UNIVERSITY OF CINCINNATI

Date: 9-Apr-2010

I, Neal A Harrod, hereby submit this original work as part of the requirements for the degree of:

Master of Architecture

in Architecture (Master of)

It is entitled:

You are [T]HERE: Architecture and the

detachable aspect

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You are [T]HERE: Architecture and the detachable aspect.

A thesis submitted to the Graduate School of the University of Cincinnati in partial fulfillment of the requirements for the degree of Master of Architecture in the College of Design, Architecture, Art and Planning by

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How we experience sound today embodies the characteristics of why we as humans have sought out music over time; that being for its emotion-evoking qualities that are personally and subjectively manipulated like a raw material. However, this relationship is dynamic, and because of current technologies it has increasingly progressed toward an ephemeral existence in the way that we listen and record sound. As always, how we listen to sound is directly related to space, but in the case of our ever increasing technological development this relationship has evolved into one with an absence of space.

This thesis is an exploration of the discrepancies between the way we listen to music and the architecture that affects it. The technological advances in sound recording and performance over the past century have dramatically changed this relationship, creating a soundspace that today can exist solely between one’s headphones—in one’s headspace.

The increasingly small scale of the modern soundscape necessitates an examination of the relationship between the permanent and the temporary; the ordinary and the event; the present and the forgotten. This thesis pairs these relationships to create a space that aims to be at two places at once, and at two moments in time. “Subway Sound” seeks to do this by connecting a user to the permanent-yet-forgotten space of the abandoned Cincinnati subway, while examining the technological connections and discrepancies between sound and the space that it occupies.
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INTRODUCTION

“As soon as you record something, you make it available for any situation that has a record player. You take it out of the ambience and locale in which it was made, and it can be transposed into any situation... As Marshall McLuhan said, “it makes all music present.”

- Brian Eno

The introductory quote from Brian Eno points out a more complex relationship that has come to exist over the last century: the relationship between music and space as they are both increasingly influenced by modern technologies.

As Eno states, this progression of technology has increasingly separated musical performances from their original context; in some cases today, context is not even relevant to what is being heard. The ability to remove a performance from its original space is what Eno refers to as “The Detachable Aspect”.

The following essay is an examination of the relationship between architecture and music, as they have been further removed from each other. This relationship is examined in two parts; the first part being how we have removed ourselves from the physical space in which we listen to music. The second part examines the removal of physical space in the creation of sound and music.

This examination is chronological. In both cases it starts with the Greek amphitheater as a foundation for modern civilization’s way of creating and listening to music. This time frame ends with what is considered to be the pinnacle of modern acoustical design with McKim, Mead, and White’s Boston Symphony Hall, engineered by Wallace Sabine.

The major deviation from how we listen and perform begins with Edison’s phonograph. This can be seen as the most fundamentally important technological advancement that influences both listening and performing until the invention of multi-layered tape in recording and electro acoustic projection for listening. The final moment of deviation is our current state, in which we record and listen to sound digitally.

This separation is presented not necessarily as a problem, but as a reality that exists today and that will continue to evolve. The result is an open-ended question about the future implications of this separation and how we perceive the nostalgic idea of the original classical performance. What is the ordinary of how we listen to music today?

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centers. The scale of the amphitheater created spaces for interaction that rarely existed in any other architectural form. The event, or performance was the catalyst for these interactions, taking on its own cultural significance for this reason.

Because of this, great importance was placed on the acoustics of the spaces, needing to do so because of the grand scale of the event and the need to reach thousands of people. Furthermore, the importance was magnified by the uniqueness of the performance, occurring only once. As a result, the sound of the instrumentation needed to be pure, since the performance was to be heard only once before being forgotten. In addition, the sound needed to carry long distances in order to be heard by the mass of people that it was typically designed to reach.

Pre 1900 (The Classics)

Music until the 1900’s was something that existed only once. Its existence was only in its immediate acoustical range, by those in its immediate audible presence. It had no meaning for those outside of this range. Similarly, this sound did not exist for any longer than the length of performance, making it a product of its time. Its existence was singular in both time and space.

This uniqueness of music to time and space was the key contributor to the classical amphitheater of the pre-20th century. Their construction was monumental in every aspect. Their scale acknowledged the mass of people that it was to serve, coming in from remote places to a singular space.

The importance of the amphitheater created performance spaces that had cultural significance similar to contemporary city
Figure 1.1   Amphitheatre at Troy
dominance until the turn of the 20th century, with the industrial revolution and the rise of the United States as dominate global power. The capstone of this evolution, and the symbol of America’s importance was the Boston Symphony Hall by McKim, Mead, and White³.

“Symphony Hall, the first auditorium in the world to be built in known conformity with acoustical laws, was designed in accordance with his specifications and mathematical formulae, the fruit of long and arduous research. Through self-effacing devotion to science, he nobly served the art of music. Here stands his monument.” ⁴

Plaque dedicated to physicist Wallace Sabine, located in the lobby of Symphony Hall, Boston

Boston Symphony Hall by McKim, Mead, and White was a cathedral to the music of the past. The symphony was to be de-

**The Classical Theater**

The move to the performance hall was a reaction to our interaction with what Murray Schafer calls “programmatic music”². Programmatic music tries to mimic the environmental sounds of our everyday surroundings in the concert environment. As the name implies, the performance calls for a prescriptive environment, often of the composer’s liking. This is directly related to the audible nature of the outdoor environment. As the size of the crowd at these gatherings increased, the ability for the sound to be heard decreased, moving the listener away from the sounds and the prescriptive environment that the composer was trying to achieve through the music. This inversely proportional relationship called for the intervention through enclosed concert halls.

The importance of acoustics led to the foundation of classical European theater. Programmatic performance space can be talked about in the western European image because of its
signed for the performance of classical European pieces, namely Beethoven and Bach. With this in mind, McKim set out to define the space based on classical European theaters that were often designed around classical Greek theaters. McKim’s first proposal was a semi-circular plan, which had never been proven in an interior space. The proposal was rejected because of the risk involved with the unknown acoustical properties in this type of space.

This eventually led McKim to consult with Wallace Sabine, a physics professor at Harvard University. Sabine had recently redesigned the acoustics of the main lecture hall at Harvard, where he had based his conclusions in a series of technologically advanced studies. He explored this in conjunction with McKim for Boston Symphony Hall.

Sabine’s studies led to the modern engineering technologies for what he thought was the best natural acoustical sound projection for a space. This was done through the examination of reverberation times and their interaction with the space and its listeners. As a result, Boston Symphony Hall ushered in the age of “good sound”. Sabine’s mathematical equations established a baseline for comparison between spaces. At the same time, it gave rise to greater social and cultural meanings in sound and space, ones that were not so easily reduced to a formula for comparison.

Murray Schaffer points this out when explaining the cultural metaphors of the orchestra.

“If the solo flute and the hunting horn reflected the pastoral soundscape, the orchestra reflects the thicker densities of city life. From the earliest days the orchestra had shown a tendency to grow in size, but it was not until the nineteenth century that its forces were coordinated and its instruments strengthened and scientifically calibrated to give it the complex and powerful sound producing capabilities which, in terms of intensity alone, made it a competitor with the polynoise of the industrial factory.”

While Boston symphony Hall may have represented the era of “good sound” it also represented the continuing cultural significance of the music hall as a gathering space, but now with a parallel sound – the orchestra. As America grew with the industrial revolution, so did its cities and the corresponding spaces that individuals listened to music in.
The invention of the phonograph

In 1877, Thomas Edison recorded the first human voice onto a tinfoil cylinder, using a variation of his own telegraph machine. It was to the tune of “Mary had a little lamb.” The original invention was a crude manipulation of sonic pressure. The first ideation of the machine took the sonic vibrations of sound and inscribed them onto tin. The movement of a needle and the change in air pressure later recreated the original sounds.

The next ten years saw various incarnations of this simple idea. In 1887 Edison filed for a patent using similar recording technology, except now on to cylindrical wax discs. This was the birth of the modern phonograph which would eventually influence every aspect of music and sound for the next eighty years.

Of all of Edison’s inventions, the phonograph was the first to have been created without a preconceived notion for its explicit use. Edison referred to it as “an invention, pure and simple.” Even though Edison was unsure of its explicit use, he was sure of the impact that it would eventually have on the world, and in our case, architecture. “This is my baby,” said Edison, “and I expect it to grow up and be a big feller in my old age”.

Although never explicit, Edison hinted that his believed use of the phonograph would occur in the area of information preservation. Edison first used the phonograph, which could both record and play sounds, to capture the sounds of his family, readings, and moments of the everyday; but never explicitly music. Through all of this, fidelity was never the goal, rather permanence.
1900 – 1930

There was a slow acceptance of Edison’s original phonograph. This was because of the initial difficulty involved in reproducing the cylinder shaped recordings. At the same time, Emile Berliner developed the gramophone, which played a flat disc that more closely resembled today’s records. These were more easily reproduced because the material (originally shellac) could easily be pressed from a master image. By 1901, however, the phonograph reached commercial success as new technology was developed to help mass produce the cylinders. This was a critical point of change for the interaction of space and sound.

The eventual adoption of the phonograph on a consumer scale changed the way that people listened to music and sound, and as a result, changed the types of spaces that music was listened to.

The phonograph reduced the scale of the space in which music was listened to. In its earliest stages it brought multiple people together into a single room where they gathered around a single player. This is not unlike the first adaptations of technology in any field, like in the case of the first consumer televisions or radios, where they established a sense of community around an emerging technology.

The scale of such listening spaces reduced in size as the technology of the phonograph became more accessible. Instead of a space that focused on a single player that addressed a group, the space increasingly approached a single user, until everyone had access to the technology.

The Electro-Acoustic Phonograph

The electric era of the phonograph occurred in 1925 when Bell Labs released the Orthophonic phonograph. The previous phonographs were an acoustical projection of the recorded sounds. After several years of research, Bell systems introduced a player that projected amplified sounds through loud speakers.

This was just one in a series of inventions that Bell had developed which would revolutionize modern recording. Equally important was the first public announcement system, which debuted at the same time. The introduction of this system combined the researched technology of the amplifier, microphone, and loudspeaker.

The orthophonic record player introduced a new era of how people interacted with space. The effect of the orthophonic age of record players was how it dramatically shifted the size and scale of the spaces in which individuals listened to music. This shift in scale was reflected in both increasingly large and small spaces.

Previous versions of the phonograph had a direct relationship to horn size. The larger the horn meant a “larger,” or louder sound. However, the size of the horn was limited by the physical properties of the material. The electro acoustic age meant that the size of the acoustical horn could be increased or magnified through electrical means.

The loudness of the electrically amplified sound related to the number of people that could hear it. In the past, we had
moved inside from the amphitheater to encapsulate this sound, setting up the European concert hall. The electro acoustic age returned us once again to the possibility of music within large outdoor spaces because of the capability to make sound audible to a large mass. Similarly, the size of interior sound spaces increased as well.

Inversely, it created highly personal spaces because new technology could be applied to reduce the size of previously robust apparatuses. Progressing technology meant that smaller versions of record players were being introduced; personalizing the space that a person was in to the music they were listening to. The personalization and shrinking of these scales also relates to the acoustical projection through speaker technology, as it too reduced in scale as the technology progressed.

The combination of a record player and loudspeaker into a single integrated cabinet meant the growth of personal music spaces. The personalization of these saw music that could be played in increasingly small spaces for the same reasons that there had been an increase in scale.

The increase and decrease in size of listening space and the number of people listening ultimately meant that we were able to transport music into spaces that were never originally conceived for music. As a result, music could be listened to in spaces both large and small, such as sports arenas and cars. The new electro acoustic age meant that we had now been removed from both the original performance of the sound and ideal locations specifically engineered for listening.
Figure 1.8 1956 Chrysler Imperial advertisement

THE FORWARD LOOK '56

presents these additional features in all five cars . . .
The Personal Media Player

There would not have been a personal media player without the invention of tape. Murray Schafer writes “…the tape recorder made incisions into recorded material possible; any sound object could be cut out and inserted into any new context desired.”

In 1979, Sony would introduce the ‘TPS-l2’, or what can be considered the first personal music player. The TPS took the conventional model of record player and speakers and converted them into a cassette player with a stereo headphone terminal. The product TPS-12, which would be more commonly known as the Walkman, was an instant success, and presented an entirely new way of interacting with music.

The first thing the Walkman did was introduce a personal music system to a range of people that hadn’t had access to it before. People that had to previously share a record player and speakers with multiple people now had easy access to their own personal system.

The Walkman, like the electro-acoustic phonograph before, decreased the scale of space in which music was listened. Audio systems no longer needed to take up a large flat surface, such as in the case of a record player, but could be easily slotted into any leftover space and introduced to a sound system with a simple mini-jack.

The Walkman was so evolutionary in this respect, that its main draw was that it eliminated the need for sound specific space. Sound space no longer existed in any sense of architecture, rather the space between one’s headphones. There was no longer a need for speakers and a space to enclose them.

The lack of architectural significance when listening to the Walkman meant that the unit was entirely mobile. The lack of architectural constraints that the user had experience before with a typical music system had vanished, creating a sound space that was perpetually changing depending on the user’s location.

Like never before, audio was portable. Music was more mobile and personal than ever before, with the corresponding spaces taking on these similar transient characteristics.
At a keynote address in September of 2009, Phil Schiller of Apple announced that the company had sold 220 million iPod units in the 7 year life span of the iPod.\textsuperscript{16} Compare this to the 50 million Walkman units sold 10 years after its debut.\textsuperscript{17} The success of the Walkman chauffeured in an increasingly popular way of listening to music, and the revolutionary success of the iPod has compounded upon this. The personalization of musical space is similar between the iPod and the Walkman, but the overwhelming global success of the iPod raises questions about its cultural impact.

Many of the cultural intentions of the iPod can be seen directly in Apple’s marketing campaign. From the beginning, iPod advertisements convey the idea of a unique personal space, which is shaped by the music that you are listening to. Such spaces can be achieved through Apple’s iPod.

When examining the individual advertisements, both in print and video form, one is first struck by the colored background that serves as a backdrop to the silhouetted image of a person. This vibrant, but stark background represents the personal world that one enters into with the iPod. This is a space that is removed from any actual environment.

The second design feature of the advertisements is the previously mentioned black silhouette of the iPod user. Here again, the representation of the person is removed from any specific or unique characteristics of the individual. In both cases, with the individual and the environment, the consumer is presented with a “fill in the blank” option of how to define these two.

Apple answers some questions by making the iPod the only definable object in the advertisement. The iPod is responsible for the experience of the silhouette. The silhouette responds to the music, provided by the advertised iPod. This personal experience is more important than the void and ambiguous environment in which it set. Yet at the same time, the corresponding background is a vibrant backdrop which magnifies this silhouette’s experience.

The physical representations of what Apple conveys as “space,” or lack thereof, are major contributing factors to the cultural impacts of the overly prevalent iPod. The iPod takes the former cultural idea of listening to music as a gathering event and makes it an event for the individual. The portrayal of the iPod represents a lack of use for fellow music listeners and performers, creating a concert space void of interaction in any space that you are currently in. This shift has removed us to our furthest point away from the original amphitheater performance to a space that exists without physical bonds or cultural interaction.
Figure 1.12

Figure 1.13 Amphitheatre Headphones. Showing the intervention of technology and the increasingly small space (or lack thereof) that we inhabit.
Figure 1.14  Progression Matrix showing changes to listening spaces over time.
Recording and Permanence

The first incarnations of recorded music created frozen moments of time. The performance, unlike in the classical theater example, was no longer precious. Brian Eno describes this, saying: “As soon as you record something, you make it available for any situation that has a record player. You take it out of the ambience and locale in which it was made, and it can be transposed into any situation.”

Recorded audio created a memory of sound that was now permanent. The immediate effect of this was that composers realized that they could layer their music for multiple listening. These layers were subtle moments that added complexity and richness with each listen. This complexity was still a direct and deliberate move by the composer, since the performance had only one opportunity to be recorded. Because of this, variations...
of the same arrangement of music appeared, but now within a different space and time. The ability to refine precious arrangements gave richness to the next performance, as well as the unique presence of a different space and moment in time.

Another example of this occurred in the world of jazz, where improvising is a primary consideration. The freeform of improvising now could be studied for its intricacies, revealing the off-the-cuff reflexes of prolific jazz artist of the 1930’s. It could be argued that recordings were the main reason for jazz’s eventual success by demystifying what was previously an ad-hoc only form of music. The ability to advance this form of music gave rise to the popularity of jazz music, and subsequent spaces that were uniquely created for recording and performing jazz music.

**Recording as an Instrument**

“Until the Late ‘40s, recording was simply regarded as a device for transmitting a performance to an unknown audience, and the whole accent of recording technique was on making what was called “more faithful” transmissions of that experience. It began very simply, because the only control over the relative levels of sound that went onto the machine was how far they were from the microphone-like device.”

The previous form of archiving music (wax) was unable to be manipulated. It is physically hard to manipulate in a stored state. Wax was a stagnant state, a moment in time, much as an orchestral performance was before that. What tape recording provided was the ability to manipulate. Created music was now malleable. Loop, squeeze, expand, and chop. This put music into a “spatial condition,” because of the new physical state in which sound could be recorded.

The spatial condition of tape existed in one way because of the physicality of the material, which was now translated sound. Because of this, small or large pieces of tape could be cut and removed from one section and moved to a different part of the once continuous tape. This physical manipulation of tape meant that the recorded performance was given a new dimension. The recording no longer directly corresponded to the original length of the recording. Instead, it created a length of time (longer or shorter) that gave the impression of inhabiting the same space that the original sound was recorded in but later in time.

The spatial condition of tape also relates to the physical manipulation of the tape in order to create acoustical effects that were capable of mimicking physical space. Chopping the tape into small, but separated pieces created a delay effect while...
Figure 2.3 Early Tape Recording Device
lengthening the tape gave the impressions of a hall like reverb. Much like early echo machines, the tape had become an instrument of its own self.

Double layer tape was introduced shortly after its single tracking predecessor. The invention of double tracked tape in the 1950’s allowed for recording of sound from two different points. This meant that sound could be reproduced now in its more natural occurrence, known as stereo. Sound was now able to be removed from a place and reproduced by creating the same spatial dynamics that occur because of the location of sound. This fact further detached us from the original sound, while at the same time it brought us closer to an authentic replication of it.

Multi-track Recording

The advancement of tape technology saw additional layers of tape that allowed for more multi-track recording. Each additional layer of tape moved us further away from an instrument or voice. Multi-track recording set up an additive process for making music, or a means of making music that could be edited. These advantageous characteristics are the foundation for modern recording and are the basis for all modern digital recording software.

The first thing that multi-track recording did was expand upon the previous mono and stereo replications of the corresponding single and double layer tape. With the previous form of double tape, an artist could at best create a stereo panning effect, as sound was about to be recorded from two different points, corresponding to their unique layer of tape. Multi-layered tape compounded this idea, by allowing for a unique sound point for each corresponding layer of tape.

This allowed for the surround sound effect that created a spatial existence solely through sound. Pieces were composed not necessarily for their musical characteristics, but their ability to form a space around a listener. This was used in many of Iannis Xenakis projects, and most iconically in the Phillips pavilion where they were used.

Multiple layers of tape also meant that multiple instruments could be directly recorded at separate moments, creating an additive process for making music; for instance, the addition of orchestras in rock music, which was the basis for early forms of heavy metal. In addition, each additional layer of tape meant that a microphone could be added to another point in a room to record that location’s sound.

The end listener seems to be removed from the original performance by a degree of how many layers of tape existed. This increase in technology enabled a more authentic reproduction, while at the same time creating an impression that the listener’s removed state from the music was better than the original sound.

Multi-track recording meant that a single piece of music could be created out of multiple instances, unlike before where the piece of sound was created at a finite moment in time. This meant that artists no longer recorded in the same space. Space that was a part of a piece was recorded in could influence the mood of the performer or that the physical space could be chosen for its sonic properties for a specific part of the piece.

Multi-tracked recording also meant that a piece of music could be compiled over a length of time, with as much as years occurring between tracks Such is the case with Brian Wilson’s Smile, which was originally the much anticipated follow up to the Beach Boys Pet Sounds. Though almost complete, work on the album was shelved because of Wilson’s personal breakdown. Forty years later Wilson released it, with only a few minor addi-
tions, but forty years in the future. Multi-track recording acknowledges that a recording is never actually complete. That the performance is one that occurs over and over just as long as its previously recorded state exists somewhere.

The final reason for the success of multi-track recording was its easily manipulation, or its ability to be edited. In the earliest accounts of tape editing, it occurred by physically “cutting” it to achieve the desired effect, location, transposition, etc. Different layers of the tape could be recorded over while maintaining the integrity of the other separated channels. Pieces could be added or deleted to that single layer. A musician could go back and record just a part of their session, or the entire piece and when doing so they could be mimicking what they just did or creating something entirely new, fully removed from the original take.
Spaces for Recording

The removal of the artist from a specific space created an entire field of recording technology of its own. This field was for creating technologies that mimicked previously organic spaces emerged in the 40’s. One might imagine this as the necessity to create sound effects for a radio show performances, such as a spaces that mimicked the echo of a cave or a large hall.

In music, the desire to achieve such effects is both for their aural acoustical characteristics, but also for the phenomenological reasons of locating a performance to a place. Early country and rockabilly tracks used the sound of the echoing train whistle to place the listener in a like space.

The earliest forms of space mimicking may have arose out of this necessity to replicate sound effects of the resultant space for early radio records, but a more apparent need for such replication was needed after the prevalent usage of multi-layer tape recording. Tape recording allowed for the ability to remove a performer from an original sound space, often creating sound that lacked the depth and richness of these original spaces. As a result, new technological advances in space replication were introduced to mimic the sound of spaces that created the effects of reverb and echo. The necessity of these sounds lead to the creation of “instruments” that mimicked the spaces that typically would create these types of sounds that a performer would encounter in a similar, but physical type of space.

These types of replications were sufficient to some means, but often never accurately recreated the desired space. In many cases they became a unique sound of themselves, and were sought out for their unique, but inaccurate characteristics of physical space.

As a result, artist and performers again sought out an original, more accurate replication of the spaces that they had removed themselves from because of tape recording. This realization lead to the creation of unique man-made spaces with the sole purpose of creating sounds of other physical spaces.

As a result, entire rooms were dedicated to the purpose of the physical recreation of the sounds. In the case of reverb, large spaces were set off aside from the studio with springs that ran the length of twenty-foot shafts. Large empty warehouses were converted and striped down to smooth surfaces for the recreation of the echo of a gothic cathedral.
Creating such spaces proved to be taxing investments. Today, these spaces are created within computer programs that have analyzed generic and specific spaces with desired acoustical effects. However, in some cases physical spaces are again created for the sole purpose of recording their effects in a digital format to be stored and later replayed. On almost all contemporary synch machines there is a sound for a “Piano Hall” because the acoustics of such a space are desirable. The actual sound of this is derived from the sound of a piano in a room that is specifically for the purpose of those acoustical characteristics of the “Piano Hall.”

The continual removal of the performer from these spaces through the progression of physical and digital technology has yielded a phenomenon for engineering sounds for spaces that do not even exist, similar to the way that early space effects were used for their own unique characteristics. In both cases, authenticity is not the paramount concern, rather the newly discovered sound that would not have been possible if it were not for the removal from the original sound space while at the same time becoming transportable.\textsuperscript{28}
Figure 2.8 Progression showing how both recording and listening sound have progressed technologically over time.
Figure 2.12  Progression Matrix showing changes to recording spaces over time.
Conclusion

Our removal from original sound sources, in the way of both recording and listening, will inevitably become more exaggerated, progressing further from an original sound source. We can see this progression in the current technology such as streaming music, where a recorded piece of sound no longer needs to be close to you in any format. This type of technology not only removes us from the original performance, but also from any type of individual ownership of music data. The immediate future suggests that all sound will be accessible through streaming internet connections, far from your remote digital music player.

Progressing technologies suggest similar possibilities for how we record sound. The internet has allowed for the creation and sharing of virtual environments and instruments. These virtual means for recording have created a new breed of crafts people, who assemble virtual sounds and environments into new ones. This new type of instrument maker is not unlike those early makers of synthesizer machines, or for that matter the maker of a Stradivarius violin. Technology has allowed for universal accessibility to new sounds that were previously unthinkable in a physical format.

The technological progressions in the field of sound have allowed for overwhelming democratization of music and sound. This is one of the greatest successes of the technologies of the last century. However, the removal from the original sources of sound, in both listening and recording, have left these original tangible spaces and instruments as forgotten memories of our musical past. The progression away from these physical forms is directly related to the number of steps of technological advances, and these steps will continue to advance in number in our future.

The resultant forgotten pieces of our musical past, however, will continued to exist, such is the case with the theater at Troy and Boston Symphony Hall. As they continue to exist, they remain in our everyday existence as ordinary objects, removing the spectacle features they once possessed.

Despite the fading of these once spectacular spaces and instruments they still retain the nostalgic representations of our musical past. They also represent the social and cultural aspects of community; for audiophiles, they often represent the purest form of music, in both physical forms of space and instrumentation.

The Spectacle of the Ordinary.

What is the importance of the ordinary? How do you display this? What does the importance of the ordinary have to do with sound? Are forgotten spaces those that have become so ordinary in our daily life that they do not exist aside from their physical state?

On one hand, technology has catalyzed our progression away from an original sound source; however, it also pro-
vides the possibility for the reactivation of these spaces that have become part of our everyday existence. Technology allows for forgotten spaces to be activated again by providing the same sense of unique presence that the original spaces represent. The intervention of technology allows for the ordinary to become a spectacle again.

Despite the fact that technology has become accessible to mass number of people, it still possesses the capability of presenting unique experiences through innovation. This same type of innovative spirit has always existed in the creative process of making music, and presents exciting and dynamic possibilities when combined with technology. The combinations of these elements within our ordinary sound space have the capability of presenting the same type of innovative excitement within said space.

This combination allows represents the possibility of making the spirit of excitement that has since become absent.
Figure 3.1 Progression matrix showing both listening and recording spaces and how they relate to each other through changing technologies over time.

FUTURE?
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<td>1</td>
<td>(Eno, Studio as Compositional Tool 2004, 127)</td>
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<td>2</td>
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<td>(Corporation, Sony 1999)</td>
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<td>(Xenakis 2008, 30)</td>
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<td>28</td>
<td>(Doyle 2005, 17)</td>
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<td>29</td>
<td>(Eno, Ambient Music 2004, 96)</td>
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The site is located in downtown Cincinnati, between Central parkway to the north and 6th street to the south between Elm and Walnut.

The site is easily accessed by all major highways, I-75, I-71, i74, as well as secondary highways that are commonly used to access downtown.

Macro pedestrian access is however a bit more hindered. The focus of this area is derived from the lack of activity and planning for this area, even though is it centrally located. This can be a result of the high level of parking for vehicular traffic, hindering the ease of pedestrian access.

The area is also islanded for pedestrian use by OTR to the north and the river and CBD to the south, leaving little need to access the majority of the site as a whole.
EXISTING SITE (OVERALL) SURVEY

Figure 4.3 Site Focus
EXISTING SITE (OVERALL) SURVEY

This points out that the northwest corner of the site are the most neglected part of the overall site. This is the furthest point away from fountain square as well as OTR main street and the gateway quarter.
TOPOGRAPHIC SURVEY

There is very little topographic variation across the site, even though it is a very large space. Standing water is the most important design feature to consider.

Much of this already occurs in the parking lots of the site because of the impermeable pavement and poor drainage design.

EXISTING TOPOGRAPHY

WATER MAIN INFRASTRUCTURE

EXISTING SITE

Figure 4.5  Topographic Survey, Neal Harrod, 2010.

Figure 4.6  Water Main Infrastructure, Neal Harrod, 2010.

Figure 4.7  Site Plan, Neal Harrod, 2010.
EXISTING SURFACE PARKING

Much of the leftover space from the figure ground is used for surface parking. As you can see, the highest occurrence of this is in the northwest corner of the site and diminished as you approach the south east.

This also aligns with the implied connection between Music hall and the Aronoff Center.
ENTERTAINMENT DISTRICTS

There are 2 entertainment districts that are on opposite corners of the site. Their connection perfectly traverses the most neglected part of the site.
Music hall is a long established entertainment entity of the city. The center for performing arts school is near completion, signifying the potential for another entertainment district.
PANORAMICS

The following is a series of panoramic photos that look at examining the context of the site, specifically around parking lots that were later chosen for sites.
7th AND VINE
Figure 4.19
Figure 4.20

GARFIELD AND WALNUT
Figure 4.21

GARFIELD AND VINE
Figure 4.22
All three sites were that were chosen are of similar scale. They are all currently public parking lots, meaning that there is an actual viability in creating some type of temporary event structure on them. Together, they traverse the site as a whole from Northwest to Southwest, until finally depositing a pedestrian in the more vibrant entertainment of Walnut and 6th.
**SITE POSITIVES**

+ Close Proximity to Music Hall and SCPA
+ Viewing distance of central parkway, which is the site of abandoned subway.
+ High pedestrian traffic on performance nights.
+ Good vehicular visibility.
+ Avoids building shadows because of smaller context scale.

+ Viewing distance of central parkway, which is the site of abandoned subway.
+ High pedestrian traffic during the day
+ Avoids building shadows because of smaller context scale.
+ Proximity to green space

+ Close to Aronoff center and CAC
+ Viewing distance of central parkway, which is the site of abandoned subway.
+ High pedestrian traffic during the day
+ Good vehicular visibility.
+ High pedestrian traffic during the day

**SITE NEGATIVES**

- High vehicular traffic.
- Little surrounding greenspace.
- Large adjacent parking lot.
- Proximity to higher crime.

- Poor vehicular visibility.
- Large adjacent parking lot.
- Equal distance from both Music Hall and CAC/Aronoff Center.
- Is in shadow for most of the day.
- Far from Music Hall.
SITE SELECTION 1
Aerial Views

Figure 4.27 Site 1 Overviews
SITE SELECTION 2
Aerial Views

Figure 4.28  Site 2 Overviews
Figure 4.29 Site 3 Overviews


