

(((**RSG**)))

for amplified string quartet + effects pedals & stereo audio file

2022/23

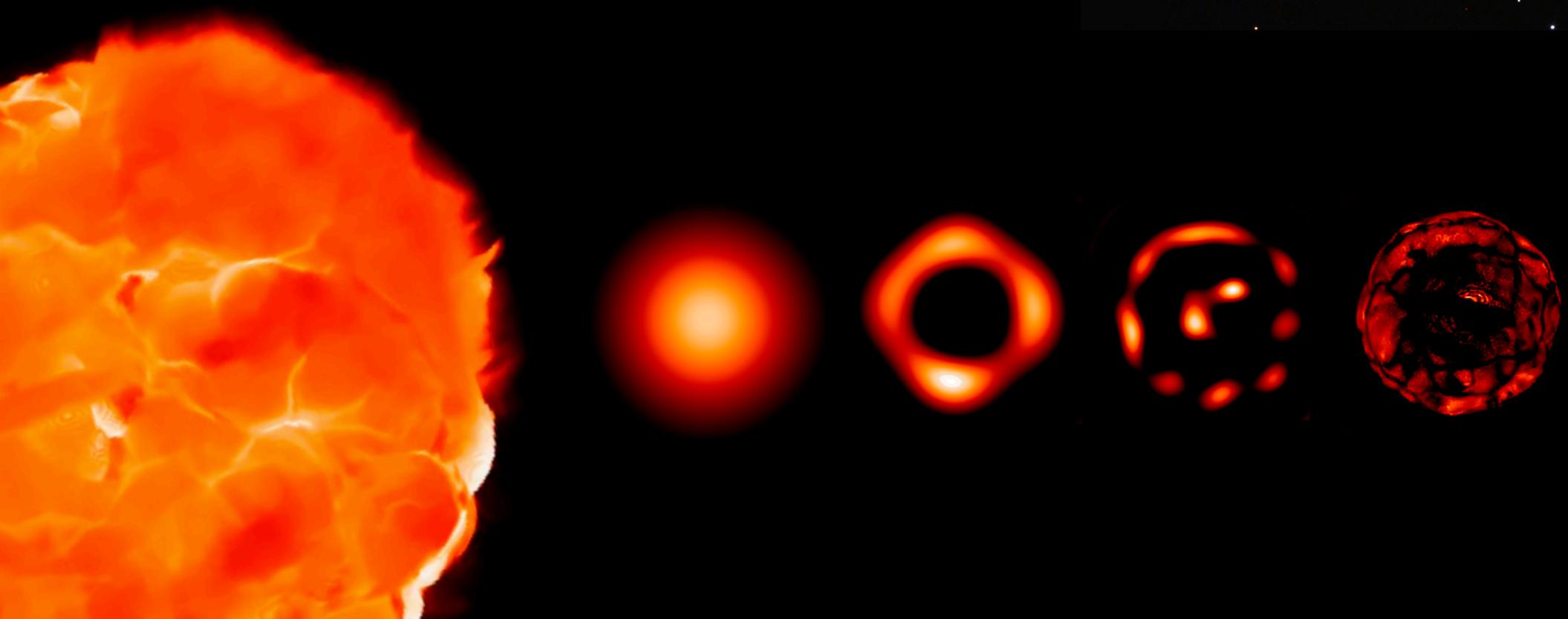
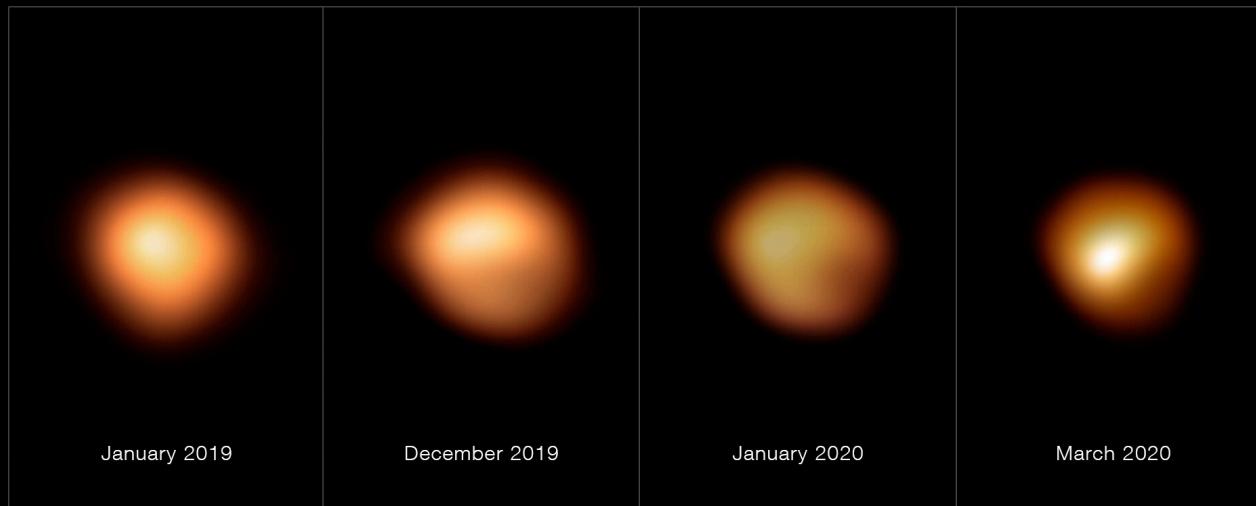
raphaël languillat

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.





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

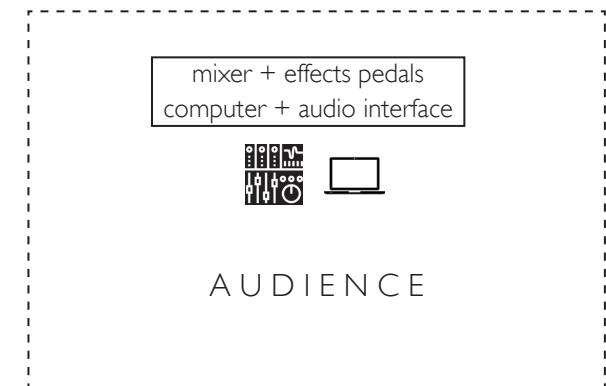
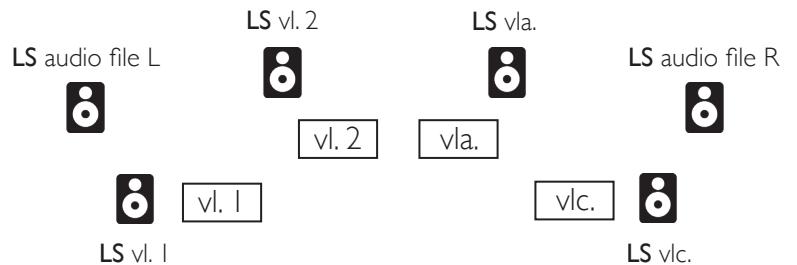
notes for performance

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



Subwoofer
8

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 fingerboard (lower line)

 Area located between the end (upper line) and the beginning of the fingerboard (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)
<u>s.p.</u>	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)

I - Spectrum (G) $\downarrow \leq 40$ [timeless]

slow bow [imperceptible changes]
s.t. —————→ n.

VI. 1 $\frac{25}{4}$ $\frac{20}{4}$ $\frac{15}{4}$ $\frac{10}{4}$

\textit{ppp} [very slow micro intonations w/ l.h.]

slow bow [imperceptible changes]
s.t. —————→ n.

VI. 2 $\frac{25}{4}$ $\frac{20}{4}$ $\frac{15}{4}$ $\frac{10}{4}$

\textit{ppp} \textit{mf} [very slow micro intonations w/ l.h.]

Vla. $\frac{25}{4}$ $\frac{15}{4}$ $\frac{10}{4}$

Scordatura: IV = D (+200 cents)
on IV - slow bow [imperceptible changes]
s.t. —————→ n.

Vlc. $\frac{25}{4}$ $\frac{15}{4}$ $\frac{10}{4}$

\textit{ppp} [very slow micro intonations w/ l.h.]

Elec. $\frac{25}{4}$ $\frac{10}{4}$

on II - slow bow [imperceptible changes]
s.t. —————→ n.

\textit{ppp}

slow bow [imperceptible changes]
s.t. —————→ n.

slow bow [imperceptible changes]
s.t. —————→ n.

on IV - slow bow [imperceptible changes]
s.t. —————→ n.

on II - slow bow [imperceptible changes]
s.t. —————→ n.

ALL: gentle oscillations, enriching the acoustic-electronic drone (Vlc. + Elec.)

$\text{♩} \approx 40$ [Tempo A]

5 VI. 1
p ↔ mp

10 VI. 2
p ↔ mp

Vla.
mf

Vlc.
mf

+IV 8 - normal bow [perceptible changes]
[add short breaks in between to lighten the global texture]
15ma +III 8

+IV 4 - normal bow [perceptible changes]
[add short breaks in between to lighten the global texture]
s.p.

+III 0-2 - normal bow [perceptible changes]
[add short breaks in between to lighten the global texture]

[perceptible bow changes]

+I 7
15ma +II 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"]

[add <#> from time to time]
+III 8

+II 2 / III 3

[add <#> from time to time]

+ III 3
[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"]
[stop <#>]

[add microtonal deviations and gliss. w/ artificial harmonics or normal fingered pitches sounding at the written pitches]
[add <#> from time to time]

+I ↔ □
+III 2 [gentle oscillation, from time to time]

+ IV 3
[disappearing]

$\text{♩} \approx 40$ [Tempo A]

1 | 15ma -

VI. 1

VI. 2

Vla.

Vlc.

$\alpha - \text{Density } (D \approx)$ $J \approx 50$ [Tempo B]

[stop $\#$]

[like 'rests' - from time to time only]

[on III - slow 'seagull' downward glissandi (4th or 5th)]

[vary contact point of the bow ad lib. - but stay in II 2 the chosen region for each different iteration of D]

$mf \leftrightarrow f$ [vary slightly the dynamic of each D]

III 2 + II 2

+III 3

n. ↔ s.p.

+IV 2/3

20

I 7

VI. I

VI. 2

Vla.

Vlc. $\text{B} \frac{15}{4}$

[very slow micro gliss.]

[micro vibrato on I]

I + II 2

ord.

II 2 + III 3

II 2 + III RND higher harmonic than II 2 [high-frequency noise-like]

◇ ord.

mfp

mf

21

VI. I

[on II - RND high harmonic played *capotasto*] **p**

VI. 2

[on II - RND high harmonic played *capotasto*] **pp**

[react to the Vlc., extending his ♯] **p**

Vla.

[on IV - RND high harmonic played *capotasto*] **ppp**
[change of high harmonic on III ad lib, but match about the same register as on the Vla.]

Vlc.

mf **p** **mp** **ord.** **n.** **ord.** **III 4**

2 - Red Shift (DA)

[w/ small variations in shape and length]

[w/ small variations in shape and length]

[w/ small variations in shape and length]

28

III 2 [w/ small variations in shape and length]

VI. 1

n. → ord. ≈ 40 [Tempo A]

VI. 2

ppp [gliss.]

n. → ord. II

Vla.

IV 3

ppp [gliss.]

IV 4

mp

Vlc.

III 5 → ord. III 6

mp ≈

35

3 - Flickering (A)

$\text{♩} \approx 50$ [Tempo B]

VI. 1

VI. 2

Vla.

Vlc.

[micro-gliss.]

II 2 Σ +III 3

f

II 2 / III 3

f

III 8

IV 5

II 3

+I 2

f

III 9

mfp

[rapid and regular finger tremolo]

m.s.p.

III+IV

[rapid and regular finger tremolo]

44 [respond to each other w/ >]

VI. 1

→ m.s.p.
↔ III+IV

[respond to each other w/ >]

SYNC

ASYNC ff ↔ p
[vary rapidly the 'brightness']

VI. 2

[rapid and regular finger tremolo]

↔ m.s.p.
↔ II+III

[respond to each other w/ >]

SYNC

ASYNC ff ↔ p [vary rapidly the 'brightness']

Vla.

[gliss slowly to the next position]

ASYNC

Vlc.

0 → m.s.p.

[rapid and regular finger tremolo]

→ SYNC

[gliss slowly to the next position]

f

ALL: > SYNC on the first beat

51

VI. I > [gliss slowly to the next position] → \square \flat ————— [simile] → \times \flat —————

<> \approx [add <> from time to time] f

VI. 2 > [gliss slowly to the next position] → \square \flat ————— → \times \flat —————

<> \approx [add <> from time to time] f

Vla. → \gg > [gliss slowly to the next position] → \square \flat ————— [simile] → \times \flat —————

< $ff \leftrightarrow p$ [vary rapidly the 'brightness'] f ————— \approx [add longer swells - ca. 5-8" each]

Vlc. > ————— → $\sharp \leftrightarrow \flat$ [slow microtonal variations] → \square \flat ————— mf A 4 - D 7

—> $f \leftrightarrow p$ [vary 'brightness']

58

VI. 1

[add longer swells - ca. 6-9" each]

[simile]

D 7 A♭ 8-9-10

[unstable results]

VI. 2

mf

D 7

Burst: add - besides the longer < > - some exponential bursts w/ a max. dynamic peak of *mf* (like sudden changes in brightness)

RND high harmonics cloud [random and slow harmonic glissando w/ erratic rh. finger in the region of high partials, letting them speak and shimmer clearly]

Vla.

> *mf*

p ↔ *mp* < *mf* > ≈

Vlc.

↪ ↩ [slow microtonal variations]

A♯ 8-9

Trio (Vl. I +2 /Vla.): keep the longer <>, as a progressive change of brightness, coming out of the overall texture

64

Burst: add - besides the longer <> - some exponential bursts w/ a max. dynamic peak of **f** (like sudden changes in brightness)

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]

VI. 1

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]

[Stop Burst]

G 9 - D 8

VI. 2

Vla.

Vlc.

G 7 - D 9

[Stop Burst]

m.s.p. D 12

ppp

pp

[if better play above fingerboard]

75

VI. I G 4 - D 3

[w/ shorter and shorter < > and greater changes in brightness]

VI. 2

Vla.

Vlc. *< mf*

f

D 6

ffff [without < >]
II+III [micro-gliss]
slow bow - n. ↔ s.p.

ffff [without < >]
II+III [micro-gliss]
slow bow - n. ↔ s.p.

ffff [without < >]

82

VI. I

*fff*p *fff*mp *fff*mf *fff*p — each accent *ff*

m.s.p. m.s.p. m.s.p. [very slow and gradual gliss. on III]

ASYNC - fast and regular bow vibrato

VI. 2

*fff*p *fff*mp *fff*mf *fff*p — each accent *ff*

m.s.p. m.s.p. m.s.p. [very slow and gradual gliss. on III]

ASYNC - fast and regular bow vibrato

Vla.

[on I - micro-gliss.] *fff*p *fff*mp *fff*mf > [gliss.] <*ff*> ≈

*fff*p *fff*mp *fff*mf *fff*p <*ff*> ≈

[on I - micro-gliss.] [add RND *ff* m.s.p. bursts of arpeggio back and forth in the region of the notated pitches] [Burst ↑] [add RND *ff* m.s.p. bursts of arpeggio back and forth in the region of the notated pitches]

Vlc.

*fff*mp *fff*mf *fff*mp > [gliss.] <*ff*> ≈

ASYNC - fast and regular bow vibrato

4 - Attraction (A/D>Es)

Burst ↑ [Burst on I-II-III]

Burst ↑ [add RND *ff* m.s.p. bursts of arpeggio back and forth in the region of the notated pitches]

89

Violin 1 (Vi. I) and Violin 2 (Vi. 2) both have glissando markings with square boxes containing 'X' above them. The Violin 1 glissando ends with a dynamic **p**. The Violin 2 glissando ends with a dynamic **p**.

The Cello (Vlc.) has two glissando markings with square boxes containing 'X' above them. The first glissando is labeled "[Burst: on I-II-III]" and the second is labeled "[Burst: on I-II-III]". Both end with a dynamic **p**.

The Bassoon (Vla.) has a glissando marking with a square box containing 'X' above it, labeled "[gliss.]". It ends with a dynamic **p**.

Technical instructions include:

- "play this last gliss. almost Senza Tempo" (above Violin 1)
- "play this last gliss. almost Senza Tempo" (above Violin 2)
- "Burst: **mf**" (above Violin 1)
- "m.s.p." (above Violin 1)
- "[RND ◊ on II]" (above Violin 1)
- "[Stop Burst - oscillate only]" (above Violin 1)
- "n." (above Violin 1)
- "[RND ◊ on II]" (above Bassoon)
- "[Stop Burst - oscillate only]" (above Bassoon)
- "[micro gliss on III]" (above Bassoon)

96

VI. I

VI. 2

Vla.

Vlc.

5 - Ascent (>D)

p

p

p

m.p.

[long cycles of ca. 10-15" each]

ca. 10-15" each

101

VI. I

VI. 2

Vla.

Vlc.

12

n.

[IV - ♫]

6 4 8 4 ♫

pp p

pp

pp

mp

12

n.

[IV - ♫]

8 4 ♫

pp

IMPRO - Gliss. [III - hold open D / IV - slow glissandi from G# to D with the following rules — speed: accelerate gradually - bottom pitch: gradually higher]

12

12

12

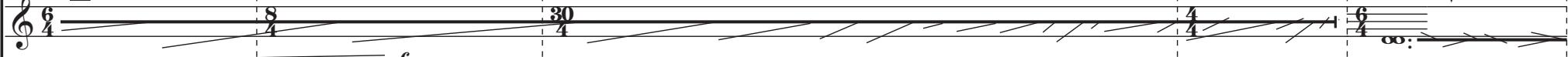
12

mp

p

106 **IMPRO — Gliss.** [like VI. 2: III - hold open D / IV - slow glissandi from G# to D with the following rules — speed: accelerate gradually - bottom pitch: gradually higher] □

VI. 1 

VI. 2 

Vla. 

Vlc. 

[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.] □

[w/ some gliss. exceeding D] □

[stabilize on D - less gliss. but mix ascending and descending micro-gliss.] □

[w/ some gliss. exceeding D] □

[w/ some gliss. exceeding D] □

[w/ some gliss. exceeding D] □

VI. I

VI. I + 2 / Vla.: $\curvearrowright n.$

[less *alla corda*, more staccato]

VI. I

VI. II

Vla.

Vlc.

10

3 **4** **8** **12** **6**

mp **subito** **f** **mp**

[add "bigger" desc. and asc. gliss.]

[steady, w/ slow and long bows; w/ regular and perceptible changes (ASYNC)]

[add bow vibrato - subtle but continuous]

10

3 **4** **8** **12** **6**

mp **subito** **f** **mp**

[stabilize on D - less gliss. but mix ascending and descending micro-gliss.]

[steady, w/ slow and long bows; w/ regular and perceptible changes (ASYNC)]

[add bow vibrato - ad lib.]

10

3 **4** **8** **12** **6**

mp **subito** **f** **mp**

[add bow vibrato - subtle but continuous]

10

3 **4** **8** **12** **6**

fffpp **mp** **f**

[metallic attack]

[sound like guitar-feedback, quasi solo, emerging out of the surface - search for differential tones and/or beatings]

III 5

Musical score for strings (VI. I, VI. 2, Vla., Vlc.) showing four staves. The score includes dynamic markings and performance instructions:

- Staff 1 (VI. I): Dynamic (bow vibrato) at measure 117.
- Staff 2 (VI. 2): Dynamic IV 5 at measure 10; dynamic ppp at measure 10 followed by f at measure 11.
- Staff 3 (Vla.): Dynamic +IV 7 at measure 10 followed by f at measure 11.
- Staff 4 (Vlc.): Dynamic +I 5 at measure 10 followed by ff at measure 11.
- Staff 1 (VI. I): Dynamic IV 4 at measure 11.
- Staff 2 (VI. 2): Dynamic ff at measure 11.
- Staff 3 (Vla.): Dynamic +III 4 at measure 11.
- Staff 4 (Vlc.): Dynamic ff at measure 11.
- Staff 1 (VI. I): Dynamic +III 6 at measure 11.
- Staff 2 (VI. 2): Dynamic +II 8 at measure 11.

125

6 - Gravity (G)

VI. 1 +IV 7

VI. 2 [add medium-long swells - ca. 4-7" each]

Vla. III 5 +IV 8
+II 4 m.s.p. [slow gliss. on III]

Vlc. +I 7 +II 11 mp
 m.s.p. [slow gliss. on IV]

IV 8

m.s.p. [slow gliss. on IV]

n.

133

Vi. I $\frac{10}{4}$ $\frac{15}{4}$ $\frac{10}{4}$ $\frac{15}{4}$ $\frac{10}{4}$

Vi. 2 $\frac{10}{4}$ $\frac{15}{4}$ $\frac{10}{4}$ $\frac{15}{4}$ $\frac{10}{4}$

Vla. $\frac{10}{4}$ $\frac{15}{4}$ $\frac{10}{4}$ $\frac{15}{4}$ $\frac{10}{4}$

Vlc. $\frac{10}{4}$ $\frac{15}{4}$ $\frac{10}{4}$ $\frac{15}{4}$ $\frac{10}{4}$

138

Musical score for strings (Vi. I, Vi. 2, Vla., Vlc.) at measure 138. The score consists of four staves. The first three staves (Vi. I, Vi. 2, Vla.) are in treble clef, and the Vlc. staff is in bass clef. The key signature is B^{\flat}E . The time signature is $\frac{4}{4}$ throughout the score. The music features sustained notes with grace notes and dynamic markings. Measure 138 starts with a forte dynamic (f) for all instruments. The violins play eighth-note patterns with grace notes. The viola and cello provide harmonic support with sustained notes. Measure 139 begins with a dynamic marking mp , followed by a dynamic f and a tempo marking \approx .

Vi. I

Vi. 2

Vla.

+IV [slow gliss.]

mp

f

\approx

Vlc.

+IV [slow gliss.]

mp

f

\approx

144

Musical score for strings (Vi. I, Vi. 2, Vla., Vlc.) at measure 144. The score is in common time (indicated by '4'). The key signature changes between measures: 5 sharps in the first measure, 4 sharps in the second, 4 flats in the third, 1 sharp in the fourth, and 2 sharps in the fifth. The parts are divided into sections by vertical dashed lines. The first section (measures 1-4) consists of sustained notes. The second section (measures 5-8) shows a transition with grace notes and slurs. The third section (measures 9-12) features sustained notes with small vertical strokes. The fourth section (measures 13-16) includes dynamic markings: [slow gliss. on IV] with a grey square, [granulated, but continuous sound texture] with a black square, and *mp* (mezzo-forte) at the end.

Vi. I

Vi. 2

Vla.

Vlc.

[slow gliss. on IV]

[with a noisier sound texture]

[slow gliss. on IV]

[granulated, but continuous sound texture]

mp

150 **B - Fusion (G♯/♯)**

VI. 1

VI. 2

Vla.

Vlc.

+III
11 - ♯ ↔ ♭ and micro-gloss. ad lib.

□ ↔ □

[very slow gliss. back to G♯]

s.p.

mf

20

20

20

20

20

20

20

20

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

155 on II - m.s.p. - normal ↔ fast bow - □ ↔ ■
[electric vibrato-glissando and trills on medium-high harmonics]

[add RND harmonic bursts: sudden back and forth harmonic glissando]

VI. I

VI. 2

Vla.

Vlc.

12/4 8/4 6/4 4/4 8/4 12/4 12/4

Dynamics: *ppp*, *pp*, *p*, *mf*, *ff*, *mp* ↔ *f*, *mp* ↔ *f*, *pp*, *mp* ↔ *f*

Performance Instructions:

- VI. I: on II - m.s.p. - normal ↔ fast bow - □ ↔ ■ [electric vibrato-glissando and trills on medium-high harmonics]
- VI. 2: on II - m.s.p. - normal ↔ fast bow - □ ↔ ■ [electric vibrato-glissando and trills on medium-high harmonics]
- Vla.: on II - m.s.p. - normal ↔ fast bow - □ ↔ ■ [electric vibrato-glissando and trills on medium-high harmonics]
- Vlc.: very slow gliss. back to G♯ - m.s.p.
- VI. I: add RND harmonic bursts: sudden back and forth harmonic glissando
- VI. 2: add RND harmonic bursts: sudden back and forth harmonic glissando
- Vla.: add RND harmonic bursts: sudden back and forth harmonic glissando
- Vlc.: add RND harmonic bursts: sudden back and forth harmonic glissando
- VI. I: add particles and noisy elements: i.e. more ■ + ricochets ↗ + ↘
- VI. 2: add particles and noisy elements: i.e. more ■ + ricochets ↗ ↘
- Vla.: add RND harmonic bursts: sudden back and forth harmonic glissando
- Vlc.: add RND harmonic bursts: sudden back and forth harmonic glissando

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VI. I

LINES of FORCE: VI. 2 + Vla.

LINES of FORCE: add SYNC swells to the ELECTRIC CHARGES element

PARTICLES FIELD

LINES of FORCE: VI. I + Vlc.

LINES of FORCE: VI. I + Vla. + Vlc.

[80% SYNC - you can leave the group and have a different gesture, direction, dynamic, ...]

LINES OF FORCE: All SYNC
[Cadenza with IMPRO Particles v2]

[add tremolo ad lib.]

< > SYNC w/ Vlc.

VI. 2

< p ↔ ff

SYNC w/ Vla.

[add particles and noisy elements: i.e. spazzolare tremolo and rjochets]

< > SYNC w/ VI. I + Vla. + Vlc.

Vla.

< p ↔ ff

SYNC w/ VI. 2

[add particles and noisy elements: i.e. spazzolare tremolo and rjochets]

< > SYNC w/ VI. I + Vlc.

[80% SYNC - you can leave the group and have a different gesture, direction, dynamic, ...]

[add tremolo ad lib.]

VIc.

< p ↔ ff

[add noisy elements: + bow tremolo + spazzolare tremolo]

< > SYNC w/ VI. I

< p ↔ ff

ppp ↔ fff

[80% SYNC - you can leave the group and have a different gesture, direction, dynamic, ...]

[add tremolo ad lib.]

DISSIPATION

166

$\text{♩} \approx 40$ [Tempo A]

[stabilize gradually]

[stable, but w/ some micro-unstabilities]

VI. I

< *fff* — *ppp* \leftrightarrow *ff* — *p* \leftrightarrow *mf* — *pp* \leftrightarrow *p*

VI. 2

< *fff* — *p* \leftrightarrow *f* — *p* \leftrightarrow *mf* — *pp* \leftrightarrow *p*

Vla.

< *fff* — *p* \leftrightarrow *mf* — *ppp* \leftrightarrow *p*

Vlc.

< *fff* / *p* \leftrightarrow *f* — *ppp* \leftrightarrow *p*

8 - Descent (◊)

15ma \rightarrow

11

[unstable and slow melody around harmonic III-12]

[stable, but w/ some micro-unstabilities]

8 — 10

I 72

VI. 1

f subito

[PARTICLES BURST: very granular; but mostly *molto legato* - w/ and] on II - m.s.p.

pp ↔ p

mp

[add higher and lower harmonics around III 12 but without playing it, densifying the texture]

VI. 2

ppp **fff**

[PARTICLES BURST: very granular; but mostly *molto legato* - w/ and] on I - m.s.p.

pp ↔ p

mp

[add higher and lower harmonics around III 12 but without playing it, densifying the texture]

Vla.

pp **fff**

[PARTICLES FIELD: w/ + bow and spazzolare tremolo and] on I - m.s.p.

ppp ↔ pp

short —————→ long [no trill]

Vlc.

fff

[micro trill w/ upward gliss.]

[starting point: begin at I 2 and get progressively higher arrival point: circa region of VI. 1 + 2! process: short to longer gliss. w/ less to no trill w/ a drunken waveline]

VI. I

180
+II
(on III and II)
I5ma - [same register - add intricated harmonics of II 8-II 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] [>>> ↔ >>]

[two high descending melodies on II and III w/ - no gliss., from a very high register till E6 (II 6 - III 9)]

VI. 2

+II
(on III and II)
I5ma - [same register - add intricated harmonics of II 8-II and seach for differential tones]

p ↔ mp

[>> [two high descending melodies on II and III w/ - no gliss., from a very high register till E6 (II 6 - III 9)]

mf ↔ f

[sim. as VI. I + 2 - on I and II w/ - from a very high register till E6 (I 6 - II 9)]

mf ↔ f

Vla.

on I [calm harmonic descending glissando from a high harmonic] IMPRO - Gliss. desc.

mf

ff

Vlc.

on I [calm harmonic descending glissando from a high harmonic] IMPRO - Gliss. desc.

mf

The musical score consists of four staves: VI. I, VI. 2, Vla., and Vlc. The time signature is mostly common time (4/4). The key signature varies between common and one sharp. Dynamics include *p*, *mp*, *mf*, *f*, and *ff*. Performance instructions include 'give an accent to the Vla. on the first beat to begin the gliss.', '[simile]', '[two high descending melodies on II and III w/ - no gliss., from a very high register till E6 (II 6 - III 9)]', '[two high descending melodies on II and III w/ - no gliss., from a very high register till E6 (II 6 - III 9)]', '[sim. as VI. I + 2 - on I and II w/ - from a very high register till E6 (I 6 - II 9)]', and 'IMPRO - Gliss. desc.'. There are also markings for 'mf ↔ f' and 'ff'. The score uses standard musical notation with stems, rests, and bar lines, along with specific performance symbols like diamond shapes and arrows.

$\text{♩} \approx 50$ [Tempo B]

186

VI. I

IMPRO - Desc. line [vary the length of the descending melodies - arrival pitch should be gradually lower and lower]

ALL: stay longer and longer on the arrival pitch

ALL: mix gradually descending melodies with low natural harmonics swells from 9 - Radiance

VI. 2

[simile]

IMPRO - Desc. line [vary the length of the descending melodies - arrival pitch should be gradually lower and lower]

III + IV $\boxed{\text{II}}$

Vla.

[simile]

IMPRO - Desc. line [vary the length of the descending melodies - arrival pitch should be gradually lower and lower]

III + IV $\boxed{\text{II}}$

Vlc.

[sim. as VI. I + 2 - on I and II w/ \square from a very high register till E6 (I 6 - II 9)]

IMPRO - Desc. line [vary the length of the descending melodies - arrival pitch should be gradually lower and lower]

II + III $\boxed{\text{II}}$

III 6/8-II

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
VI. I + 2: add from time to time some very rare 'remains' of small glissandi

ALL: switch gradually to the new pitch class

I 92 **9 - Radiance (◊)** $\text{♩} \leq 40$ [timeless]

The musical score consists of four staves: VI. 1, VI. 2, Vla., and Vlc. The key signature is A major (no sharps or flats). The time signature starts at $\frac{4}{4}$ and changes to $\frac{20}{4}$ at measure 20. The tempo is $\text{♩} \leq 40$.

VI. 1: Measures 1-19 show various bowing techniques (e.g., <>, <>>). Measure 20 starts with a dynamic $mp \leftrightarrow mf$. The score includes a box labeled "I + II" with a grid of symbols.

VI. 2: Measures 1-19 show various bowing techniques. Measure 20 starts with a dynamic $mp \leftrightarrow mf$. The score includes a box labeled "I + II" with a grid of symbols.

Vla.: Measures 1-19 show various bowing techniques. Measure 20 starts with a dynamic $mp \leftrightarrow mf$. The score includes a box labeled "I + II" with a grid of symbols.

Vlc.: Measures 1-19 show various bowing techniques. Measure 20 starts with a dynamic $mp \leftrightarrow mf$. The score includes a box labeled "I + II" with a grid of symbols.

Performance Instructions:

- [continuous, slow and *legatissimo* melody of the notated medium-high natural harmonics on the II + III strings]
- [add more and more bow tremolo with the swells]
- [add more and more bow tremolo with the swells]
- [add more and more bow tremolo with the swells]
- [with less and less tremolo]

Dynamics:

- $> mp$
- $mp \leftrightarrow mf$

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 (◊)

I + II [11]

VI. I

195 8

[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.), ...]

12 4 ♫ ↔ ♪ → [add more variations and more subtle dynamic changes for **10 - Nebula**]

40 4 ppp ↔ mf [add more variations and more subtle dynamic changes for **10 - Nebula**]

10 4 [gradually, less movement and noisy elements]

VI. 2

8

[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.), ...]

12 4 ♫ ↔ ♪ → [add more variations and more subtle dynamic changes for **10 - Nebula**]

40 4 ppp ↔ mf [add also some trills, micro-glissandi, delicate sub pont. sounds on I-II (transition to sub pont. sounds can be somewhat instable and noisy), ...]

10 4 [gradually, less movement and noisy elements]

Vla.

8

[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.), ...]

12 4 ♫ ↔ ♪ → [add more variations and more subtle dynamic changes for **10 - Nebula**]

40 4 ppp ↔ mf [add also some trills, micro-glissandi, delicate sub pont. sounds on I-II (transition to sub pont. sounds can be somewhat instable and noisy), ...]

10 4 [gradually, less movement and noisy elements]

Vlc.

8

12 4 ♫ ↔ ♪ → [add more variations and more subtle dynamic changes for **10 - Nebula**]

40 4 ppp ↔ mf

10 4 [gradually, less movement and noisy elements]

199 [gradually, less movement and noisy elements]

VI. I

$\frac{6}{4}$ $\frac{2}{4}$ $\frac{10}{4}$ $\frac{8}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$

mf

I 0 - II 0 - III 2

II - Blue Shift ($>\text{E}$)

$\frac{8}{4}$ $\frac{6}{4}$ $\frac{8}{4}$ $\frac{8}{4}$

$\frac{10}{4}$ $\frac{6}{4}$ $\frac{8}{4}$ $\frac{8}{4}$

$\frac{10}{4}$ $\frac{6}{4}$ $\frac{8}{4}$ $\frac{8}{4}$

10 + II

VI. 2

$\frac{6}{4}$ $\frac{2}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$

mf

I / II 0-2 / III 0-2

s.p. \leftrightarrow m.s.p.
[gliss. + harmonic trill]

Vla.

$\frac{6}{4}$ $\frac{2}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$

mp tr

s.p. \leftrightarrow m.s.p.
[gliss. + harmonic trill]

$\frac{8}{4}$ $\frac{6}{4}$ $\frac{8}{4}$ $\frac{8}{4}$

$\frac{10}{4}$ $\frac{6}{4}$ $\frac{8}{4}$ $\frac{8}{4}$

$\frac{10}{4}$ $\frac{6}{4}$ $\frac{8}{4}$ $\frac{8}{4}$

[gliss.]

Vlc.

$\frac{6}{4}$ $\frac{2}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$ $\frac{10}{4}$

$\text{mp} \leftrightarrow \text{mf}$

I 2-4 / II 2-4

$\frac{8}{4}$ $\frac{6}{4}$ $\frac{8}{4}$ $\frac{8}{4}$

$\frac{10}{4}$ $\frac{6}{4}$ $\frac{8}{4}$ $\frac{8}{4}$

$\frac{10}{4}$ $\frac{6}{4}$ $\frac{8}{4}$ $\frac{8}{4}$

I 2-3 / II 3-4

+I 3

$\text{mf} \leftrightarrow \text{f}$

p \approx

[long, calm and transparent swells]

207 +II 0 [gliss.]

VI. 1

VI. 2

Vla.

Vlc.

f

p *≈* [long, calm and transparent swells ca. 8-10" each]

mp

I + II 4-5

+III 6/8

[slow bow, imperceptible changes]

[explore the different harmonic components, varying bow speed, pressure and contact point]

f

p

mp

[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

I2 - Cluster (E>G)

2/4 (II 5 / III 8) suddenly: slow bow, imperceptible changes

VI. I: **pp**

VI. 2: **mp** → **pp**

Vla.: **pp**

Vlc.: **p**

[on II] frozen microtonal intonation of E ad lib. [slow bow, imperceptible changes]

normal bow

add bow pressure

normal ↔ fast bow

add bow pressure

mf ↔ f

fade out into a normal harmonic

normal bow

add bow pressure

mf ↔ f

All measures include tempo markings: 2/4, 16, 2, 3, 4, 6, 8.

222

add bow pressure $\boxed{>>}$

VI. I

$\text{mf} \leftrightarrow f$

normal \leftrightarrow fast bow

[no scratch, but 'plastic' sound] $\boxed{\square \leftrightarrow \blacksquare}$

II 7 - III 11 $\boxed{>>}$ ASYNC

$\boxed{> \leftrightarrow >>}$ SYNC

$\boxed{>}$ SYNC

$\text{ff} \leftrightarrow \text{fff}$

VI. 2

$\boxed{>>}$

normal \leftrightarrow fast bow

[no scratch, but 'plastic' sound] $\boxed{\square \leftrightarrow \blacksquare}$

I 5 / II 7

$\boxed{>}$ SYNC $\boxed{>>}$ ASYNC

$\boxed{> \leftrightarrow >>}$ SYNC

$\text{mf} \leftrightarrow f$

Vla.

II 11 / III 14-15

$\boxed{\sharp \square \sharp \square \sharp \square}$

$\boxed{>}$ SYNC $\boxed{>>}$ ASYNC

$\boxed{> \leftrightarrow >>}$ SYNC

$\text{ff} \leftrightarrow \text{fff}$

Vlc.

normal \leftrightarrow fast bow

[no scratch, but 'plastic' sound] $\boxed{\square \leftrightarrow \blacksquare}$

I 14 / II 21

$\boxed{>}$ SYNC $\boxed{>>}$ ASYNC

$\boxed{> \leftrightarrow >>}$ SYNC

$\text{ff} \leftrightarrow \text{fff}$

Musical score for strings (VI. I, VI. II, Vla., Vlc.) showing four staves. The score includes tempo markings (230), measure numbers (8, 6/4, 12/4, 8/4, 20/4), and performance instructions (ASYNC, SYNC, slow bow).

ALL: each group plays ASYNC a regular, slow accent > pulse with a cycle oscillating between 4" min. and 7" max.
VI. I+2: play together (SYNC) as one group

13 - Collapse (M*)

235

VI. I

VI. 2

Vla.

Vlc.

ASYNC
[Multiphonic: bow position between the left hand and the end of the nut]

fff steady

ASYNC
[Multiphonic: bow position between the left hand and the end of the nut]

fff steady

ASYNC
[Multiphonic: bow position between the left hand and the end of the nut]

fff steady

ASYNC
[Multiphonic: bow position between the left hand and the end of the nut]

fff steady

243

Musical score for strings (Vi. I, Vi. 2, Vla., Vlc.) on four staves. The score consists of measures 243-244. Measure 243 starts with a rest followed by a multiphonic glissando instruction. Measure 244 continues the glissando. Various fingerings (3, 5, 7, 9) and muting techniques (X) are indicated along the staff. Measure 245 begins with a rest followed by another multiphonic glissando instruction.

VI. I

VI. 2

Vla.

Vlc.

[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)]

250 **Y - Disintegration (X)** $\downarrow \approx 40$ [Tempo A]

VI. I  $\frac{20}{4}$

VI. 2  $\frac{20}{4}$

Vla.  $\frac{20}{4}$ - \otimes 

[Multiphonic glissando - very slow, towards the fingerboard and s.t. region (w/ the bow and left hand)]

Vlc.  $\frac{20}{4}$  $\frac{30}{4}$  $\frac{10}{4}$ 

\square [maximal pressure - hold bow
 > w/ fist, search for subtones]

\downarrow $\frac{<40}{4}$ 

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

