Steve Antosca

threads

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flute/alto flute, clarinet/bass clarinet, percussion, piano, computer, violin, viola, cello

world premiere
June in Buffalo
University at Buffalo, State University of New York
June 4, 2009

VERGE ensemble
Robert Pound, conductor
David Whiteside, alto flute/flute
E. Michael Richards, bass clarinet/clarinet
Lura Johnson, piano
Steve Antosca, computer
Barry Dove, percussion
Lina Bahn, violin
John Pickford Richards, viola
Tobias Werner, violoncello

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the American Composers Forum
funded by the Argosy Foundation Contemporary Music Fund

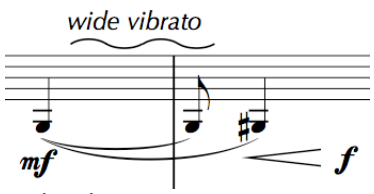
chamber set - threads - Steve Antosca

performance notes

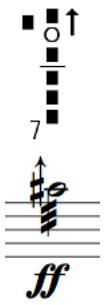
alto flute/flute

the alto flute must use a microphone or instrument pick-up. this gets turned on at ms. 195 of the alto flute solo and is turned off after the alto flute solo at ms. 250. be careful not to set the alto flute down for the flute until after the mic has been turned off. it is possible, if necessary, to turn the mic on at the beginning of the piece for added flute signal in the hall. if this is done, only a minimal amount of signal is needed. a windscreen for the mic is advisable.

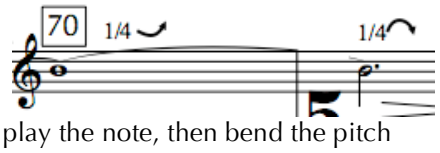
a number of extended performance techniques are called for on the alto flute.



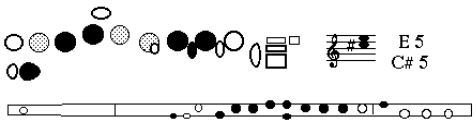
wide vibrato



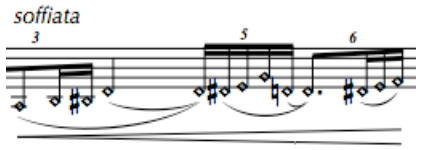
quarter tone
sharp or flat



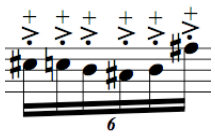
play the note, then bend the pitch
up and/or down by rolling the flute



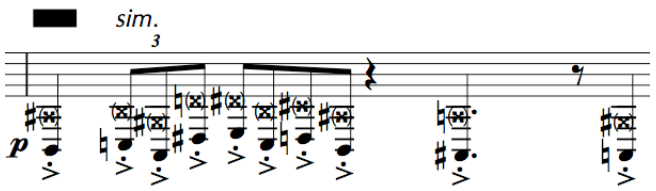
multiphonics



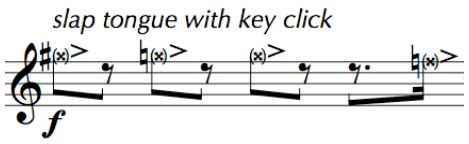
soffiata – alternate tone-color



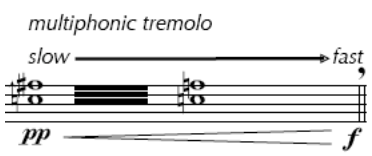
key click with pitch



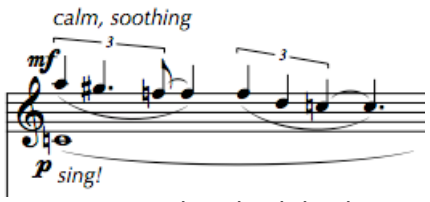
closed key click (sounds M7 lower)



slap tongue with key click

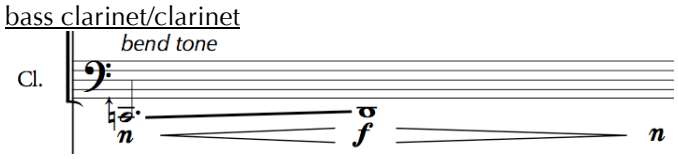


multiphonic tremolo

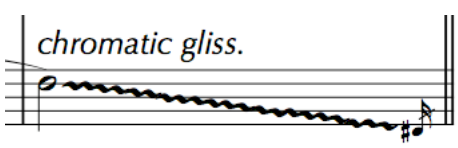


sing a sustained pitch while playing

bass clarinet/clarinet



start a quarter-tone sharp, then bend to the pitch above



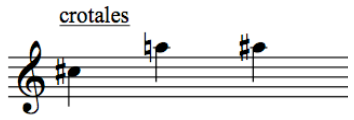
a descending chromatic scale, as smoothly as possible

percussion
5 octave marimba
vibraphone (ord. & bowed)
bongos
wind gong (struck & bowed)
timpani (Db) – 32″ with cymbal resting on the drum head
temple blocks
thunder tube (spring drum), 4″ X 10″ – suspended

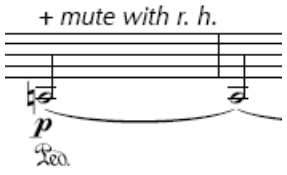
indicates shaking the thunder tube and opening and closing the opening with the hand to create a wa-wa effect.

fingered cymbals (tingsha bells) - 1 pair, suspended. these should be dissonant.

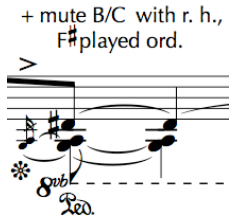
crotales (bowed)



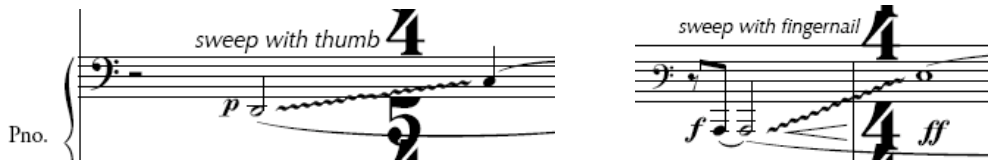
piano



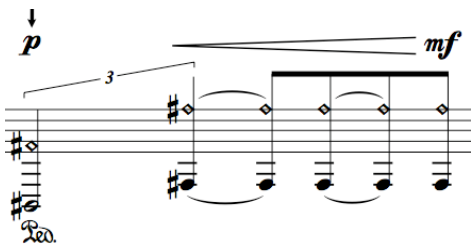
notes with a + above them indicate muting the string. groups of notes may be muted with the hand or a felt piano cloth.



play the muted notes immediately before the ord. notes.



sweep with either thumb or fingernail as indicated. ranges are approximate and will vary on different pianos.



to produce the harmonics on the piano, the pianist must touch the string at the node that will produce the requested harmonic (indicated by the diamond notehead). the lower ord. note is the key that is struck.

general score notation
there are a few issue in the score notation that require some description.

time/space notation sections at **A** – **E** and **V** – **W**

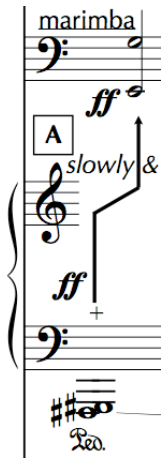
during these sections the pulse is equivalent to ♩ = 60.

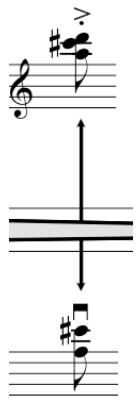
approximate durations of each section are indicated in the score. these can be taken freely, but the tempo should not drag. instruments entrances are cued by the conductor.

bent arrows are used to indicate approximate following another instrument's entry.

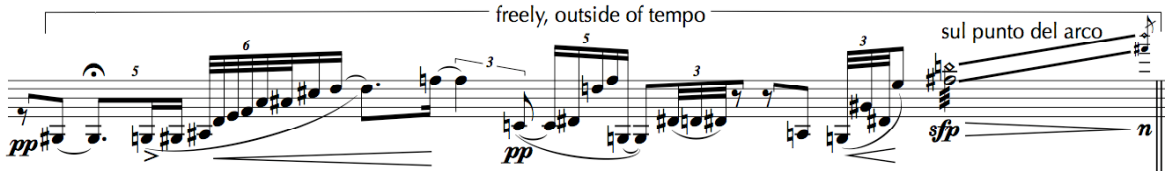
OR

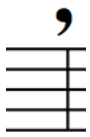
straight arrows indicate precise entry points, an points, one instrument alignment of the entry of two or more instruments.



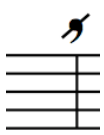


At **W**, the flute and violin are instructed to play "freely, outside of tempo." while the other performers play at the conducted tempo, the flute and violin play *rubato* at these points. the pianist has similar instructions at ms. 260.





a breath mark is a pause in time, all performers take a breath in time together, approximately 1 second, then resume together in tempo.



a short breath mark is used for individual performers and indicates that those performers take a momentary pause or breath in the phrase, but tempo continues uninterrupted. this is closely related to a rest, but is used freely, so that the written note just before the breath mark is shortened slightly to allow for the short pause in the phrase. this is used in ms. 263 & 264 in the percussion and in ms. 264 in the violin and viola.

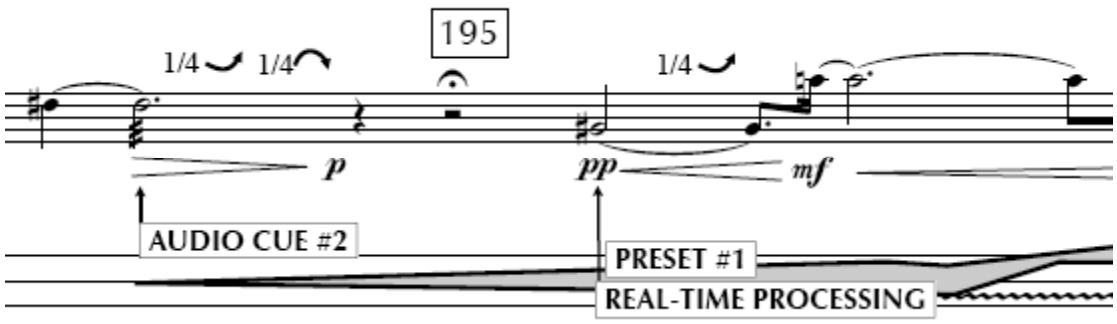
all grace notes occur before the beat.

computer

the computer is used at two points in *threads*, at the end of **B**, after the piano's "fast and light" entrance and is marked "AUDIO CUE #1", then at the opening of the long alto flute solo at **U**, marked "AUDIO CUE #2".

the first entry at **B** continues until the end of **E** where the alto flute sustains its last note as the audio fades out.

the second entry of the computer is after **U**, prior to measure 195, at the beginning of the long alto flute solo, where the audio playback begins, crossfading in with the diminuendo of the D# of the alto flute. the audio playback continues until the end of ms. 265. the Max/MSP real-time processing (R-TP) starts as the alto flute re-enters with a G# after ms. 195. the real-time processing ends at the end of the alto flute solo just after **V**, as the ensemble re-enters.



CUES for audio playback

AUDIO CUE #1 – near the end of **B**, after the piano plays through the "very fast and light" figure 1 time.
audio continues to play until the end of **E**, fading out with the C# fluttertongue diminuendo of the alto flute.
AUDIO CUE #2 – after **U**, just before ms. 195, at the entry of the alto flute D# fluttertongue.
AUDIO CUE #3 – after measure 210 in the alto flute solo
AUDIO CUE #4 – at measure 235 in the alto flute solo

CUES for real-time computer processing

Max/MSP PRESET #1 – at measure 195
Max/MSP PRESET #2 – at measure 210
Max/MSP PRESET #3 – at measure 220
Max/MSP PRESET #4 – after measure 225
Max/MSP PRESET #5 – before measure 230
Max/MSP PRESET #6 – before measure 235
Max/MSP PRESET #7 – at measure 235
Max/MSP PRESET #8 – after measure 240

technical requirement

performance of *threads* requires a computer that runs Max/MSP as well as any multitrack computer audio playback software. a digital interface is required which receives audio input from the alto flute on input 1 and sends 4 outputs to a mixer, then to 4 powered speakers.

during the performance of *threads* there are two types of use of the computer: for playback of pre-recorded audio on 4 channels and for real-time computer processing through Max/MSP. the playback of pre-recorded audio involves the output of the audio signals to 4 channels, either outputs 1 - 4 of the digital interface, along with the processed alto flute audio or separately on channels 5 - 8.

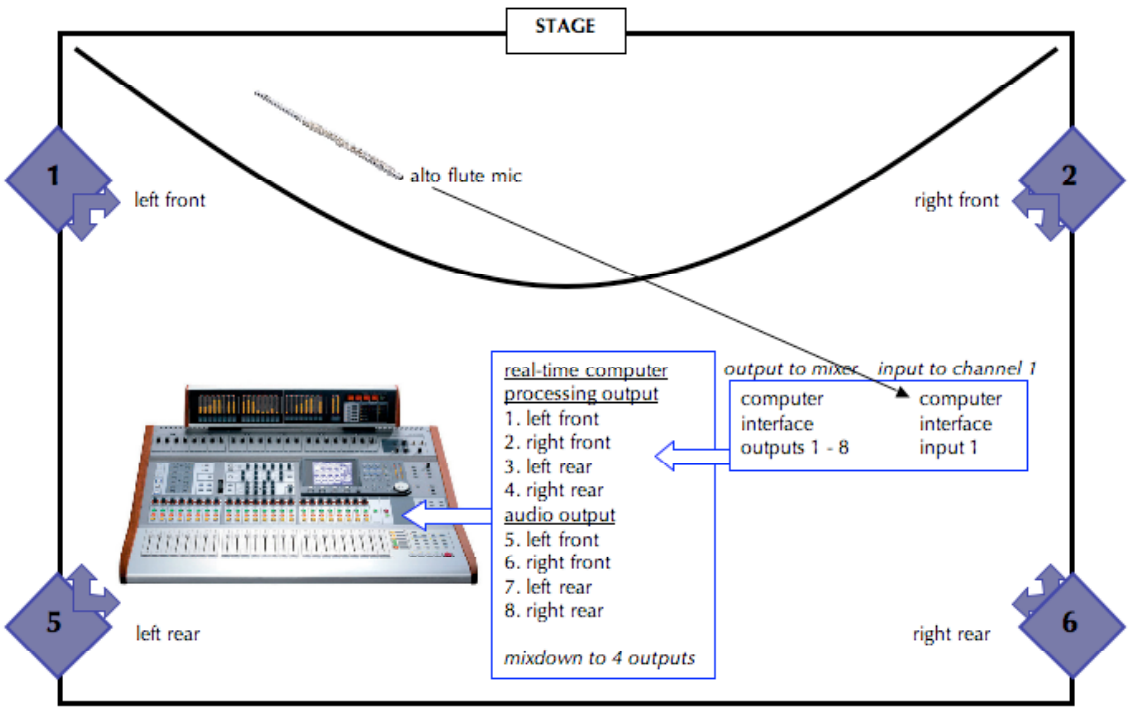
the real-time processing involves input on channel 1 of the digital interface from the alto flute mic and the output of that processed signal to 4 channels, outputs 1 - 4 of the digital interface.

the Max/MSP patch for *threads* and the 4 channel digital audio files are available from the composer's website at www.steveantosca.com/chamber_set_~_threads.html.

alto flute tech

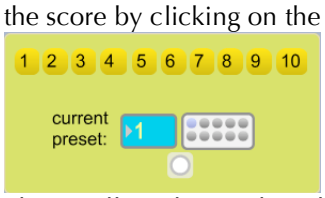
the alto flute will need a microphone or a pick-up that will be connected to input 1 on the digital interface. an appropriate length M/XLR to F/XLR cable to reach the computer interface will also be necessary. it is possible, if necessary, to turn the mic on at the beginning of the piece for added flute signal in the hall. if this is done, only a minimal amount of signal is needed. a windscreen for the mic is advisable.

audio
a mixing console that receives the 4 channel or 8 channel output from the digital interface and sends 4 channel output to 4 speakers is required.



Max/MSP performance instructions for *threads*
for alto flute real-time computer processing

The Max/MSP patch for *threads* is a relatively simple patch to operate. It consists of presets which are triggered at indicated points in the score by clicking on the yellow preset buttons.

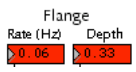


These will set the patch to the appropriate starting point for that section of the performance.

In *threads* the computer operator is actively involved with the performance of the piece. this means that after the beginning of each preset, the computer operator should make adjustments to any of the parameters of the patch, as seem appropriate to the performance, the interaction with the flutists and the acoustic properties of the performance space. this interaction continues until the next patch preset indicator where you begin the manipulation again. patch selection moves through the numbered sequence as you move through the alto flute solo.

The parameters that are available for adjustment include:

Left and right delay time 

Flange rate and depth 

Feedback control L&R 

individually 

Dry/Wet mix 

a few notes:
1. patch 10 is normal/OFF
2. patch 9 is mic/OFF
2. the alto flute solo starts with patch 1 and there is a minimum of processing at the start, just enough for the audience to know that there is an effect present. This increases through the first section of the solo to measure 210. At that point, a less restrained use of processing is appropriate.
3. there are a number of performance indications in the score for manipulation of patch parameters. These are to be adjusted at the discretion of the computer operator.
4. PB in the score indicates pitch bend through the flange controls. pitch bend may be used at other points in the alto solo as well, but with discretion.
5. there is an “emergency feedback control” in the middle section of the patch, don’t hesitate to use it as needed.
6. faders are provided for delay and flange controls, however, scrolling through the number boxes for each parameter will provide more fine tune control, especially when scrolling to the right of the decimal point.

C SCORE

chamber set ~ threads

dedicated to my dear friend Jacques Baldassari

Steve Antosca

A — 20 - 25 seconds

Flute — *slowly & mysterious, spacious*

Clarinet — bass clarinet, *languid*; *sfp* *mf* *pp* *f* *p* *ppp*

Percussion — marimba; *slowly & mysterious, spacious*; *ff* *p* *ppp*

Piano — *slowly & mysterious, spacious*; *ff* + mute with l. h.; Ped.; *ppp*

Computer

Violin — *slowly & mysterious, spacious*; *a punta d'arco*; *ppp* *p*; *emerging*; *mp*

Viola — *a punta d'arco*; *ppp* *p*; *emerging*; *mp*

Cello — *lightly*; *sffp* *pp* *pp* *ppp*

B — 25 seconds

Fl. — *sfp* *mf* *p* *mf* *f* *p* *ppp*

Cl.

Perc. — *ff* *ff* *p* *f* *p* *ppp*

Pno. — *ff* + mute with l. h.; Ped.; *very fast & light*; *ppp*; 15ma; *sub p*; sparser; 8va; + *ff* l. v.

Cptr. — AUDIO CUE #1

Vln. — *a punta d'arco*; *ppp* *p* *pp* *mp*; *emerging*; *mp*

Vla. — *a punta d'arco*; *ppp* *p* *pp* *mp*; *emerging*; *mp*; 8va

Vc. — *lightly*; *sffp* *pp* *pp* *ppp* *mp* *ppp*

C

45 seconds

Fl. — alto flute — *flz.* — *sffp* — ord. — *f* — *sub p* — *f* — *p*

Cl. — *growl* — *p* — *mf* *sub p* — *together* — *drift apart*

C

Perc. — *p* — *mf* *sub p*

C

Pno. — 15ma — *ff* — *loco* — l. v. — *ff* — *pp* — *a low, fast rumble* — *start and end together, but play freely, repeat any notes from this set as needed* — *+ mute with l. h. or piece of felt*

Cptr.

C

Vln. — sul G, D — *n* — *p* — *pp* — *p* — *ppp*

Vla. — sul C, G — *n* — *p* — *pp* — *p* — *ppp*

Vc. — *ff* — l. v. — *ff* — *a low, fast rumble* — *start and end together, but play freely, repeat any notes from this set as needed* — *pp*

D

20 seconds

Fl. — *freely* — *f* — *sf* — *n* — *p* — *p* — *p* — *f*

Cl. — *growl* — *mp* — *mf* — *p* — *pp*

D

Perc. — *mp* — *mf* — l. v.

D

Pno. — *ff* — *+ mute with l. h.* — l. v.

Cptr.

D

Vln. — *mp* — *pp*

Vla. — *mp* — *pp*

Vc. — l. v. — *ff*

E

25 seconds

wait for audio to fade out

Fl.

Cl.

Perc.

Pno.

Cptr.

Vln.

Vla.

Vc.

a low, very fast rumble
start and end together, but play freely, repeat any notes from this set as needed
+ mute with l. h. or piece of felt

AUDIO FADE OUT

F

energetic, ♪ = 144

wide vibrato

vibraphone

marimba

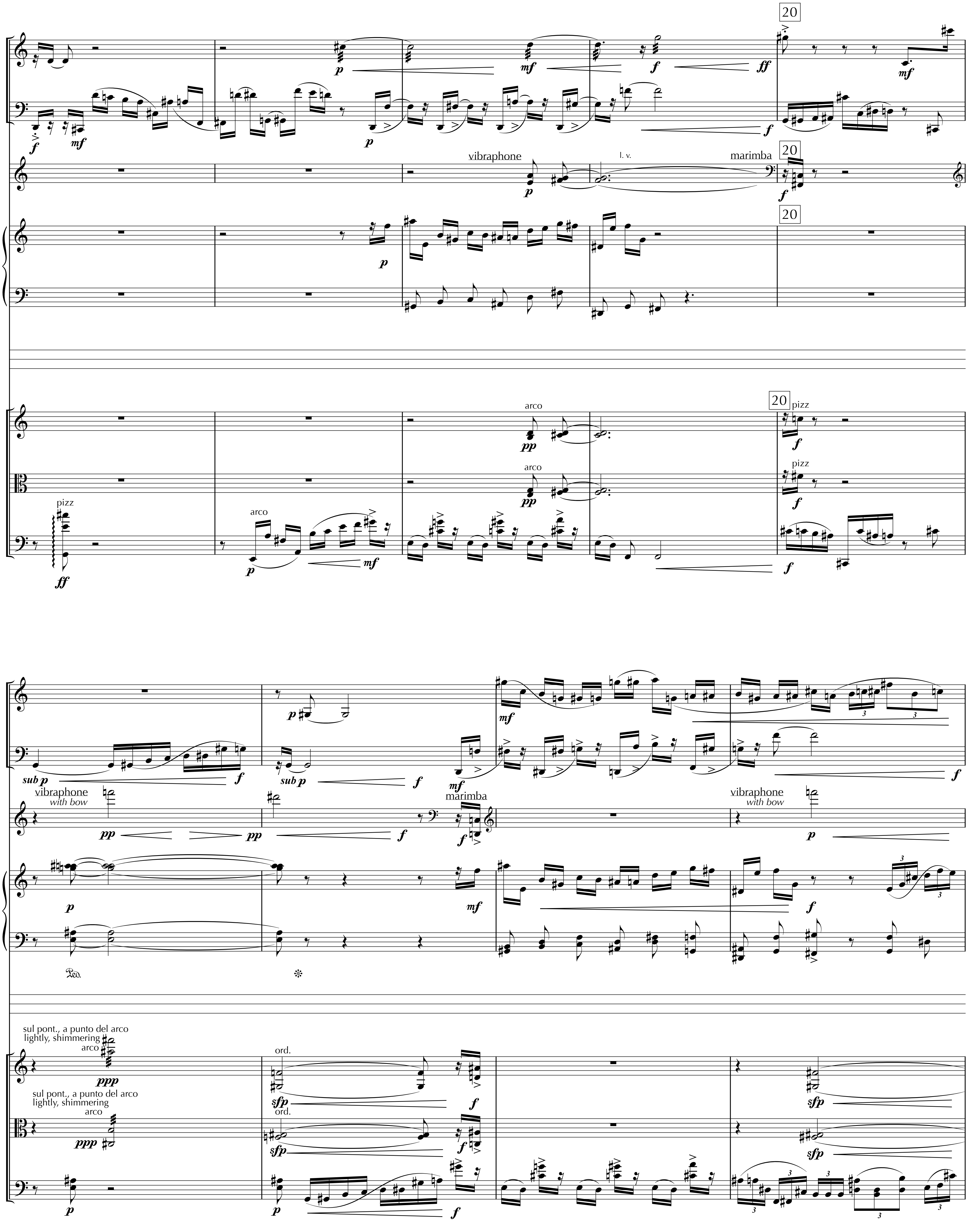
l. v.

AUDIO SILENCE
until alto flute solo at U

sul pont.

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.

chromatic gliss.
vibraphone
leggiero
gliss.
l. v.
ord.
sul G, D
sul C, G
10
15
marimba
pizz
arco


Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.
20
vibraphone
l. v.
marimba
arco
pizz
ff
mf
p
f
pp
sub p
with bow
Ped.
sul pont., a punto del arco
lightly, shimmering
arco
ppp
ord.
sfp

25

G whimsical, fractured yet flowing forward, ♩ = 104

Fl.

Cl.

steady

Perc.

Pno.

whimsical, fractured yet flowing forward ♩ = 104

Cptr.

Vln.

Vla.

Vc.

pizz

30

marimba

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.

slowly to flz.

35

1/4

vibraphone

arco

40

H a bit faster, ♩= 116

l. v.

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.

45

marimba

arco

50

pizz

arco

fast gliss.

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.

55

bongos

sul pont.

arco

pizz

jeté

60

vibraphone

l. v.

delicatley, shimmering

ord.

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.

freely
vibraphone
ord.

65
a tempo
marimba
to wind gong w/bow
sweep with thumb
l. v.
+ mute with r. h.

70

1/4

1/4

75

slowly to flz.

wait for marimba to fade out

Fl.

Cl.

70

wind gong with bow

with soft mallet

l. v.

marimba

rapid, get faster and quieter to the end

75

wait for marimba to fade out

Perc.

sweep with thumb

sweep with fingernail

8va

loco

+ mute with l. h.

+ mute with l. h.

loco

Pno.

Cptr.

70

harmonic gliss., lightly & shimmering

wait for marimba to fade out

harmonic gliss., lightly & shimmering

Vln.

Vla.

Vc.

I quickly, ♩= 136

poco a poco accel.

80

I quickly, ♩= 136

marimba

poco a poco accel.

80

8va

loco

I quickly, ♩= 136

poco a poco accel.

80

Pno.

Cptr.

I quickly, ♩= 136

poco a poco accel.

marcato

ord.

80

Vln.

Vla.

Vc.

J furiously, ♩ = 148

Fl.

Cl.

J furiously, ♩ = 148

Perc.

J furiously, ♩ = 148

Pno.

Cptr.

J furiously, ♩ = 148

Vln.

Vla.

Vc.

85

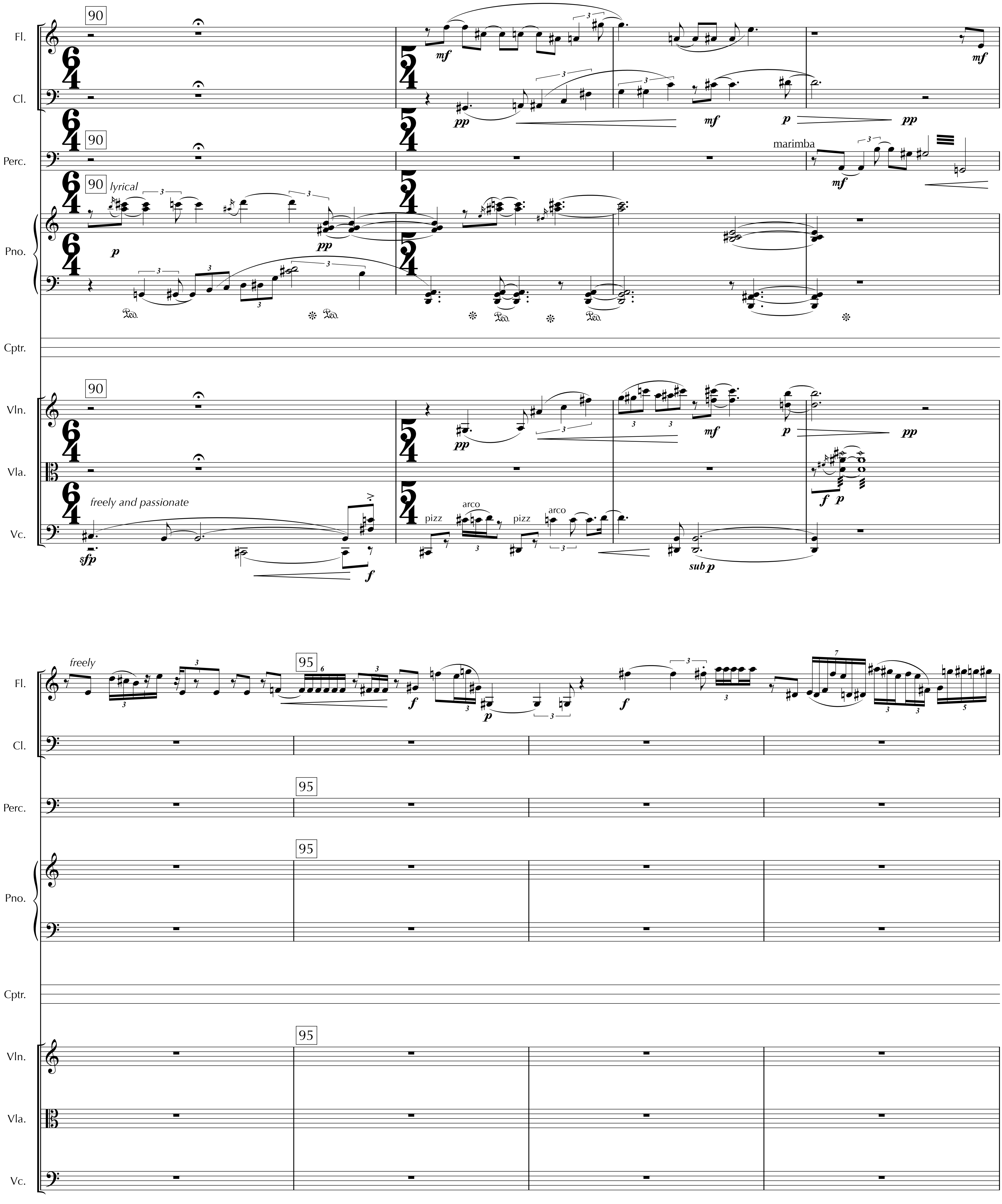
marimba

85

85

jeté

ord.


90
Fl.
Cl.
Perc.
marimba
lyrical
Pno.
Cptr.
Vln.
Vla.
freely and passionate
Vc.
pizz
arco
sub p
freely
95

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.

a tempo
marimba
100
gliss.
furiously
+ mute with r. h.
ord.
sul pont.
jeté
105
K = 148

poco rit. a tempo

Fl.

Cl.

Perc.

Pno.

Cptr.

Vln.

Vla.

Vc.

110

sul pont.

furiously

L

♩ = 148

115 *poco a poco rit.*

120

Fl.

Cl.

Perc.

vibraphone

Pno.

sweep with fingernail

Cptr.

Vln.

sul pont., secco

softly

Vla.

Vc.

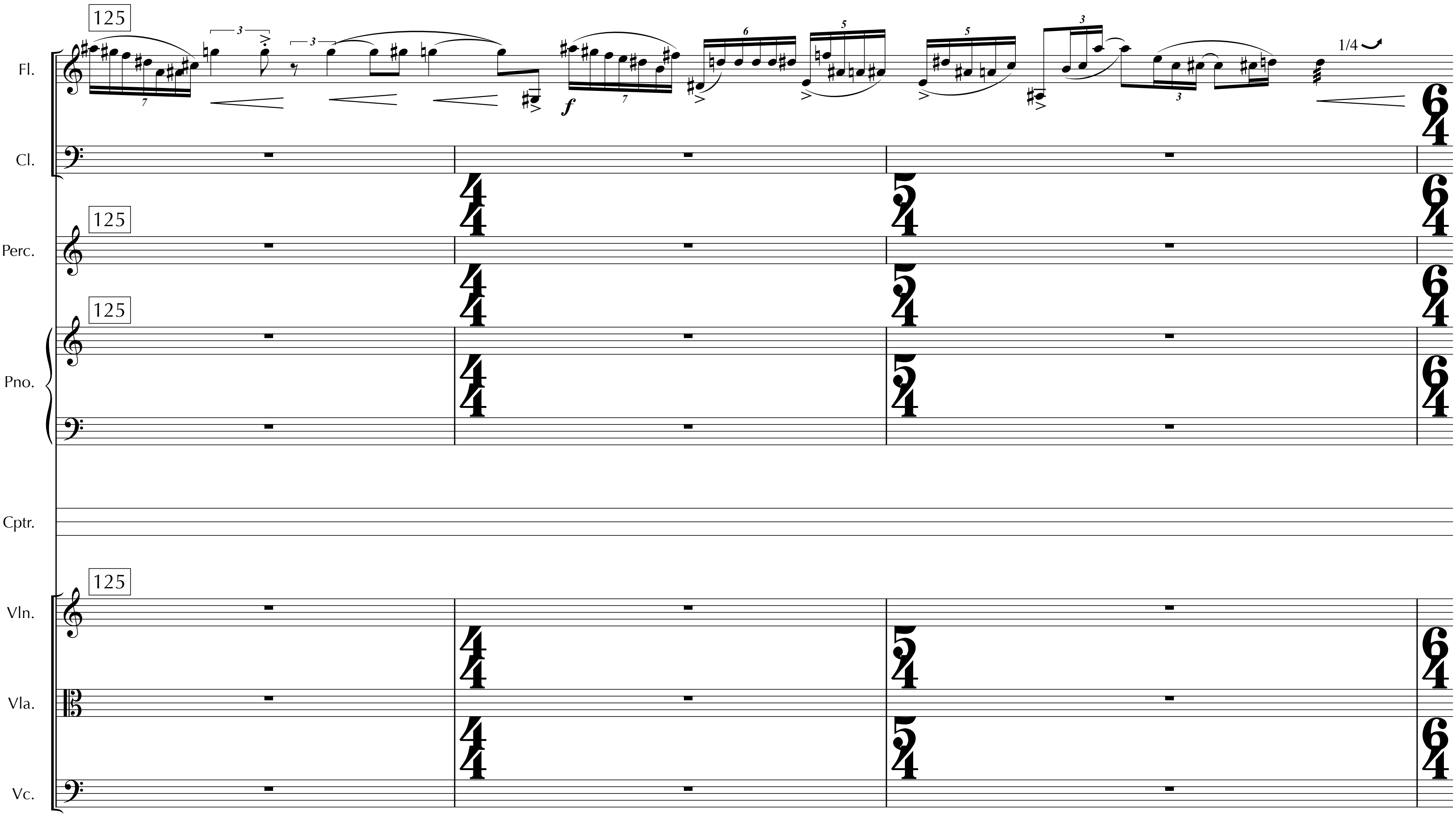
gliss.

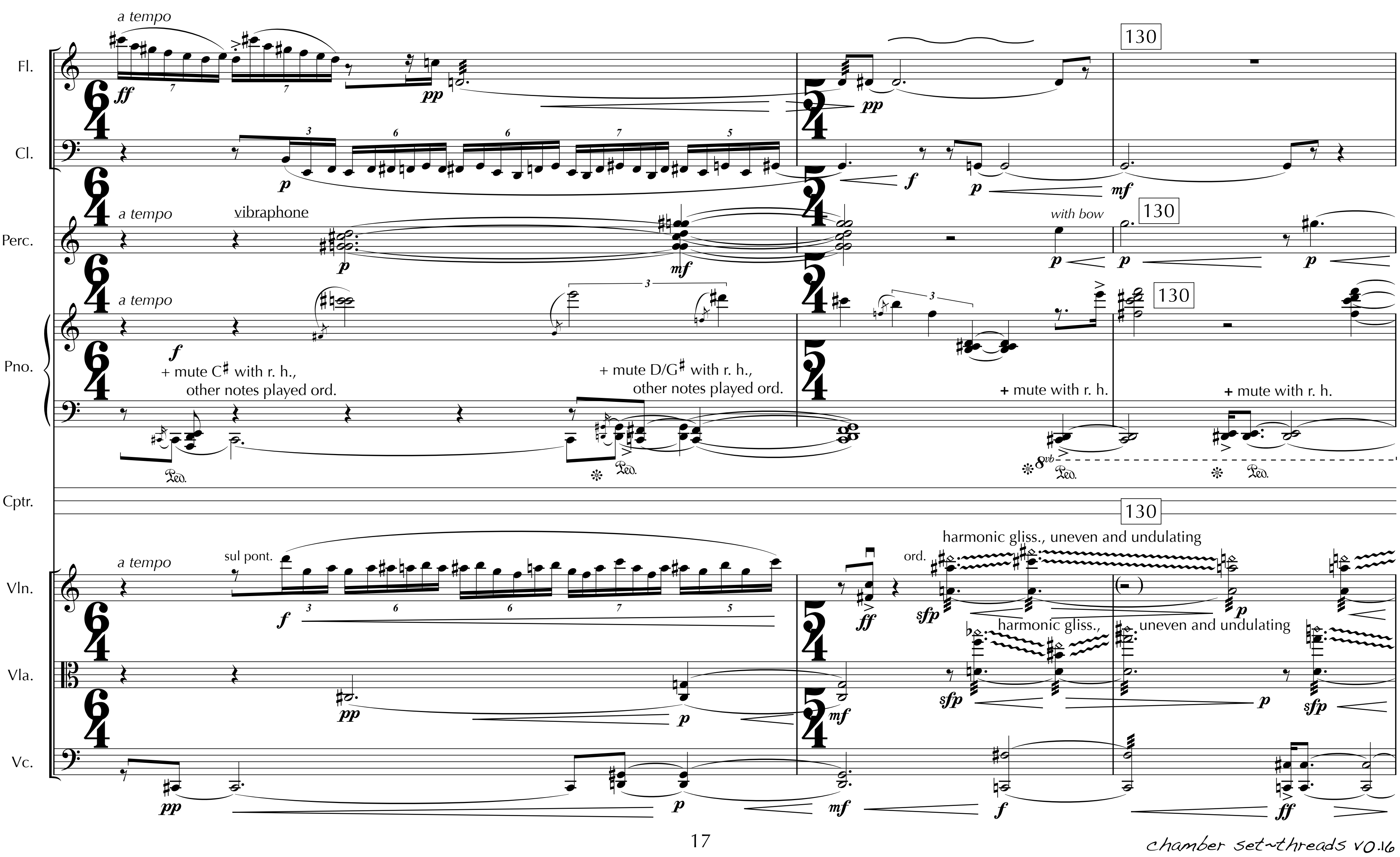
M slowly, with passion, a subtle murmur, ♩ = 92

ord.

breathy

wispy


125
Fl.
Cl.
125
Perc.
125
Pno.
Cptr.
125
Vln.
Vla.
Vc.
1/4


a tempo
Fl.
ff
pp
130
Cl.
p
f
mf
a tempo
vibraphone
Perc.
with bow
130
a tempo
Pno.
+ mute C♯ with r. h.,
other notes played ord.
+ mute D/G♯ with r. h.,
other notes played ord.
+ mute with r. h.
+ mute with r. h.
130
Cptr.
130
harmonic gliss., uneven and undulating
a tempo
sul pont.
ord.
Vln.
sfp
harmonic gliss.,
uneven and undulating
Vla.
pp
mf
sfp
Vc.
pp
f
ff

soft, breathy harmonic-like whispers

Fl.

Cl.

with bow

ord.

Perc.

Pno.

+ mute with r. h.

+ mute B/C with r. h.,
F♯ played ord.

Cptr.

harmonic gliss.

Vln.

harmonic gliss.

Vla.

Vc.

a soft murmur

135

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.

O
mf
f
P
140
furiously, ♩ = 148
timpani
pedal gliss.
ff
wind gong with mallet
l. v.
marimba
sul pont.
sul pont., a punto del arco
p
fleeting
col legno battuto
arco

145

fleeting

Fl.

Cl.

bend tone

Perc.

thunder tube

Pno.

Cptr.

sul pont., a punto del arco

Vln.

Vla.

Vc.

p harmonic gliss., lightly & shimmering

pizz

arco

Q

150

ord.

loco

sul G

vibraphone

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.

mf
mf
l. v.
marimba
p
pp
f
p
pp
mf
mf
p
pp
f
p

155
free triplet gliss.
chromatic gliss.
temple blocks
gliss.
arco
mf
f
p
ff
tr

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.

160

+ mute with r. h.

col legno battuto
arco
pizz
ord.

165

to B♭ clinet
vibraphone
l. v.
arco

170

U freely, with passion, ♩ = 60

175

Fl.

Cptr.

AUDIO CUE #2

Max/MSP PRESET #1

PB

AUDIO OUT

AUDIO IN

180

AUDIO SWELL

AUDIO BURST

AUDIO SILENCE

AUDIO SWELL

multiphonic

185

soffiata

slow → fast

AUDIO BURST

AUDIO VOX SWELL

AUDIO OUT

Max/MSP PRESET #2

190

AUDIO CUE #3

AUDIO - FLUTEBELLS

195

breathy

AUDIO FADE OUT

R-TP

Max/MSP PRESET #3

200

slap tongue with key click

with more urgency

205

Max/MSP PRESET #4

PB

Fl.

Cptr.

freely, wildly

AUDIO OUT

Max/MSP PRESET #5

210

multiphonic tremolo

slow fast

Max/MSP PRESET #6

PB

calm, soothing

215

sing!

sing!

breathy

AUDIO CUE #4

Max/MSP PRESET #7

PB

220

freely, wildly

multiphonic

Max/MSP PRESET #8

225

35 seconds

to flute (wait for alto flute mic to be turned off)

Cl.

B♭ clarinet

gliss.

1/4

Perc.

vibraphone

with bow

ord.

l. v.

crotales

vibraphone

crotales

with bow

tingsha bells

Pno.

+ mute with r. h.

Max/MSP OFF

Vln.

sul pont., secco

Vla.

sul pont., secco

Vc.

loco

230
5 seconds
W
35 seconds
freely, outside of tempo
235
playful
flute
vibraphone
with bow
with mallet
tingsha bells
sweep with thumb
+ mute with r. h.
louré
portamento
sul pont., secco
sul punto del arco
Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.
X
calm, ♩ = 60
poco a poco rit.
240
thunder tube
+ mute
ord.
gliss.
sul tasto, punta d' arco

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.

Y rapid, ♪ = 152
245
rushing, ♩ = 144
marimba
sweep with thumb
+ mute with r. h.
AUDIO FADE OUT
sul G, D
pizz
arco
250

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.
255
mf
f
p
Ped.
260
sub p

Fl.
Cl.
Perc.
Pno.
Cptr.
Vln.
Vla.
Vc.

Z
rapid, ♪ = 160
265
tingsha bells