

Michael Musick

Sonic Exploration Environment #2

An Improvisation Environment for a
Computer with Amplification System

2015

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Sonic Exploration Environment #2 is an interactive improvisation system for computer with an interactive feedback amplification system. This current environment provides a flexible system from which to make music as a soloist or in an ensemble setting. This environment utilizes techniques from live digital signal processing, sonic feedback, and controllerism. A performance of this environment will include playing of the physical space, by using handheld microphones to capture unique acoustic nodes, vibrations, and anomalies in the space. Through controlled feedback processing, otherworldly textures and rhythms emerge, unique to each physical space and performance. Borrowing from the composers interests in nature, and natural environments, the goals in performance are to find harmony with space, music, and energy.

Setup Information

For performance, the setup is placed on stage. The hardware for this setup consists of the following (all of which are provided by the performer):

1. A computer
2. Audio interface
3. 2 microphones
4. QuNeo MIDI controller
5. Korg nanoKontrol

The following should be provided by the host:

1. A 2.1 audio system
2. Balanced ¼" TRS cables to feed the audio system
3. A stage monitor
4. A table to setup the hardware on

THOUGHTS ON EXPLORING THE ENVIRONMENT

The performer should allow ample time in private to practice the touch and management of the parameters. Part of the exploration is discovering what sonic possibilities exist through the manipulation of each parameter.

A few important ideas would be management of time. Ideally 30% of the performance time would be spent playing SuperCollider through the use of the MIDI controller, 30% would be spent playing (hitting, whacking, tapping, scrapping, feeling the vibrations) of the resonating objects, and the rest (40%) would be spent listening to the texture and the progressions that naturally take place.

Due to the nature of how this piece is routed and hooked up, feedback will occur. This is not necessarily a bad thing for the purposes of this piece. The main amplifier's output has a limiter on it that will help protect the main speakers. Feedback should be managed and the performer should try to avoid it as long as is possible. But, as the piece progresses it will keep coming back and eventually destroy the textures created by the performer. At this point the performer is to explore the sonic textures available through the feedback.

When listening, the performer should feel free to stand up and walk out to hear the piece, especially if the piece is being performed in an interesting space. The performer should explore and "play" the room. Nodes will exist where certain frequencies build up and are exaggerated and where certain frequencies are cancelled out altogether. This exploration of the room is crucial to really hearing and exploring the textures and music being made.

The volume of the piece is left up to the discretion of the performer. It is suggested the piece be performed quite loud, so that the sonic footprint the performance space imparts on the sounds can be explored. However, the piece should also be highly dynamic. The performer should create opportunities where only soft sounds will come from the singing objects and conversely where the system seems on the brink of complete destruction.