

Michael Jarrell
Rhizomes
1993

Rhizomes_2013
2013



The setup and the execution of the electroacoustic part
of this work requires a Computer Music Designer (Max expert).

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Work related information

Performance details

- May 17, 1993, Paris, Centre Georges-Pompidou

Publisher : Lemoine

Detailed staff

- 2 pianos, 2 percussionists

Realisation

- Thomas Hummel
- Zack Settel

Useful links on Brahms

- [*Rhizomes Assonance VIIb*, for two pianos, two percussionists and electroacoustic device \(1993\), 15mn](#)
- [**Michael Jarrell**](#)

Version related information

Performance date: Oct. 12, 2013

Documentation date: Dec. 4, 2013

Version state: valid, validation date : May 3, 2018, update : May 6, 2021, 3:09 p.m.

Documentalist

Augustin Muller (Augustin.Muller@ircam.fr)

You noticed a mistake in this documentation or you were really happy to use it? Send us feedback!

Realisation

- Augustin Muller (Computer Music Designer)

Version length: 15 mn

Default work length: 15 mn

Upgrade Motivation

No Midi Piano needed.

Audio following for piano 1.

New transport, new follower.

Max 6.1.x version, fixed harmonizers.

Comment

played in concert at the Venezia Biennale festival with Makrokosmos quartet

Other version(s)

- Michael Jarrell - Rhizomes - portage 2020 (April 9, 2020)
- Michael Jarrell - Rhizomes - transfert_mustica_ftp (April 14, 2010)
- Michael Jarrell - Rhizomes - Macintel version (Nov. 5, 2009)
- Michael Jarrell - Rhizomes - Macintosh version (June 3, 2004)
- Michael Jarrell - Rhizomes - Premiere (May 17, 1993)

Electronic equipment list

Computer Music Equipment

- 1 MacBook Pro - *Apple Laptops* (Apple)
- 1 Max 6 - *Max* (Cycling74)
version 6.1 or above
- 1 antescofo~ - *External objects* (Ircam)
- 1 Fireface 400 - *Sound Board* (RME)
- 6 Footswitch / Sustain Pedal - *Footswitch / Sustain Pedal*
percussions may need more than a single pedal ...

Audio Equipment

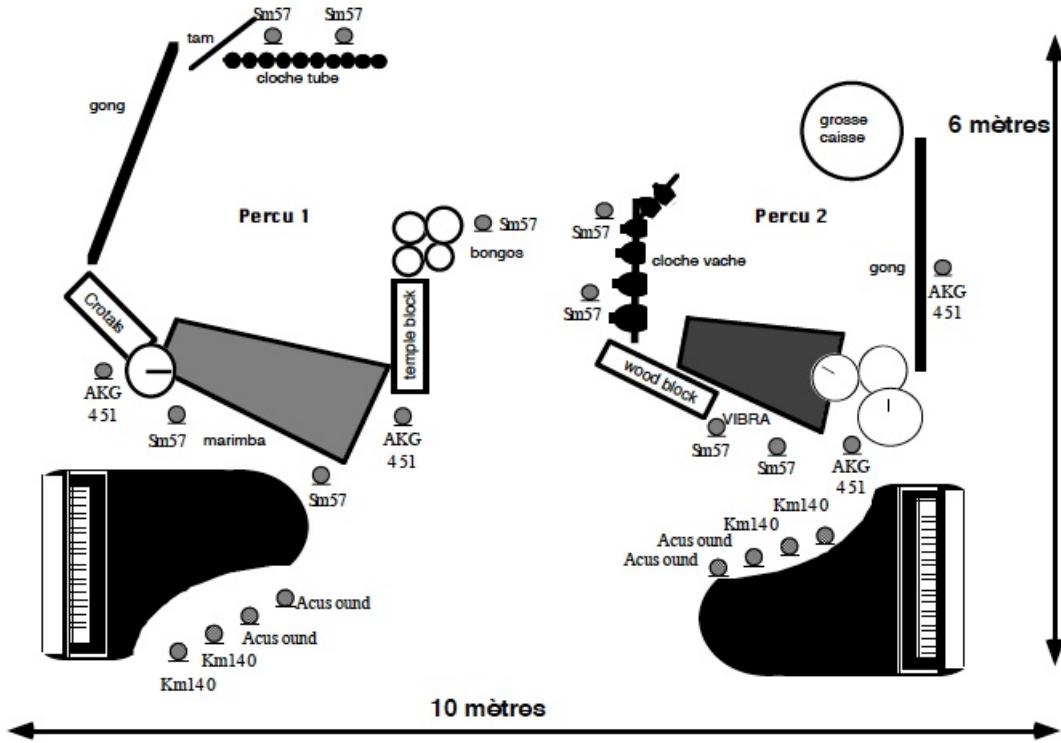
- 4 Loudspeaker - *Loudspeakers*
- 1 Mixing Console - *Mixing Console*
- 1 Reverberation Processor - *Reverberation*

Files

File	Type	Author(s)	Comment
Rhizomes-2013_venise.zip	Patch	Augustin Muller	Patch, score & dependencies
Rhizomes_simulations.zip	Simulation files		

Instructions

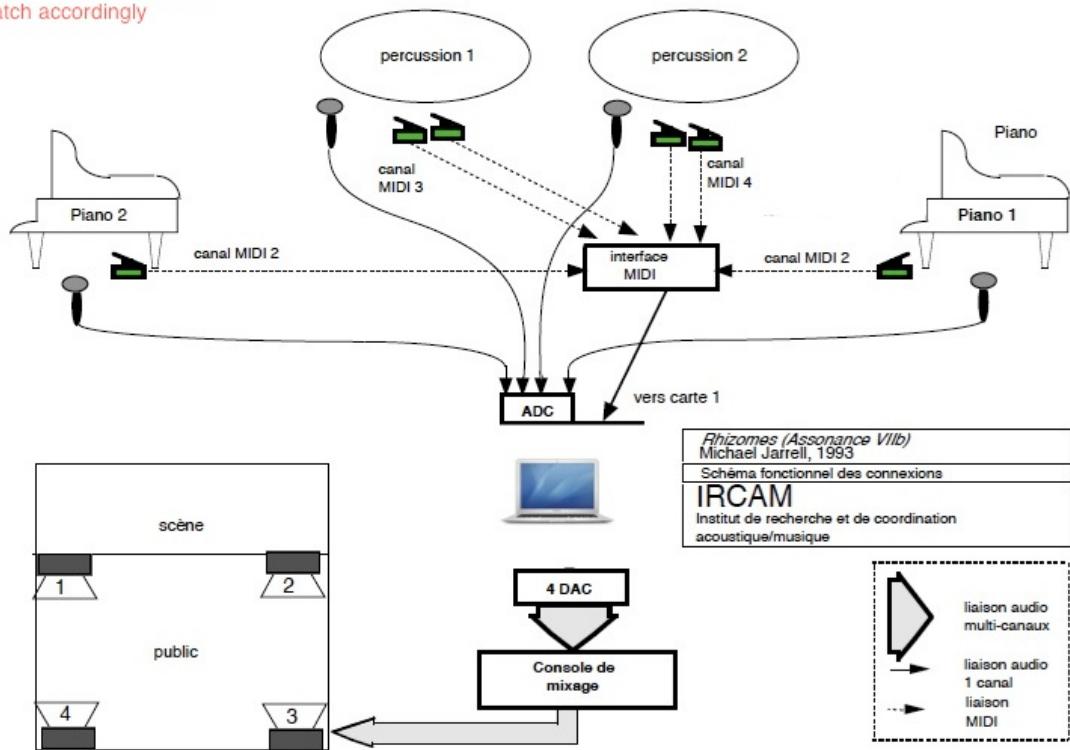
microphones and stage setup



Loudspeakers and Midi setup

Schéma des connexions de *Rhizomes*

nota : in this version (2013), all pedals were merged on 1 midi channel. If for practical reasons pedals are separated (like on this plan), modify the midi io subpatch accordingly



Software installation

Please use Max 6.1 or higher

Place the whole Rhizomes-2013_venise folder in your Max file preferences

DSP Status:

- Fs : 44.1kHz
- IO : 256
- VS : 128
- Overdrive : On.
- Audio Interrupt : Off

System calibration and tests

You can use the simulations subfolder provided.

piano1_suivi-rec provides samples for testing the follower in specified sections.

Two simulations are provided : an Ableton Live project made at ircam in 2013 with the Makrokosmos quartet, and an older one (undated)

Audio Inputs

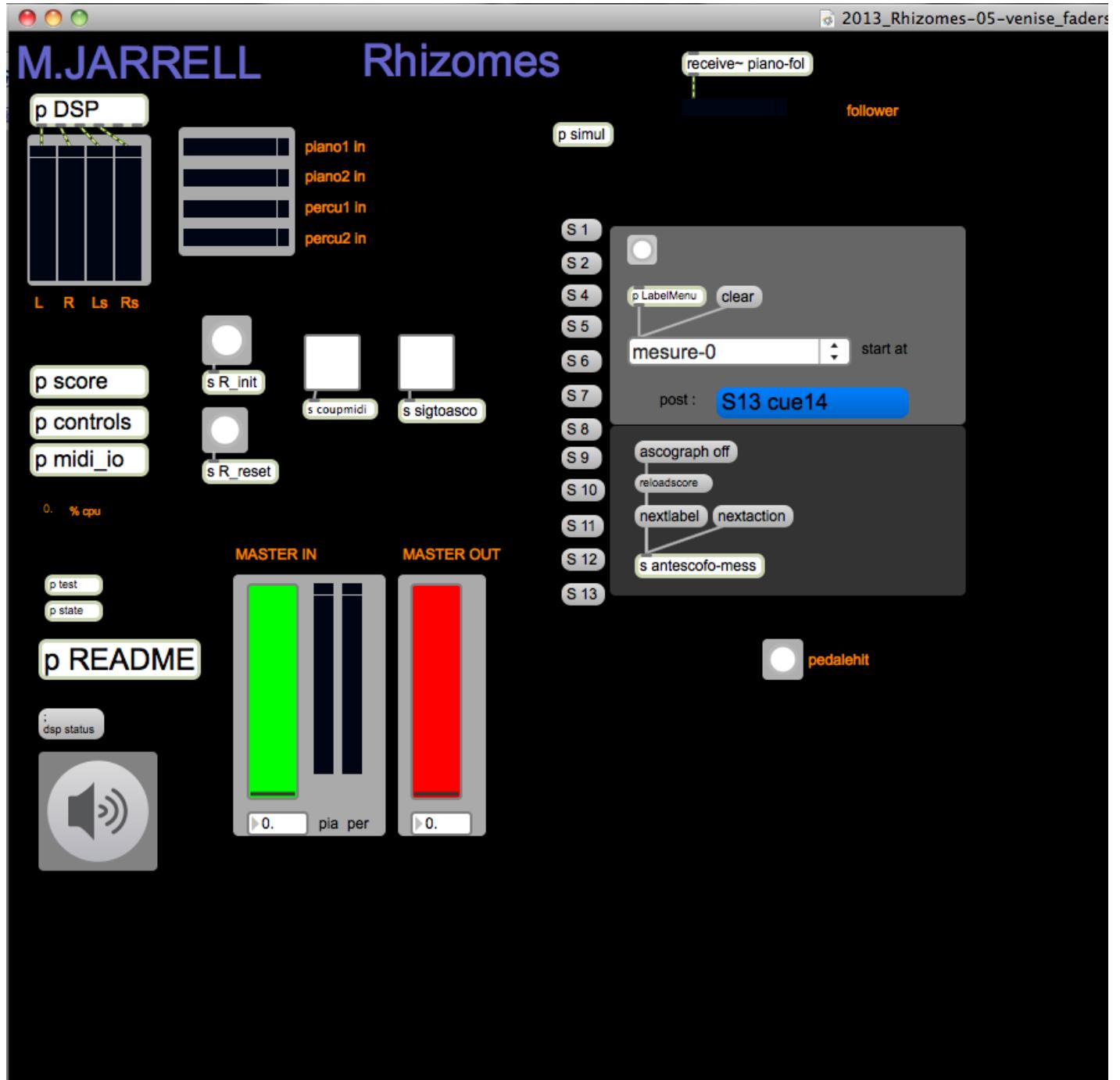
- ADC 1 = Piano1 submix, goes to follower é FX
- ADC 2 = Piano2 submix goes to FX
- ADC 3 = Percussion 1 submix goes to FX
- ADC 4 = Percussion 2 submix goes to FX

Initialization routine

- Check that the score has been correctly loaded in the max window when the patch is loaded.

- Check audio connections (audio on !)
- Check midi connections (only one channel for all pedal switches).
- Check the level of incoming piano 1 signal in antescofo (you can use subpatch score, subpatch Calibration).
- Init
- Reset
- Choose start bar in menu.

Patch presentation



This patch is extremely close to the previous version in terms of DSP : only the harmonizers have been modified to fix some problems with Max 6.1.

On another hand the score and following systems have been completely rewritten. The former midi detonate-based follower has been replaced by antescofo as sequencer and audio follower : there is no need for a midi piano for piano 1. The complex system of pedals has been simplified.

We need one pedal per player which can be merged. They act as a "nextlabel" for the follower (= right arrowkey). The audio following on piano 1 is automatically triggered on and off within the score. Spacebar can be used to trig it on and off manually.

Qlists have been hence replaced by a single asco score. The structure in sections is still accessible, (nota. there is no section 3), with now a reference to actual bars.

in the score Note 120 marks a pedal event. Some previously audio followed events may have been replaced by pedal hits in rehearsals depending on the quality of the following.

Faders may be midi controlled.

We used a fader for the samples level, another for the RT effects level, and 2 masters (in/out). samps and effects ctl fader are located in the control subpatch.

Look in subpatch midi io and make your own as this version use mackiecontrol midi format.

Performance notes

The Mac outputs will be sent to a professional quality reverberation. TR around 3secs according to the performance hall.

All speakers will be fed with reverberation (4 channel reverb welcome !).

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Program note

« *Rhizome*, écrit Michael Jarrell, est un terme de botanique. C'est l'appellation d'une tige souterraine qui s'allonge en poussant soit des rameaux, soit des feuilles à l'une de ses extrémités, tandis qu'elle se détruit par l'autre. Comme l'étymologie l'indique, il s'agit d'une racine. »

Trei II pour soprano et cinq instruments (1982-1983) et *Assonance VII* pour un percussionniste (1992) peuvent être considérées comme les deux « racines souterraines » de *Rhizomes*. Ces deux œuvres explorent certaines possibilités de la superposition de périodes ou de *tempi* différents — possibilités que *Rhizomes* intègre à des « cycles de développements » continus : la simple répétition d'une note peut donner naissance à des figurations rapides, à des trémolos, à des trilles, à un son tenu, selon les embranchements que le compositeur emprunte, selon les « chemins » qu'il suit au sein des arborescences qui constituent une manière de « grammaire générative » pour la pièce.

Cette continuité mouvante se retrouve dans le travail du timbre : ainsi, la préparation de l'un des deux pianos pourra créer un « pont » vers la sonorité du *wood-block*. Et de fait tout le projet de *Rhizomes* pourrait être considéré comme un nouveau regard porté sur cette interrogation qui était au cœur de *Trei II* : comment intégrer la percussion, cet « élément perturbateur », au sein de l'univers tempéré ?

Peter Szendy.

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