

# **Exvot III**

*(Backgrounds)*

*for violin, string ensemble, electric keyboard and bells*

Sara Cubarsi, Nov 2017  
for Violeta

# Exvot III (Backgrounds)

## PERFORMANCE NOTES

### PERFORMERS NEEDED

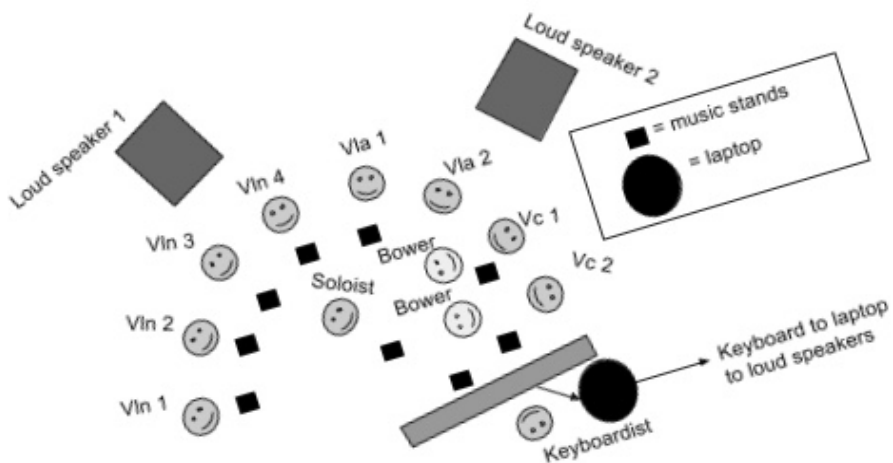
- 1 solo violinist (with a modern bow)
- 4 violinists (special bowing technique)
- 2 violists (special bowing technique)
- 2 cellists (no bow)
- 2 assistants / personal bowers (bowing the 2 cellos)
- 1 keyboardist

### OTHER MATERIALS

- 4 small bells tied to a horsetail hair\*
- 2 equally heavy non-ringing objects (e.g. wooden branch, small bell with wax inside so that it can't ring) tied to a horse hair\*
- 4 larger bells with no hair attached\*
- Laptop: Max / 7 tuning patches for the electric midi keyboard, to be processed through the Helmholtz Calculator program (also available by the maker <http://www.marcsabat.com/> for free) \*
- speakers

*\*available and provided by the composer*

### STAGE PLAN



## SCORDATURA

### Soloist

- The A (440 Hz) and the D strings are tuned as a just fifth.
- The fourth string is tuned as a 3:5 to the D-string. [F-comma-up in the HEJI notation]
- The first string is tuned as a 11:8 over the C tuned to the F as a 3:2. [F-comma-up one-quarter-sharp in the HEJI notation (explained here <http://www.marcsabat.com/pdfs/notation.pdf>). It could also be tuned as a 11:4 by stopping the first string on its 4<sup>th</sup> harmonic node and playing it against a C tuned to the 3<sup>rd</sup> harmonic of the D string (A). Otherwise tune at 726 Hz or F# -33 cents.

### String ensemble

- The first, second and third strings are tuned in just fifths (A=440 Hz)
- The fourth string is tuned as a 3:5 to the third string.

## DISTRIBUTION OF BELLS

- The soloist has a bell hanging from each arm, at elbow height. Tighten the bell in the right arm so that it doesn't hit your face when playing 'Background 5'.
- The violin section has a bell hanging from one horse hair end, and another one from their right arm.
- The first cellist's personal bower has two bells, one hanging from each elbow.

### Soloist:

Left Arm: #1  
Right Arm: #2

### Vln 3

Right Arm: #3B  
Bow: #4

### Vln 1:

Right Arm: #10  
Bow: #3A

### Vln 4

Right Arm: #6  
Bow: #5

### Vln 2:

Right Arm: #12 (B)  
Bow: #7

### Vc 1

Bower: #9 and #11

## BOWING

- The **soloist** uses a normal modern bow.
- The **violin section** bows the instrument with one black horse hair with a bell acting as a counterweight on the left side of the instrument, and pulling/pushing with the right hand.



(example pictures of bowing technique used for the violin section)

- The **viola section** bows the instrument with one black horse hair, with a piece of something solid (small branch?) acting as a counterweight on the left side of the instrument, and pulling/pushing with the right hand.
- The **first cellist** fingers the notes, while another performer bows the cello with each hand at each end of one black horse hair. The personal bower has one bell hanging from each arm.
- The **second cellist** fingers the notes, while another performer bows the cello with each hand at each end of one black horse hair. The personal bower does not have any bells.

### **Bowing techniques**

Bowing techniques have been notated to activate bells in different ways. For example:

- Circular bowing: this will generally activate the right arm bell.
- Tremolo: this will generally activate the bow bell.
- Parallel bowing: bowing from poco sul tasto to poco sul pont. This will not really activate bells, but will create a short, relatively aggressive and pitched stroke.

### **Tremolo marking:**

- One dash: subtle alternating of notes, intended to slightly activate the bow arm bells.
- Z sign: activate both bells with circular bowing and bow tremolo.
- Two dashes: circular bowing.
- Three: slow tremolo.
- Four: fast tremolo.

The one-hair technique will enable **bowing the four strings** at once. By changing the angle of the right arm one is able to bow the lowest string on its own, the lowest two strings, the lowest three strings, or all fourth (but not the upper string on its own for example). The music is adapted to this bowing technique, it will be no difficulty to pursue these actions.

## **SHIFTING**

The soloist has a couple of extreme shifts that are used to activate the left arm bell, which will hit the soloist's body with the impulse of the shift. This should be expected, and not avoided.

## **KNEE KNOCKING**

The soloist uses a knee to activate left arm bell.

## **INTONATION**

### **Violin solo**

The pitches have been derived from and inspired by the sound of the bells. All performers should be attentive to the bells.

The soloist's part is written with the Helmholtz Extended JI Notation to approximate notes found in the bells and to place them within a harmonious grid. The harmonies have been derived from these approximations, mostly in 11-limit JI. The soloist must attempt at all times to perform the precisely notated pitches, but at the same time be receptive to the bells, and performatively recognize when a bell

is being represented by a notated pitch on the score. Hitting the bell with the knee is indicated sometimes, to allow tuning into a specific bell.

In an ideal world, I would imagine that the soloist becomes so familiar with the sound of the bells that they could improvise a different solo part. The written solo part could be seen as my personal and possible improvisation responding to these specific bells. Once the written part is learnt, the soloist may change pitches and material, always in connection to the sounding bells, and considering the techniques discussed.

Recognizing the importance of intonation is crucial for this piece. It is by means of this microtonal attempt that we may become in contact with the material reality of these specific bells, the inharmonic timbre of which depends on their specific size, shape, density, etc. Intonation is therefore not an end of its own, but a means to connect with the material world.

### **Strings**

The music for the string section has been notated with traditional flats and sharps, that should be tuned as justly as possible to the given open strings. Whereas the string's part could have been notated with the Helmholtz notation, I decided not to, given the multiple tuning obstacles that the performance technique provides. The performers should let themselves be guided by their open strings and bells.

The 'bell symbol' indicates matching of the predominant bells pitches. Usually each bell has one predominant fundamental pitch. Match that pitch on both bells on the indicated strings. Range and which string (III or IV) for each pitch is up to the performer.

### **Keyboard**

The keyboard part is processed through 7 tuning patches on the Helmholtz Calculator: X1, X2, X3, X4, X5, X6, X7. The keyboardist will have the laptop to its right and change tunings when indicated on their score. The composer will provide guidelines on how to activate tuning patches. The keyboardist should read from the sounding pitch score ignoring the microtonal accidentals and disregarding arrows. E.g. an

F  will be performed as an F on the keyboard. Special attention must be paid to the pedal

(functions like an organ).

### **TIMING**

This music is not be very rhythmically strict. A certain amount of indulging in rhythmic/timing freedom is allowed and expected. 'Background 5' is particularly free. The soloist should lead the harmonic changes. The keyboardist should just follow after the soloist and all parts should approximately move simultaneously, but rhythmic precision or clean harmonic changes are not expected.



# Exvot III (Backgrounds)

Sara Cubarsi, Nov 2017

## Background 1

♩=ca.40

*almost always without L.H. vibrato*

SOLO vln

pp *sul tasto* *ord.* *f* *fp* *subtle (\*)* *f* *fp* *f* *fp*

Keyboard

SOLO vln

*f* *fp* *f* *sp* *pp* IV

Kbd

\* Play this figure 5-7 times,  
on a down and up bow, *ad lib.*



14 *full sound* *f*

16 *very free (poco sul pont)* *f* *poco sul tasto* *pp* *f* *IV (\*)* *sp* *(Let Left Arm bell ring...)*

SOLO vln

Kbd

18 *ord.* *f*

21 *tentatively*

(No pedal)

SOLO vln

Kbd

24 *f* *fp*

27 *attacca (\*\*)*

SOLO vln

Kbd

\* The shift up to the fourth string will make the Left Arm bell hit the soloist's body, and will therefore be activated (matching the pitch region of the played note).

\*\* All 'Backgrounds' are *attacca*

# Background 2

$\text{♩} = \text{ca. } 20$ , very free

(tremolo)

1 2 3 4 5 6 7

Vln I solo

never divisi (see performance notes)

Other violins

(bow bouncing with high velocity, mostly at around 2/3rds of the string, there should be high partials sounding)

SOLO vln

*f* (*mp*) Stay still (G.P.) *p*

Kbd

*pp* *mp*

Press this note directly on the patch until the end of the piece.

(...till end)

8<sup>va</sup>

8<sup>vb</sup>

8 *pp* *mm*

9 (Stay still)

10 Vln4 solo 10 seconds

III  
IV  
fff frenetic ringing of bells

I  
II (\*)  
III

Solo vln bow contact point

SOLO vln

0  
4  
1 (\*)

(II) *gliss.*

rall.

Tune G to Left Arm bell I:0 II:4 III:1

(soft knock of Left Arm Bell)

Soloist's knee

8va

Kbd

(Kbd)

*poco sul pont*

II  
3  
1  
-49 c.

\* the soloist may slightly arpeggiate when playing *molto sul tasto* to sound the three strings, and progressively move to the triple-stop as moving up towards *poco sul tasto*.

# Background 3

♩=ca.20, very free

**1** activate arm bell

**2** **3** **4** **5** **6**

Vln2 solo

Vla1, Vla2

Vcl1, Vcl2

SOLO vln

Kbd

*molto sul tasto*

*tune to Left Arm bell (Upper tone)*

*tune to R.A. bell (lower tone)*

*ad lib.*

*ord.*

*slow free arpeggios* → *fast arp.*

*molto sul pont.* (\*)

$\text{♩} = 153.6$

*pp*

*p*

*pp*

*ff*

*ff!*

*knock!*

*knock!*

*ff*

*15<sup>ma</sup>*

(Kbd)

(Kbd)

*8<sup>vb</sup>*

*ff!*

*pp*

*1 0 2 2*

*1 0 0 3*

*1 0 2 2*

*1 0 0 3*

*soft knock*

*Soloist's knee*

\*This is the 'tempo' of the beating (153.6 beats per minute) between the ongoing F drone and the new drone played by the keyboard.

10

11

12

13

**45 seconds**  
 (Texture with free fades in and out, so that individual sounds come through)

Vc1 solo

(Vc1)

Vln2 Vc1

Vln4 solo

IV

IV

IV

IV

7

SOLO vln

ca. 20

p

Soloist's knee

Kbd

(Kbd)

# Background 4

♩=ca.20, very free

1 *Activate BOTH bells using circular motion and tremolo* *poco a poco decrescendo al niente*

Vln2 solo

*Activate BOW bell (tremolo)* *poco a poco decrescendo al niente*

Vln4 solo

Vla1, Vla2 *poco a poco decrescendo al niente*

Vcl solo *Activate bow bells (tremolo)* *poco a poco decrescendo al niente*

SOLO vln *poco sul pont fast like a mosquito* *(sul pont) ----- sul tasto ----- molto sul tasto* *spicatto*

Kbd

Detailed description of the musical score: The score is for a string ensemble and keyboard. It consists of six staves. The top five staves are for Vln2 solo, Vln4 solo, Vla1 and Vla2, and Vcl solo. The bottom two staves are for SOLO vln and Kbd. The Vln2, Vln4, Vla1/2, and Vcl parts are marked with a circled '1' and the instruction 'Activate BOTH bells using circular motion and tremolo'. The Vln4 part is also marked 'Activate BOW bell (tremolo)'. The Vcl part is marked 'Activate bow bells (tremolo)'. All these parts have a dynamic of 'f' and a performance instruction of 'poco a poco decrescendo al niente'. The SOLO vln part starts with 'poco sul pont fast like a mosquito' and 'ff', followed by a section marked 'spicatto' with performance instructions '(sul pont) ----- sul tasto ----- molto sul tasto'. The Kbd part features long, sustained chords with some movement in the lower register.

7 IV 8 9

Vln1 solo

SOLO vln

Kbd

(Kbd)

*ppp*

*moving forward*

*mf*

*f*

10 IV 11

Vln4 solo

SOLO vln

Kbd

*(une Chevre folle)*

*match bow bell pitch*

*Hit Left Arm bell, Let it ring...*

*spp*

*ff*

# Background 5 (\*)

$\text{♩} = \text{ca. } 20$ , very free

**12** *still non divisi (slow tremolo)*

Humming "m" (all violins)

All violins

**1** **2** **3**

*improvisatory, sharp sounds, in the style of Background 2*

SOLO vln

*poco sp*

*p*

rhythmic "parallel" stroke =ca.100

Vla1, Vla2

Vcl1, Vcl2

*fff!*

*fff!*

I II III

Approximate bowing across 4 strings (SOLO)

Kbd

\* 'Background 5' comprises 4 sound layers that behave like a group of sheep: a crowd moving more or less together, sheep following each other. On the foreground there are (mainly) the soloist's bells (1). Then, there are the arpeggios played by the soloist which are harmonically supported by the keyboardist who follows the soloist (2). On a lower level there is the slow melody of the strings which is like a far-away mysterious fog that is only sometimes seen between the cracks from the 'closer' material (3). The scenery is jeopardized by the presence of a wolf (4) - played by the violas and cellos. Barlines serve to keep the musical material more or less on the same path, but vertical alignment is only a practical and simplified way to express something that could happen slightly more casually, or even chaotically with the exception of the rhythmic material of the cellos and violas (they should be rhythmically together within their group).



4

5

6

7

Humming "m"  
(all violins)

Musical staff for Humming "m" (all violins) showing notes across measures 4, 5, 6, and 7.

All violins

Musical staff for All violins with notes and performance instructions: *(match keyboard Ab)*, *Chaotic rhythmic circular bowing*, *try ff*, and *Tiny circles, high pitched scratch (p)*.

Musical staff for Violins (Vla1, Vla2) and Cellos (Vcl1, Vc2). Includes a box with a rhythmic figure and the instruction: *rhythmic "parallel" stroke as in previous figure* with an arrow pointing to the right.

SOLO  
vln

Musical staff for SOLO vln with notes, dynamic markings *f* and *sf*, and handwritten annotations.

Approximate  
bowing across  
4 strings

Handwritten diagram showing approximate bowing across 4 strings, with scribbles and arrows indicating bowing patterns.

Kbd

Musical staff for Kbd (Keyboard) with notes and performance instructions.

9

10

11

Humming "m"  
(all violins)

8

All  
violins

Vla1,  
Vla2

Vc1,  
Vc2

SOLO  
vln

Approximate  
bowing across  
4 strings

Kbd

ca. 100

rhythmic "parallel" stroke as in previous figure

fff!

fff!

p

ff

The musical score consists of several staves. At the top, a staff labeled 'Humming "m" (all violins)' shows a melodic line with a slur over measures 9, 10, and 11. Below it, the 'All violins' staff has a similar melodic line. The 'Vla1, Vla2' and 'Vc1, Vc2' staves show rhythmic patterns, with a box around measure 8 containing a note and the instruction 'ca. 100 rhythmic "parallel" stroke as in previous figure'. The 'SOLO vln' staff features a melodic line with dynamic markings 'p' and 'ff'. The 'Approximate bowing across 4 strings' staff shows a series of rhythmic strokes with arrows indicating bow direction. The 'Kbd' staff at the bottom shows a harmonic accompaniment with slurs and dynamic markings.

12

13

14

Humming "m"  
(all violins)

All  
violins

ca.100

Vla1, Vla2

Vcl1, Vcl2

*fff!*

*fff!*

rhythmic "parallel" stroke as in previous figure

SOLO  
vln

Approximate  
bowing across  
4 strings

Kbd

15

Humming "m"  
(all violins)

16

17

All violins

Vla1,  
Vla2

Vla1,  
Vla2

Vcl1,  
Vcl2

Vcl1,  
Vcl2

SOLO  
vln

Approximate  
bowing  
across  
4 strings

Kbd

ca.100 rhythmic "parallel" stroke

fff!

fff!

mp

gliss.

f

Musical notation for measures 17-18, showing a rhythmic "parallel" stroke for all violins. The notation includes a treble clef, a key signature of one flat, and a series of notes with stems pointing up and down, indicating a rhythmic pattern. An arrow points to the right from the end of the notation.

Musical notation for measures 17-18, showing keyboard accompaniment. The notation includes a treble and bass clef, a key signature of one flat, and notes with stems pointing up and down. An arrow points to the right from the end of the notation.

Approximate bowing across 4 strings, showing a series of scribbled lines and arrows. The notation is highly stylized and abstract, with many overlapping lines and arrows pointing to the right, indicating the direction of the bowing.

18

All violins

19

*rhythmic "parallel" stroke with Vc*

*gliss.*

*fff!*

(STAGGERED TURN)

Vla1, Vla2

Vc1, Vc2

*rhythmic "parallel" stroke as before (with Vlns)*

*gliss.*

*fff!*

SOLO vln

Approximate bowing across 4 strings

Kbd

**Background 6** *d = ca. 20, very free*

**1** **2**

Vla1,  
Vla2

Vc1,  
Vc2

SOLO  
vln

Kbd

(Take out mute and replace by heavy practice mute)

Heavy mute  
(SOLO) *♩ = ca. 50*

**3** **4** **5**

Vla1,  
Vla2

Vc1,  
Vc2

(SOLO)

6 7

Vla1, Vla2 (Vla 1) (Vla 2)

Vcl1, Vcl2 (Vc 1) (Vc 2)

staggered transition to *behind the bridge*

... *F*-drone ends here:

# Exvot III (Backgrounds)

Sara Cubarsi

## Background 1

**Background 1**

**Tempo:** ♩ = 40

**Performance Instructions:**  
soft, almost always without L.H. vibrato  
*sul tasto*  
*ord.*  
*very free (poco sul pont.)*  
*poco sul tasto*  
*tentatively*

**Dynamic Markings:**  
*f-sp*, *f*, *f-sp*, *f*, *sp*, *pp*, *sp*

**Technical Markings:**  
*8<sup>va</sup>*, *IV*, *3<sup>rd</sup>*, *IV*

The score is presented in two systems. The first system includes a 'Sounding pitch' staff and a 'Tablature' staff. The second system continues with two staves. The notation includes various musical symbols such as notes, rests, slurs, and dynamic markings. The tablature staff uses numbers 0-7 to indicate fret positions. The score is divided into measures by vertical dashed lines.



**Exvot III (*Backgrounds*) – Sara Cubarsi**

it presents a plane with six differentiated but uninterrupted ‘backgrounds’ within which multiple soundscape situations are activated by the performers. what’s in the foreground?

*you crawl towards your friend*

microtonality was just a means to connect with the inherent material nature and qualities of (in this case) the bells.

*‘a life of metal’*

gravity pushes down. the seventh compresses your lungs.

*give up verticality*

the eleventh belongs somewhere above the ground.

*large cow bell*

*church bell*

break down the upright human into two perpendicular entities: God is no longer a separate force from the kneeling exvoto donor, the vertical human is no longer a separate being from the crawling animal.

*two humans*

*(follow) the crowd*

performer groups or singles enact different forces in these fields.

*the passing by of a wolf, or a tempest approaching*

in this Hieronymus Bosch inspired landscape, the soloist represents a singularity which can fluidly change personae.

*a lost ram, the herd*

*la chèvre folle*

*der Tod*

a magic circle: activate the right arm bell with a circular arm motion. match the bell pitch.

please attempt to play justly in tune, with one hair only.

*what does your ear hear?*

it is hanging from one hair. The process of tuning just puts the fragility of the material world in evidence.

*like wax in Descartes’ hands*

all these different entities enter a heterogenous and interdependent performative whole, creating a variety of fields open to multiple interpretations – or to be left uninterpreted.

*you pull off one hair from your tail*