

gravity|density

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ABSTRACT

gravity|density is a work for cyber-hacked devices and Web Audio applications. Our goal is to develop systems that merge repurposed and hacked pieces of hardware into the networked world of web art. While the electronic sophistication of mobile devices and the flexibility of web applications allow artists to create immerse audiovisual environments without the use of traditional music hardware, we believe that digital artists should not cast aside the tools of the past, but rather find new and creative ways of modifying them so that they can inform the ways in which we explore and create with new digital, web-based tools. Through these new hybrid systems, we can both embrace the limitations and push the boundaries of any hardware we use for the purpose of creating collaborative sonic environments.

In *gravity|density*, we begin by manipulating fixed-audio sources through the performance of hacked CD players. The sonic results of this mangled audio is sampled and then distributed to the audience's mobile devices in both passive and interactive manners. Passive distributions allow us to create intricately-spatialized rhythmic interplay between the glitching CD players and the blanket of overlapping samples dispersed throughout the networked audience. Active distributions allow the audience to join in our performance; by choosing small portions of the audio sent to them and sending these selected samples back to us, we string this audio together and feed it into a cyber-controlled distortion pedal before sending it back to the audience for more manipulation. This results in overlapping cycles of control and audio generation between performer, audience, network, and machine.

1. TECHNICAL REQUIREMENTS

The performance duration is approximately 9 minutes. We will require the following tech from the venue:

- 5 channels audio output: 5 mono signals (two per CD player, one from the distortion pedal), provided to the house from the stage.
- Hall distribution pattern should be as follows: CD



Figure 1: gravity|density spinning discs

player 1 stereo (front left, front right), CD player 2 stereo (rear left, rear right), distortion pedal (center channel). Audio will also be distributed to audience mobile devices in various configurations throughout the performance.

- Two tables: one for the performers and one to place the CD players and distortion pedal.
- Two chairs.
- Video projection: a camera feed of the CD players will be provided to the house so that it may be projected for the audience to see.
- A robust WiFi network for connecting audience members to the networked web performance interface

All other tech (cyber-hacked CD players, distortion pedal, performer laptops, video camera) will be provided by the performers.

2. DOCUMENTATION

Further information and a video demonstration can be found at <https://gravity.emdm.io/>

3. ARTIST BIOGRAPHIES

Anthony T. Marasco is a composer and sound artist who takes influence from the aesthetics of today's Digimodernist culture, exploring the relationships between the eccentric and the every-day, the strict and the indeterminate, and the retro and the contemporary. These explorations result in a wide variety of works written for electro-acoustic ensembles, interactive computer performance systems, and multimedia installations. An internationally recognized composer, he has received commissions from performers and



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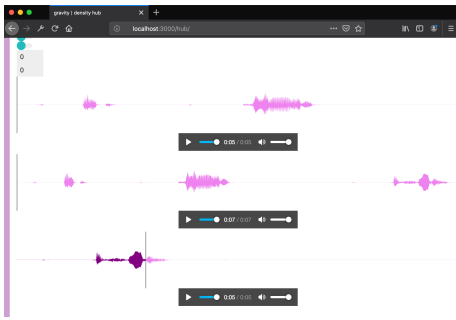


Figure 2: gravity|density hub containing samples captured by the audience

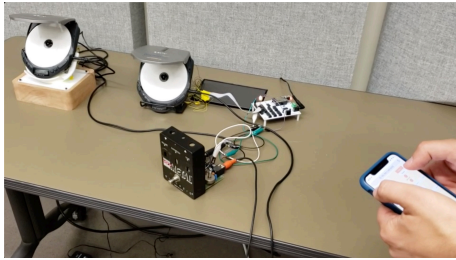


Figure 3: gravity|density performed with Bendit_I/O cyber hacking

institutions such as WIRED Magazine, Phyllis Chen, the American Composers Forum Philadelphia, Quince Contemporary Vocal Ensemble, Toy Piano Composers, the Rhymes With Opera New Chamber Music Workshop, Data Garden, and PLAY Duo, and the soundSCAPE International Composition Exchange. Marasco was the grand-prize winner of the UnCaged Toy Piano Festival's 2013 Call for Scores, a resident artist at Signal Culture Experimental Media Labs, and a grant winner for the American Composers Forum's "If You Could Hear These Walls" project. His works and research have been featured at festivals across the globe, such as NIME, the Web Audio Conference, the Toronto International Electroacoustic Symposium, SEAMUS, Electroacoustic Barn Dance, New York City Electroacoustic Music Festival, ICMC, Montreal Contemporary Music Lab, and Omaha Under the Radar. Marasco is currently a Ph.D. candidate in Experimental Music & Digital Media at Louisiana State University.

Jesse Allison is a leader in sonic art technology, thought, and practice. Dr. Allison holds the position of Assistant Professor of Experiment Music & Digital Media at Louisiana State University. As part of the Cultural Computing focus of the LSU Center for Computation & Technology, he performs research into ways that technology can expand what is possible in the sonic arts. Prior to coming to LSU, he helped to found the Institute for Digital Intermedia Art at Ball State University and Electrotap, an innovative media arts firm.

Research and invention interests include computer interactivity in performance, distributed music systems, mobile music, interactive sonic art installations, hybrid worlds, and multi-modal artworks, those that can be experienced through a variety of means. As such, he manages the Media Interaction Laboratory and Library (MILL), co-directs the

Laptop Orchestra of Louisiana (LOLs), and heads up the Mobile [App | Art | Action] Group (MAG) for the CCT.

As an artist, Allison has disseminated his work around the globe through live performance art, interactive installations, virtual and hybrid worlds interventions, and presentations. Recent performances/exhibits include the Pixelations Festival, New Instruments for Musical Expression (NIME), Siggraph, Techfest Bombay, International Computer Music Conference (ICMC), the IUPUI Intermedia Festival, Boston Cyberarts Festival, and the Society for Electro Acoustic Music in the United States. Allison received his doctor of musical arts in composition from the University of Missouri at Kansas City.