

La Pierre Chanteuse:

an exploration in changing space through aural, physical and co-present interactivity



Project

Description

Built into the wall of the Bollwerk is an alcove, a small space that can be occupied by maybe 3 or 4 people. We wish to create a new experience in this very old space.

Imagine a stone disk. One made from the same green sandstone used to build the Bollwerk and weighing roughly 150-200 kilos. This disk will hang horizontally in the middle of the alcove on a bearing and shaft that allows it to spin freely with the push of a hand, like a flywheel. The shaft will also hang from a gimble that allows pendulous motion. These two motions will be quantified electronically. The swinging of the stone will translate like a joystick, and the spinning will translate into direction and velocity. This information will modify digital audio files, transforming the alcove into an interactive surround-sound environment. When one or more participants enters the alcove and spins the stone, they are enveloped in sound. The sound will change according to their interaction with the stone. Through a web interface, we will allow anyone to upload sound files and program parameters to be played in the sculpture. For example, someone could load a sound file and specify that the direction and velocity of the rock's spin translates to the direction and velocity of the sound, making the stone disk like a DJ's vinyl disk. This piece creates an extension of the Bollwerk as an analog interface to digital technology.

This project has been developed in response to the physical and historical presence of the Bollwerk and from a team desire to explore the incorporation of interactive electronics into the industrial strength sculptures of Zachary Coffin. We feel that the quality of resources and people involved make the Belluard Festival the ideal place to build this unique project.

After Belluard, we will build a set of singing stones hanging from a giant steel structure in the Black Rock Desert for Burning Man 2007. This huge sculpture will expand on the techniques that we pioneer at Belluard by tripling the number of stone disks and increasing their mass thirty-fold. We hope that the public involvement in the sculpture that begins with the Belluard project will give us a library of sounds and programs that emerge in the desert.



Design and Execution

Some elements of this project will be built in the USA and some in Switzerland. In April of 2007, Zach Coffin will be in Winterthur to build a large sculpture for Technorama. This would be the time to measure the alcove, contract for the stone, plan installation and find the fabrication facility. With the precision parts pre-built in the USA, fabrication and installation will take approximately one week. Possible places to fabricate the steel frame include the well-equipped shop at Technorama, the Dynamo in Zürich or in a suitable shop in Fribourg.

La Pierre Chanteuse:

an exploration in changing space through aural,
physical and co-present interactivity



Project team:

Zachary Coffin (www.zacharycoffin.com) : Lead artist, steel fabrication. Zach is an internationally recognized artist interested in interactive kinetics, very heavy stones and the ways that technology can be used in the service of art.

Daniel Bauen (www.danielbauen.com) : Mechanical engineering. A recent graduate of Georgia Institute of Technology, Daniel is an engineer at Function Engineering. He is also a Swiss citizen and speaks French.

John Taylor: Computer science and audio engineering. John is a nomadic technologist originally from Silicon Valley. He is currently part of a "black ops" division of Red Bull and has created interactive art installations and managed industrial design projects.

Jill Coffin: Documentation and blog relations. Jill is currently a PhD candidate at Georgia Institute of Technology and lead the Breeze Project for Belluard last year. As a mother of two small children, she sees her role limited to project advice and documentation.

Estimated budget:

Item	SFR
Airfare	3500
Artist Fee	1500
Steel Fabrication	1800
Machined Parts	400
Shipping	500
Bearings	400
Stone	500
Precision Position Sensor	250
Materials Contingency	300
Mac Mini Rental	100
Microcontroller, USB interface	100
Precision Potentiometers	50
Miscellaneous Electronics and Wires	300
Multi Channel Amplifier Rental	50
Multi Channel Sound Card	150
Small Speaker and Subwoofer Rental	100
Total	10000

