

ALMEIDA-RIBEIRO

Micrômegas

2018

Percussion & Live -> Electronics
SCORE

Percussão & Eletrônica em Tempo Real
PARTITURA

GENERAL INSTRUCTIONS

This piece is about research, sound research. It is a work about capturing and exploring the micro, fragile, and marginalized sounds within the berimbau. The use of electronics functions as a way to emerge new sonic possibilities. This composition borrows its title and concept from Voltaire's homonym work, which was a critic towards the conservative society of his time, as well as to the church and the persecution of science. Voltaire's ideas are still quite contemporary, especially if compared to the recent discussions on posthumanism and the anthropocene.

Notation

Due to the unstable nature of this meta-instrument, one needs to be aware that the score avoids a precise notation. Therefore, it is relatively open, but works also as a document to register the composer's intended sonorities and gestures. Yet, both musicians must contribute to the development of the creative process. Every performance differs from one another due to these physical and acoustical issues.

Tempo

Each measure lasts 15 seconds (inner pulse around 40bpm). Therefore, each system has a total of approximately 30 seconds. More time is allowed, but not shorter than the notated information. A performance of this piece usually lasts between 8 and 10 minutes.

A note on improvisation

The entire piece's structure is fixed. All materials and gestures are given. However, there is plenty of space for improvisation: within the physical and acoustical unpredictability of performance. These are windows that the performers are welcome to interact – among themselves and perceptually.

Fermata

short (break pulsation), medium (explore resonance), long (let sound reach nearly silence).



BERIMBAU

The berimbau must be held by a ton-ton stand (or similar percussion hardware), with the bow part facing down and the string facing up. With both hands free, the player can execute different techniques, such as Ebow and arco (left-hand), while brush and slide (right-hand). To accomplish that, the score is divided in two staves for each hand/technique:

Right-hand

Arco #1: normal string bowing. Usually played in the long part of the string. In the last section, both part of the strings (short and long) are used.

Arco #2: brush string with left-to-right movements using double bass arco (a la Lachenmann).

Slide #1: slide glissandi over string to get a cantabile tone. Explore the possibilities along the instrument.

Slide #2: scrape string with left-to-right movements using guitar (blues) slide.

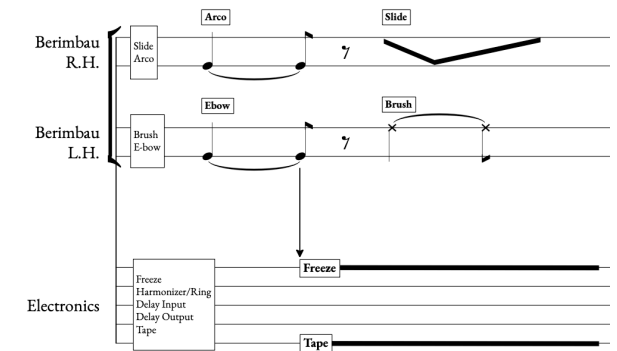
Mordant: used with slide technique, mimics the baroque ornamentation technique in three ways:

Left-hand

E-bow: sustained sound achieved by an Ebow (position 1 for fundamental; position 2 for overtones). It is necessary to seek different positions along the string, in order to get different harmonics.

Buzz: slightly touching the string with the Ebow while vibrating, getting a buzz sound.

Brush: scrape string with left-to-right movements using drum (jazz) brushes.



Noteheads are used in a straightforward way: normal noteheads for tone, 'x' noteheads for noise sounds.

Flautando: type of sound occurred when extremely light bowing is applied, independently of bow placement. It is used mostly to enhance overtones.

ELECTRONICS

The task of the electronics is to extend the sonority of the berimbau. The use of techniques such as freeze, pitch shifting, ring modulation, or even tape playback is to achieve a sonic unity with the berimbau. This piece requires the use of the following equipment:

- Contact microphone (e.g. AKG C411)
- Audio Interface (1 XLR phantom power in., 2 out.)
- Computer with Max 8 (Cycling'74, verify externals)
- Stereo Mixer for sound diffusion (optional)
- Loudspeakers (pair).

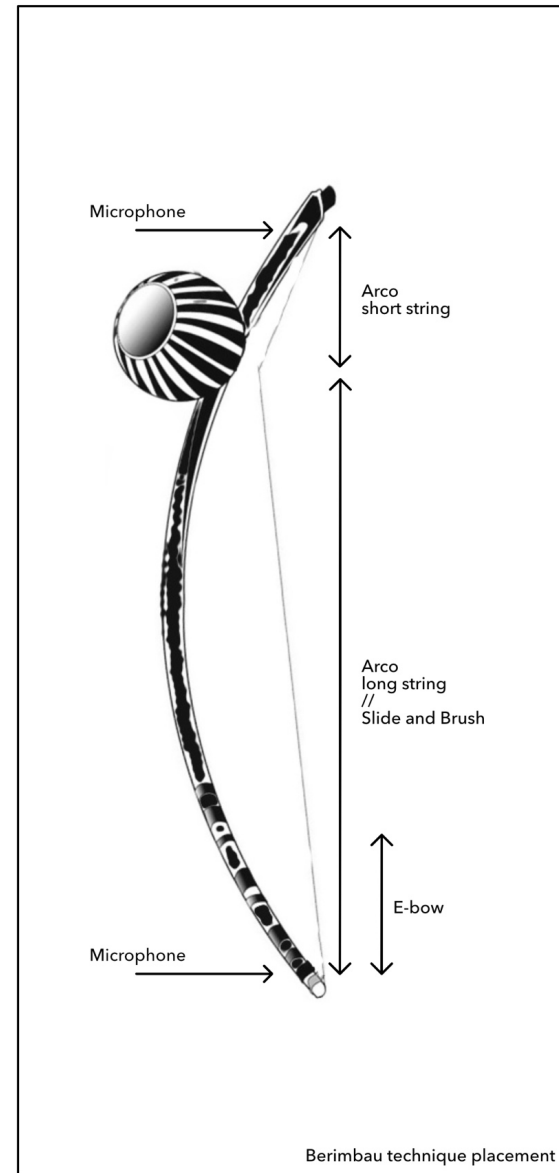
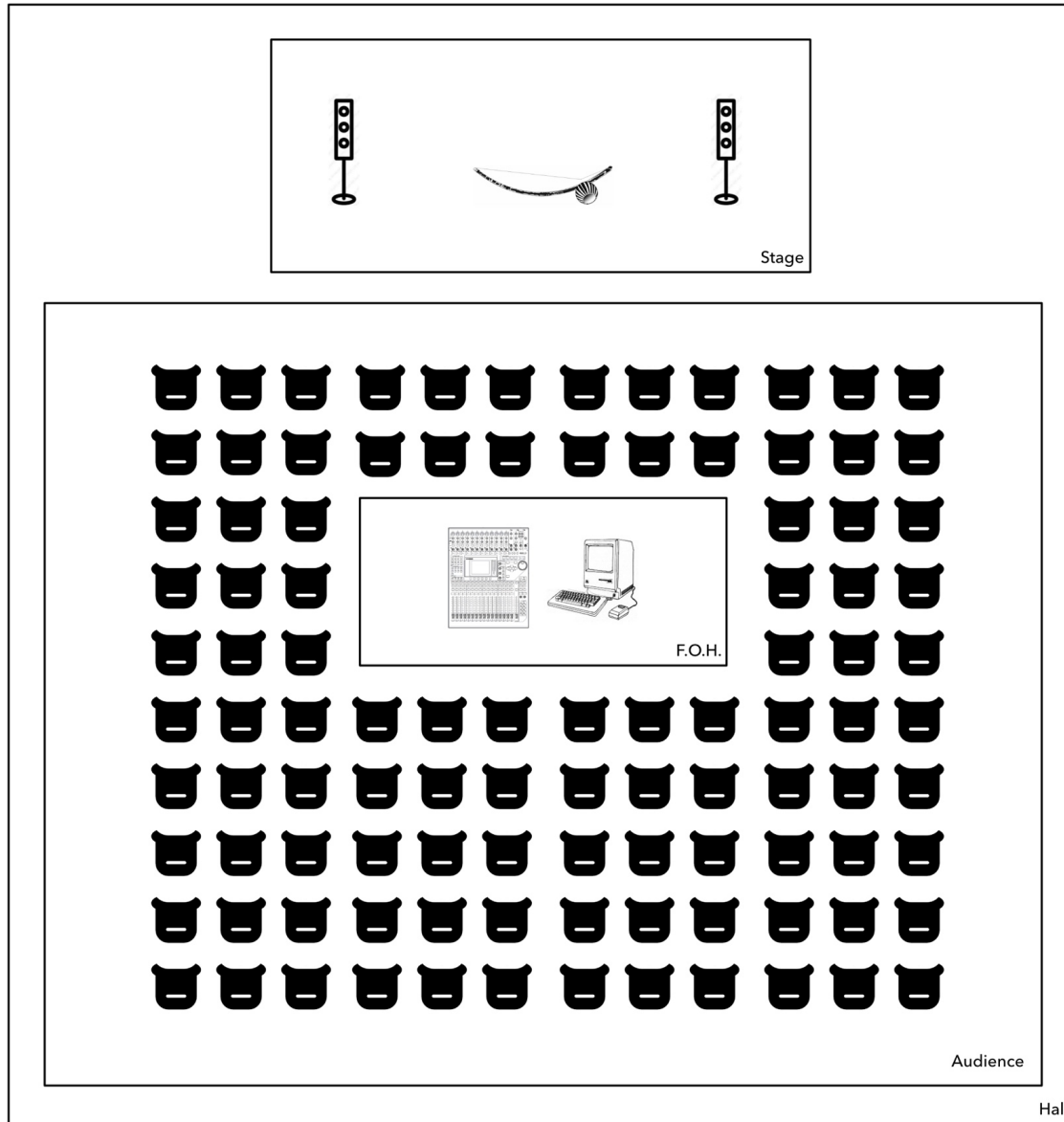
Depending on the instrument, the best **microphone placement** changes. Previous to sound check, one must test the best placement for the contact microphones. Usually it works well at both edges of the berimbau, around the area of contact between string and wood.

The **freeze** effect is the only technique with dynamics notation. Since every capture (“bang” in Max terminology) of a spectrum is played back from *dal niente*, all *cresc.* and *decresc.* must be smoothly performed. Please note that sometimes it is advised to *clear* the freeze’s buffer between rests. To get tone out of the frozen spectra, we suggest to avoid capturing the instrument’s transient attack (the very first milliseconds); to capture noise

sonorities, do the opposite, i.e. capture in sync with each attack.

The use of **delay** is intended to create a second layer of the ‘self’. However, it cannot (re)produce strong gestures. Therefore, do not capture the *mordant* for the delay buffer. Lines are indicated to when to open/close the audio signal to and from the patch. In general, we strongly suggest to use a MIDI controller, to access the patch (e.g. Novation, Akai, Korg etc.).

In addition, frequencies are given for the **harmonizer** and the **ring modulator**. For those more interested in improvisation, there is a random frequency generator in the patch.



Micrômegas

for Percussion and Electronics
written on the occasion of the microFOLIA project

Almeida-Ribeiro

♩ = 40

Ia

Berimbau R.H. Slide Arco

Berimbau L.H. Brush E-bow

Electronics Freeze Harmonizer/Ring Delay Input Delay Output Tape

0% → 70%-80% (sempre)

pp mp mf

l.v. sempre

① ② ③ ① ② ③ ③

Ib

R.H.

L.H.

Ele. Freeze

0" 16" 33" 54"

mp f mf

25¢ 33¢

lc

R.H.

L.H.

Ele.

mp

50¢

freeze

702¢

freeze

3

3

f

1'09"

1'25"

ld

R.H.

L.H.

Ele.

f

mp

mf

f

freeze

freeze

969¢

freeze

freeze

mp

mf

mp

1'40"

1'56"

IIc

R.H.

L.H.

Ele.

①

mf

mp

Del. In
Del. Out

Tape: E-bow 2

3'11"

3'26"



IIId

R.H.

L.H.

Ele.

①

mp

pp

Brush

pp

-1200¢

Harmonizer
Del. In
Del. Out

Tape: E-bow 2

cont.

3'41"

3'56"

IIIa

Musical score for section IIIa. It features three staves: R.H. (Right Hand), L.H. (Left Hand), and Ele. (Electric). The R.H. staff is mostly empty. The L.H. staff contains a long melodic line with various dynamics: *pp* (pianissimo) at the start, *sfz* (sforzando) and *mp* (mezzo-piano) in the middle, and *sfz p* (sforzando piano) in the latter half. There are also markings for *pp* and *sfz p* at the end. The score includes a bracketed section with a '5' and another with a '3'. A note above the first measure says '(interact with tape)'. Below the staves, a box labeled 'Tape: intermezzo' spans the duration of the section.

4'11"

4'26"

IIIb

Musical score for section IIIb. It features three staves: R.H. (Right Hand), L.H. (Left Hand), and Ele. (Electric). The R.H. staff contains notes with dynamics *mp*, *mf*, *mp*, and *mf* leading to *f*. There are markings for 'Arco (brush)', 'tone', and 'brush'. The L.H. staff contains notes with dynamics *mp* and *mp*. There are markings for '3' and '5'. Below the staves, three boxes labeled 'Freeze' are positioned under the R.H., L.H., and Ele. staves respectively. Below the staves, a box labeled 'Tape: cabaça-reco' spans the duration of the section.

4'41"

4'56"

IIIc

R.H. tone *mp* *mf* *f* *mp* *p* *mf* brush *3* *5* *3* *5*

L.H. *mp* *f*

Ele. Freeze 0¢ 50¢ *f*

Tape: cabaça-reco cont.

Detailed description: This musical score for section IIIc is divided into two measures. The first measure (5'15") features a right-hand (R.H.) line with a melodic line starting on a whole note, marked *mp* and accented. The left-hand (L.H.) line is silent. The electric (Ele.) line has a 'Freeze' box and a dynamic curve that rises from 0¢ to a peak and then falls. The second measure (5'32") continues the R.H. line with a melodic line marked *mf*, followed by a triplet of eighth notes marked *f*, then a quintuplet marked *mp* with the instruction 'brush', and finally a triplet marked *p* and a quintuplet marked *mf*. The L.H. line has a melodic line marked *mp* and a dynamic curve that rises to a peak and then falls. The Ele. line has a 'Freeze' box and a dynamic curve that rises to a peak and then falls, with a '50¢' marking.

5'15"

5'32"

III d

R.H.

L.H. *mp* *mp* *mp*

Ele. Freeze *mp* Freeze *mp*

Detailed description: This musical score for section III d is divided into two measures. The first measure (5'47") features a right-hand (R.H.) line that is silent. The left-hand (L.H.) line has a melodic line marked *mp* and a dynamic curve that rises to a peak and then falls. The electric (Ele.) line has a 'Freeze' box and a dynamic curve that rises to a peak and then falls, with a 'mp' marking. The second measure (6'02") continues the R.H. line that is silent. The L.H. line has a melodic line marked *mp* and a dynamic curve that rises to a peak and then falls. The Ele. line has a 'Freeze' box and a dynamic curve that rises to a peak and then falls, with a 'mp' marking.

5'47"

6'02"

IVc

R.H. *p* *pp* punta d'arco

L.H.

Ele. Ring 350Hz 750Hz

7'17"

7'32"

IVd

R.H. flautando *pp* *pp*

L.H.

Ele. Ring 950Hz 350Hz

7'47"

8'02"

8'18"