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The hearing room: Combining video art and electroacoustic music

Aaron Michael Hynds
University of Northern Iowa

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THE HEARING ROOM:
COMBINING VIDEO ART AND ELECTROACOUSTIC MUSIC

A Project
Submitted
In Partial Fulfillment
Of the Requirements for the Designation
University Honors with Distinction

Aaron Michael Hynds
University of Northern Iowa
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This Study by: Aaron Michael Hynds

Entitled: *The Hearing Room*: Combining Video Art and Electroacoustic Music

has been approved as meeting the project requirements for the Designation
University Honors with Distinction

Date

Dr. Jeffrey Funderburk, Honors Thesis Advisor, School of Music

Date

Jessica Moon, Director, University Honors Program

Over the last 4 years, a large part of my creative output has been based on multimedia technology. My first encounter with the multimedia creative process came through the use of computer software programs to manipulate sound files and create electronic music. As I grew more familiar with the technology involved in making these kinds of works, I began to branch out into video art, first by manipulating pre-existing footage and later by shooting my own videos. From these first experiments, I became hooked on making multimedia compositions and video works.

The first substantial multimedia work that I created was *Voices of America*, a composition for tuba ensemble and CD playback that was premiered in the Spring 2008 semester. My fascination with the multimedia genre continued through the creation of other works, such as */virus/* for tuba-euphonium quartet with multimedia and *Supermassive* for solo tuba with video. After creating several smaller video works and multimedia compositions, I decided to embark on a project to create a larger, more meaningful work. This desire to expand and refine my own technical abilities while also creating an artistically significant work was the impetus behind the creation of *The Hearing Room*.

The Hearing Room is a multimedia project intended to give its audience a unique audiovisual experience. The project takes the form of five videos, all of which include an electroacoustic soundtrack. These videos will incorporate elements of other multimedia artists' works, utilizing the aspects that make those works so effective. With *The Hearing Room*, the ultimate artistic goal is to give viewers a unique audiovisual experience, while also creating a series of works that are aesthetically pleasing and personally relevant.

Creative Challenge

Early in the creative process of *The Hearing Room*, it became apparent that the final form of the project should be both artistically and technically accessible by the viewer. To this end, the project was split into smaller components so that the work, as a whole, would be much easier to digest. I chose to make the visual aesthetic of *The Hearing Room* much more abstract than originally intended, in order to embrace viewers who might not be familiar with the imagery of the videos. In creating the videos, there was a concentrated use of a few smaller sections of material instead of an unbridled use of numerous bits and pieces of visual imagery. In the end, I decided to focus more on the immediate experience of watching *The Hearing Room*, while also enhancing the artistic and personal aspects of the project.

In order to make *The Hearing Room* viewable by as wide an audience as possible, the final versions of the videos will be uploaded to the video-sharing websites YouTube and Vimeo (see Appendix). This will allow the viewer to watch the project from the comfort of their computer desk, thus taking advantage of the emerging performance environment of internet-based media. This does not mean that *The Hearing Room* will only be viewable on the Internet; it will also be rendered as a DVD, allowing the work to be viewed on larger screens and with high definition sound systems. Ultimately, I want to send the project out across the world to as many viewers as possible, and, in my estimation, one of the best ways to do that is to use video-sharing websites.

Source Review

When creating *The Hearing Room*, I drew on many different artists whose works I admire. One of the works that most immediately informed the creation of *The Hearing Room*

was Mauricio Kagel's *Ludwig van: Hommage von Beethoven*.¹ From this work, I was most inspired by Kagel's use of location. In *Ludwig van*, the viewer can easily envision the streets and alleys of Bonn, Germany (Ludwig van Beethoven's birthplace), partially due to Kagel's use of walking shots and mobile cameras. I emulated this process in the two larger sections of *The Hearing Room*, titled "Conduction" and "The Labyrinth" respectively. In these works, a camera was strapped into the passenger seat of a car and driven through my hometown of Decatur, Illinois. With this footage, my goal was to create for the viewer a sense of actually being in the town itself, driving down the streets and neighborhoods where I grew up.

While *Ludwig van* draws its viewers in by gradually exploring the streets and buildings of a specific location, the works of music video directors Chris Cunningham and Spike Jonze instead create a dense, intricate world within only a few minutes. Because *The Hearing Room* is built out of short, compact segments, I decided to examine the selected music videos and try to discern what makes these works so effective.

One of the creative hallmarks of Chris Cunningham's music videos is the use of atmosphere. In works like "Come to Daddy" and "Rubber Johnny,"² Cunningham manipulates the soundtrack and lighting effects to instill in the viewer a sense of dread and foreboding. I imitated this effect in the use of different color schemes and distortion in the video and audio tracks for "The Labyrinth," as well as in the three videos collectively titled "Tinnitus." Lighting and color effects are integral to Cunningham's creative process, so it is important that I address those aspects in *The Hearing Room*.

¹ Mauricio Kagel, *Ludwig van: Hommage von Beethoven*, DVD, directed by Mauricio Kagel (Munich, Germany: Winter & Winter Film Edition, 1969/2003).

² Chris Cunningham and Aphex Twin, "Come to Daddy" and "Rubber Johnny," *The Work of Director Chris Cunningham*, DVD, (New York, NY: Palm Pictures, 2003).

Like Cunningham's works, the music videos of Spike Jonze quickly establish a certain mood. The aspect of Jonze's work that I chose to examine was his use of visual processes. As an example, his video for the song "Drop" by hip hop act, The Pharcyde, features the four rappers of the group rapping to the camera and walking backwards. This footage is then played backwards, making it appear as if the rappers are actually walking towards the camera.³ This simple process continues throughout the entire video, drawing the viewer into the work. Because this was such a powerful component of Jonze's music videos, I decided to use this idea in the construction of "Conduction." To accomplish this effect, one long video clip was split into five equal sections. Each section was then manipulated and distorted in many different ways. No attempts were made to hide this process from the viewer, allowing them to see the raw structure of the video.

Besides the aforementioned works, the videos of German design house Pfadfinderei were a major inspiration for the visual profile of *The Hearing Room*. I was especially drawn to their collaboration with the German electronic music group Modeselektor on the audiovisual project *Labland*.⁴ In sections like "Concrete jungle" and "My mosque is my cathedral," the artists of Pfadfinderei layer numerous video resources to create immense composite works. I emulated this idea by layering many different sections of *The Hearing Room*. In "Tinnitus," an old black-and-white film documentary is layered on top of a pre-existing video of mine, creating a composite work. I also used this technique in "The Labyrinth," layering three separate bands of footage to create an entirely different type of video. The end goal of these layering processes

³ Spike Jonze and The Pharcyde, "Drop," *The Work of Director Spike Jonze*, DVD, (New York, NY: Palm Pictures, 2003).

⁴ Modeselektor and Pfadfinderei, "Concrete jungle" and "My mosque is my cathedral," *Labland*, DVD, (Paris: Dalbin, 2005).

was to create a more interesting and aesthetically pleasing visual experience.

For music videos in general, there is a conscious effort by the director to establish a connection between the soundtrack and what happens on the screen. However, when it comes to the videos of multimedia artist Phill Niblock there is often a disconnection between the audio and video tracks. For example, his video series, *The Movement of People Working*, combines slow-motion shots of manual laborers with drones and microtonal improvisations.⁵ Creating such a split between the audio and visual elements allows the viewer to take a greater interest in either aspect. This aesthetic is present throughout the entirety of *The Hearing Room*. In “Tinnitus,” the video consists of excerpts from a 1950s documentary about hearing mechanisms, while the soundtrack consists of slowed-down organ samples and buzzing sine waves. Similarly, in “The Labyrinth,” I combined three separate bands of footage from driving around Decatur with manipulated recordings of a brass quintet. By creating such an aesthetic gap between the video and audio sections, my goal is to enable the audience members to become engaged in the overall action of the works themselves.

Creative Process

Technical aspects

Three software programs were used to create *The Hearing Room*. For all video editing, I used Sony Vegas Movie Studio Platinum 9.0, a professional-level non-linear editing system. The audio files were handled in Cubase SX3 (a digital audio workstation, or DAW), and further manipulated with Guitar Rig 3, a software effect processor.

The video and audio files used to construct *The Hearing Room* are encoded in many

⁵ Phill Niblock, *The Movement of People Walking*, UbuWeb video file, http://www.ubu.com/film/niblock_movement.html (accessed February 7, 2011).

different formats. For “Tinnitus,” there were two video files used: a 1950s black-and-white documentary downloaded from the Internet Archive,⁶ and an older video work of mine titled *Standing Still*. The documentary video is in the MPEG-4 (MP4) video file format, with a resolution of 320X240X24, and *Standing Still* is a Windows Media Video (WMV) file with a resolution of 640X480X24. Only the second video has audio, and the audio track is set at 44.100 Hz with 16-bit stereo formatting. The audio file dubbed into “Tinnitus” was a stretched-out sample of the hymn “Holy, Holy, Holy.” This sample is a high-quality Waveform Audio File Format (WAVE) sound file, and the original recording of the hymn is encoded in the MPEG-2 Audio Layer III (MP3) format. In “Conduction,” the original video files were imported to the video editing program in the MPEG-2 video format. These files had a resolution of 720X480X32, and a frame rate of 29.970 fps. These same video files were used in “The Labyrinth” with no changes. The soundtrack for “Conduction” is made out of several WAVE files, and this is kept the same in the final product. All final versions of the videos of *The Hearing Room* will be rendered in the MP4 format, to specifications set by the administrators of the website Vimeo.⁷

Film creation

I started the creative process of *The Hearing Room* by filming the footage that would comprise the two larger video segments (“Conduction” and “The Labyrinth”). This footage was then transferred onto my desktop computer, and the individual video files were sorted into different groups. Once this was completed, I started to create the basic structures for the larger

⁶ Karl Kurt Bosse, 1940, *How the Ear Functions*, McRory Studios, <http://www.archive.org/details/HowtheEa1940> (accessed January 17, 2011).

⁷ Vimeo, *Compression Guidelines*, <http://vimeo.com/help/compression> (accessed March 27, 2011).

videos. For “Conduction,” a single block of footage was cut into five different and equal length sections. Originally, this entire section of video was approximately 5 minutes and 30 seconds long, but the eventual product was cut to 3 minutes. At all times, this video (“Conduction”) was composed of five distinct sections, all equal in length. Once the total time had been cut down, I started the process of filtering and distorting the original footage, so that each of the five sections would have a unique visual profile. This was partially done to combat one of my worst habits as a multimedia artist, which is an over-reliance on fades and ambiguous transitions. In the end, I had a final video cut of “Conduction,” composed of five equal sections and running a length of 3 minutes.

At this point, I began to create the video for “The Labyrinth.” To create the first draft, three different sections of footage from my drive around Decatur were split into separate, horizontally-oriented bands on the screen. The middle band was made partially transparent, allowing the top and bottom bands to overlap and bleed into it. Initially, the video was approximately 10 minutes long. After numerous drafts and alternate versions had been made, the final time was cut down to 6 minutes and 6 seconds. As the audio sections for this video were being composed, the top and bottom bands of footage were manipulated and distorted with digital color filters to give each band a distinct image.

After finishing two of the three sections of the project, I decided to restructure *The Hearing Room*. Instead of having three separate works, there would be five distinct videos. Of these five videos, three would be shorter and thematically related. The remaining two videos would be longer and distinct from all other parts of the project, and would be placed in the gaps between the three smaller videos. After deciding this, I began to work on the three linked videos collectively titled “Tinnitus.” As a starting point, I took a 1950s documentary titled *How the Ear*

Functions and split it into three sections of equal length. I then layered an older video of mine called *Standing Still* onto the three new sections of video, creating a composite work. All three sections of “Tinnitus” last from 1 minute and 30 seconds to 2 minutes long, and each video provides a recurring motif throughout the entire project. With all of the video works nearly complete, I began to create the music for *The Hearing Room*.

Music

I began to compose the music of *The Hearing Room* near the end of the video creation process. As a result, the musical component of the project changed to fit the new structure of the work. Originally, the project was going to have three separate musical scores, written for brass quintet, tuba ensemble, and chamber ensemble respectively. As the structure of the video works changed, I decided to move towards more of an electroacoustic score, using found sounds and manipulated audio recordings in place of exclusively acoustic sound sources. This was done to create a stronger bond between the visual imagery and soundtrack of *The Hearing Room*. At the same time, I still wanted to include as many acoustic sound sources as possible. In doing so, I would retain the split between imagery and audio that was such a strong component of Phill Niblock’s works.⁸

The music for *The Hearing Room* was created using a combination of the software programs Cubase SX 3 and Guitar Rig 3. For “Tinnitus,” I used two main sound sources: a high-pitched whining sound (sampled from a documentary about electronic music), and a recording of the hymn “Holy, Holy, Holy.” The first sample plays only in the left sound channel, and the

⁸ Phill Niblock, *The Movement of People Walking*, UbuWeb video file, http://www.ubu.com/film/niblock_movement.html (accessed February 7, 2011).

hymn recording plays only in the right sound channel. For both samples in “Tinnitus” the higher audio frequencies were cut off, while the lower frequencies were increased in volume. This was done to simulate hearing loss, which is an important part of the artistic message of *The Hearing Room*. For “Conduction,” several samples from a recording session done in early March were used. In this recording session, I played several notes from the E major scale, arpeggiating them throughout the entire range of the tuba. Each of these notes was played four different times to create four different timbres: straight tone, utilizing a practice mute, utilizing a metal mute, and with a nylon bag tied over the tuba bell. These recordings were layered in the audio track for “Conduction,” so that the music gradually moves from the lowest range of the tuba to the highest. As with nearly every part of the soundtrack, these sounds were distorted to simulate a loss of high frequency hearing. The soundtrack for “The Labyrinth” consists of several recordings of the Bluff Street Brass Quintet (a group of UNI music majors) improvising around a series of pitches that I provided. I layered these recordings and placed distortion in the sound files towards the last half of the soundtrack. This mimics the imagery of “The Labyrinth,” which slowly becomes distorted as the work progresses.

Final Result

In its final format, *The Hearing Room* will be uploaded to the video-sharing websites Vimeo and YouTube. All five videos will be rendered in the MP4 file format, per Vimeo’s compression guidelines. The entire project will also be rendered as a DVD, in order to facilitate standalone performances. The final submission to the Honors Program will consist of the URL addresses of the video works on both video-sharing websites, a DVD of the video project, and the thesis paper.

Artistic Significance

I chose to create *The Hearing Room* as an expression of my own experiences and background. Since many of these experiences are highly personal, it is possible that not every viewer will be aware of the artistic background of this multimedia project. While I believe that this does not diminish the viewing experience of *The Hearing Room*, it is important that I elaborate on the experiences and events that informed the creation of these works.

One of the defining aspects of my life is the hearing loss in my left ear. I have a form of conductive hearing loss, meaning that my ear does not function properly when transferring the vibrations of sound to the auditory nerve.⁹ This stems from a defect caused by a premature birth (I was born 9 weeks early). I have dealt with this hearing loss my entire life, and it is only in the last few years that I have noticed just how much I miss when not wearing a hearing aid or other hearing-enhancing device. I wanted to share this experience with the viewers, and chose to do so through the use of auditory and visual distortion.

The title *The Hearing Room* is an allusion to the ambivalent memories I have of growing up with a hearing impairment. As a hearing-impaired student in the Decatur, Illinois Public School System, I was given a hearing exam four times every year. Like other comprehensive hearing exams, these took place in a soundproof room with multiple headsets and speakers designed to test a person's overall hearing ability. Now, several years after the fact, one of the most enduring images I have of those tests is of a dark, isolated room filled with wiring and

⁹ Robert Thayer Sataloff and Joseph Sataloff, *Hearing Loss*, 3rd ed. (New York: Marcel Dekker, Inc., 1993), 121-23.

strange machinery. I find this to be a powerful image, and it symbolizes to me the isolation that can be felt by those with sensory impairments. I decided to use the emotions associated with this image as the basis for my project, even if some viewers are not aware of the full meaning behind the title.

In *The Hearing Room*, the sense of hearing impairment is represented through the use of auditory distortion, and through a greater concentration on the idea of sensory diminishment. In all sections of the work, the audio and video tracks are distorted in one way or another. In “Tinnitus,” there is a slight buzzing sound in the left channel, which represents the frequent tinnitus that occurs in my left ear. Throughout both “Conduction” and “The Labyrinth,” the audio channel is distorted so that the lower frequencies are at normal volume but the higher frequencies are severely reduced, mimicking the hearing loss in my left ear.

Besides the idea of hearing impairment, *The Hearing Room* was created as a means of dealing with my own attachments to the idea of home. Growing up in Decatur, Illinois, there are many different facets of the town that have stuck with me through the years. Most importantly, Decatur is where most of my family lives, and it is a place that I am sentimentally attached to. For the past three years, I have lived a split life, bouncing back and forth between Cedar Falls and Decatur. As a result, I have lost touch with certain aspects of my hometown. One of the ways I chose to represent this in *The Hearing Room* is through the use of a slightly manipulated recording of the hymn “Holy, Holy, Holy,” which is a song that I remember vividly from growing up in the United Methodist Church. This was a major part of my early life in Decatur, and I decided to include it as a tribute to those times. To visually recreate Decatur, I filmed parts of the town itself, and used this footage to make both “Conduction” and “The Labyrinth.” These video files are cut up and obscured, representing the idea that certain aspects of the town have

become lost to me over the last few years. Decatur is still very much present in my life, but times have changed, and I have moved on to different locations and places. My hometown will always be Decatur, but parts of the city have become stuck in history, continuing on only as an echo of earlier times.

Reflection

In creating *The Hearing Room*, one of the biggest goals was to enable the viewer to experience a side of life that they had not considered before. For this project, I used my own experiences as a hearing-impaired person to show the viewer something possibly new and unusual. To this end, the idea of hearing impairment was alluded to through the use of visual and auditory distortion. Additionally, I wanted to infuse the entire project with the experiences of my hometown, Decatur, Illinois. This is most evident in the two larger sections (“Conduction” and “The Labyrinth”), each of which is composed of footage of Decatur itself. The main reason for this was to give the viewer an impression of my hometown while also visually demonstrating the ways in which I have lost track of my home.

In the end, one of the most important aspects of the project was the degree to which the finished works reflect my background both as a multimedia artist and as a human being. I deliberately chose to make *The Hearing Room* more accessible to the viewer while also giving those viewers a glimpse into the forces that have shaped me as a person and an artist. This inspired me to work harder than I ever have on a multimedia project, ultimately creating a series of works that are highly personal. *The Hearing Room* has become a central part of my creative output, and in many ways the completion of this project feels like a major step towards a stronger artistic identity.

Bibliography

- Bosse, Karl Kurt. 1940. *How the Ear Functions*. McRory Studios. MPEG-4 file, 11:38. <http://www.archive.org/details/HowtheEa1940> (accessed January 17, 2011).
- Cunningham, Chris, and Aphex Twin. "Come To Daddy." *The Work of Director Chris Cunningham*. New York, NY: Palm Pictures, 2003.
- Cunningham, Chris, and Aphex Twin. "Rubber Johnny." *The Work of Director Chris Cunningham*. New York, NY: Palm Pictures, 2003.
- Jonze, Spike, and The Pharcyde. "Drop." *The Work of Director Spike Jonze*. DVD. New York, NY: Palm Pictures, 2003.
- Kagel, Mauricio. 1969. *Ludwig van: Hommage von Beethoven*. DVD. Munich, Germany: Winter & Winter Film Edition, 2007.
- Modeselektor, and Pfadfinderei. "Concrete jungle." *Labland*. DVD. Paris: Dalbin, 2005.
- Modeselektor, and Pfadfinderei. "My mosquee is my cathedral." *Labland*. DVD. Paris: Dalbin, 2005.
- Niblock, Phill. *The Movement of People Working*. UbuWeb. AVI file, 96.59. http://www.ubu.com/film/niblock_movement.html (accessed February 7, 2011).
- Sataloff, Robert Thayer, and Joseph Sataloff. *Hearing Loss*. 3rd ed. New York: Marcel Dekker, Inc., 1993, 121-23.

Sources Consulted But Not Cited

- Coppola, Francis Ford, and George Lucas. *Powaqqatsi*. DVD. Santa Monica, CA: MGM Home Entertainment, 2002.
- Coppola, Francis Ford, and Godfrey Reggio. *Koyaanisqatsi*. DVD. Santa Monica, CA: MGM Home Entertainment, 2002.
- Cunningham, Chris, and Aphex Twin. "flex." *The Work of Director Chris Cunningham*. New York, NY: Palm Pictures, 2003.
- Cunningham, Chris, and Portishead. "Only You." *The Work of Director Chris Cunningham*. New York, NY: Palm Pictures, 2003.
- Jonze, Spike. "How They Get There." *The Work of Director Spike Jonze*. DVD. New York, NY: Palm Pictures, 2003.

Jonze, Spike, and California. "Wax." *The Work of Director Spike Jonze*. New York, NY: Palm Pictures, 2003.

Jonze, Spike, and Fatlip. "What's up, Fatlip?." *The Work of Director Spike Jonze*. New York, NY: Palm Pictures, 2003.

Lohner, Henning, and John Cage. *One¹¹ with 103*. UbuWeb. AVI file, 93.42.
http://www.ubu.com/film/cage_one11.html (accessed January 26, 2011).

Morrison, Bill, and Michael Gordon. *Decasia: The State of Decay*. DVD. Basel Sinfonietta, Kasper de Roo. New York, NY: Plexfilm, 2004.

Niblock, Phill, and Sun Ra. *The Magic Sun*. DVD. Sun Ra & His Solar Arkestra. Oaks, PA: Atavistic Video, 2005.

Reggio, Godfrey, and Joe Beirne. *Naqoyqatsi*. DVD. Burbank, CA: Miramax Home Entertainment, 2002.

Appendix

Online versions of *The Hearing Room*:

Vimeo: <http://vimeo.com/channels/thehearingroom>

YouTube: <http://www.youtube.com/user/tubafatness#p/c/E4C8F4EEF5380562>