For alto saxophone and live electronic sounds: “era como se estivéssemos vivos”

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Extended Abstract

Scored for amplified alto saxophone and a live electronic interactive system, “era como se estivéssemos vivos” (translatable as “it felt as if we were alive”) takes advantage of the SuperCollider programming environment as a sound processing and live performance tool with special interest in its flexible machine listening capabilities [1] as well as implementations of physical models.

Exploring a highly energetic and gestural idiom, this piece brings forth more percussive and noisy characteristics of the instrument, inhabiting mostly the realm known as extended techniques and leaving smaller space for more conventionally intonated pitched materials. Thus the relationship between electronic and acoustic sounds is intended to reinforce the richness in articulation chosen for the the instrumental writing. As a strategy to providing less linear yet expressive responsiveness from the electronic system, physical models of springs and bouncing objects [2], are implemented to control modulation envelopes and delay lines, which are activated by both direct audio input as well as an amplitude tracker at control rate.

A “ghost tape” constantly playing at zero amplitude, being brought into sounding when a certain threshold is hit, thus revealing underlying sonic layers created in real time by intensive manipulation of pre-recorded saxophone sounds. Further sonic complexity is generated by the second layer of live electronic processing. Granulated echoes implementing the behavior of physical models and polyphonically chopped reverb tails running through independently variable filters, scatter and disembody instrumental gestures in the performative space (which can be quickly redistributed for an array of 2 to 8 speakers, changing a single variable in the beginning of the code).

When pitched notes at last are allowed to come into play, ring modulation effects are carefully applied to distort the instrumental sound, producing “virtual multi-phonics”, which simultaneously expanding the work’s pitch structure and bringing electronic sounds closer with the already established extended technique vocabulary of the instrument.

Download link for artistic submission info and score:

https://drive.google.com/file/d/0B5xZVMvjv3hHYVpJTGJJR0FPZVk/view?usp=sharing

References

[1] Nick Collins. Machine Listening in SuperCollider. In S. Wilson, D. Cottle, N. Collins, editors, *The SuperCollider Book*, pages 439-462. Massachussets Institute of Technology, 2011.

[2] Julius O. Smith. *Physical Audio Signal Processing*. http://ccrma.stanford.edu/~jos/pasp/ online book, 2010 edition, acessed 29th May 2017.