When beginning the process of the capstone project, I was faced with two major dilemmas. The first was, how do I create an artistic project, that is “more” artistic than any other. A sound design for a show is not indicative of an undergraduate thesis project. What would make that design any better than any other design. As a designer it is my job to artistically give myself to every project that I work on, so it cannot be said that I can give my self more to a show just because a name is attached to it. The second question I had to answer for myself was how do I look at theatre in an intellectual, as well as artistic manner. The concept of an undergraduate thesis implies that the study furthers the academic field of my major. So rather than just an artistic project, I had to look for a founding in either intellectual study or the professional world. One of my favorite things about my field of study is that it has only started to blossom in the last few years, and holds years of growth ahead of it before becoming standard. So seeking an academic founding would be difficult, and it became apparent that I would have to seek inspiration in the professional world.

The next step in the process was to look at the professional world and try to find where I could open a line of dialogue, and better the working world. I decided that the world of the designer's portfolio would be my area of study. When you look at what is the current industry standard for the sound designer's portfolio, you see a level of technology and artistry that is drastically behind the new and upcoming technology. A sound designer works with the immaterial, with a substance that cannot take form until after it reaches the acoustics of a room. Each sound our ear perceives is drastically altered by how it bounces around a room, what it runs into, the time between each each collision and the next. Psycho-acoustics is the study of how our
minds perceive the sounds that it hears and, either intentionally or not, every sound designer deals with and uses this aspect of the human psyche when creating a design. So it seems strange that the current standard for the sound designer's portfolio is about as far from demonstrative of that fact.

I began my research by looking at working sound designers. I found websites belonging to Tony award winning designers and looked at how they demonstrated their work. In my mind, this was the epitome of the successful sound designer, the Tony award being the highest award that any designer can receive. On these websites I found two forms of showcasing the work. The first was a simple mixdown of a single cue of a show. The second was a tape reel of images from a show mixed with a sample of sounds from a show.

Using this as the basis for my project I began to think of how I could expound upon the foundation. I decided that a comparative study of four different methods would best suit the industry, as well as combine the academic and artistic aspects of my project. After discussion with a few beginning sound designers I developed the following four methods:

1. Mp3 Mixdown
2. Live Recording
3. Tape Reel
4. Model and Sampling

The first method is the simplest and is considered the industry standard. After a show has opened, the designer takes all of the sounds that compose one cue, and then mix them together to make a single, stereo image track in an Mp3 encoding. This format has many advantages, it is small, and in the age of seven second sound bites that is very important, it is universal, and it requires almost no additional work on the part of the designer. However the tracks are not
representative of the artistic nature of the show as a whole, and the Mp3 encoding sacrifices quality for size, which can be a problem when dealing with subtle or high quality sound effects.

The second method consists of placing recording microphones in the audience during a final dress rehearsal, and recording the aural environment of the show, complete with the sounds of the actors inter playing with the music. This method is exception for understanding timing, and levels within a production, however the drawbacks are incredible. First, recording of any modern play is illegal due to copyright law. Second, when you record an actor on a professional level, the legalities of union laws and agent representation comes into play. Finally, a recording in a live space is difficult to mix in such a way to both clearly hear the music, and make the production understandable.

The third method, the tape reel, is an artistic representation of a designer's work. By using pictures from the production, you can showcase how the sound design fits into the world of the play created by the other designers. Also, because you are only sampling moments of the design, it is possible to display the entire artistic vision, within ninety seconds. The drawbacks of this method, however, include the legalities of using other designer's work on your portfolio, as well as receiving permission to use an actor's image on a website of your creation.

The final method I explored, was the creation of a digital model. I accurately recreated the entire theatrical space, including speaker placements and orientation. Then I created a short movie the had a sound cue in its entirety, with the camera flying around the theatre looking at each speaker, and sampling the sounds that it produced. This method is the most technically proficient, and showcases technological skill and gives a sense of how a designer thinks when it comes to programing. However, the model I created took approximately thirty four man hours to create, and the final video was only fifty-two seconds long. What is more, the final product did
nothing to showcase my artistic mind, nor was it interesting after the first time around. Directors and producers will get bored with it before sampling the entirety of my work.

I found that of the methods I used, the tape reel was the most successful. It required no more than an extra hour or two per show, and it was the best received by my peers. It is fascinating to attempt to capture what has no form, and present something that is entirely based off of its environment outside of its real realm. No set of computer speakers will ever be able to recreate the aural environment the designer creates in the space, and until technology changes, this simple hindrance seems to be something that is just a necessary evil.