

Michael Jarrell
Cassandre
1994
Max8
2022



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

- Feb. 4, 1994, Paris, Théâtre du Châtelet

Publisher : Lemoine

Detailed staff

- soloist: actress
- flute, oboe, clarinet, bass clarinet, bassoon, 2 horns, trumpet, trombone, 2 percussionists, piano, electronic/MIDI keyboard/synthesizer, violin, second violin, viola, cello, double bass

Realisation

- Pierre Charvet

Useful links on Brahms

- [Cassandre](#) monodrama for actress, instrumental ensemble and electronics (1993-1994), 1h5mn
- [Michael Jarrell](#)

Version related information

Documentation date: Feb. 2, 2022

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Documentalist

Serge Lemouton (Serge.Lemouton@ircam.fr)

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

Realisation

- David Poissonnier (Sound engineer)
- Augustin Muller (Computer Music Designer)

Version length: 1 h 5 mn

Default work length: 1 h 5 mn

Upgrade Motivation

Patches updated to Max 8.

Sampler and DtD patch gathered in a single max project.

Comment

Untested in performance.

Other version(s)

- [Michael Jarrell - Cassandre - Genève - 2015 \(Oct. 28, 2015\)](#)
- [Michael Jarrell - Cassandre - Sampler version - no akai \(March 23, 2015\)](#)
- [Michael Jarrell - Cassandre - Lugano2012 \(Feb. 21, 2013\)](#)
- [Michael Jarrell - Cassandre - cassandre-aout-2010 \(Sept. 8, 2010\)](#)
- [Michael Jarrell - Cassandre - cassandre-patch-sampler-externe-2010 \(Aug. 3, 2010\)](#)
- [Michael Jarrell - Cassandre - 2006 Mac OSX \(March 7, 2006\)](#)

Electronic equipment list

Computer Music Equipment

- 1 MacBook Pro - *Apple Laptops* (Apple)
- 1 Max 8 - *Max* (Cycling74)
- 1 Sound Board - *Sound Board*
Number of analog output:2 , Sampling Rate : 44100
- 1 KX 76 - *MIDI Keyboard* (Yamaha)
was connected directly to the Akai sampler, now controls the *Cassandra_Sampler* max patch. Range used : from F#0 (MIDI pitch 30) to G5 (MIDI pitch 91) [Heavy touch:1] [Key number:76]
- 1 KX 88 - *MIDI Keyboard* (Yamaha)
to be connected to the Macintosh computer to trigger sound files, via the MIDI interface. Used from C0 (MIDI pitch 24) to G#6 (MIDI pitch 104) [Heavy touch:1] [Key number:88]
- 1 Midi interface - *MIDI Interfaces*
to interface the 88 key MIDI keyboard to the Macintosh Computer [Port type:USB] [I/O number:1 input]

Audio Equipment

- 2 Dynamic microphone - *Dynamic Microphones*
Wireless microphone for the voice (actress)
- 18 Dynamic microphone - *Dynamic Microphones*
for the orchestra
- 1 HF System - *HF System*
- 2 Amplifier - *Amplification*
- 2 Loudspeaker - *Loudspeakers*
- 1 Mixing Console - *Mixing Console*
- 1 Effect processor - *Effects Processor*
Equalizer for the voice (actress)
- 1 Effect processor - *Effects Processor*
Compressor/limiter for the voice (actress)
- 2 Effect processor - *Effects Processor*
Reverberations : one for the voice (actress), the other for the instrumental ensemble

Files

File	Type	Author(s)	Comment
midi file	Other		midi file to test sampler patch
All-in-one Max project	Patch	Serge Lemouton	
CASSANDRE2009-MIXSANSVOIX.aif	Audio file(s)		For rehearsal purpose only - DO NOT DISTRIBUTE !
MasterSansVoixCassandraOrigineCD.aif	Audio file(s)		For rehearsal purpose only - DO NOT DISTRIBUTE ! (alternate version)

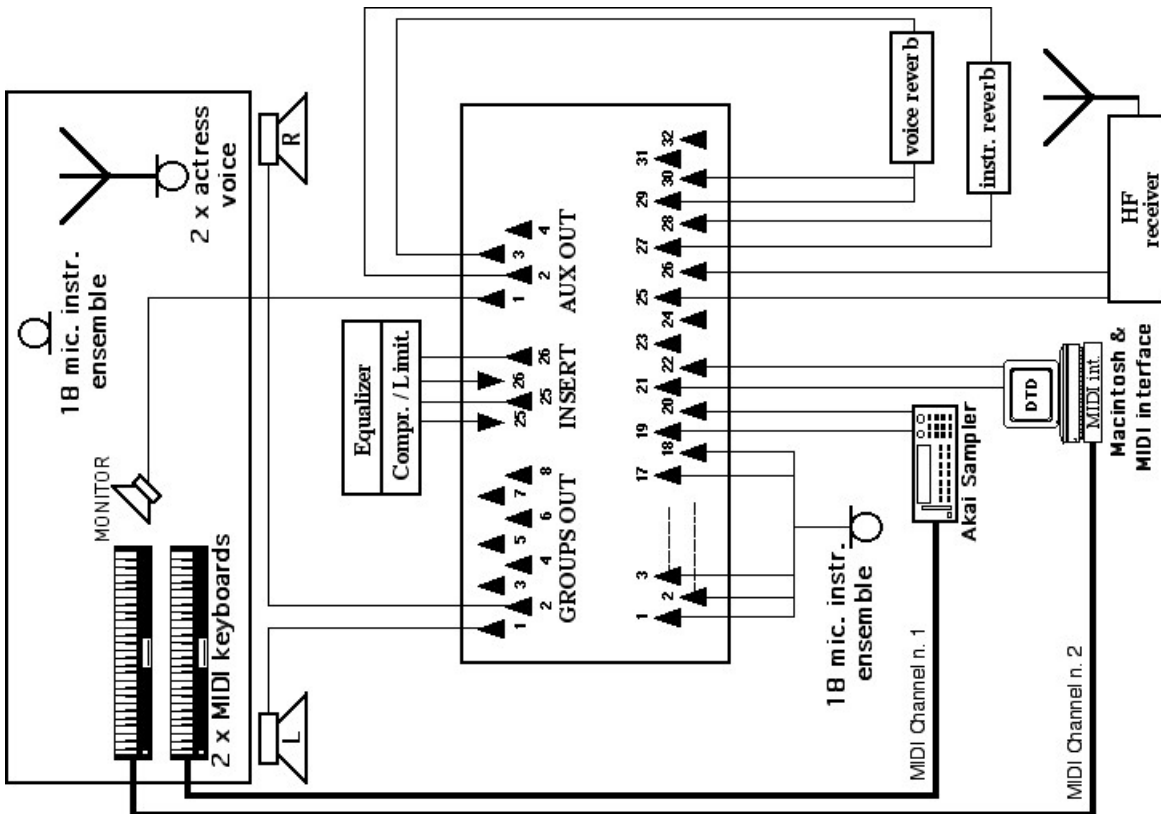
Instructions

Audio Setup

The electronic part of *Cassandra* requires a stereo frontal diffusion. The voice and the ensemble should be amplified.

No real time transformation.

Audio/MIDI setup diagram - General Stage, Audio and MIDI Setup



Software setup

This version of *Cassandra* uses 2 patches:

- *cassandra2022* to play the soundfiles (direct to disk samples), controlled by keyboard 1 (midi channel 2)
- *Cassandra_Sampler* to replace the original AKAI Sampler, played on keyboard 2 (midi channel 1, customizable, see below) and change the different programs by pgmchange messages.

To load all the max patches simply open the *cassandra2022.maxproj* project : Both patches are automatically launched.

Max Sampling rate should be set to 44.1 kHz, Vector Size 64. Overdrive On.

The *cassandra2022* folder contains all the applications, patcher source files, sound files, etc. required for the Macintosh computer to perform the piece.

The source files are provided so that you can eventually modify them, if you have your own licenced Max application.

Patches presentation

cassandra2022 , DtoD sounds, Midi channel 2

Michael Jarrell: <<Cassandre>> DtoD patch

MIDI INPUT
MT4 Port 2 -> soundfiles

patcher MIDI-IN
0
Channel 2
- "DtoD"
C-2

2

(Re)initialization
bang;
Init bang;
v_a 0;
v_b 0;

dsp status <<- click to address audio configuration problems

<- Preload Sound Files 1

patcher AudioSoundFiles
patcher MIDISoundFiles <- Cues
p readme

Dtd Global Volume
-9. dB

fade out in 13 + 5 sec then stop the soundfile and reset the DtoD level at -9.

Note : A2 (57) press "W" to fade out the soundfile at the end of the last sentence of the monologue

key
select 119
-9, -20, 13000
line 1. 20. -20, -60, 5000
line 1. 20.
s sn_stopfile
delay 100
-60., -9, 100
line 1. 20.
expr pow(10.0,\$f1/20.0)
s DtdGLvl

PANiIKkk!!!
Resume, AFTER PANiIKkk!!!

AI/OUTPUTS 0;
CueSFsA 0;
CueSFsB 0;

AI/OUTPUTS 1

patcher Init
patcher AUDIO

Midi Keyboard on channel 2
for this patch.
Midi Keyboard on channel 1
for Z8 or sampler~ patch
DCA -20
dtd -10 o -15 rispetto a scritto
akai +10 rispetto a scritto

In the present version, this Max patch only implements the so-called "DtoD" (direct to disk): the playing of sound files triggered by MIDI pitches from the 88 key keyboard. The patcher feeds only two audio outputs (see **dac~ 1 2** object in the **AUDIO** sub-patcher).

After installation (see "Software setup" above) the main Max patcher is ready at once upon opening. Only the preload of the sound files must be performed manually, by clicking on the main patcher's button marked **Preload Sound Files**.

The Max patch receives **MIDI Note On** messages from the keyboard, on **MIDI Channel n° 2** (two), and triggers the appropriate sound files.

The audio output level can be modified with the **Dtd Global Volume** potentiometer. It is set to -9 dB by default. This default value can be changed permanently.

At any time, the **C7** key (MIDI pitch 108) can be played to stop a file during its playback. Certain other keys, according to the score, also intentionally stop a playing sound. Some other keys have no effect.

The [x] key of the computer keyboard can also be used to stop playback.

It is possible to **simulate manually the incoming of a MIDI Note On** from the keyboard, in order to test the patcher. Open the **MIDI-IN** sub-patcher with a double-click. You can then click in the right hand number box marked **To simulate a pitch manually**, and **type in the desired MIDI pitch** followed by **return**, or use the onscreen keyboard.

Cassandre_Sampler, samplers sounds, Midi channel 1

Select the appropriate midi input with the menu.

Select the audio output with the *Audio Status* menu.

Check program changes.

Levels tuning and envelope are stored and recalled on a program-by-program basis using the preset object.

You can save and load your own configuration, but note that current balance and envelope were adapted with the composer.

Performance notes

keyboard 1 : A2 (57) or press “W” to fade out the soundfile at the end of the last sentence of the monologue.

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Program note

Ce monodrame a été inspiré par la comédienne suisse Marthe Keller. Le texte, de l'écrivain allemand Gerhard Wolf, est basé sur le livre de Christa Wolf, *Kassandra*, interprétation moderne du drame grec. Deux versions, musicalement identiques, sont envisagées : la première en français, pour le théâtre du Châtelet, et la deuxième en allemand. L'ensemble est constitué de 18 musiciens, auxquels s'ajoute une partie électronique constituée d'échantillons déclenchés par un clavier dans l'orchestre. Le défi est d'intégrer les sons électroniques dans l'orchestre traditionnel, ceci pour élargir le champ des sonorités d'une manière cohérente ; ce n'est qu'à deux occasions, pendant une heure que dure la pièce, que l'électronique, pour des raisons dramaturgiques, joue un rôle de premier plan.

None

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