

AWARENESS THROUGH THE CAPTURE OF SURROUNDING SOUNDS

Thesis

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by

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## **Abstract**

My thesis paper examines the process of capturing and studying the sounds that surround us through three case-studies involving audio recording, the subtext beneath the sound, and bringing documentation of real life situations into a performance atmosphere. Each topic will be discussed through the examination of the personal processes and compositional methods of three composers who use environmental sound recordings in very different ways. With specific reference to my own piece *Within a Soundscape – Scorned Confusion*, I will present compositional concerns in relationship to the particular issues discussed with each composer.

## **Dedication**

I would like to dedicate my thesis to my family. This paper and journey would not be possible without the support and opportunities my parents, Richard and Melanie Neumann, selflessly provided over the years. I owe my sister, Jennifer Neumann, more thanks than I could fathom addressing in this dedication. I wouldn't have the same experiences and interests in music and life without her or my brothers, Benjamin, Nathaniel, and Christopher Neumann. My family has been my crutch in times of need and the reason I continue to conquer any life situation.

## **Acknowledgements**

I would like to thank Zeena Parkins and Fred Frith for their constant help with my ideas and discoveries through working on my piece *Within A Soundscape – Scorned Confusion* and this thesis paper. It was a privilege, working as their Teaching Assistant for Mills Music Improvisation Ensemble II. They have put countless time and effort into my education at Mills College.

I also would like to thank Steed Cowart for his continuous support and appreciation for my compositional works and help as a Teaching Assistant for Mills Contemporary Performance Ensemble.

Next, I thank Dr. Nalini Ghuman, a wonderful teacher, ethnomusicologist, performer, and accomplished person, for being such an inspiration for me while attending Mills College. I owe her for her gracious help in organizing and editing this thesis paper.

I express my deepest gratitude to Maggi Payne, who is the reason I chose Mills College. I thank her, along with David Kwan, for all of their guidance, and for being continuous influences in my compositional and audio engineering aspirations.

I also thank James Fei and John Bischoff for showing me my new passion for the electronic arts, which will be a way to link my compositional aesthetic to other musical roles I take on.



I want to thank Seth Cluett for introducing me to Mills College, and for pushing me to continue my education towards a Masters in Music Composition. It was Seth who introduced me to recording, The Recording Workshop, and Mills College, which has all led to my compositional aesthetic and works today.

Other thanks to William Winant, Sara Ganz, Molly Holm, and David Bernstein for all being supportive, and for giving me opportunities and experiences I would not have imagined without them.

Deepest thanks to my first instrumental music teacher at school, Mrs. Pennell. It was she who inspired me to continue in music, and I would not be graduating with a Masters in Music without her initial and continuous influence.

I also want to thank Diego Contreras who has been a huge support in my musical aspirations and life choices in these last few years leading up to this thesis paper. Along with him, I would like to thank all of my friends for their continuous support as well.

Finally, I thank Allison Enriquez for the continuous Writing Center tutoring sessions, and for being such a big help in the organization of my compositional aesthetic as well as the structure for this thesis paper in this past semester.

## Preface

I came to the topic of this thesis paper through my realization involved in field recordings, and the subtext underneath. The capacity to bring about thoughts of memory in the listener and myself interests me. In this thesis, I examine the process of capturing the world around us through my skills as an audio engineer, the subtext involved in field recordings, and how location can influence music. Through my involvement in audio, I have found my compositional aesthetic. I will examine three compositions that use field recordings in different ways. Through using these three ordered studies, interesting points, similarities, and differences will be found between the composers talked about and my own aesthetic and interests.

I first investigate a process of capturing the world around us accomplished through the art of recording. The composition that I discuss is Chris Watson's *Inside the Circle of Fire: A Sheffield Sound Map*. A significant aspect of Watson's piece is that he listens for the subtle colors and textures within a soundscape, allowing him to focus on certain sounds and reject others in his field recordings. My process is similar: I take those specific sounds and musical aspects and extract them to develop material for my own compositions.

Through this strategy of recording, we are able to find associations within our own memories and feelings from experience with those sounds. One place we can see this emotional connection is in Mary Kouyoumdjian's *Bombs of Beirut* written for Kronos Quartet. Her connection to her family's Armenian history inspired her to use sounds of flying missiles and bombings recorded during the Lebanon Civil War (1975-

1990).<sup>1</sup> Revisiting these sounds is not only a remembrance of this historical moment but is also personal: being so close to the sounds her parents heard as they dealt with the war pulls out other emotions that an audience couldn't relate to in a similar way from any other string quartet. Although I am not making recordings of a war, I use field recordings tied to memories and emotional connections as well.

In blending a performance with these field recordings, we create a new heightened awareness in everyday life. In Michelle Nagai's Tree Theatre project called *EC(h)OLOCATOR* there is a new awareness of these unique sonic qualities we hear in real life situations. *EC(h)OLOCATOR* works to diminish the separation of ourselves from our environment and our experience. As such, it enables a more complete relationship to the sounds that surround us. When field recordings of everyday are put into a space with acoustic instruments and musicians, there is this similar inclusion of environment and space.

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<sup>1</sup> "Armenian Genocide" at History.com: "In 1915, leaders of the Turkish government set in motion a plan to expel and massacre Armenians living in the Ottoman Empire. Though reports vary, most sources agree that there were about 2 million Armenians in the Ottoman Empire at the time of the massacre. By the early 1920s, when the massacres and deportations finally ended, some 1.5 million of Turkey's Armenians were dead, with many more forcibly removed from the country."  
<<http://www.history.com/topics/armenian-genocide>> (April 2015).

### ***Within A Soundscape – Scorned Confusion***

Throughout the paper I will provide different examples from my composition *Within A Soundscape - Scorned Confusion*, the score of which, along with additional details, is provided in Appendix 1. Through these examples and the relations I make between my own work and others, I will discuss the issues raised by, and positive outcomes of, using field recordings in compositions.

Within sounds that we choose to hear or filter out, I believe there lays musicality and subtext. Using field recordings as a starting point, this piece emerged from employing different aspects of psychoacoustics, allowing me to create parts for my live performers. The combination of acoustic instruments and familiar sounds engage each “body’s” personal experience through each soundscape, whether it be performer or audience member. To enhance and compliment this experience, dancers are presented as the consciousness of the performance space soundscape.

The complete composition is divided into six sections. Section 1 enables the dancers to examine and discover the space; it begins 20 minutes before the main sections of the piece. Sections 2, 3, 4, and 5 involve field recordings starting off with rain outside my window, then continuing onto other soundscapes involving a drive through the city of San Francisco, planes, birds, and people hiking within the Redwood Park by Skyline Boulevard, ending with waves hitting the dock and rocks at the Berkeley Pier.

Throughout these sections the musicians listen to the field recordings, improvise using graphic and notated instructions, and then fade out once the new soundscape enters. The instructions are there for personal interpretation, keeping in mind that the sounds

created by the musicians compliment and support the field recording, and vice versa. The material was developed from the field recording itself, with the use of my ear and experience in those certain soundscapes. The piece ends with Section 6 where, after the field recording of waves has faded out, the acoustic instruments are the only sounds heard, and the first dancer has joined the musicians in the performance.

## Through the art of recording

*Chris Watson*

Sound maps consist of locational recordings concerning specific soundscapes. They are aural representations of the sonic qualities within a certain space. One person who creates sound maps on a regular basis is sound artist Chris Watson (1952). Currently, he is mostly known for his recordings specializing in wildlife nature documentaries (natural history and documentary location sound).

Watson started his musical career as a performer involved in experimental music. He is founder of a music trio from Sheffield called Cabaret Voltaire.<sup>2</sup> Their band was named after a nightclub in Zurich, Switzerland, that was a centre for the early Dada movement.<sup>3</sup> This group's earliest performances consisted of works influenced by Dada, but they later developed a sound that combines industrial post punk and house music.

People such as Pierre Schaeffer<sup>4</sup> and Stockhausen<sup>5</sup> inspired the Cabaret Voltaire; they also received advice from, Brian Eno<sup>6</sup>. Mark Prendergast writes:

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<sup>2</sup> Sheffield is a town that lies about 160 miles (260 km) northwest of London ("Sheffield," *Encyclopedia Britannica* (2015), <<http://www.britannica.com/EBchecked/topic/539544/Sheffield>> (May 2015)).

<sup>3</sup> Dada is a movement in art and literature based on deliberate irrationality and negation of traditional artistic values ("Dada," *Merriam-Webster Online Dictionary* (2015), <<http://www.merriam-webster.com/>> (March 2015)).

<sup>4</sup> Pierre Schaeffer (1910-1995) is a French composer, acoustician, and electronics engineer. In 1948, he along with his staff at Télévision Française, introduced musique concrete ("Pierre Schaeffer," *Encyclopedia Britannica* (2015), <<http://www.britannica.com/EBchecked/topic/526992/Pierre-Schaeffer>> (May 2015)).

<sup>5</sup> Karlheinz Stockhausen (1928-2007) is a German composer, creator, and theoretician of electronic and serial music ("Karlheinz Stockhausen," *Encyclopedia Britannica* (2015), <<http://www.britannica.com/EBchecked/topic/566782/Karlheinz-Stockhausen>> (May 2015)).

Caught up in the rush of indie labels that was the post-punk zeitgeist of the late 1970s, Cabaret Voltaire burst on the scene with a form of electronic music that used the outside world as its raw material. As lynchpins of a new avant-garde, they aligned themselves not with contemporary musicians but with the literary inventions of William Burroughs.<sup>7</sup>

After leaving Cabaret Voltaire, Watson's interests shifted as he started his career in audio recording. Through the skills he gathered in audio, he found his new compositional style and created a new body of work using field recordings, which is what he does exclusively now. He uses the recordings as a tool for the entirety of his works including sound maps and multi-channel installations. Likewise, recording is my starting tool for many of my compositions. The subject matter collected gives me inspiration for the sound design and orchestration of my own works. I will talk more of the implications of music composition through recording later on in the chapter as well as what can be said about them.

### *Inside the Circle of Fire: A Sheffield Sound Map*

Watson's compositional work called *Inside the Circle of Fire: A Sheffield Sound Map* was a two-year project. The piece takes us on a journey through different locations within Sheffield's boundaries, from locations such as the waterways to the heart of the city.<sup>8</sup> This sound map installation sits inside Sheffield's Millennium Gallery in-between

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<sup>6</sup> Brian Eno (1948) is a British producer, composer, keyboardist, and singer, who created the genre of ambient music ("Brian Eno," *Encyclopedia Britannica* (2015), <<http://www.britannica.com/EBchecked/topic/188580/Brian-Eno>> (May 2015)).

<sup>7</sup> Mark J. Prendergast, "Richard H Kirk: Cabaret Voltaire Electronica," *Sound on Sound*, (March 1994), <[http://www.soundonsound.com/sos/1994\\_articles/mar94/cabaretvoltaire.html](http://www.soundonsound.com/sos/1994_articles/mar94/cabaretvoltaire.html)> (April 2015).

<sup>8</sup> The composer has never expressed the exact locations his recordings are from.

a square layout of four sofas. It consists of a 20-speaker ambisonic sound system, with playback level as close as possible to the sound originally heard in the space it was recorded in. Watson says, “So, if you were in that environment; if you were in the terraces at Hillsborough or Bramall Lane; or if you were stood in Ecclesall Woods at four in the morning; then that’s the level you would hear those sounds at – I tried to keep it as authentic as possible.”<sup>9</sup> Keeping this “authentic” sound, Watson attempts to put us in that original space, yet points out certain details about it at the same time. In the end it really becomes a different type of space, being physically distanced from that original landscape and acoustics. Even though there is this transformation from original space to documentation of it, there is still a powerful and audible connection to the original. We hear that “authentic” sound that Chris Watson achieves, almost as if we were there.

I believe that this similarity is enough to spark our imaginations and/or associations, creating ease in moving sound maps to any space presented. That said, we are also bringing music into certain spaces that already have acoustics happening within. It’s important to think about how we bring the field recordings into the performance space, how to get that clarity we want to achieve, and question if it’s even possible to present the original sound without bringing the audience to the original location.

### *Recording and composition, a partnership*

“Authentic” sound is important to Chris Watson’s work, because he really wants you to hear sounds in a very focused way, hearing musical qualities that may have not

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<sup>9</sup> Daniel Dylan Wray, "Sheffield's Sound Map Helps Reveal the City's Aural Character," *The Guardian* (25 October 2013), <<http://www.theguardian.com/uk-news/the-northerner/2013/oct/25/sheffield-sound-map-inside-the-circle-of-fire>> (March 2015).



been heard otherwise. It is very important to me as well, because I tend to play with this authenticity. So, if I can reach this sound world, then I can build on it, and use the audience's expectations to either keep them in the authenticity, or create a blur between authenticity and live acoustics. I enjoy leaving the audience in a soundscape that is very natural sounding, yet actually different from the one recorded, creating a new kind of soundscape.

An example of this in my work is when I asked the percussionist to create certain sounds during the city soundscape within my piece. The percussionist followed these instructions:

**Cymbal (bow used) and Tinny Percussion**

-sparsely placed events

**Snare (brush used)**

-only restriction is to use the brush

In performance, I almost could not tell the difference between the sound events within the recording and the sound events that the percussionist was creating, even though they were different sounds.

Achieving a good mix between the recorded sound and natural sound within a space, producing an atmosphere in which it sounds like you are actually there, is one of my own personal goals and was something very important with *Within A Soundscape - Scorned Confusion*. Playing with this idea of authenticity and our expectations, I live mix the acoustic instruments seamlessly into the field recording sound within the

performance space. I will bring forth sound in a crisp way while also taking things out of context and making it a spotlight, creating a familiar yet unfamiliar atmosphere.

Writing in the British *Guardian* newspaper, Daniel Dylan Wray explained: “The overall effect of the exhibition is emblematic of Chris’s work and career – the ability to make you reassess and re-contextualize your immediate environment. Watson captures sounds that we take for granted and illuminates them to art form level.” He concludes: “I, like many others, left this exhibition with my ears pricked, taking in the streets and sound of Sheffield that I have often been ignoring for years.”<sup>10</sup>

In an interview on the Swedish TV show *Sonic Terrain* called “Chris Watson – The Colour of Sound,” Chris illuminates how he deals with sounds as well as our relationship and engagement with it.<sup>11</sup> He talks of how we “hear everything but rarely have a chance to listen,” as well as how our “senses have been detuned to the effect that we filter out so much information to avoid distraction.” He states, “Making the decision to focus on certain things and reject others stimulates our thought process.” Focusing on this awareness of our sonic environment is the core subject of my own compositional technique. Like Chris, I too draw certain sounds out, as well as keep an awareness of the full soundscape. I do this with the acoustic instrumental addition to my piece, using my ear for subtle blend, tone, and textural choice.

In another interview called “Whispering in the Leaves,” Watson says: “In your own sonic universe - no one else can hear or perceive things the way you’re perceiving

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<sup>10</sup> Wray, "Sheffield's Sound Map Helps Reveal the City's Aural Character."

<sup>11</sup> Miguel, “Chris Watson – The Colour of Sound,” *Sonic Terrain* (13 May 2013), <<http://sonic-terrain.com/2013/05/chris-watson-the-colour-of-sound/>> (March 2015).

them.”<sup>12</sup> Watson may perceive things a certain way because of his background growing up in Sheffield. He had to make choices of what he would include in this certain sound map and what he wouldn't dwell too much on. When I composed my piece, I perceived the recordings a certain way, because I was actually there to record them in the first place. So maybe I can hear more or less within the recordings because of this. To discover certain textures, tone colors, and rhythmic patterns within the recordings is all about using my ear and feeling. It's a very subjective process, but it's a tool that really works for me when composing music.

### *Noise pollution and its effects*

Chris Watson focuses on his microphone set up and the sense of space to capture these sounds as clearly and as raw, or in his words “as simple” as possible.<sup>13</sup> He believes that the microphone is the main instrument for recording and composition, and that it is the most crucial place to focus. I myself deal with the “simple” recordings he speaks of as my compositional tool, and I agree with his statement about how the microphone is such a crucial focal point in recording and composition. If I cannot get a good “simple” recording, then it is hard to really hear what was experienced in that space, which would hinder my compositional process when listening to textures and pitches within. So I choose microphones that color the sound as little as possible, but any microphone still does change the sound. In attempt to revert this coloring process, I use a slight amount of equalization on the field recordings captured to present a more natural listening

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<sup>12</sup> Chris Watson, “Whispering in the Leaves – an interview with Chris Watson,” Directed by Nicholas Cope, Video (14 January 2013), <<https://www.youtube.com/watch?v=KOkvUGND4Yw>> (March 2015).

<sup>13</sup> Watson, “Whispering in the Leaves.”

experience. When doing this, I induce my own subjectivity into the recording. So the recording itself is subjective, as well as my hearing and the audiences' hearing.

Cities are becoming louder with a variety of traffic noise, both in the air and on the ground, as well as noise from construction sites and the perpetual omnipresent sound of heating and cooling vents. Watson, as well as many other sound engineers, deals with this when trying to get the “simple” clean recording he is trying to achieve within certain spaces. It can happen both in the studio and field recording atmospheres. The definition of noise pollution given by the Merriam-Webster Dictionary reads: “loud or unpleasant noise that is caused by automobiles, airplanes, etc., and that is harmful or annoying to the people who can hear it.”<sup>14</sup> This is a very subjective definition since this “unpleasantness” spoken of is different for different people. We could maybe rephrase this definition into these words: noise that is harmful to people who can hear it.

Sometimes other sounds make it hard for me to record just the ocean waves, or just the sound of rain, or even just the sound of a single plane. It's a factor that I deal with on a regular basis, and it may sometimes be a positive or negative thing, depending on what I am aiming to record. It took me a while to find a spot to record only waves, but when recording the birds, I found that I actually liked the mix of planes and birdcalls and in the end, decided to include all of the sounds involved.

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<sup>14</sup> “Noise Pollution,” *Merriam-Webster Online Dictionary* (2015), <<http://www.merriam-webster.com/dictionary/noise%20pollution>> (March 2015).

## Subtext beneath sound

### *Mary Kouyoumdjian*

First generation American Armenian Mary Kouyoumdjian (1983) is one upcoming composer who has written pieces using field recordings. Other interests of hers involve roles as orchestrator and music editor for films. She recently worked on the orchestration of the film *The Place Beyond the Pines*.<sup>15</sup>

Komitas Vardapet (1869-1935) was a very inspirational person for Mary Kouyoumdjian.<sup>16</sup> He has been an important influence on her musical and cultural background. Komitas is an under represented composer, who has written works for choirs, Armenian mass, and even some dances for piano. Armenians still sing pieces written by him whenever they gather to honor the dead. Michael Church expressed these words in an article from *The Guardian*:

He did for Armenia what Bartók did for Hungary, turning simple material into bewitchingly sophisticated polyphony.<sup>17</sup>

He was eventually placed in psychological hospitals from post-traumatic stress produced by being one of the survivors of the 1915 Armenian genocide in Turkey.

Mary wrote a piece about Komitas Vardapet, touching on the deterioration of his mind and the deterioration of his Armenian culture called *Dzov Yerku Koovnov* (2011),

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<sup>15</sup> In the film, a motorcycle stunt rider turns to robbing banks as a way to provide for his lover and their newborn child, a decision that puts him on a collision course with an ambitious rookie cop navigating a department ruled by a corrupt detective. "The Place Beyond the Pines," *IMBd* (2012), <<http://www.imdb.com/title/tt1817273/>> (May 2015).

<sup>16</sup> Komitas Vardapet translates to "the priest Komitas".

<sup>17</sup> Michael Church, "Komitas Vardapet, Forgotten Folk Hero," *The Guardian* (21 April 2011), <<http://www.theguardian.com/music/2011/apr/21/komitas-vardepet-folk-music-armenia>> (April 2015).

translated as *Sea of Two Colors*. She did not stop at bringing an awareness to personal historical events through this piece, but continues to express different topics she feels need to be talked about through her other works as well.

*Bombs of Beirut for Kronos Quartet*

Mary Kouyoumdjian's recent work *Bombs of Beirut* for Kronos Quartet uses actual recordings of bombs and missiles from the Lebanese Civil War (1975-1990) as well as interviews with family and friends about the conflict. One of her family friends had put a tape recorder on his balcony for years, which captured some of the sounds. Kouyoumdjian's parents and brother lived through this war, but it became so dangerous that they were eventually forced out of Lebanon.

Kouyoumdjian says, "...the arts in general, are a really wonderful way to start conversations about these controversial and painful topics." She later states in the same interview, "I'd really like the audience to be aware of the political issues around the topic of the Lebanese Civil War but more importantly to focus on the individual stories that people are telling so that they get an idea of what life is like for one person. So often we hear about these topics when they're filtered through the news and we just hear that such and such a number of people got killed but we don't hear how that really affects the day to day life for that person and that family, what their worries are about living in a town like that so those are the things I'd really hope for them to listen for."<sup>18</sup>

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<sup>18</sup> Lisa Houston, "Mary Kouyoumdjian World Premiere Kronos Quartet Commission," *San Francisco Classical Voice* (2 February 2014), <<https://www.sfcv.org/preview/kronos-quartet/mary-kouyoumdjian-world-premiere-kronos-quartet-commission>> (March 2015).

In the past I wrote a piece called *Unexplainable Depths*.<sup>19</sup> It was about political, historical, and emotional issues involving sound usage for torture. I too found that saying what I wanted to say through music made it easier to address a difficult issue. It puts that awareness on the subject without over-stating it. I believe that having music there softens the harsh reality by providing some sort of pillow. Creating distance between these issues and the listener enables a certain type of frame for the discussion, which is set in the context of art instead of using a documentary or discussing through politics. This is an effect film uses on a normal basis to control how uncomfortable you may feel during the movie/show.

This topic of the Lebanese Civil War is very personal, and she uses this piece as a communicative tool to help bring awareness to those historical times and to connect the audience with the issue on a personal level. Although I do not usually use recordings that deal with historical and political experiences, I do use field recordings tied to my personal memories and emotional experiences. This brings up thoughts of past experiences similarly, but yet very differently to Mary's usage.

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<sup>19</sup> This piece was written within the context of Nalini Ghuman's Seminar Mus 237 on Music and Conflict, pulling awareness to the conflicts dealing with music for torture. The instrumentation consists of a five-person vocal ensemble and fixed media. Movement I contains quotes from detainees, soldiers, psychologists, and musicologists involved in this matter. Movement II consists of powerful words heard from the mixed media, along with body movements from the vocal ensemble. In Movement III, the mixed media contains quotes from composers/musicians, who have had their music used for this torture-lite approach. The vocalists also add another layer to the electronics that creates a disillusion of what or whom is really making these sounds. The final movement of the piece is a compilation of many songs that have been used for this torture-lite undergoing, and is used in a subtle way with only "oo"s and "ah"s from the vocalists.

*Associations, memories, and historical experiences*

Looking further into the subtext behind the field recordings of Mary Kouyoumdjian's piece, not only are these recordings of historical documentaries, but she used people to tell these stories, which in itself is something deeply personal. We can hear pain in someone's tone of voice, and this may somehow put us in that predicament or in that mental state even though we did not experience any of it first hand. If we take a look even further into the human voice in general, it is a sound we are quite familiar with. It may remind us of loved ones, or of a kind friend. The human voice is something we hear everyday. I myself have captured the human voice within a few of my field recording soundscapes. You hear the people in the city and the people chatting among the birds and planes, and even though you can't exactly understand everything that is said, there is still this familiarity with the human voice tone.

When creating parts for my musicians, the vocal part was particularly challenging to orchestrate. Since the vocalist could potentially speak words as well, I leaned my focus more towards listening to the tone color and textures of the sounds with my interpretation, then what was actually said within the recordings. In the City soundscape section of my piece, you hear people talking on the streets. I decided that the vocalist's part would look like this:

**Voice**

- plosives "p", "t", and "k" sparsely placed
  - quiet sustained sounds relating to "shh" and "sss" (freedom to mess with lip placement)
  - humming quiet long tones in your lower range, any pitch
- (all events sparsely placed)



The vocal part, like all the other parts within the score, seamlessly blends with the recorded soundscape in a particular way. The “shh” and “sss” was inspired by the air exhaust from the buses heard in the city, and the quiet hummed long tones were inspired by the tones heard within the sound of both the buses and cars. The plosives performed reflect a variety of sounds within the city recording as well. By using these sounds, I highlight a remembrance of the human voice without any presence of words.

Thinking about this human voice as a very loaded sound when orchestrating for the “Planes, Birds, and People” section of my piece, I decided to have the vocalist “Tacet.” The decision to do this left room for the recorded voices within that particular soundscape.

This attention to the details of composing with field recordings interests me to continue further with using the physics of sound and the psychological issues involved. Words contain a great deal of subtext, whether it’s tone color, texture, or the meaning. Mary Kouyoumdjian’s focal point when dealing with the recorded interviews of people is more about what is being said, the actual meanings of the words. Aside from this, we also hear rhythms from the voices within the instrumental part as well, which really seems to connect the words to the quartet sound.

Bringing this topic of subtext underneath the notes to the forefront is quite a common conversation. Particularly striking is Chris Watson’s explanation of how the field recording, “takes us back to something that maybe we’re familiar with, prenatal, because we hear, we start to hear in 24 weeks while we’re still in our mother’s womb and to me this paths back to those sort of embryonic sounds that we’re surrounded by before we’re born, and I think it’s maybe one reason why we find the sounds of the sea and that

rhythm, that ebb and flow, and that very rich harmonic content the sea wash has is so satisfying and tranquil.”<sup>20</sup> In my composition, I have two soundscapes that involve water in some way, both as rain and waves, and they start and end the piece. In light of Watson’s reflection, I wonder if this sort of familiarity and “peacefulness” could be the subconscious reason behind them “framing” my piece.

A few of the audience members who listened to my piece talked about how they immediately heard thunder during the Rain section when the bass drum started playing. In a way I am playing with the audience’s expectations, since when it is raining, sometimes you do hear a low rumble of thunder. But, when I was writing the piece, I actually wasn’t thinking about that sound as thunder per say, I was just thinking about the sounds as musical instruments and the sound design of the piece. I felt that a low rumble or long tone sitting underneath the rhythmic higher moving frequencies would fit very well together. Maybe I was subconsciously thinking about how it sounds when it rains during a storm and didn’t realize it.

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<sup>20</sup> Miguel, “Chris Watson – The Colour of Sound.”

## Blending performance with real life documentation

### *Michelle Nagai*

Working with the physical properties of echolocation is one of the matters that Michelle Nagai (1974) focuses on as a composer/sound artist. Not only is she involved as a composer, but she works with video, dance, and theatre as well. She presents works that relate humans to spaces that surround them, continuously engaging people in the words, sounds, place, and ideas associated.

Pauline Oliveros, creator and enthusiast of “Deep Listening” was one of Michelle’s mentors, and is a continuing inspiration for all of her works.<sup>21</sup> Michelle works to heighten people’s awareness of what sounds surround us through her music and Deep Listening is an important part of this equation.

### *EC(h)OLOATOR*

Michelle Nagai is the founder of *Treetheater Projects* and the creator of a touring soundscape project for community radio stations across North America called *EC(h)OLOATOR*. This traveling project “engages with the idea that every place has a unique sonic character that is reflected in the emotional and physical lives of each organism living within its boundaries...the project aims to create live radio and

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<sup>21</sup> Pauline Oliveros, *Deep Listening: A Composer's Sound Practice* (New York: IUniverse, 2005).

performance that awakens the senses, enlivens a connection to place and encourages deeper, more thoughtful modes of listening in the producer and the audience alike.”<sup>22</sup>

*EC(h)OLOATOR* is site-specific, so the experience really depends on the number of people involved, the needs and capabilities of the host station or venue, and the nature of field recordings collected in the days prior to the performance. During the project soundwalks will be taken, field-recording expeditions will be experienced, and group or individual editing sessions will take place. All of these aspects will together create and produce content for the performance. Deep Listening exercises will also take place keeping everyone tuned in and focused to the sounds they are submerged in.

The title *EC(h)OLOATOR* comes from the term echolocation, which is defined as “the location of objects by reflected sound, in particular that used by animals such as dolphins and bats.”<sup>23</sup> Some humans use echolocation on a regular basis. Examples of this would be when people tap their canes, lightly stomp their foot, snap their fingers, or make clicking noises with their mouths. Blind people can find their way in using this technique, identifying where they are and how big the space is.

*EC(h)OLOATOR* involves a heightened awareness to how it is presented and what happens to the sound within specific spaces. The acoustics of different spaces change different aspects of the sounds created within, therefore we may react differently depending on where we are located within the space and in general. The importance Nagai places on making this piece for specific communities and spaces creates a close relationship to the sounds. She states:

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<sup>22</sup> Treetheatre Projects, “EC(h)OLOATOR,” *Treetheatre Project* (5 May 2003), <<http://www.treetheater.org/about.htm>> (March 2015).

<sup>23</sup> Elizabeth Hagen, “Bats,” *ASU - Ask A Biologist* (4 November 2009), <<http://askabiologist.asu.edu/echolocation>> (April 2015).

*EC(h)OLOATOR* works to dissolve that civilized tendency to separate ourselves from our environment and our experience. As such, it enables a more complete relationship to the sound that surrounds us.<sup>24</sup>

I believe that this “relationship to the sound” is a very common goal most composers are trying to reach.

When composing *Within A Soundscape – Scorned Confusion*, I thought a lot about how I would put the field recordings into the space, since there was already a soundscape present. How would I show that everyone in the room, including the audience, is actually part of the soundscape? This is when I decided that I’d like to use dancers to represent bodies within the space and thereby draw awareness to the sounds that already exist within the soundscape. These dancers dance before the field recordings are played and while the audience is coming into the performance space. They are directed to think of things such as discovery, curiosity, and exploration within the space, and are given these instructions:

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-vocalize plosives at times to discover how your sound fits in with the soundscape
  [p], [t], [k] are voiceless plosives
  [b], [d], [g] are voiced plosives
  [ʔ] is a glottal stop which is made in the throat

-slight interaction with audience members walking in welcomed, but make sure to observe all
bodies and structures as part of the soundscape in some form; can be a realization to help your
improvisation

-touch structures within the soundscape: speakers, walls, chairs

-touch own body within the space, emphasizing a relationship you have with the soundscape

-create a few reactions between dance bodies, once second dancer enters
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It is through these vocalized plosives that I direct them to use echolocation within the space, attempting to discover different acoustic qualities. I also instruct the dancers to

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<sup>24</sup> Treetheatre Projects, “EC(h)OLOATOR.”

physically touch structures, in order to further explore the space. As stated, the dancers should also touch their own bodies, emphasizing a relationship they have with the soundscape, as well as create reactions between each other, indicating bodies within the space. These actions from the dancers help the audience understand and experience the sonic space they are in.

To indicate the beginning of the performance, I instruct Dancer 1 to become an audience member, while Dancer 2 becomes a musician on stage. This represents the performance and audience bodies within the room taking their role in the performance experience. The rest of the musicians join on stage and I start the field recordings, which fade in from the natural sound in the room.

At the end of the piece, I bring Dancer 1 on stage as a performer within the stage space along with the other musicians, as the field recording is fading out, enabling the focus to shift back to the natural soundscape of the performance space.

### *How location affects music*

Nagai talks of listening as being a social connection. It's something everyone can relate to, although our interpretation could be different at certain times depending on how we are listening, how focused we are, etc. It also depends on how the sound is getting to our ears, where the sound is coming from, what our ears are doing with that sound, and how the atmosphere shapes the sound. All of these factors are important in understanding how sound works, no matter if you are playing a classical piano solo in a concert hall, or singing with the birds outside on a sunny day. There is so much information in one sound and all of these factors shape our ears in a certain way. Nagai

states:

As a composer who works with soundscapes, I am listening for what moves me. As an acoustic ecologist, I am listening for the relationships between sounds and the environments that generate them. As a being with a deep commitment to the rest of the planet, I am listening for resources to encourage as many other people to listen as carefully and truly as they can.<sup>25</sup>

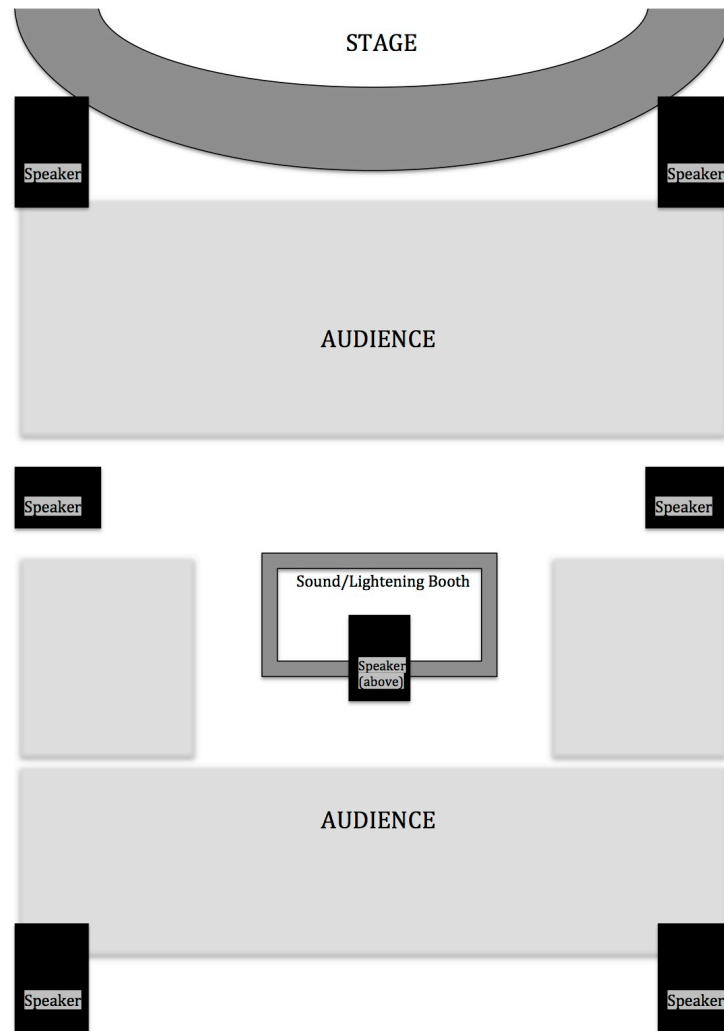
Sound comes at us from all directions. We can define sound as different changes in air pressure and vibration on our ears and bodies.<sup>26</sup> These facts about sound physics lead us to certain questions about why it would be important to remember these things while composing or performing.

When playing the field recordings I obtained within the performance space, I had to decide on what kind of speakers to use, as well as where the amplified sound should be placed. My goal was to create a very balanced mix between the two, which was difficult since I was working with their acoustic sound within the space as well. I placed the field recordings in all of the speakers, playing in stereo, and situated the amplified sound of the musicians in the back two speakers. Here is a representation of the speaker set-up within the concert hall:

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<sup>25</sup> Treetheatre Projects, “EC(h)OLOCATOR.”

<sup>26</sup> Treetheatre Projects, “EC(h)OLOCATOR.”



Each instrument was panned in a certain spot within the back speaker mix to mirror the representation of acoustic sound in front of the audience.

The delicate mix and balance of various sonic components within my piece is the most important part of the composition. A few people mentioned that they couldn't tell where things were amplified, it just sounded like it was coming from everywhere, and this is exactly what I was hoping for. Audience members commented that when they heard people talking within the City soundscape, it sounded at first like there were people



in the hallway talking. I also received similar comments about the rain, and how it sounded like it was happening right outside, yet it was only in the recording.

### *Listening and awareness*

How do we listen to soundscapes, and is there a set process? Hearing soundscape components as well as listening to the general sound of the soundscape, and going back and forth between the two is a starting point. Through this subjective listening and being aware of these possibilities, we can learn to deepen thoughts, sensations, and emotions that we experience. One of the ways to practice this is through Deep Listening, which is defined by Pauline Oliveros as:

The question is answered in the process of practicing listening with the understanding that the complex wave forms continuously transmitted to the auditory cortex from the outside world by the ear require active engagement with attention. Prompted by experience and learning listening takes place voluntarily. Listening is not the same as hearing and hearing is not the same as listening. The ear is constantly gathering and transmitting information – however attention to the auditory cortex can be tuned out. Very little of the information transmitted to the brain by the sense organs is perceived at a conscious level. Reactions can take place without consciousness.<sup>27</sup>

Soundwalks are another form of this active participation in a soundscape. They are a way that you can listen to your surroundings in a critical way, noting the impact of sounds within certain sonic environments.

These listening exercises can help shape compositional aesthetics as well as be tools for composition. This expands our sonic vocabulary and, in my opinion, can help with sound design within the composition. Building the bank of sounds available to us,

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<sup>27</sup> Pauline Oliveros, *Deep Listening: A Composer's Sound Practice* (New York: IUniverse, 2005).

and practicing our listening in such a way can help us become closer to sound in general, building a stronger relationship with it.

## Conclusion

### *Connecting the process*

This examination of collecting and presenting field recordings as an art form, considering how they carry emotional connection as well as a spatial importance, gives me a desire to compose through this capture of familiar sounds. Annea Lockwood, a composer dealing with similar aesthetics in new music, speaks of sounds and the unawareness of energies created from them. In the accompanying notes to her piece

*World Rhythms*, she states:

They can be corridors of perception for us also; in listening we are sensing other phenomena through their sounds, a way of coming to know ourselves as part of the phenomenal web.<sup>28</sup>

Her compositional aesthetic is very similar to my own. My process involves first capturing a field recording, listening to it with the awareness of the recording and the original take, and then thinking about sound design, which includes my own subtext.

I have started to discover things about my compositional aesthetic, and have focused my listening awareness in a way that I have never been able to before. This process is a tool for channeling, focusing and bringing a balance to these sounds we hear, and is a way to connect with the world around us.

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<sup>28</sup> Annea Lockwood, Sinopah: *World Rhythms*, XI Records, New York XI 118, 1998, compact disc.

*Going forward with my own work*

In the future I would like to continue my work in audio as a sound artist, using my strengths in composition to guide my judgment and choices. Composition and recording come hand in hand, and together we can find great sound design. When we record, we use our ears in a similar way to composition, making these choices in an artful and skillful way. The sounds that surround us are so complex, and contain so much information within. Sometimes just listening to the hum of an air vent can be musical, and I find that blending acoustic instruments with such sound can be a way to express my thoughts of what music is.

This leads me to my next endeavor of incorporating field recordings into my work as a songwriter. This could be a way to create new languages, breaking boundaries by merging my various streams of musical interest together. I believe that it could be a social tool to increase public involvement in listening to sounds that we are immersed in everyday, and this awareness is something that I want to share with others.

Continuing to explore different sound sources and field recordings will help build my own sound vocabulary within a variety of genres. In a blog called *I Care If You Listen*, Danny Clay commented that Kouyoumdjian's *Bombs of Beirut* "...straddled the line between sound documentary and concert music."<sup>29</sup> I am interested in diminishing this "line" in my work, and believe that sound documentary and concert music, or any genre of music, can exist within the same piece of music. From each musical world we get a different vocabulary of sound, and working on understanding these differences and

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<sup>29</sup> Danny Clay, "Kronos Quartet premieres Mary Kouyoumdjian's Under 30 commission at Z-Space," *I Care If You Listen* (13 March 2014), <<http://www.icareifyoulisten.com/2014/03/kronos-quartet-premieres-mary-kouyoumdjian-under-30-commission-z-space/>> (March 2015).

sometimes similarities could create new and beautiful works of art. The more we understand the sounds that surround us, the more musical our lives can become and, I believe, the more we will be able to be “in tune” with the world we live in.

**Appendix**

**Within A Soundscape - Scorned Confusion**

for acoustic ensemble and audio engineer

score

(2014 – 2015)

Written for the Signal Flow 2015 performance.  
Premiered May 5<sup>th</sup>, 2015 at 8PM in Littlefield Concert Hall at Mills College.  
5000 MacArthur Boulevard, Oakland, California 94613

## TITLE DESCRIPTION

**Scorned** – to reject or refuse with derision

**Confusion** – lack of clarity; indistinctness

<<http://www.thefreedictionary.com/>>

Within these recorded soundscapes there are sounds that we may hear, yet not listen to on a regular basis. I want to bring awareness to these sounds, showing musicality and the complexity within, in my point of view.

## PROGRAM NOTES

(below instructions for all performers are also located on the first page of the score)

**Words for ALL PERFORMERS to think about:**  
*exploration, discovery, confusion, curiosity,*  
*relationship, one body, many bodies, space,*  
*details, differences in densities, etc.*

### Dancers:

Move about the performance space using echolocation, physical contact with structures, as well as heightened awareness to what sounds are being produced by audience members and yourself. Detailed instructions are within the score.

### Musicians and Sound Engineer: other things to be conscious of are...

The field recordings are an orchestra containing sounds, and the musicians are building onto and adding more sounds to the mix.

There is subtext beneath all sound included, how does this affect your performance?

Sit in every sound, listening and sound design are key elements to the performance of this piece.

Recorded soundscapes are put into an already present soundscape, and should be a balanced blend of sound. For example, it should sound, as close to, like rain has been brought into or around the space.

## SCORE LAYOUT

Each page consists of a timeline that spans all 6 pages of the score, starting at -20 minutes on page 1 and ending at approximately 20 minutes on page 6. The first page goes from -20 minutes to 0 minutes, which means that this part of the score happens during the 20 minutes prior to the performance. Every page after that is divided into 4 minutes for each section, each page being a different section.

Instructions are given in text as well as standard and graphic notation. Each page contains instructions for each part: voice, flute, violin, piano, and percussion (snare, bass, marimba, small percussion). This instruction is the material that the improvisers should use for each section within the score.

The color in the timeline represents the different field recording soundscapes that will be played: blue, red, yellow, green. There is a mixture of color when a crossfade between the recordings will happen.

Each section that starts after 00:00 consists of these instructions:

[ **Listen** ] – listen to the field recording, sit in the soundscape presented.

[ **Play** ] – start playing the instructions provided for your part in that section when you feel it is right.

[ **Fade Out** ] – create a seamless transition, fading out, along with the field recording for that section, leading into the next section presented.

Sections listed below with their timeline for the score:

**PAGE 1** Pre-performance (dancers only): -20 minutes – 0 minutes

**PAGE 2** Rain: 0 minutes – 4 minutes

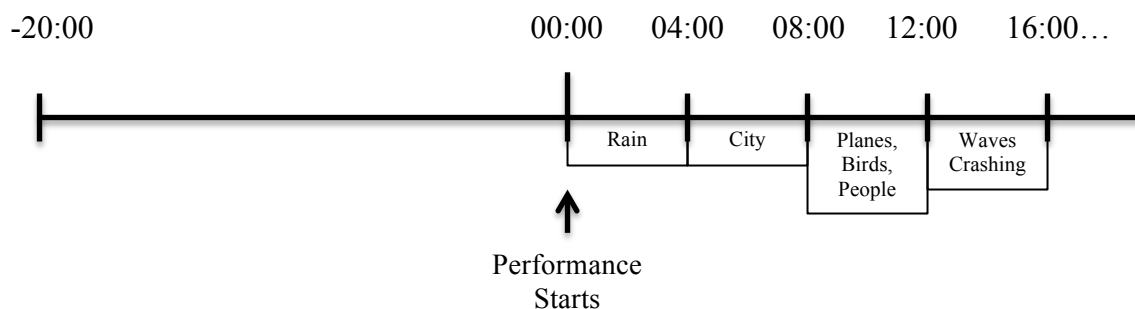
**PAGE 3** City: 4 minutes – 8 minutes

**PAGE 4** Planes, Birds, People: 8 minutes – 12 minutes

**PAGE 5** Waves Crashing: 12 minutes – 16 minutes

**PAGE 6** Performance Space: 16 minutes – (approx. 20 minutes)

## FULL TIMELINE OUTLOOK





**Words for ALL PERFORMERS to think about:**  
*exploration, discovery, confusion, curiosity, relationship, one body, many bodies, space, details, differences in densities, etc.*

**Within a Soundscape - Scorned Confusion**  
 by Stephanie Neumann  
 © 2015

[Dancer 1] First dancer starts dancing anywhere they feel	[Dancer 2] Second dancer joins the first dancer in dancing anywhere they feel	[Transform] Dancer 1 = Audience Dancer 2 = Musician
-20:00	-15:00	-10:00
		-05:00

**Intro - Dancers only**

**Dance Improvisation Notes**

- vocalize plosives at times to discover how your sound fits in with the soundscape
  - [p], [t], [k] are voiceless plosives
  - [b], [d], [g] are voiced plosives
  - [ʔ] is a glottal stop which is made in the throat
- slight interaction with audience members walking in welcomed, but make sure to observe all bodies and structures as part of the soundscape in some form; can be a realization to help your improvisation
- touch structures within the soundscape: speakers, walls, chairs
- touch own body within the space, emphasizing a relationship you have with the soundscape
- create a few reactions between dance bodies, once second dancer enters

[Transform] section: **DANCER 1** will slowly become an **AUDIENCE** member, while **DANCER 2** will slowly become a **MUSICIAN**; there will be a cue for the dancers 3 MINUTES before the start of the performance (can be done with the lights quickly turning on and off)

[LISTEN]

Listen to the fixed media, and get into a mindset where you are one of the many bodies within this mixed media and live sound environment

[PLAY]

Play any events, any number of times, from the choices below; events orchestrated for certain instruments; start whenever

[FADE OUT]

Start to end the last chosen event and tacet when finished

00:00

01:00

02:00

03:00

Rain

Event Choices for Rain:

Flute, Voice, Violin, Marimba



(choose one or more pitches if possible to play; does not have to be played simultaneously with others; mid-high range for your instrument)

OR



(use same pitch set)

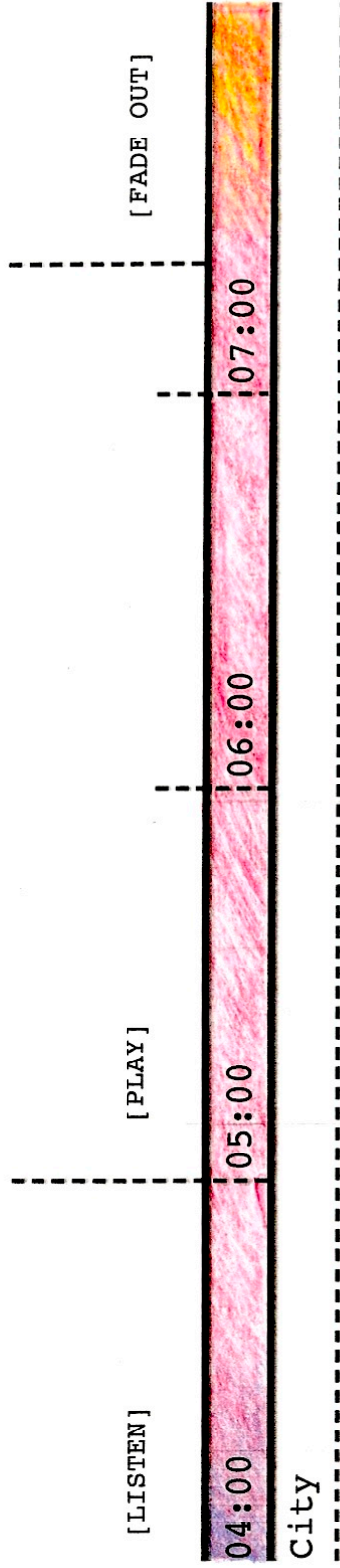
Bass Drum



pp mp pp

Piano

-harmonics (use same pitch set) small events with many rests  
-incorporate playing the notes sometimes, in-between performing the harmonics



Event Choices for City:

**NOTE: ALL PARTS**  
 -any time people are heard in the field recording, you are allowed to have a discussion with them in a similar "color" or "tone", but no more than two players simultaneously playing.

Flute, Violin

(any parameters)

Voice  
 -plosives "p", "t", and "k" sparsely placed  
 -quiet sustained sounds relating to "shh" and "sss" (freedom to mess with lip placement)  
 -humming quiet long tones in your lower range, any pitch  
 (all events sparsely placed)

Piano

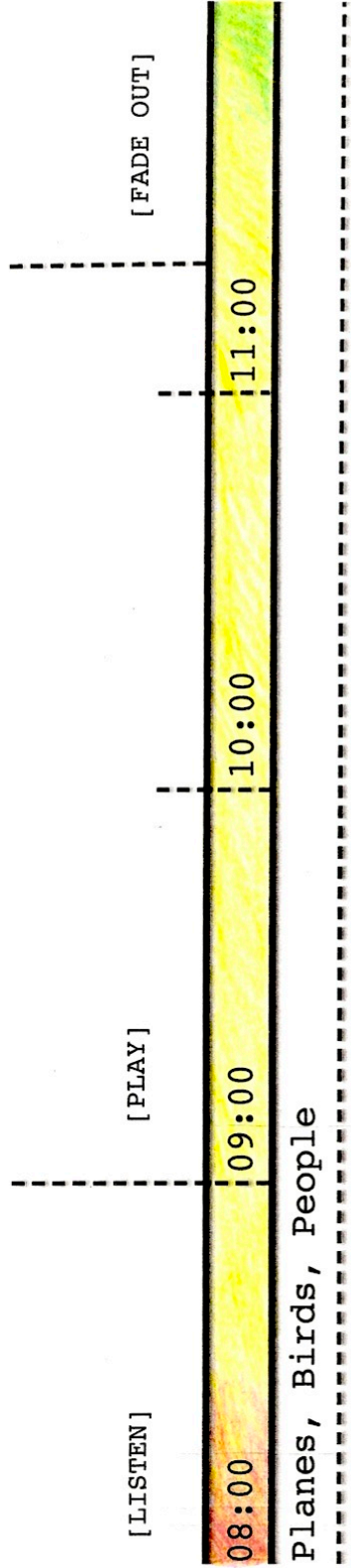
AND/OR

Soft low tremolos, any pitch in the lower range of the piano.

(choose rhythms such as these to simulate car horns)

Cymbal (bow used) and Tinny Percussion  
 -sparsely placed events

Snare (brush used)  
 -only restriction is to use the brush



### Planes, Birds, People

Event Choices for Planes, Birds, People:

**Flute, Piano**

(each box is an event; pick any box to play in a call and response fashion with the other player involved; refer to the birds' tone colors in the recording; keep it sparse!)

**Violin**

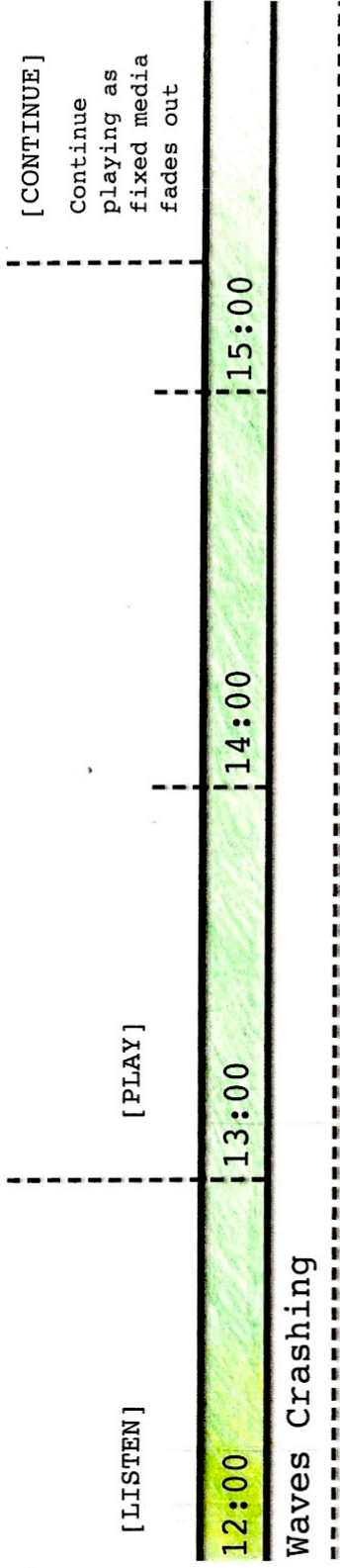
(played simultaneously with any plane heard in the recording; acting as a slow moving duet with the plane; pitch placement is only a guideline)

**Voice**

**Snare**

-circle around the skin of the drum with a brush for large amounts of time, with breaks in-between each time





Event Choices for Waves Crashing:

**Flute**  
 -subtle airy noises to match and/or accompany the waves heard in the field recordings (think slow-moving)

**Violin**

(plucked in any order, playing one or more strings at a time; can also play an octave above for any notes able to)

**Wine Glasses** (Voice and Piano have joined Percussion)

- each player provided with two wine glasses; each player plays one wine glass at a time  
 Percussionist: lower C, Eb  
 Pianist: F, G  
 Vocalist: Bb, higher C  
 - does not have to be played simultaneously with other players  
 - attempt to start and stop the notes at different times than the other players  
 - play with different densities - gradual changes from 3 tones to no tones and vice versa

[CONTINUE]

Dancer joins to perform on stage with musicians

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16:00 | 17:00

Live Performers only

[FADE OUT]

Slowly fade out to end the piece.

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18:00

19:00

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Continue previous Event Choices

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