

Tintinnabulate Ensemble

Pauline Oliveros, Director
and SoundWIRE Ensemble

Tele-Colonization

A group improvisation based on a music concept and adaptive sound scapes by Jonas Braasch

Tele-colonization occurs when a group of people virtually populates a new area. During this process, both the new and old inhabitants will have to get to know each other through communication. Eventually they will have to adapt their cultures to share their habitat in harmony. During this concert, the audience has the opportunity to experience the perspective of the co-located site at Rensselaer Polytechnic Institute through binaural rendering (dummy head reproduction via headphones) of this site, which is characterized by its individual Sound Scape Environment. The musicians, however, will share a common virtual space which is generated using Virtual Microphone Control (ViMiC), an array of virtual microphones with adjustable directivity patterns to position sound sources in a computer generated room using a loudspeaker array.

McGill University Location (Tintinnabulate):

Pauline Oliveros, Accordion
Jonas Braasch, Soprano Saxophone
Doug van Nort, Live Electronic Processing
Nils Peters, ViMiC processing
Jefferson Pitcher, Electric Guitar
Kent Walker, Technical Site Manager
Sungyoung Kim, Recording Engineer

Rensselaer Polytechnic Institute Location (Tintinnabulate):

Bobby Gibbs, Clarinet
Elizabeth Panzer, Harp
Dan Valente, Electric Violin, ViMiC Processing, Audio/Video Coordination
Bart Woodstrup, Video Design and Live Processing
Jayeeta Chowdury, Camera

Korea Location (SoundWIRE):

Chris Chafe, Celetto

CCRMA Stanford University Location (SoundWIRE):

Juan-Pablo Caceres, Synthesizer+laptop

This project draws from the technical support of several research groups: CARL, RPI; CIRMMT, McGill University; CCRMA, Stanford University. The transmission and projection is realized using Jacktrip, Audio Transmission Software (CCRMA), and the Ultra-Videoconferencing System (CIRMMT), and Virtual Microphone Control (ViMiC, CARL and CIRMMT).

Initial Thoughts

Since ICAD stands for International Conference for Auditory Displays, I thought it might be worth to have some programmatic contents in our tele-performance. As you may have noticed, we just reached the 400th anniversary of the foundation of Jamestown, which is the first larger British colony in North America (That's why the Queen had

supper with George II today). One of the interesting aspects of this settlement was the reception by native Indian tribes, who weren't sure what all this was about. If they had known the course of history, they might have responded differently.

Unfortunately, we have much less than 400 years to prepare our ICAD concert, but I thought that the various aspects of colonizing a space might be a good starting point for our performance (to get things going), of course, we should handle it in an abstract sense. One of the ideas I had is to colonize our physical concert space in Montreal through our ensemble in Troy. As it has been observed often in history, we will initially leave the audience in the dark, what our ensemble at RPI is about. Instead, they will share their sound only fragmentally in Montreal, possibly processed through EIS. At the end of the concert the intentions of the Troy ensemble will be clarified, but it is too late (whatever this means :-). The sound of the Troy ensemble literally has conquered the stage forcing the Montreal ensemble to adapt to survive.

I would characterize the Montreal Ensemble through natural meditative sounds. Slow movements, few repetitions, and natural environments, e.g., caves, forest. I am also suggesting to include sound scapes of these environments.

The Remote ensemble (Troy, Stanford, and Korea) will be represented through a more technologically based sounds, louder levels, repetitive machine like sounds, and sound scapes of urban and industrial areas. During the middle of the concert their sound will be too dominant, so that the Montreal ensemble will have to adapt to join (a tele-colonization).

A starting point for the video part of the group improvisation might be Bart's recent piece in which the transition between two still images was determined by the movement of the audience. For the ICAD concert, the transition could be done using the instrumental sounds. E.g., in the beginning only few areas would be visible with images from Troy, showing only unidentifiable fragments, while at the end their visual space would dominate. As an initial lighting source I am suggesting mining lamps which are head-worn, easy to buy at home depot and symbolize a technically, intruding world.

Here is the score for the piece:

Technical Notes: (rough Draft)

The schemes below show the set-up for the audio and video part of the concert. We will use the following scheme for the 8-channel sound projection:

ch: 1-8: 0, 45, 90, 135, 180, 225, 270, 315 deg azimuth (counted clockwise, e.g., 90 deg is right). The main gear has the following in- and outputs:

ViMiC machine McGill:

Input: 1-8 ch: Pauline, Jonas, Jeff, Elizabeth, Dan, Bobby, Chris, Juan-Pablo

Output: ch: 1-8: 0, 45, 90, 135, 180, 225, 270, 315 deg azimuth

ViMiC machine RPI:

Input: 1-8 ch: Pauline, Jonas, Jeff, Elizabeth, Dan, Bobby, Chris, Juan-Pablo

Output: ch: 1-8: 0, 45, 90, 135, 180, 225, 270, 315 deg azimuth

Doug Max/Msp processing:

Input: 1-8 ch: Pauline, Jonas, Jeff, Elizabeth, Dan, Bobby ,Chris, Juan-Pablo

Output: ch: 1-8: 0, 45, 90, 135, 180, 225, 270, 315 deg azimuth

Transmission machine McGill:

Input: 4 ch from Doug: 45, 135, 225, 315 deg azimuth, Pauline (2ch?), Jonas, Jeff

Output: Elizabeth, Dan, Bobby ,Chris, Juan-Pablo (2 ch), Binaural signal

Transmission machine RPI:

input: Elizabeth, Dan, Bobby ,Chris, Juan-Pablo (2 ch), Binaural signal

output: 4 ch from Doug: 45, 135, 225, 315 deg azimuth, Pauline (2ch?), Jonas, Jeff

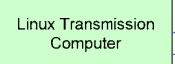
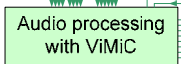
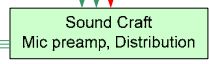
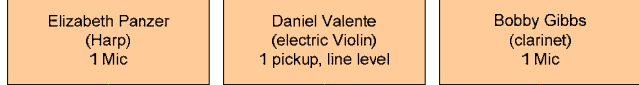
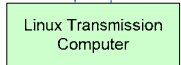
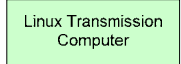
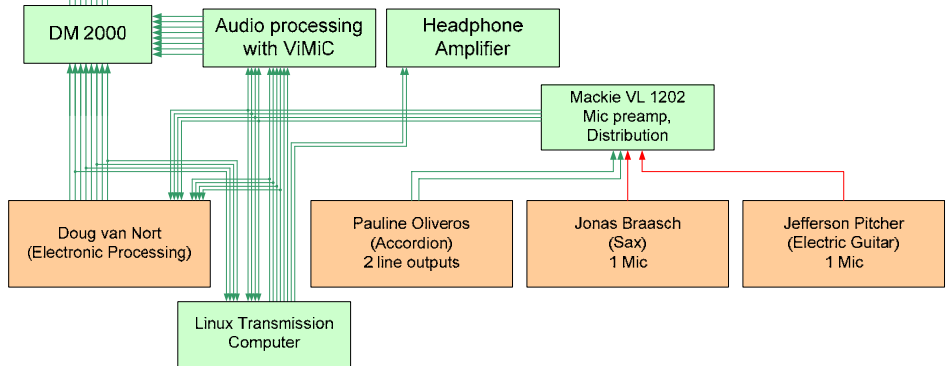
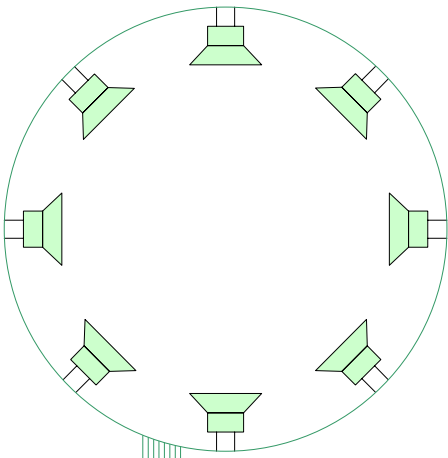
ViMiC machine RPI:

input: Doug's computer 4ch, Pauline, Jonas, Jeff, Elizabeth, Dan, Bobby ,Chris, Juan-Pablo

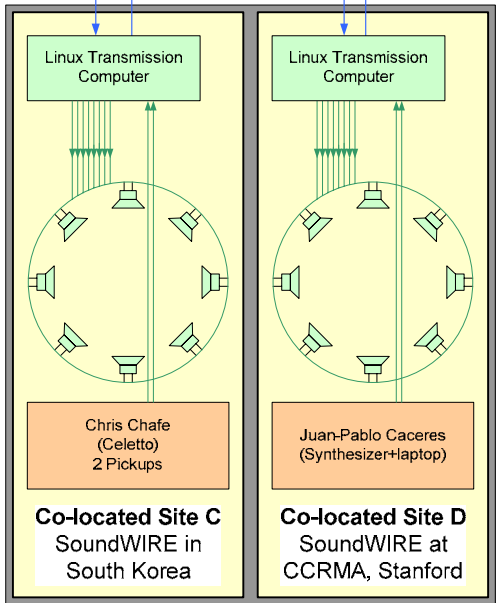
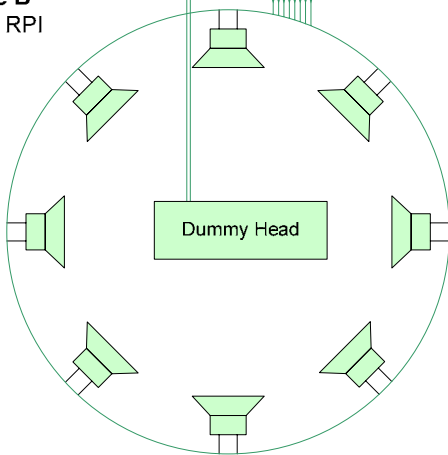
Output: ch: 1-8: 0, 45, 90, 135, 180, 225, 270, 315 deg azimuth

Co-located Site A
Tintinnabulate at RPI

Current Transmission scheme for co-located music performance
at ICAD, 26 June 2007
(version June 14, 2007)



Co-located Site B
Tintinnabulate at RPI



Co-located Site C
SoundWIRE in
South Korea

Co-located Site D
SoundWIRE at
CCRMA, Stanford

Current Video scheme for co-located music performance at ICAD, 26 June 2007
(version June 14, 2007)

