(((RSG)))

for amplified string quartet + effects pedals & stereo audio file

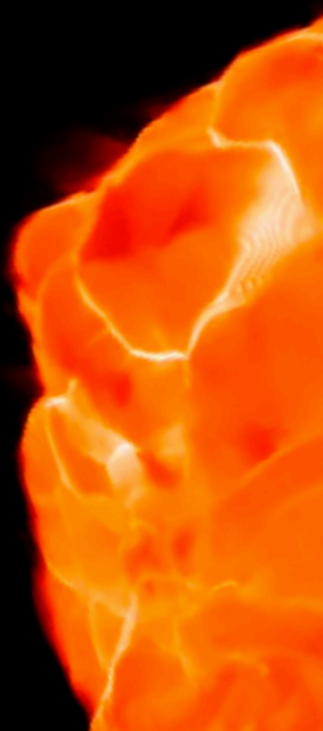
2022/23

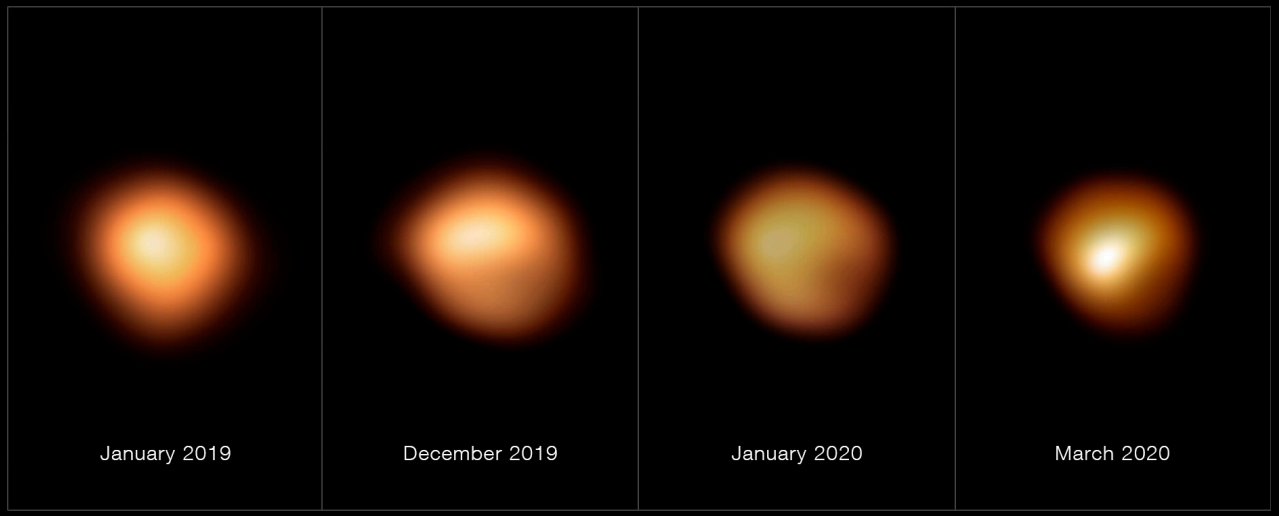
raphaël languillat

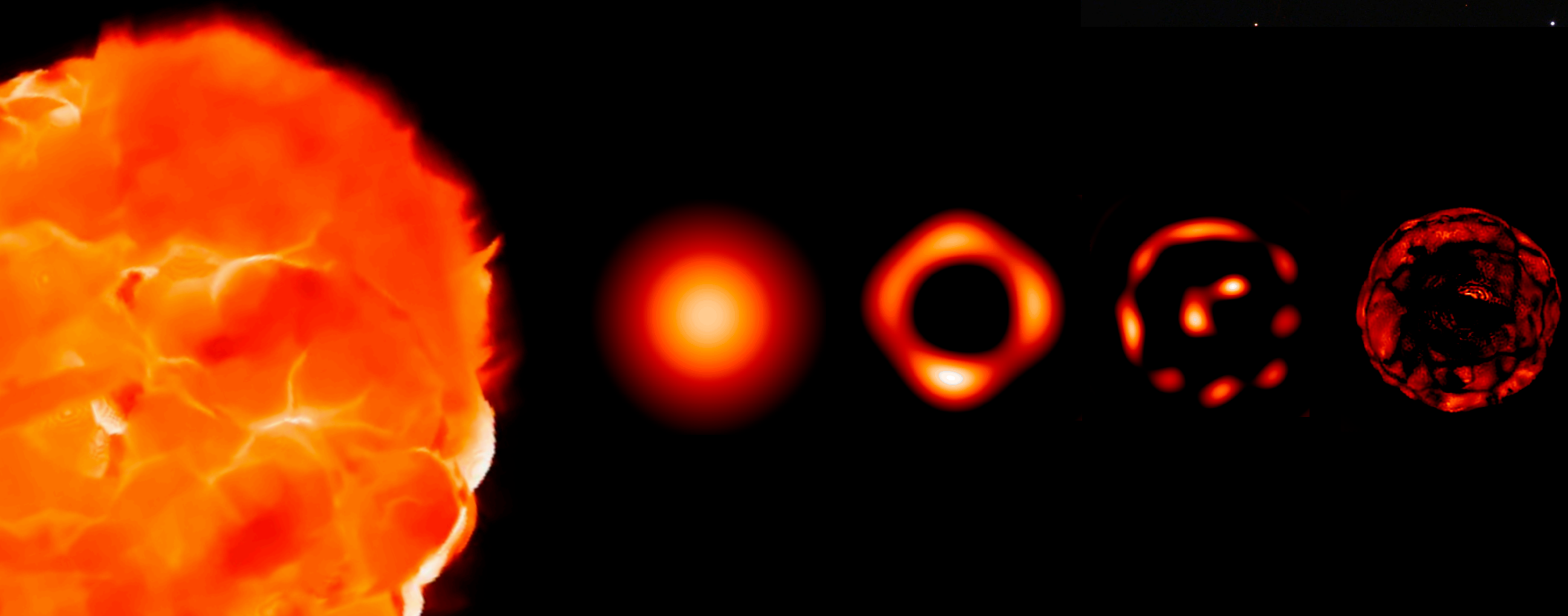
Sound is « *an alternation in pressure, particle displacement or particle velocity propagated in an elastic material.* » (Charles Olson 1957)

(((RSG))) — abbreviation for 'Red SuperGiant star' - is a 38-minute sound sculpture formed from the potential of amplification and electronics — transposing some characteristics of Red Supergiants into material, processes, form and so, music.

A red supergiant (RSG) is a very large pulsating star at the end of its life - its surface structure changes dramatically over time: an unstable masse varying constantly, drawing gradually more into its orbit, while radiating waves of energy back outwards and finally collapsing under its own gravity — vibrating long after its desintegration.




January 2019
December 2019
January 2020
March 2020



technical requirements

Stage Setup
- 4 Music stands for the digital score
- 4 Bluetooth pedals
- 4 Chairs

Amplification
- 4 DPA microphones

Sound Setup
- analog Mixer w/ 4 AUX (i.e. Mackie 802 VLZ4)
- 4 Full-range loudspeakers for the instruments
- 2.1 Loudspeakers *at least* for the stereo audio file
- Computer
- Audio Interface
- Midi controller to control live & manually the Sound diffusion of the stereo audio file

Effects Pedals
- AUX 1 > Boss RV-6
- AUX 2 > Red Panda Particle v2
- AUX 3 > EHX Pitchfork +
- AUX 4 > EHX Ring Thing

Contact
- please contact me for the stereo audio file at rlanguillat@gmail@com

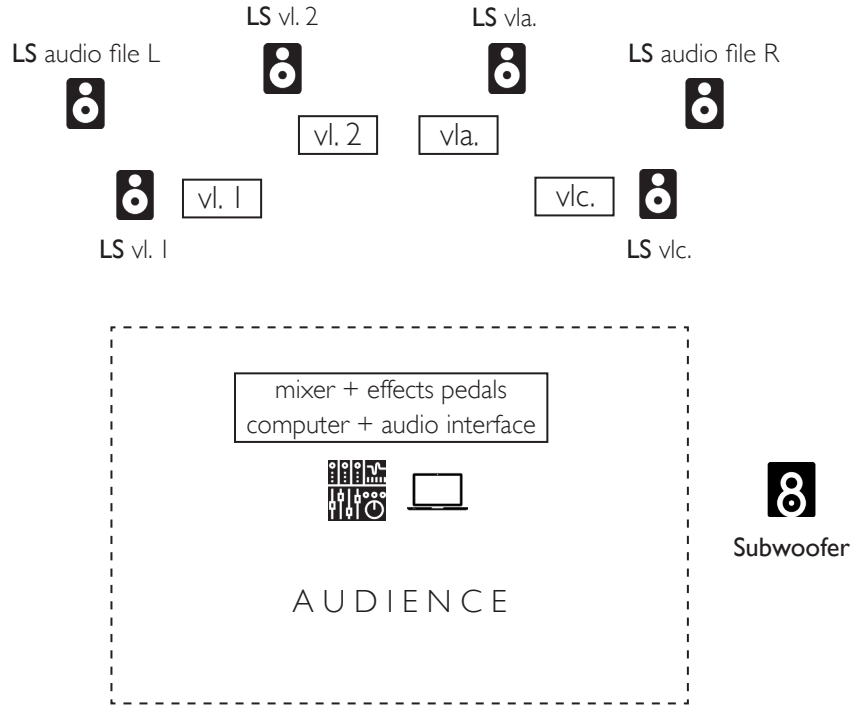
notes for performance

Accidentals apply for the whole measure

Sound diffusion the stereo audio file should be played at least with a 2.1 sound system and at best with an *acousmonium* (ensemble of loudspeakers) to provide an immersive experience to the audience

Vibrato play without vibrato and let resonate, unless otherwise indicated

stage directions



symbols

 1/4 tone flat and sharp

 3/4 tone flat and sharp

 Ligatura

 Glissando

 Continuous transition between two states

 Ad libitum alternation between two states

techniques

Scordatura

Viola — on IV - tune the C to a D (+2 semitones = one major second higher)

Clefs

 Area located between the bridge (upper line) and the end of the fngerboard (lower line)

 Area located between the end (upper line) and the beginning of the fngerboard (lower line)

Others

a.s.t.	Very high on the fingerboard
m.s.t.	High on the fingerboard
s.t.	At the beginning of the fingerboard
n.	Normal playing position
s.p.	Near the bridge
m.s.p.	Very close to the bridge (rich in high harmonics)
s.p.	On the bridge (white noise)

 Bow pressure: extremely light, normal, more than medium, quasi-écrasé

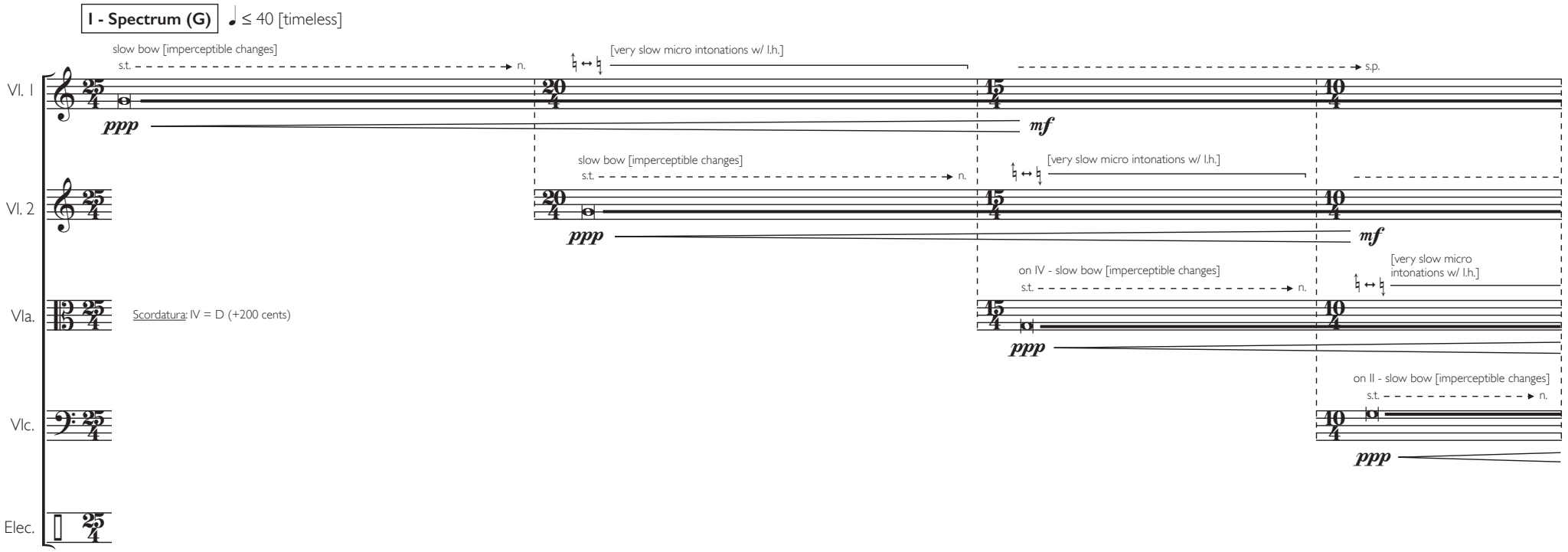
 Natural harmonic pressure on the indicated string

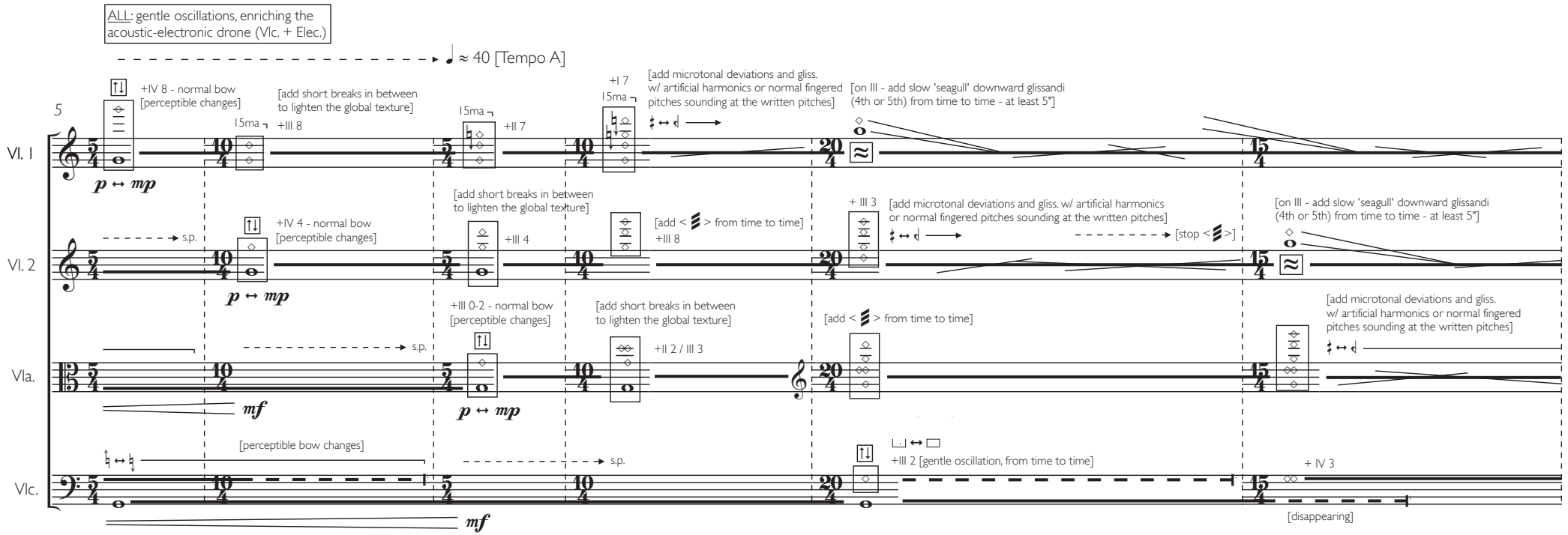
SCORE in C

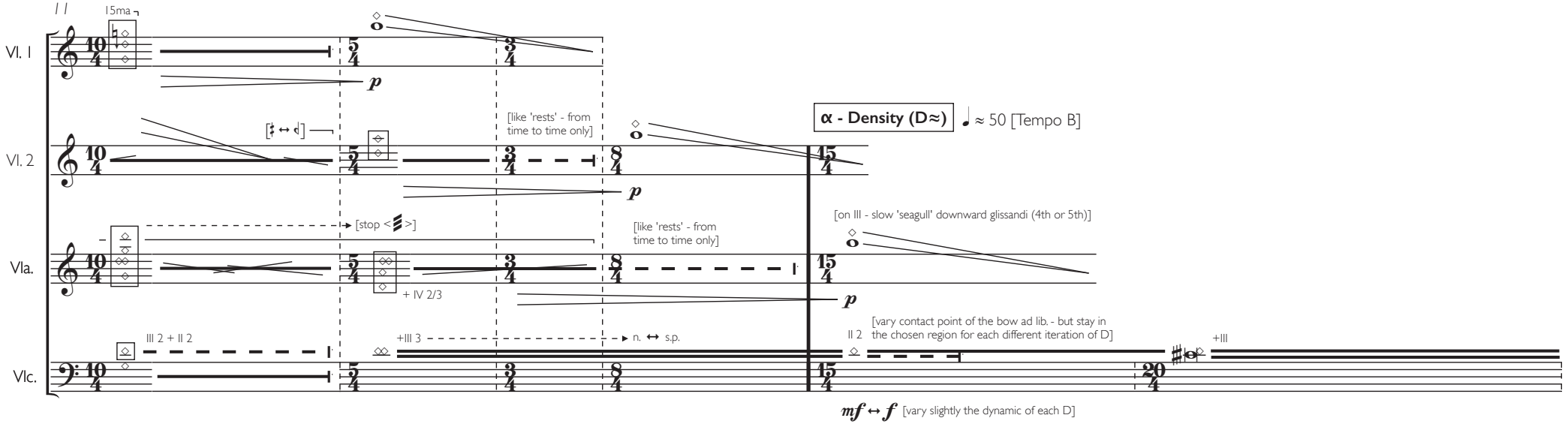
(((RSG)))

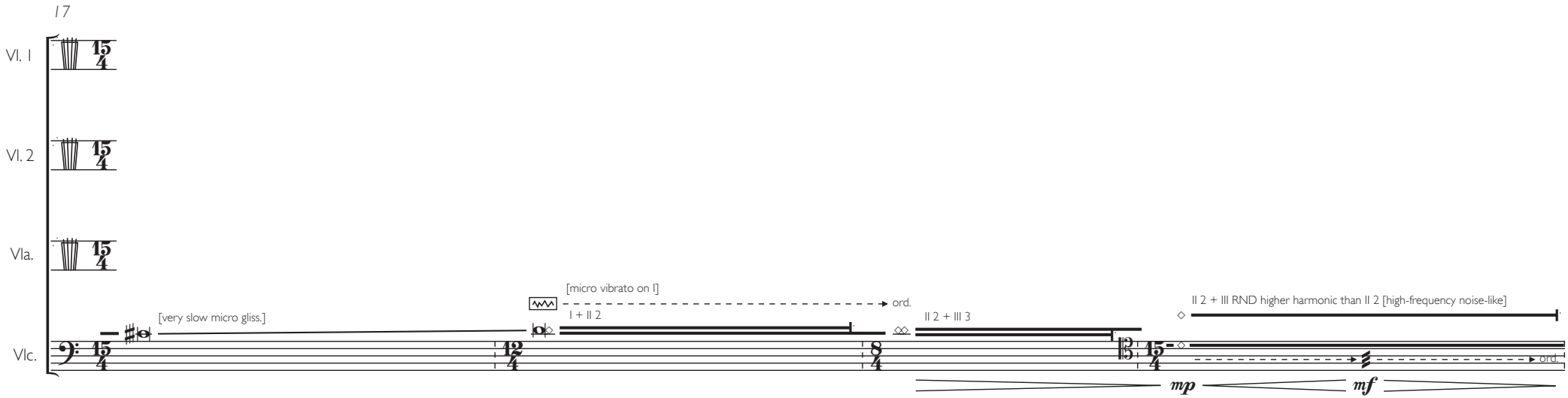
for the GROW Quartet

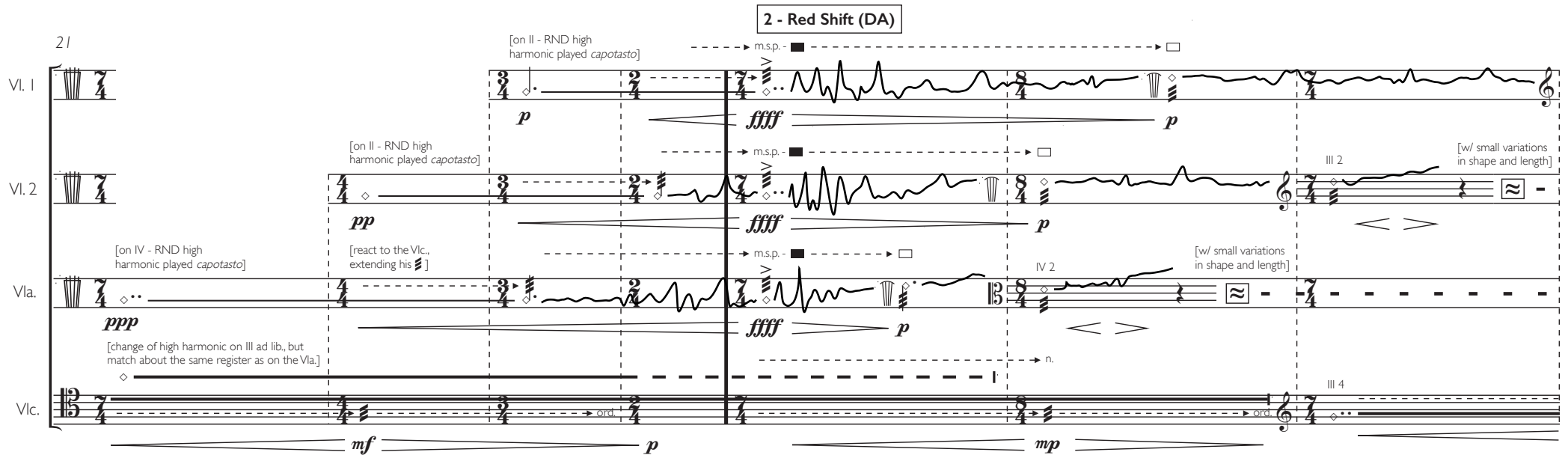
raphaël languillat
(2022)

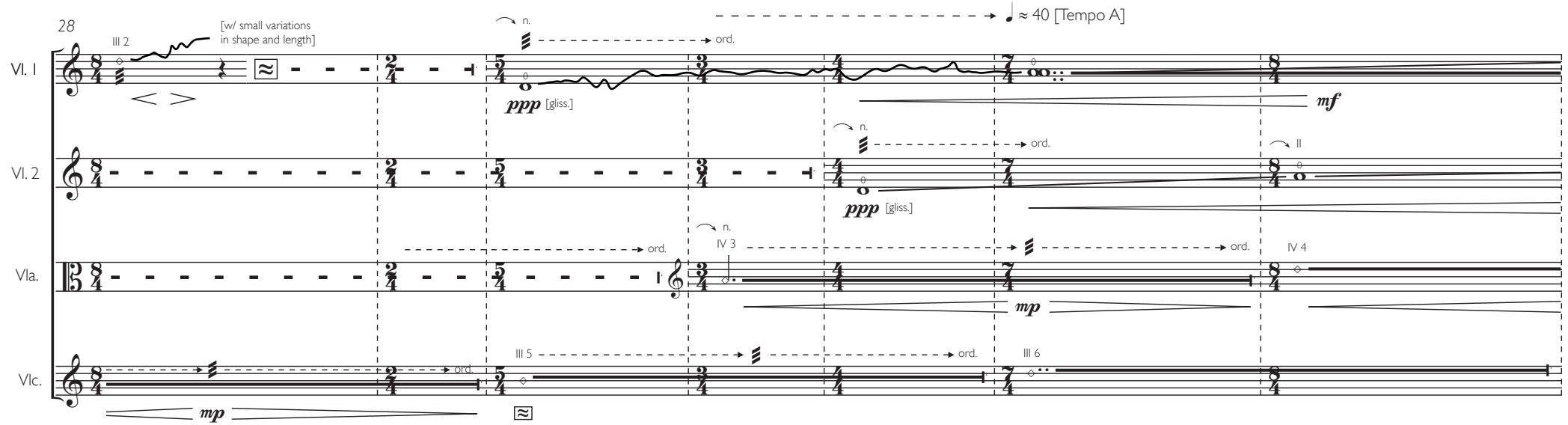


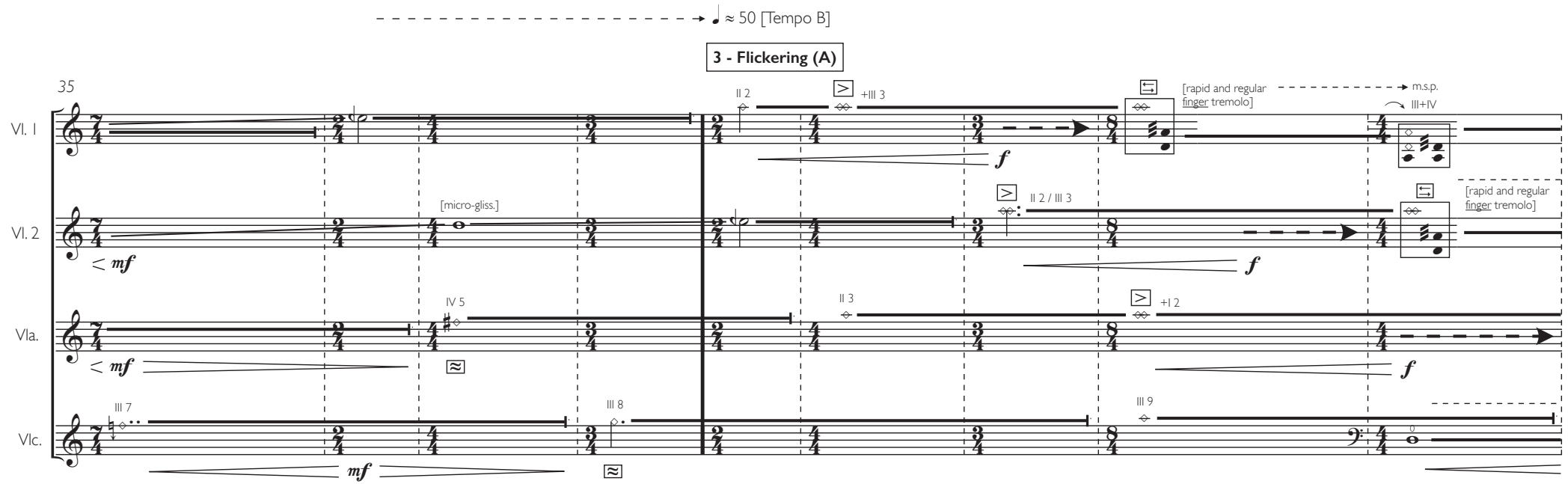

ALL: gentle oscillations, enriching the acoustic-electronic drone (Vlc. + Elec.)
≈ 40 [Tempo A]
5
Vl. I
Vl. 2
Vla.
Vlc.
+IV 8 - normal bow [perceptible changes]
[add short breaks in between to lighten the global texture]
15ma
+III 8
+II 7
+I 7
[add microtonal deviations and gliss. w/ artificial harmonics or normal fingered pitches sounding at the written pitches]
[on III - add slow 'seagull' downward glissandi (4th or 5th) from time to time - at least 5"]
p ↔ mp
+IV 4 - normal bow [perceptible changes]
s.p.
+III 4
[add < > from time to time]
+III 8
+ III 3
[stop < >]
+III 0-2 - normal bow [perceptible changes]
+II 2 / III 3
mf
[perceptible bow changes]
+III 2 [gentle oscillation, from time to time]
+ IV 3
[disappearing]

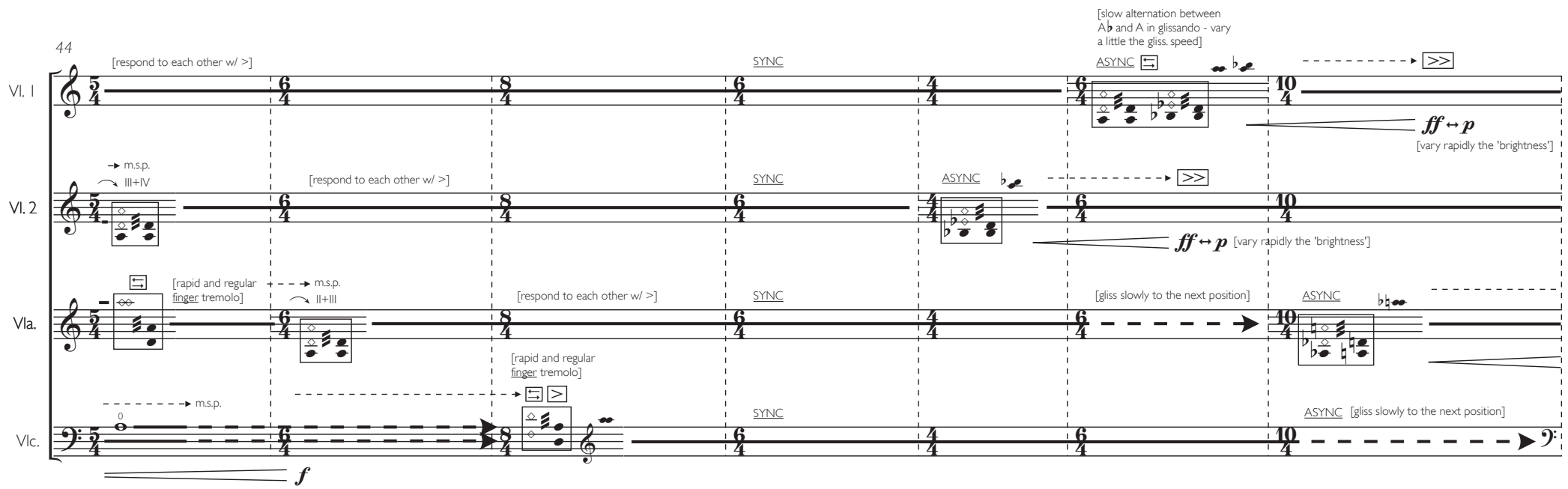

I I
15ma
Vl. I
Vl. 2
Vla.
Vlc.
p
[like 'rests' - from time to time only]
α - Density (D≈)
≈ 50 [Tempo B]
[stop <>]
+ IV 2/3
[on III - slow 'seagull' downward glissandi (4th or 5th)]
III 2 + II 2
+III 3
n. ↔ s.p.
II 2
[vary contact point of the bow ad lib. - but stay in the chosen region for each different iteration of D]
+III
mf ↔ f
[vary slightly the dynamic of each D]

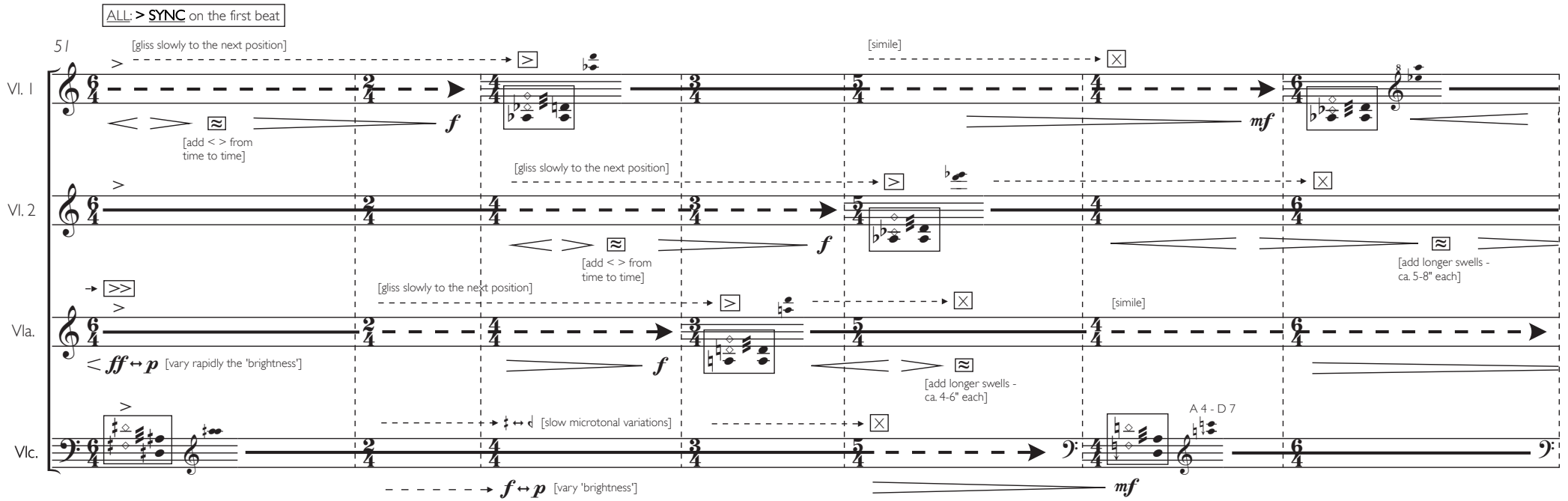

17
Vl. 1
Vl. 2
Vla.
Vlc.
[very slow micro gliss.]
[micro vibrato on I]
ord.
I + II 2
II 2 + III 3
II 2 + III RND higher harmonic than II 2 [high-frequency noise-like]
ord.
mp
mf

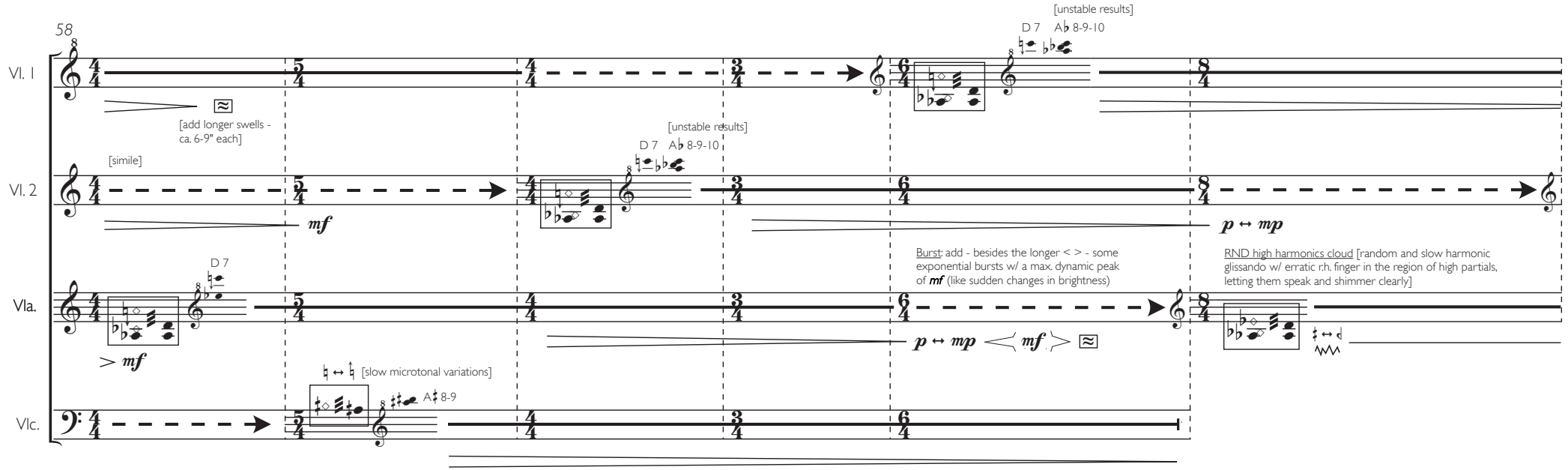

2 - Red Shift (DA)
21
Vl. 1
Vl. 2
Vla.
Vlc.
[on II - RND high harmonic played capotasto]
m.s.p.
[on II - RND high harmonic played capotasto]
[w/ small variations in shape and length]
III 2
[on IV - RND high harmonic played capotasto]
[react to the Vlc., extending his]
[w/ small variations in shape and length]
IV 2
[change of high harmonic on III ad lib., but match about the same register as on the Vla.]
n.
III 4
ord.
ord.

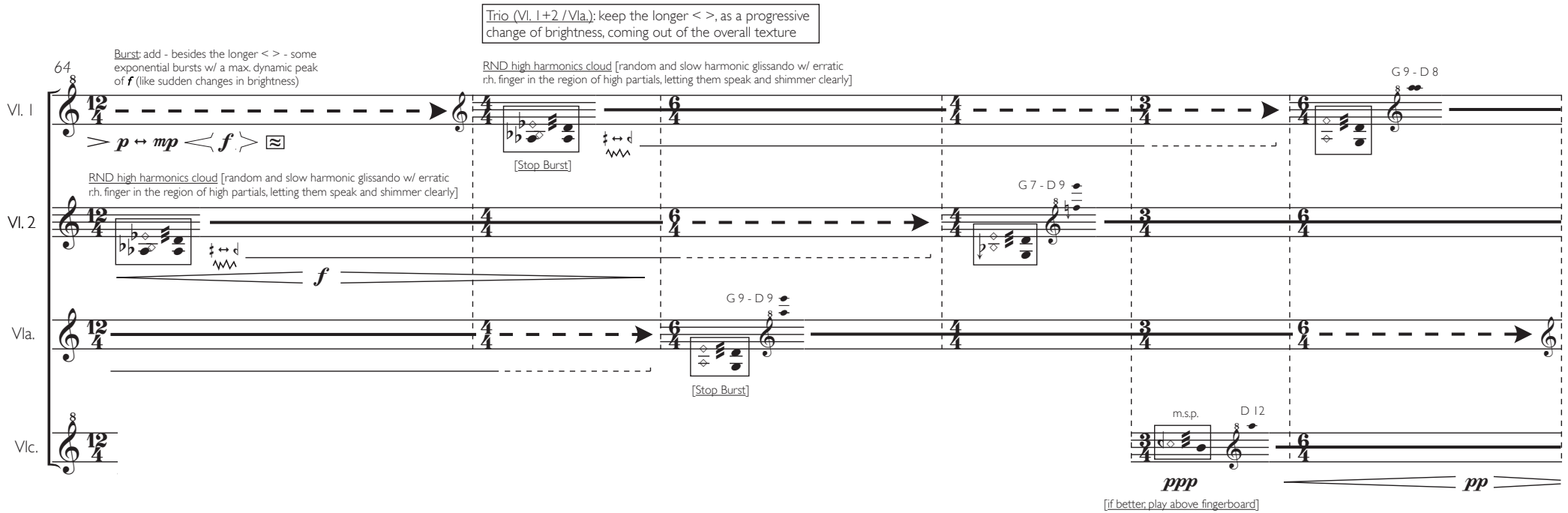

28
[w/ small variations in shape and length]
III 2
n.
ord.
≈ 40 [Tempo A]
Vl. I
ppp [gliss.]
mf
Vl. 2
II
Vla.
IV 3
IV 4
mp
Vlc.
III 5
III 6


≈ 50 [Tempo B]
3 - Flickering (A)
35
Vl. 1
Vl. 2
Vla.
Vlc.
II 2
+III 3
[rapid and regular finger tremolo]
m.s.p.
III+IV
[micro-gliss.]
II 2 / III 3
[rapid and regular finger tremolo]
IV 5
II 3
+I 2
III 7
III 8
III 9
mf
f

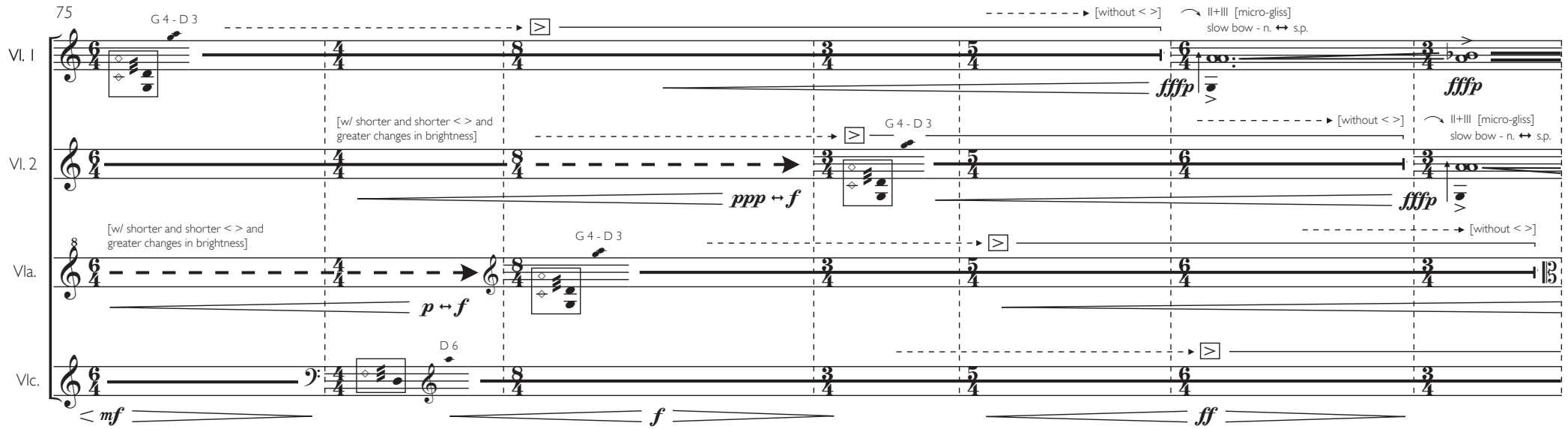

44
Vl. 1
Vl. 2
Vla.
Vlc.
[respond to each other w/ >]
SYNC
[slow alternation between A♭ and A in glissando - vary a little the gliss. speed]
ASYNC
ff ↔ p
[vary rapidly the 'brightness']
m.s.p.
III+IV
[respond to each other w/ >]
SYNC
ASYNC
ff ↔ p
[vary rapidly the 'brightness']
[rapid and regular finger tremolo]
m.s.p.
II+III
[respond to each other w/ >]
SYNC
[gliss slowly to the next position]
ASYNC
[rapid and regular finger tremolo]
m.s.p.
SYNC
ASYNC
[gliss slowly to the next position]
f

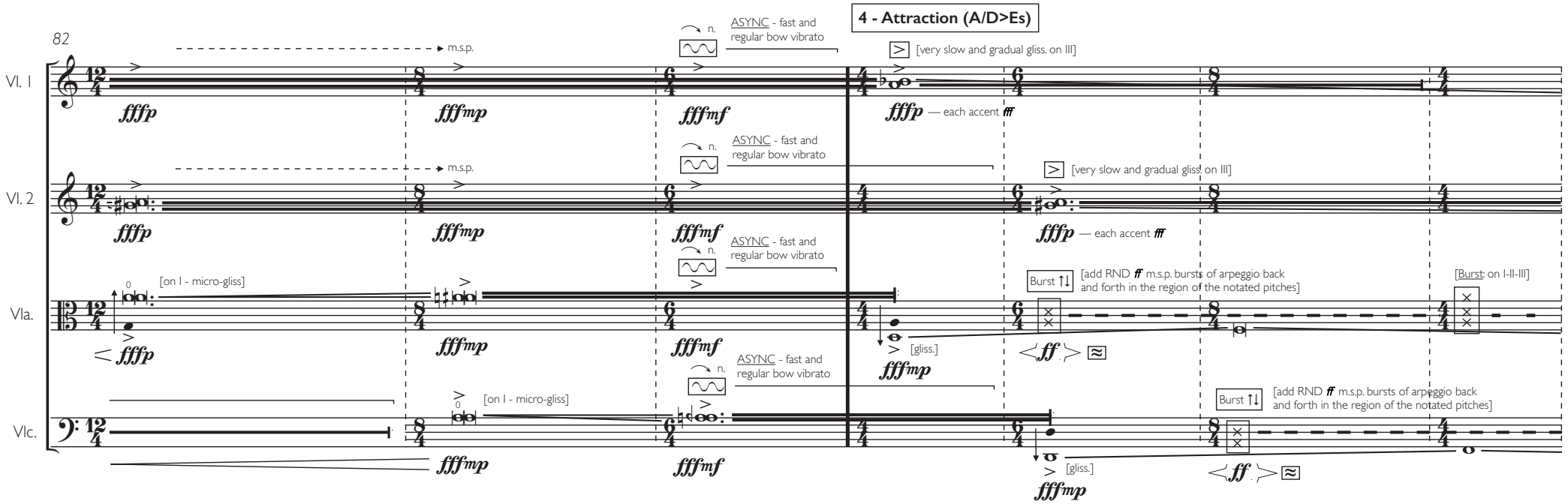

ALL: > SYNC on the first beat
51
[gliss slowly to the next position]
[simile]
Vl. 1
[add < > from time to time]
f
mf
[gliss slowly to the next position]
Vl. 2
[add < > from time to time]
f
[add longer swells - ca. 5-8" each]
[gliss slowly to the next position]
[simile]
Vla.
ff ↔ p [vary rapidly the 'brightness']
f
[add longer swells - ca. 4-6" each]
A 4 - D 7
Vlc.
[slow microtonal variations]
f ↔ p [vary 'brightness']
mf

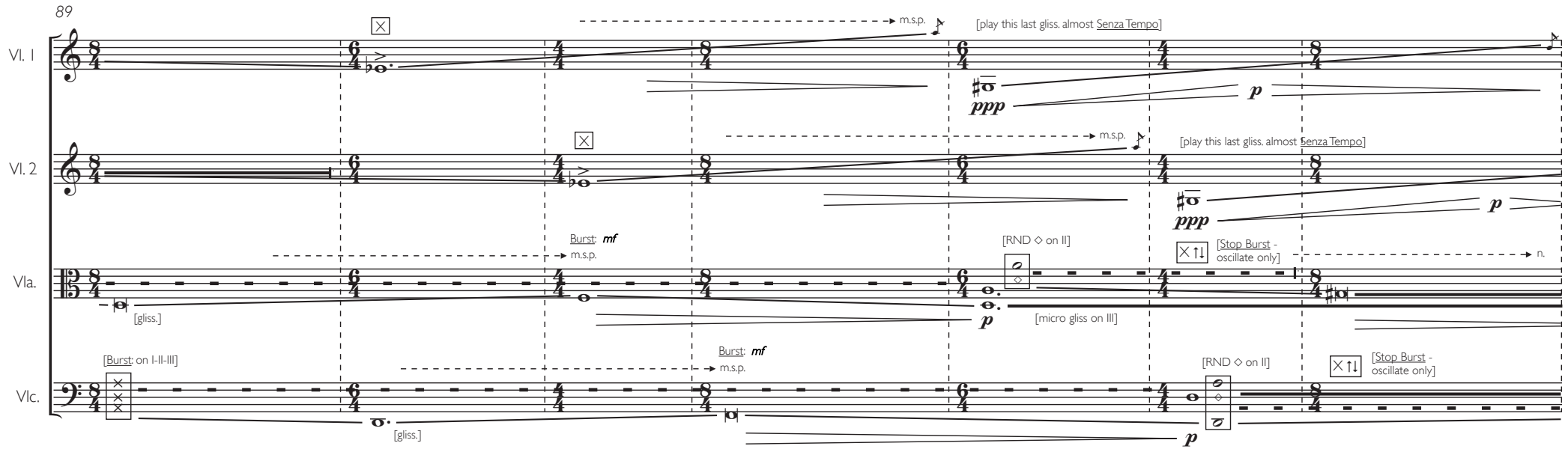

58
Vl. 1
Vl. 2
Vla.
Vlc.
[add longer swells - ca. 6-9" each]
[simile]
mf
D 7
[unstable results]
D 7 A♭ 8-9-10
[unstable results]
D 7 A♭ 8-9-10
p ↔ mp
Burst: add - besides the longer < > - some exponential bursts w/ a max. dynamic peak of mf (like sudden changes in brightness)
p ↔ mp mf
RND high harmonics cloud [random and slow harmonic glissando w/ erratic r.h. finger in the region of high partials, letting them speak and shimmer clearly]
[slow microtonal variations]
A♯ 8-9

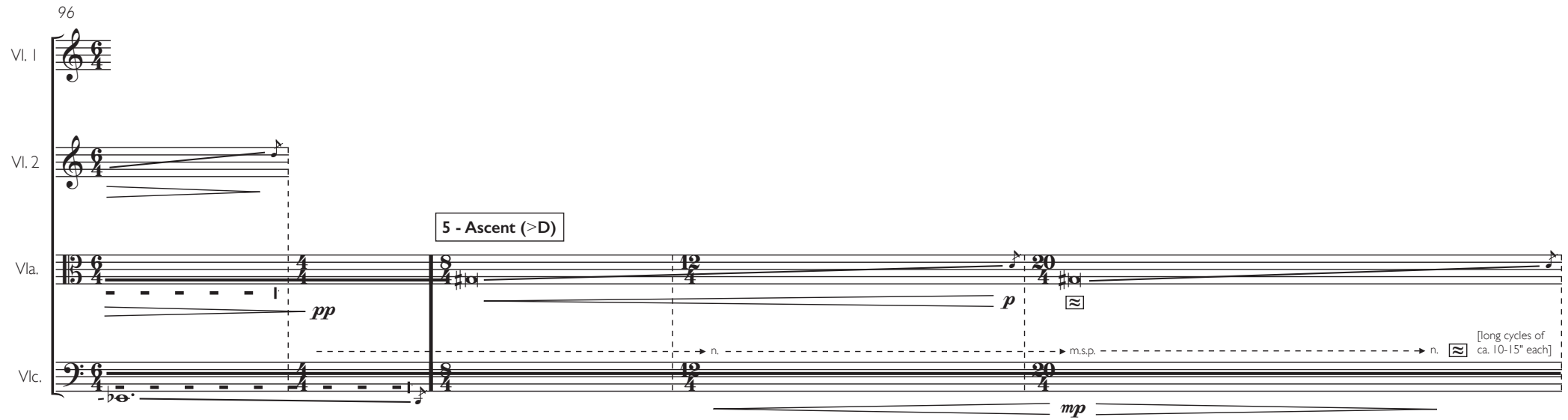

64
Burst: add - besides the longer < > - some exponential bursts w/ a max. dynamic peak of f (like sudden changes in brightness)
Trio (Vl. 1+2 / Vla.): keep the longer < >, as a progressive change of brightness, coming out of the overall texture
RND high harmonics cloud [random and slow harmonic glissando w/ erratic r.h. finger in the region of high partials, letting them speak and shimmer clearly]
Vl. 1
p ↔ mp
f
[Stop Burst]
G 9 - D 8
RND high harmonics cloud [random and slow harmonic glissando w/ erratic r.h. finger in the region of high partials, letting them speak and shimmer clearly]
Vl. 2
f
G 7 - D 9
Vla.
G 9 - D 9
[Stop Burst]
Vlc.
m.s.p.
D 12
ppp
pp
[if better, play above fingerboard]

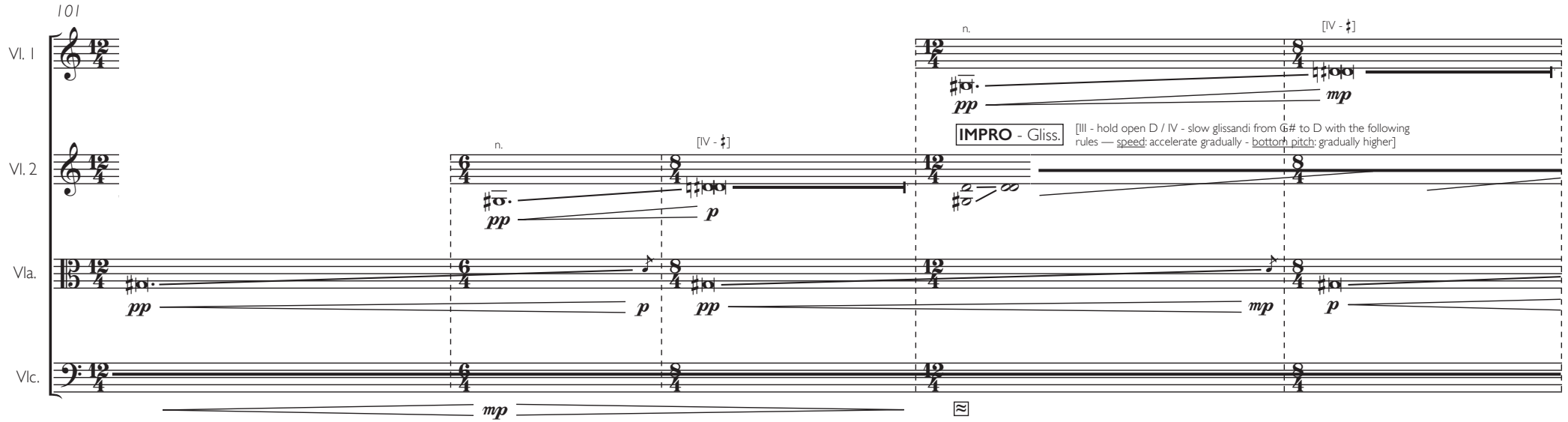

70
Vl. 1
Vl. 2
Vla.
Vlc.
G 5 - D 5
[w/ shorter and shorter < > and
greater changes in brightness]
mp ↔ mf
mp ↔ f
G 7 - D 5
G 3 - D 4
G 5 - D 7
G 4 - D 5
D 11
D 10
D 8
p
mp

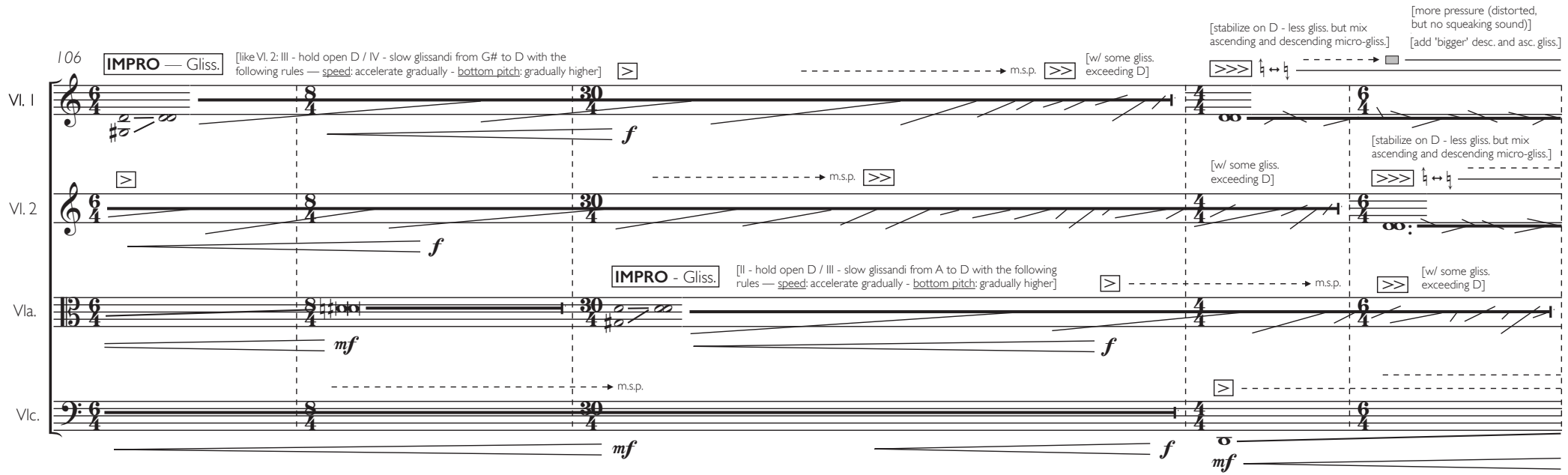

75
Vl. I
Vl. 2
Vla.
Vlc.
G 4 - D 3
[without < >]
II+III [micro-gliss]
slow bow - n. ↔ s.p.
fffp
[w/ shorter and shorter < > and
greater changes in brightness]
ppp ↔ f
p ↔ f
D 6
< mf
f
ff


82
4 - Attraction (A/D>Es)
Vl. 1
Vl. 2
Vla.
Vlc.
m.s.p.
ASYNC - fast and regular bow vibrato
[very slow and gradual gliss. on III]
fffp — each accent fff
[on I - micro-gliss]
[gliss.]
Burst
[add RND ff m.s.p. bursts of arpeggio back and forth in the region of the notated pitches]
[Burst: on I-II-III]

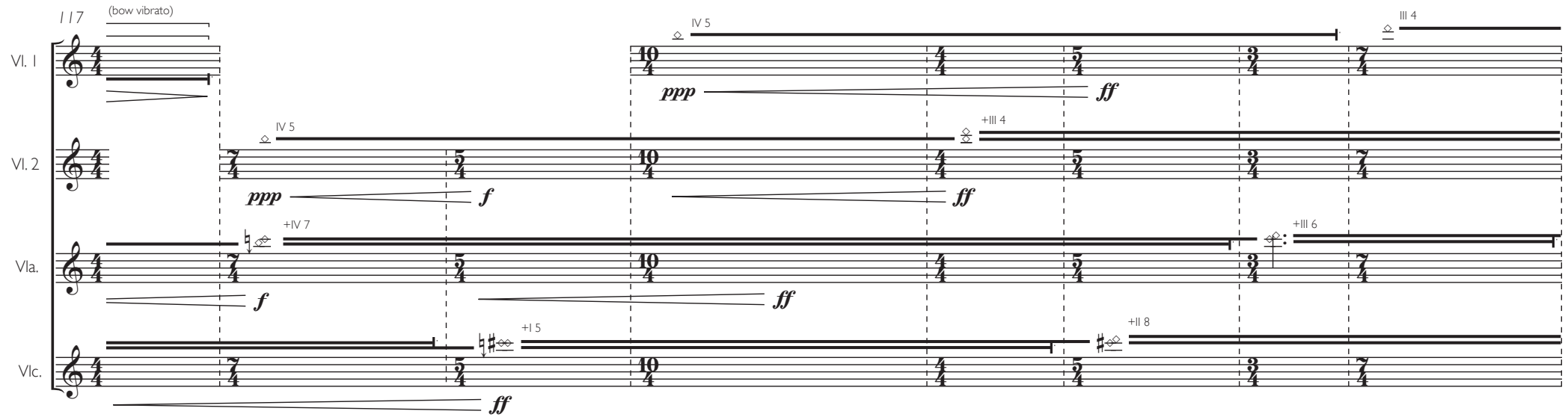

89
Vl. 1
Vl. 2
Vla.
Vlc.
m.s.p.
[play this last gliss. almost Senza Tempo]
ppp
p
[Burst: on I-II-III]
[gliss.]
Burst: mf
[RND ◇ on II]
[micro gliss on III]
[Stop Burst - oscillate only]
n.

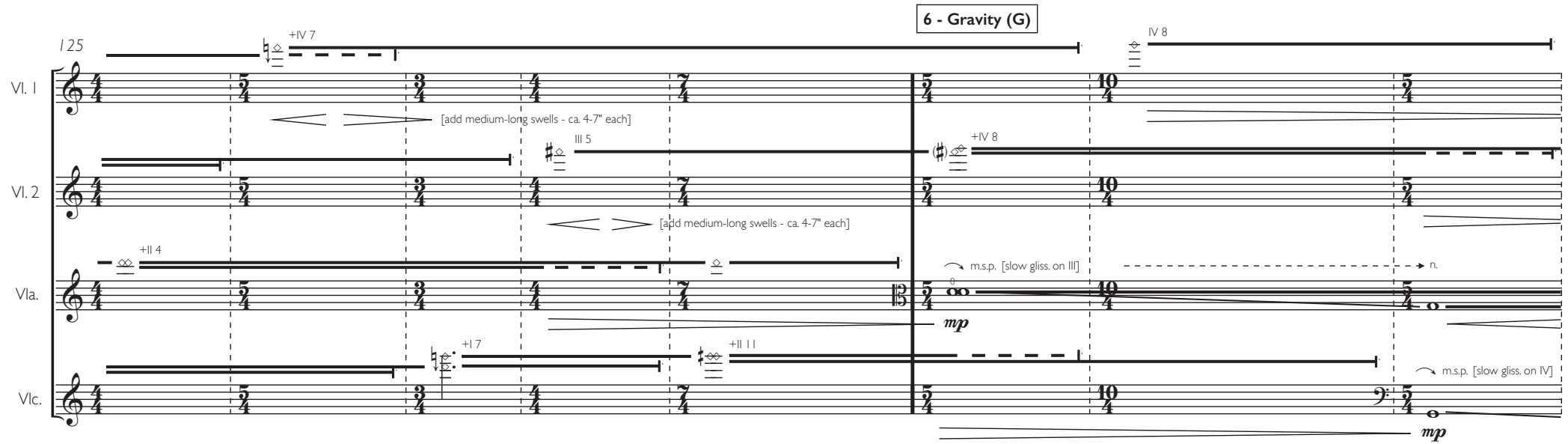

96
Vl. 1
Vl. 2
Vla.
Vlc.
5 - Ascent (>D)
pp
p
mp
n.
m.s.p.
n.
[long cycles of
ca. 10-15" each]


101
Vl. 1
Vl. 2
Vla.
Vlc.
n.
[IV - ♮]
IMPRO - Gliss.
[III - hold open D / IV - slow glissandi from G♯ to D with the following rules — speed: accelerate gradually - bottom pitch: gradually higher]

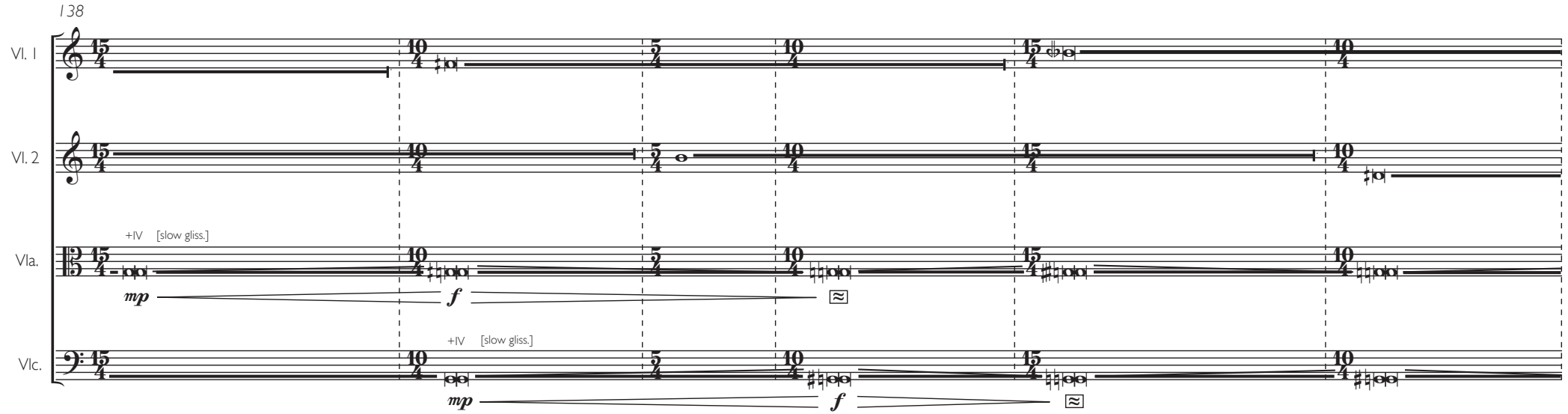

106
IMPRO — Gliss.
[like Vl. 2: III - hold open D / IV - slow glissandi from G# to D with the following rules — speed: accelerate gradually - bottom pitch: gradually higher]
m.s.p.
[w/ some gliss. exceeding D]
[stabilize on D - less gliss. but mix ascending and descending micro-gliss.]
[more pressure (distorted, but no squeaking sound)]
[add 'bigger' desc. and asc. gliss.]
Vl. 1
Vl. 2
IMPRO - Gliss.
[II - hold open D / III - slow glissandi from A to D with the following rules — speed: accelerate gradually - bottom pitch: gradually higher]
Vla.
Vlc.
f
mf


Vl. 1+2 / Vla.: n.
[less alla corda, more staccato]
[steady, w/ slow and long bows, w/ regular and perceptible changes (ASYNC)]
[add bow vibrato - subtle but continuous]
Vl. 1
mp subito
f
mp
[add 'bigger' desc. and asc. gliss.]
Vl. 2
[stabilize on D - less gliss. but mix ascending and descending micro-gliss.]
[add bow vibrato - ad lib.]
III 5
Vla.
II 0
['metallic attack']
+ III 1
[sounding like guitar-feedback, quasi solo, emerging out of the surface - search for differential tones and/or beatings]
II 7
Vlc.
fffpp

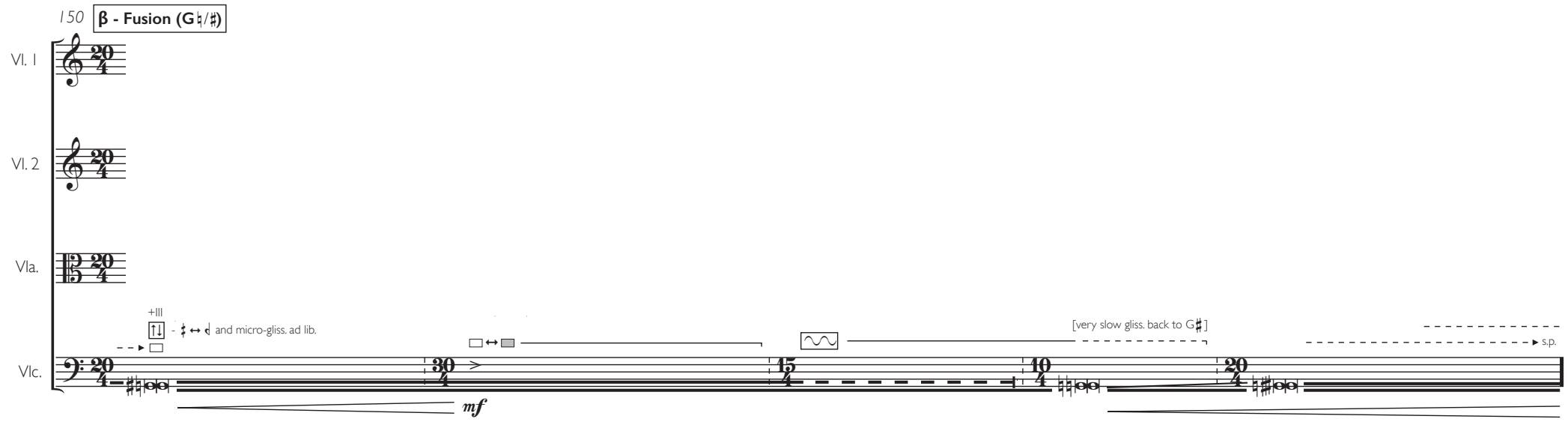

117
(bow vibrato)
Vl. 1
Vl. 2
Vla.
Vlc.
IV 5
III 4
+III 4
+IV 7
+III 6
+I 5
+II 8
ppp
ff
f


6 - Gravity (G)
125
+IV 7
IV 8
Vl. 1
[add medium-long swells - ca. 4-7" each]
III 5
+IV 8
Vl. 2
[add medium-long swells - ca. 4-7" each]
+II 4
m.s.p. [slow gliss. on III]
n.
Vla.
mp
+I 7
+II 11
m.s.p. [slow gliss. on IV]
Vlc.
mp


133
Vl. 1
m.s.p.
n.
mp [slow gliss.]
mf
Vl. 2
m.s.p.
n.
mp [slow gliss.]
mf
Vla.
mf
n.
Vlc.
mf


138
Vl. 1
Vl. 2
Vla.
Vlc.
+IV [slow gliss.]
mp
f
+IV [slow gliss.]
mp
f

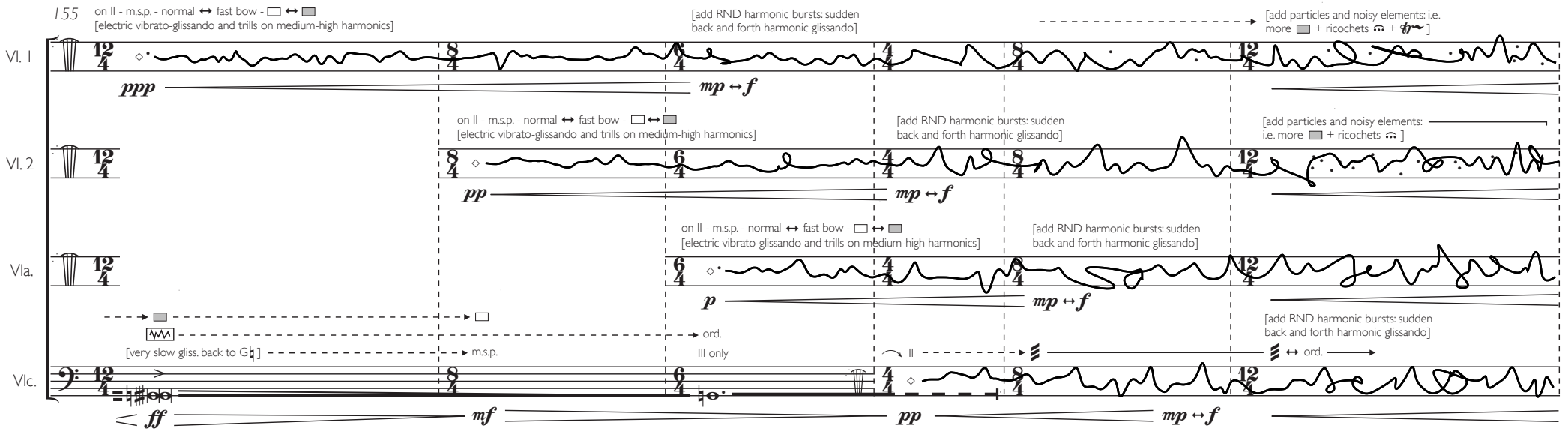

144
Vl. 1
Vl. 2
Vla.
Vlc.
[slow gliss. on IV]
[with a noisier sound texture]
[slow gliss. on IV]
[granulated, but
continuous sound texture]
mp

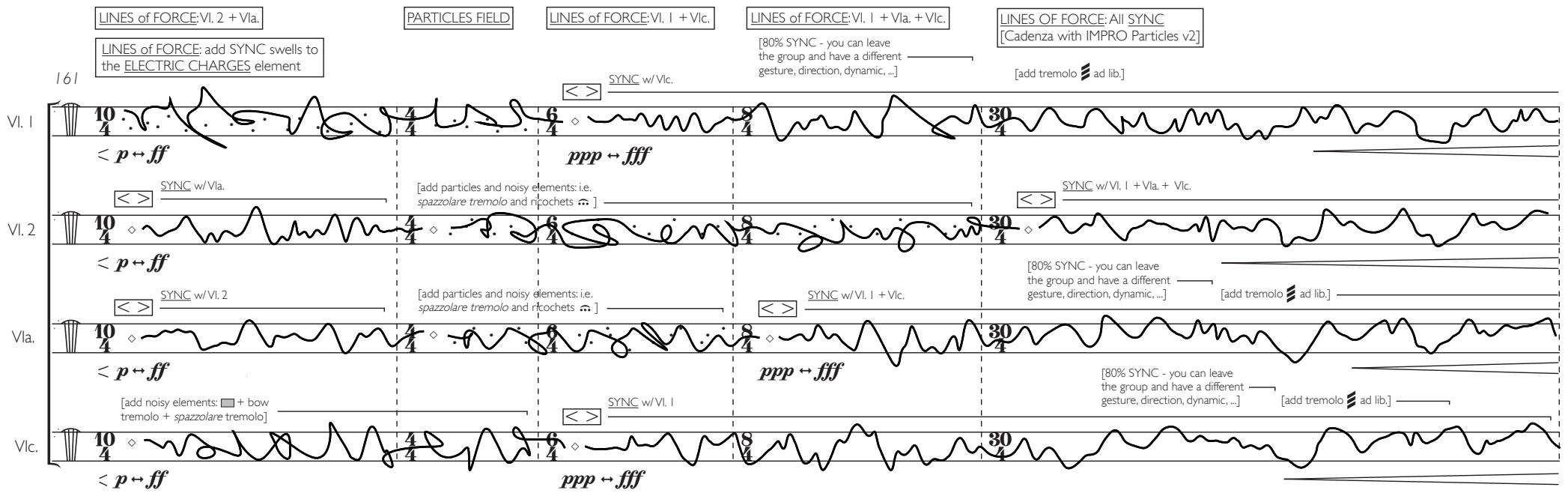

150
β - Fusion (G♮/♯)
Vl. 1
Vl. 2
Vla.
Vlc.
+III
and micro-gliss. ad lib.
[very slow gliss. back to G♯]
s.p.
mf

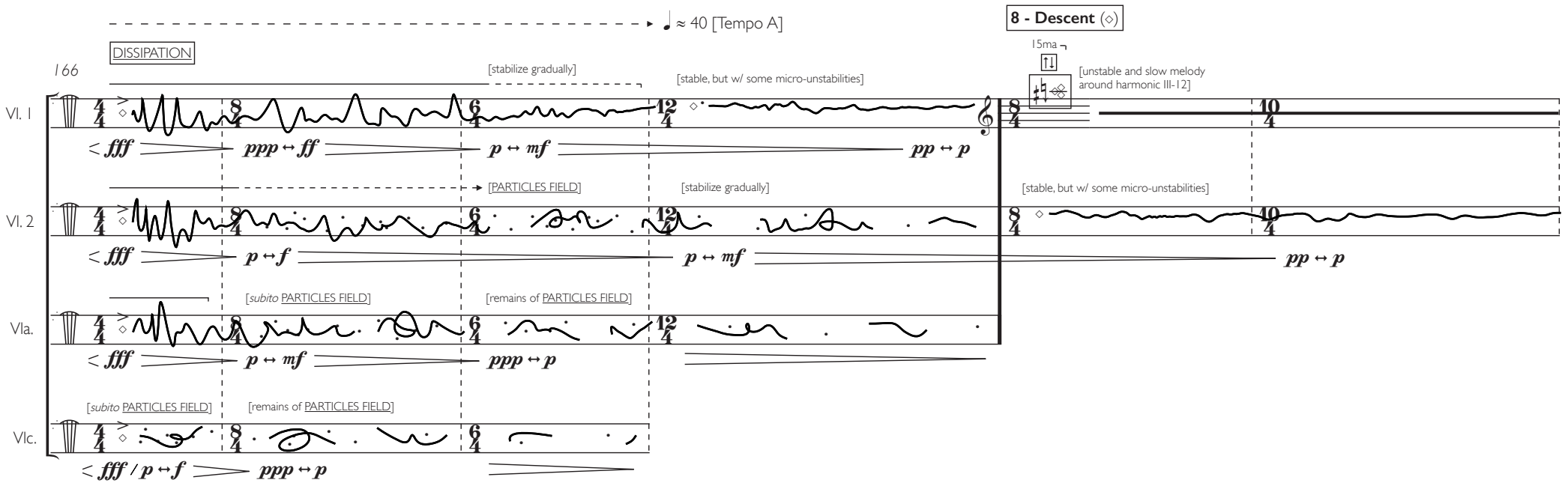
ALL: **1/** ELECTRIC CHARGES accumulating, **2/** transforming into a storm of PARTICLES (grains of irregular shapes, variable sizes and non-heterogeneous elements), **3/** attracting each other in LINES OF FORCE & **4/** DISSIPATING spontaneously, but gradually

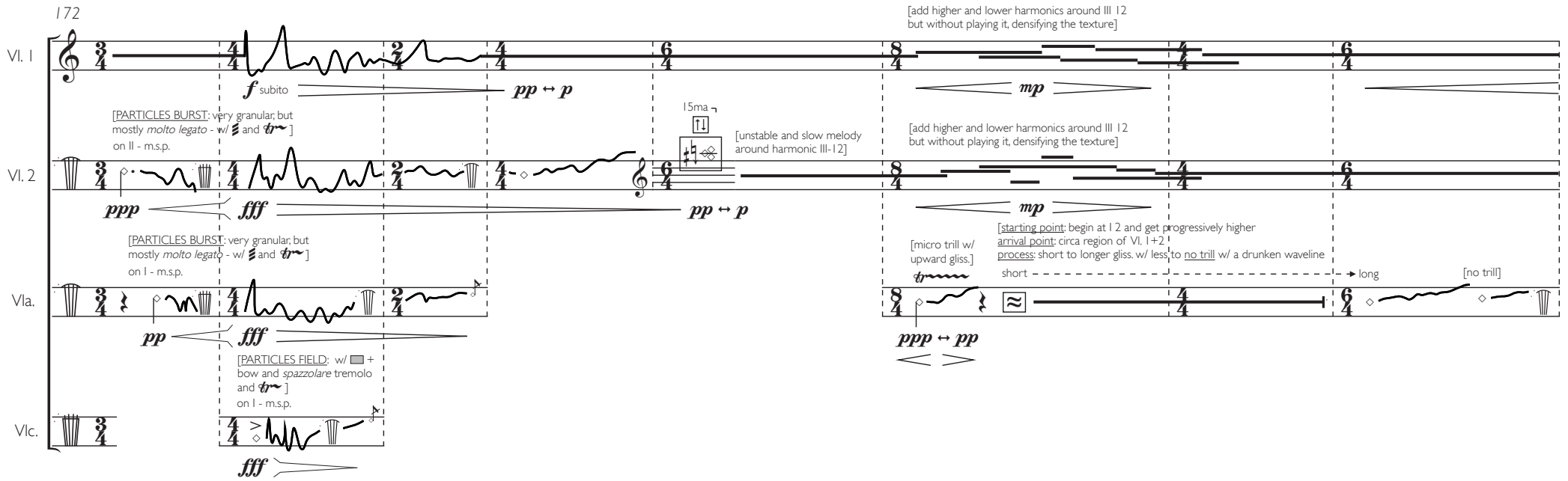
7 - Circumstellar Dust (◇) ELECTRIC CHARGES

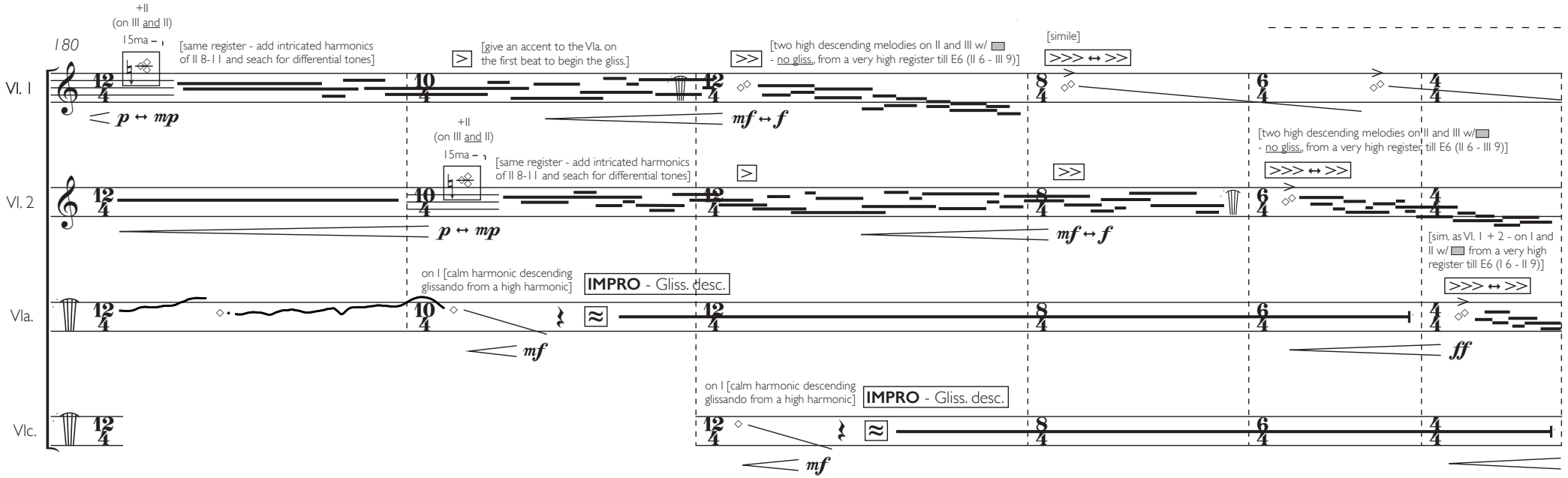
PARTICLES FIELD

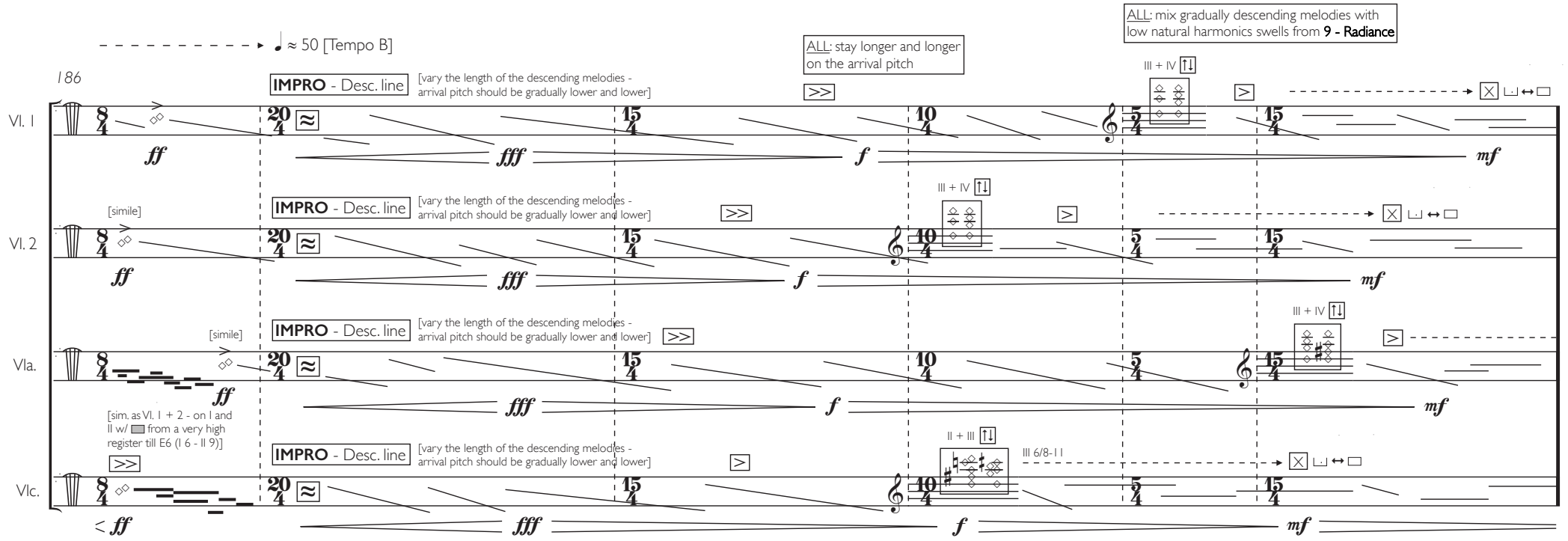


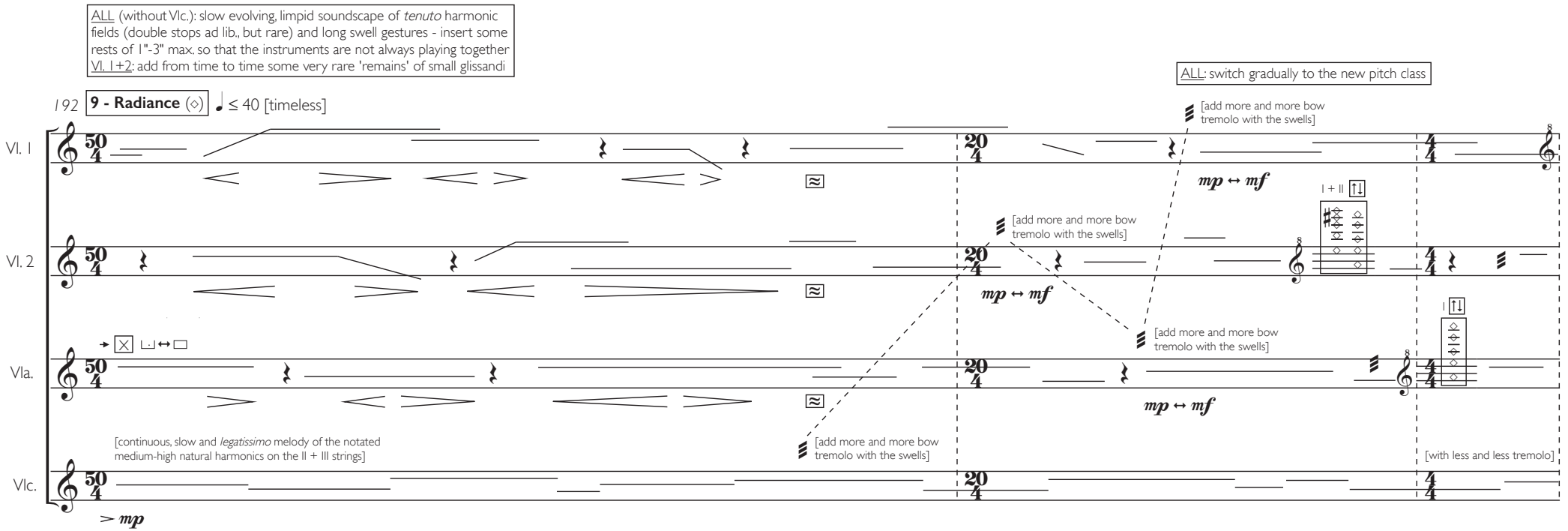

LINES of FORCE:Vl. 2 + Vla.
LINES of FORCE: add SYNC swells to the ELECTRIC CHARGES element
PARTICLES FIELD
LINES of FORCE:Vl. 1 + Vlc.
LINES of FORCE:Vl. 1 + Vla. + Vlc.
LINES OF FORCE: All SYNC [Cadenza with IMPRO Particles v2]
161
Vl. 1
Vl. 2
Vla.
Vlc.
SYNC w/ Vlc.
[80% SYNC - you can leave the group and have a different gesture, direction, dynamic, ...]
[add tremolo ad lib.]
< p ↔ ff
ppp ↔ fff
SYNC w/ Vla.
[add particles and noisy elements: i.e. spazzolare tremolo and ricochets]
SYNC w/ Vl. 1 + Vla. + Vlc.
SYNC w/ Vl. 2
SYNC w/ Vl. 1 + Vlc.
[add noisy elements: + bow tremolo + spazzolare tremolo]
SYNC w/ Vl. 1

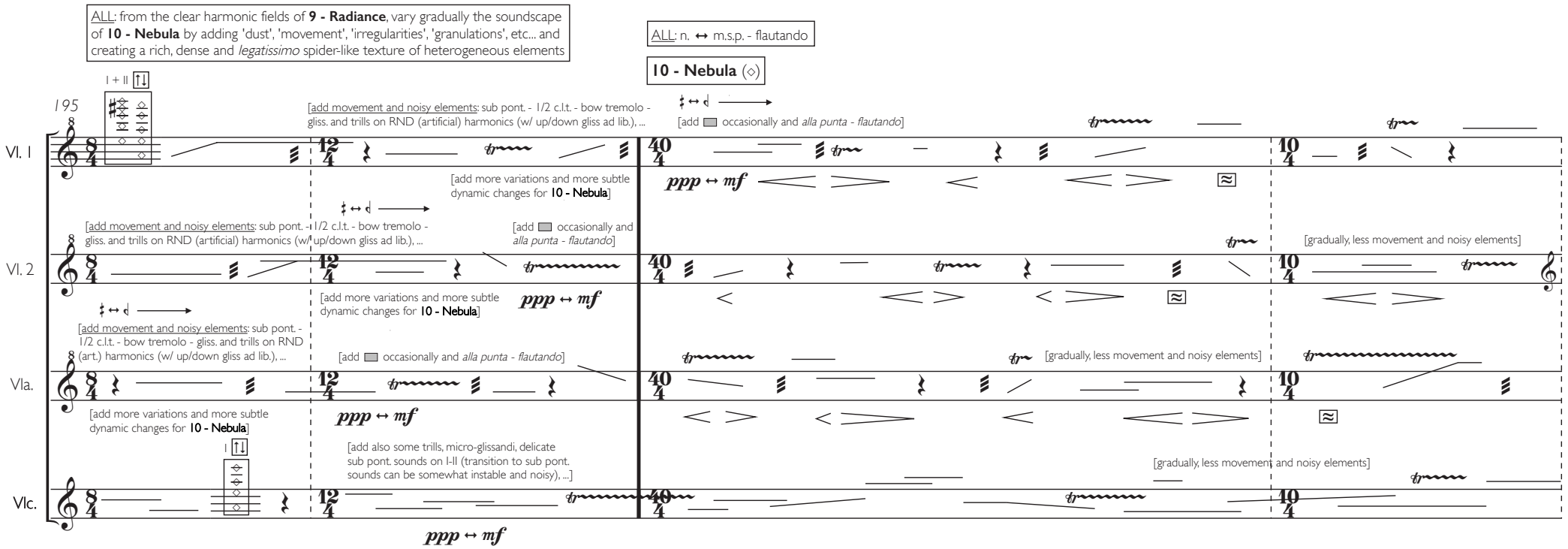

166
DISSIPATION
≈ 40 [Tempo A]
8 - Descent (◇)
15ma
[unstable and slow melody around harmonic III-12]
[stabilize gradually]
[stable, but w/ some micro-unstabilities]
Vl. 1
fff
ppp ↔ ff
p ↔ mf
pp ↔ p
[PARTICLES FIELD]
[stabilize gradually]
[stable, but w/ some micro-unstabilities]
Vl. 2
fff
p ↔ f
p ↔ mf
pp ↔ p
[subito PARTICLES FIELD]
[remains of PARTICLES FIELD]
Vla.
fff
p ↔ mf
ppp ↔ p
[subito PARTICLES FIELD]
[remains of PARTICLES FIELD]
Vlc.
fff / p ↔ f
ppp ↔ p

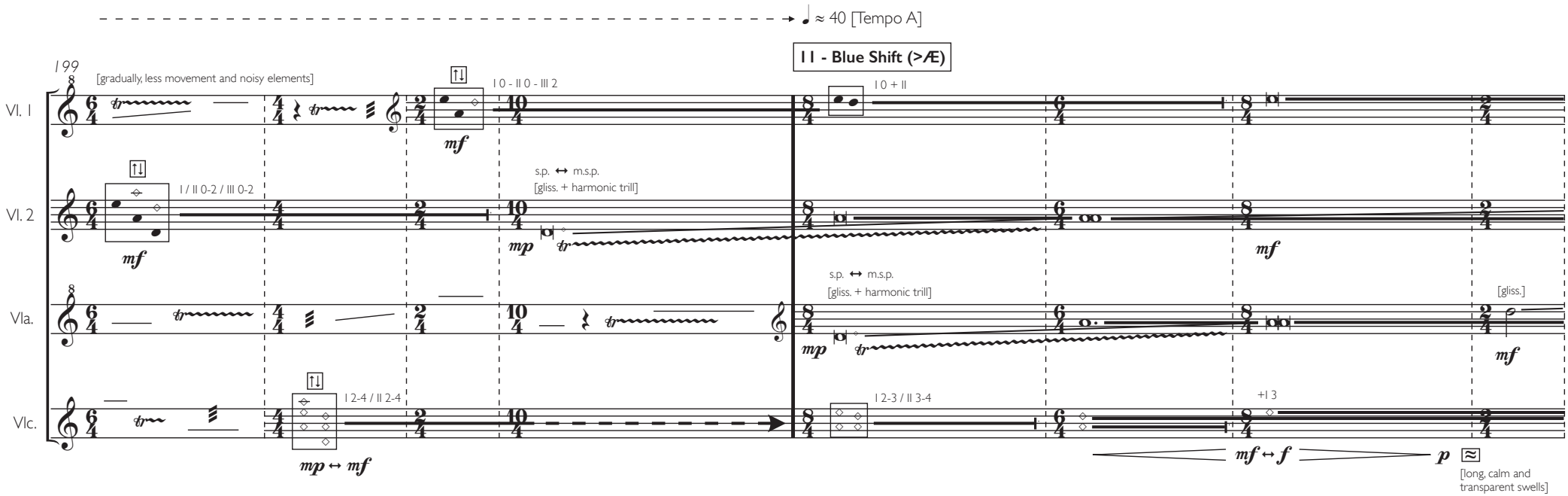

172
Vl. 1
Vl. 2
Vla.
Vlc.
f subito
pp ↔ p
[add higher and lower harmonics around III 12 but without playing it, densifying the texture]
mp
15ma
[unstable and slow melody around harmonic III-12]
[PARTICLES BURST: very granular, but mostly molto legato - w/ and tr]
on II - m.s.p.
ppp
fff
pp ↔ p
[add higher and lower harmonics around III 12 but without playing it, densifying the texture]
mp
[PARTICLES BURST: very granular, but mostly molto legato - w/ and tr]
on I - m.s.p.
[micro trill w/ upward gliss.]
[starting point: begin at I 2 and get progressively higher
arrival point: circa region of Vl. 1+2
process: short to longer gliss. w/ less to no trill w/ a drunken waveline
short
long
[no trill]
pp
fff
ppp ↔ pp
[PARTICLES FIELD: w/ + bow and spazzolare tremolo and tr]
on I - m.s.p.
fff

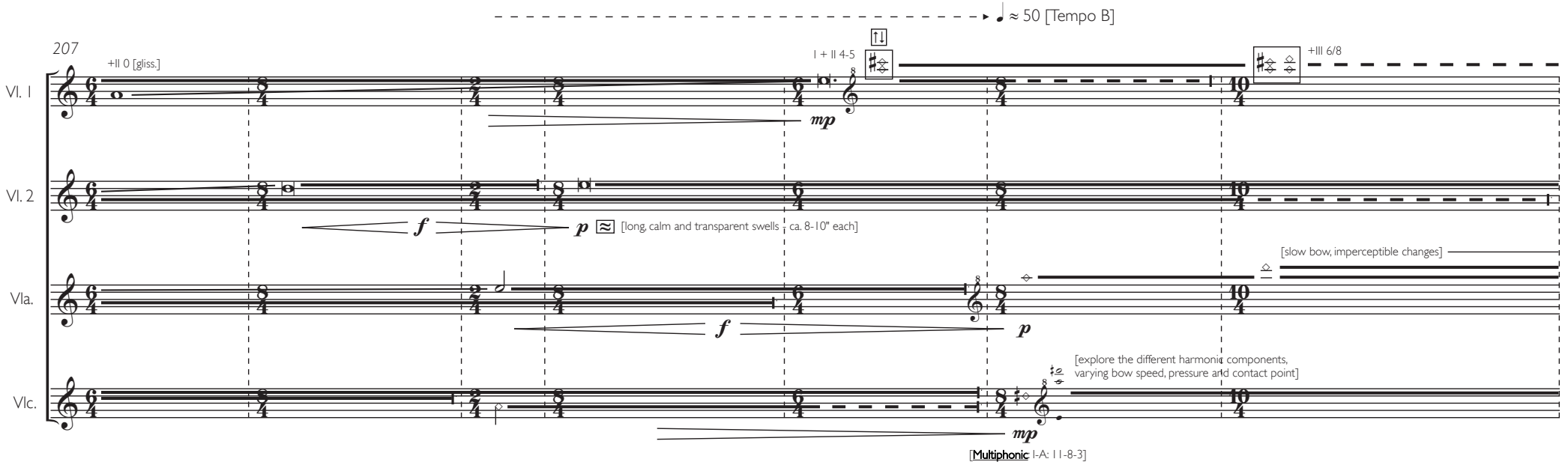

180
Vl. 1
Vl. 2
Vla.
Vlc.
+II
(on III and II)
15ma
[same register - add intricated harmonics of II 8-11 and seach for differential tones]
[give an accent to the Vla. on the first beat to begin the gliss.]
[two high descending melodies on II and III w/ - no gliss., from a very high register till E6 (II 6 - III 9)]
[simile]
p ↔ mp
mf ↔ f
[two high descending melodies on II and III w/ - no gliss., from a very high register till E6 (II 6 - III 9)]
[sim. as Vl. 1 + 2 - on I and II w/ from a very high register till E6 (I 6 - II 9)]
on I [calm harmonic descending glissando from a high harmonic]
IMPRO - Gliss. desc.
mf
ff

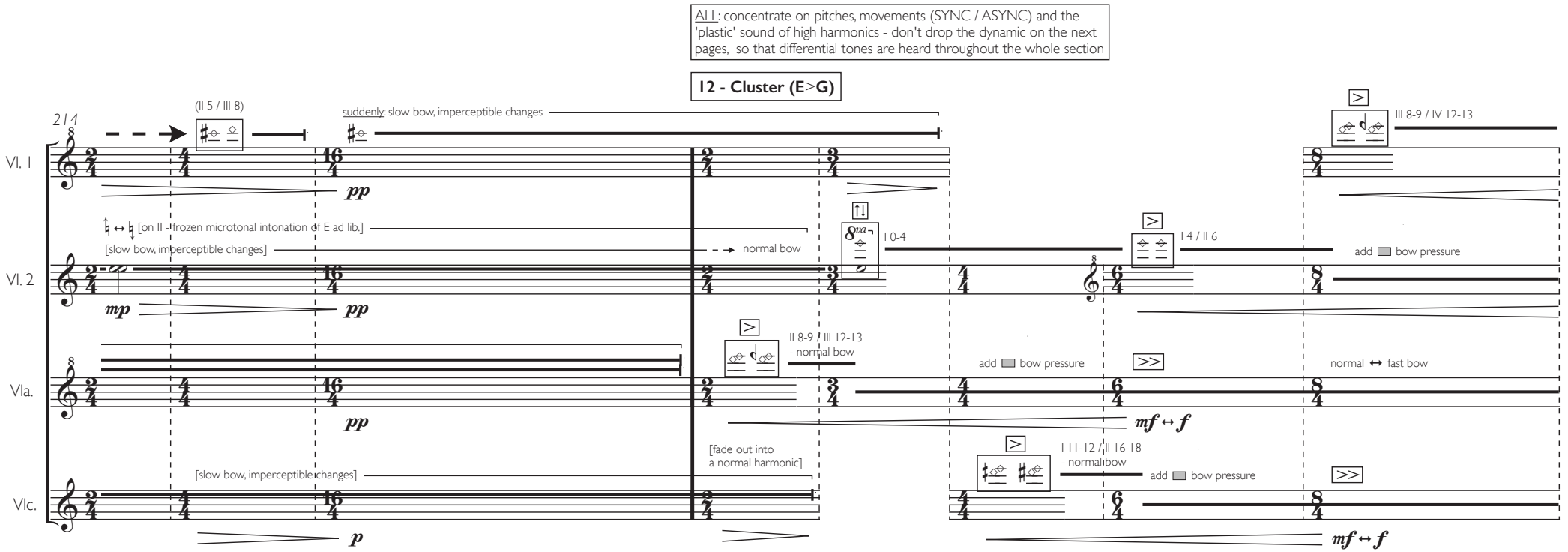

≈ 50 [Tempo B]
ALL: stay longer and longer on the arrival pitch
ALL: mix gradually descending melodies with low natural harmonics swells from 9 - Radiance
186
IMPRO - Desc. line
[vary the length of the descending melodies - arrival pitch should be gradually lower and lower]
Vl. 1
Vl. 2
Vla.
Vlc.
[simile]
[sim. as Vl. 1 + 2 - on I and II w/ ▭ from a very high register till E6 (I 6 - II 9)]
III + IV
II + III
III 6/8-I I
ff
fff
f
mf

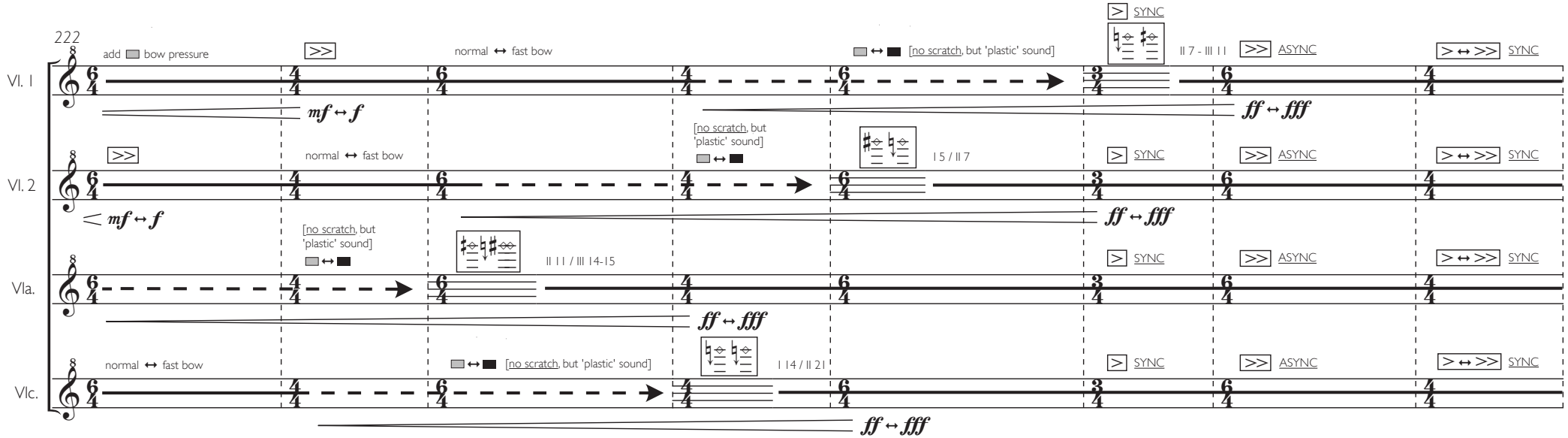

ALL (without Vlc.): slow evolving, limpid soundscape of *tenuto* harmonic fields (double stops ad lib., but rare) and long swell gestures - insert some rests of 1"-3" max. so that the instruments are not always playing together
Vl. 1+2: add from time to time some very rare 'remains' of small glissandi
ALL: switch gradually to the new pitch class
92
9 - Radiance (◇)
♩ ≤ 40 [timeless]
Vl. 1
Vl. 2
Vla.
Vlc.
[add more and more bow tremolo with the swells]
mp ↔ mf
I + II
I
[continuous, slow and *legatissimo* melody of the notated medium-high natural harmonics on the II + III strings]
[with less and less tremolo]
mp

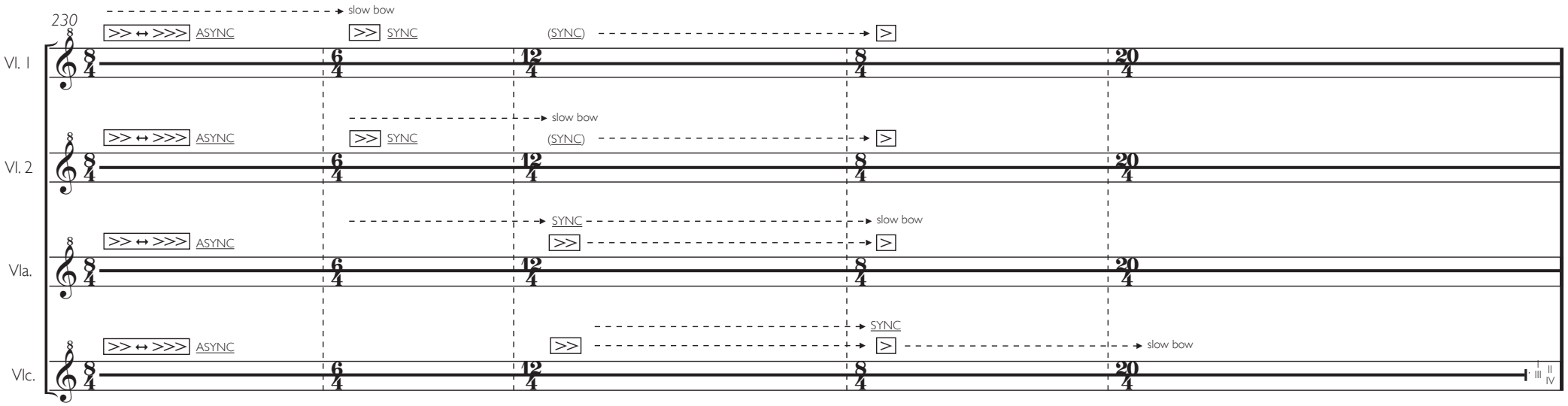

ALL: from the clear harmonic fields of 9 - Radiance, vary gradually the soundscape of 10 - Nebula by adding 'dust', 'movement', 'irregularities', 'granulations', etc... and creating a rich, dense and legatissimo spider-like texture of heterogeneous elements
ALL: n. ↔ m.s.p. - flautando
10 - Nebula (◇)
195
I + II
I
Vl. I
Vl. 2
Vla.
Vlc.
[add movement and noisy elements: sub pont. - 1/2 c.l.t. - bow tremolo - gliss. and trills on RND (artificial) harmonics (w/ up/down gliss ad lib.), ...
[add more variations and more subtle dynamic changes for 10 - Nebula]
[add occasionally and alla punta - flautando]
[gradually, less movement and noisy elements]
[add also some trills, micro-glissandi, delicate sub pont. sounds on I-II (transition to sub pont. sounds can be somewhat instable and noisy), ...]
ppp ↔ mf

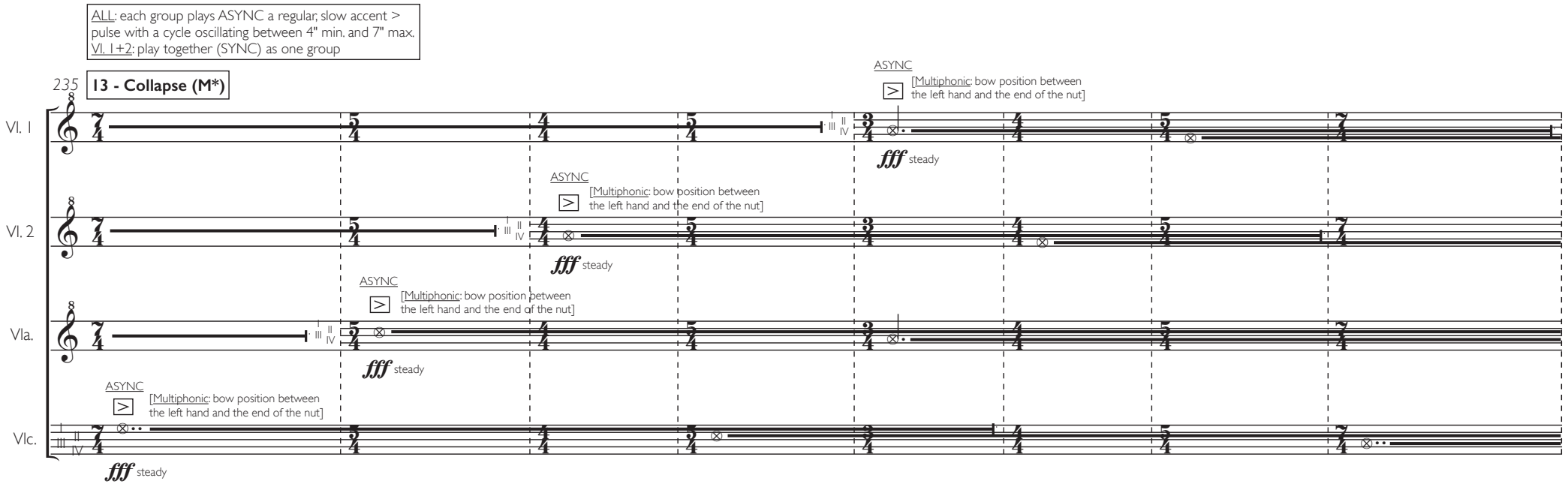

≈ 40 [Tempo A]
199
[gradually, less movement and noisy elements]
II - Blue Shift (>Æ)
I 0 - II 0 - III 2
I 0 + II
Vl. I
I / II 0-2 / III 0-2
s.p. ↔ m.s.p.
[gliss. + harmonic trill]
Vl. 2
mf
mp
s.p. ↔ m.s.p.
[gliss. + harmonic trill]
[gliss.]
Vla.
I 2-4 / II 2-4
I 2-3 / II 3-4
+I 3
Vlc.
mp ↔ mf
mf ↔ f
p
[long, calm and transparent swells]

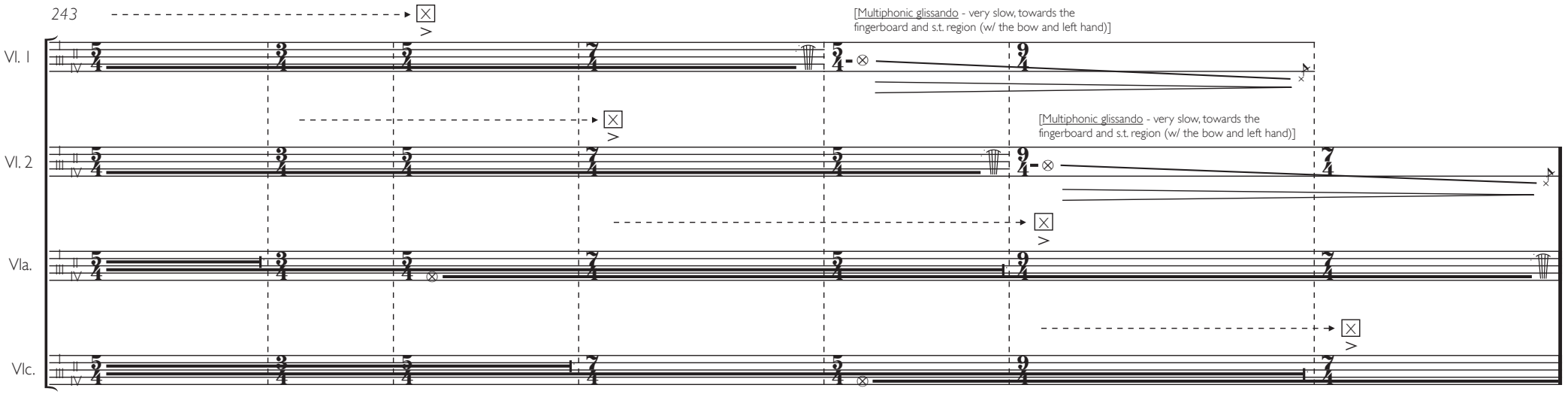

207
≈ 50 [Tempo B]
+II 0 [gliss.]
I + II 4-5
+III 6/8
Vl. 1
Vl. 2
Vla.
Vlc.
mp
f
p
[long, calm and transparent swells ; ca. 8-10" each]
[slow bow, imperceptible changes]
[explore the different harmonic components,
varying bow speed, pressure and contact point]
[Multiphonic I-A: 11-8-3]

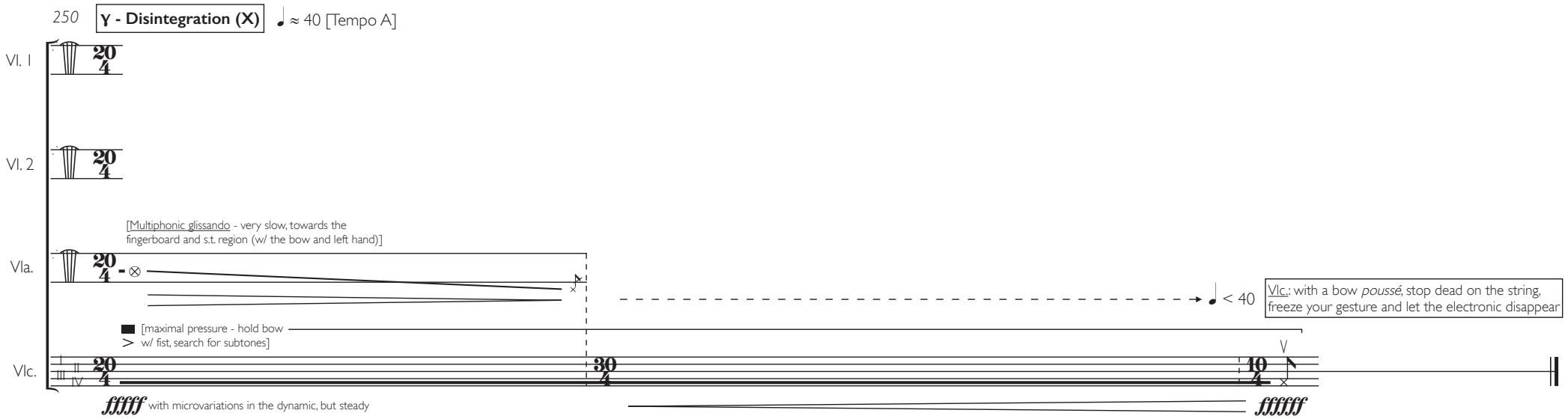

ALL: concentrate on pitches, movements (SYNC / ASYNC) and the 'plastic' sound of high harmonics - don't drop the dynamic on the next pages, so that differential tones are heard throughout the whole section
12 - Cluster (E>G)
214
Vl. 1
Vl. 2
Vla.
Vlc.
(II 5 / III 8)
suddenly: slow bow, imperceptible changes
pp
[on II - frozen microtonal intonation of E ad lib.]
[slow bow, imperceptible changes]
normal bow
mp
I 0-4
I 4 / II 6
add bow pressure
II 8-9 / III 12-13
- normal bow
normal ↔ fast bow
mf ↔ f
[fade out into
a normal harmonic]
I 11-12 / II 16-18
- normal bow
III 8-9 / IV 12-13
p


222
Vl. 1
Vl. 2
Vla.
Vlc.
add bow pressure
mf ↔ f
normal ↔ fast bow
[no scratch, but 'plastic' sound]
II 11 / III 14-15
I 14 / II 21
I 5 / II 7
II 7 - III 11
SYNC
ASYNC
ff ↔ fff


230
slow bow
ASYNC
SYNC
(SYNC)
Vl. 1
Vl. 2
Vla.
Vlc.
I
III
II
IV


ALL: each group plays ASYNC a regular, slow accent >
pulse with a cycle oscillating between 4" min. and 7" max.
Vl. 1+2: play together (SYNC) as one group
235
13 - Collapse (M*)
Vl. 1
Vl. 2
Vla.
Vlc.
ASYNC
[Multiphonic: bow position between the left hand and the end of the nut]
fff steady


243
[Multiphonic glissando - very slow, towards the fingerboard and s.t. region (w/ the bow and left hand)]
[Multiphonic glissando - very slow, towards the fingerboard and s.t. region (w/ the bow and left hand)]
Vl. 1
Vl. 2
Vla.
Vlc.


250
γ - Disintegration (X)
≈ 40 [Tempo A]
Vl. 1
Vl. 2
Vla.
Vlc.
[Multiphonic glissando - very slow, towards the fingerboard and s.t. region (w/ the bow and left hand)]
[maximal pressure - hold bow
w/ fist, search for subtones]
< 40
Vlc.: with a bow *poussé*, stop dead on the string, freeze your gesture and let the electronic disappear
fffff with microvariations in the dynamic, but steady
ffffff