

stars from the earth
stars from the stars

for amplified flute, clarinet, violin, cello,
and percussion with electronics

Julio Zúñiga (2019)

In the fall of 2016, several U.S. diplomats working for the American embassy in Havana fell victim to what was initially described as a sonic weapon supposedly devised by the Cuban government. In part due to lack of evidence and the seemingly complete absence of communication between U.S. and Cuban scientists investigating the case, the explanation that circulated in the news media for several months was that cicadas on the island were so loud that they made the U.S. officials ill.

In 1978, Mercedes Sosa recorded María Elena Walsh's song "Como la cigarra," which became a popular protest song against the Latin American authoritarian regimes of the second half of the 20th century. "Singing to the sun like the cicada /after a year underground, / like a survivor / returning from war," goes the chorus. In fact, most periodic cicadas spend 17 years underground as nymphs before emerging to reproduce and die.

At the beginning of the 20th century, Jakob von Uexküll discovered that a tick completely deprived of nourishment could survive in an inert state for as long as 18 years. After that time, when provided blood, the animal awoke to feed and died.

INSTRUMENTATION AND SETUP

piccolo, bass flute

1x MIDI cue pedal

violin

1x metal+rubber mute

cello

1x metal+rubber mute

E^b clarinet, contrabass cl.

1x MIDI cue pedal

EHX Bass Micro Synthesizer

EHX Canyon – Delay and Looper

percussion

2x snare drums

1x 29" timp

1x computer, phone, or any device with an 1/8" headphone jack

2x vibration speakers (1st perf.: Dayton Audio DAEX25 Exciters)

7x condenser mics (1st perf. list below; use similar mics subsequently)

5x Neumann KM185: 1x on picc/bfl, 1x on vn, 1x on E^b cl, 2x on perc

1x AKG414 on vc

1x DPA 4088 on cbcl

1x small mixer

1x reamper


1x DI box

5.1 speaker arrangement (1x sub, 1x center speaker, quad system)

GENERAL INDICATIONS AND PEDALS

This is a **transposing** score. In addition to the customary transposition applied to the contrabass clarinet, the Bass Micro Synth, when on, will transpose the resulting pitch yet one more octave down.

Small arrows on accidentals indicate subdivisions smaller than a quarter tone.

Spatialization for each instrument at any given moment is indicated using these symbols: 

This has been automated in Max MSP and is activated by MIDI pedal cues. It appears in the score mostly for reference.

Dynamics are to be interpreted very literally throughout. *cresc.* and *decresc.* should not be applied to note onsets and offsets, respectively. Rather, the impression of crude sonic blocks is desired. (Think of **NOTE ON, NOTE OFF.**)

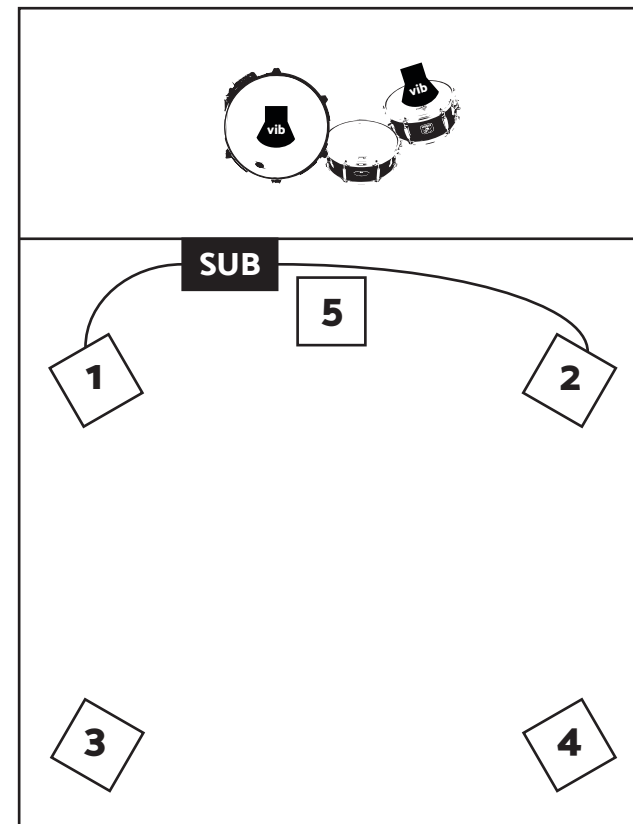
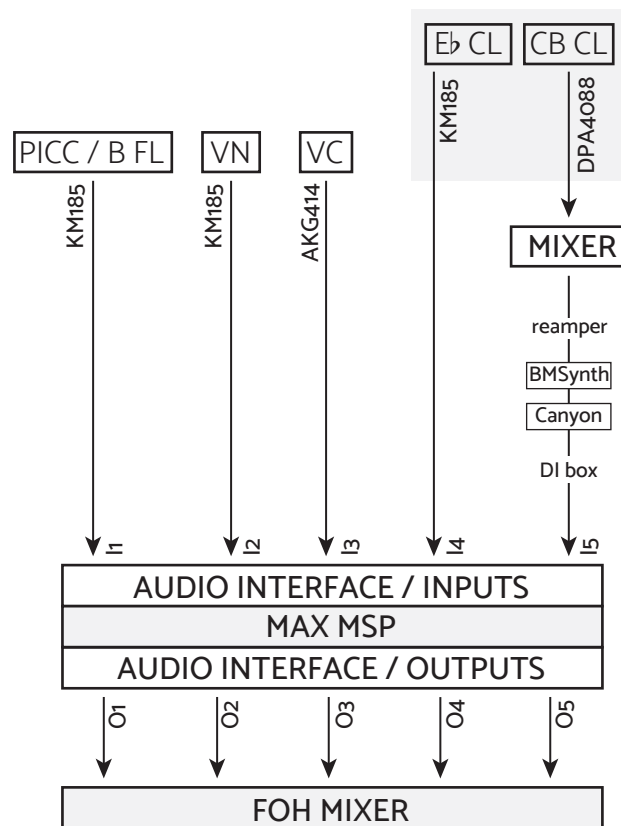
FLUTE

MIDI pedal cues are indicated with large, boxed numbers. When these appear right below the flute staff—as opposed to the clarinet staff—the flutist is asked to activate the corresponding electronic cue.

The bottom hole of the piccolo must be prepared using very finely sliced aluminum foil prior to the performance. The flutist is asked to remove this preparation and in m. 33 and to put it back on during the 6-min. section in m. 92.

ROUTING DIAGRAM

Flutes, violin, cello, and clarinets must not be on stage but in a separate room, invisible to the audience. Their live signals are fed into the hall using the routing scheme below. When possible, the clarinetist should sit a little farther away from the other three performers to keep its signal very clean; it is important, however, that there is visual contact between the four performers throughout.




the five outputs from FOH are sent to their corresponding speaker numbers; sub receives channels 1 and 2 as buses

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for Madison Greenstone and
the [Switch~ Ensemble]

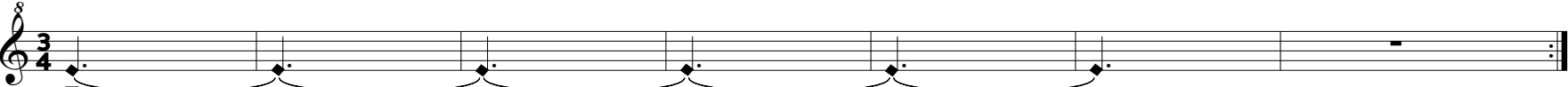
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$\text{♩} = 44$

prepared

PICC



mp

1

[illegible]

22

33"

B FL

VN

VC

CB CL

decresc. to niente over 33"

p

3

OCTAVE PEDAL (setting 1) **ON**



32

(C, V, F)

fl: → remove picc preparation

10"

CB CL

ppp

4

5

20"


62Hz

+64Hz

OCTAVE PEDAL **OFF**

(♩ = 66)

34



CB CL

embouchure gliss. [a] [i]

mp

6

p

mp

(full tone)

measured vib.

40

(everything simile)

CB CL

mp

p

mp

3 1 3 1 3 1 3 1

4 8 4 8 4 8 4 8

46

CB CL

mp

p

mp

5 3 4 3 4 3 4 3

4 4 4 4 4 4 4 4

52

CB CL

mp *p* *mp*

58

CB CL

_____ x4 _____

mp *p* *mp*

86

CB CL

(no pitch! but retain exact same gesture)

mp *p*

7

pre-recorded Eb cl

sounding

TAPE

8"

mf

92

TAPE



recording of sunrise, 4:30-6 AM on Sunday, August 4, 2019, 9°10'03.0"N 83°43'19.8"W

93 $\text{♩} = 88$

B FL

bridge

fingerboard

VN

bridge

fingerboard

VC

fingerboard

curve bow gradually

stop bow on string

CB CL

CANYON SHIMMER ☒ ON

slowly bring FX LVL up by about 20%

10

5"

98

B FL

f *mp* *p* *pp* *p* *ppp* *ppp*

6 5

VN

mp *p* *pp* *ppp* *sempre*

5 5 5

VC

mf *p* *ppp* *almost imperceptible*

5 5 5

CB CL

f → E^b cl

... always as close to lh. as possible

11

103

no cresc.

8va

2/4

♩ = 74

108

prepared PICC

12

VC

TAPE

"... cantando al sol..."



113

prepared PICC

13

mp

VC

mf

TAPE

remove picc preparation

14

prepare 2nd string

119

PICC *8^{va}* ————— *—(sempre 8^{va})—*

“pp” always

15

VN *15^{ma}* ————— *—(sempre 15^{ma})—*

pp constantly adjust to match picc's dyn. level

TAPE grains

127

PICC

VN *ppp* almost imperceptible

TAPE

135

PICC

VN

TAPE

143 (8) . . .

PICC

VN

TAPE

keep very, very stable

16

151

PICC

VN

159

PICC

VN

TAPE

17

167 (8) . . .

PICC

VN

TAPE

175

PICC

VN

TAPE

$\text{♩} = 88$

182

PICC

(8) . . .

digital reverb on picc and vn + vol level suddenly comes down 9-12dB (triggered by cl) → reverb wet signal increases while dry signal decreases to nothing over the next 18 seconds

VN

(15) . . .

VC

II (rattling on prepared 2nd string)

mp

(w/o losing fundamental)

no rattling: cover 2nd string if necessary

f

E♭CL

(both pedals OFF)

18

gradually emphasize upper pitch only

mf

SINES

1 2 +SUB

412Hz

mf

90"

19

TAPE

machine

187 (8) . . .

PICC

hold pitch for 11"

p poss.

rearticulate but do not overemphasize

levels for picc and vn go down significantly but not completely here; audio file triggered by cl cuts them off definitively at m. 190

→ bass fl

VN

(15) . . .

hold pitch for 11"

p poss.

rearticulate but do not overemphasize

VC

15^{ma}

pp

approach mic as much as possible

21

→ contra 8^{ve} pedal (setting 2)

30"

TAPE

machine

20

SINES

43.8Hz

191 (♩ = 88)

B FL *pp* **22** **23** move slightly away from microphone

VN metal+rubber mute on *fp*

VC metal+rubber mute on prepare 2nd string *ff*

OCTAVE PEDAL **ON** **5**

CB CL

TAPE 9" highs

B FL *p* *pp* *ppp* 3

arco ord. 8va 5 5 stop bow on string

VN w/ mute *mp* + (lv) 5 delicately add bow

arco ord. stop bow on string

VC w/ mute *mp* + (lv) 5 press for C⁺ softly w/lh. then delicately add bow 3

CB CL *ppp* **24** **25**

SINES

poco a poco decrescendo

$\text{♩} = 74$

196 8_{VCL} ♯C_4 ♯C_4

very slow bow
very close to l.h. gradually detach bow from 1st
string and remain only on 2nd

[rearticulate every 8 beats]

pp

1'

very slow bow
very close to l.h. gradually detach bow from 2nd
string and remain only on 3rd

[rearticulate every 8 beats]

pp

2'

TAPE

1 2
+SUB

♯C_4

sol: 24.5Hz

(25)

PERC

r.h.: chain

l.h.: brush on snare 1

vib. speaker on snare 2 . . .