UCLA
Contemporary Music Score Collection

Title
Cartography of Convoluted Spaces

Permalink
https://escholarship.org/uc/item/4vq8222n

Author
Méndez, Camilo

Publication Date
2020

eScholarship.org Powered by the California Digital Library
University of California

Camilo Méndez

Cartography of Convoluted Spaces

For six instruments

2015-16

Cartography of Convoluted Spaces was commissioned by New Dots and Workers Union Ensemble as part of the project PLACE: New Music/New Photography and it was first performed at the Warehouse on April 16th 2016.

Cartography of Convoluted Spaces was developed in collaboration with photographer Cathy Pyle.

Cartography of Convoluted Spaces

For six instruments

Approximate duration: 8 Minutes

Instrumentation

Prepared Oboe

Prepared Alto Saxophone in E♭

Percussion I

Percussion II

Piano

Prepared Double Bass

General

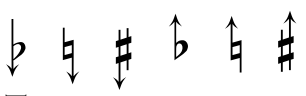
Cartography of Convoluted Spaces consists of 4 miniatures/spaces that can be performed in ANY ORDER, but ALWAYS as a single movement, therefore all miniatures/spaces must be played ATTACCA and transitions between miniatures/spaces must be as smooth and continuous as possible.
Miniatures/spaces were labelled using Greek letters to avoid the suggestion of an order.
The 4 miniatures/spaces are OMEGA (Ω), PHI (Φ), PSI (Ψ) and SIGMA (Σ).

Accidentals hold good for the duration of a bar. They apply only to the pitches at which they are written; each additional octaves require further accidentals.

Microtones

From left to right: three-quarter tone flat, quarter tone flat, quarter tone sharp, three-quarter tone sharp

Pitch inflection/natural tuning



These accidentals are used to indicate microtones of less than a quarter-tone (slightly higher or lower)

Transitions

---------->

dashed line: this type of line indicates a gradual transition from one manner of playing to another (i.e. key clicks to teeth on reed or sul ponticello to sul tasto).

Dynamics

f *poss.*

Dynamics marks *poss.* indicate the effort necessary to produce the sound and not necessary the loudness of the sound. It means as loud as is physically possible.

Multiphonics

All fingerings are given, but they can be amended by the oboist and saxophonist, if the result works better in the context of the section. Oboe fingerings were take from The Techniques of Oboe Playing by Peter Veale and Claus-Steffen Mahnkopf. Saxophone fingerings were taken from The Techniques of Saxophone Playing by Marcus Weiss and Giorgio Netti.

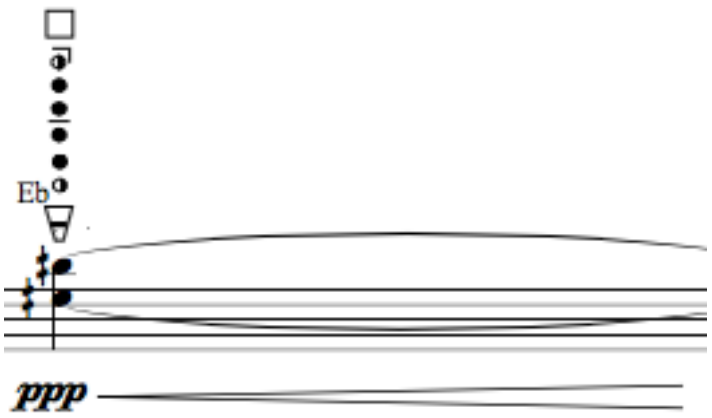
Harmonics

Double bass harmonics are written in two staves; in the top and smaller stave the resultant pitches 'suoni reali' and in the bottom stave fingered positions (transposed to the octave).

Oboe Preparation

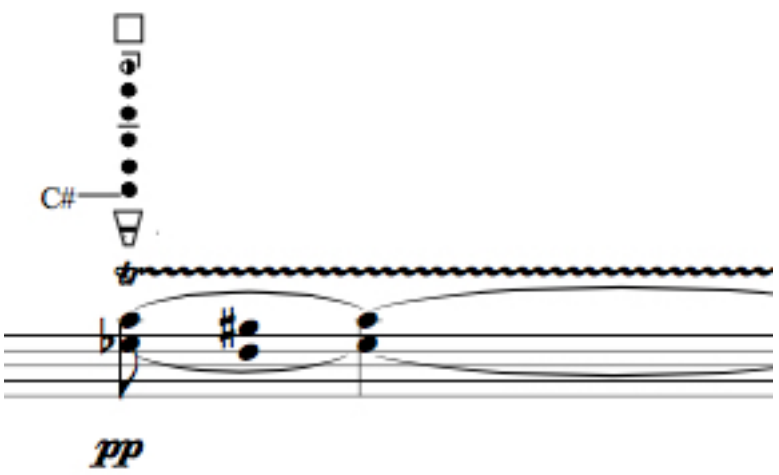
Bell must be covered with aluminium foil paper as shown in the pictures.
It is important that the foil is wrapped around bell loosely, in order to allow the vibrations from bell to resonate on aluminium foil paper and to minimize the resistance (of aluminium foil) while playing. If necessary, a hair or an elastic band can be used to hold aluminium foil in place.

Double Harmonics



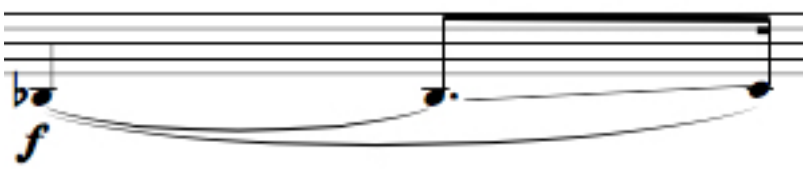
'Underblow' with normal reed position and very weak air pressure.

Double Harmonics Trills



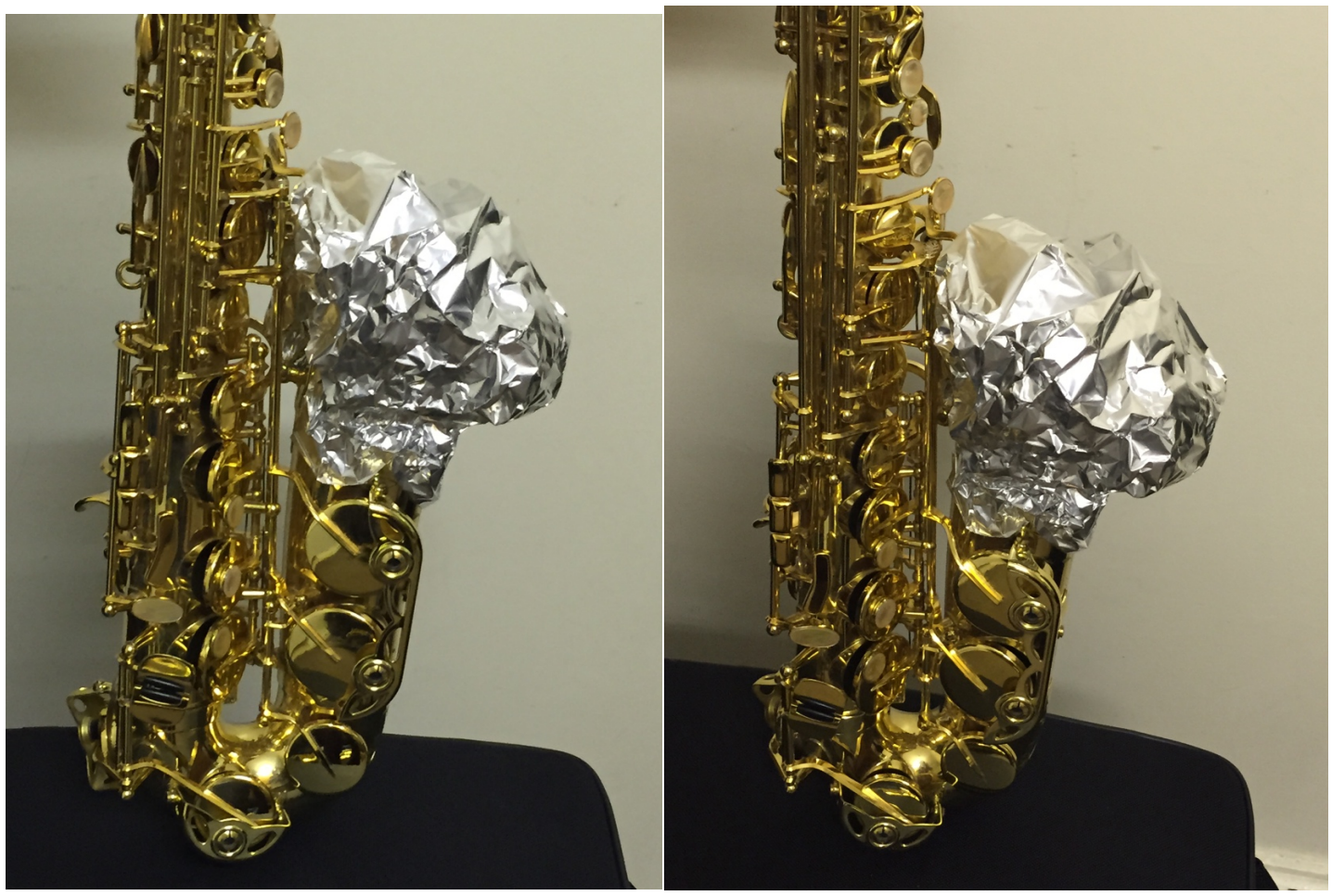
'Underblow' with normal reed position and very weak air pressure and combined with trill.

Glissandi



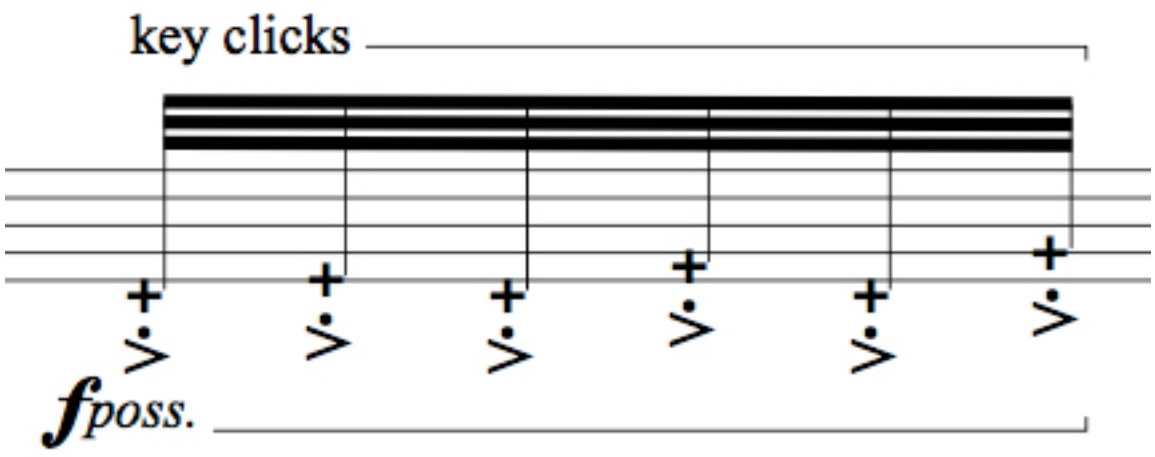
Finger or embouchure glissando. When fingerings are given it is due the fact that these fingerings resonate with aluminium foil paper.

Alto Saxophone Preparation



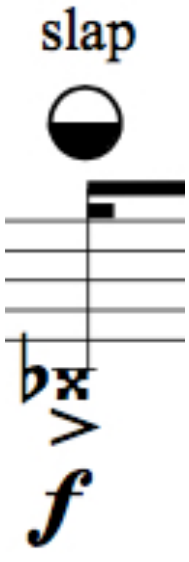
Bell must be covered with aluminium foil paper as shown in the pictures.
It is important that the foil is wrapped around bell loosely, in order to allow the vibrations from bell to resonate on aluminium foil paper and to minimize the resistance (of aluminium foil) while playing. . If necessary, an elastic band can be used to hold aluminium foil in place.

Key Clicks



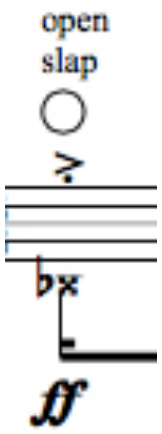
This sound is only produced by the action of the keys. DO NOT BLOW into the instruments. The sound must be percussive and dry.

Standard Slap



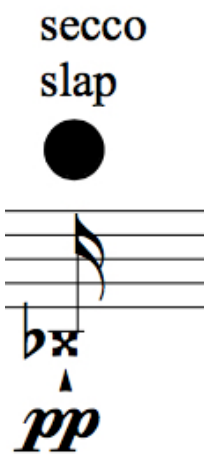
This type of slap has a clear pitch and it is produced with normal embouchure.

Open Slap



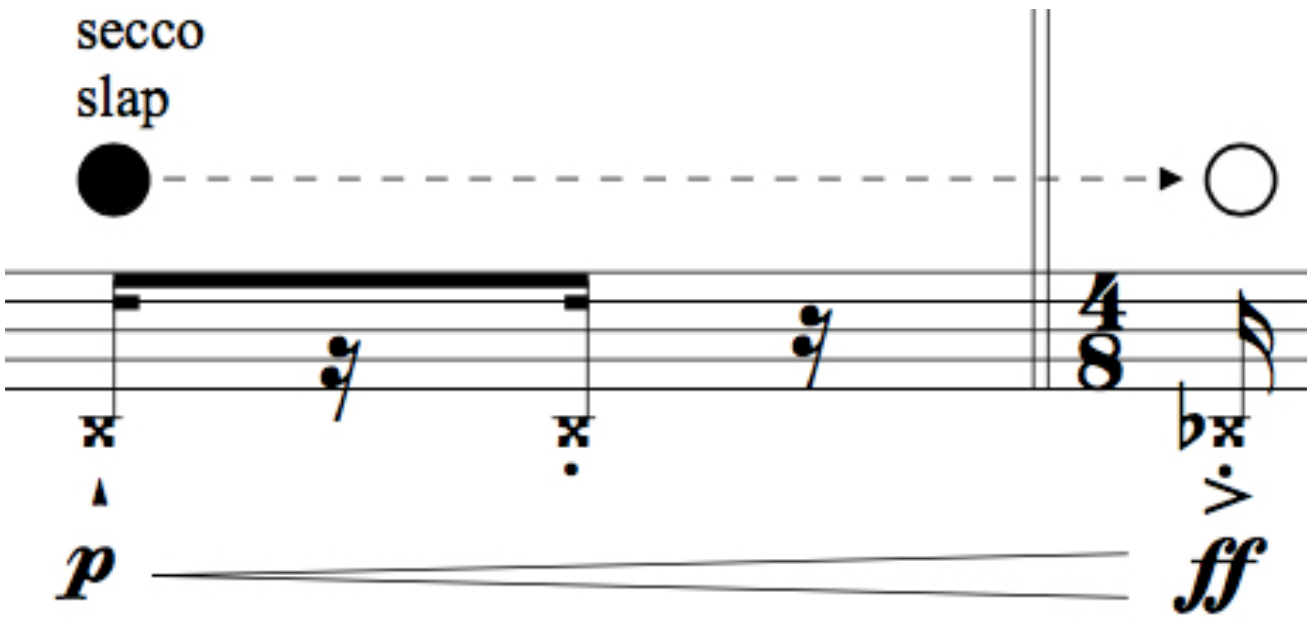
The embouchure is opened abruptly and completely at the moment of attack, producing a strong, percussive and forceful sound. ALWAYS as loud as possible!

Secco Slap



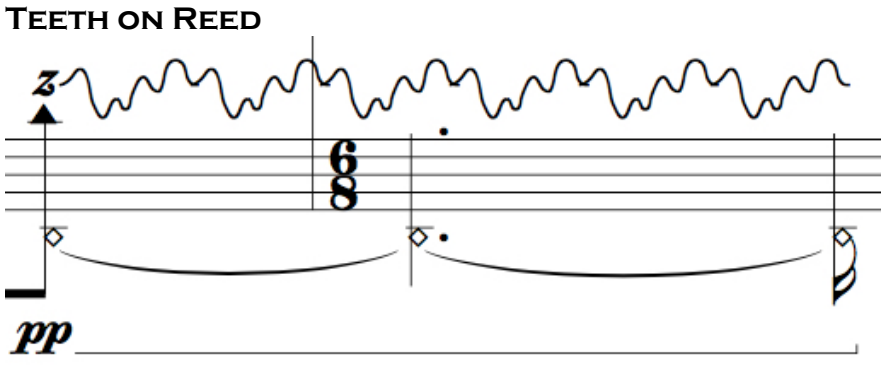
In this type of slap, the pitch is completely 'filtered away'. The pitch is only a shadow.

'Gradual' Transition between slaps



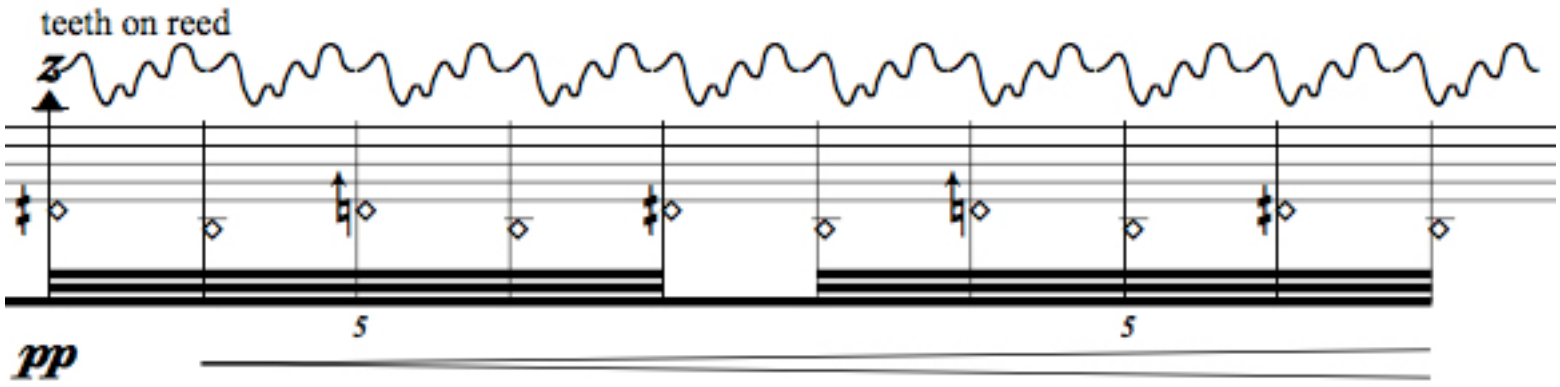
This transition must be as smooth as possible. The difference between one type of slap and the others must be as clear as possible.

Teeth on Reed



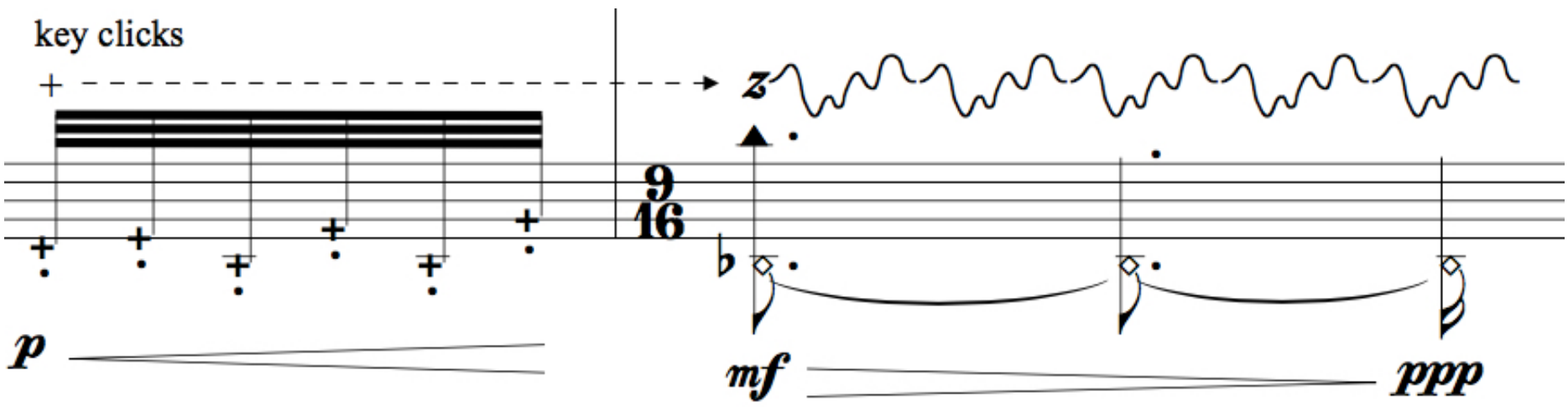
This sound is produced by placing lower teeth against reed. Random squeak glissandi must be produced by slightly shifting teeth backward and forward along the length of the reed (mouthpiece). ALWAYS shaky and unstable!

Teeth on Reed + changes in fingerings



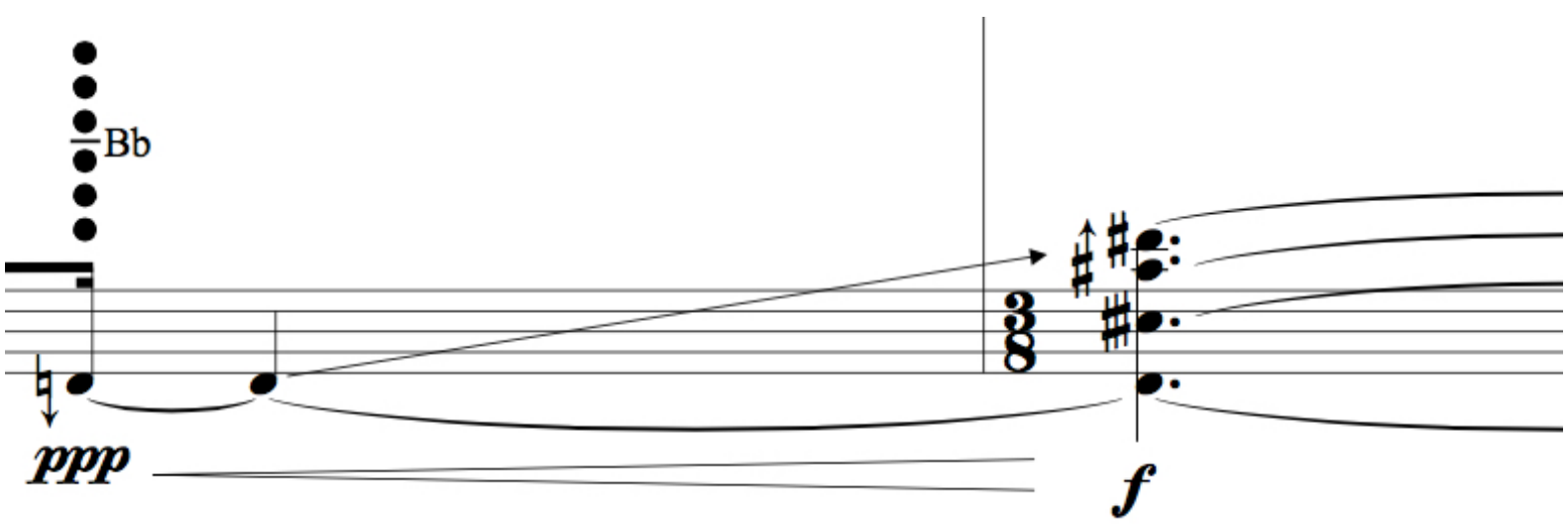
This sound is the combination of 2 of the techniques explained before. Therefore, the result must be random (shaky and unstable) very high glissandi in combination (sounds must be blended) with rhythmic key clicks.

'gradual' transition from key clicks to teeth on reed



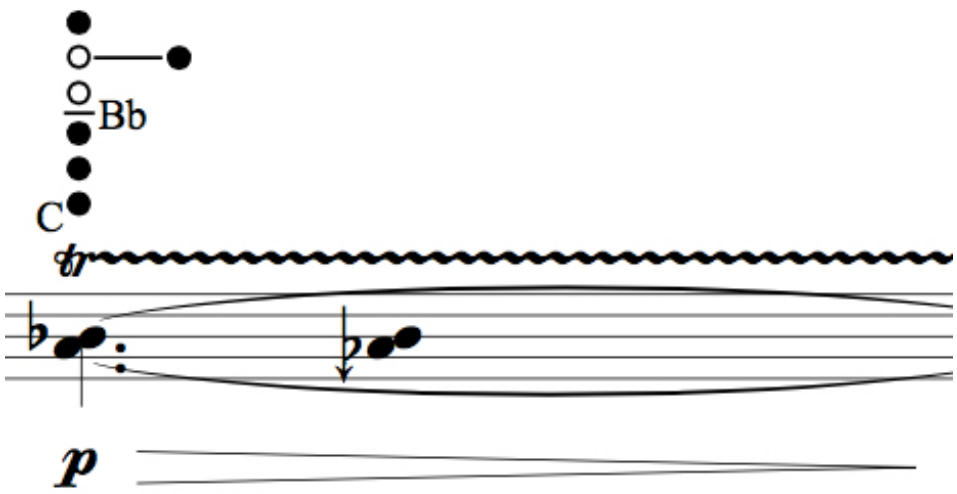
Gradually start blowing air onto instruments and pressing teeth against reed. The transition must as smooth and continuous as possible.

Multiphonic 'blossoms' from single pitch



multiphonic emerges from single pitch.

Multiphonic trill



Percussion Set Up

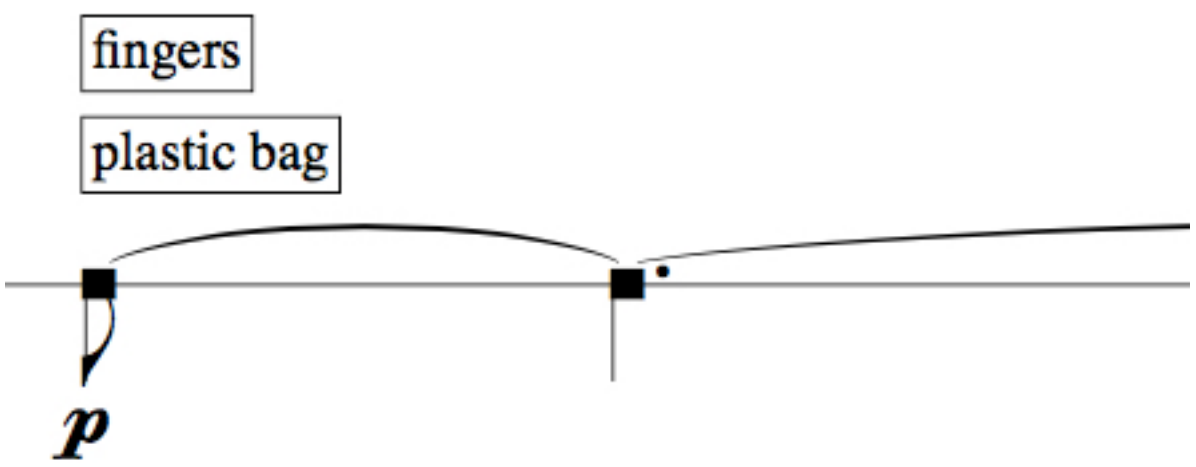
Percussionist I:

Metal Sheet (Shared with Percussionist II)
Corrugated Cardboard
Corrugated Pipe
2 pieces of Polystyrene (one flat on top of table and other mounted on a stand)
Large Metal Bowl
Small Metal Bowl (hand held)
Ceramic Mug
Thin Knitting Needles
Plastic Bag
Large piece of Aluminium foil paper
E-Tooth Brush
Bow
2 Plastic Cards (Credit card size)
Piece of Sand Paper

Percussionist II:

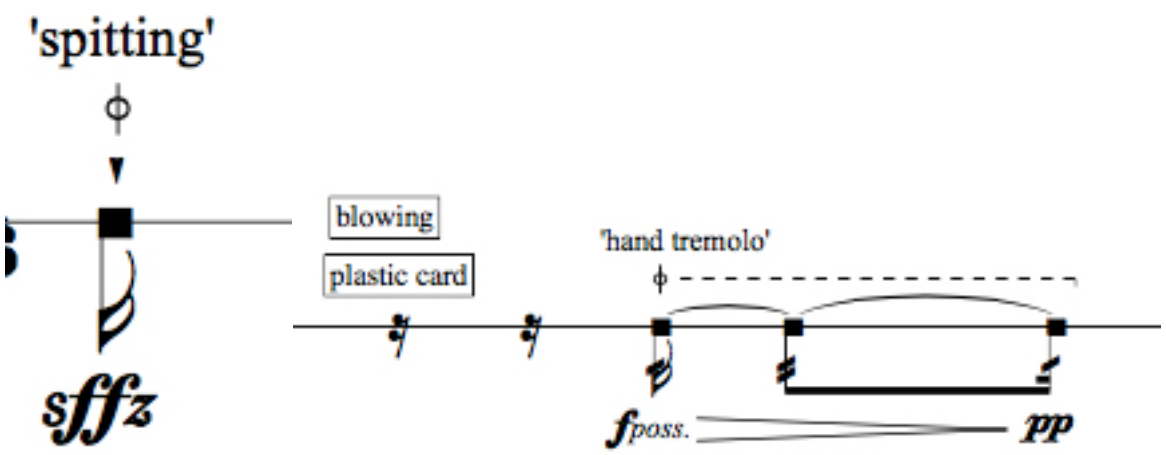
Metal Sheet (Shared with Percussionist I)
Corrugated Cardboard
Corrugated Pipe
2 pieces of Polystyrene (one flat on top of table and other mounted on a stand)
Ceramic Pot
Ceramic Lid
Small Metal Bowl (Hand held)
Plastic Bag
Large piece of Aluminium foil paper
Frother (+ batteries)
Bow
2 Plastic Cards (Credit card size)
Piece of Sand Paper

Plastic Bag



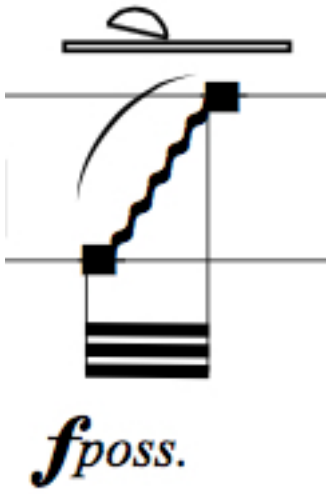
with fingers crumple plastic bag.

Plastic Card

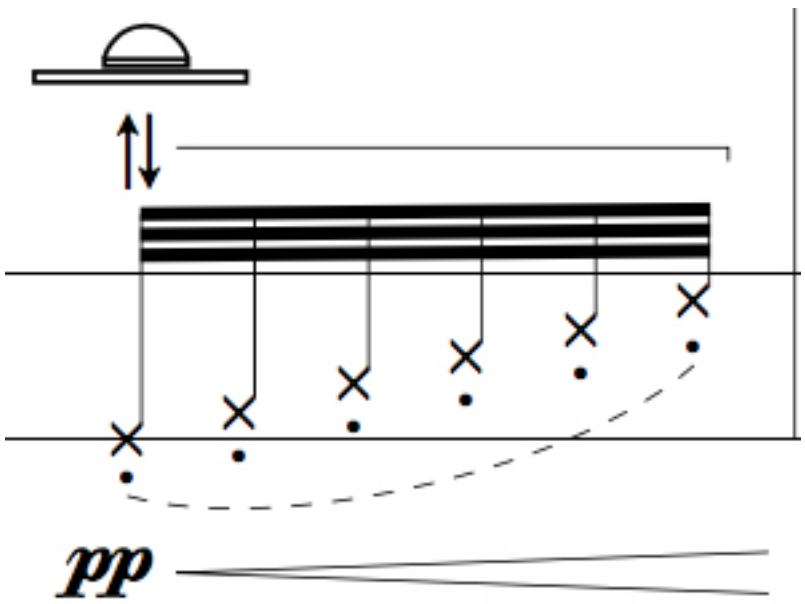


blow air onto the edge of plastic card. A) As if 'spitting' on edge of card and B) cutting stream of air by moving hand sideways 'hand tremolo'.

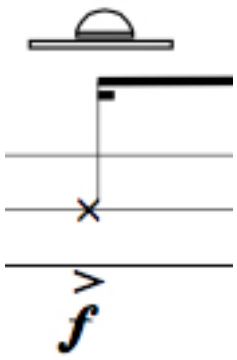
Metal Sheet + Small Bowls



A) with small bowl scratch metal sheet. Lines are used to represent the action: top line signifies upper edge of metal sheet and lower line lower edge of metal sheet; therefore, scratch action must be executed from bottom to top (or vice versa versa when is indicated). In order to produce a (high pitch) squeak it is necessary to scratch metal sheet diagonally as shown in the drawing placed above gesture.

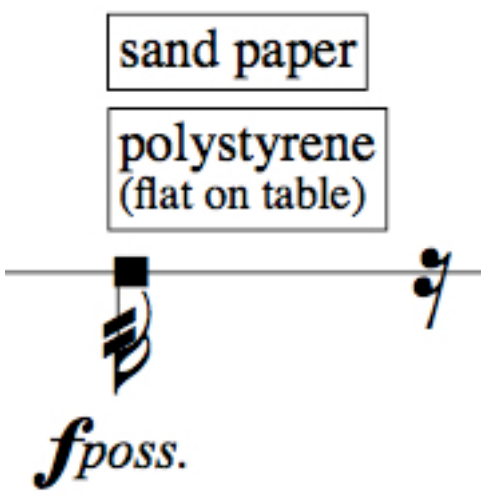


B) hit metal sheet with small bowl. Lines are used to represent the action: top line signifies upper edge of metal sheet and lower line lower edge of metal sheet; therefore, the action must be executed from bottom to top (or vice versa when is indicated).

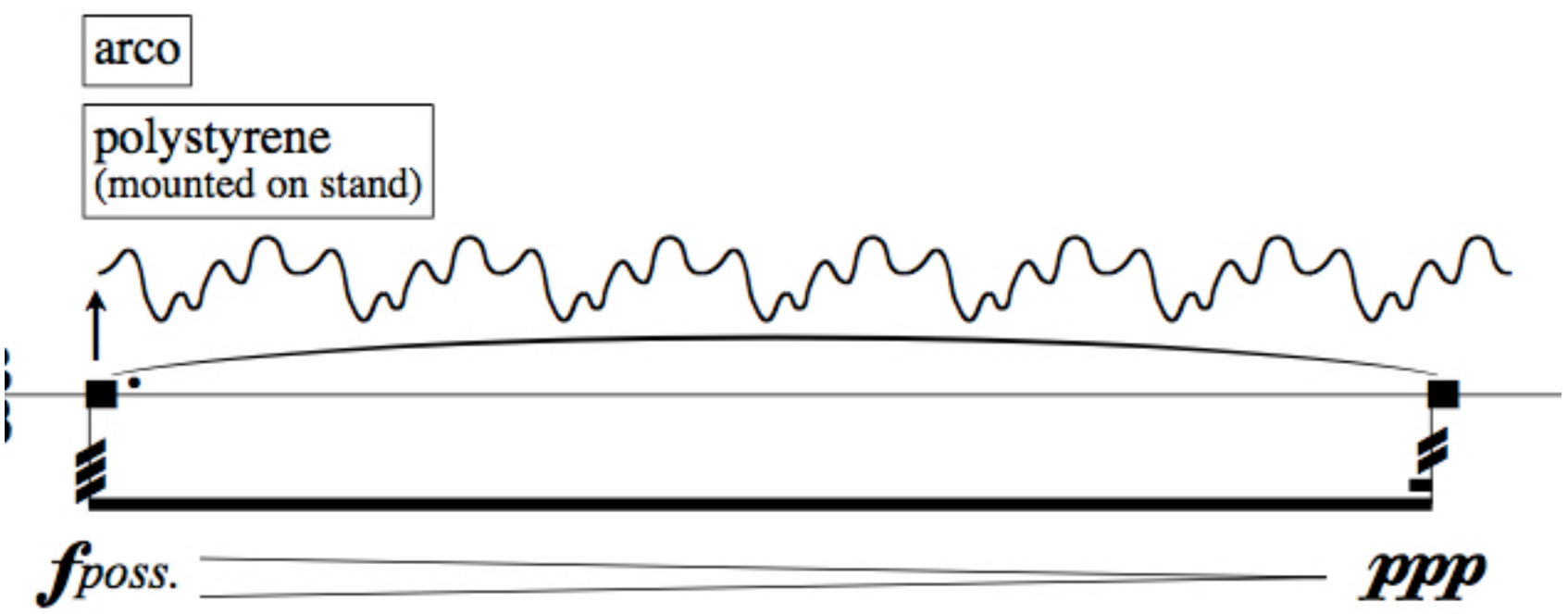


C) hit metal sheet with small bowl. In this case middle line represents middle of metal sheet.

Polystyrene

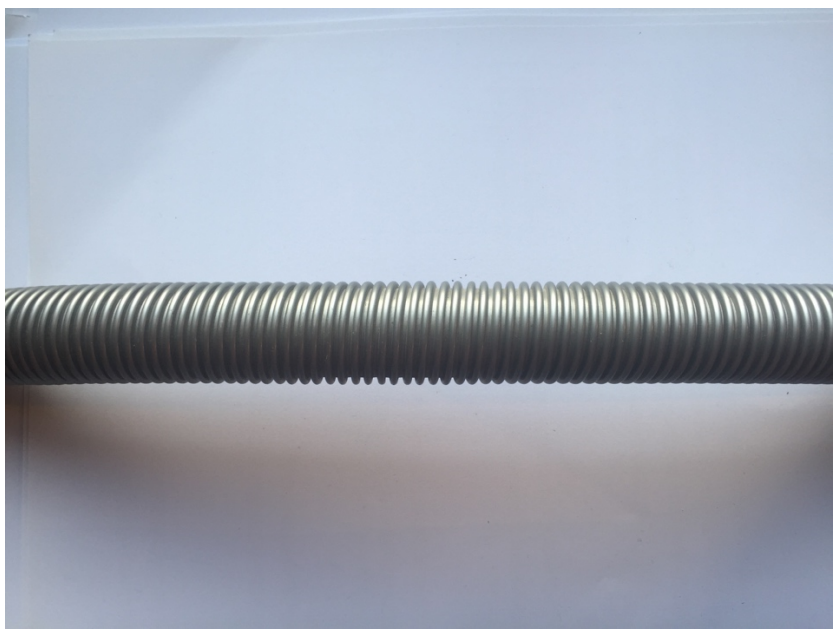


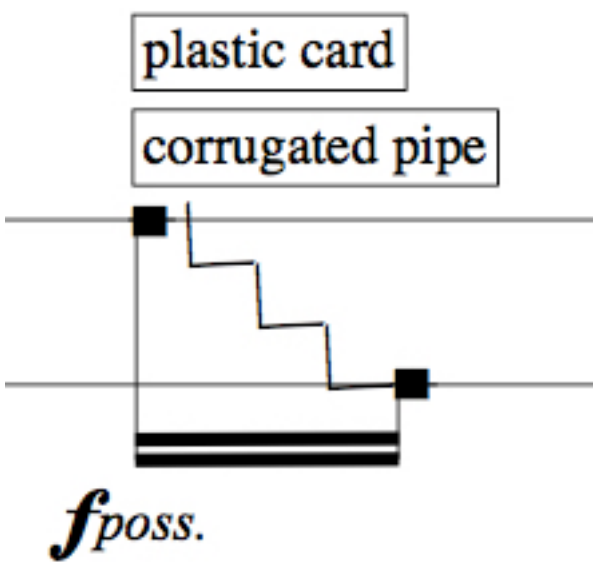
A) Flat on table: with a piece of sand paper rub polystyrene.



B) Mounted of stand: with bow (arco) rub polystyrene, the result must be random squeaks.

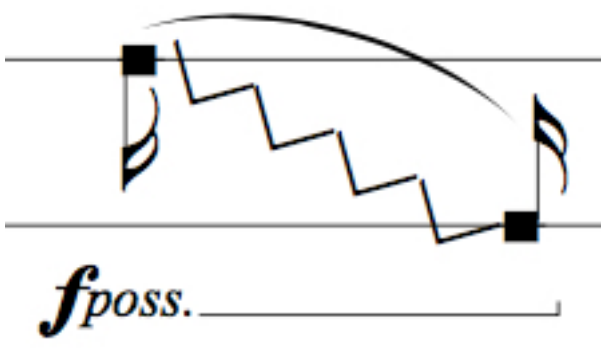
Corrugated Pipe





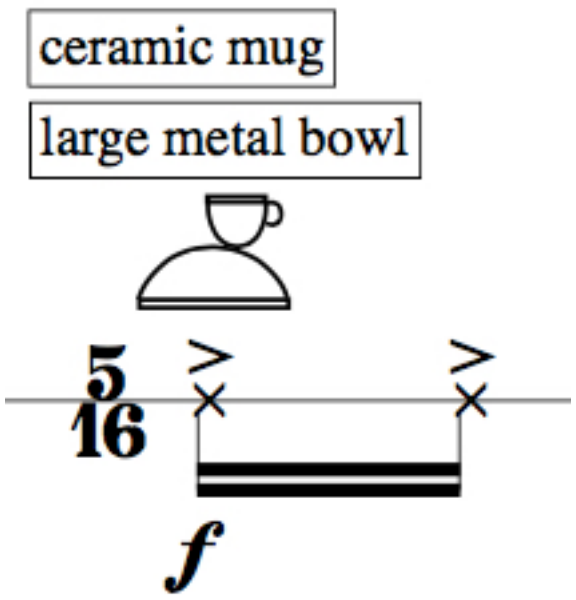
With plastic card rub pipe. Lines are used to represent the action: top line signifies right hand end of pipe, bottom line signifies left hand end of pipe; therefore, the action is executed by rubbing card from one end of corrugated pipe to the other end.

Corrugated Cardboard

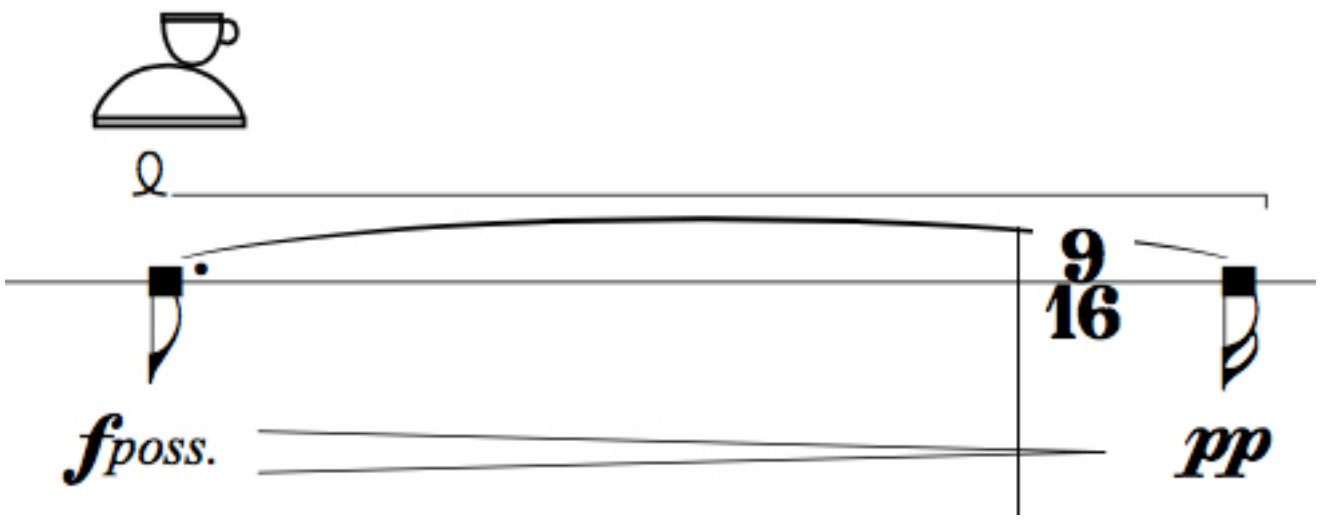


With plastic card rub cardboard. Lines are used to represent the action: top line signifies right hand end of cardboard, bottom line signifies left hand end cardboard; therefore, the action is executed by rubbing card from one end of corrugated cardboard to the other end.

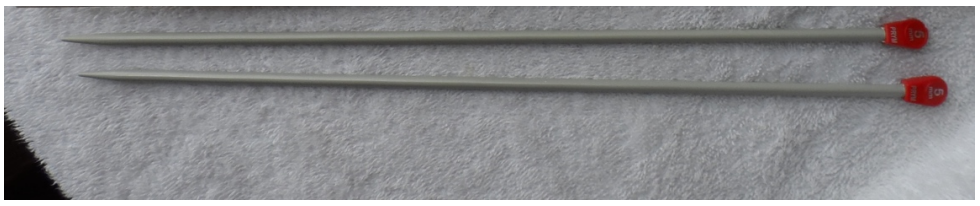
Large Bowl + Mug

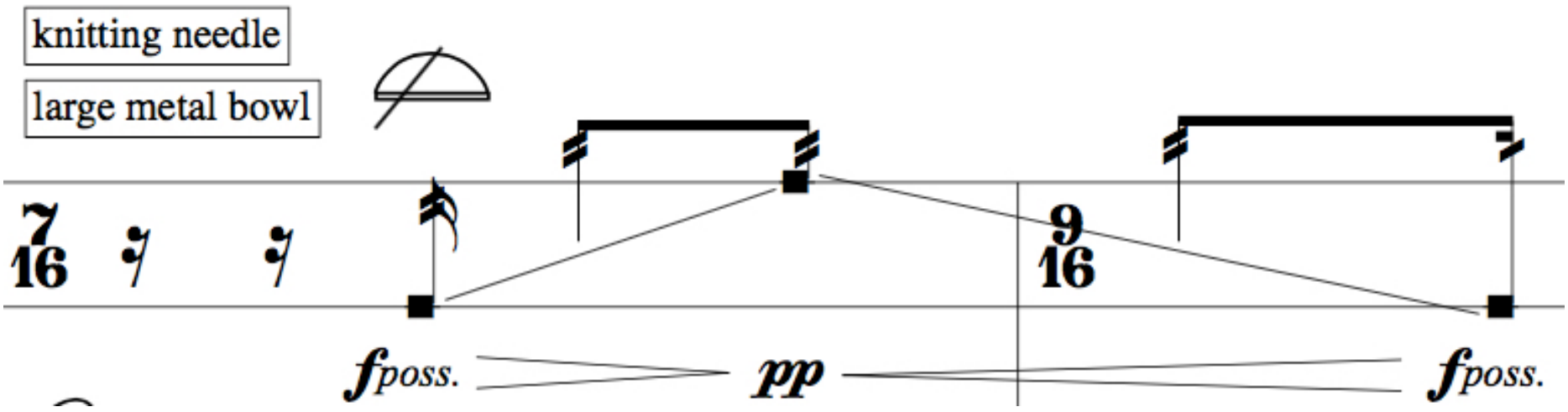


A) Place Large Bowl upside down and hit it with Mug.



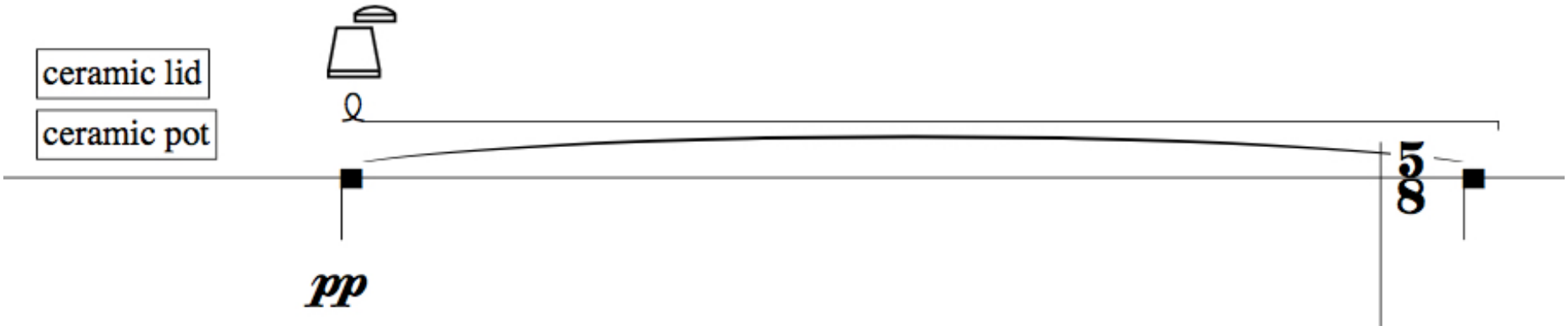
B) Place Large Bowl upside down and rub mug against it, always circular movements as evenly and continuous as possible.





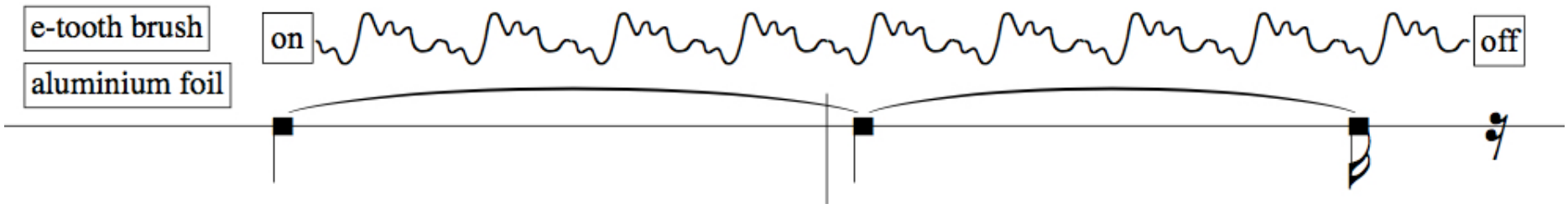
C) Place Large Bowl upside down and rub it with thin Knitting Needle. Lines are used to represent the action: top line signifies tip of Knitting Needle, bottom line signifies frog of Knitting Needle; therefore, the action is executed by rubbing Large Metal Bowl with Knitting Needle from tip to frog and vice versa.

Ceramic Pot-Lid

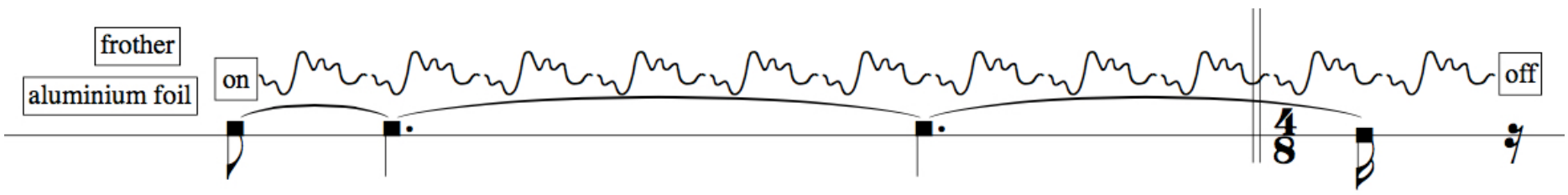


Place Ceramic Pot upside down and rub it with Ceramic Lid. Always circular movements as evenly and continuous as possible.

Large Sheet of Aluminium Foil (on either side)



A) Touch Large Sheet of Aluminium Foil with E-Tooth Brush. Always try to get as much resonance and noise as possible.

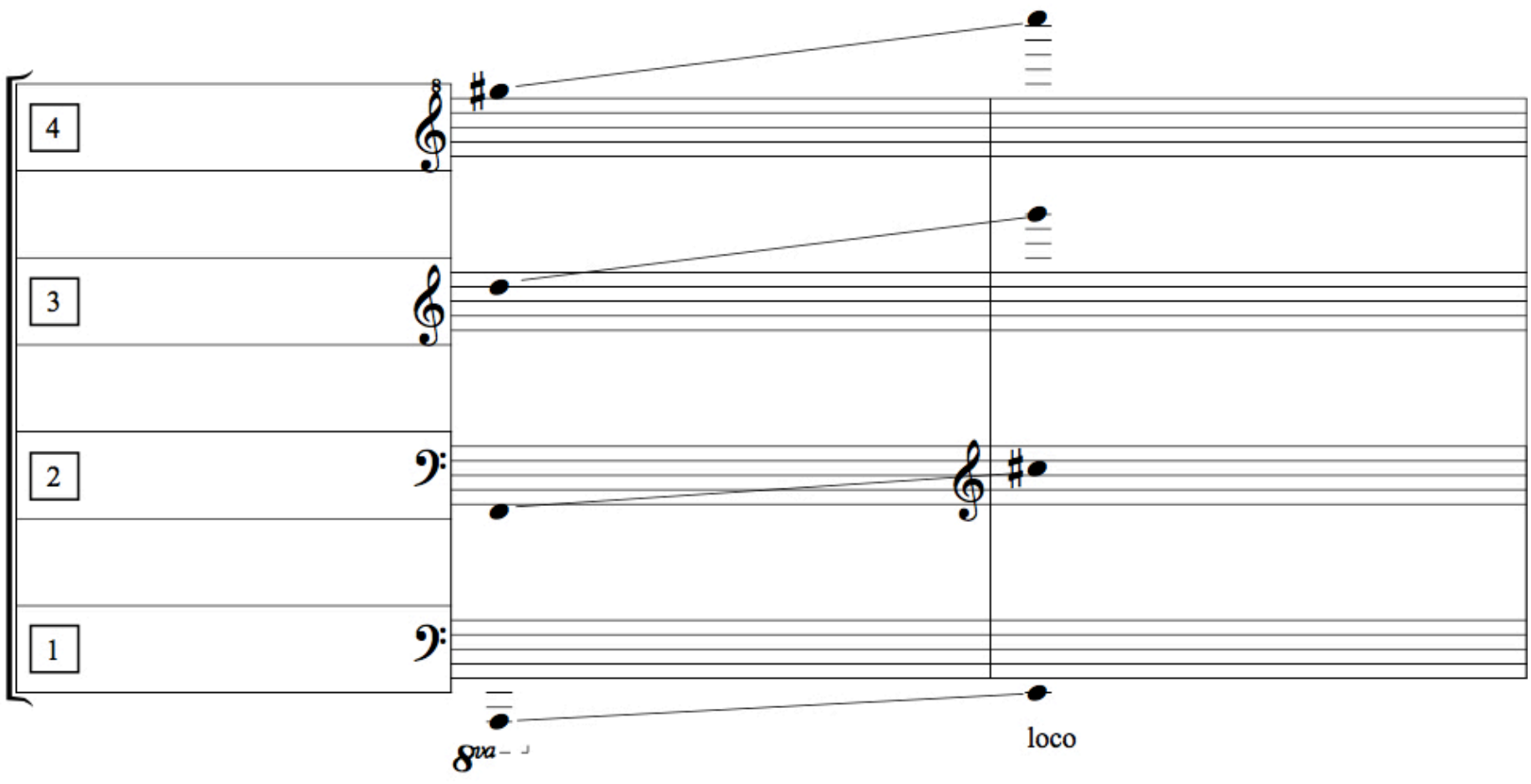


B) Touch Large Sheet of Aluminium Foil with Frother. Always try to get as much resonance and noise as possible.

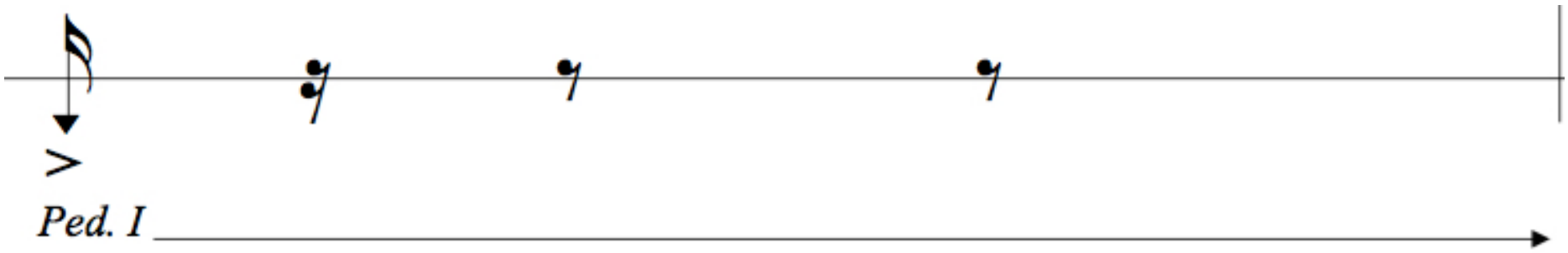
Piano

Piano is divided into 4 areas as shown in the picture. Each area corresponds to a clef numbered accordingly.

Unconventional clefs in relation to pitches.

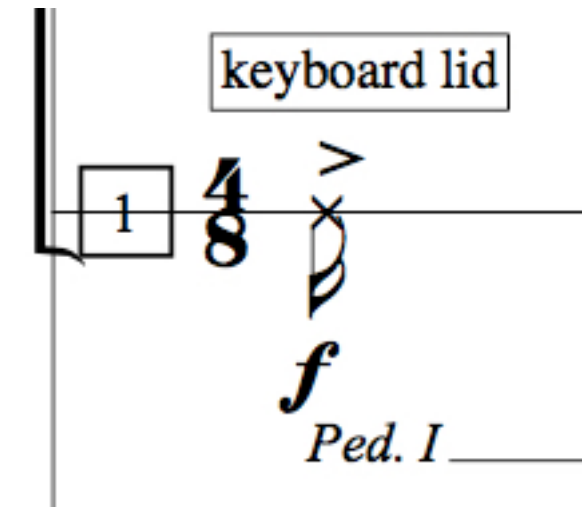


Depress Ped I



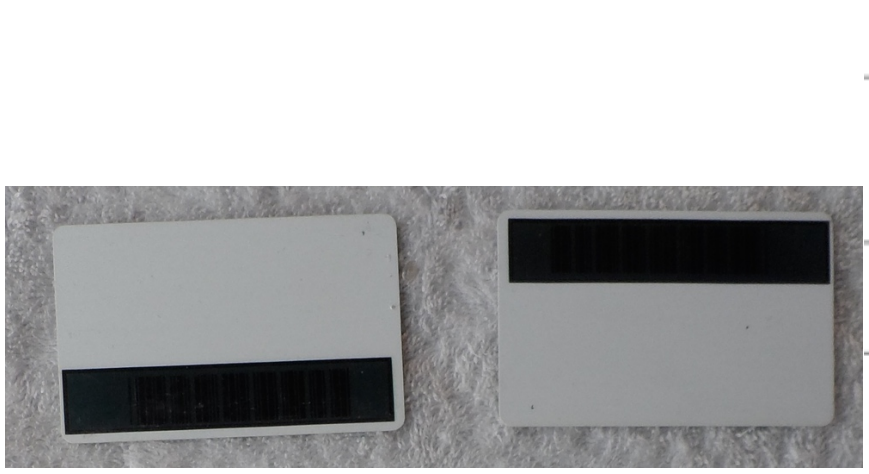
depress Ped I as loud as possible.

Kayboard Lid



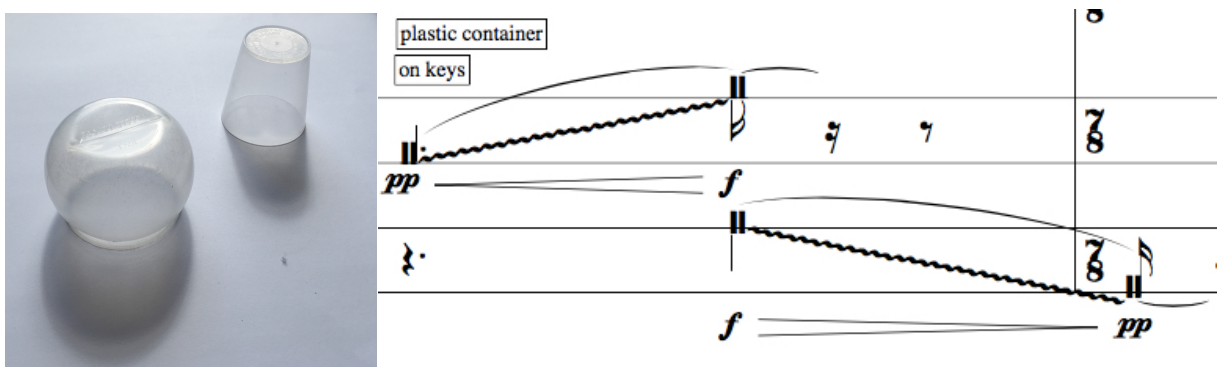
This sound is produced by hitting piano with keyboard lid. When is written in clef 1 this action must be executed with left hand, when is written in clef 2 the action must be executed with right hand.

On keys + 2 Plastic Cards



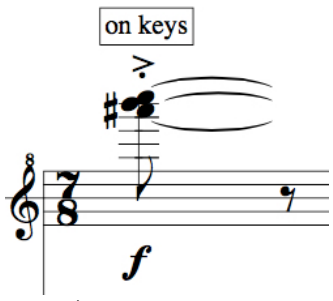
With plastic Cards scrape black keys 'keyboard guiro'. Bottom line represents lower pitches and top line represents right hand higher pitches). Scrape anywhere within the indicated area.

On keys + 2 Containers (different sizes)

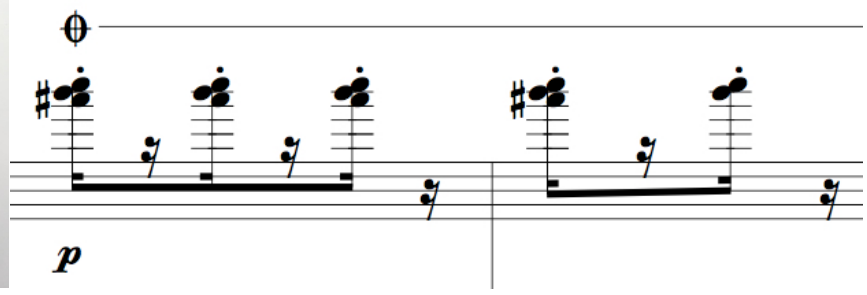


With (hand held) plastic containers scrape white keys. Bottom line represents lower pitches and top line represents right hand higher pitches). Scrape anywhere within the indicated area. Left hand container must be bigger than right hand container.

On Keys

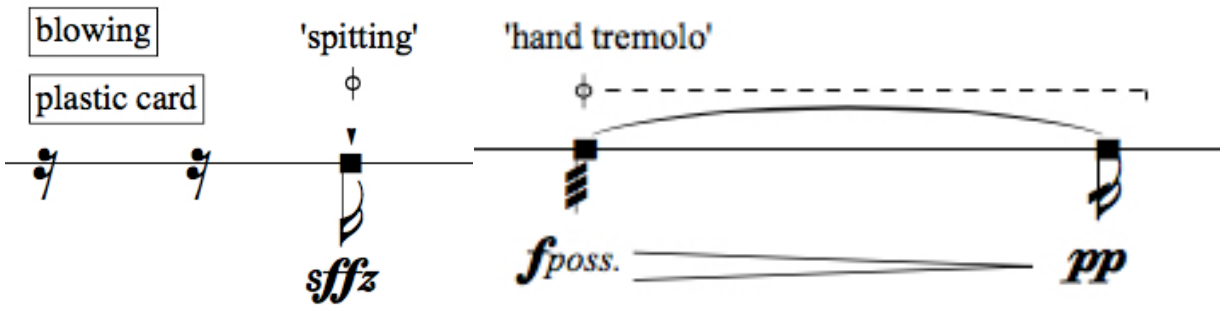


A) Play normally.



B) Right hand plays on the keys, while left hand is damping the strings with a tiny cushion.

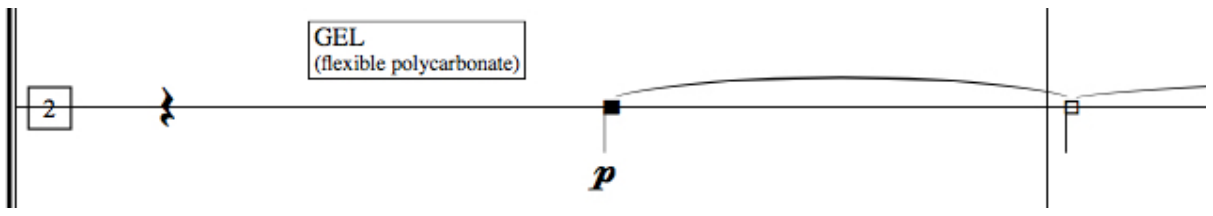
Plastic Card



These sounds are only produced by blowing onto Plastic Card.

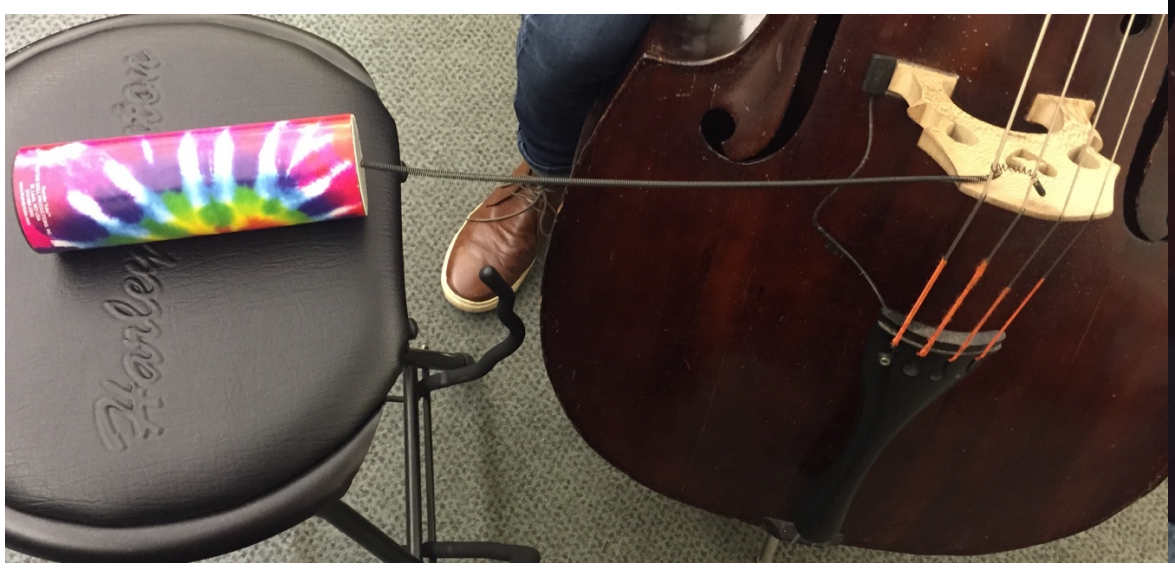
A) As if 'spitting' on edge of card, always as forceful as possible.
B) Cut stream of air by moving card side ways 'hand tremolo'.

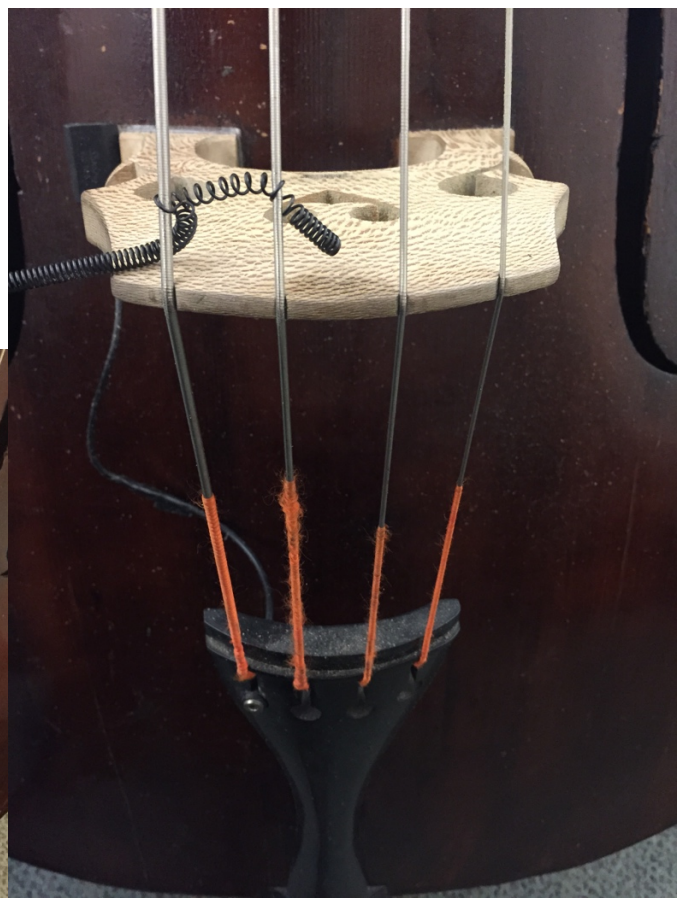
GEL (flexible polycarbonate)



with both hands crumple piece of GEL on top of strings of indicated area.

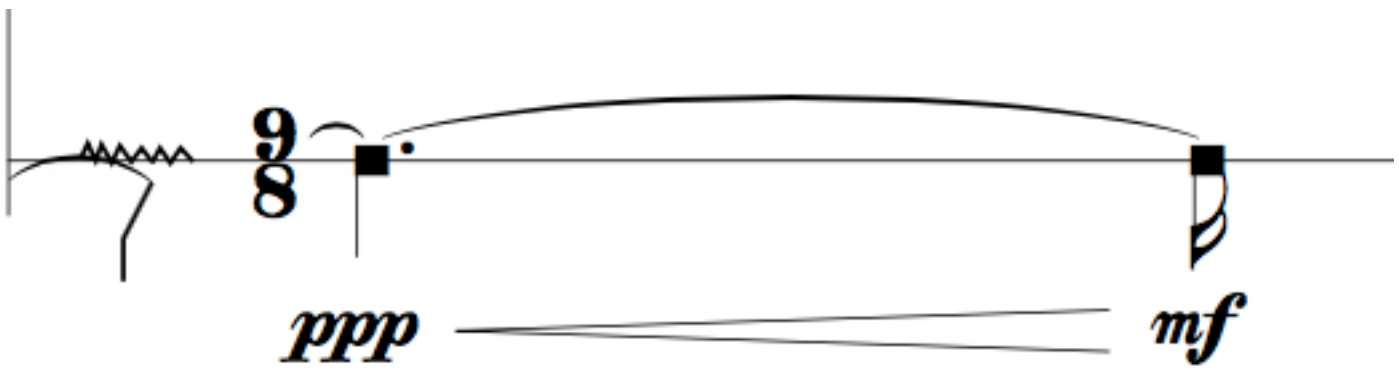
Preparation Double Bass





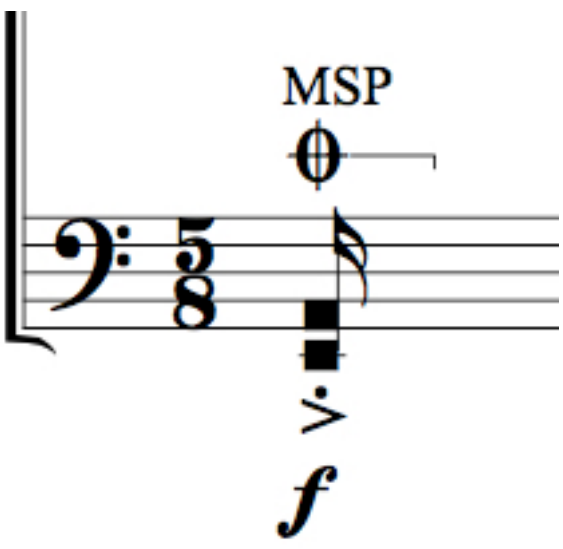
attach a Spring Drum (LP-0410-1A) to IV and III string of Double Bass. It is important that the spring touches the bridge. The Drum must be place on a stand or stool as shown in the picture. In order to guarantee the best result, the spring must be as tense as possible.

On Bridge and Spring



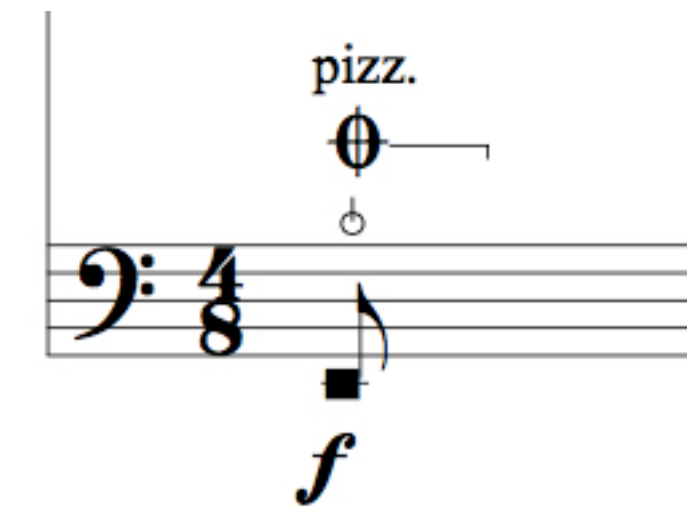
This clef represents the bridge and the Spring. The hair of the bow must touch both (the bridge and the spring) the result is metallic noise rich in overtones. Spring Drum must be securely place on a stand or stool and spring must be as tense as possible. ENJOY!

Short Attack



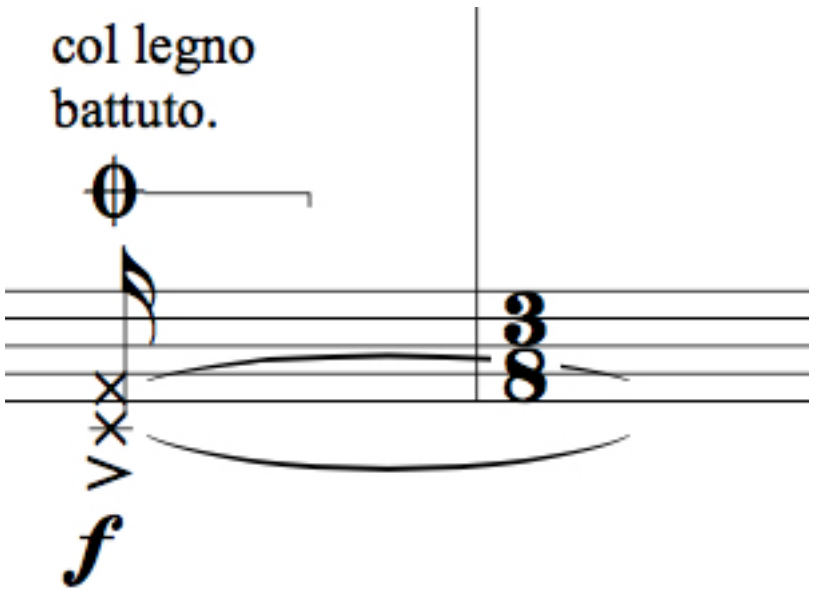
With left hand mute strings. With right hand play IV and III strings (very short attack). The Spring Drum should resonate!

Bartok Pizz.



With left hand mute strings. With right hand play a Bartok Pizzicato on IV string (very dry).

Col Legno Battuto



With left hand mute strings. With right hand hit IV and III string (violently).

Placement on Stage

PIANO

Double
Bass

Percussion I and II

Oboe

Alto
Saxophone

Conductor

If words are not things, or maps are not the actual territory, then, obviously, the only possible link between the objective world and the linguistic world is found in structure and structure alone
Alfred Korzybski

Thus, we see that one of the obvious origins of human disagreement lies in the use of noises for words
Alfred Korzybski

SCORE IN C

Σ

CAMILO MÉNDEZ
BANFF-LONDON 2015-16

Oboist 1

(subito) ♪= 60

pp

Saxophonist 2

(subito) ♪= 60

Bb

ppp p ppp p ppp

Percussionist I 1

(subito) ♪= 60

Percussionist II 2

(subito) ♪= 60

Pianist 3

(subito) ♪= 60

plastic container
on keys

ppp

mp pp

plastic container
on keys

mf pp

Ped. I

Bassist 5

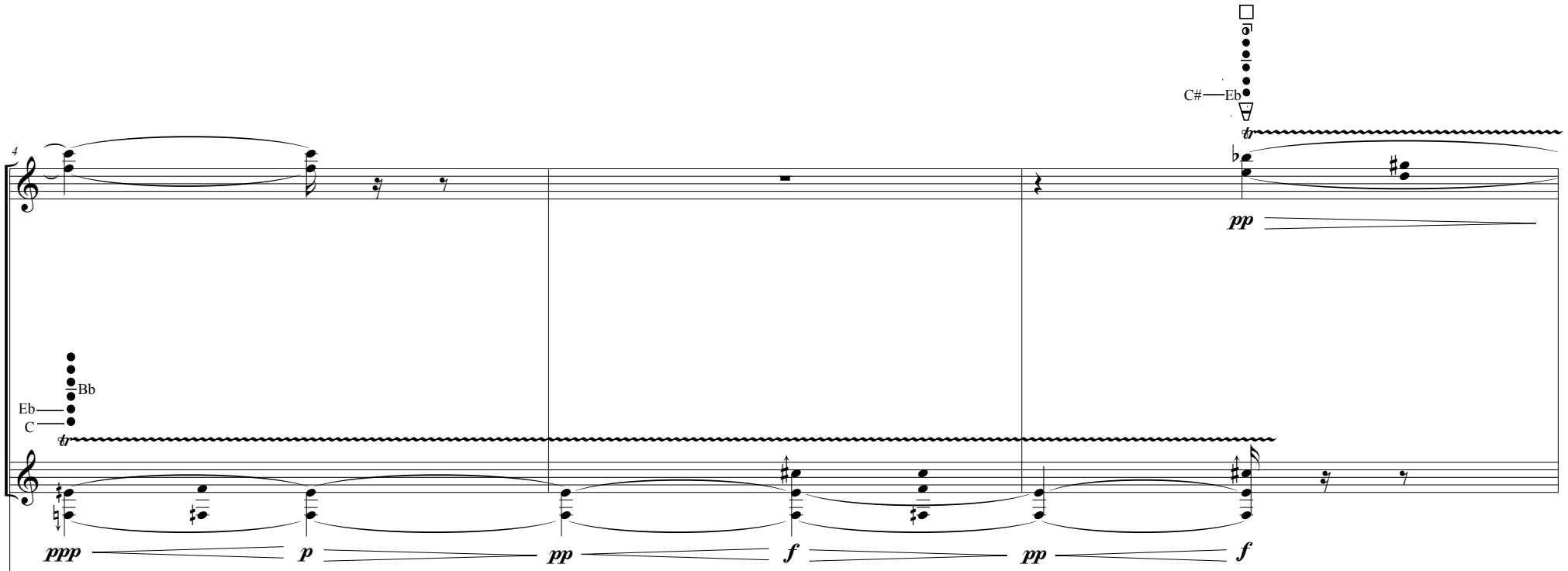
(subito) ♪= 60

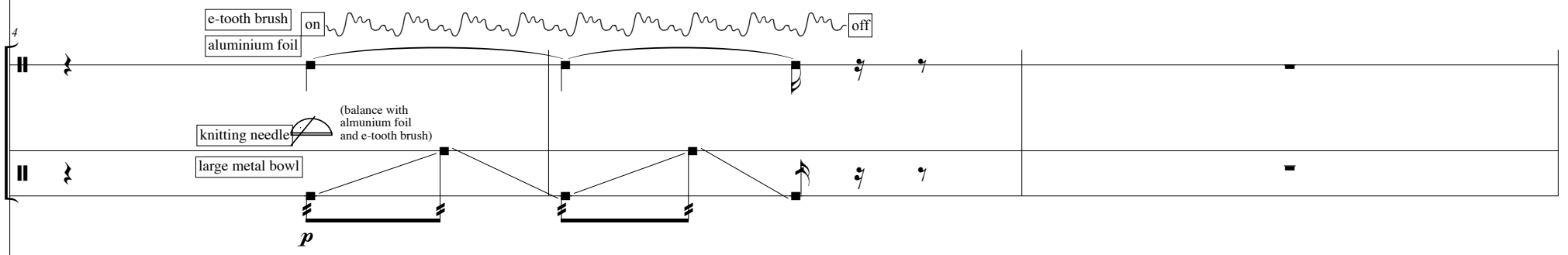
MST
II

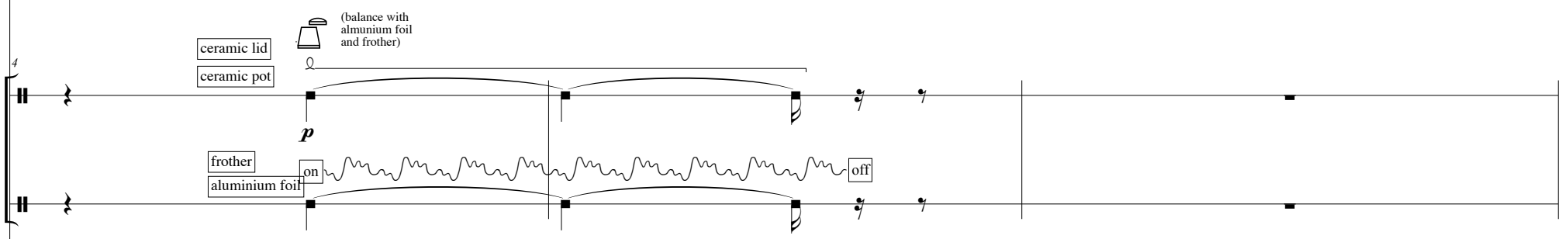
SP
I

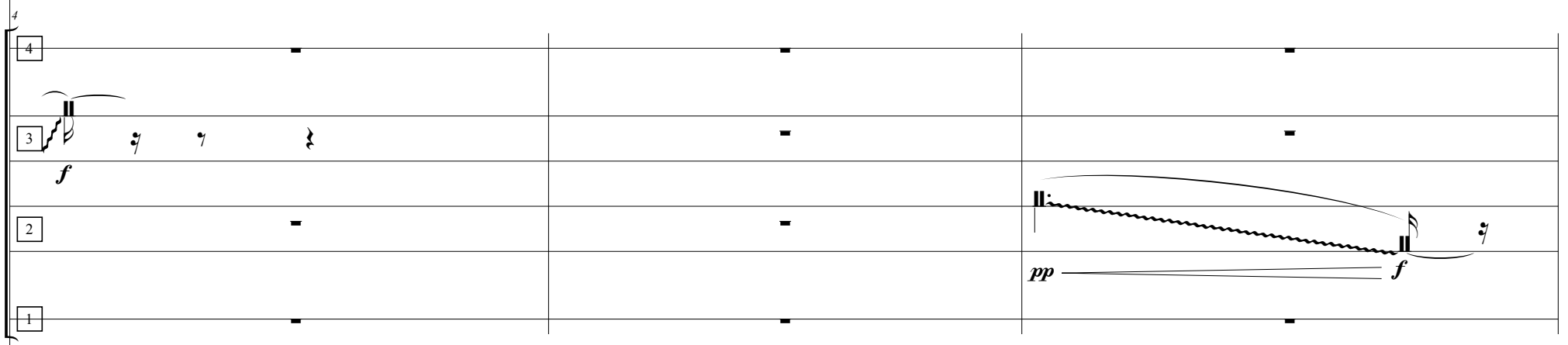
ppp p ppp p

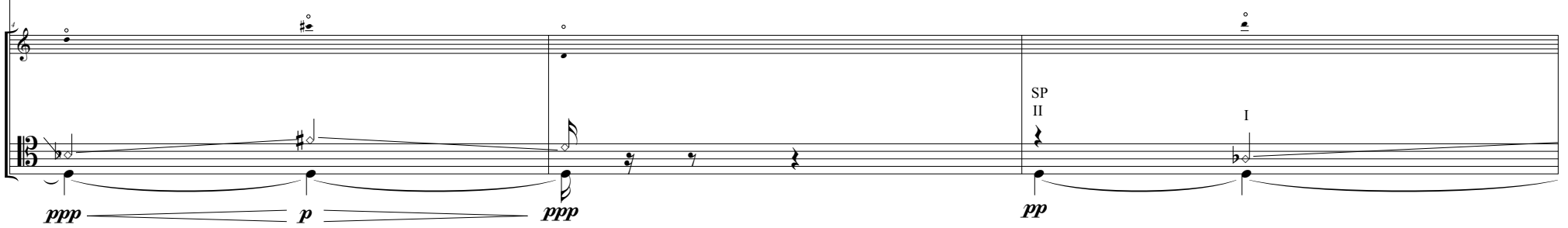
© CAMILO MÉNDEZ 2016


C#—Eb
Bb
Eb—
C
ppp
p
pp
f
pp
f
pp


e-tooth brush
on
off
aluminium foil
(balance with
almunium foil
and e-tooth brush)
knitting needle
large metal bowl
p


(balance with
almunium foil
and frother)
ceramic lid
ceramic pot
p
frother
on
off
aluminium foil


4
3
2
1
f
pp
f


SP
II
I
ppp
p
ppp
pp

molto rall.

7

♪ = 46

ppp pp ppp pp

molto rall.

♪ = 46

tr

pp f p f p f

molto rall.

arco

polystyrene
(mounted on stand)

♪ = 46

pp f

3

small metal bowl

metal sheet

fposs.

molto rall.

small metal bowl

metal sheet

3

♪ = 46

fposs.

arco

polystyrene
(mounted on stand)

f pp

molto rall.

♪ = 46

4

3

2

1

pp f

pp f

molto rall.

♪ = 46

f pp

subito
♪= 132

1.

pp

subito
♪= 132

teeth on reed

pp

subito
♪= 132

sand paper
polystyrene
(flat on table)

fposs.

fposs.

subito
♪= 132

fposs.

sand paper
polystyrene
(flat on table)

fposs.

subito
♪= 132

blowing
plastic card

'hand tremolo'

fposs.

pp

pp

keyboard lid

f

subito
♪= 132

f

13

f *pp*

f open slap *ff* secco slap *p* *p*

13

arco

polystyrene (mounted on stand)

ceramic mug

large metal bowl

p

13

fposs.

fposs.

13

4

3

2

1

mf *pp*

mf *pp* *f*

pizz.

f

15

Bb

C

f

pp

ff

pp

key clicks

slap

fposs.

f

15

f

fposs.

15

plastic card

corrugated pipe

fposs.

plastic card

corrugated cardboard

fposs.

15

blowing

plastic card

'hand tremolo'

fposs.

plastic card

on keys

fposs.

keyboard lid

f

f

4

3

2

1

senza Ped. I
(secco)

15

arco
SP
II, I

f

pp

17

Bb
Eb
C
tr

ppp

p

ppp

sand paper

polystyrene
(flat on table)

plastic card

corrugated pipe

fposs.

fposs.

fposs.

fposs.

4
3
2
1

pp

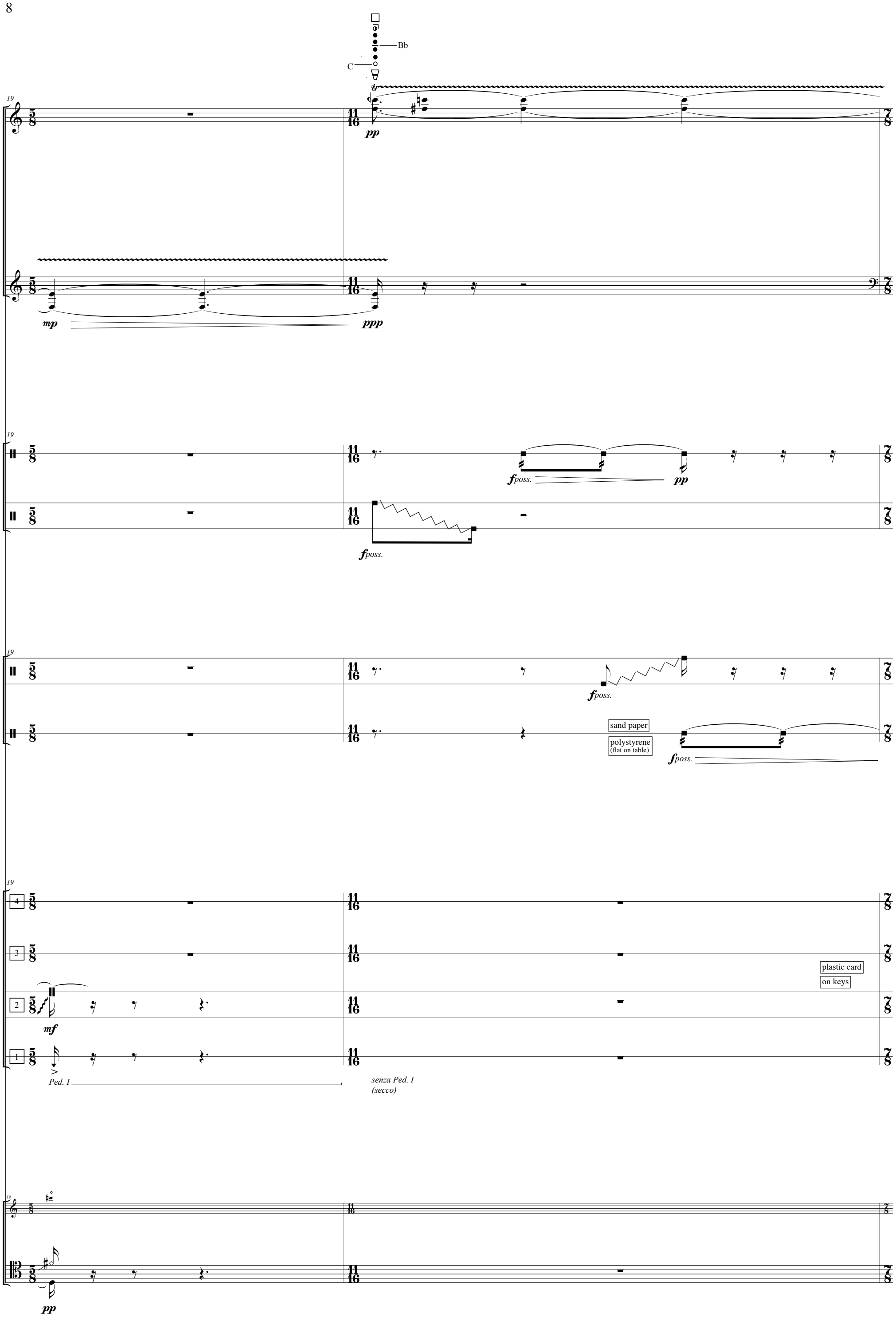
plastic container

on keys

pp

f

f


Bb
C
19
pp
mp
ppp
fposs.
fposs.
fposs.
pp
fposs.
sand paper
polystyrene
(flat on table)
fposs.
plastic card
on keys
mf
Ped. I
senza Ped. I
(secco)
pp

21

pp

f

ff

ceramic mug

large metal bowl

small metal bowl

metal sheet

pp

fposs.

fposs.

fposs.

pp

arco

polystyrene
(mounted on stand)

'hand tremolo'

fposs.

pp

fposs.

f

f

f

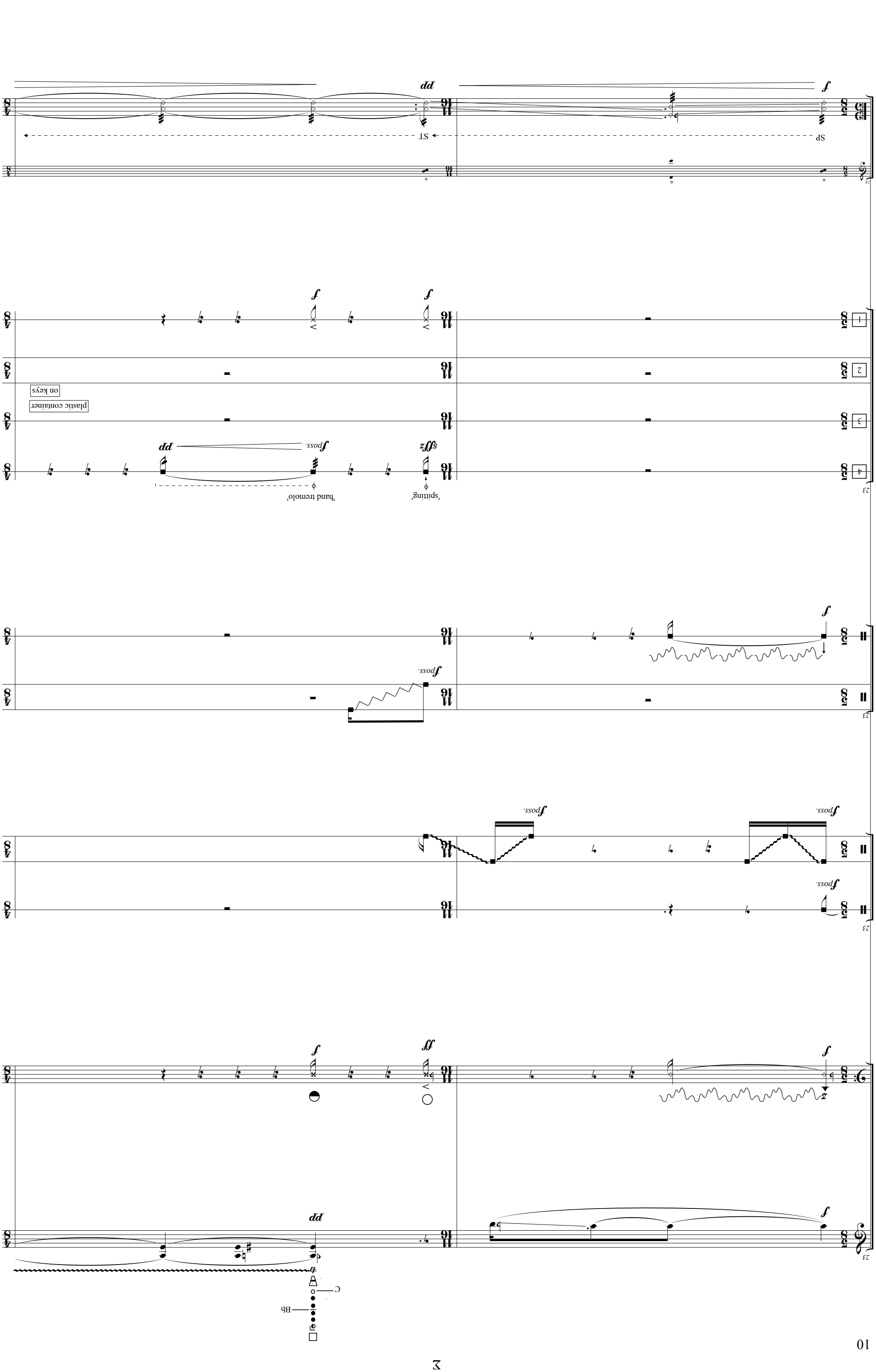
SP
II, I

ST

pp

f

pp


'spitting'
'hand tremolo'
plastic container
on keys
SP
ST
Bb
C

25

f

25

arco

polystyrene
(mounted on stand)

ceramic mug

large metal bowl

f

*f**poss.***

25

ceramic lid

ceramic pot

*f**poss.***

f

25

4

3

2

1

plastic container

on keys

pp

f

pp

mp

Ped. I

25

SP

mp

pizz.

f

SCORE IN C

Φ

CAMILO MÉNDEZ
BANFF-LONDON 2015-16

Oboist 1

(subito) ♪= 120

Saxophonist 2

(subito) ♪= 120

Percussionist I 1

(subito) ♪= 120

ceramic mug

large metal bowl

f

plastic card

corrugated pipe

fposs.

pp

fposs.

Percussionist II 2

(subito) ♪= 120

small metal bowl

metal sheet

plastic card

corrugated cardboard

p

fposs.

fposs.

fposs.

sand paper

polystyrene
(flat on table)

pp

Pianist 3

(subito) ♪= 120

Bassist 5

(subito) ♪= 120

© CAMILO MÉNDEZ 2016

teeth on reed

knitting needle

large metal bowl

small metal bowl

metal sheet

blowing

plastic card

'hand tremolo'

plastic card

on keys

senza Ped. I
(secco)

SP
II, I

key clicks

ceramic mug

large metal bowl

arco

polystyrene
(mounted on stand)

on keys

plastic card

on keys

SP
II, I

Ped. I

subito
♪ = 66

C#

tr

pp

ppp

pp

ppp

subito
♪ = 66

z

pp

Bb
Eb
C

tr

ppp

p

subito
♪ = 66

fposs.

pp

subito
♪ = 66

ceramic lid
ceramic pot

pp

subito
♪ = 66

keyboard lid

f

subito
♪ = 66

pp

C#

tr

13

pp ppp pp ppp pp

ppp p ppp

13

pp

13

pp

13

4 plastic container on keys

3

pp mf

2 plastic container on keys

1

accel.

C#

16

ppp pp ppp pp ppp pp

accel.

Bb

Eb

C

ppp pp ppp pp ppp pp

accel.

16

fposs. p

16

pp

fingers

plastic bag

pp

accel.

16 8

p

3

2

1

accel.

19

secco
slap

p

19

plastic card
corrugated pipe

19

small metal bowl
metal sheet

19 8

3

2

1

19

SP
IV, III

p

subito
♪= 112

21

C B

pp p pp p

subito
♪= 112
open
slap

ff pp f pp

subito
♪= 112

sand paper

polystyrene
(flat on table)

knitting needle

large metal bowl

fposs. pp pp fposs. pp

fposs. fposs.

subito
♪= 112

f pp fposs.

arco

polystyrene
(mounted on stand)

f pp

subito
♪= 112

f

3

2

plastic card

on keys

1

plastic card

on keys

fposs.

fposs.

senza Ped. I
(secco)

subito
♪= 112

f

SP
II, I

f pp

24

pp

pp

f

key clicks

fposs.

ff

key clicks

fposs.

ff

ff

arco

polystyrene
(mounted on stand)

fposs.

small metal bowl

metal sheet

fposs.

fposs.

pp

sand paper

polystyrene
(flat on table)

fposs.

fposs.

4

3

2

1

SP
II, I

f

pp

f

pp

26

1.

ff

pp

f

key clicks

fposs.

1.

pp

26

f

pp

fposs.

pp

26

fposs.

arco

polystyrene
(mounted on stand)

f

pp

26

4

3

2

1

Ped. I

26

SP
II, I

pp

f

28

f

ff

ff

28

f

ceramic mug

large metal bowl

fposs.

pp

fposs.

fposs.

28

sand paper

polystyrene
(flat on table)

fposs.

28

4

3

2

keyboard lid

1

f

plastic card

on keys

fposs.

fposs.

senza Ped. I
(secco)

pizz.

f

pizz.

f

12

C#

30

pp ppp pp ppp

z

pp

30

fposs. pp

30

ceramic lid

ceramic pot

pp

30

4

3

2

1

Ped. I

SCORE IN C

Ψ

CAMILO MÉNDEZ
BANFF-LONDON 2015-16

Oboist 1

(subito)
♪= 56

Eb

pp

Saxophonist 2

(subito)
♪= 56

c1
c3
(C)

pp

Percussionist I 1

(subito)
♪= 56

ceramic mug
large metal bowl

pp

Percussionist II 2

(subito)
♪= 56

ceramic lid
ceramic pot

pp

Pianist 3

(subito)
♪= 56

plastic container
on keys

keyboard lid

ppp

mp

f

senza Ped. I
(secco)

Ped. I

Bassist 5

(subito)
♪= 56

SP
II, I

pp

© CAMILO MÉNDEZ 2016

Ψ

pp

pp

pp

pp

plastic container

on keys

pp

f

f

pp

f

pp

subito
♪= 112

p

mf

pp

subito
♪= 112

p

teeth on reed

pp

mf

subito
♪= 112

f

pp

fposs.

plastic card

corrugated cardboard

fposs.

subito
♪= 112

small metal bowl

metal sheet

fposs.

sand paper

polystyrene
(flat on table)

fposs.

subito
♪= 112

plastic container

on keys

pp

f

pp

plastic container

on keys

f

pp

keyboard lid

f

subito
♪= 112

mf

col legno
battuto.

f

MST
IV

ppp

Ψ

10

slap

Bb

arco

polystyrene
(mounted on stand)

blowing

plastic card

'hand tremolo'

ceramic lid

ceramic pot

blowing

plastic card

'spitting'

keyboard lid

SP
III

13

secco
slap

c5
C

1.

slap

'spitting'

ceramic mug

large metal bowl

small metal bowl

metal sheet

SP
II, I

Ψ

molto rall.

16

Eb

f *pp* *ppp*

molto rall.

ff *mp* *ppp* *pp*

molto rall.

16

fposs. *f* *pp* *fposs.*

molto rall.

16

fposs.

ceramic lid

ceramic pot

pp

molto rall.

16

blowing

plastic card

'hand tremolo'

4

3

2

1

fposs. *pp* *pp*

senza Ped. I
(secco)

Ped. I

molto rall.

16

SP
II, I

mf *mp* *ppp*

19

pp ppp pp ppp pp ppp

♪ = 76

Bb

ppp pp mf

19

pp fposs.

19

pp fposs.

19

4 3 2 1

f pp f pp f pp

19

SP
IV, III

mf pp

♪ = 76

Ψ

subito
♪= 56
22
pp
p
pp
p
pp
B
C
subito
♪= 56
ff
Bb
ppp

subito
♪= 56
22
e-tooth brush
aluminium foil
on

subito
♪= 56
22
frother
aluminium foil
on

subito
♪= 56
22
4
3
2
1

22
subito
♪= 56
f

25

C — Bb

tr

pp

p *mf* *p* *mf*

25

off

25

off

25

4

3

GEL
(flexible polycarbonate)

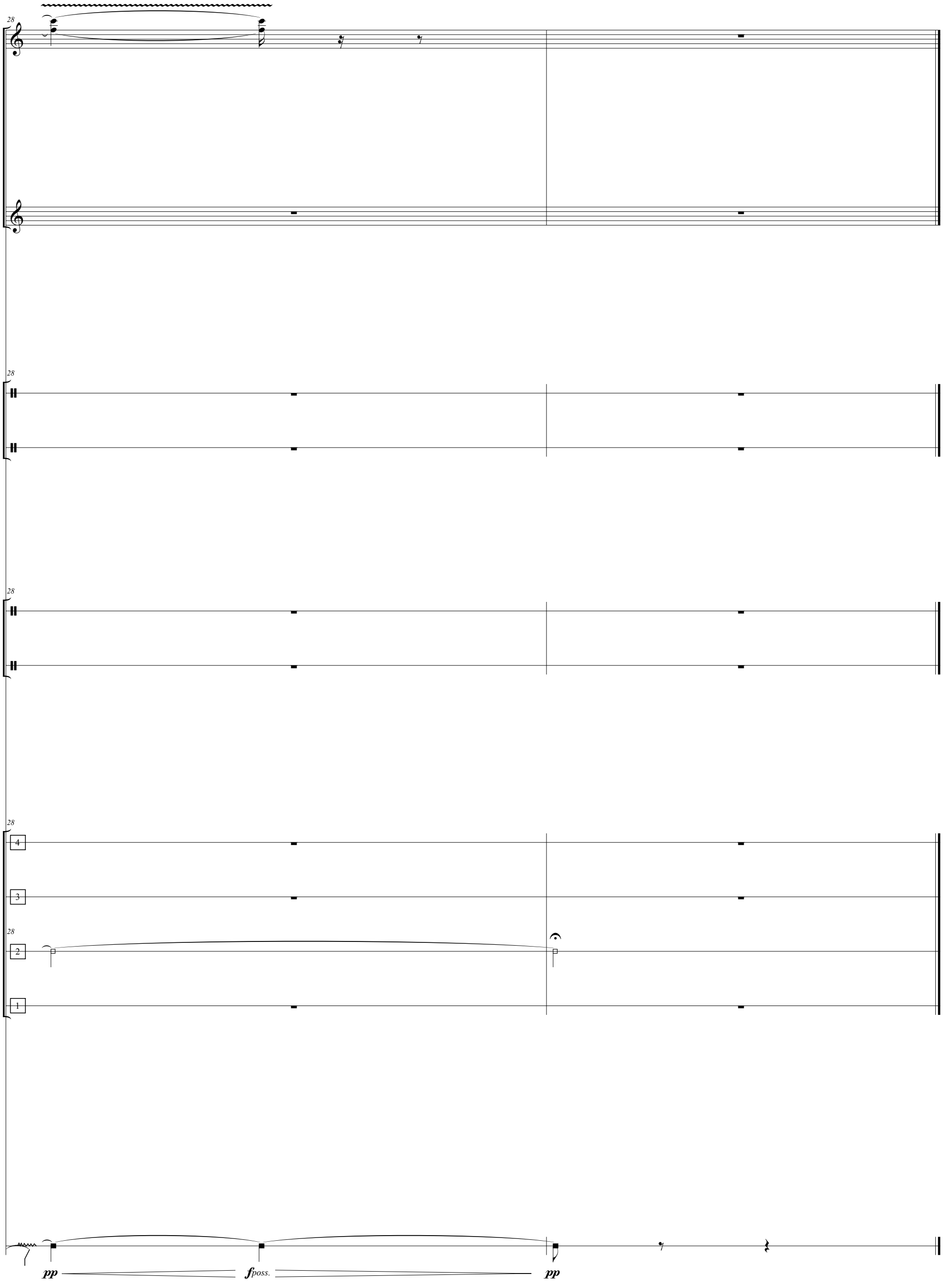
2

p

1

on bridge
(IV, III)

pp *f poss.* *pp* *f poss.*


28
28
28
28
28
4
3
2
1
pp
fposs.
pp

SCORE IN C

Ω

CAMILO MÉNDEZ
BANFF-LONDON 2015-16

Oboist 1

(subito) ♪ = 48

Saxophonist 2

(subito) ♪ = 48

Percussionist I 1

(subito) ♪ = 48

fingers
plastic bag
p

Percussionist II 2

(subito) ♪ = 48

small metal bowl
metal sheet
fposs.

Pianist 3

(subito) ♪ = 48

plastic container
on keys
p *mf*
Ped. I

Bassist 5

(subito) ♪ = 48
arco
on bridge
(IV, III)
ppp *mp* *ppp* *mp*

© CAMILO MÉNDEZ 2016

subito
♪ = 40
Eb
Bb
ppp
pp
p
ppp
subito
♪ = 40
p
ppp
subito
♪ = 40
sand paper
polystyrene
(flat on table)
small metal bowl
metal sheet
fposs.
fposs.
fposs.
fposs.
subito
♪ = 40
frother
aluminium foil
on
off
arco
polystyrene
(mounted on stand)
fposs.
ppp
subito
♪ = 40
4
3
2
1
p
mf
subito
♪ = 40
ppp
mf
fposs.

accel.

ppp pp

accel.

open

slap

ff

teeth on reed

pp

accel.

arco

polystyrene
(mounted on stand)

fposs. ppp

accel.

accel.

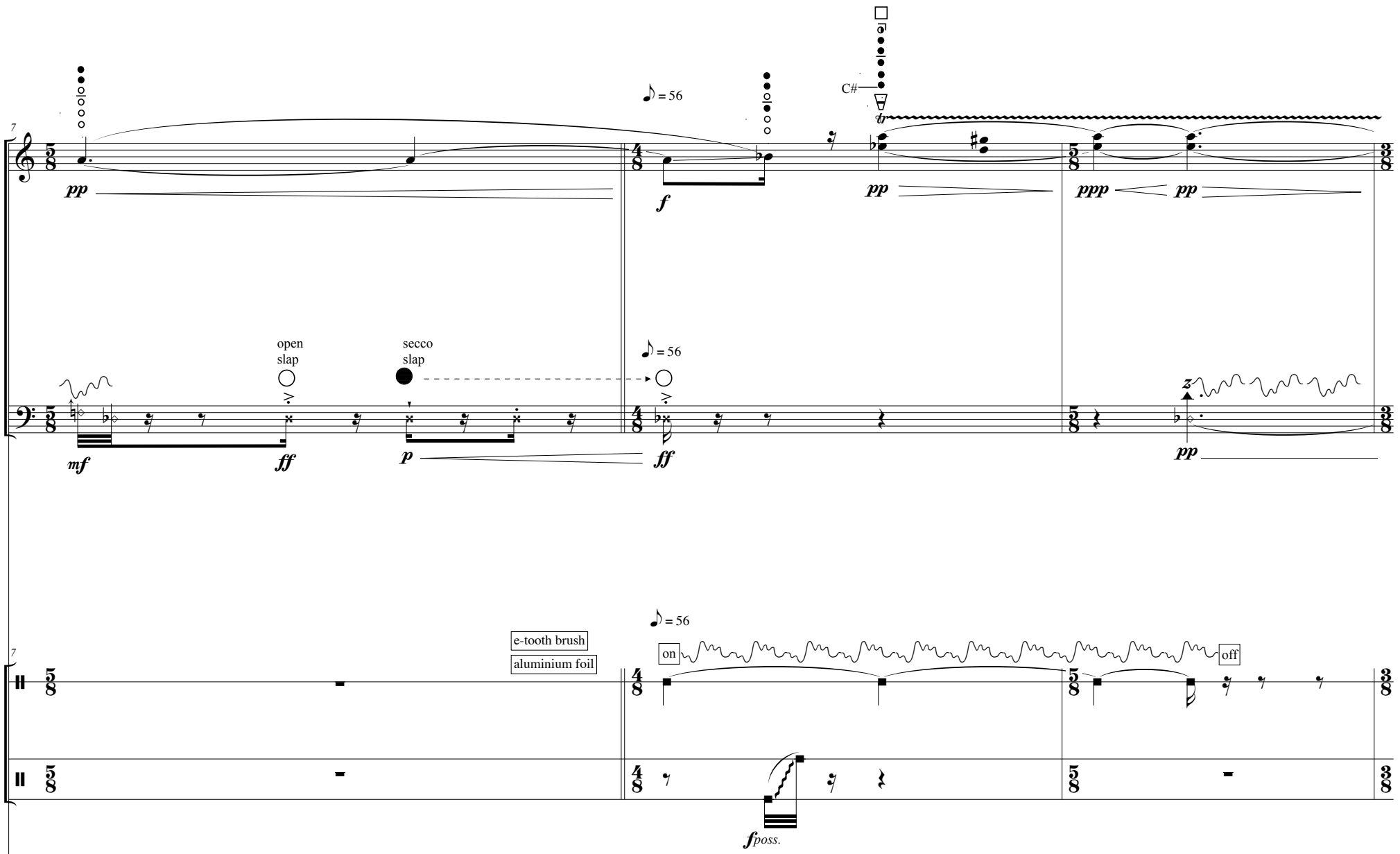
keyboard lid

f

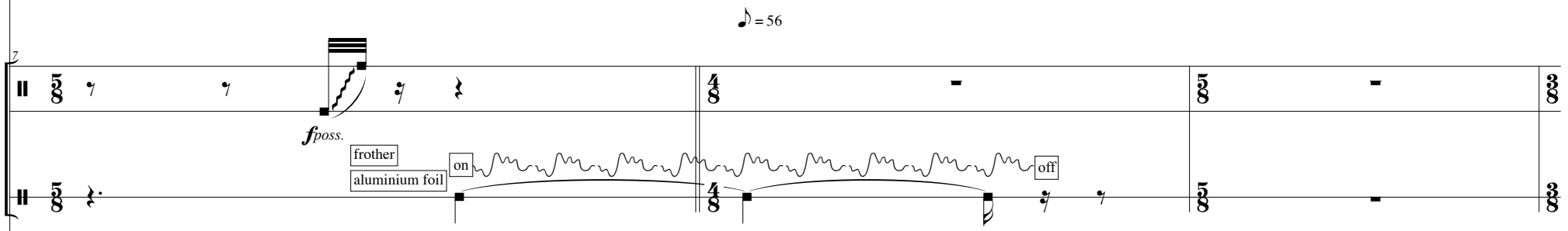
senza Ped. I
(secco)

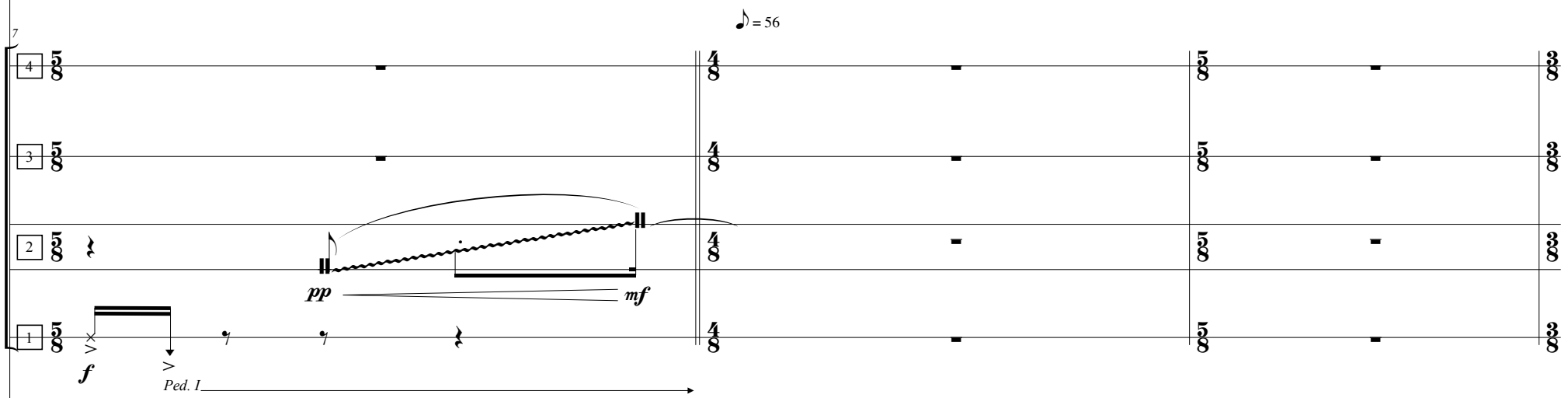
accel.

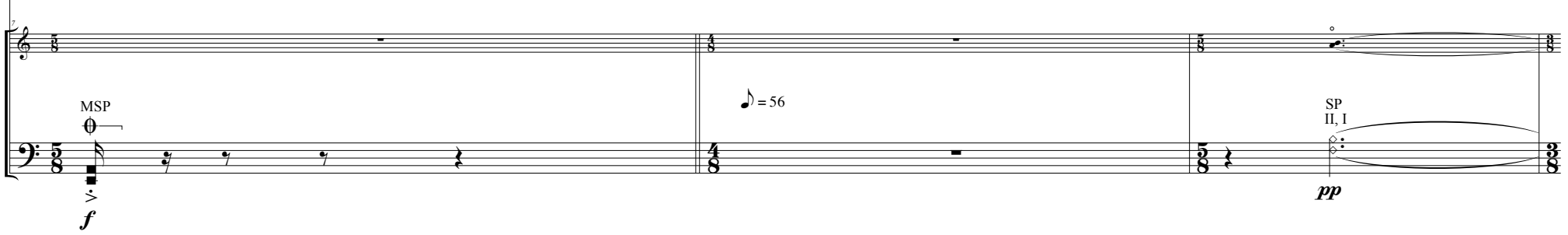
pp fposs. pp fposs.

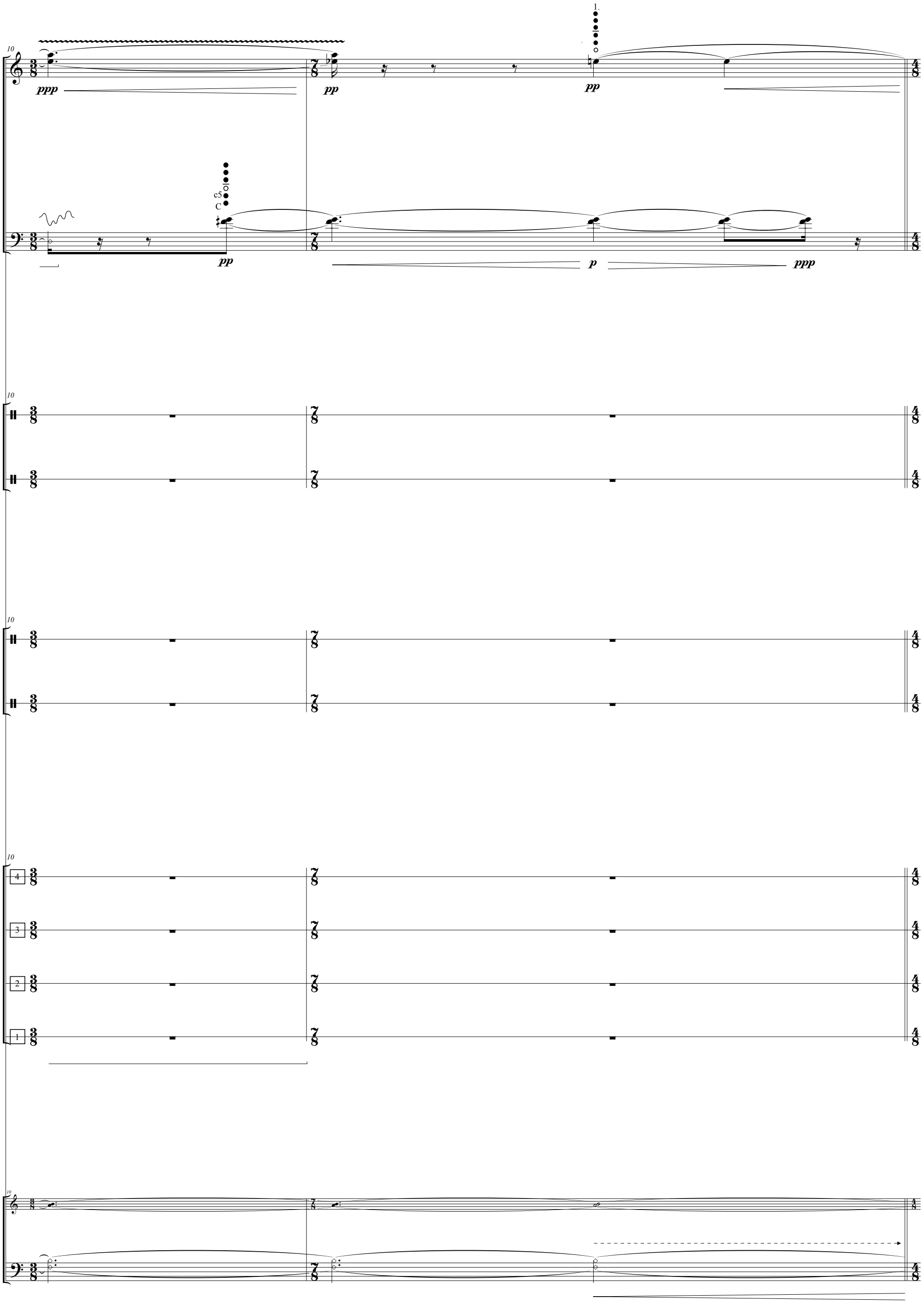

7
pp
f
pp
ppp
pp
C#
open
slap
secco
slap
mf
ff
p
ff
pp
z

7
e-tooth brush
aluminium foil
on
off
fposs.


7
fposs.
frother
aluminium foil
on
off


7
4
3
2
1
pp
mf
f
Ped. I


7
MSP
f
SP
II, I
pp


10
ppp
pp
1.
pp
c5
C
pp
p
ppp
10
10
10
4
3
2
1
10

subito
♪ = 96

12

f

pp

f

subito
♪ = 96

ff

ff

z

pp

subito
♪ = 96

12

arco

polystyrene
(mounted on stand)

pp

f poss.

subito
♪ = 96

12

f poss.

sand paper

polystyrene
(flat on table)

f poss.

pp

subito
♪ = 96

12

4

3

2

keyboard lid

1

f

Ped. I

12

subito
♪ = 96
MSP

f

15

C#

pp *f* *ppp* *pp*

f *ff* *pp*

15

fingers

plastic bag

fposs. *ppp*

fposs.

15

fposs.

fingers

plastic bag

ppp

15

4 3 2 1

f *p*

f

senza Ped. I
(secco)

15

SP
II, I

MSP

pp *f*

18

ppp pp pp f pp

1.

pp ff

Bb

C

tr

p ppp

18

fposs.

18

blowing

plastic card

'hand tremolo'

fposs.

p

18

4

3

2

1

f pp

f

Ped. I

18

ST SP

I

II

p ppp

C#—Eb

tr

21

ppp

pp ppp

p ppp p

21

21

21

4

3

2

1

pp f

21

p ppp p ppp pp ppp

24

subito
♪ = 40

pp ppp

pp

pp

p

B
C
D

subito
♪ = 40

ppp

p

c3 Bb
C

subito
♪ = 40

24

fingers
plastic bag

pp

e-tooth brush
aluminium foil

on

p

subito
♪ = 40

24

fingers
plastic bag

pp

frother
aluminium foil

p

on

subito
♪ = 40

24

4
3
2
1

pp

mf

plastic container
on keys

mf

pp

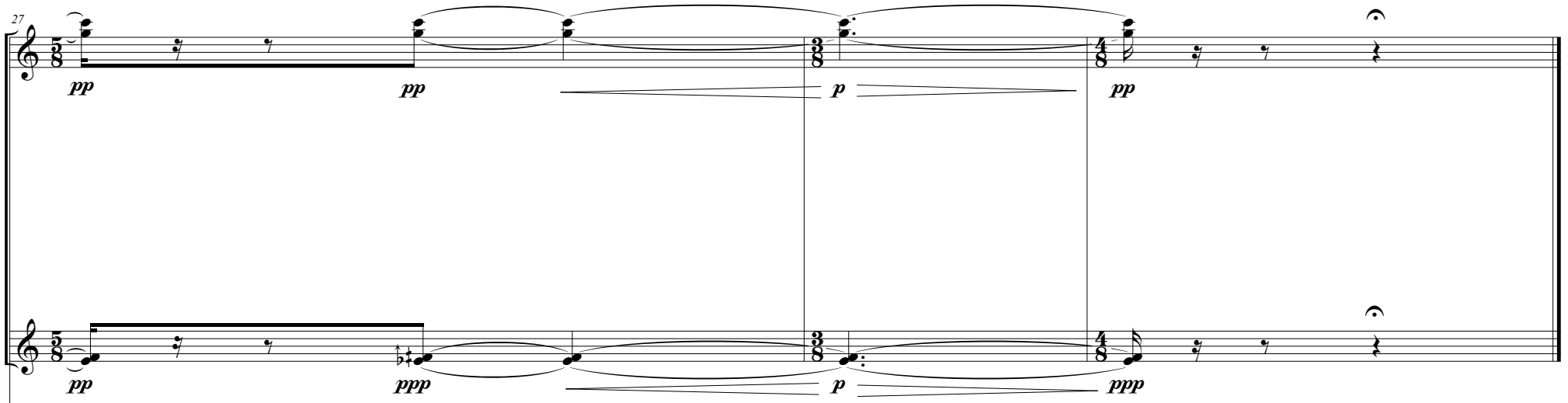
24

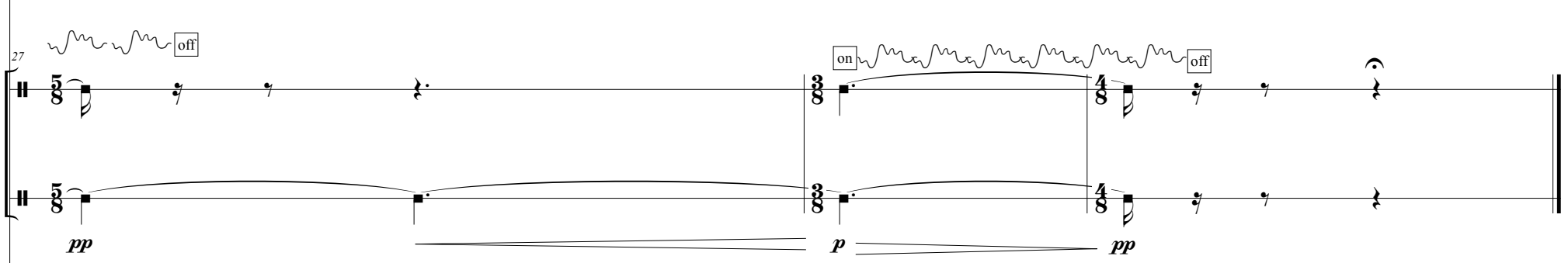
subito
♪ = 40
SP
IV, III

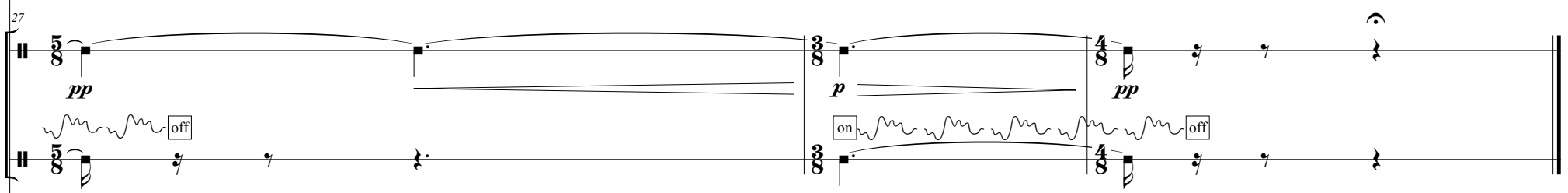
pp ppp

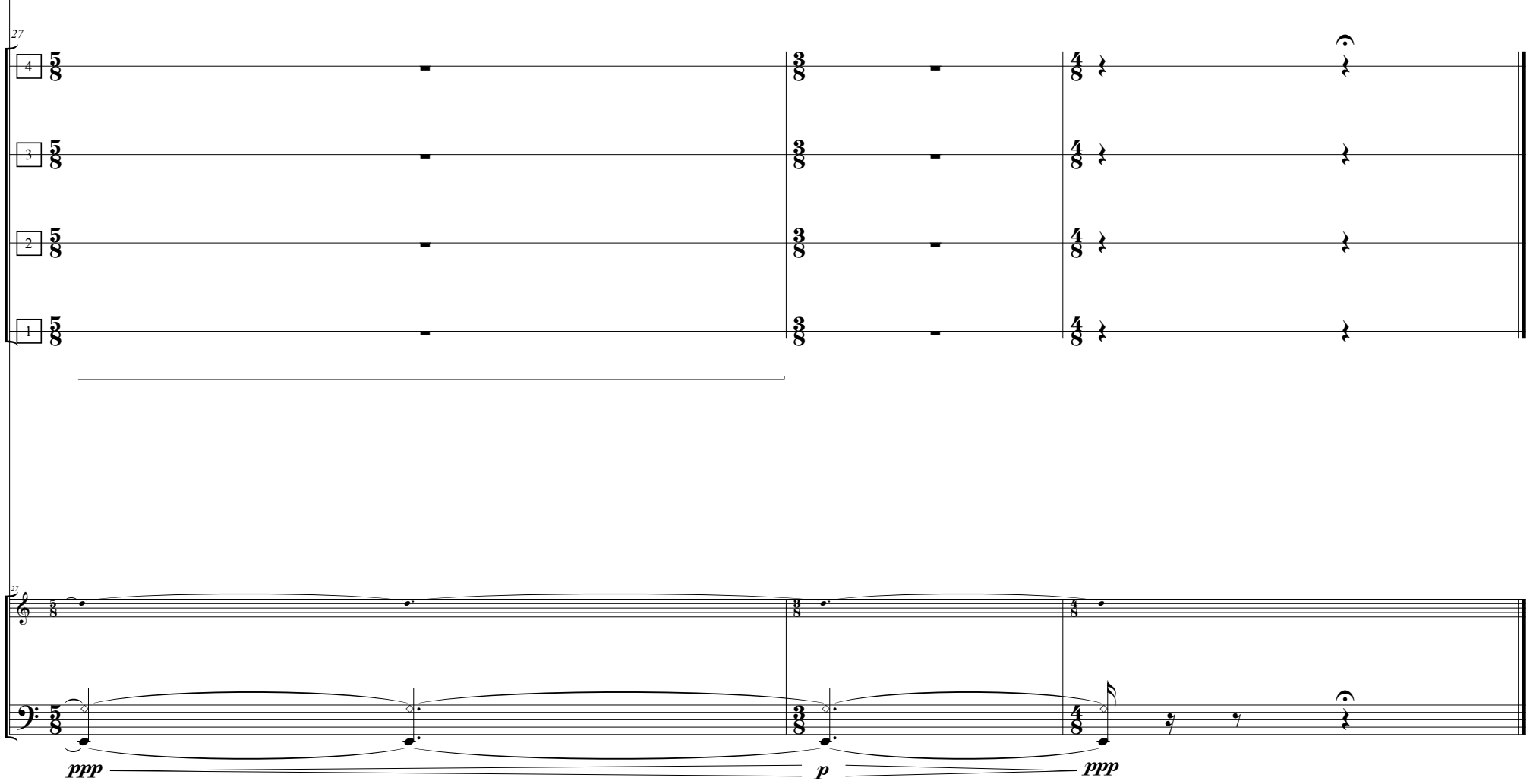
ppp

p


27
pp
pp
p
pp
pp
ppp
p
ppp


27
off
on
off
pp
p
pp


27
pp
p
pp
off
on
off


27
4
3
2
1

27
ppp
p
ppp