

## Music for HASGS

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### Abstract

This project is part of the research driven by the saxophonist and sound designer Henrique Portovedo, designated Multidimensionality of Contemporary Performance. Starting as an artistic exploratory project, the conception and development of the HASGS (Hybrid Augmented System of Gestural Symbiosis ) for Saxophone became, as well, a research project including a group of composers and engineers. The project has been developed at Portuguese Catholic University, University of California Santa Barbara, ZKM Karlsruhe and McGill University Montreal with insights from researchers as Henrique Portovedo, Paulo Ferreira Lopes, Ricardo Mendes, Curtis Roads, Clarence Barlow, Marcelo Wanderley. The pieces for this performance were composed by Balandino di Donato, Giuseppe Silvi, Nicolas Canot and Tiago Ângelo. This performance will not only provide insights on the development of Augmented Instruments, but at the same time, it will provide data analysis for programmers and composers to prepare pieces for this specific augmented instrument. The pieces presented will be analysed according to new nota-

tional and compositional paradigms within HASGS as well as contribute to perceive the evolutionary trajectory of the instrument according to the repertoire.

Augmenting an acoustic instrument places some limitations on the designer's palette of feasible gestures because of the performance gestures and existing mechanical interface, which have been developed over centuries of acoustic practice. A fundamental question when augmenting an instrument is whether it should be playable in the existing way: to what degree, if any, will augmentation modify traditional techniques? The goal, according to our definition of "augmented", is to expand the gestural palette. The use of nonstandard performance gestures can also be exploited for augmentation and is, thus, a form of technique overloading. In our perspective, augmented instruments and systems should preserve, as much as possible, the technique that experienced musicians gain along several years of studying the acoustic instrument. The problem with augmented instruments is that they require, most of times, a new learning process of playing the instrument, some of them with a complex learning curve. Our system is prototyped in a perspective of retaining the quality of the performance practice gained over years of studying and practicing the acoustic instrument.

The phenomenon of interaction between instrumental and electroacoustic sounds became a fundamental point of interest of contemporary music. This project will bring a new augmented instrumental model as well as contribute with a large amount of repertoire making the bridge between acoustic and digital instrumental paradigms. A mission of the 20th Century art was to make the invisible visible; in the 21st century artists may become more concerned with finding ways to allow us to sense the invisible. The ration of the senses may shift, and new perceptual modes may be uncovered. As science develops greater sensitivity to life processes and art acquires new means of realization, artists may work more directly with forces and fields rather than simply representing them and engage more directly in their implementation rather than with their implication.