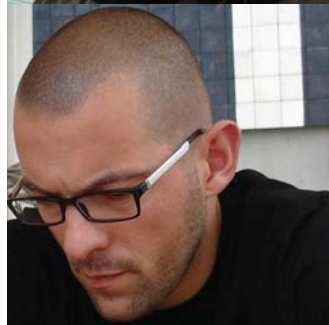


**André Rangel****Live Performance: OAV, Multimodal Object****Abstract:**

OAV is a multimodal performance system, programmed and operated by A. Rangel, actuating in the visual domain, and M. Carvalhais and P. Tudela in the audio domain. OAV is not designed as a self-running autonomous installation, rather as a performance tool to be deployed in coprocessing with human operators. OAV's structure is generative, with varying outputs ranging from minimal to extremely noisy, progressing from a high level of abstraction and a slow tempo to near figuration and an increasingly accelerated rhythm.



The object simultaneously uses real time generative and processing methods: 1) a noise generator based on matrices of pseudo-random values; 2) procedural models generating visuals and audio of arbitrary resolution and open-ended variation; 3) incorporation and reprocessing of inputs from the physical world. The audial layer is created from the integration of algorithmic processes, synthesis and field recordings, partly auto-actuating, partly performed live with computational tools.



The visual procedural technique is based on algorithms that generate coordinates along a Cartesian grid, transformed by offset and rotation. The algorithm accesses a pseudo-random coherent noise mathematical function, inspired in Voronoi tessellations, to create texture and modify geometry. The visual outputs are reminiscent of imagery of the nanoscopic world, this was not the result of a conscientious decision or of an aesthetic influence, but rather a resemblance discovered after the image generating processes were programmed. Beyond plastic and structural similarities, the processes use high levels of codifying, meta-codifying and trans-codifying techniques that cause totally synthetic systems to resemble chemical and biological entities.

**Topic: Art, Music, Performances**

OAV was premiered at "Granular at Ar.Co", May 2011, Lisbon. [http://www.granular.pt/granular\\_arco.html](http://www.granular.pt/granular_arco.html) Duration: approx. 30 min.

**Authors:****André Rangel**

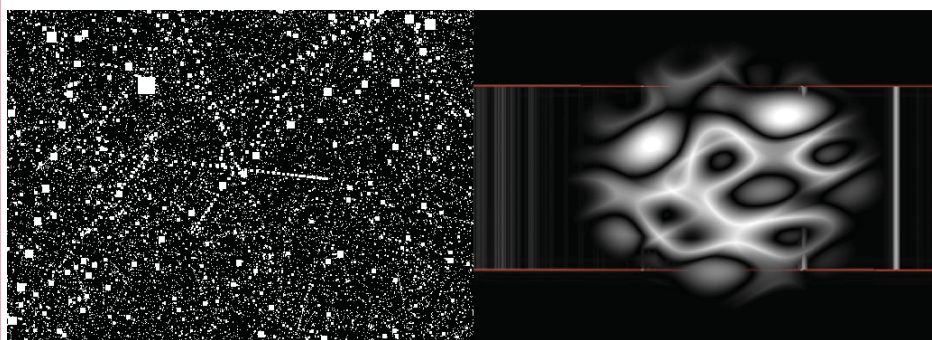
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[www.artes.ucp.pt](http://www.artes.ucp.pt)[www.3kta.net](http://www.3kta.net)**Miguel Carvalhais**

ID+ / Universidade do Porto

[www.fba.up.pt](http://www.fba.up.pt)**Pedro Tudela**

Universidade do Porto

[www.fba.up.pt](http://www.fba.up.pt)[www.at-c.org](http://www.at-c.org)**Contact: a@3kta.net****Keywords:** Audiovisual, performance, generative, computational