

Marco Stroppa
... of silence
2007

Of Silence 2020
2020



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

- Nov. 23, 2007, Japon, Shizuoka

Publisher : Ricordi

Detailed staff

- saxophone

Realisation

- Arshia Cont

Useful links on Brahms

- [... *of silence* for saxophone and chamber electronics \(2007\), 21mn](#)
- [Marco Stroppa](#)

Version related information

Documentation date: Oct. 21, 2020

Version state: valid, validation date : June 8, 2023, update : June 8, 2023, 3:22 p.m.

Documentalist

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

Realisation

- Arshia Cont (Computer Music Designer)
- Carlo Laurenzi (Computer Music Designer)
- Marco Stroppa (Composer)

Version length: 24 mn 51 s

Default work length: 21 mn

Upgrade Motivation

A 4th Movement was added by the composer, Marco Stroppa

Completely renovated patch, with a better architecture, and lots of improvements. Full 64bits.

Upgrade of the antescofo scores to the latest version of the "StroppaLibs" v.2019

Upgrade to Spat5

Comment

The patch runs smoothly under Max 8.1.7 (64 bits). All used max objects are 64 bits.

All Gilbert Nouno 32 bits objects have been replaced with alternative ones or abstractions.

A very handy sax simulation and automatic cues system is provided, along with the pdf score of the piece.

External libraries needed :

_ SPAT 5.1.6

_ ANTESCOFO 1.0-268, Compiled on Feb 7 2020

_ SuperVP for Max/MSP, version 2.18.3 (11/2017)

_ Chromax~: Chroma FFT Template Generator by Arshia Cont, Ircam-Centre Pompidou, 2009-14.

Other version(s)

- [Marco Stroppa - ... of silence - Of Silence 2019 \(Sept. 30, 2019\)](#)
- [Marco Stroppa - ... of silence - 2015-01 \(Jan. 30, 2015\)](#)
- [Marco Stroppa - ... of silence - Parma 2014 \(Oct. 24, 2014\)](#)
- [Marco Stroppa - ... of silence - 2014-01 \(Feb. 19, 2014\)](#)
- [Marco Stroppa - ... of silence - max6-2012 \(May 29, 2012\)](#)
- [Marco Stroppa - ... of silence - max5_2012 \(May 29, 2011\)](#)

Electronic equipment list

Computer Music Equipment

- 1 MacBook Pro - *Apple Laptops* (Apple)
OSX version 10.13.6 , or later
- 1 iPad - *Tablets* (Apple)
for level control during performance
- 1 Max 8 - *Max* (Cycling74)
Max 8.1.7 (64 bits)
- 1 antescofo~ - *External objects* (Ircam)
ANTESCOFO 1.0-268, Compiled on Feb 7 2020
- 1 Ircam Spat - *Library* (Ircam)
Version 5.1.6 (64 bits)
- 1 Fireface 400 - *Sound Board* (RME)
or similar

Audio Equipment

- 5 e8 - *Passive Monitors* (d&b audiotechnik)
Or similar, with their correspondent three (2 channels each) "d&b D6" power amplifiers.
- 1 subwoofer - *Subwoofers*
subwoofer to put just under the 5 speakers configuration

Files

File	Type	Author(s)	Comment
CONCERT_PATCH_2020	Patch	Carlo Laurenzi, Arshia Cont	New 2020 concert patch
BLACKHOLE_LOOPBACK_AudioLibrary	Other		
MAX8_LIBRARIES	Other	Carlo Laurenzi	Libraries to be installed, to run the patch properly
SCORE_New_2020	Score	Marco Stroppa	New score, with a 4th mouvement added
SIMULATION_FILES	Simulation files	Carlo Laurenzi	A Reaper session, to play the simulation files into Max

Instructions

Audio setup

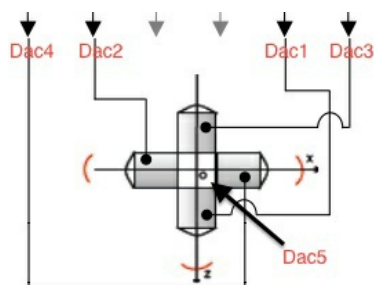
... *of Silence* employs a multiple-source speaker centered on stage called the "Simplified Timée" consisting of 5 speakers mounted in a specific manner (see Loudspeaker setup). The saxophone player will be changing position around the speaker setup during the piece.

The Audio setup requires 1 Input from the saxophone on stage to the console, and 5 outputs from the console to the stage.

The Saxophone input to the console is splitted into two separate DACs for the sound-card (into the computer), with DAC1 for the effects (possibly compressed, no gates) and DAC2 for the Score Follower Antescofo (non-compressed, no gates, raw audio). This means that the soundcard receives 2 inputs from the console, and feeds 5 outputs to the console.

Loudspeaker setup

The "Simplified Timée" is centered on stage and possibly elevated, using the subwoofer to put under it, so as to hide the saxophonist if performing behind the material. The following figures show an actual setup and the connection diagram:

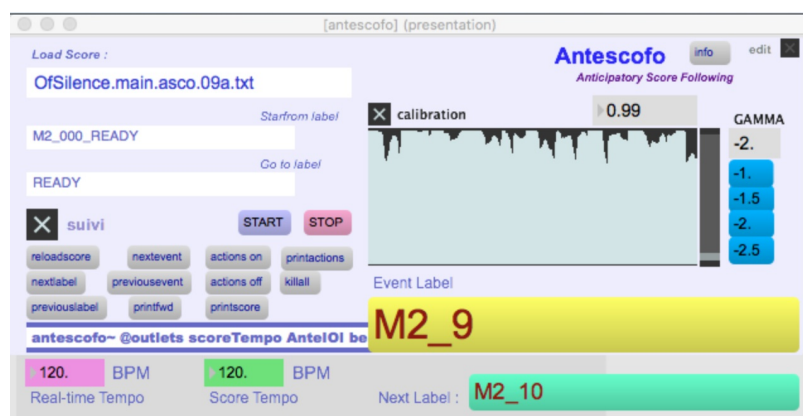


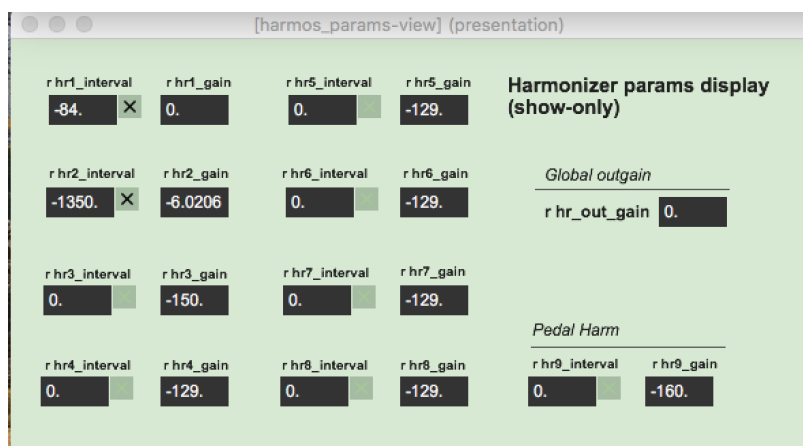
Software installation

- First download, unzip and install the folders contained in the package MAX8_LIBRARIES into /Documents/Max 8/Packages.

- Then download the CONCERT_PATCH to a safe place on your hard-drive and unzip it. This will create a "CONCERT_PATCH_2020" folder.
- Start Max8 and add that folder to your File Preferences.
- Set properly the AUDIO SETUP panel (Sound Card and INPUT/OUTPUT mapping):
- Sampling rate for this piece is 48Khz
- We recommend using an *IO Vector Size* of 256 and *Signal Vector Size* of 256. *Overdrive* must be on.
- Quit and restart Max.
- Launch the patch "OfSilence_2020-05.maxpat" .

Patch presentation





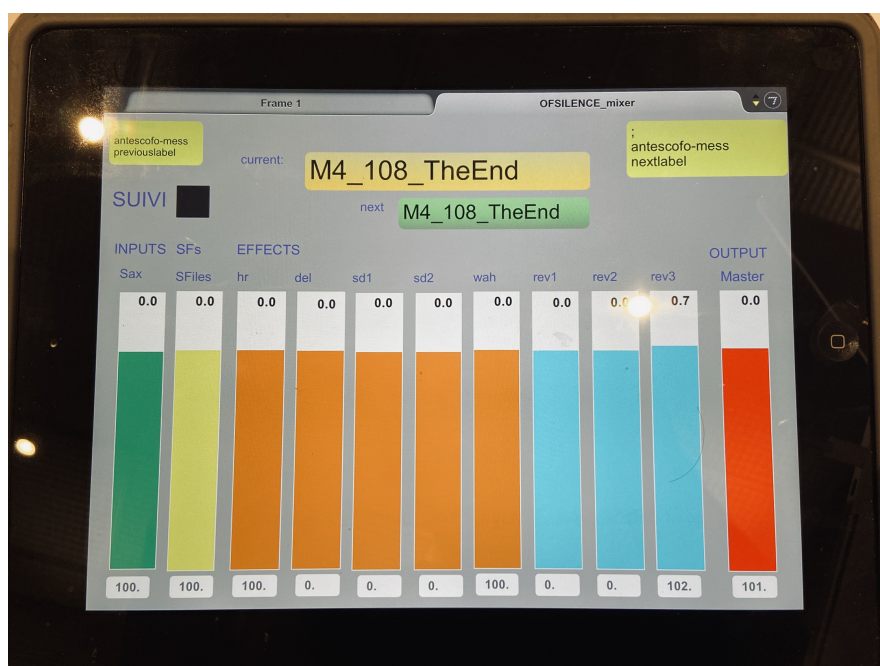
Initialization routine

From the main patcher, click on **INIT**. Turn the **DSP ON** by clicking on the the proper Toggle in the Main Patcher. Then click on **RESET**. In the Antescofo panel, from the *Load Score* menu, select **OfSilence.main.asco.09a**. Hit once on the right arrow, to go to "M1_001READY", in order to start the performance of the piece. You are ready to go!

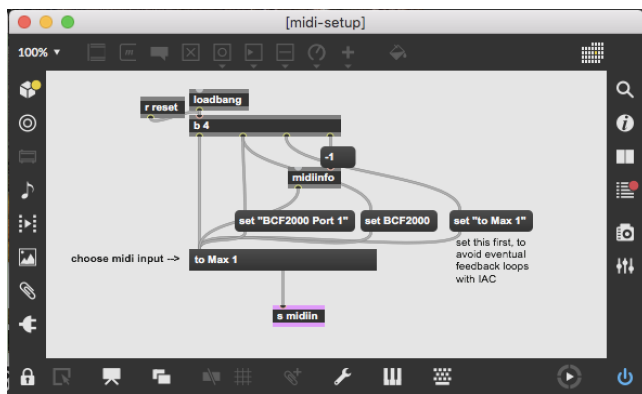
If you want to rehearse from a different place in the score, from the same *Load Score* menu in the antescofo panel, select again **OfSilence.main.asco.09a**, to execute a global reset, then, from the smaller menu below, called *startfromlabel*, select the cue you want to be triggered next. It's always recommended to perform a global reset (reloading the antescofo score) before jumping to some place in the score.

Midi controllers

Computer Music Designer mainly interacts with the Max Patch and an iPad (with Cycling74 "Mira" installed), or a BCF2000 type MIDI controller, in order to manage input/output levels during the performance. In case of using the ipad, simply connect the ipad via usb to the computer, then launch MIRA and click on the connect button. The control surface wil appear immediately.



In case of using a BCF2000 through USB or other MIDI, first click on *midi setup* in the main panel of the patch, select the BCF2000. Then click on *Set Midi controllers* (on the main patch), to set each fader to the control change value of the 8 faders and 8 rotarys of the BCF2000. You can save your configuration, giving it a number and then clicking on store, in the dedicated pattrstorage little interface on the right.



To control the faders and the rotaries of the BCF2000, you can just move a fader, look on the left of the panel to see which control change is set for that specific fader, and then select the same control change number from the white little menus which are placed under each fader title. No need to reconfigure the BCF then! You can just tell the patch which control change numbers the BCF is set, and it will go straightforward.

System calibration and tests

This piece uses antescofo score follower system, for some parts of the score, not all of the time, to trigger the live electronics events, according to the detected instantaneous Tempo of the musician. The Score follower needs to be calibrated before rehearsing. The calibration process requires the Saxophone player to play parts from the first and second mouvement.

Antescofo panel is where you can control the events for the electronics and queueing dispatch through all modules. And there you can find also the main **Calibration** patcher. The calibration diagram you see on it, should go above the mid-level when the instrument is playing, and go below the mid-level when not playing. The Computer Music Performer should try this scheme on several nuances (beginning and ending of Mouvement 2 for example) to make sure calibration level can be appropriate for the entire piece. As a rule of thumb, you can ask the saxophonist to play, and set the input level of the saxophone to antescofo, between -14 and -8.

Also, the output levels of the 5 loudspeakers that compose the "Simplified Timée" must be perfectly balanced. For that you can use the Max8 "Audiometer", with a cycling routine of noise bursts going from ch1 to ch5.

Performance notes

Computer Music Performer has to trigger manually the cues of the score for the electronics during approx 50% of the piece. The other 50% is triggered automatically, by the antescofo score follower system. To trigger the cues in the score for the electronics, the **right arrow button** on the keyboard must be used (nextevent command for antescofo). To go to a previous cue, the left arrow button can be used. Antescofo score follower is automatically engaged and disengaged by some of the cues that the Computer Music Designer triggers by hand, following the score (that comes with the patch. Look under the SCORE folder)

Movement 1

Movement 1 of the piece is mainly based on *Spectral Delays* (faders SD1 and SD2), soundfiles that are played by *SuperVP* (fader SFiles), and *Harmonizers* (fader Hr). The score follower is engaged only in three small passages. The piece has to start very softly, and then grow as the saxophone attitude grows further on in the score. Be careful to not to be too loud at the beginning of this movement

Movement 2

Movement 2 makes extensive use of Antescofo Score Following. The Score follower is engaged pressing the first cue, and then it goes on autonomously. However, if some weird behaviours from the score follower are observed, it's upon the electronic musician to turn on the *machine listening* by pressing the 'c' key on the keyboard (which triggers a Toggle right above Antescofo). This same key can be used in times of panic to advance manually.

Movement 3

Movement 3 does not use score following at all. Triggering is done by the right arrow button (nextevent message to antescofo) and

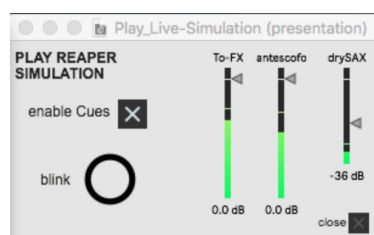
following the annotated score. The electronic level control should be focused on the soundfiles, SD1 and SD2 (the Spectral Delays).

Movement 4

Movement 4 is mostly triggered automatically, using the score follower, except for some passages with multiphonics, which are difficult to detect by the listening machine. The electronic level control should be focused on the soundfiles, SD1 and SD2 (the Spectral Delays).

Training with the simulation files


It is very recommended, prior to any rehearsal / performance of the pièce, to spend some time training with the simulation files of the saxophone player, which can be sent both to antescofo input and direct signal input (for real-time treatments). Download the package called SIMULATION_FILES. Inside you will find a **Reaper audio/midi session** wich simulates the 2 saxophone inputs channels to the patch (towards the Real Time tratmens, and towards the antescofo score follower, respectively Left and Right). To use the Reaper session for the simulation, launch the maxpat "**Play_Reaper-Simulation**". Then click on the "enable Cues toggle".



Audio Loop back routing, from the Reaper simulation session outputs 1 and 2 to the max patch inputs 3 and 4 (1 and 2 are reserved for the real microphones inputs, coming from the mixing console), can be made using the "BlackHole" software. Separate gain levels for the outputs to antescofo, the output to the real time tratments, and the saxophone dry signal are available in the little max patch.

You can retrieve the position in the score you want to start from using the markers on the reaper session, then set the same marker position, both in the session and in the Antescofo panel (*startfromlabel* menu) and hit play on reaper. The cues will be triggered automatically using a midi message from Reaper to the Max patch.

It's recommended to practice a lot triggering by hand the cues in the score of the piece. In order to do that, just deactivate "Enable Cues" on the "Play Reaper Simulation" maxpatch. Have fun!

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Program note

...of Silence est la quatrième pièce d'un cycle d'œuvres pour instrument soliste et électronique de chambre commencé en 1995. Ce terme de mon invention, « électronique de chambre », a une double signification : sur le plan esthétique, je cherche une relation plus intime entre le soliste et d'autres présences invisibles (l'électronique), constituant ses partenaires musicaux. Sur le plan technologique, c'est le choix d'une diffusion du son uniquement frontale : tout se passe et provient de la scène.

Pour cette œuvre, nous avons utilisé un haut-parleur spécial, placé au centre de la scène, constitué de cinq petits haut-parleurs, autour desquels se place le soliste. Cet haut-parleur multiple, dérivé de recherches faites à l'Ircam depuis plusieurs années, nous permet de composer le rayonnement du son dans l'espace avec une précision infiniment supérieure à celle d'un haut-parleur classique, et donc de réaliser une polyphonie de rayonnements multiples.

Comme les autres œuvres du cycle, *... of Silence* est inspirée d'un poème de E. E. Cummings, le grand poète américain du XX^e siècle, dont la poésie comporte une écriture « spatialisée » sur le papier. Ce poème, extrait du recueil « XLI Poems » (1925) et dont le titre exact est *Lady of Silence*, décrit le passage de la nuit (la dame du silence) vers la « cinglante beauté de l'aube » (*the smarting beauty of dawn*) à travers une panoplie d'images saisissantes. Cela correspond également à la structure de la pièce, qui commence avec le soliste caché derrière les haut-parleurs, et qui se termine avec le soliste devant dans une couleur brillante et lumineuse.

Quatre étapes (*winsome* [séduisant], *sensible and quick* [concret et rapide], *scattering* [en s'éparpillant] et *smarting* [cinglant]) accompagnent la forme, chaque étape étant associée à une position différente du soliste autour des haut-parleurs.

Sur le plan technologique, cette œuvre utilise pour la première fois Antescofo, un système développé par Arshia Cont, qui permet à l'ordinateur de suivre minutieusement ce que fait le soliste – y compris la vélocité instantanée à laquelle il joue – et, donc, d'adapter la réponse de la machine à chaque instant du jeu instrumental. L'ordinateur devient ainsi un véritable musicien. Je tiens à remercier l'exceptionnelle qualité du travail d'Arshia Cont, sans laquelle cette production n'aurait pas eu lieu, ainsi que son engagement sans limites. Je remercie également Serge Lemouton, Gilbert Nouno et Olivier Pasquet pour les modules de traitement du signal que nous avons utilisés et Nicolas Misdariis qui est à l'origine du concept du haut-parleur multiple. Leur aide a été précieuse. Un grand merci, enfin, à Claude Delangle, dont le jeu m'a beaucoup inspiré dans la recherche d'une couleur instrumentale poétique et captivante.

Je voudrais également exprimer ma plus sincère gratitude à [Ichiro Nodaïra](#) ainsi qu'au Concert Hall de Shizuoka et à la Fondation pour la promotion culturelle de Shizuoka pour avoir eu confiance en moi.

Marco Stroppa.

Lady of Silence
from the winsome cage of
thy body
rose
through the sensible
night
a
quick bird

(tenderly upon
the dark's prodigious face
thy
voice
scattering perfume-gifted
wings
suddenly escorts
with feet
sun-sheer

the smarting beauty of dawn)

E. E. Cummings

Extrait de « XLI Poems », 1925.

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