

Noise Symphony

Ariane S. Stolfi

Universidade Federal do Sul
da Bahia - Centro de
Formação em Artes e
Comunicação

arianestolfi@csc.ufsb.edu.br

ABSTRACT

Noise symphony is part of a series of pieces created from a selection of 690 sound samples taken by the author from <https://freesound.org> database using <http://playsound.space> software, from a query using the word “noise”, that retrieved around 37000 results. Sound were selected based on their timber morphology, following a criteria of apparent visual difference. In this piece, sounds will be played together with solo extended vocal techniques.

1. DESCRIPTION

Playsound is a web-based music instrument, developed primarily for free improvisation, soundscape creation and experimental music composition [3]. The web application was developed in Node.js¹ and Angular.js² framework to gather sounds with the Freesound.org API [1], and the user can select sounds from their spectrograms. The platform allows playing, looping and processing sound samples from Freesound.org online database in real time. During the last two years after Playsound release, we’ve been playing with it in different contexts, both solo and together with other people.

When searching for the keyword “Noise” using Playsound software, we realised that the search retrieved at that time around 37 thousands of sounds. Usually, we didn’t went too far on the search results pages, and that raised a curiosity to explore all of that sounds to create a piece based on that. During the isolation, specially on the first months, when we had a more intense quarantine, and activities such as lectures were suspended, the author dedicate around 30 hours to browse trough all of this search results, and select some sounds to create this series of pieces.

We gather a collection of sound that would be capable to generate complex variations of sounds, and well suited for musical performance. Pierre Scheffer, as cited by Chion, considered that that some sound objects are “more appropriate than others for use as a musical object”. The criteria is that they must “be simple, original and at the same time

¹<https://nodejs.org/en/>

²<https://angularjs.org/>



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Figure 1: Spectrograms of all sounds used on Noise Symphony X. Source: <http://shorturl.at/mqJ29>

easily ‘memorable’, with a medium duration; therefore be balanced typologically;” They also can’t be too much anecdotal and don’t carry out too much meaning or emotion. Also, they should be easily understandable as sounds, and capable to be combined one with another to produce “musical value” [2]. The idea was to make a collection of signs, that could be combined to produce different sensations, as Scheffer postulates, the music sign doesn’t have an arbitrary relation as in language, but thus their meanings are directly derived from the object’s properties [2].

To gather this collection of sounds, we first based our retrieval on spectral characteristics of the samples, looking for different shapes for choosing less redundant elements. Also, we choose short sounds, as they are more suitable to play without cutting, and they also require less memory from CPU as they are loaded into the page.

Once we retrieved the sound collection, we started to play with that in live solo performances. The first session, Noise symphony no1³, had only the audio recorded, and then after that we transmitted to youtube a spectral analysis made on

³<https://youtu.be/oYLe6WYpIIc>

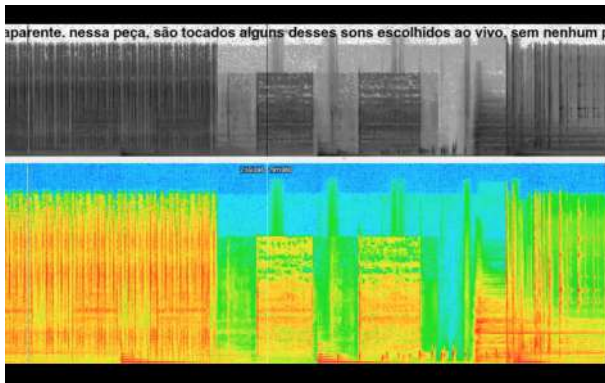


Figure 2: Screenshot of Noise Symphony 1. Src: <https://www.youtube.com/watch?v=oYLe6WYpIic&t=21s>



Figure 3: Noise Symphony no5. Src: <https://www.youtube.com/watch?v=eiNFStFfGLU>

sonic visualiser⁴ (figure 2).

After the first one, we started to broadcast directly to YouTube using OBS software, with a mixed image consisting of a portion of Playsound Interface and the author's webcam as shown of figure 3, excerpt from Noise Symphny 5, that gave to the pieces a meta-linguistics and preformative characteristic. In the first one, we used only the samples, without any sound processing, and after we started to work with other elements, such as changing playback speed or cutting samples. In the forth one, we introduced the voice also, with extended vocal techniques, in a piece that was played on Radio Caso Sonora's radio show⁵. In Apendix B you can see a complete list of pieces of this serie.

The last one was Noise Symphony X, that debuted on Festival de Música Nova - Gilberto Mendes, a well known festival in Brasil that was totally online this year thanks to the pandemic, thas was also the longest one, 20 minutes in total, and the one with more sound and dynamics variety, as we can see on the printed spectrum at figure 4.

For this conference, we are proposing to play another piece of this series, during 10 minutes, with Playsound and extended voice techniques, that can be either played live on stage, or online trough video streaming, according to the

⁴<https://www.sonicvisualiser.org/>

⁵<http://www.sonora.me/2020/08/13/playlist-2-sonora-para-radio-caso/>

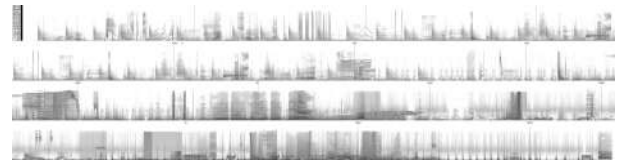


Figure 4: Noise Symphony X Spectrograms

future circumstances due Covid-19 pandemics.

Depending on the circunstances, qe can either do the performance on stage or through streaming, in all cases, we will be playing with a laptop, microphone and analogue filter for the voice.

Either if streammed or in-stage, it should be presented on a screen to the audience, where we will be showing the instrument interface together with performer's webcam, using OBS software. If is on stage, we would need a table with space for a computer, wifi access to the internet, a projector and a P/A system.

2. REQUIREMENTS

- Stereo PA Soundsystem with mixer receiving audio output from a laptop.
- microphone stand
- table with space for two laptops
- two chairs
- power connectors
- projector
- screen
- wifi broadband internet connection

3. REFERENCES

- [1] V. Akkermans, F. Font Corbera, J. Funollet, B. De Jong, G. Roma Trepas, S. Toggias, and X. Serra. Freesound 2: An improved platform for sharing audio clips. In *Klapuri A, Leider C, editors. ISMIR 2011: Proceedings of the 12th International Society for Music Information Retrieval Conference; 2011 October 24-28; Miami, Florida (USA). Miami: University of Miami; 2011. International Society for Music Information Retrieval (ISMIR), 2011.*
- [2] M. Chion. Guide To Sound Objects. page 210, 1983.
- [3] A. S. Stolfi, A. Milo, and M. Barthet. Playsound.space: Improvising in the browser with semantic sound objects. *Journal of New Music Research*, 48(4):366-384, 2019.

APPENDIX

A. LINKS TO NOISE SYMPHONY PIECES

- No 1 - <https://youtu.be/oYLe6WYpIic>
- No 2 - <https://youtu.be/OV2y1DYzUbA>
- No 3 - https://youtu.be/4fG3A5O_vAg&t
- No 4 - <https://youtu.be/O2FfayIFH9w>
- No 5 - <https://youtu.be/eiNFStFfGLU>
- No 6 - <https://youtu.be/t95qh3Rzdbc>
- Noise Symphony X - <https://youtu.be/W0NfraK6tSk>