

Ángel Faraldo: *Proposal for the Masters Degree in Sonology.*

The live-electronics improvisor: a composer's paradigm.

My musical background has been more or less equally distributed between composing and performing, the latter oriented mainly to what is commonly known as free improvisation. In this context, working with computers has represented to me a natural middle step between the two practices. The arguments for this could stand as follow:

- **Composition** has to do with *formalization*. In this sense the act of developing or implementing software tools (in my particular case to improvise) implies a comparable degree of formalization.
- **Computers** have to do with *buffering*. Metaphorically or not, this could be seen as a new model of musical writing analogous to the traditional score, representing similar capacities regarding memory and time, those are, the storage of musical materials and the possibility to use, transform or develop them within a temporal frame.
- **Performance** has to do with *action*. That is, with the moment a piece of music -in this context- becomes real, no matter the way it was represented (stored, formalized) before or is expressed through. For that reason, performing with computers does not necessarily have to fit in any preexistent performing model (those of traditional music instruments, or any other physical/gestural paradigm) but instead look for intrinsic and specific definitions of the term.
- **Improvisation** has to do with *collectivity*. Even though this is not an unique possibility, the presence of more than one creative mind in the same artistic process makes the real-time performance as the only available choice. Within this framework, live computer-processing (of other's instruments) comes out with a new situation: boundaries between both parts become less clear, both sonic- and grammatically, for while the possibility of generating sound is completely dependent on "the other", a continuous relation between source sound materials (the instrumentalist) and long term structures (the computer-musician) is occurring.

Summarizing, improvising with computers (in this specific model of performance processing) could be understood under a composer's paradigm, from the design of the tools to be used in the performance to the fact that instead of generating sounds, the computer-improvisor is dealing with ways of transforming and developing existing materials through time, which even in a real-time situation has a certain degree of work "out-of-time".

Study Plan.

Once defined the frame of my current interests in computer music field, I will explain the reasons why I'm interested in the Masters Degree at the Institute of Sonology, and the work to be done in the following two-years period:

1. The developing and testing of new and more sophisticated tools for live-electronics improvisation. For this I find of great interest:

1.1. To acquire a deeper theoretical knowledge in DSP techniques.

1.2. To switch from graphical-oriented programming environments (like Max/MSP or PD) to actual object-oriented languages such as SuperCollider. Currently all my computer tools are implemented in Pure Data. Even though graphical-oriented environments can be certainly useful, I started to perceive true limitations, specially when dealing with bigger amounts of data (i.e. collections of numbers).

1.3. To experiment with different possibilities for live data processing and control, such as sensors and other types of data converters. This should be seen as attempt to achieve a richer and faster communication with the processed performer rather than a way of changing the non-gestural nature of computer performance. For this work, also the Electronica Department appears to be of great help.

2. The real practice of improvisation with other improvisors (from different instrumental natures), to deal with specific issues of the improvisational practice itself as well as to have empirical feedback to build a human-controlled system flexible enough to respond to virtually different sonic behaviors. Also the Koninklijk Conservatoire has showed to be an optimal environment to develop this practice.

3. The reflection in a critical environment about those items of my specific artistic practice that could be of general interest. Some guidelines could be the following:

- The "Duet" approach (acoustic and computer performers couple) as a paradigm for compressibility, coherence, communication and interaction in free-improvisation. Definitions of this concepts would be made.
- Definition of computers as performance instruments, both in terms of its specific nature (buffering, non real-time or gestural behavior) and in contrast with traditional performing models, underlining similarities and differences, as well as possible disruptions between them.
- Boundaries of a live-processing approach to free-improvisation. An aesthetic and ideologic defense of this model over other possibles would be done, partly based on utopias of *de-individuation* and *hyper-instrument* (taken from Deleuze and Baudrillard).
- Specific grammatical and technical definitions for this model. Interdependence of both.
- Explanation of tools and procedures (developed during the two-years period). Suitability of ones over others for this improvisational paradigm.

Ángel Faraldo. April, 2007

Specifications:

YEAR 1

1. Subjects to follow:
 - Peter Pabon: *Signal and System 2*.
 - Peter Pabon: *DSP 3; Physical Models*.
 - Paul Jeukendrup: *Sound engineering 1*.
2. Building-up an Ipson Compact (Internet Protocol Sonology) both to take data from the performer out of sensors and to control the computer in a more suitable way. (planned for January 2008).
3. Design and construction of a physical foot-controller device sensible to pressure changes (Starting on december 2007).
4. Development of new tools taking as starting point the ones used to date.
5. Setting the boundaries and main topics for the Thesis to be presented at the end of the second year.
6. Performance practice in three stable duo-formations:
 - Flute and Live-electronics.
 - Piano and Live-electronics.
 - Percussion and Live-electronics.

YEAR 2

1. Subjects to follow (not fully clear yet, but mostly related to aesthetics, sociology...):
 - Joel Ryan: *Aesthetics and performance of live-electronics*
 - Joel Ryan: *Music and Time*.
 - Raviv Ganchrow: *Sound and Space*.
 - Paul Jeukendrup: *Sound engineering 2*.
2. State-of-the-art after the 1st year. Possible improvements in the system.
3. Performance practice in challenging and new formations.
4. Writing and presentation of the Thesis.