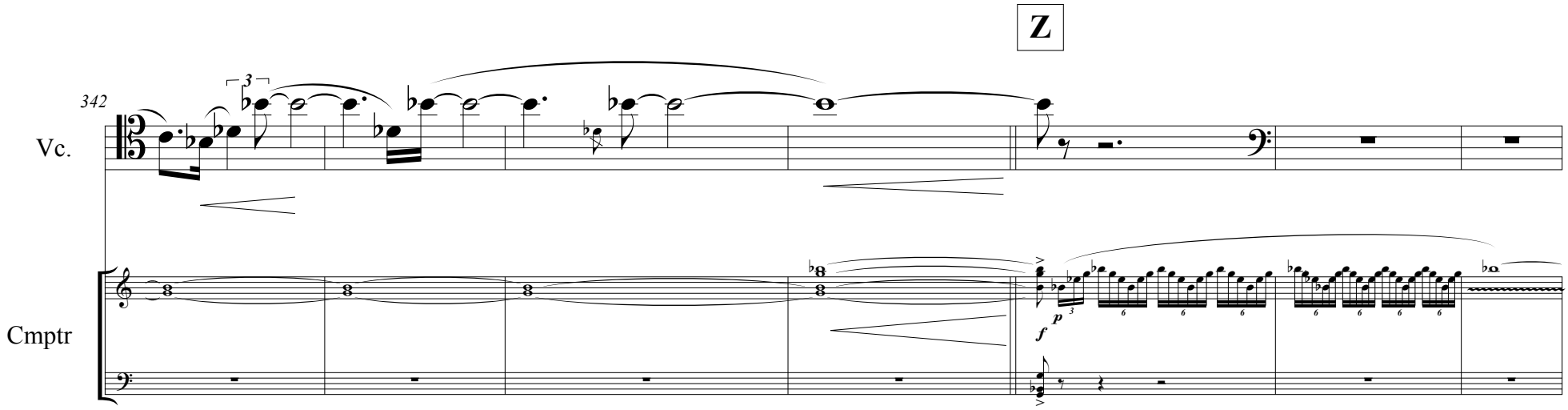
(10.21)

Y

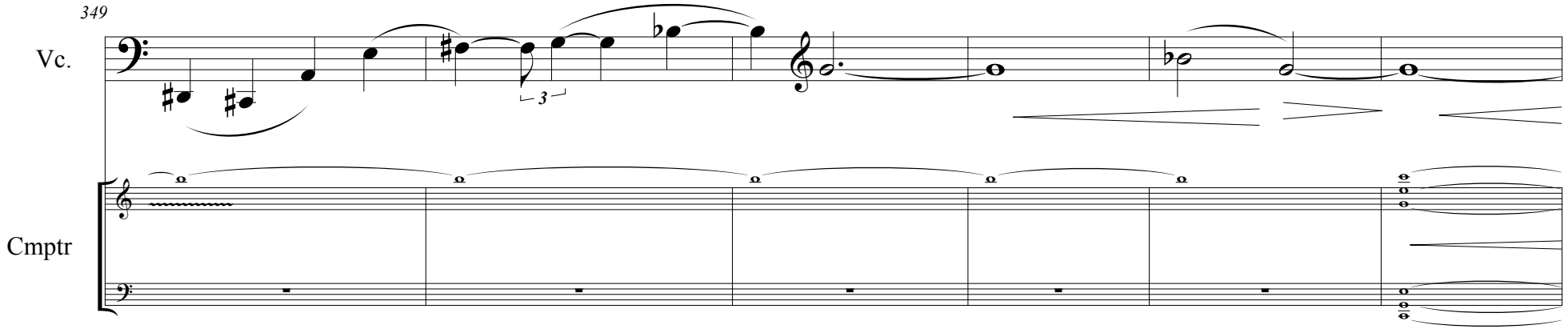
Con sord.

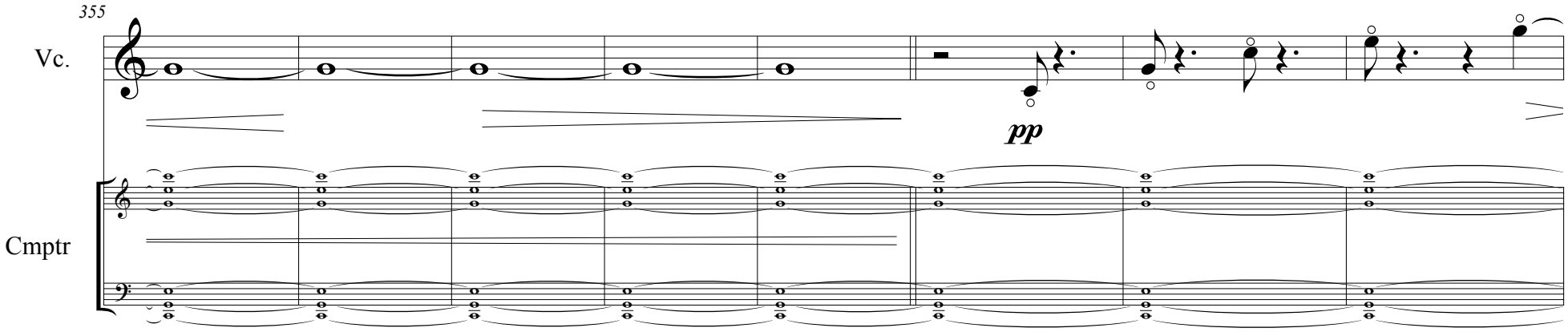


(11.30)

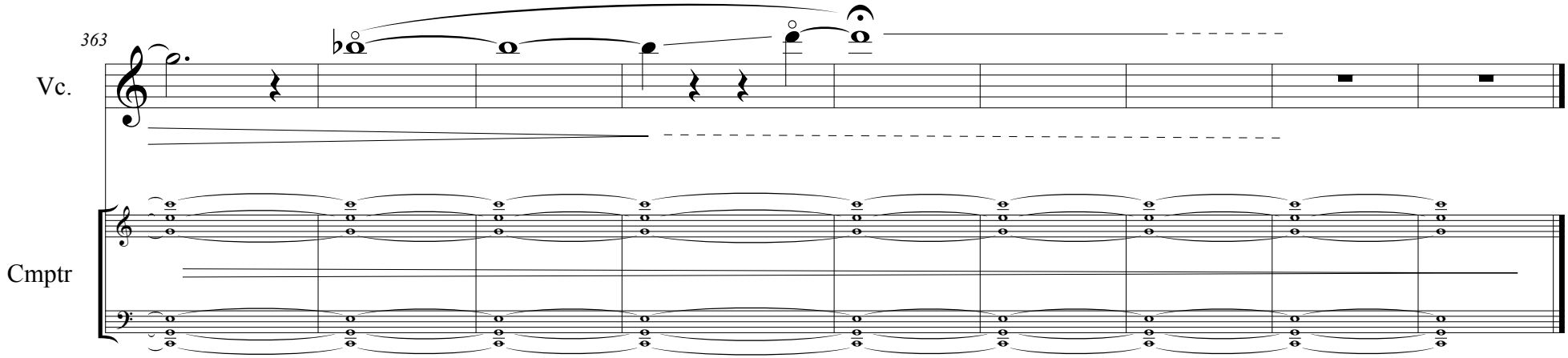


(12.11)





(12.57)



(13.34)

Palo Alto, 26 Apr 2013 - revised Princeton, January 7th, 2016

Appendix 1: Computer audio material.

The audio material is recorded at 48kH, 24 bit with C=440

The "unmixed" version consists of 12 channels:
1&2 - main stereo channels (space filling - some slight left and right information)
3&4 - high stereo channels (one or two speakers high above the audience and performer)

5- 12 - eight individual mono channels - in four pairs, intended to be spaced as follows:

speakers 1 and 2 front left and right (narrow)
speakers 3 and 4 - front left and right (wide)
speakers 5 and 6 - middle left and right (wide)
speakers 7 and 8 rear left and right (wide)

In an ideal situation, there are 8 speakers around the audience with two high above. Channels 1&2 are sent to all eight lower speakers with stereo separation (odd=left, even=right)
The eight individual channels are sent to the eight individual speakers.
Channels 3&4 are sent to the high stereo (or mono) speaker.

Depending on the space and configuration, the output channels will have to be balanced in rehearsal.

There is a pre-mixed version for 7.1 surround-sound configuration.

Appendix 2: rehearsal CD

The rehearsal CD is for practice. It contains a slightly compressed stereo version of the piece (44.1/16).