

Pandora's Hope

Proposal for an Installation / Performance
Spark Festival of Electronic Music and Art

David Bithell

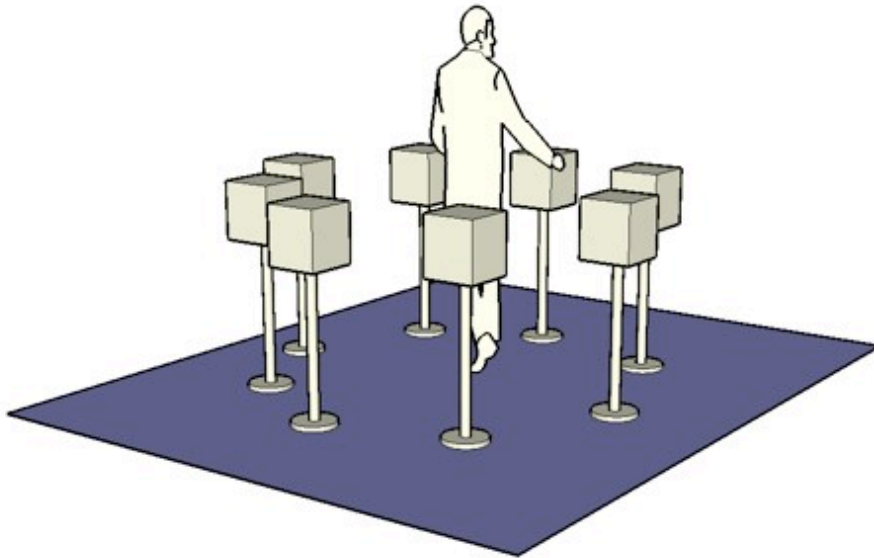
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This work explores the physical spatialization of sounds generated through a field of 8 computer controlled wooden boxes. The performer and the audience may interact with the sounds, redirecting pathways and complex patterns of physically actuated sound.

The title comes from a collection of essays by the French sociologist Bruno Latour. In this collection he writes, "*When a machine runs efficiently, when a matter of fact is settled, one need focus only on its inputs and outputs and not on its internal complexity. Thus, paradoxically, the more science and technology succeed, the more opaque and obscure they become.*"



Technology

Inside each of the eight wooden boxes are various electromechanical actuators used to generate sound and analog sensors used to gather control data from the performer or the audience.

Each box includes:

- Two solenoids capable of creating complex knocking patterns at varying dynamic levels.
- A motor with a brush attachment to make continuous friction-based sounds
- One or more unique sound-making devices (motorized bells, tape playback devices, etc.) to generate occasional interruptive sonic gestures and implied mechanical failure.
- One contact microphone to sense actions performed on the body of the box.
- One proximity sensor to measure the closeness of the audience or performer to the box.

These actuators and sensors are connected to an analog/digital interface (the Gluion®) with both digital outputs (for electromechanical control) and analog inputs (for collecting sensor data).

The interface communicates to a Macintosh OS-X computer via Ethernet utilizing the Open-Sound-Control (OSC) protocol developed by UC Berkeley's Center for New Music and Audio Technology.

Computer-based control of this data, as well as the construction of the composed and interactive elements of this installation is done on the Max/MSP platform.

Installation + Performance

The installation is composed with a series of distinct interactive models that cycle over the course of each hour. The way that an audience member engages with the installation therefore changes over time and allows for repeated investigations of its principles of interaction.

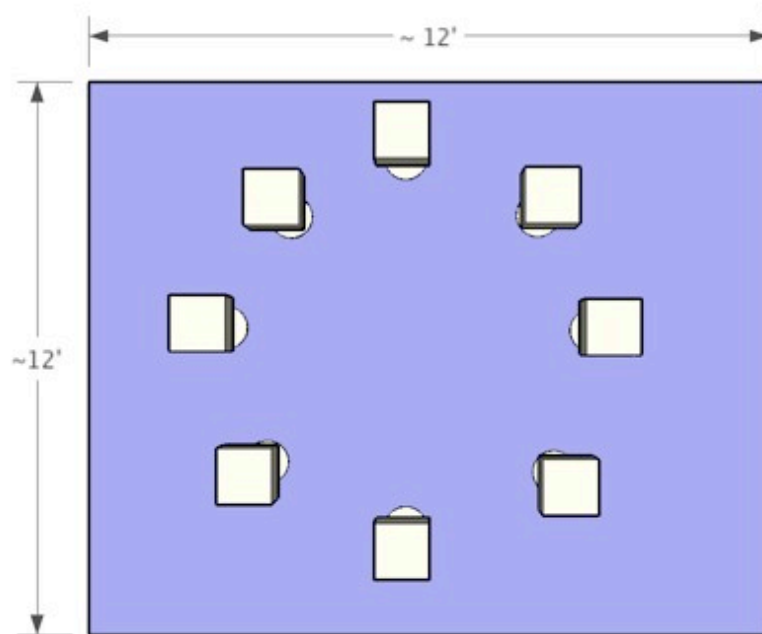
A live performance that interacts with the theatrical possibilities of this environment in a more composed fashion can occur at intervals throughout the duration of the installation. Each such performance will last approximately 10 minutes and will have no additional technical requirements. The author of this proposal would be the performer.

Space

The space is designed to allow observers to easily enter into the ring of wooden boxes to investigate and interact with the installation.

The minimum requirements for the physical space of this installation are:

- An indoor 12 foot by 12 foot level space.
- If in a gallery space, nearby walls need not be bare, but the installation should be separated from other sound making installations as much as practical, as the general sound level of this project is quiet.



Materials Provided By The Artist

All structural elements of the installation (wooden boxes and stands)
Glunion Analog/Digital Sensor Interface
Macintosh OSX Laptop Computer
Cabling (exclusive of power – see below)

Materials Requested From The Festival

Installation space as described above
Grounded power at the site (floor / wall plug or extension cord)
General or focused overhead lighting