if () {then ();} else {();}

Chad T. Seelig

University of Massachusetts Amherst
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A Thesis Presented

by

CHAD TREVOR SEELIG

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A Thesis Presented

by

CHAD TREVOR SEELIG

Approved as to style and content by:

______________________________
Shona Macdonald, Chair

______________________________
Budge Hyde, Member

______________________________
Mario Ontiveros, Member

______________________________
Christoph Cox, Member

______________________________
Young Min Moon
Director of Graduate Programs
Department of Art, Architecture, and Art History

______________________________
William Oedel, Chair
Department of Art, Architecture, and Art History
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ABSTRACT

if (){then ();} else {();}

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CHAD SEELIG, B.F.A. PRATT INSTITUTE
M.F.A. UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Associate Professor Shona Macdonald

if (){then ();} else {();} uses eight microphones to record sounds from the room for the entire duration of the exhibition. All sounds are archived and then called upon in seemingly random intervals and played from twenty-four speakers set up in the room. The recordings are then layered allowing the past and present to exist simultaneously, creating an interaction with the passage of time. Using analogue methods, mathematics, electronics, and coding languages I am interested in creating interactive sound environments inviting participants to help create the work. Playing with aural phenomena, I focus on basic methods of producing and processing sound to stimulate human interaction and play.
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CHAPTER 1

SPACE THE FINAL FRONTIER

When I was sixteen I remember being at Cape Canaveral with my family. Through some aspect of luck we were there the same day that a rocket lifted off carrying a satellite into orbit. There is a viewing tower several miles from the launch pad. The tower was on a pier that sits over the ocean and it is from this location we watched the launch. The sight of the launch itself was more or less unremarkable: a dispersion of smoke and then a bright light lifting slowly up into the air was all I could see, but no sound. After about a minute, though, I could feel the ground begin to shake. I could see a wave moving towards me over the water, followed by one of the strongest sounds I’ve ever heard. The sound began as a low rumble, and then the sound completely surrounded me, the noise so loud that even a scream was too quiet to be heard. The only event in my life that came close to this was the time a restaurant in my hometown exploded from a gas leak inside the building. This was only a mile from my school, but all it did was shake some beakers in the science lab. The noise from the rocket was so incredible that I could feel my body physically altered. I could literally sense the sound passing through my body for over a minute.

This experience was a significant moment, as it is a memory that has stayed with me in almost crystal clarity for ten years. There are no visuals that I can recall, I don’t remember what the pier looked like, or if it was a sunny day or a cloudy one but I do remember that experience.
if (){then ();} else {();} began as a desire to create a sensory experience that required participation. The end goal being to create an environment that stimulated response in order to generate the work.

Much of my work has been heavily influenced by science fiction and my thesis project is no exception. Many times in this paper I will reference movies, books, and comics, which I feel provide a framework for contextualizing my larger ideas. Science fiction has played an important role in my approach to making this project because I am drawing on inspiration from seminal science fiction ideas of time-travel, sentient computers, and alternate realities; all concepts that are too big and complex to be fully realized at this point in our history. Within this framework I will discuss the project in terms of its relationship to language, experience, simulated realities, cybernetics, and play.
CHAPTER 2

ANDROIDS AND THEIR CYBERNETIC TENDENCIES

I am sitting in a coffee shop, typing on my computer. I am surrounded by other people, they are all staring at their iPhones, either texting, e-mailing or on Facebook. The groups of people are also talking to each other but they never have to make eye contact. This is because I am surrounded by cyborgs. Frak.

I’m exaggerating, but only partially. I’ve grown up in a generation that barely remembers a time when the Internet didn’t exist. In 1995 I had my first exposure to the Internet, of which there wasn’t much, and if you didn’t know exactly what to look for you were pretty lost. Interactivity was regulated to instant messaging services like America Online, and the idea of email as a form of communication hadn’t become the standard it is today. Over the past 15 years our culture has gone from being mostly oblivious to computers to finding itself communicating and depending more and more on technology as an essential aspect of our lives. Our ability to separate ourselves from the technologies that we allow to drive us is becoming more difficult as these mind-engaging technologies insinuate themselves into our everyday lives.

My thesis project is an interactive sound installation that uses generative programming to create an environment where participants encounter not only their own actions, but also the actions of those who precede them. The program is designed to record all sounds in the gallery while the exhibition is running, then create a database of those samples. These samples are then played back through a floor of speakers that not only records the immediate sounds of those participating, but the recordings of ambient sound, as well as recording the recordings. Ultimately, these sounds create a low
amplitude resonance that builds accordingly as more information is introduced into the piece. The goal is to create an environment where history is constantly reinventing itself, the sounds of the past being fused with those of the present.

The point I’m trying to make is that technology influences our actions and can even direct those actions. For \texttt{if () \{then ();\} else \{();\}} I designed a customized program to function in a similar manner: encouraging interaction based on the information it has accumulated and then using that data to stimulate an interactive environment. The database I built pulls samples from the past day of the exhibition’s archived history and then cycles those between the 24 speakers in the room. The movement and pattern of the sound throughout the room encourages participation. The layout of the installation mimics electronic processors, using the wires to draw lines from speaker to speaker, and promotes active. The microphones record any sound created in the room, even the movements of bodies. Those sounds then further stimulate participant’s interaction by allowing them a mechanism with which to react, if they so chose.

In programming there is a special type of conditional statement called an ‘if’ statement. Because of its prevalence not only in the programming I am using but the overall expectations of the installation, this concept is the basis of my thesis project. These conditional statements that make up the program are in many ways its DNA. The underlying non-visible structures are what define the rules that are supposed to be followed.

The ‘If ‘statement analyses a Boolean argument and will either perform “then”, which is it’s first call, or “else” which it will perform “if all else fails”. In my installation the if statement is the primary method which I use to recall sounds, ultimately telling the
computer that “if a file (recorded sound) is created, then play that file, else create a new file. This concept is then repeated over and over. Beyond this parameter I have no control over what happens within the installation. There are limitations to what types of sounds can be created. For example, only noise between the levels of 20 and 20,000 htz is recorded. There is also a period of 1 second every 5 seconds where nothing is recorded. A limiter prevents excessive gain from being recorded. However, I do not restrict the ways that people are creating those sounds.

The machine works in the following way. It requires a constant stream of information that feeds its memory, allowing for it to create a constant flow of knowledge out of its speaker apparatus. You will remember earlier I mentioned about how our dependency on computers has become increasingly important. As our dependency on these devices increases, so then does their popular usage. However even a general understanding of how these technologies function has not done the same. These devices, such as mobile phones, i-Pads, and Wii’s have begun to function as appendages to our body that we remove only if under duress. The cell phone, for instance, for many people is a point of constant contact. My installation mirrors this constant stream of information, without which would prevent the flow of sound out of the program. The two are therefore engaging in a more reciprocal relationship. The program requires data in order for it to run itself, using that data to keep the flow of information constant. The sounds, which are then converted into data, are part of this lineage of dependency.

I don’t want to sound like I am comparing my installation to an iPhone. I am not interested in making a commentary on the abundance of media driven devices or whether they are making communication more or less personable. I am however interested in the
idea that a technological device requires interaction in order to be activated. Otherwise it simply sits dormant. The memory of the project is contained within a database and that database is unaware of itself. It does not have the capacity to think for itself or to perform functions without first being told to. Only if an action is requested and previously defined can it be complete. That does not mean that the program does not imitate an intelligent response.

“From another perspective, a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints. The political struggle is to see from both perspectives at once because each reveals both dominations and possibilities unimaginable from the other vantage point.”

The above passage from The Cyborg Manifesto by Donna Haraway sums up a large part of the way that programming is handled in my project. I do have final control of my program and it does not have “free will” and will never make decisions for itself. However, it does begin to bridge a boundary where it acts seemingly on its own, sometimes calling upon incorrect files, or recording incorrect sound samples. It is at these times where it begins to appear to have the partial identity that Haraway mentions above, acting as both a machine governed by the rules with which it is preprogrammed, relieves itself of its controls and performs unanticipated actions. This is the perfect moment for chance to insert itself, the program revealing possibilities not yet considered. The computer is in no way sentient when it performs this action but I can’t help but associate human emotions. It is these moments of humanity that brings me to a place
where I sense the beginning of a coupled reality between humans and the machines that orchestrate our lives.
CHAPTER 3
DARMOK AND JALAD AND THE COMPLICATIONS OF LANGUAGE

Language plays a large role in my thesis project, the most evident part of this being the fact that I use machine languages to write the programs that drive my installation. Conversely, another role language plays is its very absence. The installation becoming a place that breaks down and deteriorates language to the point where it disambiguates into non-lingual information. If a sentence or word is cut off by a sample ending it can completely lose its intended meaning. I find this reinforces the basis of what vocal language is: a series of complex sounds that when brought together produce meaning.

When I was younger, between the ages of 3 and 7, one of my favorite toys was a small tape recorder that I could carry around, talk into and play back to myself. The best part was playing the sounds back. I can remember putting my ear to the speaker and feeling the sound, a sensation I will discuss later. The other thing I remember though was becoming very aware of my voice and how I sounded, the way my words were shaped, and what the words meant when they were put together. I also loved to play different tapes with other people’s recorded sounds on them, and then try to imitate those sounds. These sounds were actually lyrics to songs, but I did not associate the words with meaning. My goal was merely to capture the quality of the sounds and recreate them. The results I’m sure were awful to hear, yet somehow the imitation of language though inaccurate was still partially coherent.

My thesis project if(){then();} else {();} uses sound in a similar way. It records the sounds of a room then replays those sounds back into the room allowing them to be
heard, to become re-recorded and to be played back onto themselves. The result is similar to the recordings from my childhood; there is partial coherence but also obfuscation. The two gel into something entirely new. These sounds are being represented correctly but their meaning is impossible to extrapolate. One of the things I had to become accustomed to while making the piece was the accumulation and layering of recorded sounds of my voice, making it very difficult to distinguish the last sound I created, even if that sound was only created a few seconds beforehand. Because there were multiple sounds being replayed I would have to force myself to focus on the most recent sound. This is not always because of the deterioration of the sound as it is re-recorded and played back multiple times, sometimes it is because of the juxtaposition of the language itself. The experience is similar to that of a noisy crowded room where a person is unable to differentiate the background babble from individual voices. The words we use have organizational structure that if deviated from produces a completely different meaning. Often in the installation there are moments where two different conversations come together in the same context, producing a moment of complete ambiguity. This moment creates a new and unique record of sound.

Greg Gillis aka Girl Talk, often uses this method of agreement and recontextualization in his work. Pulling from a wide range of popular culture music he samples elements from these works and builds new, distinctly different original compositions. The end result creates a whole new context for itself by rearranging these samples into something new. There are a number of aspects of my work that I find strikingly similar to Girl Talk, we both use audio created by contributors as material for our work. We both choose to layer sound, leading to an added complexity on top of
already very complex harmonics. We also both create a sort of sensory overload through sound. This sensory overload leads to confusion, stimulating a person in ways that they are potentially not accustomed. The abundance of sound in Girl Talk’s music can make a linear progression of beginning to end difficult to follow. Part of this is from the repeated, abrupt starting and stopping of samples creating a lack of continuity.

I welcome the similarities within my installation: a single speaker for example, can at times simultaneously project as many as eight different snippets of recorded conversation. This creates an enveloping atmosphere of sound that consumes a person making individual sounds difficult to distinguish. I also choose to use short recorded samples to create a choppiness that limits stability in the overall audible structure of the room. Some samples may have nothing inside of them others will have dialogues from multiple previously recorded conversations. These interwoven compilations of dialogue create new conversations that in turn create new meanings. The merging of present and past sounds produces a new context that they exist within and consequently new meanings. As an abundance of sound is generated, structure of clear concise information is lost and we are left with the aural phenomena of noise and resonance.

This is paralleled in the fifth season episode of Star Trek, “Darmok”. The Enterprise is unsuccessfully negotiating terms with the Tamarians, a sentient race of beings who use a language structurally different than languages with which members of the Enterprise and the Enterprise’s computer translator are accustomed. The difference in language leads to obvious difficulties in communication, even though the structures of words are very similar to English. The Tamarians rearrange the syntax of language such
as citing a mythological reference and then coupling it with a phrase that completes a metaphor.

“Darmok, and Jalad... on the ocean. Darmok and Jalad... they left together.”

In order to understand the language a person must have an in-depth understanding of the mythology of the Tamarian people. This is not unlike if () {then ();} else {();}, where the rearrangement of sound projected into the space creates confusion. By deliberately resisting a linear progression of sound, an element of conjecture is introduced creating a curiosity as to what is actually being heard. Without that knowledge to speculate upon the sound participants are only adding to a stream of overlaid acoustics that are already structurally confusing.

There is a scene from Batman: The Dark Knight where Morgan Freeman’s character Lucius Fox stands in front of a wall of televisions, each broadcasting a different channel. To the untrained observer (people other than Batman and Lucius) a wall of televisions each playing sounds with different images would be impossible to comprehend. The ability to filter out irrelevant sounds comes later after becoming accustomed to ‘tuning out’ sound. We could look at websites in a similar manner: most sites have windows, images, advertisements, and navigation menus. Someone who visits an unfamiliar website, requires time to understand how to “read” and understand the site. If a person who was unfamiliar with computers were to look at a new graphic interface they may be completely unable to understand what they were viewing at first, if at all. There may be elements that they find familiar but overall they may be unable to decipher
the “language” with which they are presented. Even when updating an operating systems software to a newer version a person can be presented with the problem of having to learn a ‘new’ language.

Likewise, in my installation, certain sounds are recognizable except when juxtaposed with other sounds, where they become undistinguishable. Scrambled television channels serve as a good example of this. Like many twelve-year-old boys growing up in the 90’s I spent a good period of time watching the scrambled television channels that resided well above the thirty or so channels my family paid for. Both the sound and the video images displayed on these channels are significantly distorted. Even though the images and sounds were recontextualized with additional information making it difficult to understand, I knew exactly what I was looking at. An arm, a leg, and muffled sounds. All of this came together to help me correctly find a method of viewing and understand what it was that I was viewing. After becoming acclimated to the abundance of information I was being streamed I learned to interpret what was going on. Similarly, in if (){then ();} else {();} one becomes adept at extrapolating meaning and interpreting the present and past. For instance: voices, footsteps, and feedback are all easily recognizable to the human ear, but when our perception is distorted from a sensory overabundance the way those sounds are interpreted must be relearned.
 CHAPTER 4
TEMPORAL RIFT’S AND THE SIMULATED REALITY

Entering graduate school I was working with photography, printmaking, and
drawing to create layered images that depicted multiple places. These images reflect the
way a space was remembered, each layer obscuring elements of the previous layer until
the image is a deep reflective space, with moments where reality is referenced but
uncertain. These instances where reality is first perceived I think of as “Memory
Generators”. A memory generator establishes an instance that recalls a memory from
one’s past layering it on top of the instance of recollection, creating a new instance to be
remembered. This contains the experiences of a person’s past and the present. From
here a person is confronted with something familiar, and through these familiar
associations there is the possibility of memory recollection. My drawings of these
locations simulated an alternative reality, much like a rift in the time-space continuum.
This is because of the overlap of two very different physical places that are occupying the
same physical space. That overlapping is similar to how a multi-dimensional universe
would be visualized, each overlaying image being a unique original “verse”. The multi-
dimensional universe is one where all realities that can exist will exist; in the case of my
installation it is the existence of a multitude of sound all present with one another. It is
important to note however that this is only a simulation of an ‘alternate’ universe. In
order for me to actually create a portal to an ‘alternate’ universe I will need to buy much
more expensive equipment. In Star Trek: Next Generation, the USS Enterprise
encounters a temporal rift in the space in the episode “Yesterday’s Enterprise”. Through
this rift another Starship Enterprise emerges from the past and because of the physical
interaction of two unrelated moments colliding, an alternative reality where two disparate artifacts of exclusive realities must interact is created. My installation is set up to function in a similar manner. Records of the past are taken at continuous intervals every 5 seconds. When those records are recalled they intersect with one another creating a moment where two (or more) moments are brought together. This interaction creates confusion at first because of the awkwardness of the sounds playing against one another. As the original recording of these sounds later plays back, sometimes more than merges with the present over and over again to form new sounds, even in some cases harmonies. These harmonies are created through the resonant room frequencies and ultimately form a new unique recorded sound. This is the same way that the interaction between the two Enterprises creates an alternate reality, because of a physical encounter that creates a new future experience.

Henri Bergson talks about a similar idea in his essay “Memory of the Present”. He presents the idea that memory and perception are created simultaneously, so that one cannot occur without the other, “The more we reflect, the more impossible it is to imagine any way in which the recollection can arise if it is not created step by step with the perception itself.” Henri Bergson talks about a similar idea in his essay “Memory of the Present”. He presents the idea that memory and perception are created simultaneously, so that one cannot occur without the other, “The more we reflect, the more impossible it is to imagine any way in which the recollection can arise if it is not created step by step with the perception itself.” This is accurately demonstrated through this project in two ways. First, as a person interacts with the installation, the records of what has happened in the space begin to slowly reveal themselves. The listener is confronted with a moment where they have to deal with a memory and also that which is occurring in the present. The confrontation of these two moments creates awareness of memory as it is being created, the perception of the moment and the memory of the moment occurring simultaneously.
The second instance where this becomes evident is later on when Bergson discusses the sequencing of conversation. He mentions an additive process where a conversation melds itself into a cohesive singular body. I would view this installation in a very similar manner, the samples which are recorded are the bits of conversation which eventually weave themselves into a string which is not only aware of itself in the past but of itself in the present.

It is here where the installation performs a final function of human memory: decay. As the archived sounds travel within the program from the original moment in time where they were recorded, they are periodically played back. When played, they are re-recorded. As this happening is repeated, the re-recorded sounds begin to decay. The decomposed recordings are the product of a place where memory still exists but is unclear. Bergson seems to comment on this as a moment of duplication where “memory is the totality of what we are seeing hearing, and perceiving.”iv In Star Trek there is a thin veil between our realities, but once that veil has been lifted the two interlace themselves, raising the same question of what it means to be present. This question could be answered by assuming that reality is not a universally perceived experience, just the same way that memory is not; they can be individual as well as temporary. This is addressed in Kurt Vonnegut’s novel, *Slaughterhouse 5*, where he describes the perception of time experienced by the novel’s protagonist Billy Pilgrim and the alien race he comes into contact with:

“The most important thing I learned on Tralfamadore was that when a person dies he only appears to die. He is still very much alive in the past, so it is very silly for people to cry at his funeral. All moments, past, present and future, always have
existed, always will exist. The Tralfamadorians can look at all the different
moments just that way we can look at a stretch of the Rocky Mountains, for
instance. They can see how permanent all the moments are, and they can look at
any moment that interests them. It is just an illusion we have here on Earth that
one moment follows another one, like beads on a string, and that once a moment
is gone it is gone forever.

When a Tralfamadorian sees a corpse, all he thinks is that the dead person is in
bad condition in the particular moment, but that the same person is just fine in
plenty of other moments. Now, when I myself hear that somebody is dead, I
simply shrug and say what the Tralfamadorians say about dead people, which is
"So it goes."

Billy Pilgrim has entered into an understanding that all moments exist somewhere
in time, they always have and they always will, even after death he exists within a certain
frame of time. This installation exists in a very similar manner, the sounds produced
have a “birth” and “death”, and there is also the memory of their existence. For example,
the first time a sound is played from its original sample could be considered the birth of
that sound, the last time it’s original sample is played could be considered its “death”.
There is also the memory of that sound which is carried out by other samples that have
recorded it. Those samples will be recorded again; creating another memory of the
original sample that has decayed even further. This will continue the physical
representation of that sound coming through the installation finally fading to a level of
indecipherability. Some sounds have longer lives than others, however they all
ultimately will decay to the point where they are no longer recognizable. This does not
mean that they no longer exist, they simply are not being called upon by the program at that time, and there is always the possibility of them being recalled and existing as they once did. The decayed sounds do not disappear. The decayed sounds accumulate and this accumulation creates the subtle resonance that fills the room. It builds slowly as more information is processed; acting as a background for the newer, still intelligible sounds.

Artist Andrew Demirjian’s project *Stills from Last Week* is an interactive video installation with similar associations to my own project. His usage of multiple televisions to relive the past events of a week all visually recorded from a single spot ties in with my recording of a days worth of sounds; our projects differ though in how the archive is presented. He provides multiple images of all moments from previous days, whereas I condense sound, simulating singular moments. This condensing of time is important to me because of the belief that all moments, past present and future are occurring simultaneously. The sensation of time is not one which progresses in a linear manner, it is something blanketing us, as all moments exist simultaneously. I also draw a parallel between David Rokeby’s installation *n-Chant* and my own. *n-Chant* is a series of computers that use voice recognition software to listen for outside sounds. Once this occurs the coherent chant of the ‘group’ is lost and the program must reorient itself by using word association to bring all the computers back to the same phrasing. This creates a true unison and singularity where the minds of the collective are all synchronized. This is on the surface very similar to `if (){then ();} else {};`, because of the compressing of all sounds into a singular sequence. The difference is though that Rokeby’s installation produces a true singularity where all sounds occur in succession. My installation
produces a condensing of sounds as well but instead of projecting a singular acoustic
from all samples there is a complex accumulation that references all recorded sounds and
plays those back generating the phenomena of noise. This places my installation
somewhere in between these two, creating an environment that has an appearance of
singularity but when examined closer reveals a reference to multiple distinctive
recordings to create this illusion.
CHAPTER 5
STAGED INTERACTION

When I was about ten years old I remember going to the Field Museum in Chicago with my family. I particularly loved the interactive exhibits. There were buttons to push, electricity to touch, wheels to spin, and ropes to pull. The best part was that everything you did had some sort of reaction. The experience at an art museum was completely the opposite; they were full of boring pictures on a wall that you couldn’t touch. In fact, you weren’t even allowed to get close enough these to get a good look at the paintings. Get within 3 feet of any painting in the room and a large man in purple loafers was on top of you in seconds asking you to move away. I can remember the desire though to touch works of art, to engage with them on more than just a visual level.

By making my work interactive, I allow the audience to engage in a participatory atmosphere. However, interaction has to be orchestrated. In order to do this I have created a set of parameters designed to stimulate interaction. For example, the cause and effect nature of the piece instigates the potential of further investigation. In an almost scientific method of discovery a person could begin to systematically attempt to determine the algorithms written to control the play back of sounds by the program. I have created an environment that people are free to interact with however they wish, but they will only stimulate a response if it follows the rules the program has been given. My installation records the audio from the room it is inside every four seconds from eight different locations. It also has the ability to create an organized database of all files created and pull those files when requested, and finally it has the ability to play up to one hundred and ninety-two files simultaneously. Those parameters do not take into account
the participation of others. They are not designed to distinguish between files that are recorded and choose to play some and discard others. All sounds made will be recorded and all recordings will be played back.

"Saturday the 19th Now, My hands encircle Lauries face...in 1966 the costumed people are arguing...In 1959 I am telling Janey I shall always want her."vi

This dialogue by Dr. Manhattan is describing his ability to bend the physical limitations of our world, existing in the present and past simultaneously as well as being conscious of future events. As he continues, we realize that he is not reliving these moments separately. Instead, they all exist contemporaneously. The past being as much a part of the present as it was in the past. This passage from ‘Watchmen’ reflects how participants, allowing them to experience time in both the present as well as the past, and allowing them an awareness of what will take place in the future interact with my installation. This ability to experience time in a non-linear fashion is appealing because it allows us to experience something from our past at the same time that we experience something from our present. I believe there is a desire to interact with the past because of a desire to connect with others. In the case of my installation, by reliving a recorded period of time and then interacting with that recording all participants establish a ‘present’.

The programming I have designed specifically for this work allows for interaction between multiple ‘voices’. This creates anonymity that can either be engaging or limiting. Not only am I asking people who come to interact with the installation itself but also I’m asking them to interact with one another. I look at the Internet as an example of how we
can be in constant contact with others while still remaining solitary. This interaction which is mediated by websites, forums, or email does not require the other party to be physically present or for us to ever know the other person. Anonymity creates an environment where a person can interact with only the information they receive. Their having no knowledge of who left it means their response cannot be influenced by whom the person is. One is forced to interact with one’s “interpretation” of what occurred, the result becoming an incomplete history which can lead to misunderstandings or which causes a reinterpretation of the past.
“We are the Borg. Lower your shields and surrender your ships. We will add your biological and technological distinctiveness to our own. Your culture will adapt to service us.”

In a previous chapter I discuss individual memory and how the collision of moments create simulated alternative realities. I also mention how a person’s memory is individual as well as temporal. A large portion of the work, however, is its relationship to the archive. In the case of this installation the database of recorded sounds is pulled from the computer’s memory and played back into the space to be interacted with by participants. This interaction with others’ participation mediated by the mechanisms and programming builds a memory that is greater than a single participant’s involvement. It generates the result of the collective experience of all participants, which could be considered part of a cyber-collected experience.

In Star Trek there is a life form known as The Borg. They are a species that share a single consciousness, and because of this, the ability to learn as a group is possible, allowing them to more quickly adapt as a whole species. The program written for my thesis generates an environment where a collective archive or “memory” comes together. By bringing together all of these a plural perception is produced. The program is designed to assimilate all new sounds it is introduced to into its database. This occurs through the recording and then re-recording of samples by the microphones. Eventually all the samples begin to play and a consistent resonance is born. This creates the
appearance of a singular recording when in reality the sounds produced are a compellation of all the “memories” of the program.

There is something compelling about an accumulation of memories or thoughts in a single place. These records preserve one singular moment that then gets repeated and merged with others. The recordings have the potential to influence other participants to listen or try to speak louder, in other words, altering behavior. At the onset, when a participant enters the space, the room is quiet, as the computer pulls files that are the record of only the subtlest frequencies. The resulting dull, background ringing is the accumulation of multiple sounds creating a singular sound. This sound represents all played back samples in a single part of a recording.

There are two pieces that come to mind when I think of sound and the recording of a history. The first is Alvin Lucier’s *I am sitting in a room*. In Lucier’s work the phenomena of room resonance allowed two tape players to revisit a single recorded sound on a loop. The end product being an accumulation of the recordings of the room he was in, the result being the resonance of the room itself. The room now having a collective experience, which encompasses all recorded events being, represented simultaneously. Carsten Nicolai’s work *Realistic* also creates a history of accumulation. This piece silently records the room, layering new sounds on top of old. It is always adding recording, the resulting effect being not resonance, but noise. Both these works create a history of sound that accumulates over time. My project utilizes a similar methodology of recording, resulting in accumulated sound hopefully paving the way for participants to engage in collective experience.
CHAPTER 7

THE REPLICATOR AND THE PHOTOGRAPH

“I’m going to look at the stars. They are so far away and their light takes so long
to reach us… all we ever see of stars are their old photographs.”

As mentioned earlier, my first works in graduate school used photography to
reference memory. In my view, the problem with photography in reference to memory is
that frozen, still imagery does not actively engage numerous sensory points in one’s
consciousness. Even when a photograph is layered, as with my earlier works, the images
still only reveal frozen moments. Part of this is because of photography’s fixed point of
perspective. The photograph sits behind a window separating it from the viewer; the
photograph contents always remain in within the confines of its frame. Sound is not
restricted by boundaries. It has the ability to fill a space, its waves disperse and move
until they weaken and dissipate. While a photograph and a sound sample are still only
records of an event, the sample (or sound recording) is able to replicate the sound of an
event with the same duration, intensity, frequencies, and harmonics. The still image,
however, is a visual representation confined to the frame it sits within, it has no ability to
represent real time, it condenses a moment down to a single vantage point. These
differences are merely artifacts of the mediums that they represent. For me the interest
lies in the physical interaction of sound with the body and the literal energy that comes
with it. Photographs and sound recordings can both affect us psychologically but only
sound can effect us physically.

Sound can simulate the physical interaction that once occurred by replicating the
length of a sound, the amplitude, and the tonal qualities. Sound replication is much
closer to the moment as it originally existed. Sound will adapt to its surroundings, fill the space it is played into, and if the environment is similar it can recreate the exact experience almost perfectly. If the environment is different it will create a totally new experience, the resulting sounds being more specific to their current surrounding. In contrast a photograph will always produce the same image, there never being any variation. The Replicator in Star Trek has a similar effect; by rematerializing matter it can inorganically create patterns that will simulate food or other physical objects. Although my recordings of sound don’t have the same complexity of imitation of a matter replicator, the comparison is more as a metaphor for the existence of memory. The concept being that a replication of turkey using inorganic material will always taste better than a two dimensional representation of one.
CHAPTER 8

PLAY PLAY!

I refer to my installation \( \text{if} \{ \text{then} \(); \} \text{ else } \{ () ; \} \) as an instrument when I talk about it, an instrument I don’t know fully how to use. I think that part of play is learning how to do something; I think another part is how people teach others to do something. Over the four days my installation was open to the public I spent a large about of time playing with the instrument, I had a hard time leaving it alone to be honest. Part of this is the experience of playing with something.

At my opening reception I had people who ranged from 6 months to 75 years. It didn’t matter if they were young or old though, some people just liked to play within the installation. They would stop, look around, scream into the microphones, create animal noises, and then listen to see what they had done. Then they would do it again. It became about learning what they could do, then doing it again and trying something different. It reminded me of when I was younger and I would play with LEGO’s. Building up objects brick by brick and then breaking them down again to build something else. \( \text{if} \{ \text{then} \(); \} \text{ else } \{ () ; \} \) is a lot like those LEGO blocks, there are rules inherent within the material, such as only certain bricks can connect with other bricks, but within those parameters there are myriad creative possibilities.

The relationship between play and interaction in my work are very closely linked. Through the act of playing, interaction is created and very similarly, through the process of interaction people can find themselves playing. Carsten Holler’s recent exhibition *Experience* exemplifies this. The works invite you to respond to them, asking the audience for an active sensory engagement. His piece *Giant Psycho Tank* is a perfect
example of the collision of the worlds of play and interaction that intersect with my work. The Tank, filled with a saline solution, allows participants to float, creating a strange sensation of disorientation within the space. In my personal encounter with the Tank I found that this new and unknown experience led to the stimulation of questions and curiosities. In some ways the fifteen or so minutes I spent in the Tank were a form of play, engaging with the environment and testing its possibilities. However, this is not the only way to play. I believe ‘play’ can have multiple implications.

Tim Davis’ video project, *The Upstate New York Olympics* comes to mind when I think about active or playful work. The videos in this project depict Davis and friends participating in a number of sport-like activities where they appear to be competing in various events. The participatory activity is what I find compelling. In the video *Double Barn Ball* a man is throwing two tennis balls on the roof of a barn. As one falls off the edge he must catch and throw it back up before the other falls and hits the ground. This game reminds me of a similar interaction I witnessed during the opening of my exhibition. Three boys in the gallery would start at one microphone and then speak a phrase into it. They would go to each microphone uttering the same phrase, then wait to hear them repeated back before going around and repeating the action with a different phrase.

This game stimulated an active response from the boys, engaging with the work in new and different ways. I embrace this type of active response because of its association with games and play. As children we are encouraged to play, it is a way of stimulating creativity and learning. Different people play within the installation in distinctive ways; they will bring their own methods of play to bear. Even if there is an overlaying layer of
programming dictating the rules governing how the installation works, there is no way to predict a participant’s outcome. Jessica Stockholder said in an ART21 interview “Play is a type of learning and thinking that doesn’t have a predetermined end.” This is exactly why I am interested in play, because of its’ uncertainty.
CHAPTER 9

CONCLUSION

Ultimately, I find that the work I’ve created is about interaction. This acts as a counter to the passive consumer culture in which we live. If all that is done is the absorbing of information that is passively fed to us we lose the ability to think imaginatively. This is what art does for me; it inspires reciprocation from those who are choosing to participate. It matters little whether the work is painting, drawing, photography, or in my case sound installation; it matters whether or not people who come to experience the work can become activated by it.

This experience can draw upon many different entry points for the work. I talk about memory as an entry point to the work. My reference to memory is about how we interact with our memories or how they are experienced. It is also about the moment where a memory is formed, the delicate balance between experiencing perception and remembrance. If I was to discuss the work in terms of language an entry point might be the experience of the absence or deconstruction of language. The over riding theme for me is experience and that is how I want my work to be ‘read’. As something that can be interacted with and experienced beyond merely the psychological, but also on a physiological level. In some ways, I want my work to feel like the rocket lift off from Cape Canaveral and I want to generate that sensation for others.
if () {then ();} else {();} uses eight microphones to record four second samples. This information is then processed using two Mac OSX operating systems and MAX/MSP software to create databases to store the information in. A patching program within MAX/MSP then recalls all stored files and plays them through two Firewire audio interfaces and amplifies the sound through two twelve zone audio amplifiers. The sound is then finally played out of twenty-four speakers placed throughout the gallery each programmed to play up to eight samples simultaneously.
BIBLIOGRAPHY


PHOTO OF THE ARTIST AT WORK


