

Project Description: ArrayMusic Collaboration

Artist: Zack Settel (Montreal)

Ensemble: ArrayMusic Ensemble (Toronto)

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Artistic Concept and Approach

Acoustic space, in the context of performance and composition, has long been of central concern to listeners, performers and composers. In the sense that a certain instrument may be chosen by a composer to render a particular melody, a particular acoustic space may be chosen for performance of a particular kind of music. In this sense, the performance space may be thought of as a resonator of sorts, which favors certain kinds of writing. The idea of “writing for the space”, so evident in the case of Gregorian chant, opera or symphonic music, suggests an important relationship between the kind of music that one writes and the particular acoustic space (e.g. reverberant symphony hall), in which, the music is performed.

Via the use of techniques for computer simulation and modeling, architects can design new structural forms and can actually experience the interplay of light, form and shadow within them. The same techniques may be applied to the experience of sound/acoustics/music in simulated physical spaces or “*audio scenes*”. Just as with the architect’s model, where the experience of light and color depends on one’s location (e.g.: a living room with glass walls as opposed to a concrete basement with no windows), a performer’s experience of a particular audio scene depends on his/her position within it. Using audio modeling techniques, the audio of live performers can be rendered according to their particular location in the simulated space they are in.

The underlying concept for this project is the strategic and extended use of the “performance space” in the creation, and rendering (performance) of music compositions. The use of computer technology allows this concept to be extended far beyond the range of traditional acoustic practice (symphonic music in concert halls etc.) to include elaborate virtual audio scenes comprised of various resonant subspaces, other (prerecorded or remote) sound sources, and effects processing nodes. Most important, the virtual audio scene is dynamic, and can change smoothly from one moment to the next of a piece, as do opera scenes on the large turntables at the opera house. It is as if the performers remain still, while the performance space (virtual audio scene) around them drastically changes. *see appendix: “audio scene with instrumentalists”*

Compositionally, there is great interest in working with this approach. The score not only includes musical instructions, but *spatial* (chorographic) instructions as well. The performance space takes on an instrumental function because a player’s position on stage will determine, to a potentially significant degree, how his/her sound is modified. In short, this project serves as a point of departure in the exploration of new performance situations and their implicit new musical forms.

Context and brief history

For the past several years I have been working with the use of virtual audio scenes (*audioscapes*) for installations and live performance. Thanks to New Media Initiatives grants as an artist in collaboration with the Center for Intelligent Machines (McGill), and thanks to ongoing research work at the Société des Arts Technologiques (La SAT), great advances

have been made in both technical and artistic areas *see CDRom, works and publications*. This November, I will go to Banff for a one-month residency, where team members and I will work on techniques for (performer) position tracking. The evolution of my work as researcher and artist brings me now to a point where I can begin to tackle musical forms which had previously been out of reach, for want of techniques (suitable production environment for simulation and audio modeling), and experience in composing for instrumentalists performing live on stage within virtual audioscapes.

Career pertinence and collaboration rationale

The proposed collaboration with the ArrayMusic ensemble is quite timely. I am only now in a position to take my work “on the road”, and actually write for larger forms such as a quintet or sextet. The technical environment is solid and my ideas are clear. On occasion I have worked with the ensemble in the past; they are talented and dedicated musicians. We get along well and I am certain of their abilities, genuine interest and enthusiasm in the proposed project. Finally, the experience of working and presenting in Ontario would obviously be of great value to me as an artist.

Work Plan

The project calls for a three-month period in which a new work (quintet or sextet) for the ArrayMusic Ensemble will be composed and performed. It breaks down into the stages below (note that I already have access to nearly all the equipment needed for the realization of this project):

Pre-composition (week 1 and 2)

I will travel to the ArrayMusic studio in Toronto to work with the players in the ensemble, often one at a time. I will focus on technical matters such as performer tracking (video camera based) and audio scene scripting (laying out the virtual spaces that will exist on stage during performance). I will also develop several sketches to test certain musical and scoring ideas for the piece, since chorographical instructions will need to be included. I will also make audio samples of the instrumentalists; these will likely be included as pre-recorded Accompaniment in the audioscape during performance. *see appendix: “Audio Scene with instrumentalists, accompaniment and effects processing”*.

Production (week 3-8)

Development of the score and underlying techniques for audioscape building (audio scene scripting). I will work mainly on my own during this period.

Rehearsal and Revision (week 9-11)

Working daily with the ensemble, I will finalize the piece, making revisions as necessary, and rehearsing the piece.

Documentation and Performance (final week 12)

The piece will be documented and performed during this time. ArrayMusic will arrange for high-quality audiovisual capture/documentation of the performance. Specifically, I plan to complete the project with a fully documented work (including detailed technical section) which can be sent to other ensembles elsewhere for promotion and performance.