Richard Barrett

natural causes act 2

2021-25

ensemble with electronics

full score v2.0

natural causes act 2

(2021-25) for ensemble with electronics

commissioned by Diaphonique
in memory of Gottfried Michael Koenig

duration: approximately 56 minutes

instrumentation (all instruments should be amplified):

flute, piccolo, alto & bass flute
clarinets in Eb & Bb & bass clarinet
soprano & baritone saxophones
violin/voice
cello
keyboard 1 & 2 (piano, keytar, StiMiK electronic keyboard - see score of *all night invisibility*. . . - these parts to be divided *ad lib* between 2 players)
percussion and sound-producing objects (see below)

note for performers:

On 1 September 2013 I received a sequence of interconnected texts from from Simon Howard, an English poet who over the previous eight years or so had become a close friend although we never actually met face to face. I had been interested for some time in working with his writing, which had (and still has) for me the quality of powerfully evoking possible sound-forms and a compulsion to realise them. I had asked Simon for a new text as a collaboration between us, suggesting only that it be structured around the number 16 (the number of instruments in the ensemble I had in mind), and indeed it consists of 16 short texts each divided into 16 lines or phrases. Simon had written in an email a few weeks previously: "Somehow I felt that entitling the work was what you'd like to do. I'll let you have the full revised text next week & from there it's material for your composition: I have no 'control' or sense of the words 'belonging' to me." (He actually ended up giving the sequence the title *ADDICTION*.) Simon died suddenly in early December 2013 at the age of 53. *Natural causes* consists of four "acts" each containing four interlocking compositions.

Act 2 consists of four components:	*heard shadows & watched voices (natural causes XV)* for solo performer (violin/voice/movement) and electronic sounds	page 1
	all night invisibility flickers on & off visibly (natural causes VI) for ensemble with electronics	19
	the fallen angels' wounds (natural causes XII), sounds and actions for improvising ensemble	95
	first light (natural causes VIII), fixed media electronic music in 12 channels	105

Each of these has a separate score, and consists of a number of components (4, 8, 16 and 8 respectively) which are combined according to the scheme below, and synchronised according to the 32 rehearsal numbers shown in the diagram, which appear also in the scores.

The division of the two keyboard parts between the two players may be changed according to preference.

staging and technical setup:

The performance space is divided into *zones 1-5* which are more or less defined depending on the possibilities of the space. In smaller spaces, zones 1-3 may be adjacent, with zone 1 in the middle flanked at right and left by zones 2 and 3 respectively. Zones 1-3 may be delineated spatially by lighting, and activity in them delineated in time by lighting changes. The zones as described below, and the allocations in the score of actions/sounds to those zones, represent a minimum requirement, which may be augmented as afforded by the size, shape and characteristics of the space. A traditional stage/audience relationship may be used for zones 1-3, but a more imaginative use of space(s) would be preferable. As much of the available space(s) as possible should be used. The score doesn't describe how and when performers move from one zone to another, except at a few particular points; this can be established in rehearsal depending on circumstances. Such movements should be regarded as part of the performance rather than as something to be hidden away. Consideration should also be given to what performers are doing when they aren't playing – they may leave the space, or sit still somewhere visible, or investigate the non-played objects on the table of zone 3 (see below), or sweep the floor, or observe one of more of their colleagues very closely, and so on.

zone 1: this is the "empty space" in which the soloist performs the four parts of *heard shadows & watched voices*, and should be in darkness when not in use. It should be in some kind of central position, and be extensive enough to allow all the actions to take place as if in a space of indefinite size. The violin should be placed on the table of zone 3 until taken at the end of part 1 of *heard shadows*, and the music stand for part 4 should be kept in zone 2 until required.

zone 2: this should be to the right of zone 1 if they are in the same stage area, and is where the notated ensemble music, including *all night invisibility flickers on & off visibly* and some elements of *the fallen angels' wounds*, is mostly played. The six-octave electronic keyboard (StiMiK), piano and percussion setup for *all night invisibility* are located here, with seats and music stands for all performers who need them. The electronic keyboard should have a stereo pair of loudspeakers for local amplification (on stands at ear level behind the player). In larger spaces, zone 2 should also contain microphones for all performers. The layout of the ensemble may vary in different spaces must afford all the necessary eye (and ear) contact for playing the ensemble music. This might involve performers taking different positions within the zone for different pieces (for example the two duos).

zone 3: to the left of zone 1 if they are in the same stage area, occupied principally by a long table with 4 or more chairs behind it and at least 4 overhead microphones above it, for amplification of small objects, also positionable for amplification of voices. All the objects used in zone 3 for *the fallen angels' wounds*, (as well as the violin until the end of the first part of *heard shadows*) should be placed on the table. Other objects may be placed there also, so that it might not be clear to viewers which are to be used as instruments and which not, for example a bowl of fruit, a revolver, an antique telephone. . .

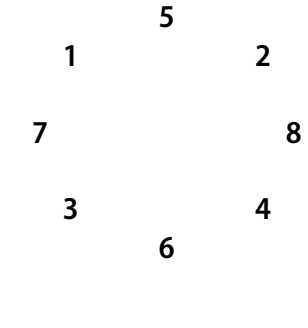
zone 4: this is not a single location but as many different ones as possible in the main space, surrounding the audience at both sides and behind (and above?). At least 4 locations are equipped with microphones for amplification of small sounds or voices.

zone 5: 2-4 additional spaces (rooms, corridors, stairwells…) adjoining the main space, in which various events take place partly or wholly invisibly to the audience. 4 loudspeakers are used in these spaces, distributed to different positions and distances depending on how many spaces there are.
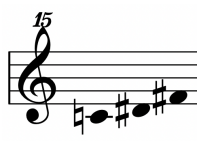
summary of technical requirements:

radio microphone (for soloist of *heard shadows*)
(optionally) as many microphones as appropriate to amplify instruments in zone 2
4 or more microphones in zone 3
4 or more microphones in different locations of zone 4
12 loudspeakers, 8 in main space and 4 in zone 5 (4-channel material for *heard shadows* uses loudspeakers 1-4, 12-channel material for *first light* uses loudspeakers 1-8 in the main space and 9-12 in zone 5)
2 loudspeakers for local amplification of electronic keyboard in zone 2

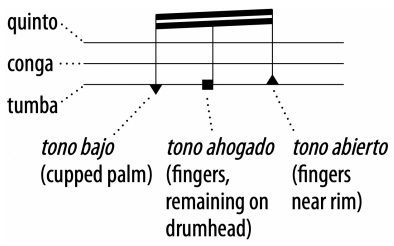
8-channel layout in main space:



percussion instrumentation:

3 crotales 

3 congas: quinto, conga, tumba – these are notated on three lines, and, on each line, three different sounds are distinguished by both the position and the shape of the notehead:

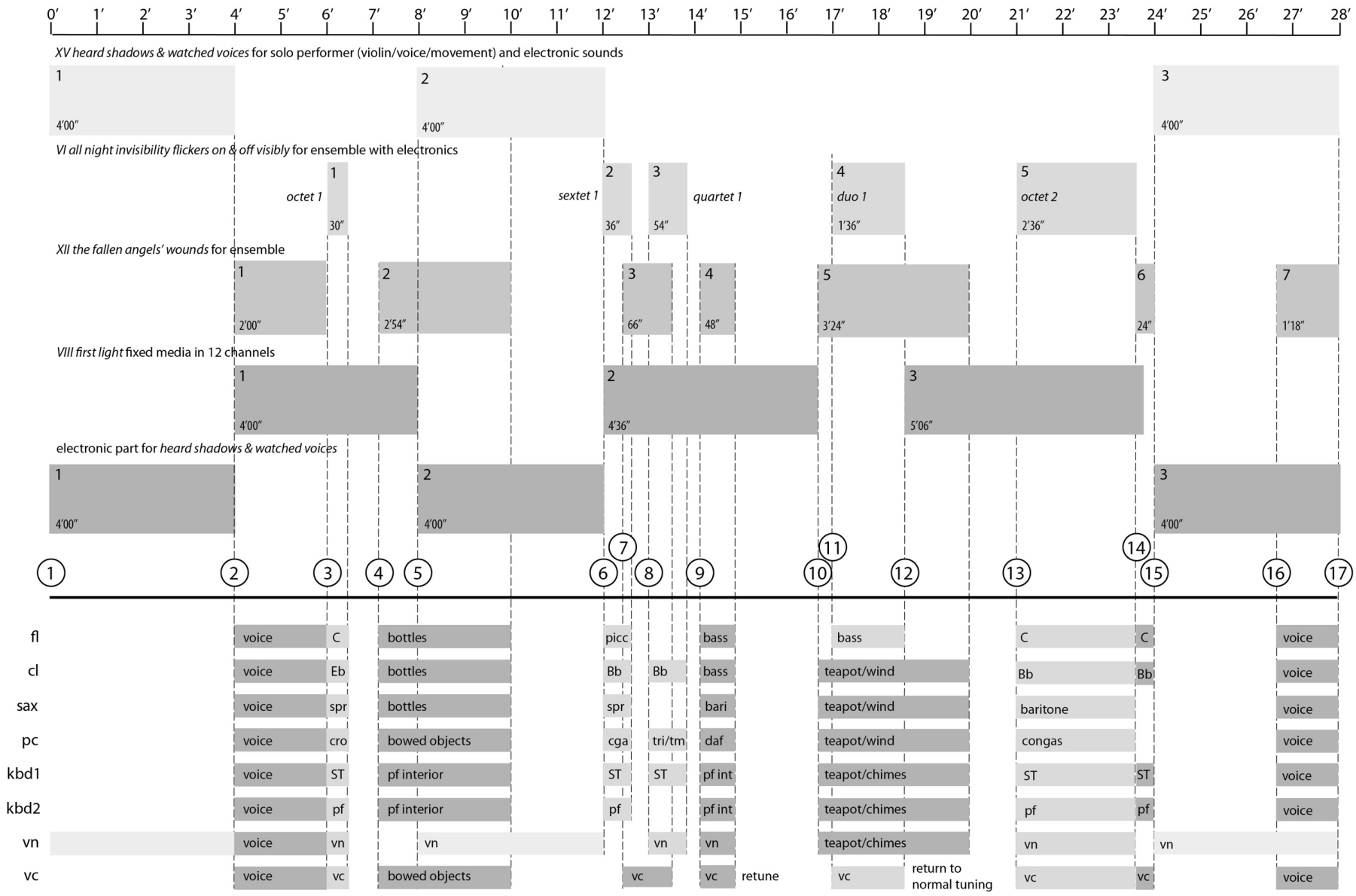


triangle
small suspended tamtam
glockenspiel

additional sound-producing objects etc. (minimum requirements! – see above)

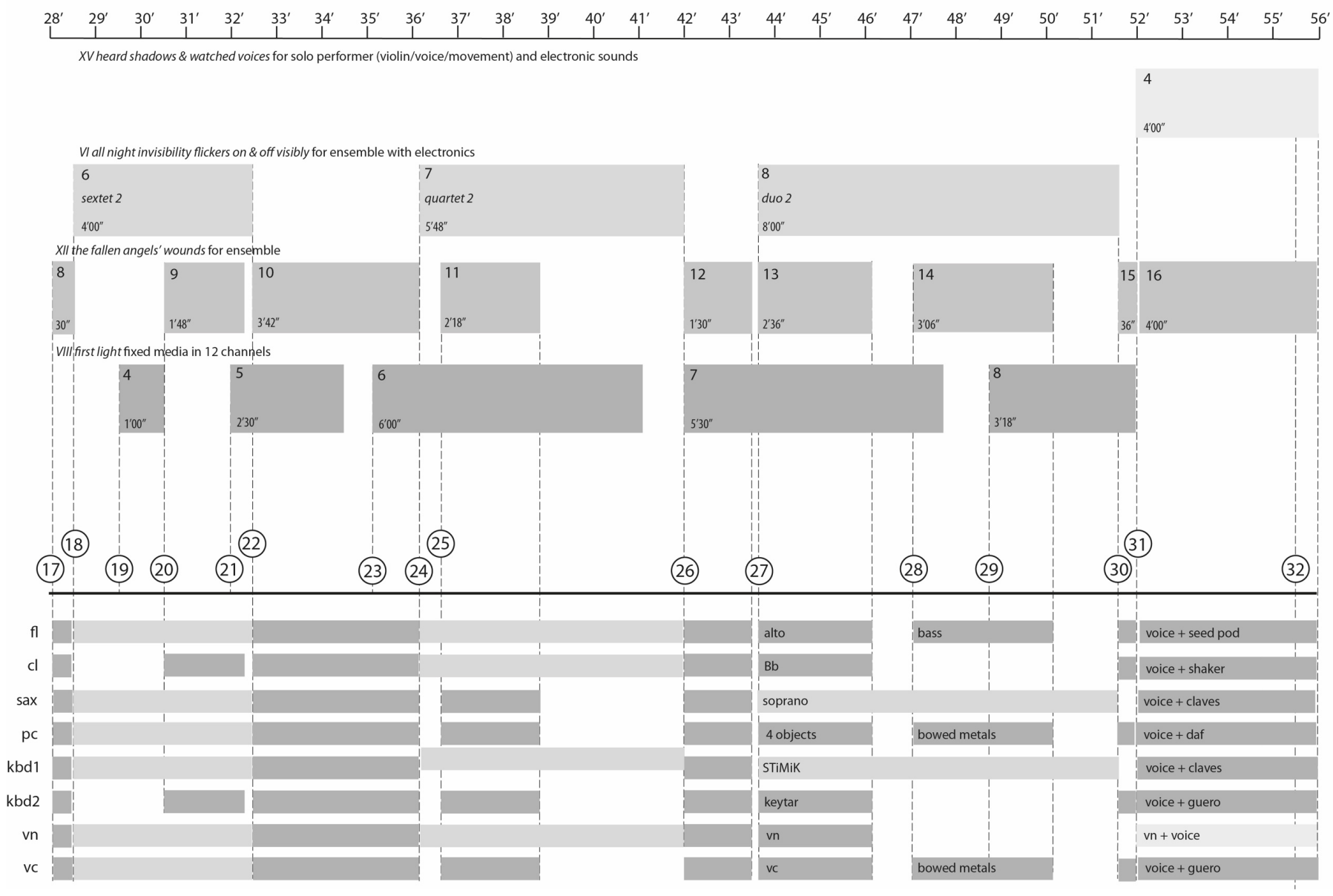
9 bottles, to be tuned with water
several non-resonant objects for bowing: cardboard box, styrofoam, biscuit tin…
objects for direct actuation of piano strings
6 ceramic teapots or similar vessels with circular lids
nose flute
recorder mouthpiece (preferably alto)
slide whistle
rain stick (one or more)
shell chimes (one or more sets)
wood chimes (one or more sets)
small drum (bongo or Noh theatre drum, etc.)
large temple block
brake drum, placed horizontally on foam blocks
sleighbells, placed on foam blocks
seed pod
egg shaker or maraca
claves (high pitch)
claves (low pitch)
guero (smaller)
guero (larger)
daf (small)
1 or more (preferably 4) guitars, prepared with chopsticks, knives pencils and similar objects
8 harmonicas, in as many different keys as possible
various objects to sound by being pushed off the table in zone 3

natural causes act 2 - scheme of overall structure and synchronisation (1st half)



The blocks above the solid line show how the sections of the four components of *natural causes act 2* are interleaved and superimposed; the numbers in circles correspond to the rehearsal numbers in the score; the blocks below the solid line (using the same four shades of grey) show which performers are taking part in which components, and, where applicable, which instrument is used in each section.

natural causes act 2 - scheme of overall structure and synchronisation (2nd half)



summary of rehearsal numbers and cues:

1 (initiated by violin)
At the outset, zones 1-4 should be empty. The violinist enters and performs part 1 of *heard shadows*, coordinating with the sound projectionist.

2 (violin)
When part 1 of *heard shadows* comes to an end the sound projectionist begins sequence 1 of *first light*, and the ensemble begins part 1 of *the fallen angels' wounds* while moving from outside the space towards zone 2.

3 (sound projectionist)
At 2' into part 1 of *first light* the ensemble should be in place in zone 2. The sound projectionist cues the cellist to lead *octet 1* which plays to its end, after which *first light* is left to itself. All except the keyboard players move towards their new positions.

4 (sound projectionist)
At 3'06" into part 1 of *first light*, the sound projectionist cues part 2 of *the fallen angels' wounds*.

5 (violin)
Violinist and sound projectionist coordinate the beginning of part 2 of *heard shadows*, while the rest of the ensemble suddenly reduces its dynamic level, and continue until halfway through part 2 of *heard shadows* (according to cue in score). The cellist moves towards the position for part 3 of *the fallen angels' wounds*.

6 (violin)
At the end of part 2 of *heard shadows*, the violinist cues *sextet 1* and sequence 2 of *first light*, which begins with the sounds of rain.

7 (sound projectionist)
At the second bar of *sextet 2* all six instruments synchronise and play to the end of their parts, and the cellist (alone) begins part 3 of *the fallen angels' wounds*, while sequence 2 of *first light* changes to the sound of bass clarinet multiphonics.

8 (sound projectionist)
At 1'00" into sequence 2 of *first light*, the sound projectionist cues the beginning of *quartet 1*. Both this and part 3 of *the fallen angels' wounds* play to their end, by which time sequence 2 of *first light* has changed to the ticking of clocks.

9 (sound projectionist)
At 2'06" into sequence 2 of *first light*, the sound projectionist cues the beginning of part 4 of *the fallen angels' wounds*, which is played by the ensemble in rhythmical unison with the clock sounds. After this, sequence 2 of *first light* is left to play to its end (another 1'42"). The ensemble moves to its new positions.

10 (sound projectionist)
At the end (4'36") of sequence 2 of *first light*, the sound projectionist cues the beginning of part 5 of *the fallen angels' wounds*.

11 (flute)
At the second bar of part 4 of *the fallen angels' wounds*, *duo 2* begins.

12 (flute)
As *duo 2* ends, the flautist cues the fifth bar of part 4 of *the fallen angels' wounds* and sequence 3 of *first light*. Part 4 of *the fallen angels' wounds* plays through to its end which is reached at 1'24" into the electronic sequence – the ensemble can coordinate here with the sound projectionist.

13 (sound projectionist)
At 2'24" into sequence 3 of *first light*, the sound projectionist cues the percussionist to begin *octet 2* which plays through to its end, followed immediately by:

14 (piano)
The pianist begins part 6 of *the fallen angels' wounds*, and the sound projectionist fades out sequence 3 of *first light* over 6 seconds.

15 (violin)
The violinist and sound projectionist begin part 3 of *heard shadows* as soon as part 6 of *the fallen angels' wounds* finishes. The ensemble moves to its new positions.

16 (sound projectionist)
At 2'42" into part 3 of *heard shadows*, the sound projectionist cues part 7 of *the fallen angels' wounds*.

17 (sound projectionist)
At the end of part 3 of *heard shadows*, the ensemble performs part 8 of *the fallen angels' wounds* (movement only) as they move to their new positions.

18 (violin)
Once everyone is in place, the violinist cues *sextet 2*.

19 (violin)
At bar 17 of *sextet 2,* the violinist cues the sound projectionist to begin sequence 4 of *first light*, which is rhythmically coordinated with bars 17-32 of *sextet 2*

20 (violin)
At bar 33 of *sextet 2*, the violinist cues the clarinettist and keyboard player to begin part 9 of *the fallen angels' wounds*, which continues for 1'48", ending 12 seconds before the end of *sextet 2*.

21 (violin)
At bar 57 of *sextet 2* the violinist cues the sound projectionist to begin sequence 5 of *first light*

22
At the end of *sextet 2* all performers on stage immediately switch to part 10 of *the fallen angels' wounds.*

23 (violin)
At bar 7 of part 10 of *the fallen angels' wounds*, the violinist cues the sound projectionist to begin sequence 6 of *first light*.

24
At the end of part 10 of *the fallen angels' wounds*, the performers of *quartet 2* begin it immediately.

25 (violin)
At bar 11 of *quartet 2*, the violinist cues the performers of part 11 of *the fallen angels' wounds* to begin.

26
At the end of quartet 2, part 12 of *the fallen angels' wounds* and sequence 7 of *first light* begin simultaneously.

27 (saxophone)
Saxophonist, keyboard player, ensemble and sound projectionist coordinate the beginning of *duo 2*, the beginning of part 13 of *the fallen angels' wounds* which continues until the end of bar 81 of *duo 2*, and sequence 7 of *first light*, which is (in the March 2023 version) started at 1'36".

28 (saxophone)
Halfway through bar 102 of *duo 2,* the saxophonist cues the beginning of part 14 of *the fallen angels' wounds*, which continues until the end of bar 193 of *duo 2* (cue in score).

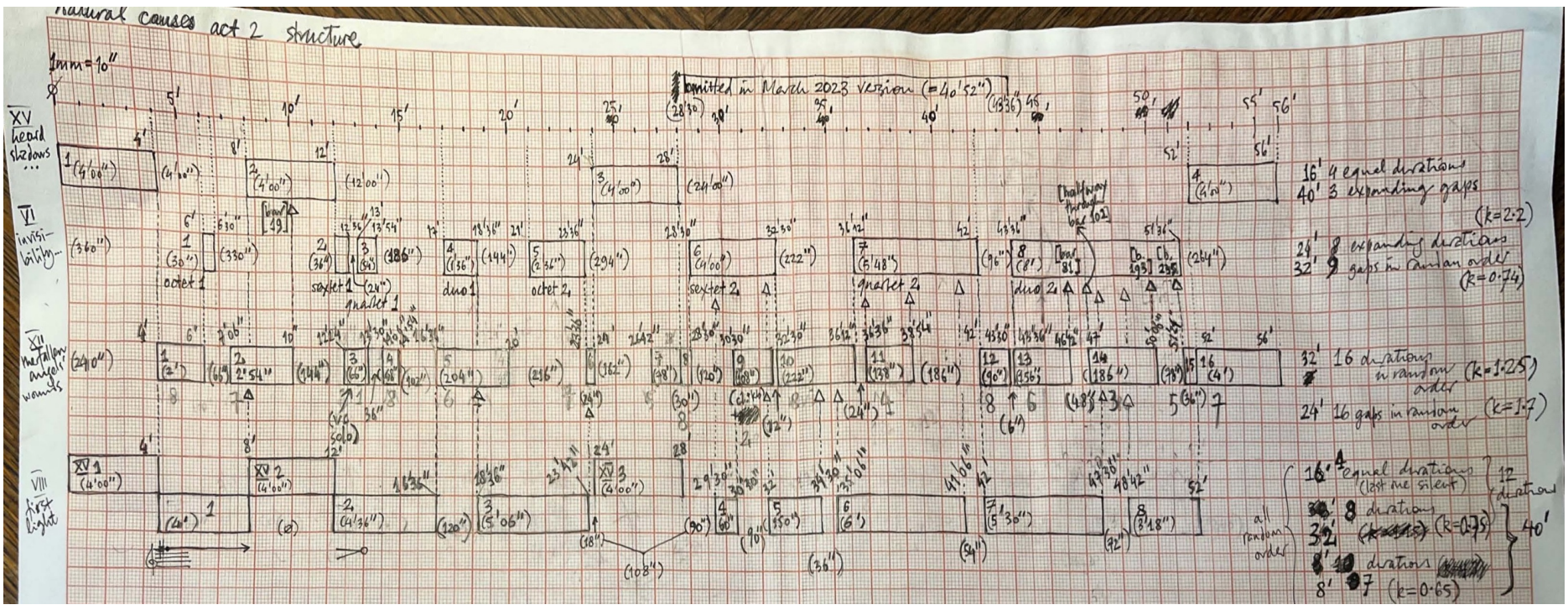
29 (saxophone)
At the indicated point in bar 146 of *duo 2,* the saxophonist cues the beginning of sequence 8 of *first light*.

30 (saxophone)
At bar 235 of *duo 2* (about 12 seconds before it ends), the saxophonist cues the beginning of part 15 of *the fallen angels' wounds*, and the sound projectionist begins to fade sequence 8 out, reaching inaudibility by cue 31.

31 (violin)
When sequence 8 of *first light* has faded to silence, the violinist begins part 4 of *heard shadows* and the ensemble begins part 16 of *the fallen angels' wounds*.

32 (violin)
At the point where the violinist turns from the music stand and begins to leave the space, the ensemble should be in place to begin the last bars of part 16 of *the fallen angels' wounds*, so that it ends (after 30") as the violinist leaves the space.

original structural diagram for *natural causes act 2*



from the first performance: 11 March 2023, Centre des Arts, Enghien-les-bains (photos by Isabelle Planche)

















4

heard shadows & watched voices

(natural causes XV)

2021-22

solo performer (violin, voice, movement) and electronic sounds

performance score

heard shadows & watched voices

(natural causes XV)

(2021-22) for solo performer (violin, voice, movement) and electronic sounds

commissioned by Diaphonique
to Winnie Huang
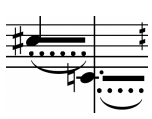
duration: approximately 16 minutes

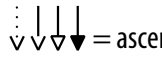
So we said goodnight
as bad dreams hid themselves
from us; the greatest hits
of anyone's youth
& from under the door
we heard shadows
& watched voices
& knew we would never learn to speak
our mouths gagged with songbirds
so we sang good morning
but there was no one here
only rain pattering on leaves
"we can't stay there"
we thought
polyphonically
& we are gone. variously

notations for violin:

psp, msp = poco and molto sul ponticello respectively, the former already being noticeably different in timbre from *nat*., the latter being as extreme as possible consistent with the fundamental pitch remaining audible.

pst, mst = poco and molto sul tasto (similarly) *clb* = col legno battuto, *clt* = col legno tratto

 = gettato] = audible bow- stop at the end of a sound. A *legato* slur before a notehead indicates that the sound is to be played with no discernible attack.

 = ascending degrees of bow pressure: flautando; "normal"; exaggerated and distorted (pitch only just discernible); completely pitchless scraping.

 = high bow pressure, twist the hair of the bow on the string  = bow on bridge  = bow behind bridge

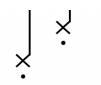
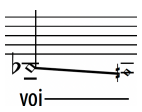
 = a smooth gradual transition between two states (for example bow position and/or pressure)

● = normal left-hand fingerpressure ◇ = "harmonic" fingerpressure

\+ = left-hand pizzicato 12343432123... = rapid exchange of fingers on a single pitch or glissando

 = string damped lightly at indicated pitch (which isn't at a harmonic node) – actual pitch is absent or unstable  = vibrato (otherwise no vibrato!)

notations for voice:


dreams = spoken voice  we said = voiceless ([s] and similar phonemes, or whispering) 
voi = half-whispered – breathy with some pitch


we = lowest pitch possible ▽ = "vocal fry"

Below is a summary of the various aspects of the performance. At the outset, zone 1 should be empty. The violin should be at the nearest end of the table in zone 3, and the music stand for part 4 somewhere in zone 2.

1

In the first part, the violin is taken and played only at the very end, there is one (spoken) vocal event, and the rest of the first part alternates between miming to short recorded fragments from what the violin is to play in part 4, and movements described verbally which take place alongside diverse (often violin-derived) sounds coming from the loudspeakers. To aid coordination, the recorded sounds are divided into 13 cues (numbered 1-13) to be triggered by the sound projectionist synchronously with (most of) the mimed violin events.

For rehearsal purposes the cues are available as a single continuous stereo soundfile.

2

The second part involves violin playing, voice, movement and electronic sounds. The violin plays an extended melody, some of whose elements also feature the voice, whose phonetic material is derived from the vowels and sustained consonants of the text. The diphthongs should be sung as very gradual transitions between the starting and ending vowel positions. The phonemes were chosen to give 24 different sounds distributed through part II rather than for any reason connected with the meaning of the words, which are shown in brackets below the phonetic symbols only as an additional guide to pronunciation.

The electronic sounds form a single continuous soundfile, triggered at cue 14a, which consists mostly of another "realisation" of this same melody, and so is not notated in the score. Alongside the 4-channel and stereo versions of the electronic sounds is a clicktrack for practising the synchronisation.

The movements in part II consist of two "layers". The first involves the soloist rotating slowly to face in different directions as shown in the score. She begins facing the audience and turning gradually 90º to her left (bars 1-9), then turning 180º to face right (bars 10-18), then 270º to the left so as to face away from the audience (bars 19-26) and finally through 360º to the right so as to end facing away once more (bars 27-35). During the rest bars the soloist continues the movement. The second layer of movement takes place in the bars marked A (for "action"), in which the performer generally makes no sound, but instead performs a silent action (which may or may not involve the violin and/or bow) synchronised with all or part of the electronic sound material in that bar. While these movements are not specified, they should be conceived to as to form a clear association with the sound(s). This doesn't necessarily mean that they should involve miming the action assumed to have originally given rise to the sound (as for example the sound of a door closing in bar 4) although neither is this strategy excluded. In any case not all the sounds have such "concrete" implications.

For rehearsal purposes, the electronic materials for part II are available in 1-, 2- and 4-channel versions with an extra channel containing a clicktrack. The notated material should be played from memory.

Cues 14a and 14b are separate soundfiles in a complete performance of *natural causes act 2*, but in the solo version of *heard shadows & watched voices* there is a single cue 14 which continues from part 2 into part 3.

3

In part 3, apart from a continuous layer of sound (cue 14b) which plays back throughout and which can be used as orientation by the performers (because a different sound material begins each minute), the sound projectionist and soloist may play (back) their events in any order, separated by silences, within the overall duration of 4 minutes, apart from the final event in the violin part which involves setting up a music stand for part 4, although in a complete performance of *natural causes act 2* it isn't used until much later. The violin part consists of various combinations of movement, voice and violin. The electronic events are numbered as cues 15-46.

4

The final part is played from the music on the music stand, apart from the two final bars (16 and 17), which are played as the soloist turns away from the music stand and leaves the performance space so as no longer to be seen by the audience by the time of the last sound. There should be a gradual blackout during these two final bars, ending at the last sound, after which the amplification level should be rapidly reduced to zero.

heard shadows and watched voices

1

1

cue 1

The violin is not actually touched until bar 29. The notated music (all taken from part 4) is mimed as precisely as possible to the recorded material. Between the notated fragments, the specified actions should be synchronised as necessary to the sounds from the loudspeakers.
Begin by walking on stage and standing still for a few seconds, not taking up "playing position"until just before the first sound/action.
At the beginning and at subsequent numbered cues, coordinate with the sound projectionist so that sounds and actions are as simultaneous as possible.
Any visual signals should of course only be made by the sound projectionist. Each numbered cue is a separate soundfile to be triggered at the appropriate moment.

♪=80

arco
msp ----->pst
sul IV

20"

vn

(silence)
after "playing" the sound, look slowly around as if listening for a response to it to come from somewhere in the space

mp

2

♪=71

msp
IV III

17"

20:26

3

vn

(the two sounds repeat irregularly, changing timbre, pitch content and dynamic)
continue to "play" the sounds, as if the violin is constantly changing size and shape

pp

3

♪=71

psp

11"

19:13 9:10

5

vn

(the sounds accelerate "out of control", with crescendo)
accelerate along with the sounds to "impossible" speed

brief pause
- intake of breath!

234321...

III II III II III IV III IV III

mp

4

♪=108

psp ----->nat----->msp

15"

7:9

7

vn

(the sound "freezes" and sustains)
after "playing" bar 7, remain absolutely motionless for the duration of this bar

pp pp pp mp

5

♪=56

msp

6"

9

vn

(the sound becomes pulsated and noisier)
while continuing to "play", the violin gradually becomes heavier,
this process is interrupted by bar 11 and then continues

mp

♪=50

psp ----------->msp

4:5 3:2 3:2 3:2 9:8

ppp pp

15"

12

vn

(bar 11 repeats, beginning slower and becoming even slower and increasingly distorted)
by the end of the bar the violin and bow have become so heavy
it becomes almost impossible to stand holding them

suddenly it
becomes light again!

6

♪=71

msp

mst

10:8

tr

p

5"

14

vn

... slips out of your hands and shatters on the ground. Stare briefly at the broken fragments before continuing with bar 15 as if nothing had happened

7

♪=40

nat

8:10

4:3

3:2

12343212...

p

18"

the violin transforms into an insect and flies away, follow it with your eye as it gets lost in distance and darkness then once more begin bar 17 as if nothing had happened

8

♪=116

msp

psp

17

vn

4:3

3:2

6:5

mp

p

4"

(the violin continues and blurs into indistinctness)
while continuing to "play", the violin loses its solidity,
becoming indistinct, out of focus, liquefying

clt

mst

msp

3:2

mp

9

♪=45

psp

18"

20

vn

(the resonance continues)
after "playing" bar 19, again look around as if listening for a response to it, using exactly the same movements/gestures as in bar 2

19:20

pp

mp

10

♪=123

6"

22

vn

(silence)
speak these words, slowly and distinctly, without emotion
"our mouths / gagged / with songbirds"

arco
(senza vibr)

½ clt
molto vibr

11:13

7:5

pp

14"

24

vn

(suddenly the violin explodes into a cloud of fragments which fly off in all directions)
slowly shrug and then *very* slowly lower the head, then remain still for a few seconds, then raise it, again slowly, and take up "playing position",
remaining still in this position until the beginning of bar 25

11

♪=36

msp

16:12

ppp

12

♪=128

14"

26

vn

(looping)
continue to "play" the loop, each time facing in a different direction

msp ---------- mst

--- msp → nat

4:5

9:11

tr

ppp

p

p

ppp

21"

28

vn

(multiple violin texture)
after "playing" bar 27, turn around and pick up the violin and bow (and wireless microphone transmitter), as if it's a completely unfamiliar object,
then "play" bar 29, with the violin, but still silently

13

♪=32

5"

pst

29

vn

21:18

ppp

(silence)
remain still in playing position then begin "playing" bar 31 silently, "fading in" from nothing with the actual violin on the sustained G# with vibrato

arco

mst ---------- msp

6:4

ppp

6"

♪=60

(silence)
play this, then listen for the ensemble's vocal sounds as part 1 of *the fallen angels' wounds* begins in zone 5

---------- nat

3:2

7:6

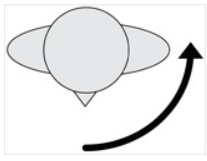
9:7

fff

5

14

♪=64



rotation completed at end of bar 9
(see preface to score)

1

vn

voice

electr

mst ---------- nat

nat ---------- msp

31/16 9/16 7/16

5:4 3:2

4321234...

etc. sim.

mp p mp pp pp ppp

SO ---------- O

(so)

The electronic part is audible almost throughout as a heterophonic shadow of the violin, and is only shown in the score where it involves sounds that cue movements in the bars marked Ⓐ

3

mst sul IV

9/16 4/8 9/8 3/8

A

III/IV IV

mf p p mf mf f

a ---------- I

r ---------- ɔ

(goodnight) (dreams) (from)

5:4

door closes

6

3/8 15/16 9/16

II II sub. I

mp ppp pp

ε

8

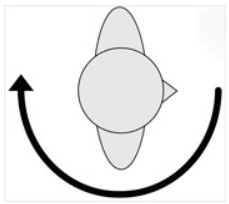
9/16 25/16 8/8

I I II

pp f p

i ---------- u

(youth)



♪=72

nat psp msp

10

vn

voice

electr

8/8 II

5/8 A 43/16

mf f

3

(under)

on bridge msp nat msp mst

12

43/16 III

7:6 4:5 4/8

p mp pp

inhale

mfp f pp p ppp

VI

(shadows)

æ ɔ I

(shadows) (voices)

13

4/8 5/8 6/8 A

psp on bridge

tr

III II

mp ppp f

pst

13/16 5/16

6:4 6:5 6:7 6:5

pp mf pp

5:6

ʊ

(would)

17

5/16 A 27/16

nat msp

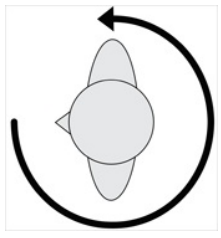
3:2 6:5 11/16

p f mp

5:4

u

(to)



♪=56

19

vn

voice

electr

11/16 13/16 A

nat mst

mf ppp mf

a (mouths) o

(conversations)

low strummed piano strings

10:7

7/8 III 1/8 A 14/8

msp nat (sub)

pp pf p

I (with) m (morning)

7:8

23

14/8 5/16 A 15/8

nat msp

I II III I 1 3 2 4

4:3

II 2 III 3 IV 1 III II 2

I II III IV 3 1 2

III II 1 3 4

6:4

III 1 II 3

ppp f mf f

Λ (but) I ə (here)

bee

4:3

25

mst nat psp

15/8 9/16 18/8

5:6

II 4 III 1/3

tr

"trill" with randomly varying fingers using light finger-pressure, with the open G decreasingly audible until at the end of the bar it's no longer present

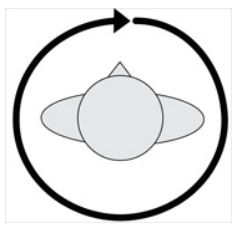
(keeping same distance between LH fingers)

(etc.)

mp mf p f pp

gradual loss of pitch... ("vocal fry")

e I (rain)



♪=80

27

nat

3:2

18/8 1/8 A 13/8

ppp mp/pp

3:2

29

vn

voice

nat

psp

msp

13/8

37/16

4:3

IV 1

II 3 III 4

IV 2

p

mf

pp

pp

mf

f

f

mp

(can't)

(stay)

30

vn

voice

37/16

A

(mp)

(continue to end of breath)

(s)

electr

(insects)

pencil on paper

31

vn

voice

nat

psp

ppp

p

f

pp

6:5

13/16

mf

mf

(there)

(polyphonically)

32

vn

voice

electr

13/16

1/8

mst

2/8

A

3/16

mst

msp

f

mp

(gone)

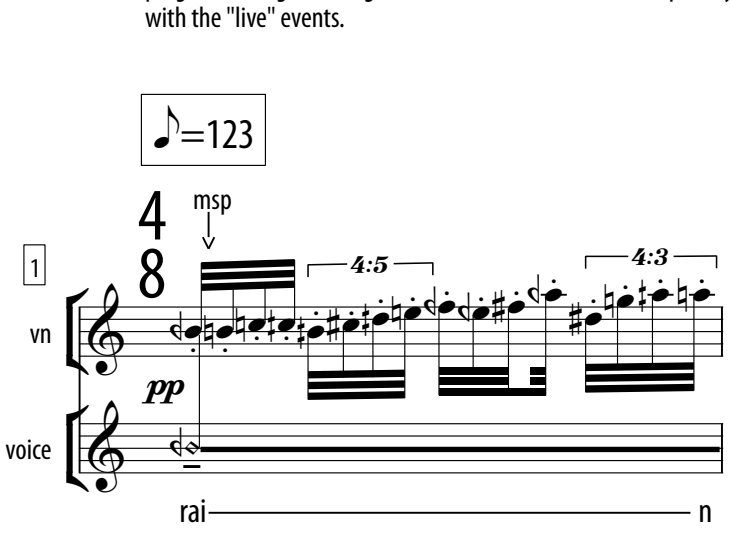
(variously)

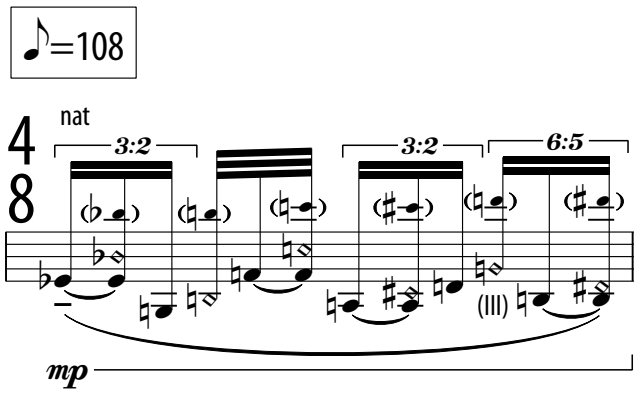
creak

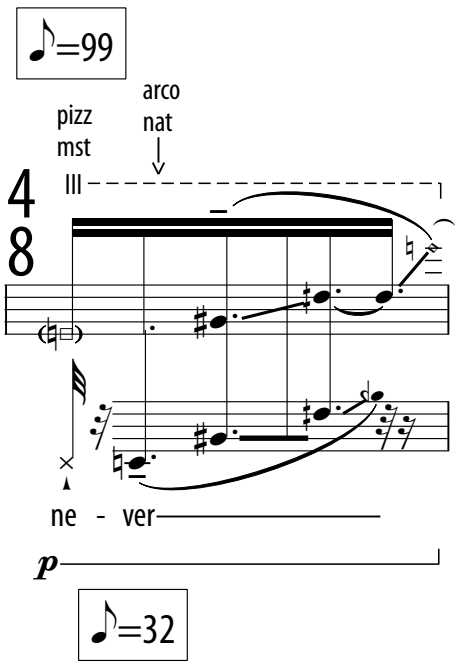
11:8

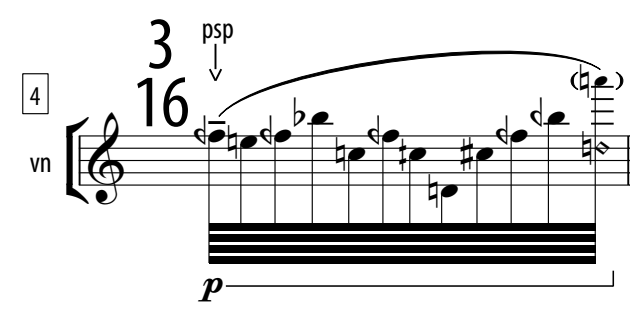
15

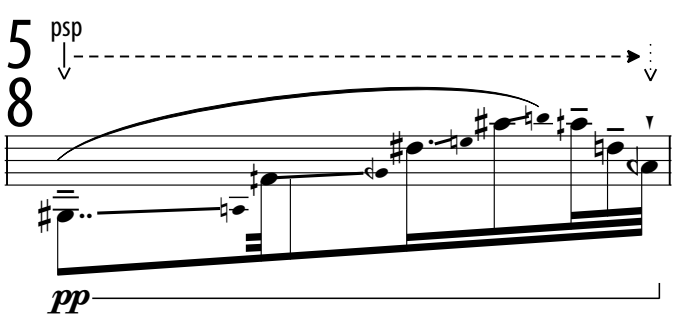
The violin and electronic parts each consist of 32 fragments which can be played in any spontaneously decided order, except for the violin's event 32 which must come last.
Events 1-32 in the violin part are arranged in four groups of eight events each, in order of increasing duration within each group - it would be preferable to take consecutive events from different groups.
(The first group consists of material derived from part 4, the second from part 2, and the third from part 1, while the fourth involves material that isn't so closely related to what happens in the other parts.)
The electronic fragments may overlap with one another *ad lib.* but in general both parts will involve silence/inactivity for a significant proportion of the 4-minute duration of part 3. (The total duration of both the violin material and the electronic material is 2'40".) Between events, preserve a sense of attentiveness rather than relaxation. The continuous electronic sounds continue through part 3 and can serve as a guide for progress through the fragments, since each minute is occupied by a distinct sound material, although the continuous level should be mixed into the background (dynamic = pp/ppp) so that it doesn't interfere with the "live" events.

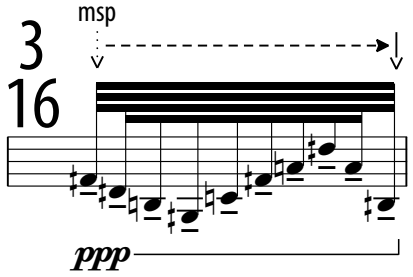


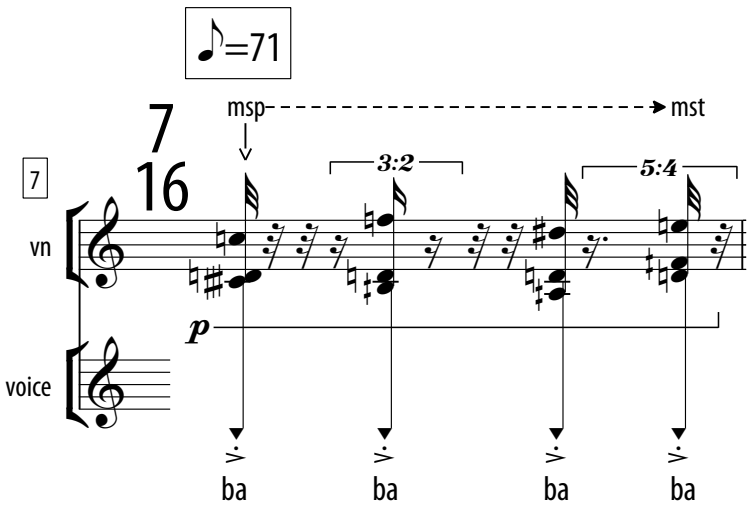


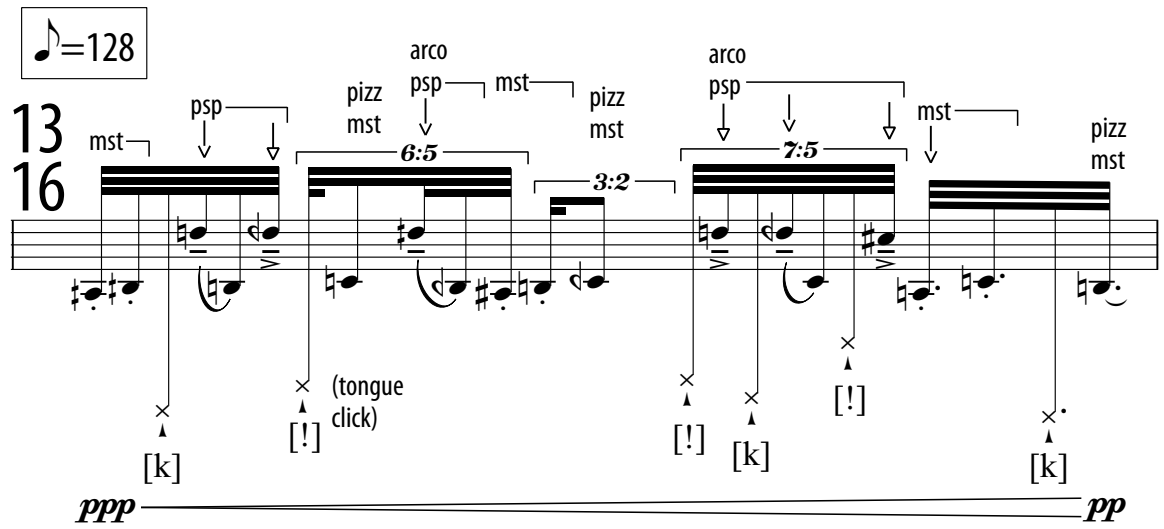


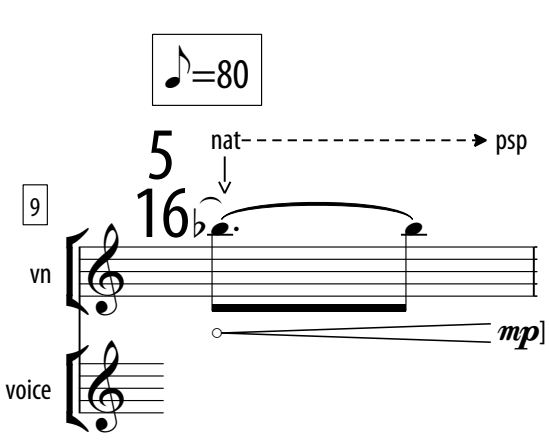


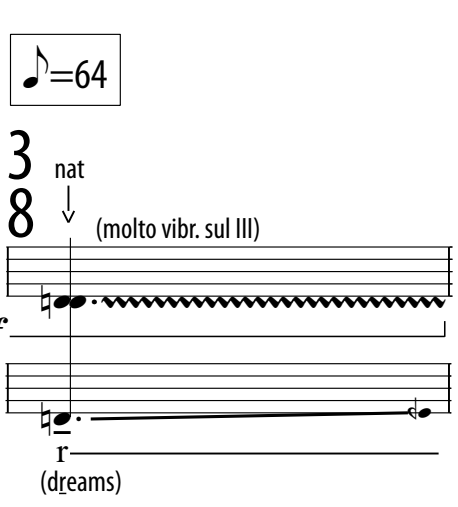


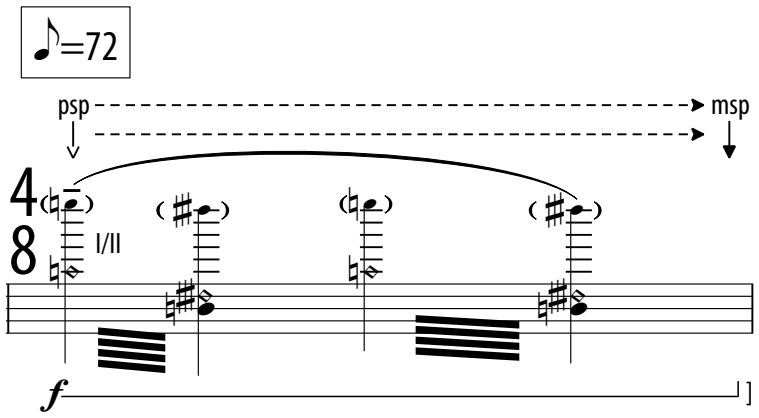


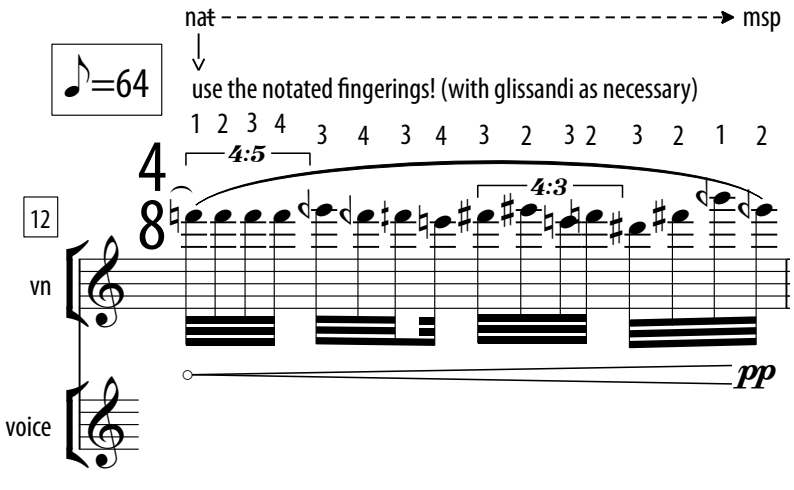


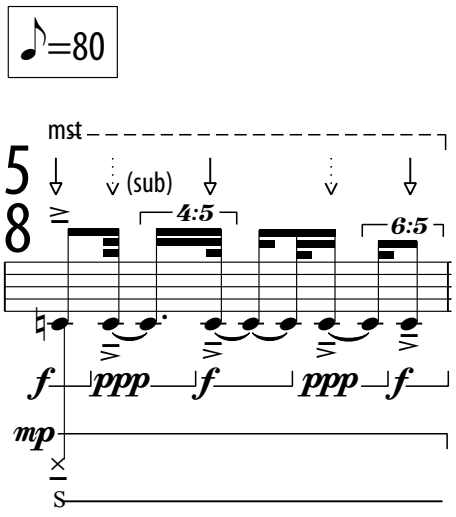


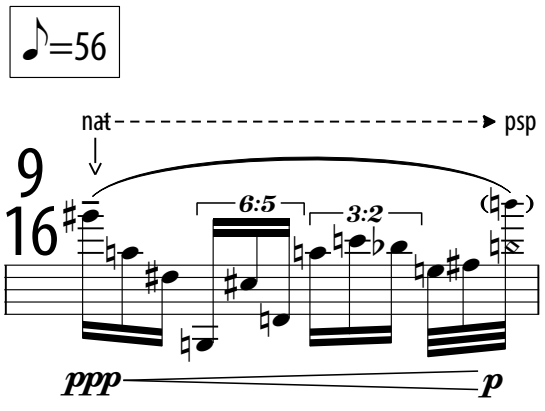


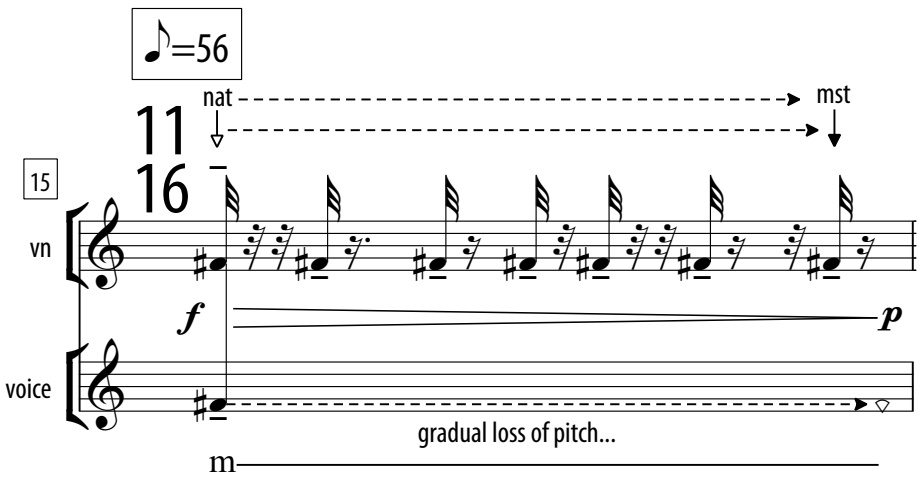


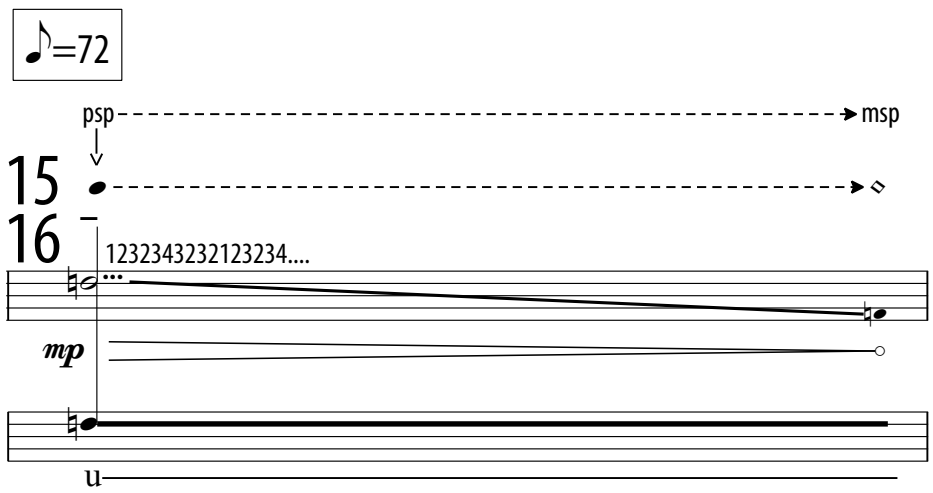


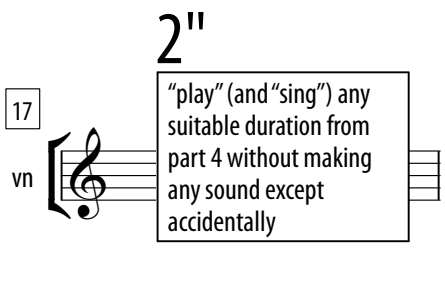


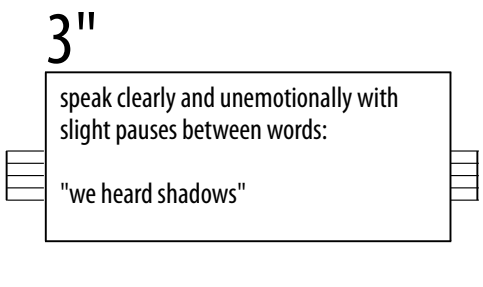


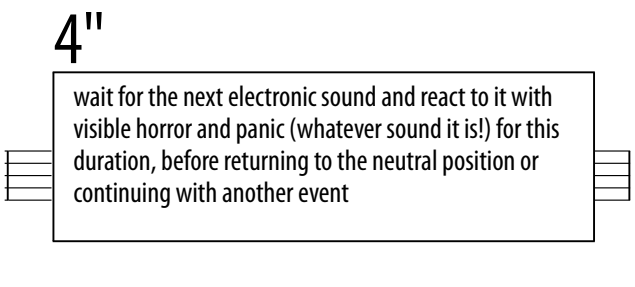


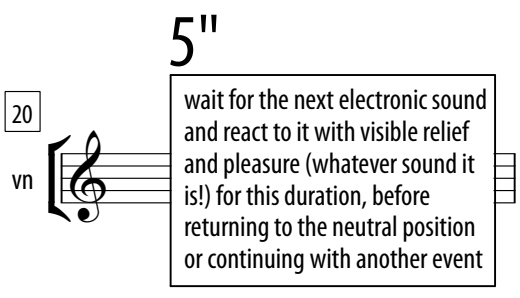

♪=56
11
16
15
nat
mst
vn
voice
f
p
gradual loss of pitch...
m

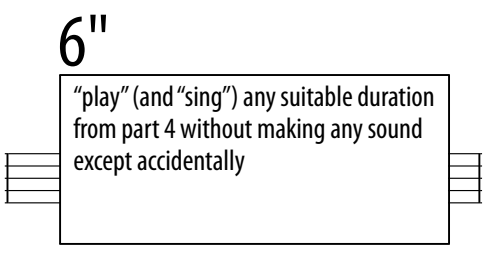

♪=72
psp
msp
15
16
1232343232123234....
mp
u

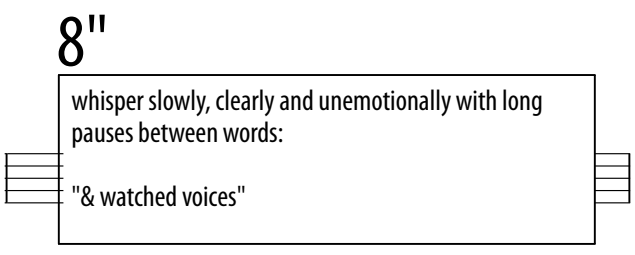

2"
17
vn
"play" (and "sing") any suitable duration from part 4 without making any sound except accidentally

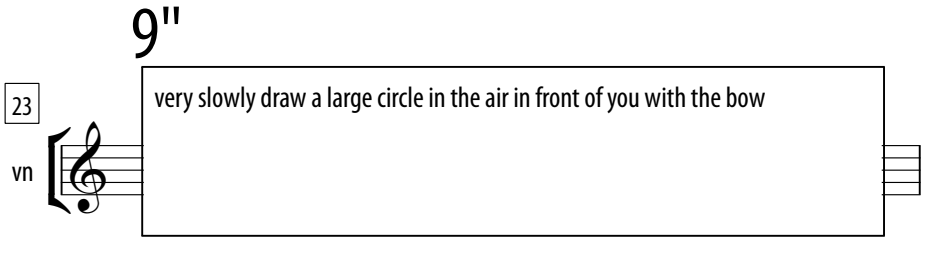

3"
speak clearly and unemotionally with slight pauses between words:
"we heard shadows"

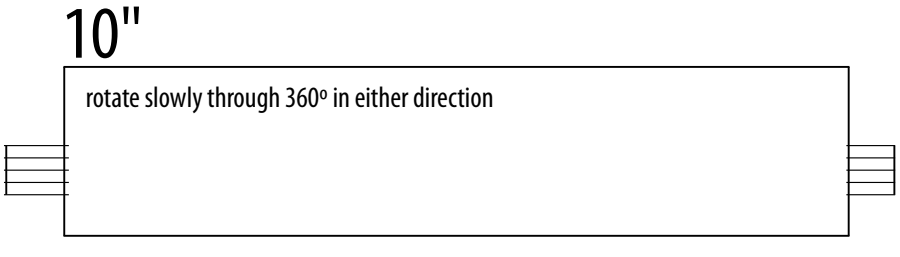

4"
wait for the next electronic sound and react to it with visible horror and panic (whatever sound it is!) for this duration, before returning to the neutral position or continuing with another event

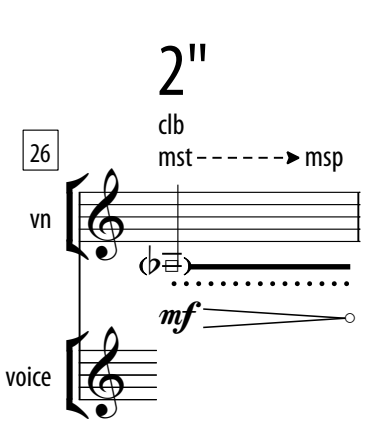

5"
20
vn
wait for the next electronic sound and react to it with visible relief and pleasure (whatever sound it is!) for this duration, before returning to the neutral position or continuing with another event

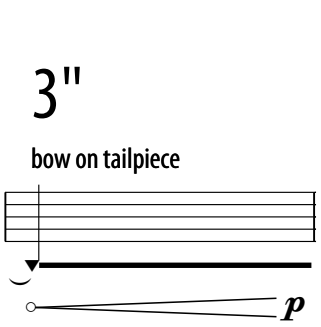

6"
"play" (and "sing") any suitable duration from part 4 without making any sound except accidentally

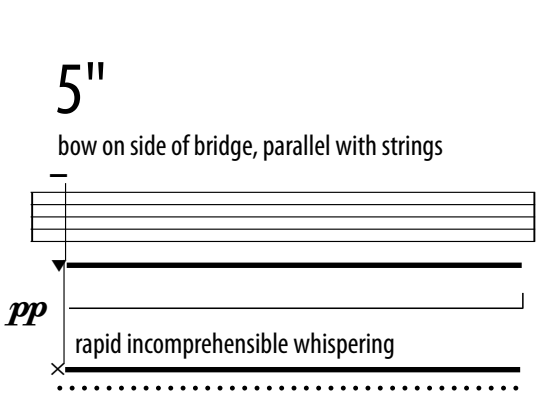

8"
whisper slowly, clearly and unemotionally with long pauses between words:
"& watched voices"

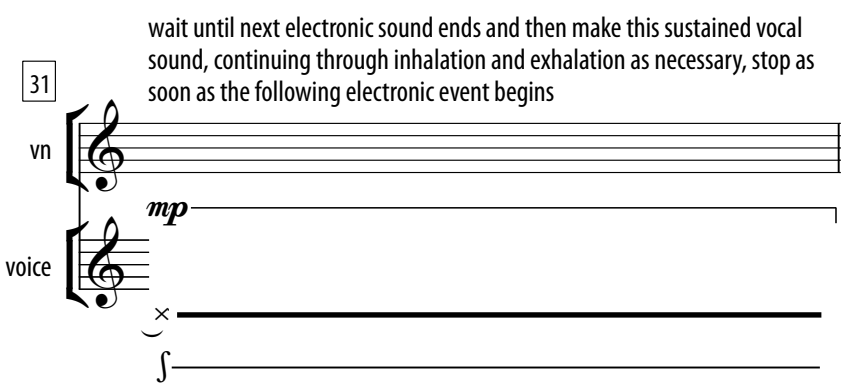

9"
23
vn
very slowly draw a large circle in the air in front of you with the bow

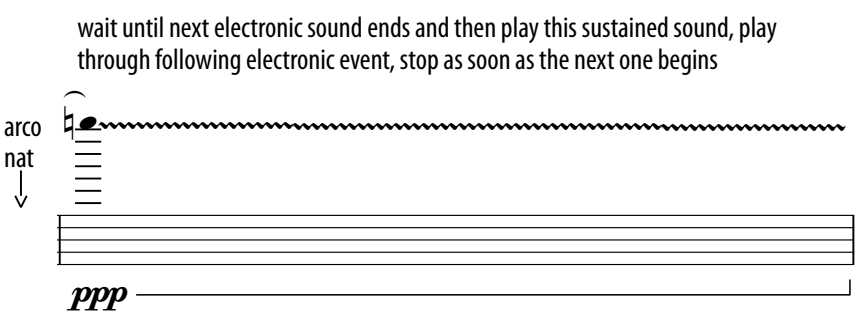

10"
rotate slowly through 360º in either direction


2"
clb
mst
msp
26
vn
mf
voice

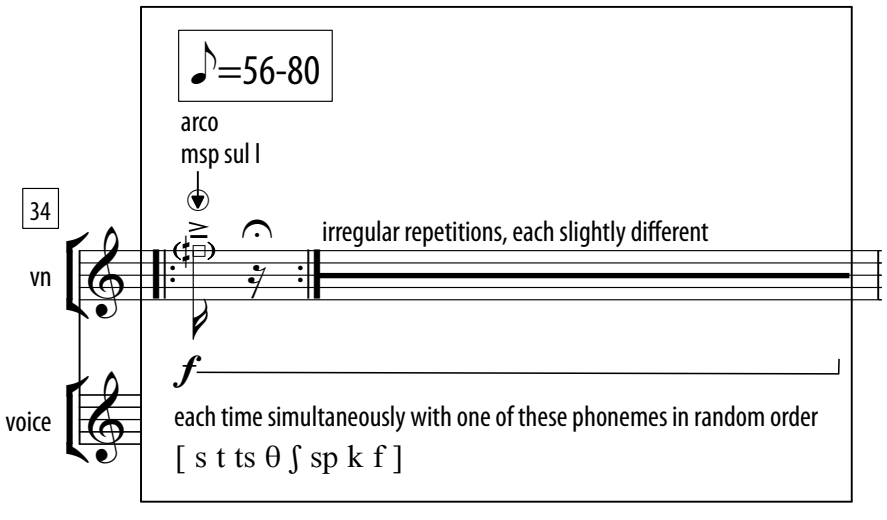

3"
bow on tailpiece
p


5"
bow on side of bridge, parallel with strings
pp
rapid incomprehensible whispering

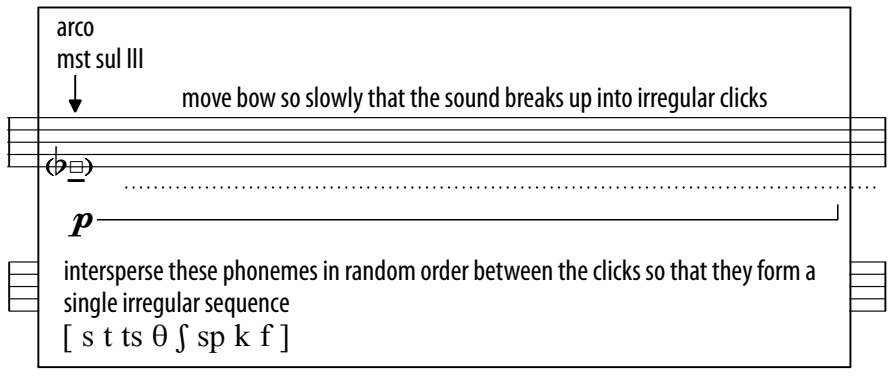

wait until next electronic sound ends and then make this sustained vocal sound, continuing through inhalation and exhalation as necessary, stop as soon as the following electronic event begins
31
vn
mp
voice


wait until next electronic sound ends and then play this sustained sound, play through following electronic event, stop as soon as the next one begins
arco
nat
ppp

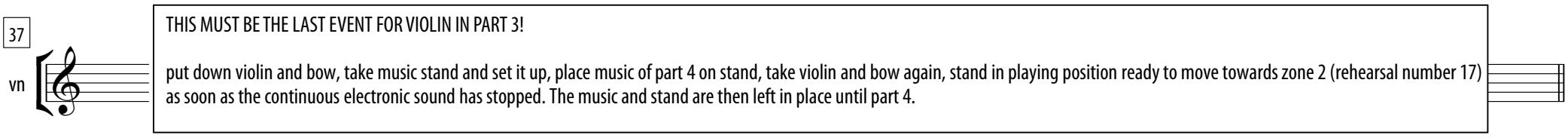
10"


♪=56-80
arco
msp sul I
34
vn
irregular repetitions, each slightly different
f
voice
each time simultaneously with one of these phonemes in random order
[s t ts θ ʃ sp k f]

12"


arco
mst sul III
move bow so slowly that the sound breaks up into irregular clicks
p
intersperse these phonemes in random order between the clicks so that they form a single irregular sequence
[s t ts θ ʃ sp k f]

13"


37
vn
THIS MUST BE THE LAST EVENT FOR VIOLIN IN PART 3!
put down violin and bow, take music stand and set it up, place music of part 4 on stand, take violin and bow again, stand in playing position ready to move towards zone 2 (rehearsal number 17) as soon as the continuous electronic sound has stopped. The music and stand are then left in place until part 4.

31

Here the voice is intended to sound symbiotic with the violin, expanding its range in terms of pitch, timbre and articulation while at the same time clearly projecting its semantic dimension.
Where only one dynamic value is shown, it applies to both violin and voice. Most dynamic changes are abrupt alternations between values, in the range *ppp-mp*.
Since the metronomic tempo changes at each bar (some bars are split over two systems) independently of the durations within the bar, the theoretical duration in seconds of each bar is shown.

♪=80 (12.00")

16/8

1

vn

arco msp → pst
sul IV
III
mst
psp
11:8
clb nat → clt msp → arco pst
7:8
clb + nat
arco msp
10:8
psp
nat → mst
nat
msp
9:8
psp
nat
11:8
pst
5:4
II
I
II
tr
mp
mp
p

voice

s — o
mp
we said
ppp
goo — d
pp
mp
nigh — t
ppp

♪=71 (13.52")

2

vn

mst → nat
msp
10:7
3:2
3:2
1 2 3 4
nat → msp
8:6
8:10
sub mst → nat
msp
nat → msp
20:26
4:3
3:2
IV
III
III4
IV1
II1
III2
3
4
7:8
5:4

voice

pp
as
mp
ba — d
p
pp
dreams
hi — d them
mp
s — elves

♪=89 (10.79")

3

vn

mst → nat
mst
nat
8:7
3:2
7:8
IV
III
II
10:8
III IV pizz + III
pizz
5:4
arco msp → nat
tr
pizz
arco msp
clb pizz mst
12:9

voice

from
the
u — s
p
mp
grea — t
p
mp
e — st hi — ts

♪=63 (15.24")

4

vn

psp
sub
sub
19:13
9:10
7:8
(psp)
mst
pst
nat
23:18
12:9

voice

III II III II III IV III IVIII
o — f a
[ɛ]
mp
234321...
II
III
4
IV
mp
3
2
III
IV III
ny
one's
you — th
mp

♪=108 (8.89")

5

vn

psp
nat → msp
mst
msp → nat
7:9
3:2
5:4
8:9
3:2
pizz msp III
clt mst → msp
arco psp
8:7
5:4

voice

(III)
III II III
II
mp
IV
1
234321
a — nd
fro — m — u — n
pp
der
the
door
p
ppp

16

♪=56 (17.14")

6

vn

voice

nat psp msp pst mst (mst) msp nat sub msp

11:8 17:18 11:14

ppp p ppp mp ppp

we— hear— d

mp p

(msp) nat psp

sub sub 12:14

(msp) 6:4

ppp

mp

sh— a— dow— s

p

♪=50 (19.20")

7

(psp) msp nat mst nat msp

4:5 3:2 3:2 3:2 3:2 9:8 7:8 4:3 II III 21:15 3:2 4:3

(slide page here!)

ppp p p ppp p ppp p

a— nd watched voi— ce— s

ppp ppp p

♪=99 (9.70")

8

nat psp msp mst pizz mst arco nat

4:5 10:8 5:4 12:15 4:3

12343212... 234321... III II IV III I

(inhale)

during glissando, "trill" with randomly varying fingers using light finger-pressure

a— nd knew we— woul— d ne ver— learn to spea— k

p

♪=40 (24.00")

9

nat msp msp mst

8:10 4:3 3:2 10:12 20:18

12343212...

our— mou— ths ga— gged with

[g] [d]

p mp ppp pp

mst msp mst msp nat msp psp pst msp

8:7 4:3 22:18

song birds

mp ppp p

♪=116 (8.28")

10

vn

voice

msp nat

4:3 3:2 6:5

III4 2 IV1

pst

psp

pizz arco

nat

13:14

III II I

msp

3:2

mst

clt

mst msp

3:2 9:6

s o we sang goo d mor ning

mp pp ppp mp

♪=45 (21.33")

11

vn

voice

msp

10:7

mst psp

20:18

(psp) (nat)

sub

mp

but there wa s

pp pp mp pp

nat psp msp mst nat

19:18 8:10 5:6 19:20

psp

mp mp

no one here

mp pp

♪=123 (7.80")

12

vn

voice

nat msp

6:7 4:5

mst msp

9:11

clb

nat pst

mst msp

11:13 7:5

arco ½clt

(senza vibr.) molto vibr.

on ly rai n pa tter ing o n lea ves

pp pp

♪=36 (26.67")

13

vn

voice

clt

msp

mst

pizz arco pizz

nat

9:7 8:10

msp nat

28:22

psp nat

4:3

III4 3 2 1

(slide page here!)

we ca n't

p ppp mp pp mp

msp nat

16:12 8:10

nat

19:18 3:2

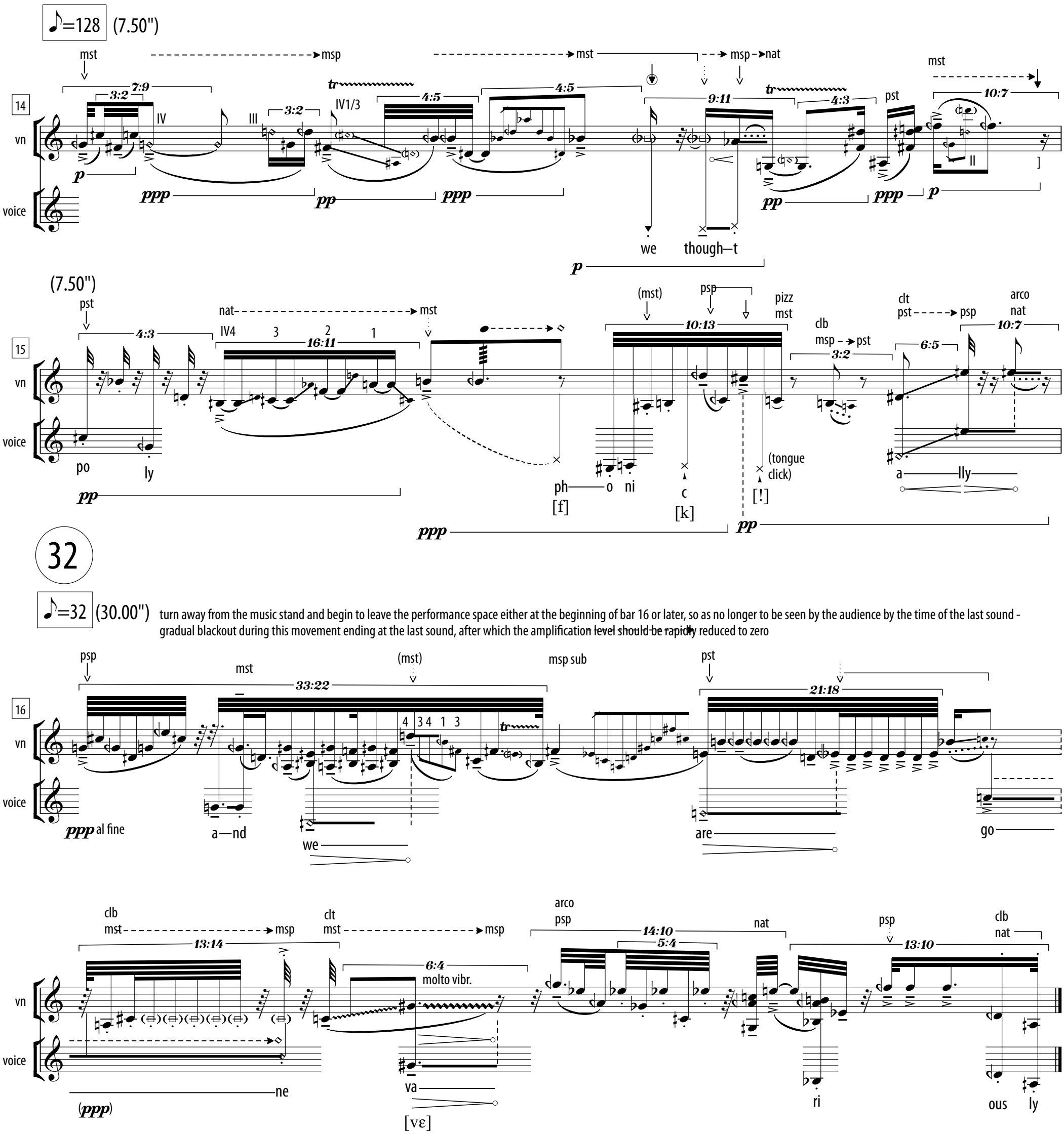
pst mst

IV III II III

stay there

ppp p ppp

pp mp


♪=128 (7.50")
14
vn
voice
mst
msp
mst
msp
nat
mst
7:9
3:2
IV
III
3:2
IV1/3
4:5
4:5
9:11
4:3
pst
10:7
II
p
ppp
pp
ppp
pp
ppp
p
we
though—t
p
(7.50")
15
pst
nat
mst
4:3
IV4
3
2
1
16:11
(mst)
psp
pizz
mst
10:13
clb
msp
pst
3:2
clt
pst
psp
arco
nat
10:7
6:5
po
ly
pp
ph—o ni
[f]
c
[k]
(tongue
click)
[!]
a—lly
ppp
pp
32
♪=32 (30.00")
turn away from the music stand and begin to leave the performance space either at the beginning of bar 16 or later, so as no longer to be seen by the audience by the time of the last sound - gradual blackout during this movement ending at the last sound, after which the amplification level should be rapidly reduced to zero
16
vn
voice
psp
mst
(mst)
msp sub
pst
33:22
21:18
4 3 4 1 3
ppp al fine
a—nd
we
are
go
clb
mst
msp
clt
mst
msp
arco
psp
nat
psp
clb
nat
13:14
6:4
molto vibr.
14:10
5:4
13:10
(ppp)
ne
va
[vɛ]
ri
ous ly

Richard Barrett

all night invisibility flickers on & off visibly

(natural causes VI)

2021-25

ensemble with electronics

full score

all night invisibility flickers on & off visibly

(natural causes VI)

(2021-25) for ensemble with electronics

commissioned by Diaphonique
in memory of Gottfried Michael Koenig

duration: approximately 24 minutes

instrumentation (all instruments should be amplified):

flute, piccolo & bass flute
clarinets in Eb & Bb & bass clarinet
soprano & baritone saxophones
violin
cello
piano
electronic keyboard (see below)
percussion (see below)

note for performers:

On 1 September 2013 I received a sequence of interconnected texts from from Simon Howard, an English poet who over the previous eight years or so had become a close friend although we never actually met face to face. I had been interested for some time in working with his writing, which had (and still has) for me the quality of powerfully evoking possible sound-forms and a compulsion to realise them. I had asked Simon for a new text as a collaboration between us, suggesting only that it be structured around the number 16 (the number of instruments in the ensemble I had in mind), and indeed it consists of 16 short texts each divided into 16 lines or phrases. Simon had written in an email a few weeks previously: "Somehow I felt that entitling the work was what you'd like to do. I'll let you have the full revised text next week & from there it's material for your composition: I have no 'control' or sense of the words 'belonging' to me." (He actually ended up giving the sequence the title *ADDICTION*.) Simon died suddenly in early December 2013 at the age of 53. *Natural causes* is intended when complete to consist of four "acts" each containing four interlocking compositions. The third act, for sixteen musicians and fixed media electronics, was commissioned by Musikfabrik and first performed by them in 2017. Musikfabrik also commissioned the first component of act 4, *catastrophe* for horn and percussion, in 2018, and Carl Rosman commissioned *the world long ago ceased to exist* which is the second component of act 4. *all night invisibility flickers on & off visibly* forms part of act 2, commissioned by Diaphonique for the ensemble soundinitiative.

These "habitations" historically designated / for the mad / & the illusionist's tap dancer kick the door in / get down on the ground whirr of a portable device /
Marie Antoinette's head made out of marzipan / do we love each other is a technical question / all day lights flicker on & off invisibly all night invisibility flickers on & off visibly / I keep seeing your lips floating /
a few inches above a rug of white-pink daisies / I've got a baseball bat under my bed says Mr Mister / Zu viel aber / Der Liebe, wo Anbetung ist, /
Ist gefahrreich, triffet am meisten. / A squirrel turns a walnut around / in's paws, raised on haunches / Is that the doorbell? /

The 8 parts with their different instrumentations are:
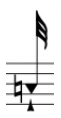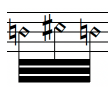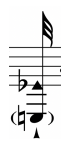
octet 1 – bass flute, bass clarinet, baritone saxophone, violin, cello, piano, electronic keyboard, percussion (30″)
sextet 1 – soprano saxophone, violin, cello, piano, keyboard, percussion (36″)
quartet 1 – flute, Bb clarinet, violin, percussion (54″)
duo 1 – bass flute, cello (1'36″)
octet 2 – flute, Eb clarinet, soprano saxophone, violin, cello, piano, electronic keyboard, percussion (2'36″)
sextet 2 – piccolo, baritone saxophone, percussion, piano, violin, cello (4')
quartet 2 – bass clarinet, violin, cello, piano (5'48″)
duo 2 – soprano saxophone, keyboard (8')

Transposing instruments are written at transposed pitch except when the cello is retuned (see below)

 = vibrato (otherwise no vibrato!). A *legato* slur before a notehead indicates that the sound is to be played with no discernible attack.

flutes:

Multiphonics and microtones for bass flute are derives mostly from *The Techniques of Flute Playing* by Carin Levine and Christina Mitropoulos-Bott (Kassel: Bärenreiter, 2nd edition 2003).
diamond-shaped noteheads indicate a timbre with considerably less pitch and more breath-sound than usual
Fingering diagrams are in the same format as for the clarinet, namely the first three fingers of each hand are given as L123, R123.

 = pizzicato  = breathy sound  = tongue ram N = normal fingering for given pitch

clarinet:

 = slaptongue N = normal fingering for given pitch

saxophones:

Quartertones in the low register are intended to be realised using embouchure adjustment, while others should use appropriate fingerings. Fingering abbreviations and the numbering of multiphonics are taken from *The Techniques of Saxophone Playing* by Marcus Weiss and Giorgio Netti (Kassel: Bärenreiter, 3rd edition 2015).
 = slaptongue
diamond-shaped noteheads indicate a timbre with considerably less pitch and more breath-sound than usual

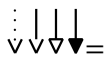
piano:

 = stopping the string lightly in between nodes so that a complex "multiphonic" sound is produced
 = pressing somewhat more strongly so that no or almost no pitch is discernible in the resulting sound.

strings:

psp, msp = poco and molto sul ponticello respectively, the former already being noticeably different in timbre from nat., the latter being as extreme as possible consistent with the fundamental pitch remaining audible.
pst, mst = poco and molto sul tasto (similarly)
clb = col legno battuto, clt = col legno tratto 

= gettato

 = ascending degrees of bow pressure: flautando; "normal"; exaggerated and distorted (pitch only just discernible); completely pitchless scraping.

] = audible bow- stop at the end of a sound. A legato slur before a notehead indicates that the sound is to be played with no discernible attack.

- - - - - - - - -➔ = a smooth gradual transition between two states (for example bow position and/or pressure)

● = normal left-hand fingerpressure ◇ = "harmonic" fingerpressure + = left-hand pizzicato 12343432123... = rapid exchange of fingers on a single pitch or glissando

electronic keyboard:

The electronic keyboard part uses a 6-octave MIDI keyboard, a MIDI fader box with 8 faders, a sustain pedal and a sample-playback program created in Max in collaboration with Sameer van Zwieten and further developed in collaboration with Etienne Graindorge, which should run on a computer attached to an audio interface and a stereo amplification system. Two monitor loudspeakers should ideally be placed on stands at ear level either side of the player and slightly behind them, so as to project a stereo sound-image which is nevertheless focused on the location of the player, and also to give the player the most immediate perception of what is being played. When *duo 2* is performed alone, no further amplification is needed. For a more extensive selection from *invisibilkity*. . . , up to and including a complete performance of *natural causes act 2* of which it forms one of four components, the keyboard should also be present in the general amplification of the ensemble. More indications regarding sound projection in *natural causes act 2* may be found in the preface to the complete score.
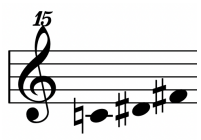
The part is written on two systems. On the lower system are the keys to be played, together with articulation and dynamics. (Dynamics are controlled by key velocity, although it would be useful for the player also to have a master volume control in addition.) On the upper system are the pitches which will be heard. The six chromatic octaves from C1 of the keyboard are translated into three quartertone octaves, whose upper and lower limits vary according to the sound set selected. For example, in *duo 2*, the lowest pitch is Ab3 so that the range of the keyboard coincides with that of the soprano saxophone. The sustain pedal operates in the same way as that of a piano, although the sound samples will only play until their inbuilt duration is reached, if keys are held down or pedal is depressed. Each sound set is organised into two banks, each of 32 sounds. Each key press activates one of the 32 sounds in bank 1, or one of the 32 sounds in bank 2, or some mixture of the two. A sound set is selected using a drop-down menu; sound sets are not changed while playing.

The eight faders are labelled in the score as A to H and have the functions and ranges described below. The values of each parameter are shown clearly on the computer screen, which should be easily visible to the performer while playing. (A remote screen may also be used of course.)

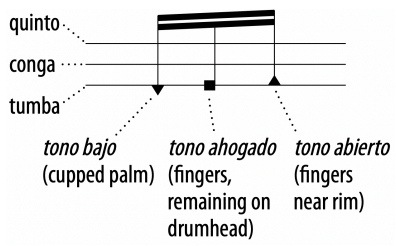
A (range 0-100)	duration of exponential decay of sound after key is lifted. This is distinct from the inbuilt decay of the sound samples, and drops off initially more quickly so as to give more of a reverberation-like effect than is achieved by holding the key or sustain pedal.
B (0-100)	gives relative proportions of the two sample banks. At 0 (when fader C is also at 0), only the selected sound in bank 1 is heard. At 100, only the selected sound in bank 2 is heard. At 50, an equal mixture of both is heard.
C (0-100)	randomises the parameter controlled by fader B. At 0, the value of the parameter is constant and determined by fader B. At 100, the parameter is completely randomised (that is, for each keypress some random mixture of bank 1 and bank 2 is chosen). As the value of fader C rises from 0, the randomisation of the parameter gradually expands from the value of fader B. For example, if fader B is set to 50 and fader C to 50, the value of the parameter will vary randomly in a range between 25 and 75.
D (1-32)	selects the sound sample from bank 1. When fader E is set at or below fader D, only the sample with the number of the value of fader D will be heard at each key press.
E (1-32)	randomises the parameter controlled by fader D. When fader E is set to a value above fader D, the sample at each key press will be randomly chosen from the range between the value of fader D and that of fader E. For example, when D=1 and E=32, the sample is chosen randomly from all 32 in bank 1; when D=6 and E=8 the sample is chosen randomly from 6, 7 and 8; and so on.
F (1-32)	selects the sound sample from bank 2. When fader F is set at or below fader G, only the sample with the number of the value of fader F will be heard at each key press.
G (1-32)	randomises the parameter controlled by fader F. When fader G is set to a value above fader F, the sample at each key press will be randomly chosen from the range between the value of fader F and that of fader G. For example, when F=1 and G=32, the sample is chosen randomly from all 32 in bank 2; when F=6 and G=8 the sample is chosen randomly from 6, 7 and 8; and so on.
H (1-100)	introduces a random pitch variation up to 1/8 tone either side of the pitch notated on the upper system of the keyboard part.

The faders are not moved between bars 1 and 64 of *duo 2* (or during *sextet 1*), and are set to maximum randomness in the parameters controlled by faders B-G, so as to produce the maximum timbral variation between each note and the following one, although in fact all the timbres have a certain consistency, since each consists of a more or less percussive attack followed by a tail of changing resonance. The attacks are derived from diverse pitched percussive and plucked sounds, ranging from mbiras to prepared piano, and the resonances are derived from the harmonic speactra of the attacks. From bar 65 of *duo 2* onwards there is more concentration on particular timbral areas. Most of the time, only the faders to be moved are indicated, although at regular intervals there is a reminder of where all the faders should be at that point, for ease of restarting from different points in rehearsal. Occasionally a two-line stave (lower line = minimum value, upper line = maximum) shows the gradual movement of a parameter from one value to another; which fader is to be moved is indicated at the beginning of this stave. Often, fader movements are made during general pauses – it's important that these should be kept to the notated duration, and for the silence to be perceived as part of the music, rather than just a break for adjustments!

percussion instrumentation and notations:

3 crotales 

3 congas: quinto, conga, tumba – these are notated on three lines, and, on each line, three different sounds are distinguished by both the position and the shape of the notehead:



triangle
small suspended tamtam
glockenspiel

notes on individual components

octet 1

The cello leads *octet 1* because its part has a sound at every time point in the piece.

sextet 1

Here each part consists of two bars, the first 24 seconds long (split over two systems) and the second 12 seconds long. All six players begin each bar together (so that the 32nd notes of the first group in bar 2 are in rhythmical unison!); within each bar, the durations of the pauses between notated groups may be chosen freely by each performer, so that the groups themselves overlap and combine randomly. Each instrument's part should overall consist approximately half of silence, half of sound. Instrumentalists should take care to place their quieter events at moments that are sufficiently sparsenthat they can be heard.

quartet 1

The "doorbell" mentioned in the text forms the initial musical material of this component, in a reference to the recurrent doorbells in Alban Berg's *Lulu* (where it's played by vibraphone and triangle).

duo 1

The cello in *duo 1* is muted throughout, and tuned to C-F#-D-G#. The score is notated at sounding pitch. The bass flute part is notated with precise rhythms throughout, while the cello part consists of sustained sounds (almost exclusively natural harmonics), and more or less irregular sound-textures whose details are notated approximately.

octet 2

Here all instruments are in rhythmical unison with one or both of the percussionist's hands, which play the highest and lowest of the three conga drums, three "high" instruments (flute, electronic keyboard and violin) together with the *quinto*, and three "low" instruments (bass clarinet, piano and cello) with the *tumba*, while the baritone saxophone alternates between the two. The two halves of the ensemble relate first in the ratio 4:5, then 5:6, then 3:4 and finally 6:7. It's essential that all players should be able to see as well as hear the percussionist.

quartet 2

The dynamic range of *quartet 2* is throughout restrained, between *ppp* and *mp*. For each sound and combination of sounds, agreement should be reached as to what levels these actually should be, so as to retain the indicated relationships between them even while the "absolute" loudness they indicate has a certain flexibility (particularly when balancing some of the "extended" techniques). When *quartet 2* is played alone or outside a complete performance of *natural causes act 2*, the fixed media material is played back by the instrumentalists. Each player has a (different) soundfile on their mobile device, and a Bluetooth loudspeaker (or stereo pair) placed near the player. Ideally these loudspeakers should all be at different heights.

When all four players are seated, they all start their soundfiles more or less simultaneously using a discreet signal. They do not need to be precisely synchronised. The soundfiles begin with a fade-in. The overall playback level should be in the lower part (*ppp=pp*)of the dynamic range of the instruments (*ppp-mp*). After 60 seconds of the soundfiles during which the players remain as still as possible, the instruments suddenly begin (see score: "as if opening a door on a music which was already happening"). At the end of the score, the players return to stillness. By this time the sounds from the loudspeakers have become much more sparse. After 60 seconds of the few remaining sounds from the soundfiles, at another discreet signal, the players stop playback on their devices. Once again, precise synchronisation is not required. The duration of the score according to the metronome mark is 5'48", so that the duration with the playback sounds at beginning and end should be 7'48". In order to accommodate a possible broadening of tempo, the soundfiles have been made somewhat longer (9'30").

When *quartet 2* is played as part of *natural causes act 2*, the playback sounds are incorporated into the multichannel fixed media material for the whole performance.

all night invisibility flickers on & off visibly

octet 1

Richard Barrett
2021-22

3

♪=64 cello leads

4/8 | 5/16 | 4/8 | 5/16

fl — non legato — fff — f

cl in E♭ — non legato — fff — f

sopr sax in B♭ — non legato — fff — f

perc (crotales) — non legato (strike with mallet in one hand, damp with the other) (sounding 2 octaves higher!) — 15 — fff — etc. sim — f
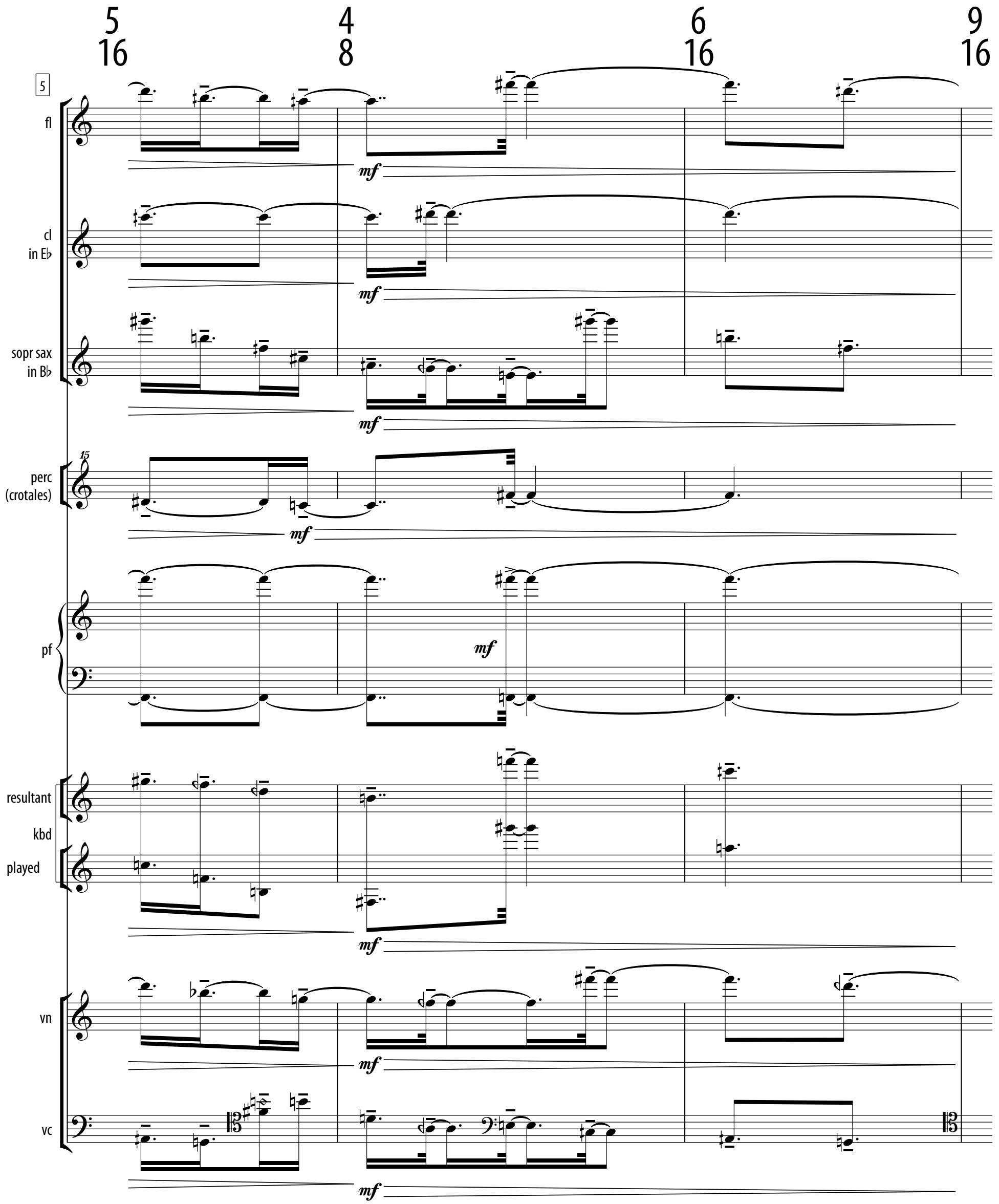
pf — fff — ff — f — Ped. sempre

fader settings at start:
A=0 B=0 C=100 D=1 E=32 F=1 G=32 H=0

resultant kbd played — non legato — fff — f

vn — arco nat. détaché — fff — f

vc — arco nat. détaché — fff — f


5/16
4/8
6/16
9/16
5
fl
mf
cl
in E♭
mf
sopr sax
in B♭
mf
15
perc
(crotales)
mf
pf
mf
resultant
kbd
played
mf
vn
mf
vc
mf

9/16

7/16

8

fl

mp p

cl
in E♭

mp p

sopr sax
in B♭

mp p

15

perc
(crotales)

mp p

pf

resultant

kbd
played

mp p

vn

mp p

pizz
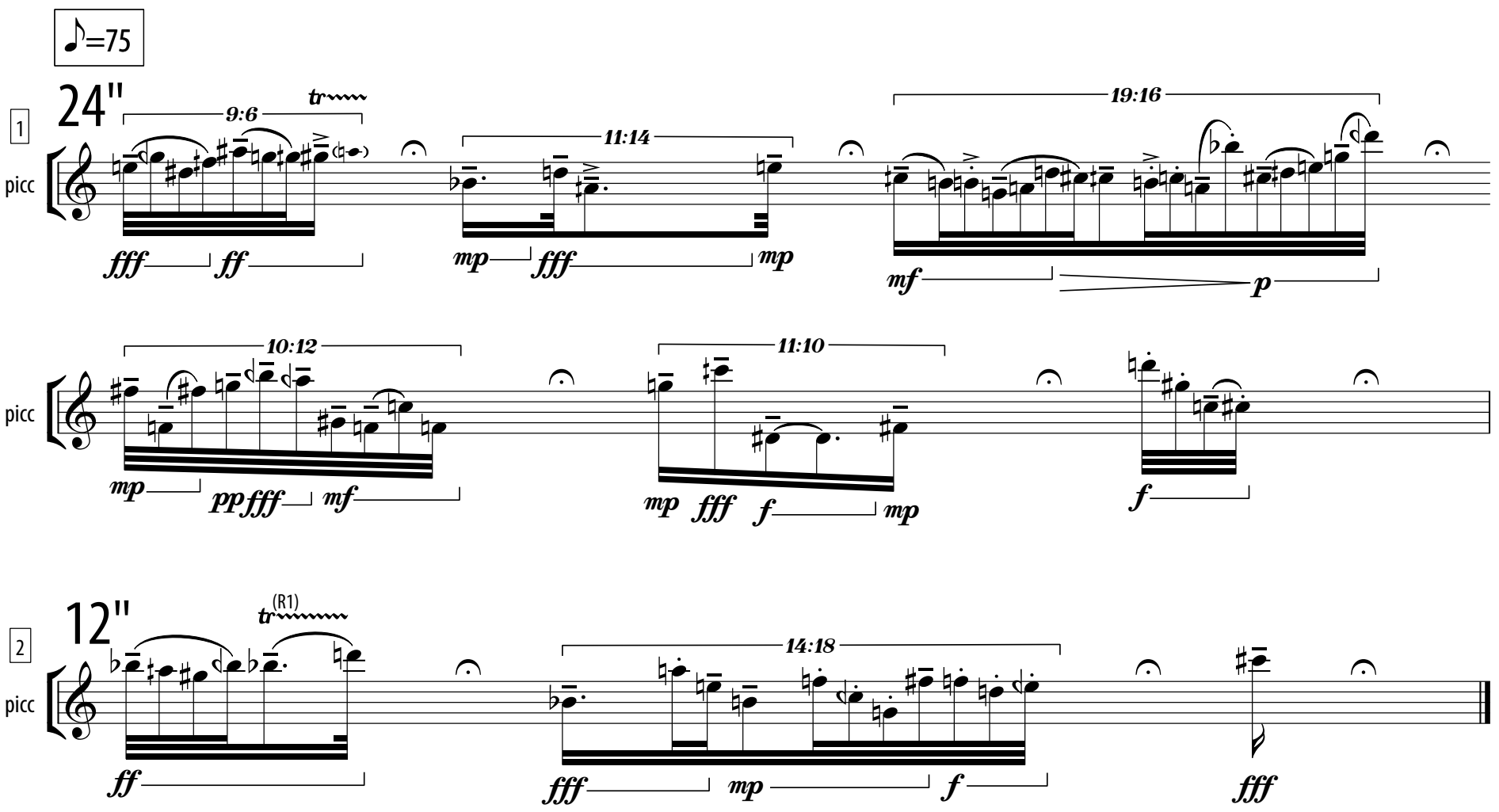
vc

mp p

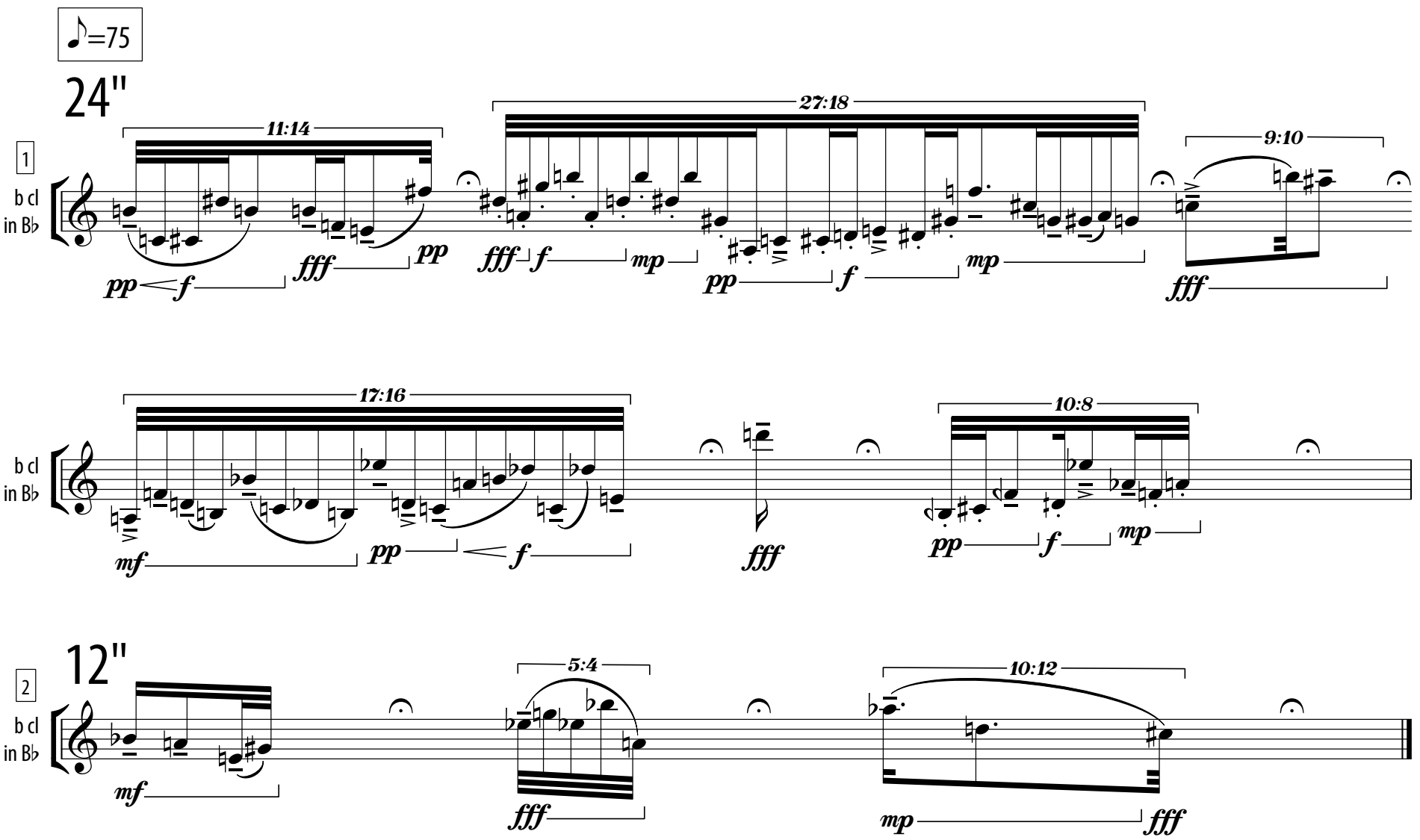
6

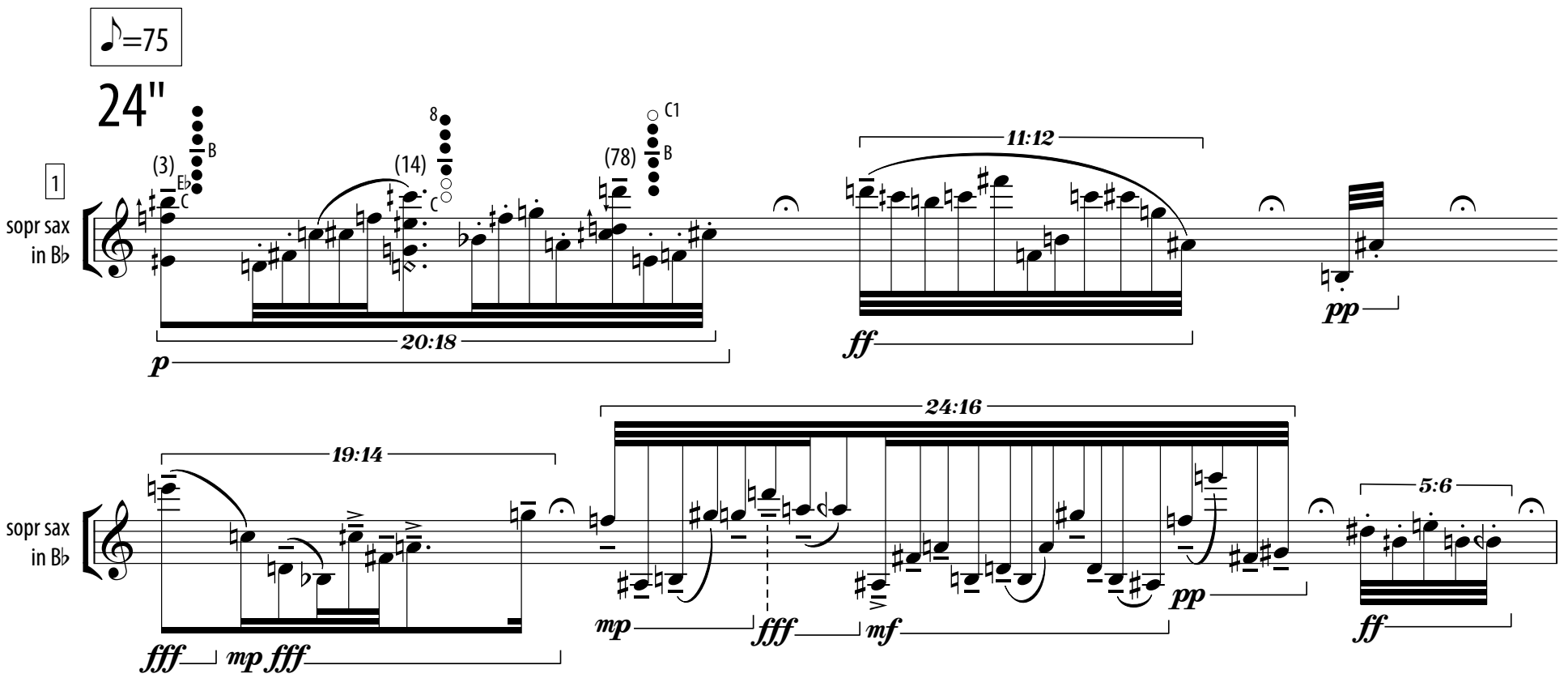
In sextet 1, each part consists of two bars, the first 24 seconds long (split over two systems) and the second 12 seconds long. All six players begin each bar together (so that the 32nd notes of the first group in bar 2 are in rhythmical unison!); within each bar, the durations of the pauses between notated groups may be chosen freely by each performer, so that the groups themselves overlap and combine randomly. Each instrument's part should overall consist approximately half of silence, half of sound.

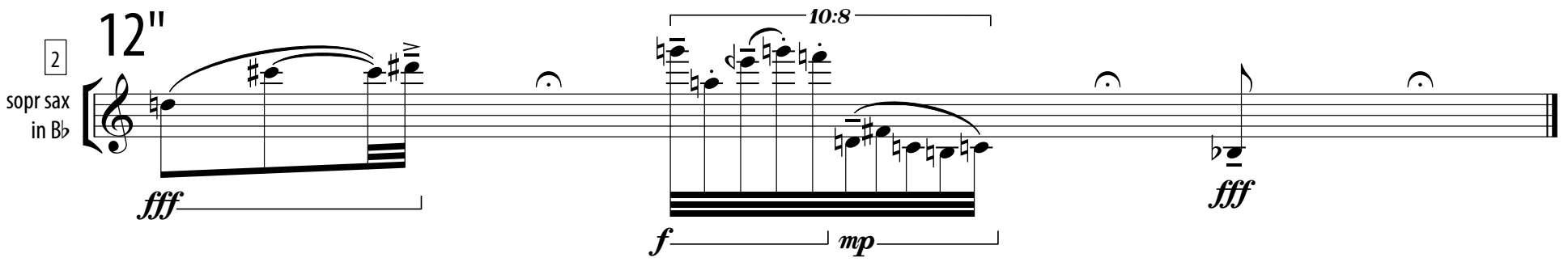
piccolo



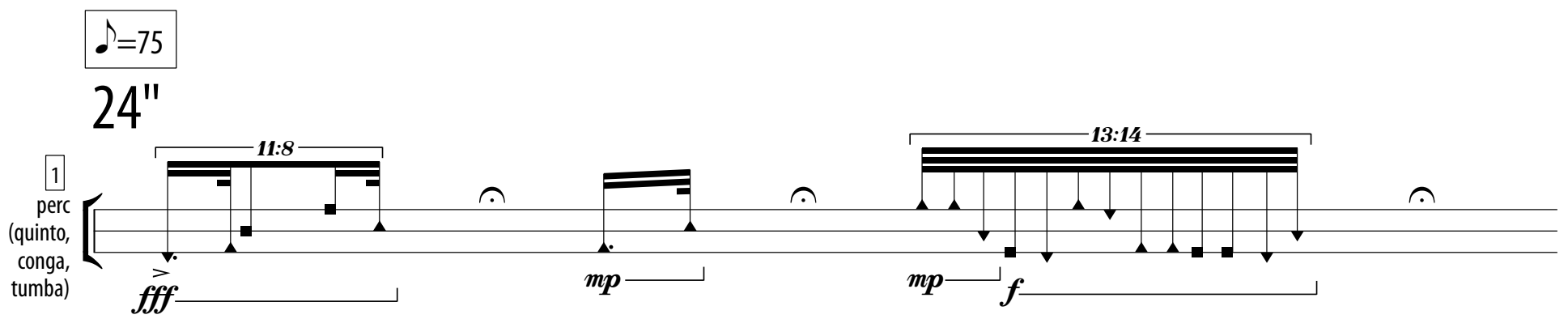
bass clarinet







percussion (congas)



30

piano

♪=75

24"

1

pf

15:16 6:4 6:4

fff f mp pp f pp pp < f mp

9:10 8:6 14:18

fff fff fff f mp pp

12"

2

pf

15:14

pp fff pp mf p ff mf

keyboard

♪=75

fader settings:
A=0 B=0 C=100 D=1 E=32 F=1 G=32 H=0

24"

1

resultant

kbd

played

8:10 21:16 13:12

fff mp pp mp fff mp pp pp fff

5:4 21:14

f mp fff mp fff mp mp fff f mp fff

12"

2

resultant

kbd

played

7:8

mf p mf f fff p pp mf

8 9/16 ♪=100 (♪.=67) clarinet leads

1

cl in B♭

perc (triangle)

(with metal beater)

A=0 B=25 C=0 D=1 E=1 F=1 G=1 H=0

C=0 G=1

C=100 G=7

resultant

kbd played

bowed tremolo, always slightly irregular, *legato possibile*

arco msp

I II

trill between 1st & 2nd fingers - 1st with irregular glissando between B and A♯, 2nd moving irregularly between a semitone and a whole tone above it

sul I

trill between 3 & 4 - 3 with irregular glissando between A and G♯, 4 moving irregularly between 3/4 tone and a minor third above it

sul II

vn

3/8 6/8

3

cl in B♭

perc (triangle)

C=0 G=8

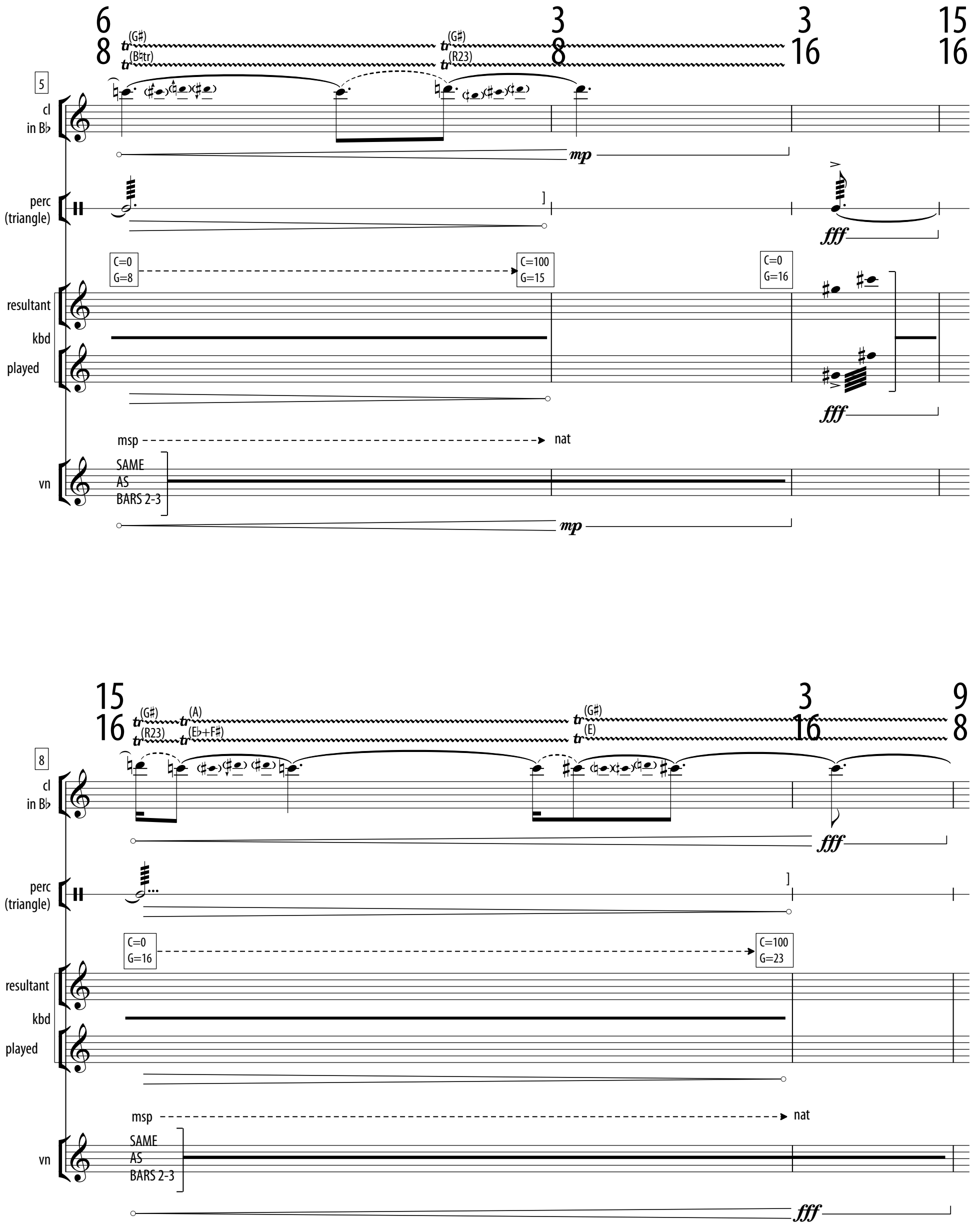
resultant

kbd played

nat

I II

vn


6/8
3/8
3/16
15/16
(G♯)
(B♮tr)
(R23)
5
cl in B♭
mp
perc (triangle)
fff
C=0 G=8
C=100 G=15
C=0 G=16
resultant
kbd
played
msp
nat
vn
SAME AS BARS 2-3
15/16
3/16
9/8
(A)
(E♭+F♯)
(E)
8
C=100 G=23

10

cl
in B♭

perc
(triangle)

C=0
G=23

C=100
G=32

kbd

msp

nat

vn

SAME
AS
BARS 2-3

11

cl
in B♭

perc.
(small
tamtam)

D=1
H=0

resultant

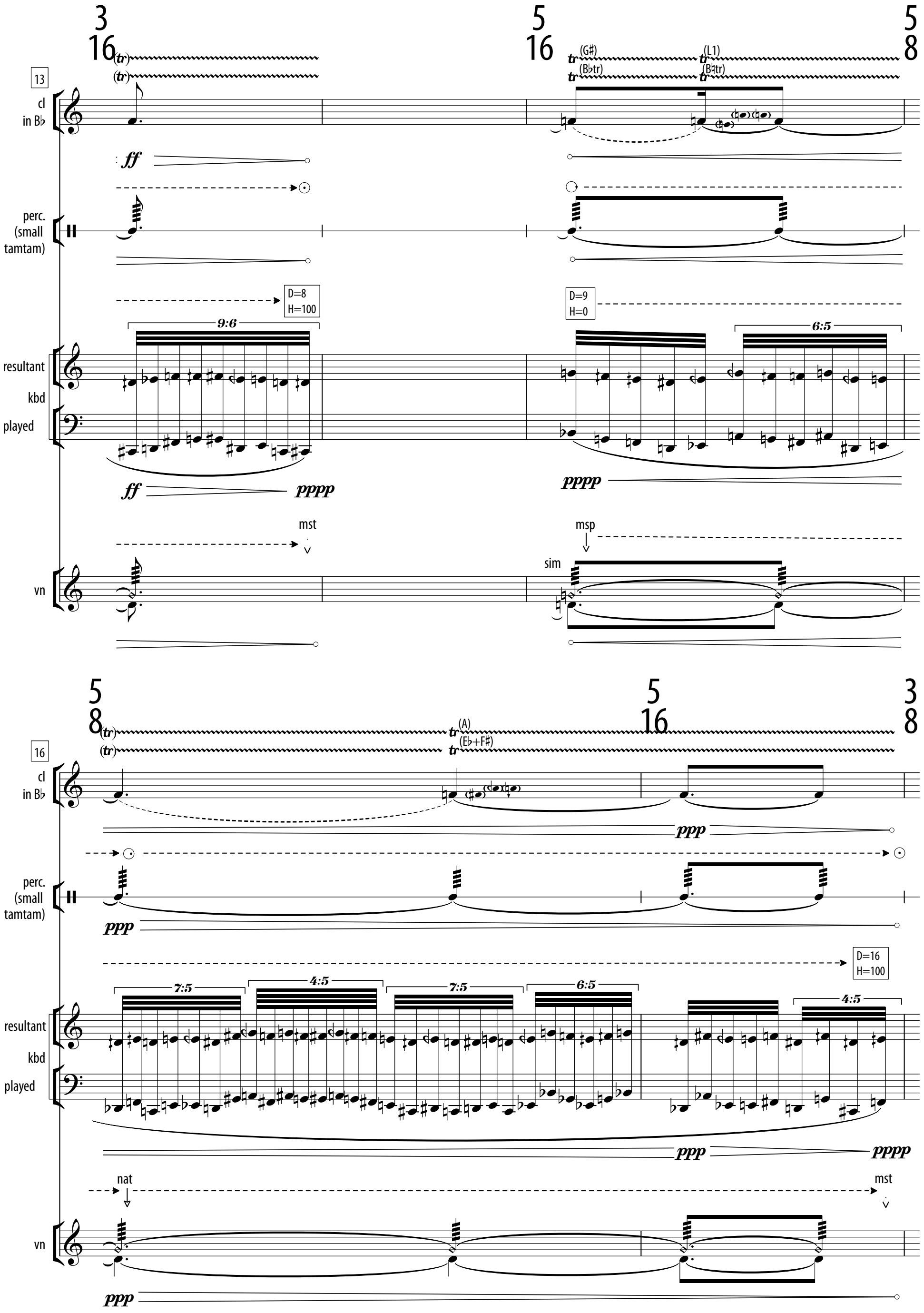
kbd
played

arco
msp
IV
III
alla
punta

nat
al
tall.

... increase length of bows & decreasing speed of tremolo while reducing dynamic...

vn


3/16
5/16
5/8
13
cl in B♭
perc. (small tamtam)
resultant kbd played
vn
ff
pppp
(tr)
(G♯)
(L1)
(B♭tr)
(B♮tr)
D=8
H=100
D=9
H=0
9:6
6:5
mst
msp
sim
5/8
5/16
3/8
16
(A)
(E♭+F♯)
ppp
D=16
H=100
7:5
4:5
7:5
6:5
4:5
nat
mst

3/8 | 2/8 | 3/8 | 9/16

18

cl in B♭

(G♯) tr
(E♭+F♯) tr
(G♯) tr
(B♮tr) tr

mf

perc. (small tamtam)

mf

D=17 H=0 → D=24 H=100

resultant
kbd played

3:2 | 5:4 | 6:4 | 5:4 | 3:2

pppp mf pppp

vn

msp → nat → mst

mf

9/16 | 6/8

22

cl in B♭

(G♯) tr
(B♮tr) tr

p

perc. (small tamtam)

p

D=25 H=0 → D=32 H=100

resultant
kbd played

4:3 | 4:3

pppp p pppp

vn

msp → nat → mst

p

duo 1

11

♪=75

bass flute leads

18:12

12:10

bfl

pp ff ppp mp

cello tuning C-F♯-D-G♯
(notated at sounding pitch)

col legno tratto - random independent movements between and along strings I, II & III,
legato possibile

mst

msp

arco sul I

II III

with "harmonic" left hand finger pressure, keeping same distance between fingers

vc
(c.s.)

ff pp mp ppp

3:2 13:12 11:8 14:16

(R2) (Btr) (L3) (R2) (L3+G♯) (L3) (R3+G♯)

arco

choose precise position and pressure of bow to produce unstable multiphonic sound

sul IV

sul III

f p mf

16:13 4:5 11:10 3:2 7:8

sul II

sul I

7

bfl

5:6

(L3)
(R23)

8:9

D♯ (L1)

16:12

(R123)

p

mp

col legno tratto - random independent movements between *mst* and *msp*, with rapid irregular bow direction changes

etc. sim

mst

msp

sul I/II alternating irregularly between the strings, with "harmonic" left hand finger pressure, *molto vibrato*

vc
(c.s.)

mp

p

8

bfl

(always to C♯)

22:15

9:8

(L1)

(L23+G♯)

5:6

7/8

ppp

ff

arco

etc. sim

mst

msp

sul III

vc
(c.s.)

ff

ppp

9

bfl

7/8

5:4

13:16

10/8

p

col legno battuto - randomly alternating between III and IV, each sound at a different bow position

mst

msp

sul III/IV

vc
(c.s.)

p

(damp strings lightly so that only the pitch from the *col legno* bow position is heard)

10
8

10

bfl

21:14

11:14

D#

G#

mp

ff

mst

msp

arco

sul IV

vc
(c.s.)

ff

mp

(L3)

continue key movement of both trills through the rests!

tr

(R123)

tr

(R1)

tr

6
8

10:8

4:5

9
8

11

bfl

D#

pp

mf

tremolo alla punta

mst

msp

(sul IV)

vc
(c.s.)

mf:pp

G#

D#

21:16

12:14

3:2

12

bfl

pp

mf

col legno tratto - with rapid irregular bow direction changes, keeping same distance between LH fingers

etc. sim

mst

msp

sul IV III II

1 3 4

vc
(c.s.)

(L1)

tr

(C#)

tr

(R123 - rapid random movements of all 3 fingers)

tr

19:16

C#

(C#)

tr

(L1)

tr

(G#)

tr

(R12)

tr

11
8

13

bfl

mp

mst

arco

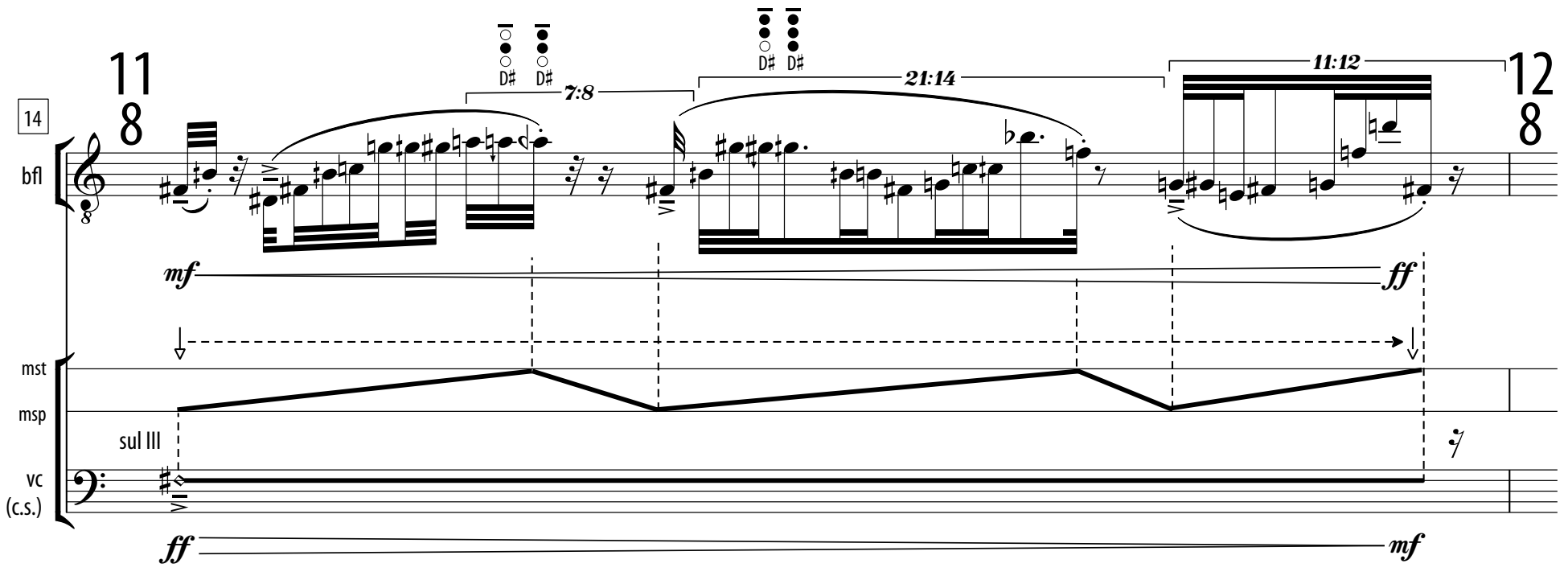
msp

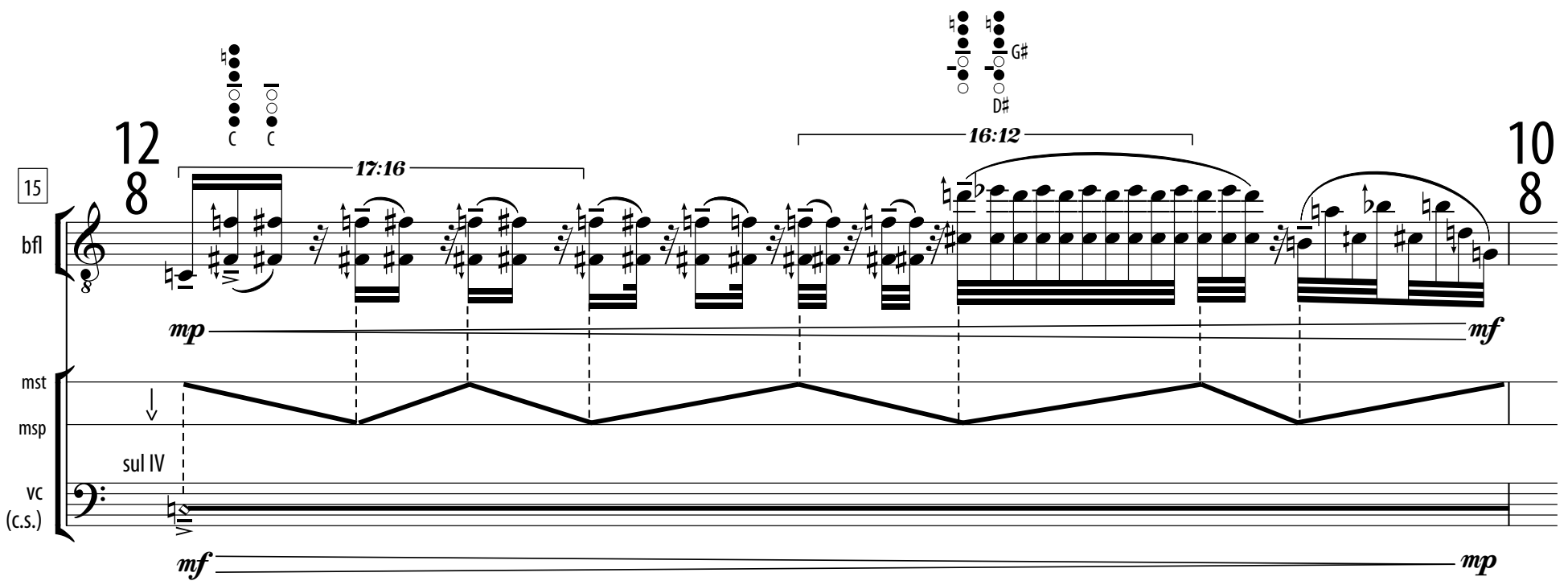
sul II

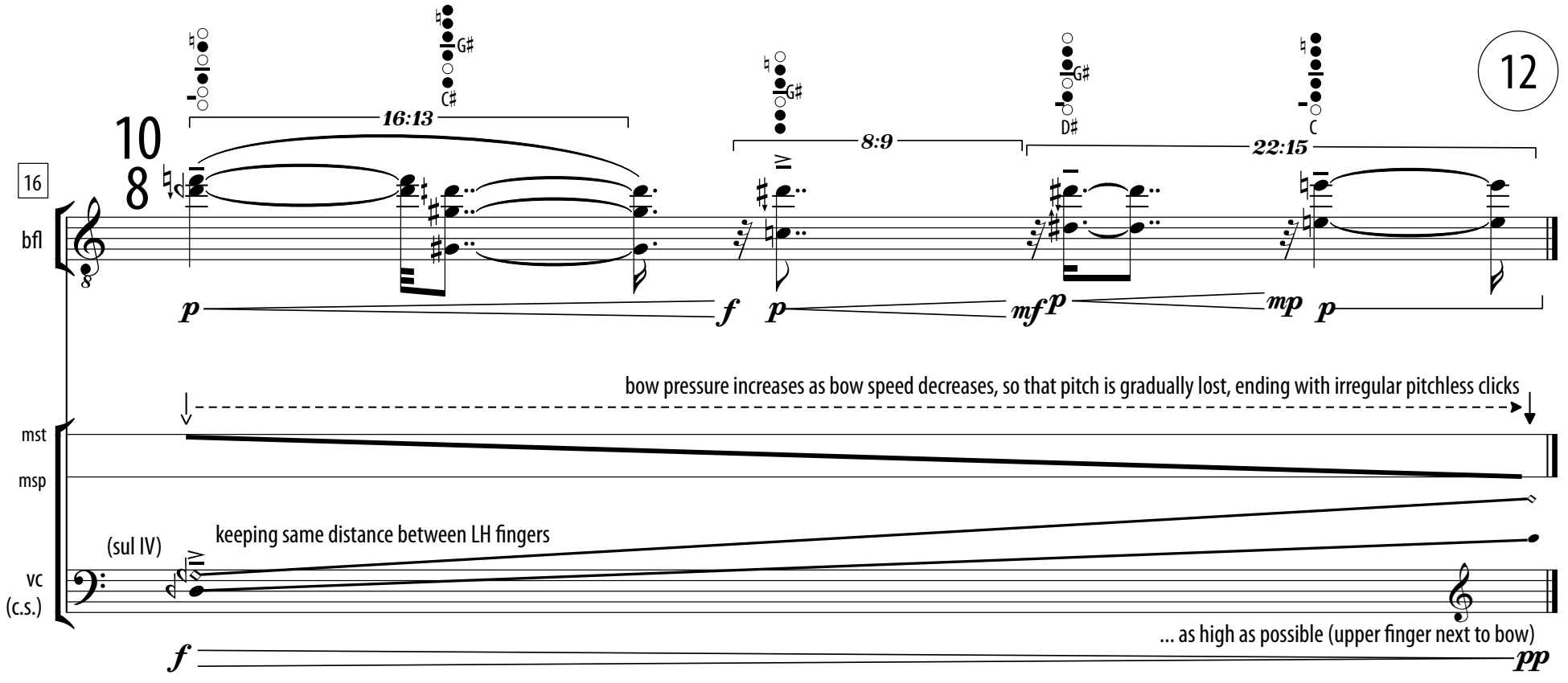
2

vc
(c.s.)

mp


14
11/8
12/8
D♯ D♯
7:8
21:14
11:12
bfl
mf
ff
mst
msp
sul III
vc
(c.s.)
ff
mf


15
12/8
10/8
C C
17:16
G♯
D♯
16:12
bfl
mp
mf
mst
msp
sul IV
vc
(c.s.)
mf
mp


16
10/8
C♯ G♯
16:13
G♯
8:9
G♯
D♯
C
22:15
12
bfl
p
f
p
mf
p
mp
p
bow pressure increases as bow speed decreases, so that pitch is gradually lost, ending with irregular pitchless clicks
mst
msp
(sul IV)
keeping same distance between LH fingers
vc
(c.s.)
... as high as possible (upper finger next to bow)
f
pp

13

5/8

♪=80 percussion leads

fl

b cl in B♭

bari sax in E♭

perc (quinto +tumba)

pf

(Ped. ad lib.)

resultant

kbd played

fader settings at start:
A=0 B=0 C=0 D=1 E=16 F=17 G=32 H=0

(Ped. ad lib.)

nat

vn

nat

vc

ff

4

fl

p sub.

p

bari sax
in E♭

p

perc
(quinto
+tumba)

p sub.

pf

p sub.

B=100

kbd

p sub.

msp
sub.

vc

p sub.

15
16

7

fl

f sub.

b cl
in B♭

f

bari sax
in E♭

f

perc
(quinto
+tumba)

f sub.

pf

f

B=0

kbd

f

nat

f

vn

nat
sub.

vc

f sub.

10

b cl
in B♭

bari sax
in E♭

mp

perc
(quinto
+tumba)

mp sub.

pf

mp sub.

kbd

B=100

mp

msp
sub.

vn

mp sub.

msp

mp

vc

msp

mp

12

fl

mf

b cl
in B♭

mf sub.

bari sax
in E♭

mf

perc
(quinto
+tumba)

mf sub.

pf

mf sub.

kbd

B=0

mf sub.

vn

nat sub.

mf sub.

vc

nat sub.

mf sub.

14

fl

b cl
in B♭

mf

bari sax
in E♭

perc
(quinto
+tumba)

pf

kbd

B=100

vn

msp

mf

vc

msp

mf

17

fl

mp sub.

b cl
in B♭

mp

bari sax
in E♭

mp

perc
(quinto
+tumba)

mp sub.

pf

mp sub.

B=0

kbd

mp sub.

nat sub.

vn

mp sub.

vc

nat

mp

22

fl

f

b cl
in B♭

f sub.

bari sax
in E♭

f

perc
(quinto
+tumba)

f sub.

pf

f sub.

B=100

kbd

f sub.

msp

vn

msp sub.

f

vc

f sub.

27

b cl
in B♭

bari sax
in E♭

p

perc
(quinto
+tumba)

p sub.

pf

p sub.

kbd

B=0

p sub.

vn

vc

nat

p

32

fl

p

ff sub.

b cl
in B♭

ff sub.

bari sax
in E♭

ff

perc
(quinto
+tumba)

ff sub.

pf

ff sub.

B=100

kbd

ff sub.

nat

msp
sub.

vn

p

ff sub.

vc

37

fl

b cl
in B♭

bari sax
in E♭

perc
(quinto
+tumba)

pf

kbd

vn

vc

ff *pp* sub.

pp

B=0

nat

msp

nat
sub.

21
16

42

fl

b cl
in B♭

bari sax
in E♭

perc
(quinto
+tumba)

pf

kbd

vn

vc

fff sub.

fff

B=100

msp sub.

msp

45

fl

b cl
in B♭

bari sax
in E♭

perc
(quinto
+tumba)

pf

kbd

vn

vc

ppp

ppp sub.

B=0

pst

nat

14

46

fl

bari sax
in E♭

perc
(quinto
+tumba)

pf

kbd

vn

sextet 2

18

4/8 ♪=64

picc — *fff* sempre

bari sax — *fff* sempre

always play with one hand,damp with the other

perc glsp — *fff* sempre

pf — *fff* sempre

vn — nat sempre — *fff* sempre

vc — nat sempre — *fff* sempre

6

picc — (*fff*)

bari sax — (*fff*)

perc glsp — (*fff*)

pf — (*fff*)

vn — (nat) (*fff*) (nat)

vc — (*fff*)

11

picc

(fff)

bari sax

15

perc glsp

(fff)

pf

(fff)

(nat)

vn

(fff)

(nat)

vc

(fff)

19

16

picc

(fff)

mf sempre

bari sax

(fff)

mf sempre

15

perc glsp

always dead-sticked

(fff)

mf sempre

pf

(fff)

mf sempre

(nat)

vn

(fff)

(arco nat)

mf sempre

(nat)

vc

(fff)

pizz

mf sempre

21

picc (mf)

bari sax (mf)

perc glsp (mf)

pf (mf)

vn (mf)

vc (pizz) (mf)

26

picc (mf)

bari sax (mf)

perc glsp (mf)

pf (mf)

vn (mf)

vc (pizz) (mf)

20

31

picc

(*mf*)

f sempre

bari sax

(*mf*)

f sempre

as before, played with one hand and damped with the other

15

perc glsp

(*mf*)

f sempre

pf

(*mf*)

f sempre

vn

(*mf*)

(pizz)

arco msp

msp

vc

(*mf*)

f sempre

36

picc

f sempre

bari sax

(*f*)

15

perc glsp

(*f*)

pf

(*f*)

arco msp

vn

f sempre

(msp)

vc

(*f*)

41

picc

(*f*)

bari sax

(*f*)

perc glsp

15

(*f*)

pf

f sempre

vn

(msp)

(*f*)

vc

msp

f sempre

46

perc glsp

15

l.v.sempre

p sempre

pf

(*f*)

vn

(msp)

(*f*)

mst sempre

p sempre

vc

(msp)

(*f*)

mst sempre

p sempre

51

picc

p sempre

bari sax

p sempre

perc glsp

15

pf

Ped.sempre

p sempre

vn

(mst)

(*p*)

vc

(mst)

(*p*)

21

56

picc

bari sax

perc glsp

pf

vn

vc

(mst)

(p)

(Ped.)

22

61

♪=110

quartet 2

24

4/8

as if opening a door on a music that was already happening
(see preface for directions regarding playback)

alto fl
cl in B♭
vn
pf

arco nat
pst vibr.
msp
nat
(L2)
(B♮tr+B♭tr)
gett.
(pizz)
(R2)
psp
Ped.

8:7 5:6 5:4 4:3 3:2 3:2 9:8 8:9 4:3 3:2 5:4

4

7

25

10

alto fl

cl in B♭

vn

pf

p

mp

(L2)

(R123+F)

(R123)

(L3+C♯)

(E)

(L23)

arco nat

6:5

psp

6:7

Ped.

13

mp sempre

(T)

(B♭tr)

(R1)

(G♯)

3:2

4:3

6:5

4:5

8:9

clb

nat

msp

8:7

(psp)

II

V

16

(mp)

5:4

7:6

ppp

pp

arco msp

19

alto fl

cl in B♭

vn

pf

(auxiliary pitch changes parallel with glissando of main pitch)

(msp)

nat

(B)

22

alto fl

cl in B♭

vn

pf

(nat)

psp

25

alto fl

cl in B♭

vn

pf

(R123)

(R123)

nat

28

alto fl

cl in B♭

vn

pf

6:5 7:5 3:2 4:3 5:6 4:3 4:3 4:5 3:2

mst gett.

Ped.

31

4:3 3:2 4:3 4:5

tr

nat msp 6:7 10:9 5:4

Ped.

34

(tr) 5:4 5:4 4:3 8:6 6:4 6:4 4:5 4:3 7:6 3:2 4:3 7:8

(msp) (no trill)

Ped.

37

alto fl

cl in B♭

vn

pf

(R123)

(R23)

3:2

4:3

3:2

4:5

nat

psp gett.

mst

psp

III

IV

III

nat

9:8

Ped.

40

alto fl

cl in B♭

vn

pf

4:5

3:2

7:6

psp

5:6

6:5

msp vibr

sempre

sempre

43

alto fl

cl in B♭

vn

pf

(L3)

(sempre)

4:3

4:3

½ clt psp

7:8

6:5

5:6

3:2

6:5

4:3

5:4

(sempre)

46

alto fl

(p sempre)

p

p sempre

tr (R12+E)

cl in B♭

(p sempre)

p sempre

8:7

msp

nat

arco nat

III

vn

(p sempre)

5:4

4:3

pf

(p sempre)

49

alto fl

9:8

7:8

8:7

ppp

mp

3:2

cl in B♭

ppp p

vn

ppp p

pp p

7:6

4:5

msp

pp

mp

pp

5:6

p

8:7

ppp mp

pp

pf

5:6

8:7

Ped.

52

alto fl

(breathy sound)

pp

cl in B♭

ppp p

(msp sempre)

6:7

vn

msp nat

p mp ppp

6:5

6:4

5:4

pf

p mp p

6:5

Ped.

54

cl in B♭

G♯ N

mp p pp

vn

msp nat

psp gett. nat

mst

p pp ppp p

5:4 7:8 3:2

pf

mp pp

Ped. Ped.

57

alto fl

(R123)

pp ppp pp

cl in B♭

ppp pp mp

vn

psp nat

7:8

pp p ppp mp p

9:8

pf

ppp mp ppp

61

alto fl

cl in B♭

vn

pf

64

alto fl

cl in B♭

vn

pf

tktktk...

msp

(nat)

(G♯)

(R123)

Ped.

67

alto fl

cl in B♭

vn

pf

8:9 5:4 3:2 5:4 4:3 4:3 (l) pizz 5:6 5:4 7:6 10:12 (pizz)

Ped. Ped.

(tongue rams)

70

alto fl

cl in B♭

vn

pf

10:9 7:8 4:5 arco nat 12:11 3:2 4:5 10:8 7:6

73

alto fl

cl in B♭

vn

pf

7:5 5:6 6:5 3:2 9:6 5:6

p ppp

3:2 6:5

p ppp

3:2 nat pizz

p ppp p

3:2 6:7 3:2 6:5

p ppp

Ped.

76

alto fl

cl in B♭

vn

pf

10:9 7:8

p ppp

tr (L2)

ppp p

(pizz) arco nat psp gettato

p p ppp p III p

3:2 3:2 3:2

p

79

alto fl

cl in B♭

vn

pf

6:5 3:2 7:6

ppp p ppp

msp psp msp sim nat

ppp p ppp ppp

12:11

ppp

Ped. Ped. Ped. Ped. Ped. Ped.

82

alto fl

cl in B♭

vn

pf

ppp p

(L2)

tr

psp

clb nat → mst

85

pp sempre

(B♮tr+B♭tr)

msp

II/III, molto vibr.sul III

arco nat

8:7

(add bow tremolo)

(R123)

(R2)

(L23+G♯)

(L3)

Ped.

88

(tr)

(pp)

N+C

nat III

IV

III

5:4

9:8

(continuous rapid exchange of LH fingers throughout)
321234321234...

(no trem.)

3:2

7:8

91

alto fl

cl in B♭

vn

pf

(pp)

7:8

(E♭ (L3))
tr
(R23+E)
tr

(sim...)

3:2

psp

10:8

9:8

9:10

94

G♯

C♯

E♭

G♯

6:5

❊ = add B♮tr and B♭tr to preceding fingering

4:3

3:2

nat

11:8

3:2

5:4

97

mp

ppp

p

5:4

7:8

5:4

6:5

5:6

3:2

5:4

5:4

7:8

pp

msp

nat

III

5:4

6:7

10:9

3:2

5:4

5:4

Ped.

100

alto fl

cl in B♭

vn

pf

9:7 8:9 3:2 3:2 8:7

pp mp p

8:7

mp p

msp

7:8

pp

pizz

mp

pluck strings with finger

mp

Ped.

103

alto fl

cl in B♭

7:8 7:8

pp

vibr

p ppp

vn

arco psp

11:10

ppp mp

pf

(damp with hand)

pp p

Ped.

107

alto fl

cl in B♭

vn

pf

N -D♯ +C♯ -C♯ +C -C N -D♯ +C♯ -C♯ N +L1 N +L1 N +L1 etc. sim.

5:6 5:4 11:8

mp pp p

air sound only

bow on side of bridge (no pitch)

pizz

ppp

Ped.

strike strings in this area with palm of hand, staccato

3.

111

(L1) (L23)

tr vibr

arco nat msp mst nat (nat)

115

alto fl

cl in B♭

vn

pf

7:6 7:9 3:2 5:4

arco nat

(gliss. sul IV only)

119

(L1)

(trill continues!)

tktkt...

tktkt...

nat

vibr

gett.

123

(tr)

7:6 8:6 6:5

msp

126

alto fl

cl in B♭

vn

pf

4:5 3:2 7:6 6:5 4:3

mp ppp

(fingered gliss.)

ppp p

nat

6:5

p ppp

3:2 3:2

ppp p

Ped.

129

4:5 8:7 4:3 6:7 6:5 3:2

ppp pp ppp pp

4:5 6:7

ppp pp pp

4:5

msp

ppp pp

4:5

ppp pp

pp

Ped.

132

7:6

(L1)

tr

ppp

tr

ppp

arco mst

tr

msp

mst

clt

sul IV

9:11

ppp pp

ppp

tr

ppp pp

tr

pp ppp

135

alto fl

cl in B♭

vn

pf

138

alto fl

cl in B♭

vn

pf

141

alto fl

cl in B♭

vn

pf

144

alto fl

8:9

pp

ppp sempre

tr (C♯)

cl in B♭

8:9

ppp pp

3:2

ppp sempre

3:2

3:2

msp

vn

7:9

pp

nat

ppp sempre

psp

pf

7:9

ppp pp

ppp sempre

tr

Ped.

Ped.

148

(tr) (C♯)

alto fl

(N)

(ppp)

cl in B♭

(ppp)

3:2

vn

mst sul IV

(ppp)

msp

3:2

pf

(tr)

(ppp)

3:2

tr (R23)

non vibr

152

alto fl

(ppp)

vibr

cl in B♭

R E

(ppp)

R F

tr (B♯tr+B♭tr)

vn

msp sul III

(ppp)

nat

psp III IV

pf

6:5

(ppp)

tr

tr

(both pitches muted!)

Ped.

Ped.

155

alto fl

(tr) non tr

(embouchure gliss.)

8:6

7:5

(ppp)

cl in B♭

(L23)

tr

ppp

diamond-headed notes are fingerings, with the B♭ trill key held down throughout to produce the "glissando" between the upper pitches (black notes)

7:6

(ppp)

clt msp ----------→ mst

vn

ppp

(ppp)

clt mst

pf

(tr) non tr

(ppp)

26

as if the door silently closes

158

alto fl

7:6

5:4

5:6

9:7

(ppp)

cl in B♭

(ppp)

vn

arco nat

(ppp)

pf

(ppp)

Ped.

duo 2

27

♪=128

sopr sax in B♭

kbd resultant

kbd played

fader settings at start:
A=0 B=0 C=100 D=1 E=32 F=1 G=32 H=0

use sustain pedal only to assist phrasing where necessary

12

19

25

29

sopr sax in B♭

kbd resultant

kbd played

17/32 9/32 2/8 5/16 9/16

33

9/16 3/8 21/32 9/32 25/32

37

25/32 15/32 15/16

39

15/16 2/8 13/16

41
sopr sax in B♭
kbd resultant
kbd played
13/16
37/32
5/16
8/8
pp
mp
mf
44
2/8
13/32
17/32
mf
p
fff
47
21/32
19/16
4:3
3:2
f
49
(open C)
(open 3)
7:6
7:8
5:4
4:5
8:7
9:7

50

sopr sax in B♭

kbd resultant

kbd played

open 6

4:3 4:5 6:5 3:2

ff f fff pp

54

55

57

tr

(66) (5) (1) (4) (23) (14)

4:5 7:6 5:6 5:4

p mf

58

sopr sax in B♭

kbd resultant

kbd played

59

sopr sax in B♭

kbd resultant

kbd played

62

sopr sax in B♭

kbd resultant

kbd played

63

sopr sax in B♭

kbd resultant

kbd played

65
sopr sax in B♭
kbd resultant
kbd played
fff sempre
C=0 D=1 E=29 F=1 G=29

69
sopr sax in B♭
kbd resultant
kbd played
C=100

71
sopr sax in B♭
faders
kbd resultant
kbd played
C

75
sopr sax in B♭
kbd resultant
kbd played
D=7 F=7

79
sopr sax in B♭
kbd resultant
kbd played
E=32 G=32
B=100
mp fff mp fff mp fff
Ped.

84
sopr sax in B♭
kbd resultant
kbd played
(66) (67) (65)
mf fff
(senza Ped.)
fff

88
sopr sax in B♭
kbd resultant
kbd played
p

91
sopr sax in B♭
kbd resultant
kbd played
D=1 E=23 F=1 G=23
pp fff fff

94
sopr sax in B♭
kbd resultant
kbd played
B=50
98
sopr sax in B♭
kbd resultant
kbd played
A
E=23
G=23
102
sopr sax in B♭
28
faders
kbd resultant
kbd played
H
105
sopr sax in B♭
kbd resultant
kbd played

109

sopr sax in B♭

kbd resultant

kbd played

8:6 3:2 6:7 7:5 5:6

7/16 9/16

f *fff* *f*

D=13 F=13

3:2 4:5 7:6

f

112

sopr sax in B♭

kbd resultant

kbd played

3:2 4:3 7:8 9:7 5:6 5:4

9/16

6:5 9:8 6:7 8:6

114

sopr sax in B♭

kbd resultant

kbd played

4:5 6:4 6:7 3:2 8:7

2/8 7/16 11/16 4/8

(B) *tr*

mp *pp* *mp* *ff*

E=32 G=32

f *mp* *pp*

3:2

f

118

sopr sax in B♭

kbd resultant

kbd played

4/8 9/16 7/8 5/8

3:2 7:6 6:5

(89) C12 (91) C3

(89) (91) (89) (91)

f *fff* *f* *mp* *pp* *fff* *pp* *f* *f* *f* *f*

4:5 11:8 5:6 9:7 3:2

D=19 E=20 F=19 G=20

pp *fff* *mp* *fff* *pp* *f* *mp* *fff* *mp* *f* *pp* *f* *fff* *mp*

121
sopr sax in B♭
kbd resultant
kbd played
(89) (91) 7:6 (89) (91) 3:2 7:8 7:5 9:8 6:7
f mp f mp f f mp
D=18 E=18 F=18 G=18

124
sopr sax in B♭
kbd resultant
kbd played
4:5 6:7 (36) build up multiphonic gradually through crescendo (B)
fff fff fff
A=50 release key at end of bar and allow the sound to fade

127
sopr sax in B♭
kbd resultant
kbd played
(Tf) (2) (Tf) (456) (Tc)
pp mp
A=50 B=50 C=100 D=22 E=23 F=22 G=23 H=50
pp mp pp

131
sopr sax in B♭
kbd resultant
kbd played
6:4 7:6 3:2 6:5 6:7
fff pp mf mp f pp mf fff mp mp f pp
A=0 D=1 F=1 H=0

134
sopr sax in B♭
kbd resultant
kbd played
B=100
C=0
glissandi on white keys
(secco)
E=17
G=17
138
C=50
142
145

148

sopr sax in B♭

faders

A=0 B=100 C=0 D=16 E=17 F=16 G=17 H=0

B

kbd resultant

kbd played

pp

pp

154

sopr sax in B♭

7:8

mp pp

(63)

B♭

p

9:7

fff

4:5

mf

8:7

faders

kbd resultant

kbd played

B=0 D=19 E=19

mp sub.

p pp

E=21

6:7

6:5

fff

E=25

4:3

mf

161

sopr sax in B♭

8:7

4:5

p

fff

F=19 G=32 (make the change somewhere in this bar; the sound isn't affected)

kbd resultant

kbd played

E=32 H=100

(rapid but irregular tremolo)

sfzpp sfzpp sfzpp sfzpp

Ped.

C=100

fff

166

sopr sax in B♭

air sound only

ppp

pp f mp fff ff

kbd resultant

kbd played

H=0

ppp

mp fff ff

171

sopr sax in B♭

kbd resultant

kbd played

A=0 B=100 C=0 D=19
E=32 F=19 G=32 H=0

175

sopr sax in B♭

faders

D & F

(19)

(1)

kbd resultant

kbd played

177

sopr sax in B♭

faders

E & G

(32)

kbd resultant

kbd played

179

sopr sax in B♭

A=0 B=100 C=0 D=1
E=11 F=1 G=1 H=0

kbd resultant

kbd played

G=2

G=3

G=4

Ped.

184

sopr sax in B♭

kbd resultant

kbd played

faders

189

195

202

A=100 G=6

A=0 B=50 C=0 D=1 E=11 F=1 G=5 H=0

B=100 F=7 G=7

F=8 G=8

F=9 G=9

A=0 B=100 C=0 D=23 E=32 F=11 G=12 H=0

F=10 G=10

F=12 G=13

F=13 G=14

F=14 G=15

(139)

207

sopr sax in B♭

kbd resultant

kbd played

F=15 G=16 | F=16 G=17 | F=17 G=18 | F=18 G=19 | F=19 G=20 | F=20 G=21

212

sopr sax in B♭

(86/87)

C12

tr

p

ppp

f

follow decay of kbd chord...

B=50 F=25 G=25 | F=25 G=25 | A=50* F=27 G=27 | A=0 F=28 G=28

kbd resultant

kbd played

glissando on white keys

* precise value to be decided so as to fade to silence over the duration of 6 x ♪

216

sopr sax in B♭

12:9 | 8:9 | 10:9 | 12:9

mp

fff sempre

A=0 B=50 C=0 D=29 E=29 F=29 G=29 H=0

(29)

D

kbd resultant

kbd played

Ped.

223

sopr sax in B♭

faders

(1)

A=0 B=50 C=100 D=30 E=30 F=30 G=30 H=0

C

kbd resultant

kbd played

228

sopr sax in B♭

faders

kbd resultant

kbd played

fff

fff

30

232

sopr sax in B♭

A=0 B=0 C=0 D=31
E=31 F=31 G=31 H=100

faders

A

kbd resultant

kbd played

mp *pp* *mp*

sim...

8:9 9:8 6:7 7:5

pp *mp*

Ped.

242

sopr sax in B♭

(sim.)

fff sempre

faders

(A)

A=0 B=50 C=0 D=32
E=32 F=32 G=32 H=0

C=20
H=20

C=40
H=40

kbd resultant

kbd played

pp *mp*

Ped.

fff sempre
senza Ped.

250

sopr sax in B♭

C=60
H=60

C=80
H=80

C=100
H=100

kbd resultant

kbd played

Swansea
4 January 2022

the fallen angels' wounds

(natural causes XII)

2021-23

ensemble (instruments, objects, voices, actions)

full score

the fallen angels' wounds

(natural causes XII)

(2021-23) for ensemble (instruments, objects, voices, actions)

commissioned by Diaphonique
to all the musicians of soundinitiative

duration: approximately 32 minutes

instrumentation

flute & alto flute
bass clarinet & clarinet in Bb
soprano saxophone
violin
cello
keyboard 1 (StiMiK electronic keyboard – see score of *all night invisibility*. . . - and piano)
keyboard 2 (piano and portable keyboard (keytar))
percussion

An icy blast from nowhere as a haunting some place / an ensemble carries its instruments through night / strange horses, blowing fire, haul along a grand piano / the skies are full of police helicopters & falling angels /
you tend to the fallen angels' wounds / Schubert's Drei Klavierstücke are caught in the wind / Blind Willie Johnson whispers Gesang der Jünglinge / a human-void in a finely woven suit explains there is a profit to be made from body bags equivalent to the entire rural economy of some place the name of which he can't recall because its name has been destroyed / o oh love /
Suddenly a platform appears / the musicians set up their instruments / the piano keys have turned to frost bites / the mechanism to icicles /
It's a cheap room in a cheap hotel / next door you can hear negotiations over price / a girl taps, timidly, at the door. / "Is the moon coming through your paper thin curtains too?" /

all night invisibility flickers on & off visibly consists of 16 parts which are intended to be incorporated into a complete performance of *natural causes act 2*. The 16 parts with their different instrumentations are:

1	8 voices
2	7 performers (blown bottles, bowed objects, piano interior)
3	cello solo
4	8 instruments
5	6 performers (teapots, nose flute, recorder mouthpiece, slide whistle, rain stick, chimes)
6	8 instruments
7	7 voices
8	8 silent performers
13	6 instruments
14	3 instruments
15	5 performers
16	7 voices with percussion instruments

NB this version (for performance in March 2023) does not yet contain parts 9-12

the fallen angels' wounds

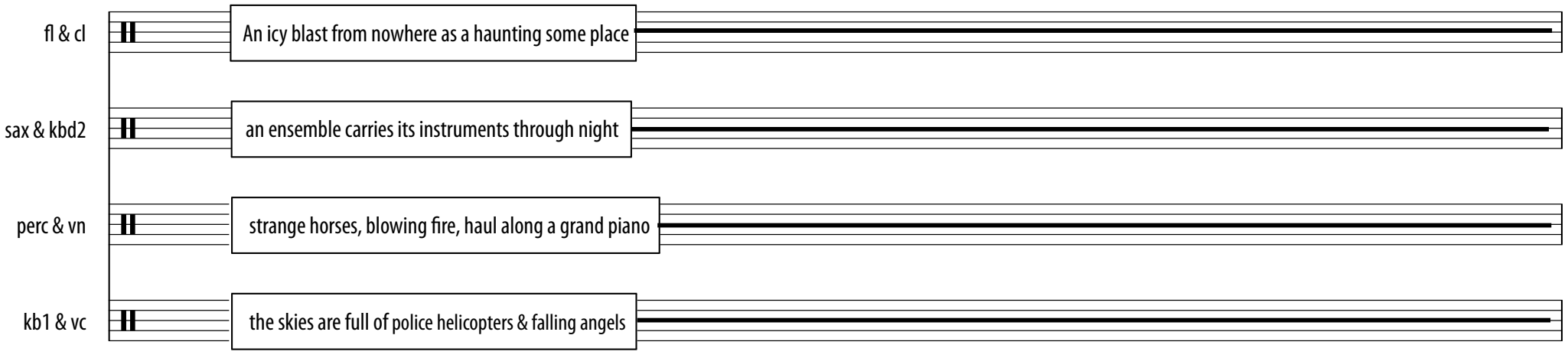
1

begin in zone 1 (violin), zone 5 (everyone else, in various positions outside or at the edge of the space, invisible to or at least unnoticed by the audience)

2

2'00"

As the violinist plays the final sounds of part 1 of *heard shadows & watched voices*, the others begin this part 1 of *the fallen angels' wounds*. As these sounds begin the violinist listens, turning to catch sounds from different directions, and gradually joins them. During this part, all perfomers move towards zone 2 ready to begin *octet 1*. Movement should be stylised but not "robotic": take a step (not always in the "right direction", stop and make a vocal sound facing in a different direction each time, take another step, and so on. Each performer repeats their text, one sound at a time, but *only the consonants!* - and only about 50% of them at each repetition, chosen differently each time so that each repetition is different. Each sound should be as different as possible in pitch, dynamic and timbre, and silences between them should also be varied, between 2 and 6 seconds.

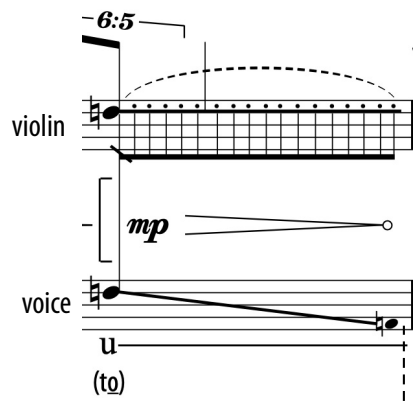


tutti ***ppp-ff*** sempre

2

after *octet 1*, move to new positions: flute, clarinet, saxophone to zone 4; percussion and cello to zone 3, keyboard players remain in zone 2.

improvisation using the suggested techniques, to produce a stratified texture with three different layers of sound, separated in space. Enter together and quite strongly, then *subito ppp* when the violin enters, ending at the end of bar 18 (see cue)



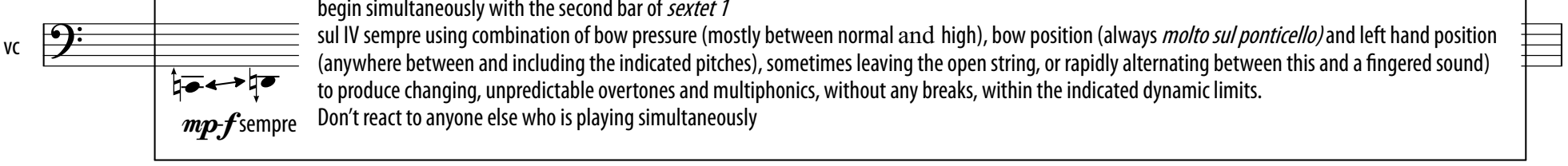
4
54"

5
2'00"

3

7
1'06"

zone 4 (as far as possible from zone 2 while remaining in the same space)

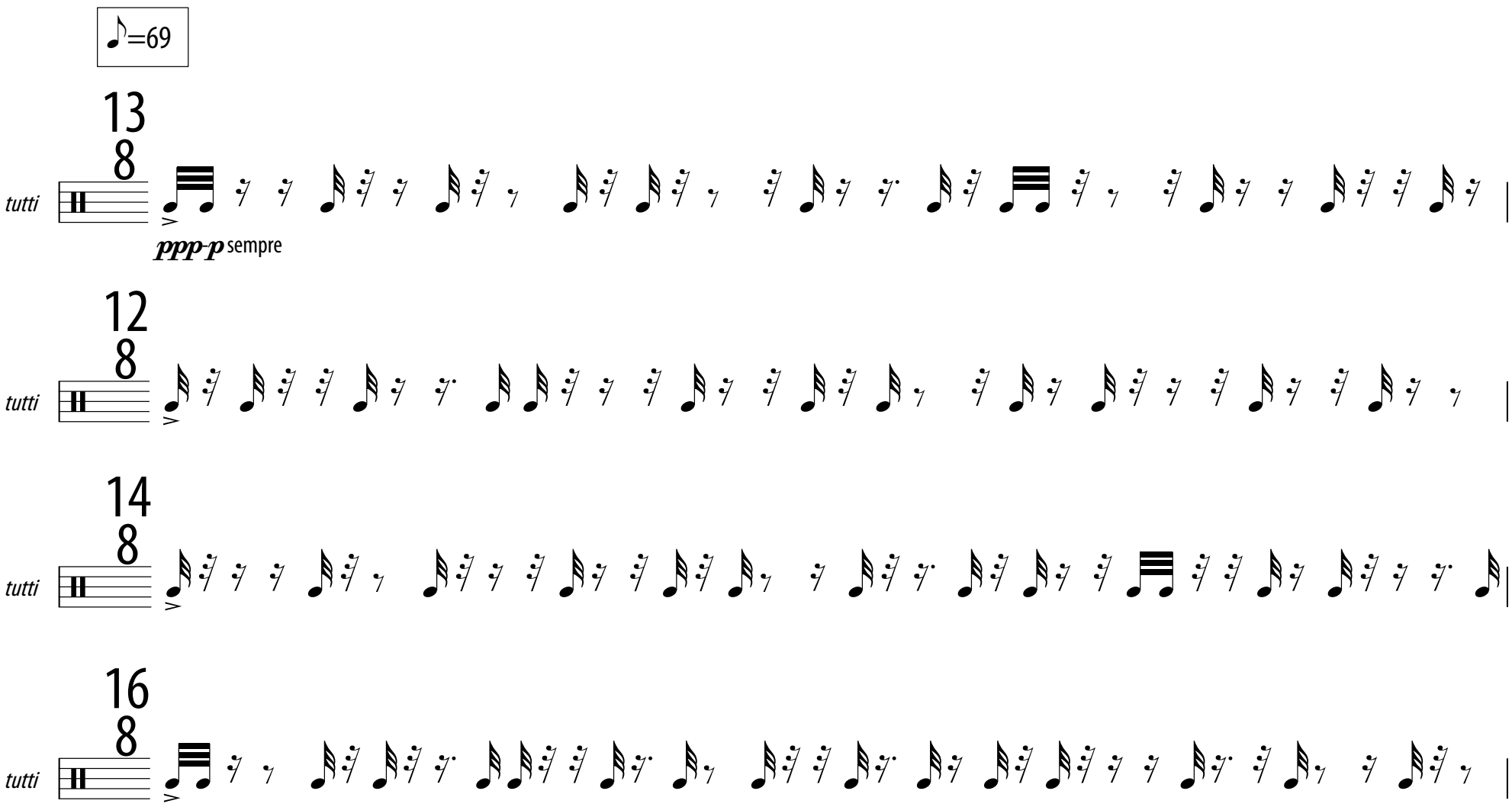


4

9 zone 2

48"

instrumentation: bass flute, bass clarinet, baritone saxophone, percussion (daf), kbd1 and kbd2 (piano frame and interior, no pedal!), violin, cello. Play the notated rhythms, using as many different unpitched or only approximately pitched sounds as possible, moslty brief and dry but occasionally longer or resonant, following the same rhythms in the fixed media part (*first light* part 2). Each instrument plays only 50% of the sounds, which may be freely chosen as long as all events are played by at least one instrument and the accented sounds at the beginning of each bar are played by all.



5

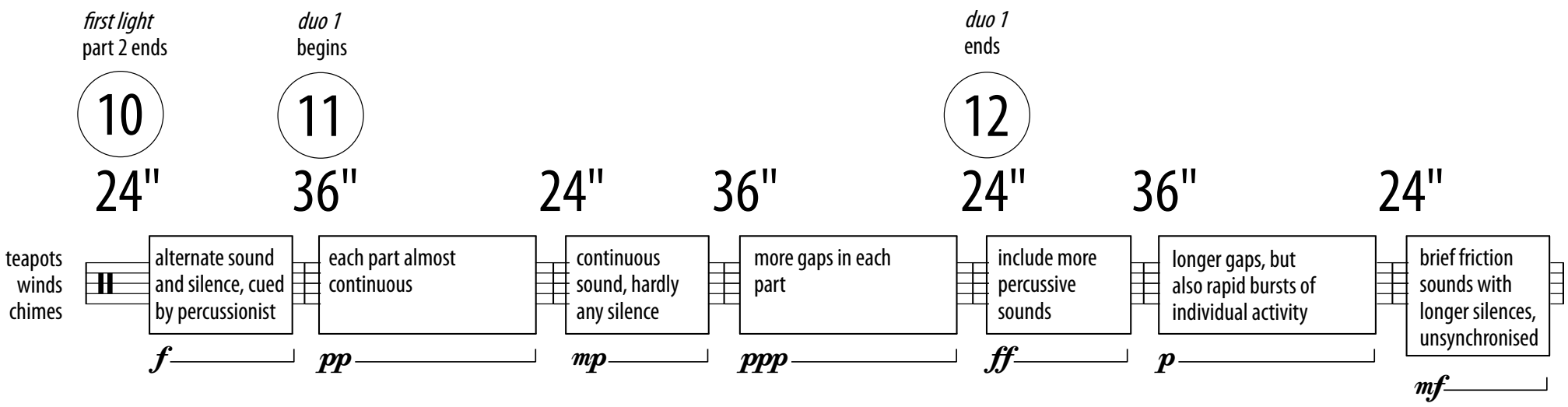
3'24" zones 3 (clarinet, saxophone, percussion) & 4 (kbd1, kbd2, violin)

instrumentation: clarinettist, saxophonist and percussionist play nose flute, recorder mouthpiece - preferably alto - and slide whistle (3 instruments distributed to the 3 players as convenient); the 2 keyboard players and violinist play rain stick, shell chimes and wood chimes (again distributed as convenient, and if possible each player uses more than one of their chosen instrument). All six players also use a ceramic teapot or other vessel with a circular lid, chosen so as to give the richest and most varied sounds using the techniques described below.

The odd-numbered bars (each 24" in duration) are played with the teapots. The point of departure for improvisation is to rotate the lid against the aperture at different angles and different speeds, so that the aperture opens and closes and this modulates the frictional sound of the lid against its rim. Use proximity to the microphones to control dynamics. In general, keep "percussive" sounds to a minimum so that the focus is always on the frictional sounds.

The even-numbered bars (each 36" in duration) are played with the other instruments. The point of departure here is long *crescendo-diminuendo* events independently by all 6 players. These would be single glissandi on the wind instruments, narrower or wider (produced on the recorder mouthpiece by opening and closing the lower aperture using the palm of a hand), but sometimes more rapid movements, more complex articulations etc. Similar considerations apply to the chimes and rainstick(s).

Each bar also indicates a particular suggestion for the improvisation, and a general dynamic level. (*Crescendi* and *diminuendi* are generally to and from silence.) Transitions between bars can be sudden or gradual, but generally shouldn't involve a complete interruption of the sound.



14

♩.=40

6/8

zone 2 (continuing directly from *all night invisibility... octet 2)*
piano leads (Schubert, Klavierstück D946/2)

fl

b cl in B♭

pf

resultant

kbd played

vc

p sempre

(gradually open R3...)

tr (R3) (open L3...)

p sempre

p sempre, Ped. ad lib.

fader settings:
A=0 B=50 C=0 D=25 E=32 F=25 G=32 H=0

p sempre, Ped. ad lib.

nat

arco nat

psp sul III

nat gettato

msp

p sempre

6

(tr)

D♯

5/8

tr (R2)

tr (R23) (half close L3...)

tr (L2)

tr (L23+R123)

G♯

G♯

Ped. sempre

Ped. sempre

mst sul II

nat

mst

nat

msp

7

Between rehearsal numbers 15 and 16 (around 2'42"), the septet moves unobtrusively to a position standing in a row in front of zones 2 and 3 (or either side of zone 1), facing the audience. The cue for 16 is given by the sound projectionist. Each performer then repeats their own fragment of text, as in part 1, but this time *only the vowels!*
- and, again, only about 50% of them at each repetition, chosen differently each time so that each repetition is different. The vowels can vary in duration between *staccatissimo* and the length of a whole breath. Each sound should be as different as possible in pitch, dynamic and timbre, and should usually involve a continuous change in pitch (glissando) or dynamic (*crescendo, diminuendo* or both). Each sound should additionally be accompanied by a movement, whose duration and shape are related to those of the sound, using any choice or combination of hips, torso, shoulders, head, arms and hands but with feet rooted to the spot.

16

1'18"

tutti except violin

flute:	you tend to the fallen angels' wounds
keyboard 2:	Schubert's Drei Klavierstücke are caught in the wind
cello:	Blind Willie Johnson whispers Gesang der Jünglinge
clarinet:	a human-void in a finely woven suit explains there is a
percussion:	profit to be made from body bags equivalent to the
saxophone:	entire rural economy of some place the name of which
keyboard 1:	he can't recall because its name has been destroyed

17

30"

tutti

No sound! - in rapid spider-like bursts of movement, as if suddenly afraid of being seen, use this time to get into position for *sextet 2* or 9 below.

8

20

1'48"

clarinet
keyboard 2

Zone 3: coinciding always with sounds in *sextet 2*, both performers drop or push objects off the table onto the floor (objects which have been placed there for this purpose, especially if they make distinctive sounds when they hit the floor, or perhaps drop into a metal bucket or some other sonorous receptacle). Sometimes both performers simultaneously, sometimes one "invites" the other, sometimes angrily or accidentally or decisively or childishly or disgustedly or mechanically... but not "theatrically"

end between cues 21 and 22, about 12 seconds before the end of *sextet 2*

9

22

15"

♪=64

4/8

continuing directly, in tempo, from *sextet 2.* Pronounce the consonants with as little vowel/pitch component as possible, almost like a percussion instrument

tutti ***mp*** sempre (that is, perceptibly louder than the end of *sextet 2*)

fl
[n] [p] [m] [t] | [n] [z] [p] [s] [b] | [m] [θ] [t] [ts] [n] | [θ] [p] [z] [n] [m]

cl
[m] [z] [n] [v] | [s] [z] [kl] [θ] [t] | [n] [p] [z] [m] [pl] | [n] [ts] [v] [kl] [z] [t]

sax
[fr] [ts] [θ] [m] [ʃ] [pl] [d] | [n] [f] [m] [st] [v] [s] | [z] [n] [f] [t] | [z] [m] [n] [θ] [s] [p]

perc
[k] [str] [z] [m] [n] [θ] | [p] [t] [d] [n] | [s] [k] [h] [t] [m] | [ʃ] [m] [n] [t] [θ]

kbd1
[z] [k] [h] [t] [θ] | [d] [n] [m] [f] [s] [fr] | [z] [ts] [p] [b] [n] [z] | [st] [t] [m] [z]

kbd2
[z] [st] [b] [p] | [kl] [ʃ] [θ] [n] [z] | [t] [m] [fr] [k] [z] [d] | [n] [str] [θ] [k]

vn
[θ] [m] [ts] [z] [n] | [h] [pl] [f] [m] | [k] [z] [s] [t] [θ] | [z] [s] [d] [str] [f]

vc
[s] [p] [n] [t] | [z] [ts] [d] [m] [n] | [θ] [str] [p] [k] | [θ] [s] [d] [p] [kl]

23

2'00"

36"

1'06"

24

fl
cl
sax
perc
kbd1
kbd2
vn
vc

Continue from the previous 4 bars, using similar rhythms and using only random selections from the consonants in the same text:

Suddenly a platform appears / the musicians set up their instruments / the piano keys have turned to frost bites / the mechanism to icicles /

Continue at first with no sense of a change at the beginning of this bar. Then gradually make individual divergences in tempo, so that the sounds become more and more desynchronised, eventually accelerating and decelerating between half speed and "as fast as possible", while keeping the sounds always brief. This process should be paced to occupy the rest of the duration of *first light* sequence 5.

The dynamic level remains the same so that the vocal sounds are eventually submerged within the electronic sounds.

Towards the end everyone takes their harmonica ready to begin the next bar.

As soon as *first light* sequence 5 abruptly stops, switch to harmonicas. Each player has a harmonica, with the group representing as many different keys as possible. Play single random pitches, always as *staccato* as possible, continuing the same rhythmical character as at the end of the previous bar, continuing at the same dynamic. During this bar move to your position for cue 24 or cue 25. The multiple keys of the different harmonicas should ensure a non-tonal "pointillistic" texture.

As soon as *first light* sequence 6 begins, switch back to voices, again keeping the same rhythmical irregularity, dynamic and *staccato* articulation, but now using only vowels chosen randomly from the same text, at random pitches throughout your vocal range.

The quartet for *quartet 2* continue with this activity even while they take up their instruments ready for cue 24, so that the vocal texture is abruptly cut off by the instrumental music.

25

11

2'18"

sax
perc
kbd 2
cello

Zone 4: one or more acoustic guitars (preferably 4, one for each player) have been set up horizontally, with various suitable objects threaded between the strings (chopsticks, spoons, knives, forks, pencils etc.), so that the open strings are never heard, and plucking the objects produces a rattling sound, each object at a different frequency of oscillation. All four performers bring the microphones close to the instruments and explore these sounds with maximum timbral variety and rhythmical irregularity, beginning with a dense and loud texture and gradually becoming quieter and sparser , so that the last sounds are inaudible.

reach inaudibility around bar 75 of *quartet 2*

f

26

12

1'30"

tutti

Zone 3: shouting *single words* from the text below in different directions, as if speaking at a protest or taking part in a demonstration, but *making no sound*. Use one or more megaphones if available (switched off!) – quartet stands up from their places, others stand up from where they are, and during this section everyone moves to their places for cue 27:

Suddenly a platform appears / the musicians set up their instruments / the piano keys have turned to frost bites / the mechanism to icicles /

about 6 seconds before cue 27, saxophone and keyboard make a signal to stop and they sit down to play *duo 2*

13

27

2'36"

zones 2 (perc & vc) & 4 (fl, cl, vn, kbd2)
percussion leads

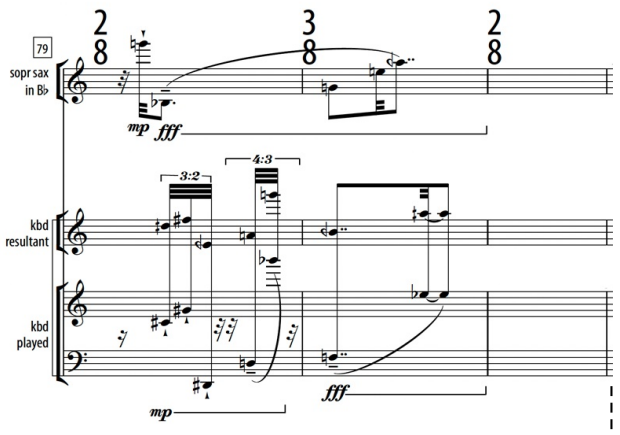
The keytar is set up so that the ribbon controller controls pitch bend within a range of up to a whole tone above and below the pitch played by the kayboard, so that the ribbon controller can be used as a "second keyboard" changing the played pitch microtonally, as well as changing it continuously by glissandi, or producing vibrato. Its timbre should be able to blend with the other pitched instruments (the pitch bend wheel may be assigned to some kind of timbral modulation if desired).

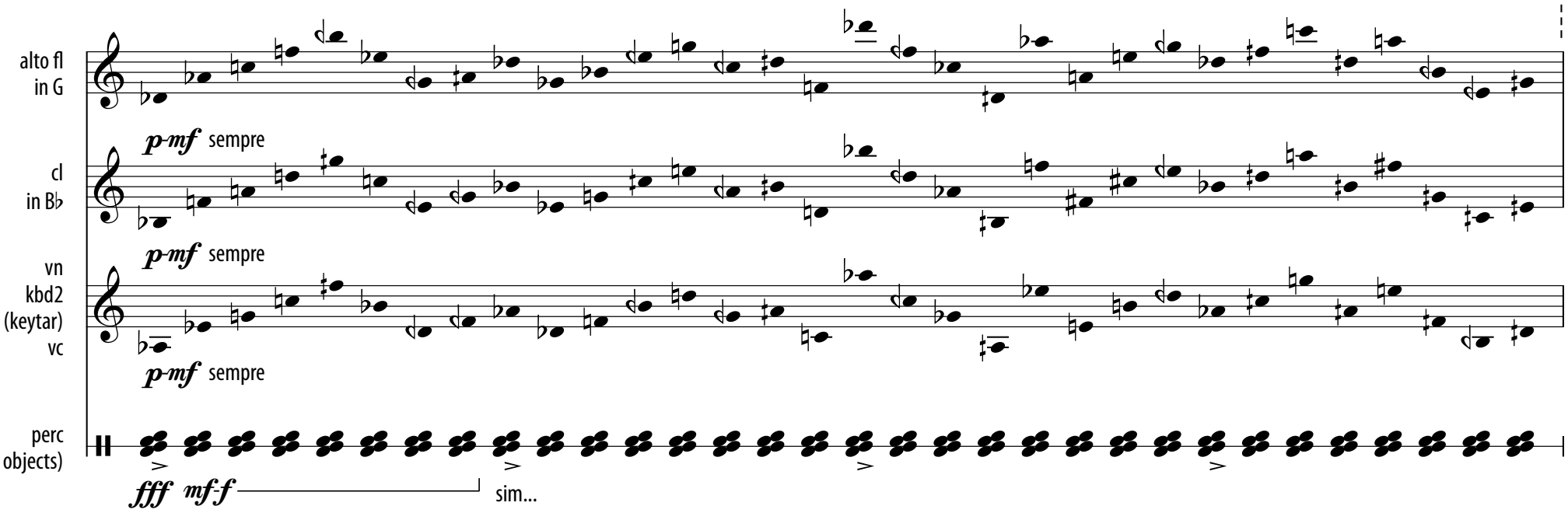
The percussion objects are: small drum (bongo, Noh theatre drum etc.), large temple block, brake drum and sleighbells, the last two placed horizontally on foam blocks, positioned and with 4 suitable beaters so that all can be struck simultaneously and sound like a single complex instrument, without a single prominent pitch, but each sound slightly differently balances and therefore with slightly different timbre.

Each part has 32 sounds, which are cued by the percussionist. 32 sounds in 2'36" corresponds to a duration of just under 5 seconds between sounds, although the percussionist should ensure that they are much more irregular than this, perhaps varying in diration between 2 and 8 seconds. The way the percussionist's arms are raised and then brought down should be sufficiently exaggerated that the other performers always know when the next sound is coming. The first percussion sound is synchronised with the beginning of *duo 2* for soprano saxophone and STiMiK keyboard, but subsequently the present sextet continues independently.

The five pitched instruments have identical parts but they aren't played identically, although each part should be continuous most of the time. For each new sound cued by the percussionist, the notated pitch is played by each instrument around 50% of the time. When the notated pitch is played, it may be played without any internal changes in dynamic, pitch or vibrato, or it may be played with free "ornamentations" in pitch, dynamic or timbre, including microtonal movements up to a whole tone either side of the notated pitch. When the notated pitch isn't played, the instrument may sustain the previous pitch until the following cue, or do something improvisational with no relation to any of the notated material.

The percussion objects are set up in zone 3 and the cello remains in zone 2. The others move, while playing, from their positions in zone 2, to positions surrounding the audience in a circle, and this circle then rotates slowly clockwise so as to complete a single revolution within the duration of part 13. The first of these movements should flow smoothly into the other. Both this and the percussion actions might be approached as somewhat "ritualistic". The end should be reached around the end of bar 81 in *duo 2.*
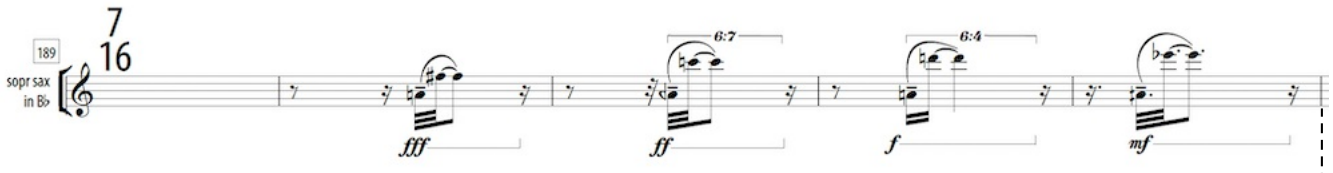




14

28

3'06"

zone 3



bass fl
perc
vc

improvisation for bass flute and resonant bowed metals (played by cellist and percussionist) - cymbals of different kinds, tamtam(s) etc.
but also objects not originally intended as instruments as long as they can produce different unstable pitches and have sufficient resonance.
Think about creating a mostly continuous texture as a point of departure, where the three players' contributions can emerge from and submerge into one another, especially using multiphonics on the bass flute, gradually moving between different overblown harmonics, and so on. The beginning is cued by the saxophone of *duo 2* and the end should correspond to the end of bar 193 of *duo 2.*

pp-ff sempre

15

30

zones 4 & 5

36"

fl
cl
perc
kbd2
vc

By the time *duo 2* ends, each performer has found a place somewhere in the performing spaces where they can make a tapping/knocking sound, either a door or something that sounds similar. Some of these sounds may be resonant, others dry in sound. Performers should be distributed as widely as possible through the spaces available for performance. Most or all performers should be invisible to the audience. As soon as *duo 2* is over, make tapping/knocking sounds as if outside a room and trying to attract the attention of someone inside without anyone else in the building hearing. Two or more taps, then silence as if listening, then more taps, and so on. Don't synchronise with other performers or otherwise acknowledge any sounds but the ones you yourself are making. When violin begins *heard shadows. . .* part 4, switch immediately to part 16.
pp-mp sempre

16

31

starting in zone 2 (saxophone, keyboard 1), zones 4 & 5 (everyone else), where the necessary percussion instruments have been left

3'30"

each performer *speaks* the text independently, one syllable at a time, mostly brief sounds with longer silences in between - 31 syllables in 3'30" corresponds to an average of 6.77 seconds per syllable, although the durations should be much more irregular, and spaced out throughout the overall duration. The dynamic range is ***pp-mp*** except for the different syllables underlined in each part, which should be ***mp-f*** and synchronised with a (usually brief) sound on the performer's respective percussion instrument. Occasionally the syllables and/or the percussion sounds may be longer in duration (but always tailing off in dynamic). During the 3'30" of this section, all seven performers gradually, at first unobtrusively and individually, move towards zone 1 and stand still behind the violinist, so that by rehearsal number 32 they are all standing in a line behind her.

fl (voice+ seed pod)	it's a cheap **room** in a **cheap** ho - tel / **next** door you can **hear** **ne** - go - ti - **a** - tions o - ver price / a girl **taps**, **ti** - mid - ly, at the door
cl (voice+ egg shaker or maraca)	it's a cheap **room** in a cheap ho - **tel** / next **door** you can **hear** ne - go - **ti** - a - tions o - ver price / a **girl** **taps**, ti - **mid** - ly, at the door
sax (claves - high)	it's a cheap **room** in a cheap **ho** - tel / **next** door you can **hear** ne - **go** - ti - a - tions o - ver price / a **girl** taps, **ti** - mid - **ly**, at the door
perc (daf)	it's a cheap **room** in a cheap ho - tel / **next** **door** you can hear ne - **go** - ti - a - **tions** o - ver price / a girl **taps**, ti - **mid** - ly, at the **door**
kbd1 (claves - low)	it's a **cheap** room in a **cheap** ho - tel / next **door** you can hear ne - **go** - ti - **a** - tions o - ver **price** / a girl **taps**, ti - mid - ly, at the **door**
kbd2 (guero)	it's a cheap **room** in a cheap ho - tel / **next** **door** you can hear ne - **go** - ti - a - tions o - **ver** price / a girl **taps**, **ti** - mid - ly, at the **door**
vc (guero)	it's a cheap **room** in a cheap ho - **tel** / next **door** you can hear ne - **go** - ti - a - tions **o** - ver price / a **girl** **taps**, ti - mid - ly, at the **door**

32

By the time the violinist turns away from her stand and begins to walk offstage while playing and singing, all other performers are standing in a line behind her. The following text should then be *whispered in unison* by all seven performers together, and should come to an end simultaneously with her part.

30" ♪=80

4 ***ppp*** sempre
8

tutti except violin

"Is the moon com- ing through your

tutti except violin

pa- per thin cur——— tains too?"

Richard Barrett

first light

(natural causes VIII)

2021-25

fixed media in 12 channels

first light

(natural causes VIII)

(2021-25) fixed media in 12 channels

commissioned by Diaphonique
in memory of David Lynch

duration: approximately 32 minutes

First light / sky the purple throat of a pigeon / outside first bus & train / shift workers transference /
grounding poverty / there's a man on the train, eyes drug grisaille, radio on / is she asleep or practising the violin in dream? / we ignore the man with grisaille eyes, a dirty black-red bandage on his left wrist, solemnly he pisses his pants /
this is a great concert, the composer's a genius, the musicians are geniuses, the audience so loveable & wise it makes the angels in hell cry / there are these voices in the mix. Police / beat their riot shields / she tells them this is a peaceful protest, they have no faces no countenances, their bodies armoured stag beetles /
I just want to say hello / it's evening, the man with grisaille eyes climbs some secret stairs / the many chains on the door / somewhere a cold wind & a forest path / the bird leads the children on until they reach some strangers who weep for joy /

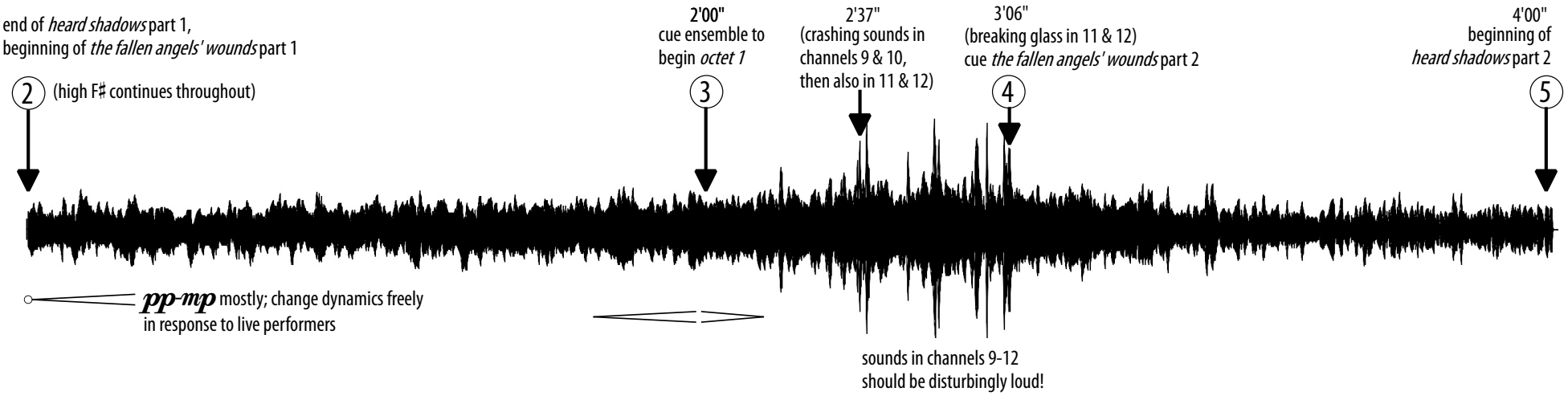
first light, together with the fixed media parts of *heard shadows & watched voices,* forms an almost continuous layer in *natural causes act 2*. It consists of 8 sections, some of which are made longer in order to accommodate the timing of the live musicians. The eight channels in the main space are augmented by another 4 channels (two stereo pairs) which should be placed at various locations in zone 5 (outside the main space). If fewer loudspeakers are available, tracks 9-12 may be mixed into 3 or 2 outputs instead of 4. The score below shows all the cues, rehearsal numbers and timings relevant to the sound projectionist. Fades marked in the score are not features of the soundfiles but must be realised in performance, along with freely chosen changes in dynamic level within the suggested limits, in response to the live performers. *first light* should be thought of as material for shaping in performance, rather than a finished composition to be played back as it is.

Improvisational recorded materials for this piece were kindly provided by Shao-Wei Chou, Winnie Huang, Szymon Kaca, Louise Leverd and Gwen Rouger.

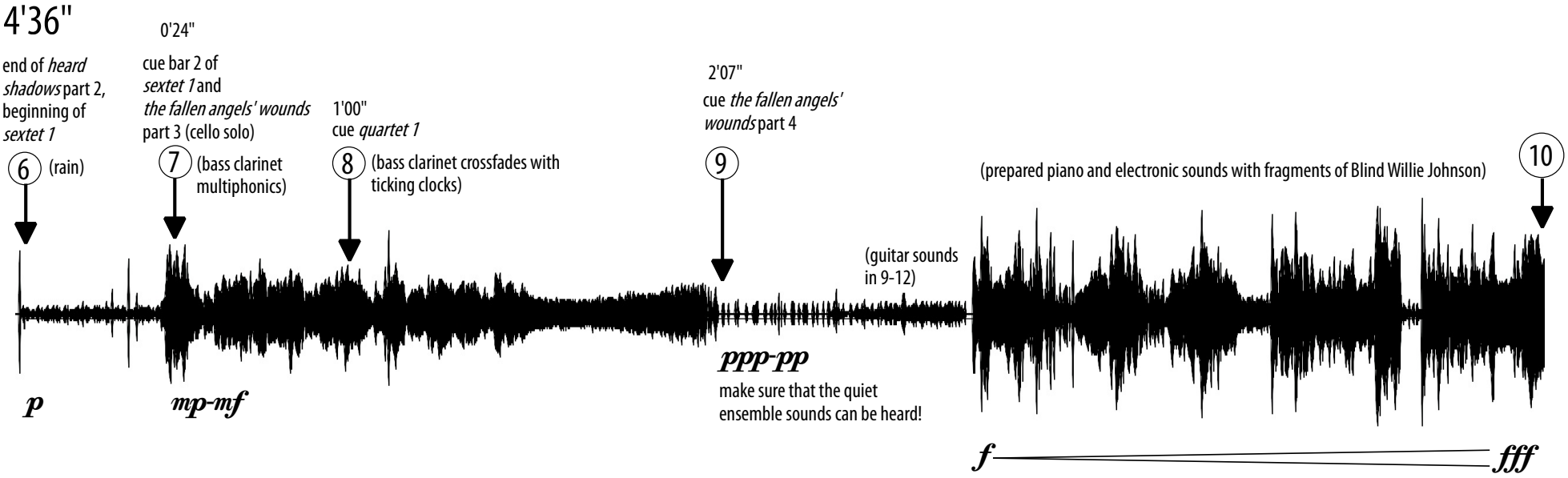
One of the principles used throughout *natural causes* is that when music is mentioned in a text it will appear in the composition in some form. In act 2, the line "Schubert's Drei Klavierstücke are caught in the wind" in the text that forms the basis of *the fallen angels' wounds* is realised by the pianist (in part 6 of that component) playing the opening of the second of those pieces, which is then scattered through the ensemble and distorted in various ways. The following line contains the words "Blind Willie Johnson whispers *Gesang der Jünglinge*", which obviously presents a different kind of challenge. Recordings of the great gospel-blues singer (made between 1927 and 1930) appear fragmented, filtered and recombined into textures descended from those of Karlheinz Stockhausen's electronic composition.

First light also exists in the form of an 8-channel fixed media composition with a duration of 24 minutes. In this version, the materials are reordered, the additional 4 channels mixed into channels 1-8, and materials from the electronic part of *heard shadows & watched voices* are added.

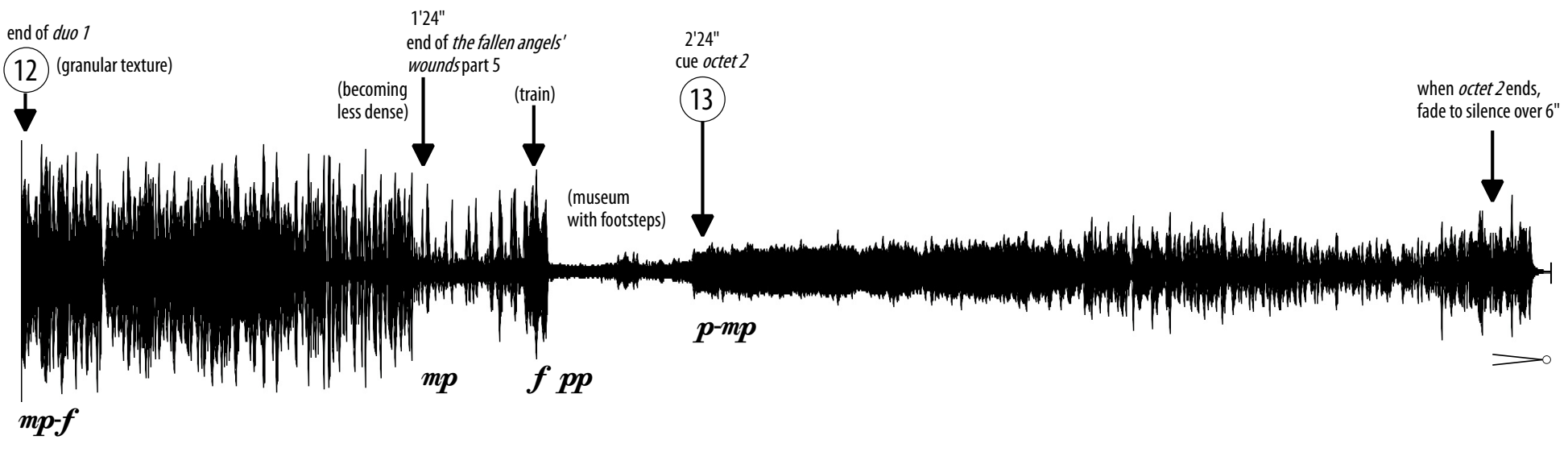
sequence 1
4'00"



sequence 2
4'36"



sequence 3
5'06"



sequence 4
1'00"



(channels 9-12 are not used in sequences 4-7)

sequence 5
2'30"

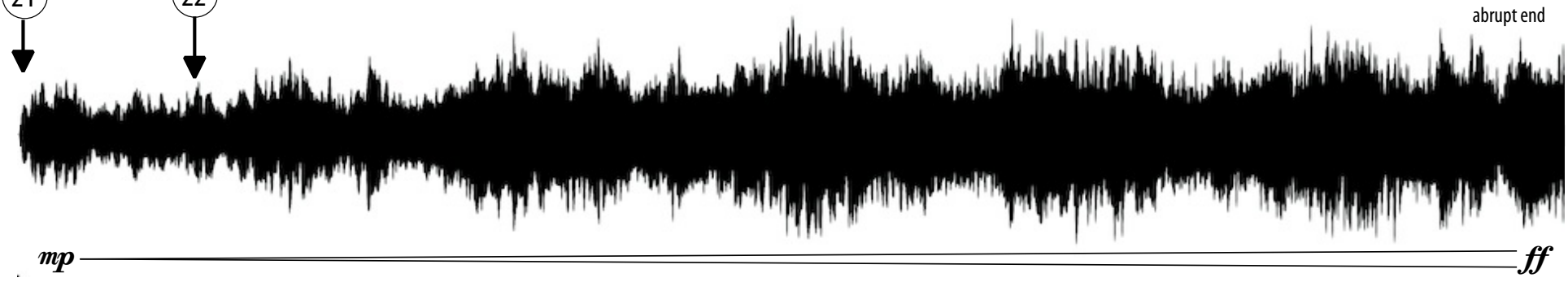
indistinct static sound with "breathing",
and gradual crescendo of crackling sounds

sextet 2 bar 57

30"
end of *sextet 2*

21 22

abrupt end



mp *ff*

sequence 6
6'00"

The soundfile for sequence 6 is actually 9' long. Once the actual required duration is established in rehearsal, the soundfile should be shortened *from the beginning* so as to be slightly longer than required (in order to accommodate any slowing of tempo in *quartet 2*), so that the gradual process of decreasing density in sequence 6 continues to its conclusion.

cue from violin
at bar 7 of *the fallen angels' wounds* part 10

1'06"
end of *the fallen angels' wounds* part 10

1'30"
bar 11 of *quartet 2*

23 24 25

(granular texture of scraping sounds, whispered voices, droplets etc.)

(becoming sparser...)

stop at
bar 136 of
quartet 2



ppp-pp

sequence 7
5'30"

(slowly shifting overtone-based harmonies)

1'36"

5'00"
saxophone cues
the fallen angels' wounds part 14

26 27 28



(sequence 7 is actually 6' long in order to accommodate any slowing of tempo in *duo 2*)

p-f sempre; change dynamics freely in response to live performers

sequence 8
3'18"

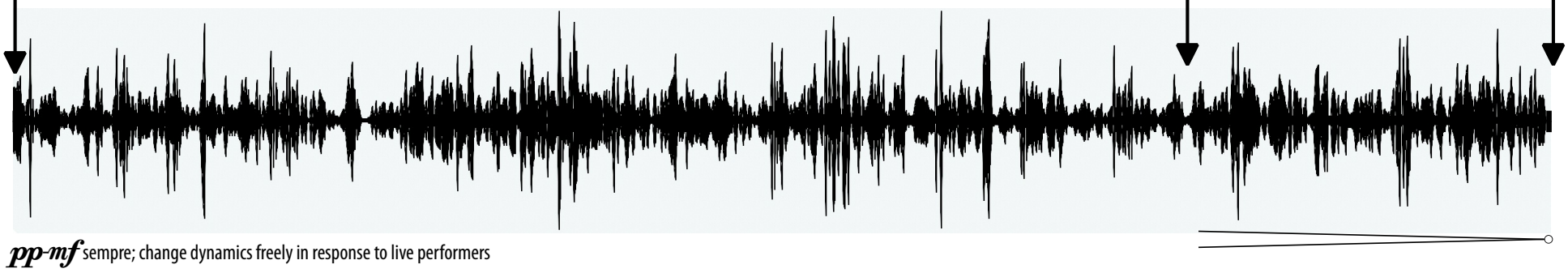
cued by saxophone in
bar 146 of *duo 2*

2'42" approximately,
cued by saxophone
at end of *duo 2*

end of *the fallen angels' wounds*
part 15 and beginning of part 16
together with *heard shadows* part 4

29 30 31

(mostly vocal fragments; children playing in 9-10; birdsong in 11-12)



pp-mf sempre; change dynamics freely in response to live performers