SoundMetal

An Unreal Touch Experience

Dan Wilcox
robotcowboy.com
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Abstract

This paper proposes the project *SoundMetal: An Unreal Touch Experience* to the Eyebeam Interactivos? call for proposals, May 2008. *SoundMetal* is a simple system to turn any conductive surface in the city into a conduit for unexpected sound generation. Users simple grasp a subway pole and any further skin contact influences the system to create sound, creating a unique experience to those not accustomed to the concept of body conductance. It is hoped that this simple concept could lead to a moment of "unreality of the everyday" for those involved.

1 Introduction

When the author read the Interactivos? theme "exploring the tension of real versus fake" and one of the central questions, "Can something be so fake that it moves into the realm of the real?", he immediately thought three experiences: public magic tricks, Janine Antoni's *Touch*, and the "unreality of the everyday".

Magic is something so fake that it becomes real, something one wants to understand yet does not want to "ruin the experience" by such knowledge. As Eyebeam is focused on "public space", street magician Chris Angel comes to mind as someone with the ability to create unbelievable moments anywhere, here shown levitating a woman, Fig. 1.

Fig. 1: Chris Angel with a floating participant

Without the shock magic of Angel yet with no less affecting of a visual, Janine Antoni's *Touch* is a video of the artist "walking on the horizon". She begins at the left edge of the field of view and walks slowly towards the right. As the rope sags due to her body weight, her feet descend until the rope suddenly matches the horizon, the division between ocean and sky. It is an incredible moment as our perspective is skewed and she is suddenly walking upon the world, Fig. 2 — real yet unreal and completely magical.

> *I call the piece "Touch" because it is about that moment or that desire to walk on the horizon, which is obviously an impossibility and only*

Fig. 2: Janine Antonti touching the horizon in *Touch*

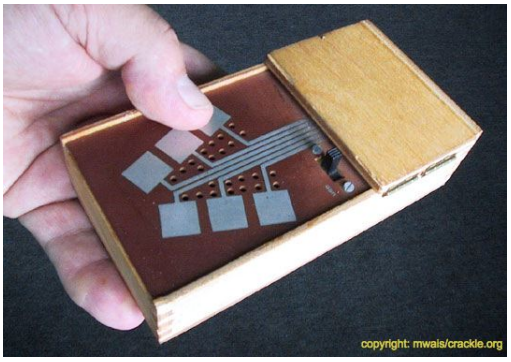

Fig. 3: A STEIM crackle box

> *an illusion that can be accomplished through the video camera. And you can see Im hardly balancing there in that place of my desire. [3]*

The first two examples were of more extraordinary "magic" but what of the unbelievable moments in everyday life? I will call this the "unreality of the everyday": somebody walking by in some outlandish costume, seeing a celebrity for a split second on the street, or being visited by a strange or rare animal. These are moments only you and a small number of people experience for just a short period of time which, later on during the day, you wonder if they were real at all.

2 Background

There are two specific background projects I have chosen when formulating this concept: the STEIM crackle box and Christian Moeller's *Do Not Touch*. The STEIM crackle box, Fig. 3, was born out of Michel Waisvisz' desire to "touch the circuitry" and, in essence the electronic sound:

> *At some point i started playing by placing my fingers on the print board of a damaged electronic organ. By patching the different parts of the circuit through my - conductive - fingers and hands I became the thinking [wet] part of a electronic circuit and i started seeing my skin as a patchable cable, potentiometer and condensator. [2]*

The crackle box and associated devices built using "crackle circuits" were developed in the late 1960's and have been used in both interactive installations and exhibits as well as live electronic performances. In one performance, multiple musicians played their instruments through creating electrical connections through touching each other, playing the human body as a circuit element, Fig. 4. The author owns a crackle box and is continually amazed by the reactions of newcomers

Fig. 4: A "touch chain" using crackle circuits

Fig. 5: Christian Moeller's *Do Not Touch*

to the device. It is magic to them as most people are not aware of body conductance let alone its electrical and musical uses!

Taking the theme of touch in a different light, Christian Moeller's 2000 installation *Do Not Touch* dares participants "not to touch". A steel pole is surrounded by a warning sign stating "DO NOT TOUCH" and those that succumb to the temptation are rewarded with "a significant electric shock amplified by sound", Fig. 5. The author imagines that most people who grab the pole do not believe anything will happen and, when shocked, are completely surprised. Their supposed version of reality, "that sign is crap, the pole will not shock me", is forcibly dispelled. When thinking of public space in New York City, one can easily draw a connection between the pole in *Do Not Touch* and the poles found in New York City subway trains. [1]

3 Concept

The interest of the author is mainly in experimental/electronic music and music oriented graphics, so I want to propose a project that explores this "unbelievable, magic moment" in public space using sound and touch technology. There are a large amount of conductive metal surfaces in the city that people touch everyday ... what if touching any of it suddenly played music? Subway poles, escalator panels, door handles, etc are everywhere.

Imagine walking onto a subway car, grabbing one of the center poles, and as soon as you do it makes a sound. You let go and the sound stops. When you touch the pole again the sound returns ... you don't know how this is happening, is it real? A second person approaches, grasps it, and the sound changes. You exchange looks and both let go, the sound stops once more. You both begin to play with the pole, sliding your hands on it and listening to how the sound grows and changes timbre. "What the hell is going on?" you think. Your stop comes and you leave, not sure what just happened. It was like magic.

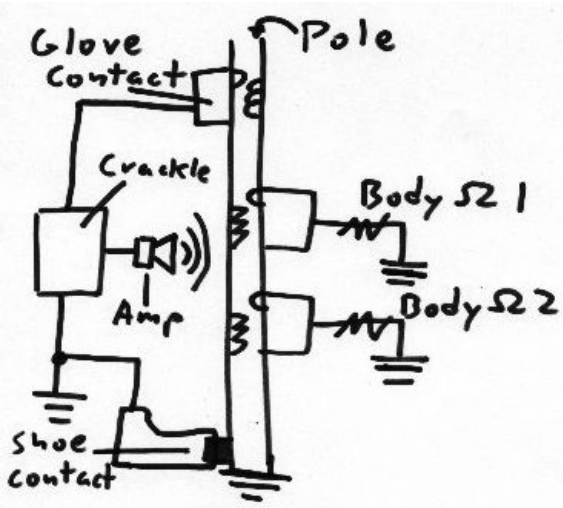

Fig. 6: A conceptual overview of the system

4 Implementation

This concept is a combination of *Do Not Touch* and the touch-based sound of the crackle box put into public space in a sort of guerrilla action. An electronic crackle-style touch circuit or digital touch sensor combined with a microcontroller or small computer is mounted inside a backpack or hidden in the clothing of an operator. A "touch glove" and "touch shoe" containing small, external metal contacts allow this operator to activate any conductive metallic surface. When people touch this surface they act as additional resistance to ground and influence the circuit producing noise. More people, different noise. A small, hidden amplifier and speaker will produce the sound.

5 Presentation

The gallery presentation will consist of a film, active demonstration, and example installation of the system. The film can be made with a hidden camera in order to capture people's reactions, hopefully that moment of "unreality". The system can be officially presented at the opening and then setup in a hidden fashion so visitors can interact with it in the same manner as those in the video. For example, the doors to the bathroom could be wired or even the faucets so that when people interact with the water, they will produce sound.

6 Conclusion

The touch and sound combination is hardly new in the realm of new media, yet it is still relatively unknown to the populace at large. People can still be surprised and inspired by this simple interaction ... just watch a small child play with a crackle box. It would be magic for the author to see people on the subway experiencing this for the first time.

References

[1] Do not touch. 2000. Available from: `http://www.christian-moeller.com/display.php?project_id=49` [cited May 2008].

[2] Cracklebox. 2004. Available from: `http://crackle.org/CrackleBox.htm` [cited May 2008].

[3] Janine antoni: Interview & vidoes. 2007. Available from: http://www.pbs.org/art21/artists/antoni/clip1.html [cited May 2008].