Discoverable Composition

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Abstract

The text is a complement to two music installations, composed with the intent that their existence only be discoverable by an audience and not dependent upon an a priori expectation or understanding of music. The first chapter outlines a theoretical framework for *discoverable composition* incorporating ideas about the integration of art and life, music as dialectic between behavior and environment, and performative context as a fluid and variable system. The second chapter presents historical examples of music/art installations and performance practices, which are relevant to the idea of audience discoverability. Finally, the third chapter discusses the conception, implementation, and evaluation of the music installations *Only if you're there (I'll meet you there)* and *I think I know you (you think I don't).*

Preface

Discoverable composition is presented in this paper as an approach to music composition in which the audience is not explicitly aware of a musical performance or installation happening within a particular environment. A theoretical framework is developed in order to explore musical *discoverability*, as it relates to audience experience and composition. These ideas are then applied in two specific music installations, titled *Only if you're there (I'll meet you there)* and *I think I know you (you think I don't)*. These two pieces emanate from my long-standing interest in exploring the dynamic between musical performance and audience.

In writing music for traditional concert settings, I have found it easy to ignore considerations of "my audience". In fact, I have begun to enjoy the detachment that the concert hall provides. When I listen to my own tape piece in a concert setting, I am not primarily concerned with the audience's reaction. Instead, I listen with a more critical ear to how the piece sounds in the space and whether it sounds the way I intended it to sound. How the music sounds to everyone one else, while obviously important to them, is an afterthought. My work in the context of a concert hall exists as a static, deliberate construction. The piece is presented at face value to the audience and does not depend on their active engagement with the sound. While the audience provides a social context for the piece, my composition maintains a strong separation between music and audience.

In an attempt to engage the role of the audience in music, I have chosen to move outside of the concert setting. I am interested in exploring the music/audience disconnect by removing, or neutralizing, the attentive audience from composition. My idea of *discoverable composition* is a way to place music and audience on more equal ground. If

music is discoverable, then it only has the potential and not the requirement of being heard as music. It embraces the fate of possibly being overlooked. Because of this, it is a fruitful way to explore audience detachment and engagement. Both this paper and the coinciding music installations generate questions about the role of audience in music.

Sean Peuquet

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Table of Contents

Chapter 1

1.1 Introduction

The following text discusses the implications and musical possibilities that arise when an audience is not necessarily aware of a musical performance. Composing music that equally embraces being paid attention to and being overlooked is a way to integrate music and audience. It is in this sense that the approach to composition is *discoverable*. Audience members may pass through a discoverable composition without ever being cognizant of its existence. Also, they may pass through the composition and listen to it as music, perhaps even slow down and direct their attention to it.

Music is intrinsically tied to its physical medium. It must be situated within a performative context. Whether a musical work exists in a concert hall, a public space, a shower, or a living room, issues of the body, institution, time, and space are all important. By approaching these contextual issues in deliberate ways, a composition can embrace discoverability.

The interaction between sound and context creates musical complexity, and provides the foundation for an audience to become an aware audience. The performative context also establishes an audience. For discoverable composition, this audience can be embraced as a fluid component of the space, providing additional musical complexity and richness for free. The indeterminacy of how sound engages a fluid audience at any given moment is musically important for discoverable composition. As a result, the context in which a composition is situated gives rise to *discoverability*. It is with this in mind, that I present an argument for discoverability as a compositional approach to realizing indeterminate music through situated, and even deterministic, musical systems.

This paper discusses how the creation of musical works can be discoverable by an audience and the questions that this dynamic raises. In a discoverable composition, sound is situated in a context that is embraced by the composer as musical. The indeterminacy of the audience and soundscape that exists within the performative context is incorporated into the music. As a result, discoverability is an approach to making music that is naturally integrated into everyday life. This is not only a reaction against established musical precedents, but also a compositional method of embracing everyday experience as musical. From an audience perspective, a discoverable composition is a natural augmentation to the normalcy of everyday life.

Discoverable composition is a specific approach to the relationship between musical performance and audience. This paper incorporates aspects of situationist thought, the physical setting of art, indeterminacy, soundscape, and music cognition. These ideas are utilized in order to present the idea of discoverable composition and its musical possibilities.

1.2 Discoverability as a solution to particular situationist imperatives

The Situationist International evolved out of the Lettrist International, establishing themselves through a series of publications by Guy Debord in the late 1950s. Focusing on the distrust, confusion, and boredom inherent in a modern capitalist society laden with superficial "spectacle" (Marcus, 2002), Debord (1957/2002a) championed a call for "concrete techniques to revolutionize the setting of everyday life" (p. 26). Beyond an artistic or even a political movement, situationism incorporated the complete experience of life. Its cause was to reconstruct experience through deliberate intervention. Situationism ultimately underscores three main ideas relevant to this paper: (1) a call for

the integration of the monotony of "everyday life" and static conceptions of art, (2) a focus on social behavior as opposed to artistic production, and (3) a deliberate reassessment of context, both social and physical, as a fluid system of interaction.

These three concepts can be viewed hierarchically. Artistic endeavors can be integrated into everyday life, rather than remaining distinct from normal experience, by focusing on social behavior as opposed to artistic production. And by viewing artistic context as a dynamic and fluid system, social behavior can be integrated into a larger *situation*, a mechanism by which art and life can be integrated. These ideas provide a foundation for the following discussion of the relevance of situationism to discoverable composition. They also outline the trajectory of this chapter.

1.2.1 Life as art

As an artistic movement, the situationists wanted to reinvent life as a conglomeration of constructed situations. They sought not to reinvent art, as that would just result in a derivation of other static forms. They wanted to negate the distinction between artistic production and everyday experience, and address the uniformity and boredom inherent to each. Debord (1957/2002b) states that, "what alters the way that we see the streets is more important than what alters the way we see a painting" (p. 49).

According to the situationists, surrealism attempted to engage the motivation to create art as a way of regenerating life. Yet surrealism maintained a separation between the experience of life and the experience of art, dooming surrealism to "just another debilitated, gallery-bound art movement" (Marcus, 2002, p. 5). Contributing to its "gallery-bound" fate, Debord (1957/2002b) argues that surrealism's reliance on the "infinite wealth of the unconscious imagination" (p. 33) further assures its uniformity.

Debord's idea of uniformity is specific. He is concerned with the similarity that underlies the experience of art. While surrealism's reliance on the unconscious as inspiration for art may be infinitely differentiated, the experience of surrealist art becomes similar over time. The unconscious, once realized consciously, fails to continuously maintain interest and decays in turn. Debord connects this artistic uniformity with the larger experience of everyday life:

> A man's life is a sequence of chance situations, and if none of them is exactly similar to another, at the least these situations are, in their immense majority, so undifferentiated and so dull that they perfectly present the impression of similitude. (p. 46)

The perceived uniformity of life reaches to the very core of the situationist argument. Life, as a direct result of capitalist society, is boring. The situationists argued for the integration of artistic intervention into everyday life.

In Greil Marcus' (2002) words, the situationists were searching for a "Northwest Passage" (pg. 7), the route by which society could be transformed by the integration of art and everyday experience. Their techniques included the *derive* (a walking excursion taken to assess the impact of geography on deportment) and *detournement* (the artistic appropriation of common materials used to subvert their original intent) (Debord, 1957/2002b). The situationists championed the importance of playfulness, or "ludic behavior" in constructing "concrete techniques". By addressing play, the situationists "abolished any distinction between play and seriousness, or between art and everyday life" (Andreotti, 2000/2002, p. 215). Embracing ludic behavior was one way to realize the integration of art and everyday life. Play was presented as an artistic concept. It was

a method by which the situationists could manifest their political dissidence and revolutionary approach to the composition of everyday life.

While play was a way of integrating art and life, so was literature that incited social change. Situationist writings became an impetus for the May 1968 uprising in Paris. Much of the graffiti and rationale behind the revolt came directly from situationism (Marcus, 2002). As a result, literature provided a foundation for revolution, and revolution became a "concrete technique" of artistic intervention.

1.2.2 Social behavior versus artistic production

The appeal for the "construction of situations" is founded upon a desire to affect social behavior and not artistic production. According to situationist thought, any artistic movement that adheres to performance precedents, such as the art gallery or the concert hall, can only present a unique perspective on the subject matter of art and not on the practice or setting of art.

> Although certain artistic activities might be more notoriously mortally wounded than others, we believe that the hanging of a painting in a gallery is a relic as inevitably uninteresting as a book of poetry" (Debord, 1957/2002a, p. 27).

The rejection of artistic precedent, which separates art from everyday life, is the basis for the situationists' advocacy of artistic *behavior* over the artistic *work*.

The situationists' dismissed the viability of artistic production as the future of art experience. Eschewing artistic production challenges art's ability to retain its physical identity apart from its performative context. "[The situationists'] urban ideologies were devoted to reshaping the subject, to, in fact, envisioning an empty subject modeled by the influence of the surroundings" (McDonough, 2002, p. xii). The situationists' appeal for

the construction of situations instead relied upon social behavior as artistic intervention. "We must develop an intervention directed by the complicated factors of two great components in perpetual interaction: the material setting of life and the behaviors that it incites and that overturn it" (Debord, 1957/2002b, p. 44). Debord's emphasis on the "perpetual interaction" between setting and behavior offers a specific methodology for the integration of art into everyday life.

The *derive* was a way to observe and assess the interaction between setting and behavior. The *derive* is itself a realization of this idea. It sought out "signs of what lettrist Ivan Chtcheglov called 'forgotten desires' – images of play, eccentricity, secret rebellion, creativity, and negation" (Marcus, 2002, p. 4). The *derive* is the deliberate behavior of observing behaviors relative to their setting.

While the *derive* itself could function as a manifestation of artistic intervention as social behavior, it also provides a method for addressing social behavior as artistic. In Vito Acconci's *Following Project*, a stranger is chosen from a crowd in New York City. Acconci follows and continuously photographs the individual until they enter a privately owned space (Gilbard, 1984). *Following Project* is a derivation of the *derive*. Its focus on behavior as both artistic concept and procedure suggests more than the resulting static photographs. As its title implies, the voyeuristic behavior of *following* is the subject.

Musically, the *derive* dismisses the concert hall and the art gallery as performance mediums. Since the advent of the concert hall in the 1700s, western music performance has embraced a strong polarization between performer and audience (Cascone, 2002; Cook, 2000). The *derive* attempts to overcome this. The concert hall dictates a

detached, abstracted musical experience. Artistic intervention and everyday life can be integrated by experiencing the intricacy of sound in a natural setting.

In Nam June Paik's *A Tribute to John Cage* (1973), Cage performs a version of *4'33"*, using the I-Ching to plot out performance locations around New York City, and the duration to be spent at each site. Paik films Cage as he proceeds to each location in turn, stops at each site for the designated time, and listens to the *music* occurring around him while paying close attention to his watch (Johnson, 1972/1989). In my view, Cage's chance musical excursion is in accordance with the situationist call for ludic behavior as artistic intervention. In this kind of compositional approach, musical behavior, as opposed to fixed musical production, becomes a mechanism for a more seamless integration of art into everyday experience.

Cage's deliberate compositional method frames the environmental sound. He accomplishes this in two ways: by using the I-Ching to define the structure of the piece and through his behavior in performing the piece. As Cage performs this piece, he experiences an integration of life and art. In this sense, Cage's performance is a structured and composed musical *derive.*

1.2.3 Artistic setting as a dynamic system of interaction

Closely tied to the *derive,* is the concept of *psychogeography*: the study of the relationship between physical setting and the behavior or "deportment of individuals" (Debord, 1957/2002b, p. 45). Psychogeography represents a dynamic and perpetually fluid system of interaction, beyond the notions of static artistic production. It provides insight into the situationist approach to urban planning and architecture. The situationists

wanted to construct a dynamic urban context, and to revolutionize everyday experience through artistic intervention by focusing on the interaction between behavior and setting.

The situationists believed that architecture and urban planning stipulate particular detached modes of living, which contribute to the monotony and boredom of everyday life. These precedents reinforce classist dichotomies and lead to social isolation, a crippling disconnect between the individual and society. Mitigating isolation, the root of boredom, drives the situationist approach to urban planning. As a solution to isolation, Debord embraces "unitary urbanism" as "the use of the whole of arts and techniques as means cooperating in an integral composition of the environment" (1957/2002b, p. 44). This integrative approach, using artistic techniques to compose the urban environment, assimilates the construction of site with artistic intervention. However, Debord further argues that unitary urbanism is simultaneously "dynamic, i.e., in close touch with styles of behavior" (1957/2002b, p. 44). The urban environment must be addressed as a fluid system, sensitive to social behavior, and integrate that behavior into the physical setting.

The situationists advocated situations. A rigid definition of what a "situation" is would undermine the reason for advocating their construction. But in broad terms, Debord does present the "construction of situations" as "the concrete construction of temporary settings of life and their transformation into a higher, passionate nature" (1957/2002b, p. 44). This espouses the importance of viewing physical location not as a static site for the detached presentation of artistic intervention, but fluidly. By incorporating artistic techniques, behavior and environment can be integrated.

Context fluidity and social integration are important features of the situationist approach to architecture and urban planning. "Architecture must advance by taking as its

subject emotionally moving situations, more than emotionally moving forms, as the material it works with" (Debord, 1957/2002b, p. 45). This emphasis on the emotionality that can arise from architecture reinforces the notion of urbanism as social endeavor. The domain of unitary urbanism is that of the social network, where new environments are created "in direct relation to constantly changing modes of behavior" (Constant, 1959/2002, p. 96). For Debord, any practical implementation of urban planning must not represent a static model of interaction, but instead, a flexible model focused on dynamic interaction between setting and behavior.

The Dutch artist, writer, and urban planner, Constant Nieuwenhuys (primarily just known as Constant), directly addressed these concerns in his large steel and Plexiglas urban models. Architect Libero Andreotti (2000/2002) describes one such structure called *Yellow Sector*, as being "organized around fields of moveable prefabricated elements arranged randomly to emphasize their dependence on changing needs" (p. 229). *Yellow Sector* is based on what Constant calls the "principle of disorientation". Andreotti describes the application of this principle as:

> A deliberate confusion of spatial hierarchy through obstacles, incomplete geometries, and translucent elements. Aside from designating certain areas as especially suitable for ludic activities, the absence of any functional zoning or separation of public and private space reflected a desire to multiply the variability of the space" (p. 229).

Introducing elements of variability in form and setting is a technique for developing an environment that is adaptive to behavior. Constructing an urban environment on the basis of flexibility, novelty, and obstacle, yields a socially integrative setting for life and

provides an experiential antithesis to the boredom and uniformity inherent to the urban environment.

The uniformity of urban life, as discussed in section 1.2.1, propels much situationist thought and is a direct impetus for the situationists' call to revolutionize everyday life. Uniform experience is combated through "immediate participation in a passionate abundance of life, through the variation of fleeting moments resolutely rearranged" (Debord, 1958/2002, p. 61). Debord's constant reference to embracing "fleeting moments" and "chance situations" (Debord, 1957/2002b, p. 46), as a way to change the stifling uniformity and isolation inherent to urban life, underscores the use of indeterminacy for artistic purpose. Indeterminacy is not supported as a discrete or deliberate process of artistic production, but rather as a natural dynamic, which can and should be embraced contextually.

Similar to situationism, it is important for discoverable composition to be responsive to its environment, and seek to incorporate its musical system into the chance interactions of its environment. Audience discoverability arises through embracing a performative context as a dynamic musical environment. While discoverable music only functions as music according to subjective evaluation, it is an integrative and sensitive re-composition of everyday behavior and environmental context.

1.3 Situated indeterminacy

The idea of indeterminacy in music of the latter half of the 20th century has been influential in many ways (Pepper, 1997). Indeterminacy has been applied to, and provided a methodology for, sound generation/manipulation, notation, compositional structure, and the development of interactive musical systems. I am using the term

"situated indeterminacy" to discuss music that arises from an environment by compositionally embracing the chance interactions that happen within that environment.

Many works by John Cage use indeterminate processes as a method for composition. In my view, some of Cage's work can also be looked at as embracing *situated* indeterminacy. In *4'33"*, Cage takes advantage of the expectations and social covenants of the concert hall. *4'33"* exists not only in the concert hall, but also because of the concert hall. Cage notated the duration of the piece and presented a performer on stage at a piano, one of the most classically established musical instruments. Cage's deliberate compositional decisions create a performative context that forces the audience to become aware of the concert hall as a musical presence. And it is because of this that *the concert hall*, littered with audience expectancy and musical intention, rather than the piano or even the pianist, becomes the musical instrument.

The deliberate contextual framing of any sonic environment could then potentially be musical, as in *4'33"*. Composition can embrace *situated* indeterminacy by establishing a framework that calls attention to the environmental sound. In this way, the method of composition defines the situation wherein music occurs. Soundscapes by themselves are not "indeterminate" music. But through deliberate compositional decisions, which frame an environment, it is my belief that the chance interactions that occur within a space can be embraced musically.

This approach to embracing environmental sound as musical is important for discoverable composition. A discoverable composition must construct a performative context, which assimilates the surrounding sonic environment into the music. The purposeful and deliberate artistic intervention then has the potential to be discovered or

ignored in relation to its context. Music is discoverable only if it can be simultaneously assimilated into and distinguished from its performative context. Consequently, how the composer chooses to frame the chance interactions that occur within the performative context serves an integral role in determining the environment's function as music.

The performative context of a discoverable composition also establishes the audience for the piece. The audience is therefore a fluid and dynamic musical component. The audience's interactions with sound and with each other all become important. They are in perceptual limbo, where awareness or obliviousness is as much a part of the music as David Tudor is to *4'33"*.

1.4 Happenings and the Open Work

4'33" breaks the traditional boundary between performance and audience by mixing the musical with the dramatic. It is "a happening, because what happens, happens right here and right now" (Fraser, 2005). Allan Kaprow, an artist associated with Fluxus, coined the term "Happening". Kaprow worked closely with Cage over several summer sessions at Black Mountain College, where he sought to integrate art and life by incorporating audience participation in his work (Funkhouser, 2006). Kaprow believed that "the line between art and life should be kept as fluid, and perhaps indistinct as possible" (Suderburg, 2000). His idea of a Happening is an approach to this integration. A Happening embraces *intermedia*, a fusion of simultaneous, discrete artistic procedures, in order to espouse *artistic action* (Kaprow, 1966). Kaprow's ideas integrate performance and audience by focusing on the behavior of making art.

The Happening can be viewed according to Umberto Eco's idea of the "Open Work". The Open Work defines an approach to art, characterized by audience

participation in realizing art. An Open Work is not presented to an audience as a static, finalized composition. Instead, the artist seeks to engage the audience as a creative force, applying their own sensibilities to what the work could be. The Open Work embraces a multiplicity of meanings depending on context and audience engagement (Park, 2006). This is not to say that the "openness" of a work necessitates "indefiniteness" of communication (Eco, 1989). "Openness" is a deliberate compositional structure, framing the indeterminate presentation of the work. As a result, an understanding of how the artist is communicating coincides with the audience's active manipulation of the material. Umberto Eco (1989) states that Open Works "are brought to their conclusion by the performer at the same time he experiences them on an aesthetic plane" (p. 2).

The Open Work is an approach to embracing indeterminacy and incorporating audience participation. Discoverable composition, like the Happening, can be viewed as a subsidiary of the Open Work. Each of these ideas emphasizes artistic behavior over a fixed artistic production. This arises by addressing the audience as an active component of art, capable of contributing not only to the understanding of the work, but to its realization as well.

1.5 Site and behavior

Discoverable composition's ability to embrace its environment as musical, through sensitivity to social behavior and the integration of the sonic environment, arises through site-specificity. Discoverable composition operates through both the fluidity of its physical setting and the variability of that setting's soundscape. This interaction defines the music in terms of its location. Location must therefore be viewed as a cohesive and sensitive dynamic, responsive to society, behavior, and the environment.

The situationists are not the only people to advocate constructing the setting of everyday life as a dynamic system, receptive to social behavior. The rigidity and blandness of architectural and artistic precedent is at the core of the motivation to embrace more socially integrative approaches to design and setting. Situating installation art and developing new approaches to architectural design and urban planning can be related to situationism without directly stemming from situationist imperatives or the notion of unitary urbanism. These approaches can be widely discrepant, and even reactionary.

Jonathan Hale (1994) describes a relatively modern residential neighborhood, where:

> The expression of institution, of human nature, is banished. What the houses express is control. Design is turned to a single purpose, to prevent the unexpected. What the houses omit is life (p. 21).

Hale's solution to the lifelessness of modern architecture is to revert back to 19th century ideals of proportion, pattern, and cohesion. Hale believes that architecture should be infused with life and reflect an integration of behavior and location. Eugene Victor Walter (1988) agrees, arguing that, "a place is a unity of experience, organizing the intercommunication and mutual influence of all beings within it" (p. 23). Yet, Walter proposes a paradigm for understanding how a place comes to have meaning, while Hale advocates the resurrection of historical architectural models. These solutions differ drastically, yet they each address the same problem. The setting of life should be constructed as a system, responsive to behavior.

This is not to say that architecture or urban planning should aspire to be revolutionary. In fact, Robert Venturi and Denise Scott Brown (2003) emphasize the importance of architecture and urbanism to "work within the fluctuations of the economic, cultural, and social life around us, to understand its systems and respect the patterns they form" (p. 181). Denise Scott Brown also suggests that designing pathways that connect buildings with their surrounding contexts and reflect modes of behavior are a simple way of addressing these patterns. Pathways are a solution to the integration of physical setting and behavior.

This is relevant to the site of a discoverable composition. If a discoverable composition is to musically integrate behavior and environment, it must do so in conjunction with architecture. As situated music, discoverable composition augments its performative context, working with the site to create a dynamic environment. Through site-specificity, discoverable composition is a way to achieve a unity of sound and space, instilling life into the experience of place. James Meyer (2000) makes the distinction between the *literal* site and the *functional* site. The functional site being "a temporary thing, a movement, a chain of meanings and imbricated histories: a place marked and swiftly abandoned" (p. 25). Here, the site-specificity of an artistic installation becomes complex. Discoverable composition, as a site-specific installation, integrates itself into the physical context of a particular space and soundscape naturally. The artistic intervention operates in concert with the literal site in order to establish a functional site, the functional site being musical.

1.6 When a discoverable composition is discovered: Music as a (more) imaginary object

Sound is omni-present. Cognitive mechanisms are needed to deal with the sheer quantity of aural information. A person cannot actively engage with all sounds simultaneously, not only because of the cognitive demands that such attention would place on the brain (not to mention all of the other senses which are simultaneously gathering information about the world), but because not everything in the aural environment requires active attention and involvement. Consequently, the brain has evolved the capacity to sort through the chaff that the world throws at our ears.

Cognitive mechanisms mitigate aural salience. For any particular environment, novel and/or semantically important sounds can be attended to without disruption or interference from other non-relevant sounds. Furthermore, our degree of conscious, intentional control over directing aural attention is phenomenal. Known as the "cocktail party effect" (Moray, 1969), we are able to explicitly direct our aural attention to one particular sound out of many, providing us with intentional control over otherwise autonomic cognitive mechanisms.

In experiencing discoverable composition, perceptual attention becomes important because of the possibility for cognitive reevaluation of the acoustic environment. If the audience actually becomes an aware audience, that is, an audience that is conscious of exposure to an "artistic" endeavor, then at some point during their experience, a reassessment and reinterpretation of the aural landscape has occurred. Either due to acoustic novelty or purposeful attention to the soundscape, the audience member consciously attends to the discoverable composition, such that the authenticity

and integrity of the acoustic surroundings is questioned. The underlying assumption, that the environmental surroundings are responsible for this moment's confluence of sonic events, suffers a breakdown. The listener has ascribed purpose and intent to the sonic environment, rightly or wrongly.

In a concert hall, this evaluation has been lifted from the audience's shoulders and is taken for granted. The scheduled and transparent nature of the concert allows for the audience to focus their attention only on evaluating the music. This saves them from the added cognitive responsibility of determining whether or not the sounds that they experience are laden with artistic intent. An audience member, attending a concert, carries a particular set of expectations, both musical and social. In most cases, the audience member explicitly chooses to attend the concert, and has an understanding that they will be listening to "music" (not always without debate). Ultimately, there is not an issue of intentionality to the sound occurring in a concert hall.

Yet, is it possible for an audience member experiencing a discoverable composition to become aware of music without becoming aware of art? Yes, through the individual's projection of musicality onto the sonic environment. So far as the discoverable composition elicits a subjective understanding of music, it is effective as music without having to be understood as artistic intervention. A listener can ascribe his or her own musicality onto what might otherwise be non-intentional sounds. This musical action is both embraced and explored though the context in which discoverable composition is situated.

The extent that an audience is aware of interesting sounds without being aware of artistic intervention is a reflection a discoverable composition's ability to elicit a

subjective musical experience of the aural environment. Discoverable composition approaches music as experiencing the intentionality of sounds heard in our environment. It does not matter whether sounds occur inside or outside of a concert hall, or whether a composer or a listener prescribes the intentionality. Regardless of whether everyday life or a composer is responsible for current coincidences in the sonic environment, music is being heard. As a result, music is always discoverable, and artistic intervention only serves the purpose of urging musical evaluation from a given audience.

Chapter 2

2.1 Discoverable installation art

How is busking a form of discoverable composition? Pedestrians walking through a subway terminal or walking along the sidewalk of a busy urban shopping district are not specifically seeking out musical performance. They are confronted by it, without the personal investment of preparing for the event. Even if one lives in a major city, where encountering street performers is a normal occurrence, when and where these performances will take place is still usually unknown. Busking, as a performance practice, aims to seek an audience. The etymology of the word, derived from obsolete French *brusquer*, meaning *to seek*, is indicative of the practice of music in general. Music seeks an audience.

Yet, music can also simultaneously hide from its audience in order to espouse a more nuanced and responsive relationship to both space and behavior (which busking does not). Erik Satie's *Furniture Music* functions in this way. Satie composed a series of pieces intended to be heard as ambient instrumental backdrops to other activities. *Furniture Music* embraces indifference in the listener and fills a spatial void, supporting a disinterested delight in the setting (Trigg, 2006). Background music is qualitatively different than my idea of discoverable composition. Yet, *Furniture Music* is intentionally not an artistic centerpiece, and only provides musical scenery for a broader context. This intent is critical in approaching discoverable composition.

Satie's ideas came before the existence of recorded background music, or "muzak", and is an example of infusing space with sound without necessarily requiring, or even seeking, overt attention from an audience. Max Neuhaus' *Times Square* (1977) is

related to this idea, where music is integrated into its performative context. *Times Square* is a music installation located below the pedestrian traffic island between 46th and 45th streets, at Broadway and Seventh Avenue in New York City. Neuhaus uses the concrete shafts below the traffic island as resonating chambers for synthesized tones. The installation's sound is tuned to accentuate the sonorities of the city above. In describing the experience of *Times Square*, Neuhaus (1992) says, "people, having no way of knowing that it has been deliberately made, usually claim the work as a place of their own discovering". The sound is attributed to the urban environment and alters one's perception of the acoustic surroundings. This cohesion obscures salience of the installation, as the sound becomes assimilated into the overwhelming and chaotic soundscape of the bustling city. The installation is musical without requiring an understanding of artistic intervention. This is possible because the sound is harmonious with its site. Neuhaus' installation is discoverable as music, but discovering music does not also require discovering the composer's intervention

Both *Furniture Music* and *Times Square* underscore the use of subtlety as a compositional technique. In order to compose unobtrusive music that is cohesive with its performative context, the salience of the composer's intervention must be mediated. Creating art that embraces being overlooked, as art, is an interesting approach.

Keith Wilson's *Puddle* (2000) is an extreme example of this approach. Wilson created a depression in a patch of concrete and then filled the depression with water (De Oliveira, 2002). Around the physical site, the work was not labeled or signified in anyway as being "art". Wilson's intervention is experienced as a normal, everyday occurrence, a puddle. While the experience is obvious, the *artistic* intervention is

unperceivable. A person who avoids stepping into the puddle, without prior knowledge, could never know that the puddle was deliberately made. Even if a person is told that there is a deliberately made puddle, it may only heighten the likelihood that other naturally occurring puddles are then misconstrued as being deliberate constructions.

It is foreseeable that if no one were told about *Puddle*, that it would never be discovered as art. Similarly, if no one were told about Robert Smithson's *Spiral Jetty* (1970) it would also be hard to discover. *Spiral Jetty* also integrates artistic intervention into the physical environment, yet the result is opposite to that of *Puddle.* Smithson, using mud, salt crystals, and rocks, constructed a 1500 foot long "spiral jetty" that extends out into a remote area of the Great Salt Lake in Utah (www.spiraljetty.org). The jetty is intentionally hard to find, tucked away and only accessible by miles of dirt road or by air. The seasonally fluctuating lake levels further obscure Smithson's work, submerging the spiral for long periods of time. The experience of *Spiral Jetty* is hidden, while the overt artistic intervention is obvious. It is constructed using natural materials, but in such a way that the jetty is clearly man-made. The construction of this site-specific work exemplifies hiding art from an audience, while integrating it into its physical setting, as a deliberate approach.

Obscuring sound within a performative context can be a mechanism for integrating music and the natural environment. Bill Fontana's *Landscape Soundings* (1990), places natural sound recordings (including water, bird, and frog sounds) within an urban context. In a plaza between two art museums in Vienna, Fontana hid several loudspeakers around the space (www.resoundings.org). As audience members walked through the plaza, they were confronted with both the natural sounds that infused the site

and the urban sounds of surrounding traffic. By hiding the speakers within the space, the natural sounds he is reproducing are more easily attributed to the plaza, rather than his overt intervention. The opposition between the types of sound that can be heard in the plaza (recorded natural sounds vs. natural urban sounds) creates an interesting integration of soundscapes.

2.2 Interaction and sensitivity

The kind of interactivity that is relevant to discoverable composition is the interaction that occurs between the dynamic site and a programmed musical system. This includes human interactivity as well as musical sensitivity to the environment. Interactivity demands critical attention, not as a means of justification, but as a way to explore the significance, intricacy, and difficulty of engaging the location as a simultaneous performer. Interactivity, within a discoverable context addresses some key issues of both discoverability and the experience of installation art. It is a way to integrate human behavior into the performative context. Also, instilling interactivity into a discoverable composition can negate the distinction between performance and audience. These advantages of interactivity support the imperatives of discoverable composition, as discussed in Chapter 1.

Max Neuhaus' *Walkthrough* (1973) was a music installation located in New York City's Jay Street subway station, active between 1973 and 1977. Neuhaus positioned loudspeakers above the entrance and exit stairways of the station. The musical system generated electronic clicks, which changed in timbre and tempo according to shifting weather conditions (Neuhaus, 1993). Both the location, as well as its sensitivity to weather, helped assimilate the composition. The installation embraced human behavior

because of its positioning relative to entrance and exit ways, acknowledging pedestrian traffic as an integral component of the space. The daily commute provided a context for the installation's nuance to become apparent over time.

Walkthrough's interaction between weather and sound integrated the installation into the environment as well as the pedestrian commute. A daily weather report is a staple for many urban commuters. By making *Walkthrough* sensitive to changes in the weather and situating it along an urban commuter's pathway, Neuhaus engaged normal human behavior through musical interactivity. The installation was discoverable through the repeated exposure of a daily commute. Neuhaus (1993), in his notes on the installation, emphasized that the installation was "encountered daily". Commuters using the Jay Street subway station on a daily basis over the course of four years could become attuned to the nuances of sound. One commuter observed, after the installation had only been up for a few months, that "one night when I had to work late, till about 7 or 8, and when I came out it seemed a little slower than usual…" (Johnson, 1973/1989, p. 52). *Walkthrough* incorporated interactivity into a context that embraces human behavior. This combination created a composition that was discoverable through repeated exposure.

In 1999 Christian Moeller submitted an installation proposal for the Dome Room of the Reichstag in Berlin. The installation plays the melody of the German national anthem in an interesting way. A metallic plate, inconspicuously inserted into the floor, vibrates soundlessly to the melody of the anthem (Moeller, 2004). The anthem can only be heard if someone stands on the plate and covers their ears. The plate physically vibrates the person's body and their head becomes a resonance chamber for the melody.

While the plate itself is not interactive, the experience is interactive. Since someone can only hear the melody by standing on the plate and covering their ears, the installation elicits a particular behavior once it is discovered. It is also integrated into normal experience of the space. People will walk over the plate without knowing that the vibrations are acting on them. The installation is therefore discoverable, as it seeks to augment an individual's experience of the space by embracing normal behavior.

While the pieces that are described in this chapter are relevant to discoverable composition, they also have musical and artistic implications that extend beyond the scope of discoverability. Their relationship to discoverability does not define the extent of their ability to communicate as art. Each of these pieces, as well as much performance art (such as Vito Acconci's *Following Project* which was discussed in Chapter 1), reflect different approaches to integrating behavior and environment through art. Rather than encapsulating what these approaches necessarily entail, discoverability is instead a lens, through which the interaction of behavior and environment can be viewed and addressed by composition. Discoverability can inform composition, yet the material and content of composition is not bound by it. The pieces that are described in this chapter, all of which exude artistic ideas beyond the scope of discoverability, demonstrate that discoverable composition is not a category of composition, but rather, an approach to the process of composition.

Chapter 3

3.1.1 *Only if you're there (I'll meet you there)*: Concept

Pedestrian traffic has been an interest of mine for over five years. My initial interest in pedestrian traffic was curiosity. Pedestrian interactions incorporate continuous social assessment, as individuals are subjected to snapshots of the lives of strangers. The simple act of two pedestrians passing each other traveling in opposite directions is laden with complex evaluations of personality, sexuality, and socio-economic status. These off-the-cuff judgments are unfounded yet automatic, as subjective impressions inform our quick construction of the life of a stranger. The relatively recent incorporation of cell phones into the pedestrian dynamic further fuels these micro-voyeuristic evaluations. Two individuals passing each other on cell phones are presented with a semantically charged bit of information. A fraction of a conversation is heard, which when flashed before the perceptual acuity of a passer-by, is immediately assimilated into evaluations of who the person *is*. Using these snapshots, pedestrians construct comprehensive assessments of others.

The idea behind *Only if you're there (I'll meet you there)*, is an attempt to separate biased and confounding evaluations from the simple act of a chance encounter; two travelers passing each other along an interior pathway. Is it possible for such a simple event to be devoid of social (mis)evaluation and schematic judgment? By creating a musical encounter between two spatially separated individuals, this installation explores these distinctions. The musical system constructs an indirect encounter, occurring within a disembodied aural space. It exists along the pathway, yet is not confined or perhaps even salient to its subjects.

As a single pedestrian interacts with one of the sensor systems, their distance from the sensor array controls the amplitude of ambient inharmonic sound. The interaction of only one pedestrian with the installation enables the musical system to become discoverable. Yet ultimately, this interaction just serves as a baseline to facilitate perceptual comparison to the musical effect of simultaneous interaction occurring at both spatially separated sensor sites. When there are two individuals walking through each sensor site simultaneously, the system cross fades the ambient inharmonic sound into clear harmonic tones. The frequencies and amplitudes of these tones are individually controlled by the relative movements of each person's distance to the given sensor array.

The design of this musical installation maintains the normalcy, nuance, and chance that define each passing encounter of pedestrian traffic. These interactions are abstracted into an aural space. The physical discontinuity between two simultaneous points of audience interaction with the musical system creates this space. Here, spatially separated individuals interact through a musical intermediary. This human encounter is devoid of social evaluation; there are no fractions of conversations to take into account, there are no fashion trends to critique, and there is no body language to interpret. The installation confronts an individual's ability to search for, parse, and even project the humanity existing within the sound. The audience feels the music by experiencing the subtle interaction of sound and space. Upon discovering the installation's sound, like fragments of speech or a person's clothing, it has a desire to be evaluated and attributed to a particular social dynamic: a composer's intervention, the movements of two pedestrians passing one another, or even one's own projection of musicality onto the aural space.

3.1.2 *Only if you're there (I'll meet you there)*: Implementation

Sonar Arrays

Three Maxbotix EZ-1 ultrasound range finders were used for each array (See Appendix A). For each array, the sensors' readings were sampled by an Atmega32 AVR Microcontroller with a CPU crystal running at 14.745 mhz. The microcontroller chips where integrated into an AVRLinx Radio Board (v1.0) (developed by Pascal Stang). Radio Board *A* was programmed to sample its three ultrasound sensors and then transmit the readings wirelessly via radio frequency to Radio Board *B*. Radio Board *B* was programmed to sample its three ultrasound sensors and integrate the readings with Radio Board *A's* wirelessly received readings. Radio Board *B* then sent all data into a Max/MSP patch running on a laptop computer via Open Sound Control messages (sent through an ENC28J60-H Ethernet header board).

Computer Processing

A Max/MSP patch was developed as a control interface for the sonar sensors. Sensor data was mapped within the patch to control the amplitude of inharmonic sound. The inharmonic sound was derived from processed sound samples. These samples were processed ahead of time using spectral filtering and delay software that I had previously developed. Inharmonic sound was output when only one of the sensor arrays was demonstrating fluctuations in its distance readings, indicating movement.

If movement was simultaneously detected by each sensor array, then the program would cross fade the sound output, from processed, inharmonic samples to harmonic triangle waves. The sensor data would then control the amplitude level of the triangle

waves. The frequencies of the tones, for each sensor array, were stacked Pythagorean 5^{ths}. Sensor array *A* and *B* were separated in frequency by a Pythagorean 4th.

Sensor Array *A:* 466.67 hz, 700 hz, and 1050 hz.

Sensor Array *B:* 350 hz, 525 hz, and 787.5 hz.

Parabolic Loudspeakers

Six parabolic loudspeakers were used to play the computer-generated sound. Three speakers were used per site. Speaker placement coincided with the directions in which each of the sonar sensors were pointed. The parabolic speakers were crafted by hand, using some prefabricated elements. Each speaker's parabolic reflector was 18 inches in diameter. The speakers had 5 watt power and 8 ohm resistance drivers. Both the speaker cabinets and the frame holding the parabolic reflectors were made of wood. The speakers were powered by mono 7 watt amplifiers, which I assembled.

Installation Space

Only if you're there (I'll meet you there) was installed at two ends of an interior hallway in the Dartmouth Music Department located in the Hopkins Center. The installation was active 24 hours a day between May 16th and May 23rd, 2007. The ultrasound sensor arrays were positioned such that each individual sensor could detect movement from a different direction (see Appendix B).

3.1.3 *Only if you're there (I'll meet you there)*: Evaluation

The installation was intentionally subtle. While setting up the installation, a curious faculty member asked me to describe how it works and what it would sound like. I explained both the system and the sound in detail. After the installation had been active for two days, I ran into the same faculty member, at the end of the hallway where one of

the sensor arrays was located, and he asked if it would be working soon. What is of further interest, beyond the installation being overlooked, is that at this time the faculty member was standing in front of one of the sensors and inharmonic sound was perceivable. When I responded by saying that that the installation was working and we could currently hear the inharmonic sound, he said, "oh, I didn't notice that sound." In this case, the sound was clearly overlooked but also perceivable.

Others noticed the installation's sound, though this was difficult to directly observe. One individual passed through the composition and placed his hand in front of one of the sensors to accentuate the effect of the increasing amplitude of the inharmonic sound. Another audience member, who was having a conversation while standing in front of one of the sensor arrays, intentionally moved out of the sensor's range in order to make the installation quiet (she looked at the sensor array while moving). Yet as I observed other individuals passing through the composition, I was unable to tell if they were not cognizant of the sound or if they did not pay attention because they were used to it. Regardless, any behavioral indication of an audience member's awareness to the installation was rare.

The installation's sensitivity to behavior was an important aspect of the composition. The sensor arrays were generally effective in controlling the installation's musical response to movement. While the triangle waves were audible when audience members were in each location, these tones were obscured by an increase in environmental sound. The busier the hallway was, the more likely that triangle waves would occur. Yet conversely, the busier the hallway was, the more that environmental sound filled the space and diminished the salience of any harmonic tones.

One time, a performance ensemble was standing around a sensor array while preparing for a concert. As the group was talking and tuning their instruments, several individuals were interacting with each of the three ultrasound sensors. Their movement filled the spaced with the inharmonic sound, yet no one seemed to notice. Furthermore, as people passed the other sensor array at the other end of the hallway, triangle waves became clearly perceivable. The ensemble did not show any behavioral indication that they were cognizant of these tones.

3.2.1 *I think I know you (you think I don't)*: Concept

For a composition to be discoverable interactivity is not a necessary condition for constructing a flexible and cohesive integration of sound, behavior, and environment. A discoverable composition must only situate sound in a particular space while not explicitly presenting the resulting context as musical. In this way, discoverable composition is a particular approach to soundscape composition. In trying to explore ideas relating to soundscape composition through a discoverable dynamic, I became interested in the idea of composing a soundscape by situating recordings in a sonically rich and dynamic context. The manipulated sound material of the composition is contextualized through its performative setting, as the richness of its sonic environment is framed and embraced as an integral component of the music.

Instead of using field recordings of environmental sounds, or even recordings of the environment where the composition was ultimately situated, the source material was derived from samples taken from sound effects libraries. These pre-fabricated sound objects are composed and catalogued as being representative of a range of nuanced real-world sounds. Issues relating to the perceived authenticity/inauthenticity of disembodied

sound become important when sound effect library samples are used as the source material for a composed soundscape. Situating the composition in a natural and dynamic setting further complicates the musical experience, heightening the tension between authentic and inauthentic sound. These sound samples are far removed from their original sources. By placing them in a discoverable context, the sounds could possibly be misconstrued as occurring within the environment, breathing new life into these acousmatic samples.

The artistic goal of this composition is to integrate these "foreign" sounds into the natural soundscape occurring within the performance space. The resulting music is both the sound coming from the speakers and from the environment. People, who pass through the composition and become aware of it, hopefully experience a heightened sensitivity to the soundscape as a whole, if only because they are trying to differentiate the authenticity of sounds.

3.2.2 *I think I know you (*you think I don't): Implementation

Sound samples were chosen from the BBC Sound Effects Library based on their ability to fall within four predefined taxonomies: environments, animals, industrial/building, and people. Using these samples as the source material, a composition was made, that focused on layering and juxtaposing sounds from each of the groupings in sonically rich ways. The separation between sound taxonomies not was maintained during this compositional process. The resulting composition was then re-divided into the four groups of sounds, resulting in four stereo compositions. The stereo tracks were then split, yielding eight mono tracks.

The installation was installed in the two courtyards that exist between Dartmouth College's Hopkins Center and The Hood Museum of Art. Four parabolic speakers (same as those described in section 3.1.1) were placed in each of the courtyards. Using a Max/MSP patch, the 8 audio tracks were continuously re-distributed among eight speakers by randomly selecting from a predefined list of channel configurations. The installation ran 24 hours a day and was active between Friday May 11th, and Tuesday May 15th, 2007 (see Appendix C).

3.2.3 *I think I know you (*you think I don't): Evaluation

The installation was set up very slowly. Speaker wire was run to one speaker at a time and each speaker was turned once it was possible to do so. In effect, one speaker was turned on per hour. In this way, the composition slowly infused the space. As people passed through the courtyard while I was setting up, it progressively became more likely that they would distinguish one of the sounds coming from a speaker. When this happened, the audience member would invariably turn their head to localize the sound.

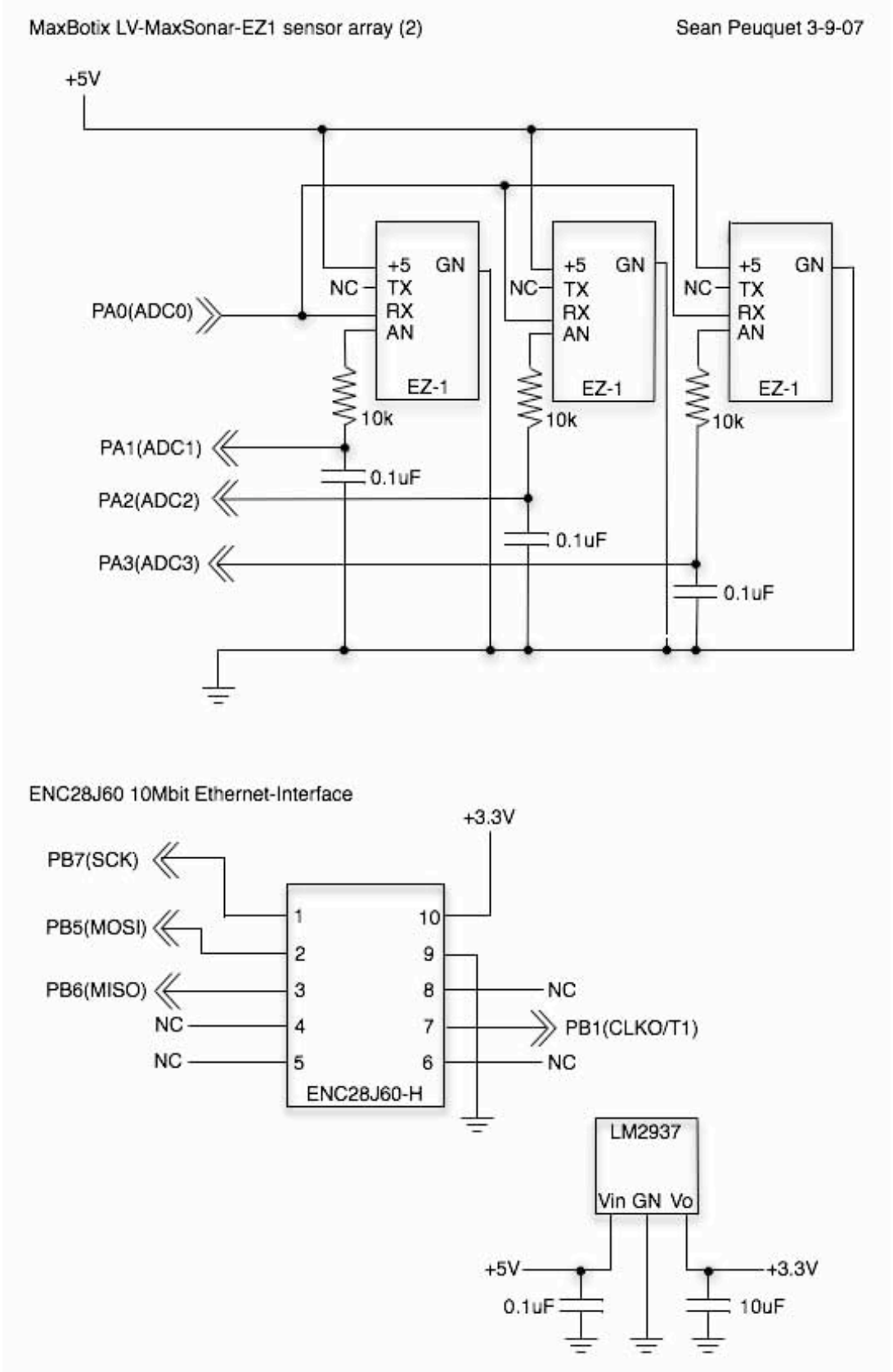
Of the people who passed through the space, perhaps slightly more than half became aware of sound coming from one of the speakers. These audience members seemed at least slightly curious, which was demonstrated by slowing their walking speed and paying closer attention to the speaker from which they heard something. If multiple speakers were playing sound while an audience member passed through the space, they would often turn their head repeatedly, localizing each sound.

Setting volume levels for each speaker proved to be difficult, as the sound occurring naturally in the space would change according to the amount of pedestrian traffic and time of day. Each speaker was set such that when "loud" sounds occurred

within the composition, that they were no louder other sounds in the space. Certainly, the installation felt slightly louder at night than during the day. Yet, some sounds, such as the samples of crickets, became virtually indistinguishable during the evening.

Some anecdotal experiences can help describe the installation's effect. One audience member, who must have passed through the space several times, turned to his friend and said, "I feel like I've heard that sound before, but it was in a different place". Another person, started walking slowly, turned towards a speaker with his eyebrows bent inward, and then turned towards me (while I was fixing some gaffing tape) and asked, "are those your crickets?" Finally, as I was walking through the space, a person passed me on a bicycle. As the bicycle passed, a sound effect of a bike moved between two speakers to our left. We both looked to our left to localize the sound.

Appendix A


MaxBotix LV-MaxSonar-EZ1 sensor array (2)
Sean Peuquet 3-9-07
+5V
+5
GN
NC
TX
RX
AN
EZ-1
PA0(ADC0)
10k
PA1(ADC1)
0.1uF
PA2(ADC2)
PA3(ADC3)
ENC28J60 10Mbit Ethernet-Interface
+3.3V
PB7(SCK)
PB5(MOSI)
PB6(MISO)
NC
PB1(CLKO/T1)
1
2
3
4
5
6
7
8
9
10
ENC28J60-H
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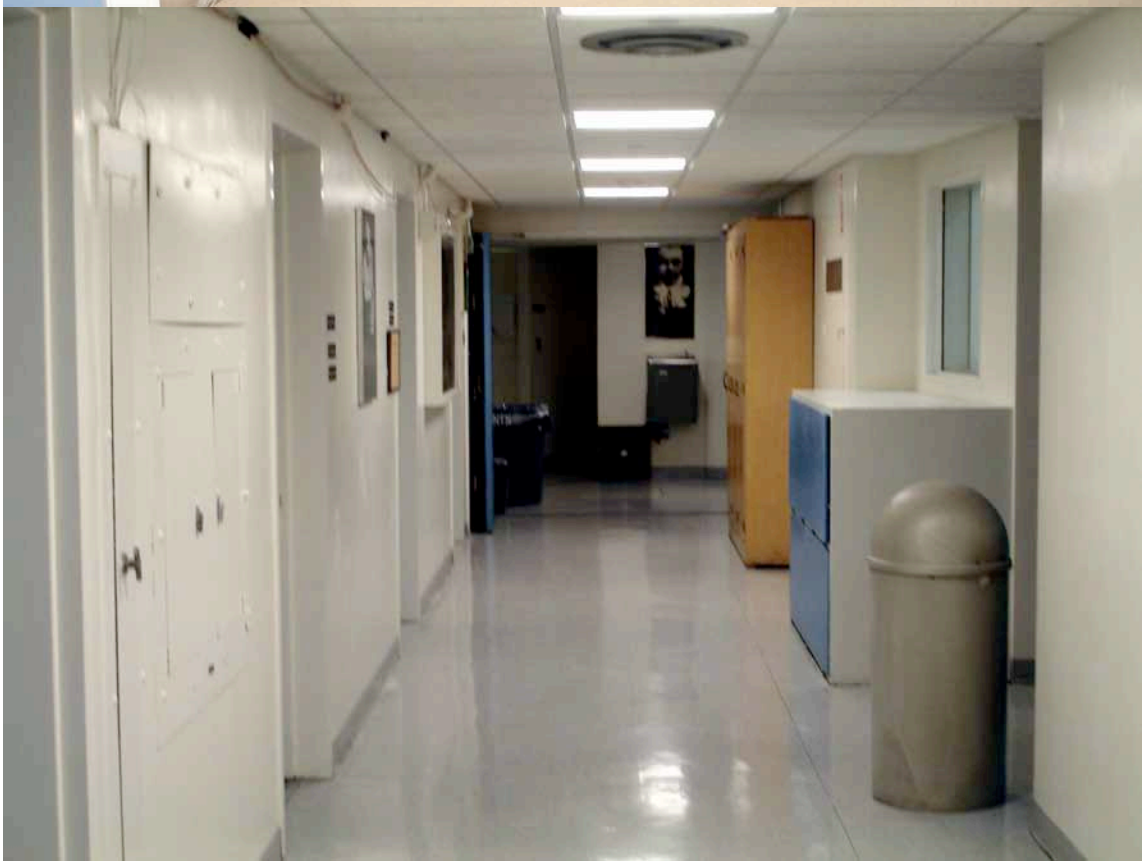
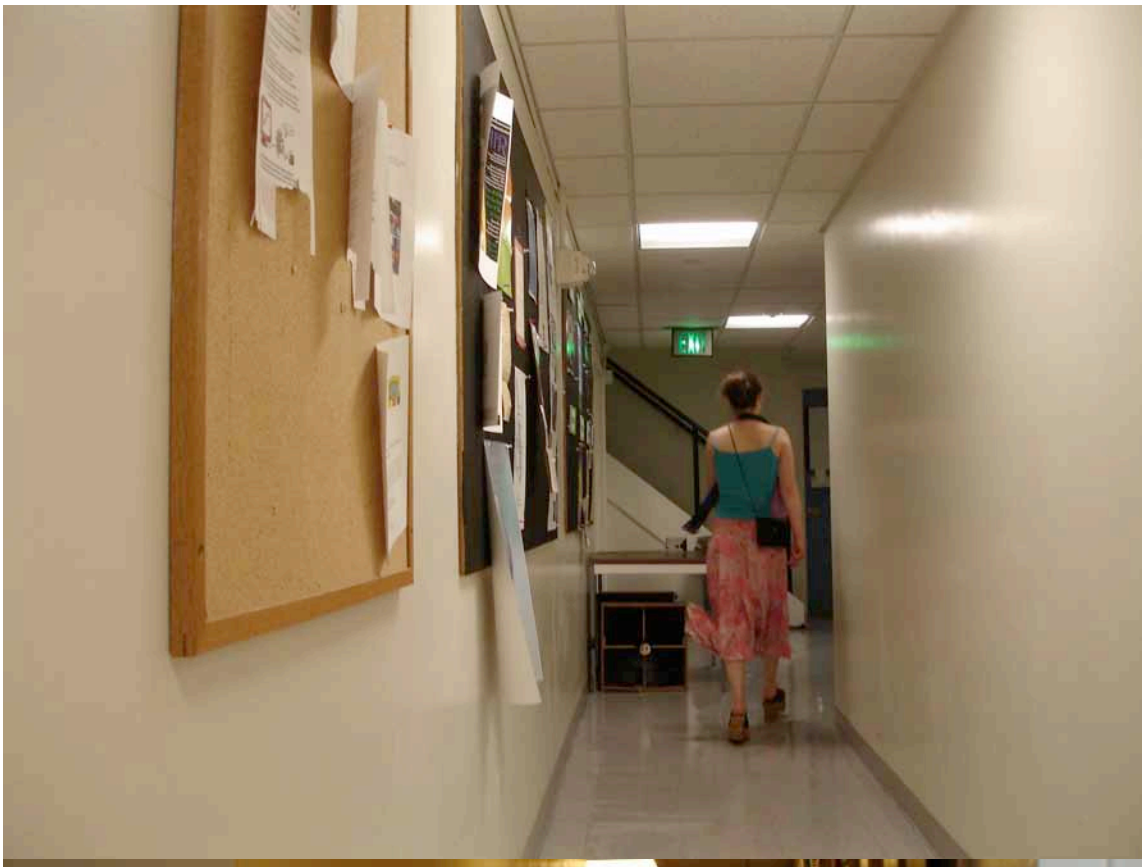
Vin GN Vo
+5V
+3.3V
0.1uF
10uF

Appendix B

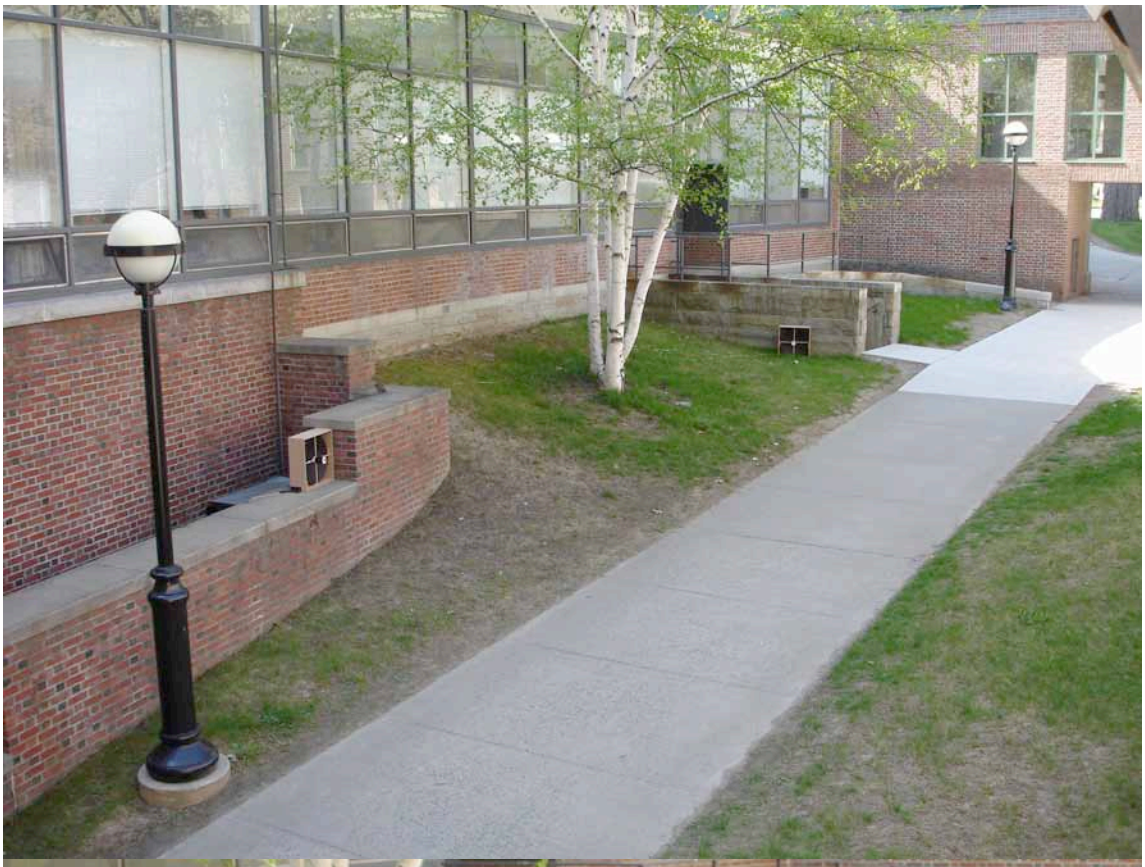


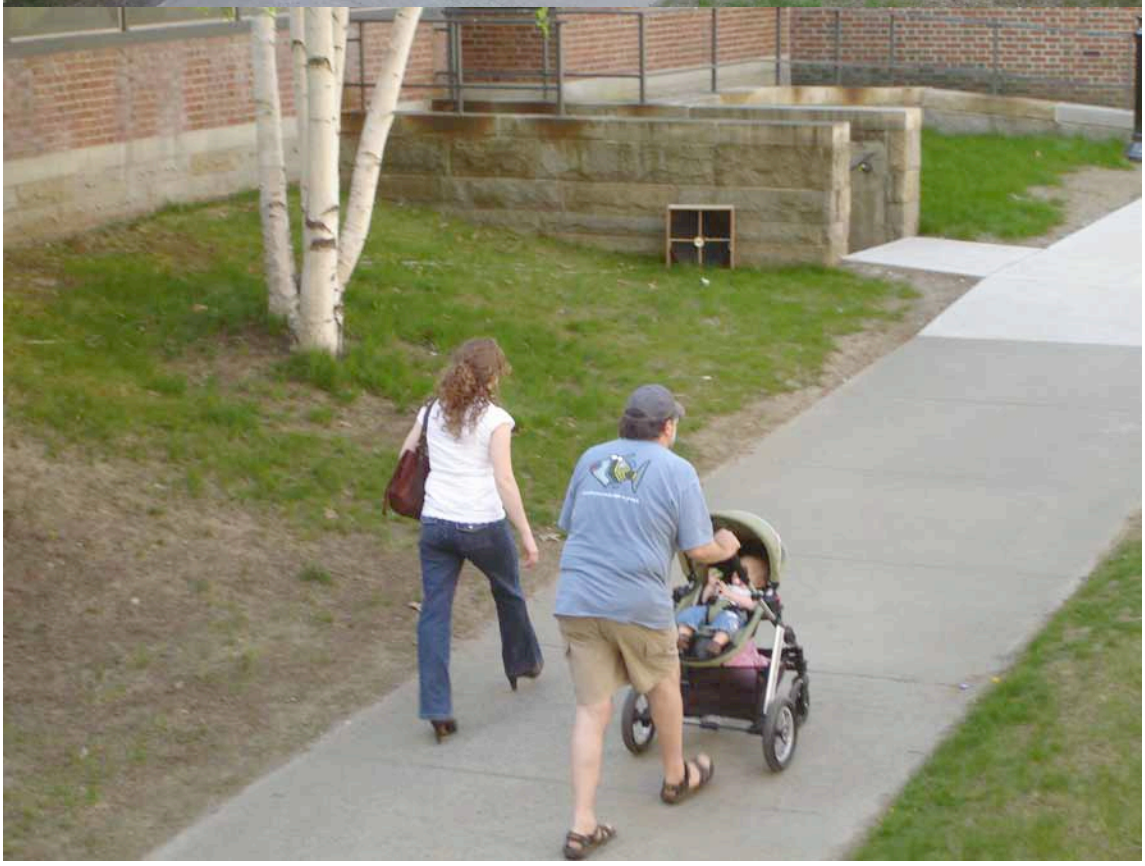

DON GIOVANNI

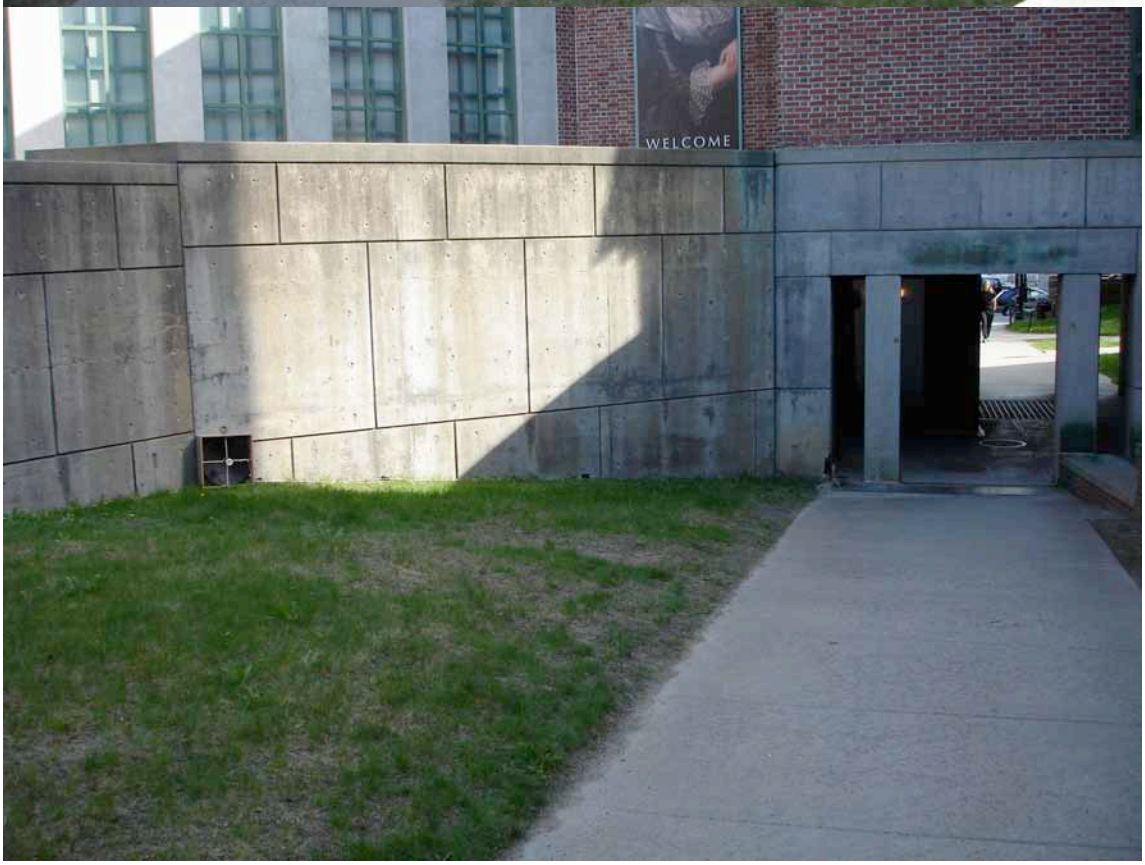

EXIT

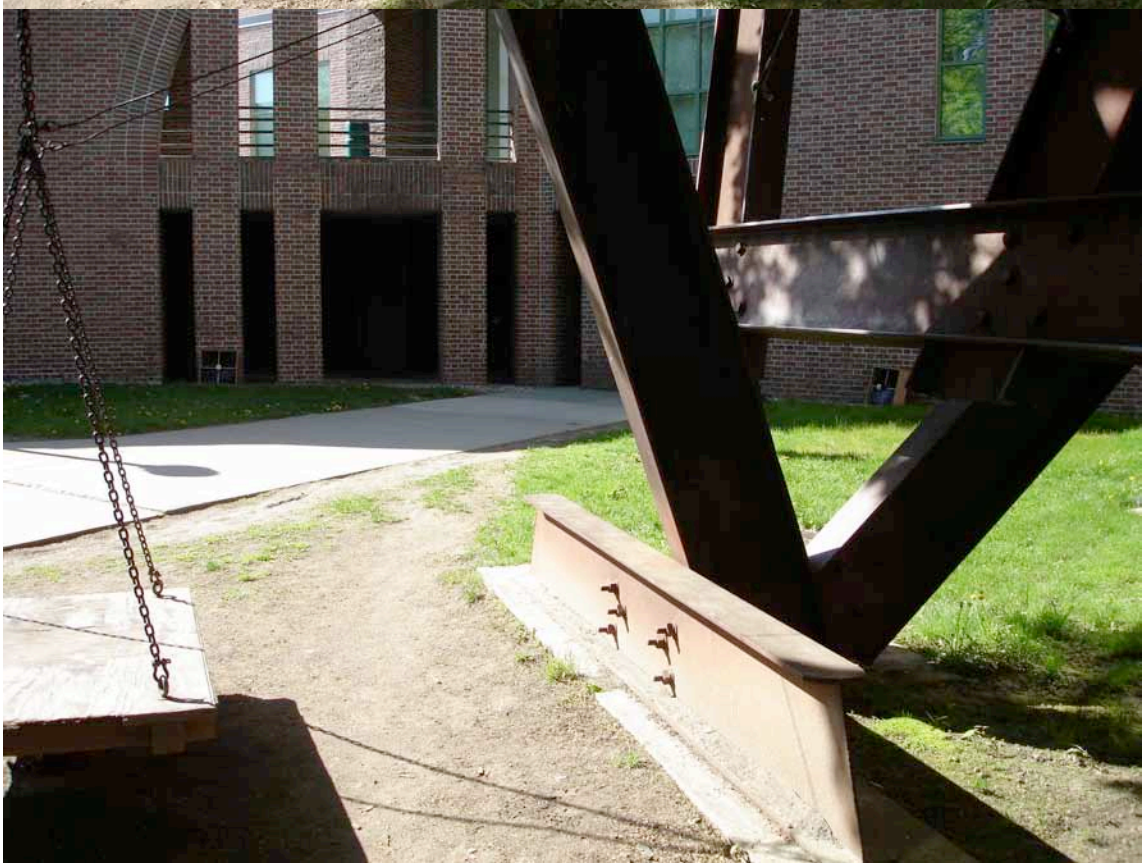


Appendix C






WELCOME



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