

Strange Spiral Lights

for vibraphone, thunder sheets and electronics
Grégoire Lorieux



Program Notes for the Work

Strange Spiral Lights (Brakhage Series, I) for vibraphone & electronics, 2012

On december 9th, 2009 (when elsewhere I was preparing to rehearse with a pianist at the Paris Conservatoire) appeared in the sky over Norway a strange blue spiral, drawing the almost perfect geometry. Remained in the sky for a few minutes, the phenomenon described as fascinating, frightening, yet beautiful. Weather anomaly? Black hole? Northern Lights? Sign from God? UFO? Great hoax? Norwegian authorities confirm that this was a lost russian missile. But as in such cases, popular superstition explain these lights by number of more or less far-fetched explanations ... all show that we are all fascinated and frightened by what is beautiful. Resonance is a metaphor of light : the vibraphone builds the resonance brick by brick and electronics enhance that construction by enveloping them sensually.

Grégoire Lorieux

Grégoire Lorieux is a french composer and computer music designer, in charge of teaching at ircam (Paris, France). After musicology and early music, he studies composition with Philippe Leroux and then in Conservatoire Supérieur de Paris, with Marco Stroppa and Gérard Pesson. At ircam, he works on transmission of computer music notions and developps projects for "mixed music". Grégoire Lorieux received the "Young Composer Prize" of Sacem in 2009.

Technical rider

Strange Spiral Lights
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composer : Grégoire Lorieux
gregoirelorieux@gmail.com

Percussion

- 3 octave vibraphone, played with 4 mallets. type : Musser M55 PRO-VIBE SILVER
- 2 thunder sheets and/or 2 plate bells and/or gong. type : Sabian thundersheets 20" or 30", Kolberg bronze bell plates and + 1 percussion stand (type Kolberg's stand for bell plates)
thunder sheets and/or plate bells have to be mounted together : one shot makes a strong inharmonic resonance (see Tokyo version photos)

Electronics

PA system

- 4 loudspeakers surrounding the audience (preferred systems : L-Acoustics, d&b), system power must be coherent with venue size
- 2 alternate loudspeakers in distance (according to the venue size)
- 1 Low frequency loudspeaker reinforcement is preferred.
- Digital mixing desk (preferably Yamaha DM 1000/DM 2000)
- All necessary connections between the mixing desk and the stage (2 microphone lines minimum + 1 line for the ear-monitor system)

Microphones

- a couple of quality-microphones for applying electronics on the vibraphone (type KM184 or Rode NT5).
- additional microphones may be required for amplification (or use the same).

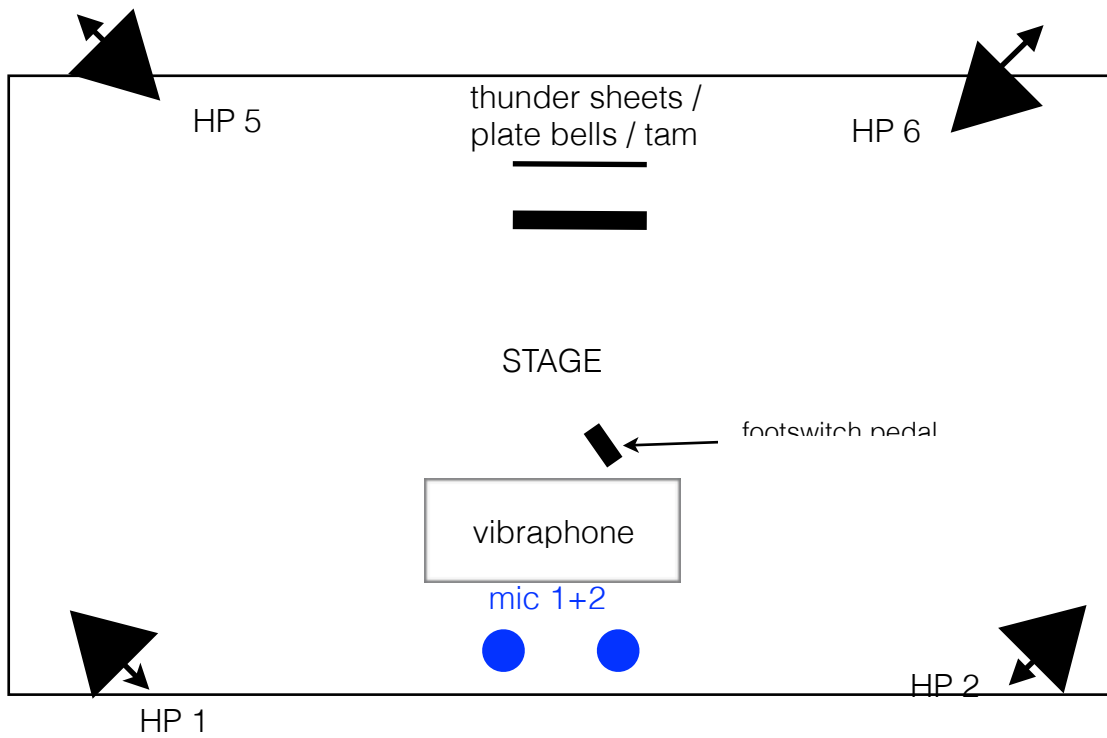
For the instrumentalists

- 1 footswitch pedal (to be connected to the MIDI system)

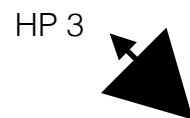
MIDI and computer system

- 1 computer with all software materials required (see : «Electronics documentation» note)
- 1 sound card (type FireFace 400 or equivalent)
- 1 midi interface (type BCF2000) may be required

Disposition diagram



AUDIENCE



Electronics documentation

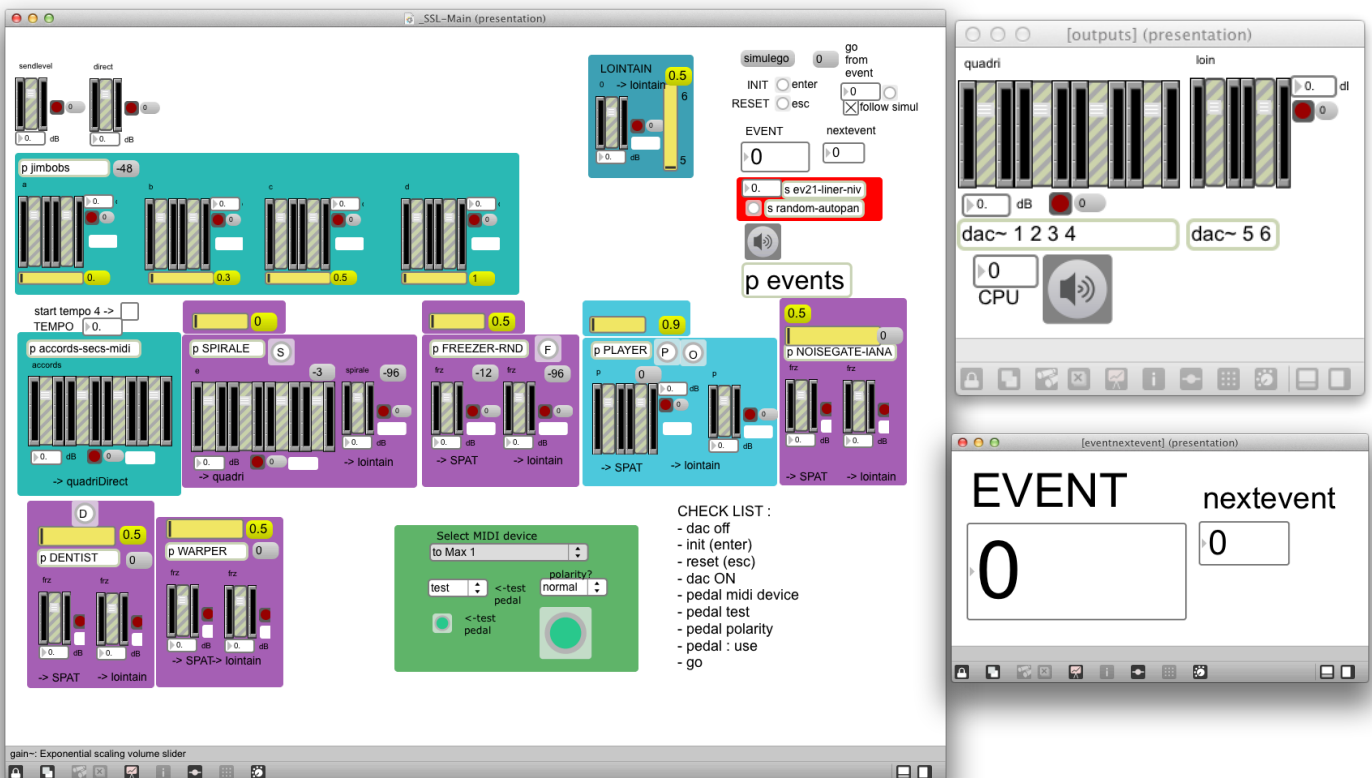
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Hardware/software requirements

- a recent computer with OS 10.6 at least (not tested on Windows), with :
- MaxMSP installed, or MaxMSP Runtime (version 5.1 at least, RunTime is a free software downloadable at www.cycling74.com)
- the materials of the folder "SSL-Electronics"

Tested and fully working on a MacBookPro : 2,3 GHz Intel Core i7 + 8 Go RAM

Presentation of Max Patch and electronics



Electronics consist in :

- generated sequences of vibraphone samples with frequency shifters (green panels)
- real time treatments (violet panels)
- some soundfiles (blue panel)
- a spatialisation process

When first opening the patch : follow the check list :

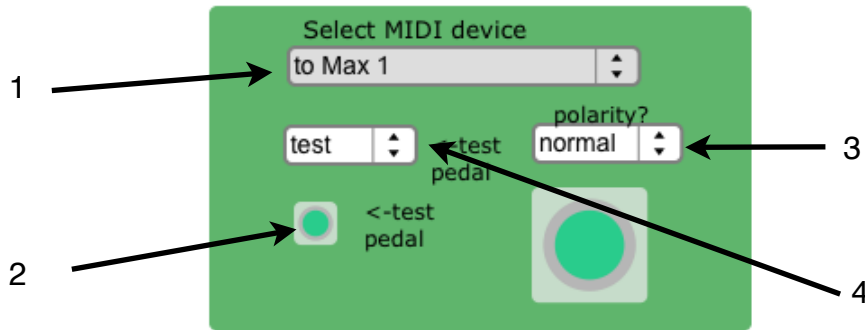
- make sure dac is off
- press init (enter)
- press reset (esc)
- put the dac on
- check midi pedal (greener panel)
 - 1. midi pedal device (for example : "BCF 2000")
 - 2. test pedal : little button flashes ?
 - 3. check pedal polarity
 - 4. pedal : use



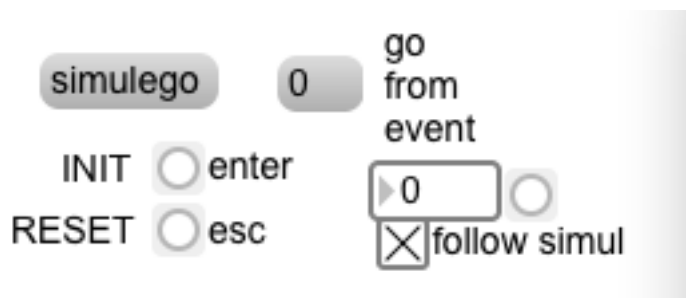
dac is off



dac is on



To repeat without instrumentalist.



- check box «follow simul» to trig events automatically during the play of the simulation.
- press «simulego» to play a simulation soundfile (premiere recording of the vibraphone without electronics)
- press 0 to stop it.
- to go from a certain point of the simulation : press reset, enter an event number in the «go from event» number box and press the button besides it.



To repeat with the instrumentalist

inputs come into adc 1 + 2 and go in a «direct» level for amplification or to hear the simulation, and «send level» to go into treatments or generative processes.

During the performance

Events :

- The instrumentalist has to press midi footswitch pedal to trig events on moments indicated on the score by circled numbers.

An event can be : launching a process, starting or stopping a soundfile...

- The electronic assistant (e.g. the composer in most of the cases) has to make sure the events are triggered by the instrumentalist. If he/she doesn't want to or miss some, the electronic assistant or someone else presses space bar instead.
- the next event number box can be used to go back in events. Be careful !
- keep an eye to the CPU peaks too (in «outputs» window)

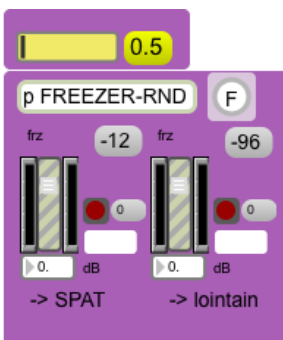
Mixing :

The electronic assistant has to mix the different treatments/generation/soundfiles according to the musical context.

The mixing is not only a question of relative output volume, but also a repartition in space, between the «SPAT» (regular quadriphony, as seen as «quadri» in the «outputs» window)

: dacs 1 2 3 4

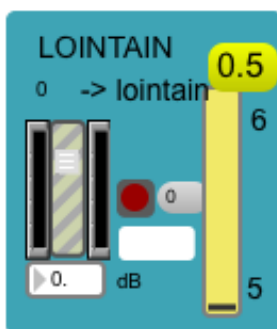
and the LOINTAIN («distant») (seen as «loin» in the «outputs» window) : dacs 5 + 6



For example the freezer treatment :

with the **horizontal yellow slider**, choose to send the amount of result of the treatment in SPAT or Lointain. it's like a «panoramic» level between quadriphony and distant speakers.

Adjust sending levels in spat or lointain.



if you send sound in the «lointain», check the «lointain» panel.

The **vertical yellow slider** enables you to send the lointain result rather in dac 5 or 6.

so you can choose to place the loudspeaker 6 farther than the loudspeaker 5 and have nice space effects.

Tokyo version pictures

how to put the gong + thunder sheets + metal chain to reach a powerful, short-resonant sound.

