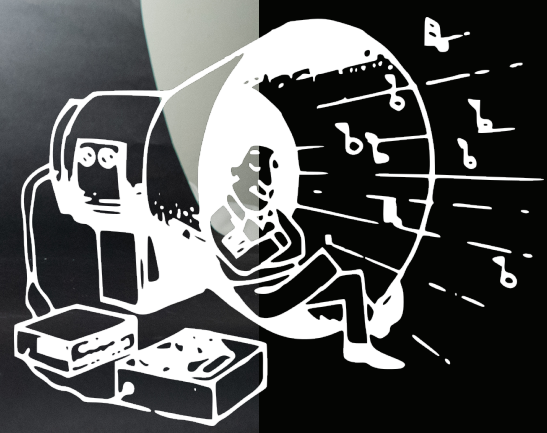
Femi Shonuga-Fleming
Thesis Seminar Final Mixtape
Tuesday Dec 2nd 2025 11:32PM EST

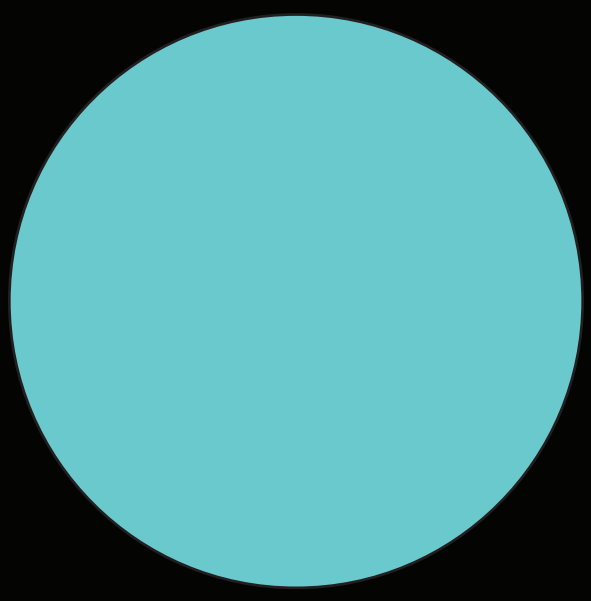
How can the speaker as an architectural intervention program space for meditation, ritual and protest in site specific environments?

The speaker is the ritual object, totem and shrine in which sound is amplified to create ritual spaces for collective listening. We interact with sound and objects for amplification as much as we do surrounding infrastructure. The speaker is a vessel for meditation, awareness and homage to listening sound practices, sound system culture and its history, and indigenous ritual practices.





Over the course of 3 semesters I researched the history and significance of sound in different cultures and how sound is a crucial part of gatherings, celebrations, protest and religious practices. My interest in the conversations between sound and architecture arose from my personal practice as an experimental musician, where the acoustics of the spaces I perform inform the way I compose and orient the music I create and the sound I produce is in constant conversation with the architecture of the space. Through my performance practice and research I began to emphasize the speaker and the speaker horn as a sort of lens to speak about topics in sound. How can the speaker as an architectural intervention program space for meditation, ritual and protest in site specific environments? My research led first back to indigenous culture and the significance of the drum, the communicator since the dawn of time. In many indigenous cultures collective listening, performance and storytelling is translated verbally of through rhythms and vibrations of the drum beat. During the 70s and 80s, speakers as electronic objects for sound reproduction shaped how sound can be projected in a room, which opened up a new set of self expression through acoustic and electronic amplification that was easily accessible. This led into sound system culture, sound installations, drone music, experimental methods of recording, all practices that play with the conversations between speakers, architecture, community and the abstraction of time. Because of my practice most of my research this semester has been through the lens of sound art and installation projects and large movements in music such as music concrete and minimalism. Through my research I came to the conclusion that The speaker is the ritual object, totem and shrine in which sound is amplified to create ritual spaces for collective listening. We interact with sound and objects for amplification as much as we do surrounding infrastructure. The speaker is a vessel for meditation, awareness and homage to listening sound practices, sound system culture and its history, and indigenous ritual practices. This solidified my design philosophy for speakers and spaces. The idea that the speaker can be front facing in everyone's interaction with space, amplified or purely architectural, as a way of being conscious of sound and self. It's important to me to find interventions for sound in many sites separately, whether this be through materiality or amplification designs, and tie it to body, cultural history and conversations with the built environment. Through my research I continually find the importance of sound as a physical medium and a way of seeing.

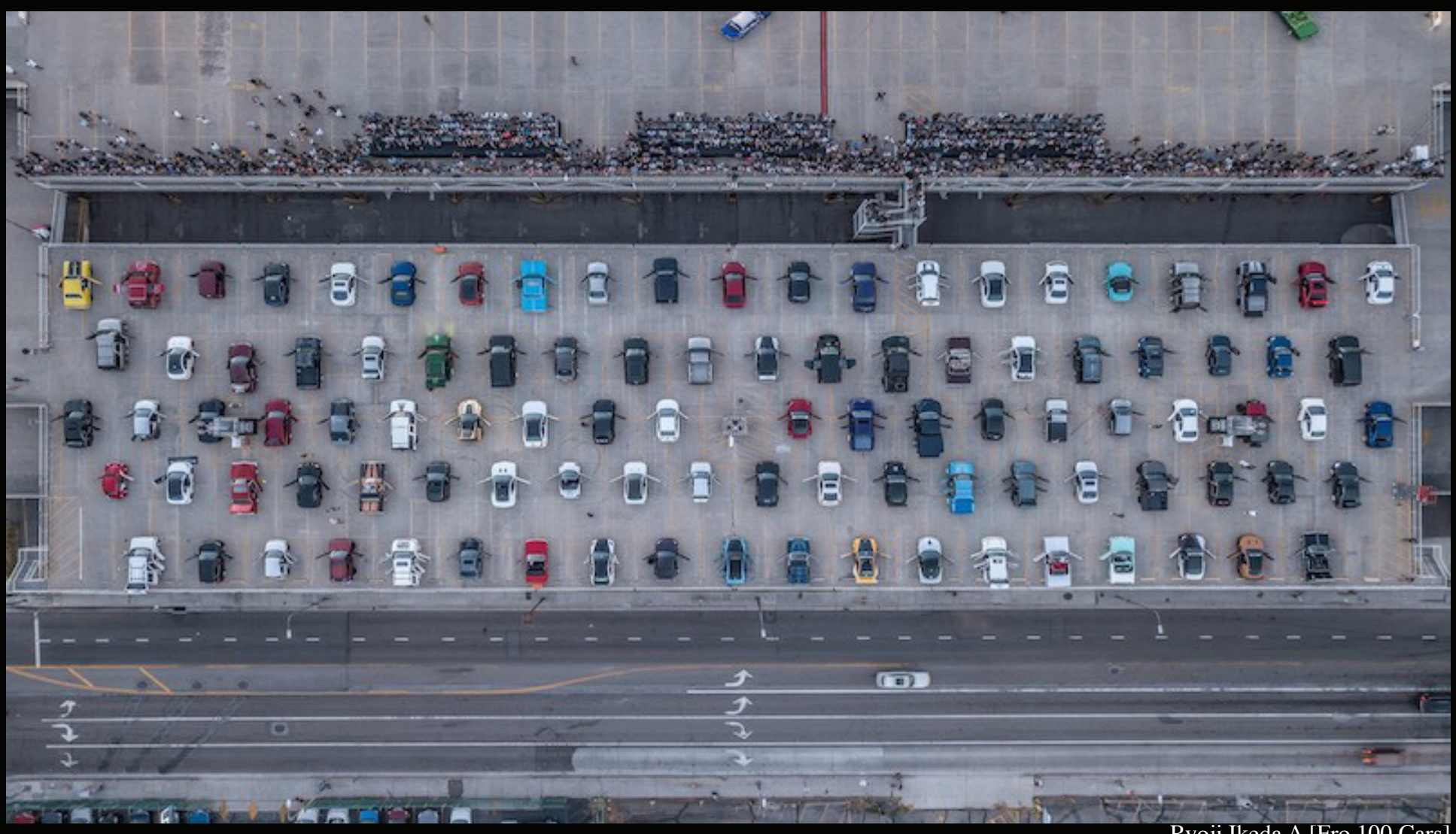


20 artists/works/practices/projects



DEBORA.STUDIO, Joseph Zeal-Henry | SUPA Soundsystem, Harvard ArtLab, Cambridge, MA, 2024. Image credit: Malakhai Pearson

Debora Garcia’s work talks about the conversation between sound system cultures and architecture by installing sound systems modeled after 70s and 60s theatre horn designs as sound installations to reorient spaces. Deborah Garcia is an architectural designer and researcher whose work focuses on reimagining everyday structures through multisensory activation. Throughout her often site-specific installations, curatorial work, and research projects, Garcia aims to “investigate the crossed wires of what we hear, the stories we are a part of, and the things we feed back into the system,” in her own words. Her recent research developed strategies for using sound as an architectural medium and historical record.



Ryoji Ikeda A [Fro 100 Cars]

In this work Ryoji Ikeda had 100 cars with hobbyist soundsystems meet to preform a composed piece of simple waveforms that they could all tune in on their radios with special devices. The conversation between car sound culture and sound art and academia is really interesting, and the cars brings this to an architectural scale. Im interested in the ways in which Ikeda brings everyday people into the space of thinking about sound on a grand scale, using existing infrastructure and accessible mediums such as cars, where there is already a culture surrounding sound, to bring new meaning, preform and experiment on a collective level with sound as a lens for that.



Kevin Beasley, A View of a Landscape (2018)

This piece is particularly important to me culturally and within my practice. Beasley found this cotton gin on his way to an annual family occasion as a symbol of the history of the land the cotton gin say upon, and the history of the object embedded in slavery in America. He placed this cotton gin in a display, functioning in a soundproof glass room within a room. The second room was empty, a vessel for performance, as the sounds from the cotton gin were manipulated and abstracted along a series of performances in conversation with the object. This conversation between segregated spaces architecturally and sonically as a metaphor is an inspiration in a lot of my work as well, in many forms.



Pauline Oliveros - Deep Listening

Deep listening is the practice of listening closely to all the layers of sound in your environment at all times, really focusing and trying to discern the individual sounds. This is a practice in meditation, improvisation and conciousness. Pauline in 1988 preformed as a part of this practice of deep listening, in an underground cistern in Fort Worden, Port Townsend, Washington. A huge space with a 45 second reverb. This space shaped and morphed the performance, inviting an abstracted stretched elongation of the sound preformed, filling the space sonically into a bed of sound and ambiance. This focus on using the architecture of spaces to create ambiance, the architecture being a crucial part of the composition, is the relationship I'm interested in exploring more in my work.



Anish Kapoor - Dismemberment

This (sculpture?) is crazy. It used the same mathematical equations used in horn design and parabolic design to make basically a huge ear on a monumental scale. Aesthetically and acoustically mesmerizing. I wish it was halfway in the ground, so I could walk through it! This is a connection between the sculptural and architectural qualities of horn designs and creates an acoustic amplification both physically and metaphorically to emphasize the earth and the environment though purely the shape of the horn. It brings the shape of the horn into the contact of architecture and the body at the human scale, and the importance of sound at a large scale. Simple yet so poetic.



The Phillips Pavilion at the Brussels World Fair in 1958 where Iannis Xenakis performed Metastasis, An audio/visual experimental sound performance involving hundreds of speakers and lights.

This structure also uses parabolic curves to design a space for performance, with the idea of spatial audio and the experience. This work by Xenakis was in response to the war and was a cacophony of rolling flashing and soaring lights, synthesized sound, gunshots and other recordings from war. I love to think about architecture in the expression and experience of all the senses at once. It shows that a space can be designed purely through light sound and acoustics to create an experience at an architectural and multi-sensorial scale. It pushes the boundaries of architecture and installations art especially for its time.



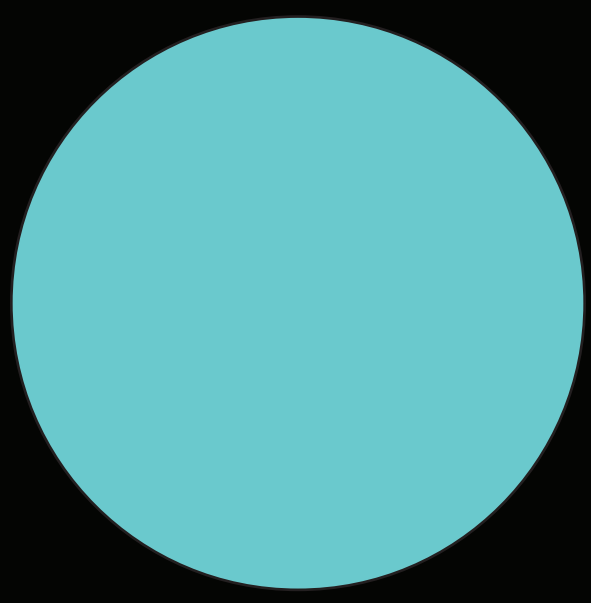
Floating Points' Sunflower Sound System

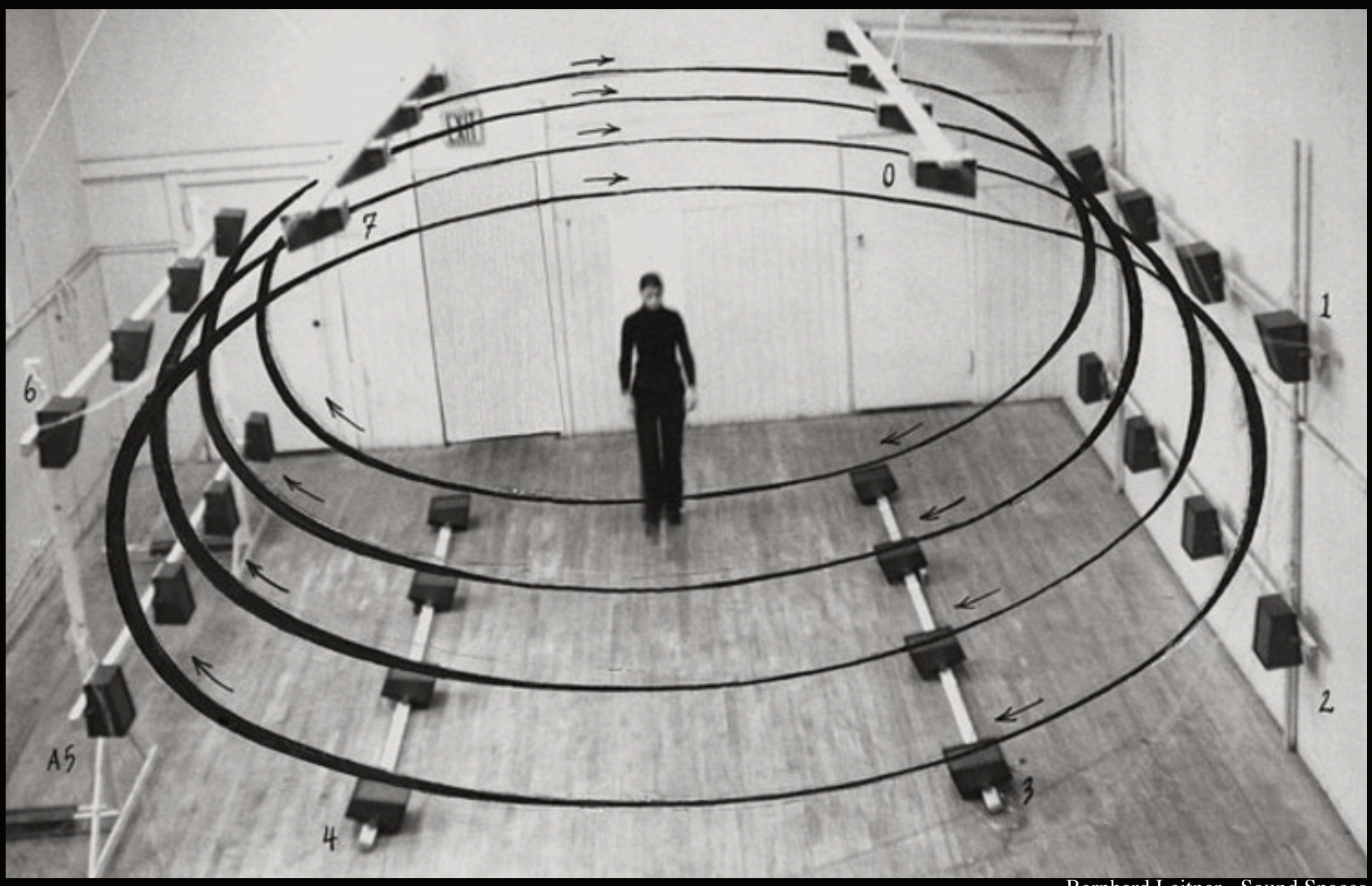
Floating points sunflower sound system takes decades of research in sound systems in sound system culture, Hifi audio and Theatre sound and condensed it into a sound system, ecological architecture project, modular ritual space and much more. This is an example of how sound and architecture has the interest of DJs, communities for sound that value the quality of sound in its environment and spaces for sonic rituals such as raves, dance parties, discoteques and other venues. It also is the first use of natural materials as sound absorption panels in a soundsytem setup. This interest in the culture surrounding high quality sound in spaces for collective listening is important to me as high quality sound is the voice for many architectural spaces to thrive in their interaction with multiple sound practices.



Dream House & The Well Tuned Piano by La Monte Young (1996-NOW)

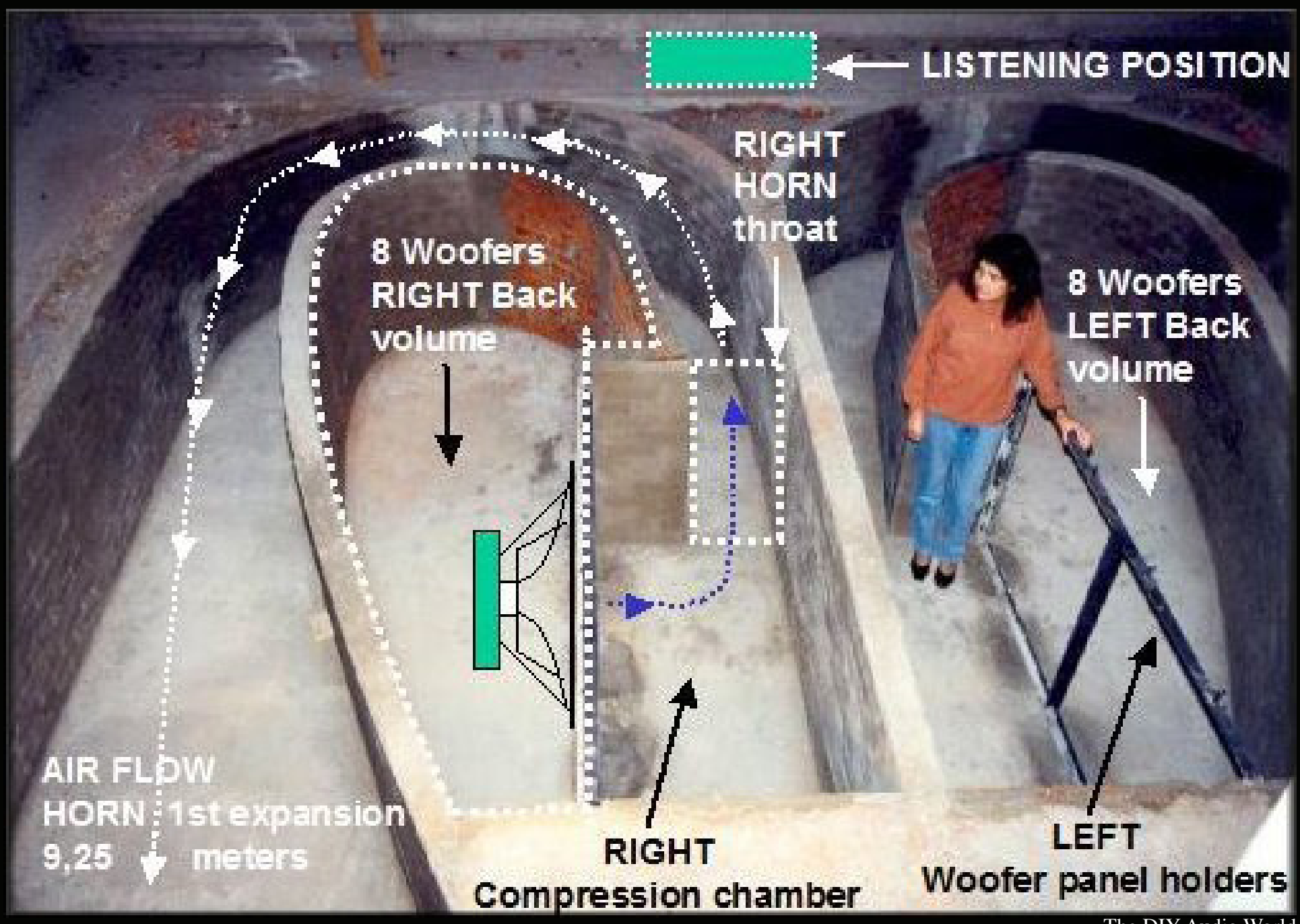
Dream house is a beautiful conversation between classical Indian music informed electronic drone music and sound as an elongated medium that can stretch and react to how you move in a space. It's an installation by La Monte Young that is permanently installed in a room above his apartment and has been playing sound since 1996. Drone music suggested that sound can be stretched into an impossible architecture that surpasses our perception of time and space and encourages the mind to loosen, loose focus and enter a meditative state. The architecture of sound reflecting through a space continuously heightenes this experience and is an example of how important architecture and acoustics are in shaping an auditory experience, especially one for ritual meditation. The well tuned piano is a 6 hour (played in one sitting) piano composition by la monte young using Raga tunings and themes of the cycles of the day, furthing this experimentaion with sustained notes and sound as an extention of time.





Bernhard Leitner - Sound Spaces

Bernard leigtner was one of the first people to experiment with Spatial Audio techniques using custom VCA circuits, amplifiers and speaker drivers to paint with sound around a room and orient people though spaces though this trajectory of sound. He would make these sculputral paths for sound to move through space with very clear gestures such as lines or spirals. It's a very clear lens of Spatial Audio and how sound can orient the listener directionally. It opened up a new experimental practice of storytelling through sound orientation rather than a single source of audio from one speaker. This is important in sonic expressions on an architectural scale.



The DIY Audio World

The diy Audio world is home to a lot of home modification projects for hifi audio systems, specifically with horn loaded speakers. To amplify speakers you could use a box design, or a really long horn attached to the front of the speaker, but for deep bass you need a really long and wide horn because of the length of low frequency waves. This has forced horn enthusiasts to create new foundation in their basement, tear huge holes in their walls and attic and contract massive horns on an architectural level, with wide moths leading back to their living room or listening space, completely altering the architecture of their home for high quality listening experiences.



Algotrek - M DeNardo

Algotrek is an event started by M DeNardo who was inspired by groups that would hike mountains and preform electronic or powered music deep in nature or high high up in a mountain. This conversation between the ground, land and electronics is really interesting and creates spaces for amplified sound in nature and existing spaces. This ritual practice of performance and collective listening allows electronics to give thats to the ground beneath our feet, and pays homage to indigenous sonic ritual practices, especially when on indigenous land. Its in interaction with sound on an architectural worldly and completely naturalistic scale.



Draining

My Friend Enzo goes draining. Exploring drain pipes and their acoustics, getting wet, taking pictures, a ritual adventure. This desire to enter a space that is by definition architectural but not meant for the human scale is a conversation Im interested in. Why not? What makes spaces for humans or not for humans. What can we learn from the tight tight drain pipes and out echoing voices, the thin air and wet path. Both performative and experiential, the practice of draining is an architectural ritual for the body mind and soul.



Daniel Fishkin and Peter Blasser - Solar Sounders

Solar Sounders are solar powered electronic animals that only live during the day. The amount of the sun they get determines the sounds that they make and how they interact with the world. This connection between electronically produced sound relying on an organic and random medium that is the sun and the weather forces the architecture of these boxes into the environment alongside existing organic sounds and blurs the line between electronic sonic objects and the existing environment. In a way it would be amazing for architecture to do the same, treehouses are almost there. By installing these solar sounders the listener is oriented, the same way you might follow the sound of a bird. It takes electronics and electronic music and places it on a subhuman scale, encouraging a new type of integration with the listener. This is a ritual practice and gives homage to the earth as its land and site specific.



Annea Lockwood - Piano Burning

In 1968 Annea Lockwood lit a piano on fire with microphones in it, an organic way to change the shape and architecture of the piano while analyzing the changes its making in real time though the lens of sound. Im interested in these abstract analogies to manipulation of time and the form of something whole being able to document in a medium that has such a realness, time and site specificness to it. Its radical because the piano is this holy westernized traditional widely popular instrument and by burning it the sounds are almost frightening and to then also call that music completely redefines the word. Is the burning piano still playing “notes”? The politics and physical human level nature of this performance directly converses with architectural spaces in relation to sound.



Sadnoise and Non-Event

My practice as sadnoise. Ive had the pleasure of playing various different architectural spaces. Non-Event is an organization that focuses on booking artists in unique or non-conventional venues and spaces for their acoustics, with the emphasis that the artists are all site specific and the sound they make will be in response to the space. Some of these spaces include Boston City Hall and Water-works Museum. I've learned a lot from performing in different spaces and my sound and compo-sition has changed over the years as response to the acoustics of different spaces. Performance is a ritual practice for me and I view my sound practice as directly in conversation with architecture and the act of collective listening and how our bodies experience space through sound.



Revolving Space - Renata Luca

In this installation the interactee holds the wall while walking to revolve the floor circle from protruding grass to the otherwise ordinary gallery floor. This intervention of changing the landscape only when the person interacting feels like is another kind of controlled random moment that Im interested in in music and as a design practice, to introduce themes of the organic, which can be applied to sound and sound as a medium of orienting space/ an intervention. It takes force to turn the ground into grass, real force that the audience can feel in their efforts, Its a poetic reminder of the real forces it takes to find ambiance, peace and meditation in the world of architecture in the states that has become so comfortable.



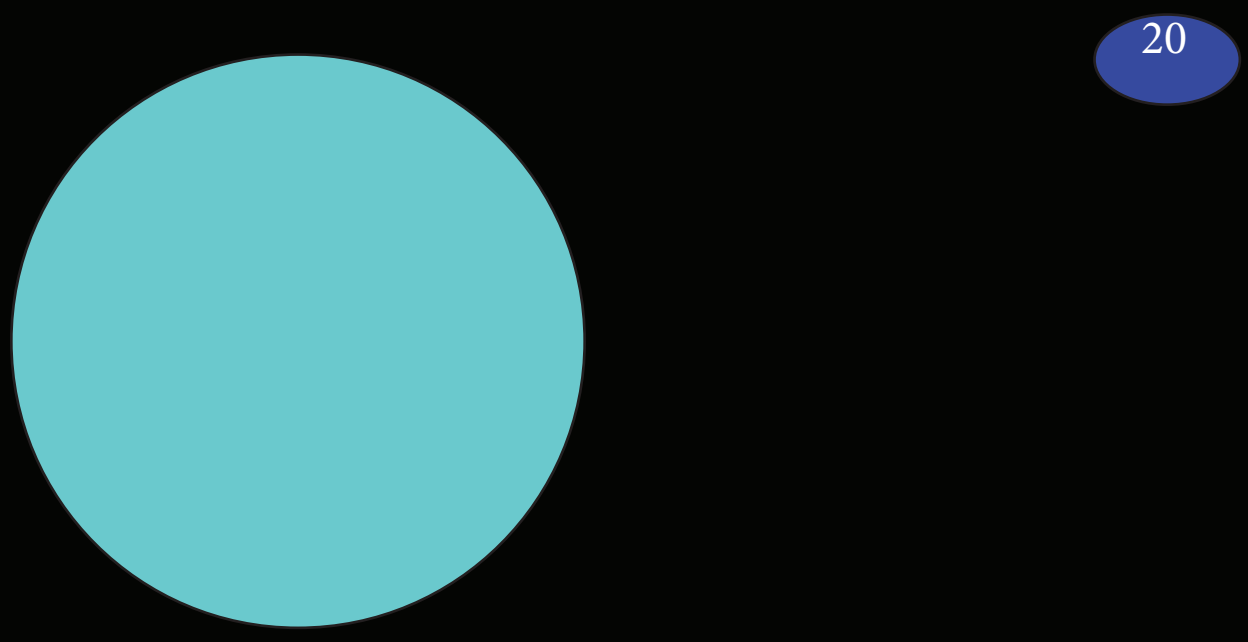
CAMPBIENT - The 44 Hour Sound Residency

CAMPBIENT is an annual sound art residency that brings together people for 44 hours to conceptualize, produce, and record 44 minutes of sound art compositions in a state park. The act of research as a physical immersion in the environment that your researching as a way of combining research mediums and lenses is important to me. The availability to acknowledge the physical nature of both mediums over an extended period of time to realize ideas and concepts and work with others as a collective talks about the conversations between sound and space, while engaging in deep listening and creating something beautiful.



Revolving Space - Renata Luca

Sunwaves festival is a minimal house music festival on Mamia beach in Romania. Minimal music became popular with elongated textural tracks often between 10 and 30 minutes long, immersing you in a textural synthetic sonic environment. Ricardo Villalobos is the most popular DJ of that genre often DJing for 5-10 hours at a time. This elongation itself as a ritual in listening and curating music brings DJing to an architectural scale of time, while telling a story and pushing the boundaries of DJ performances. This combined with modular ephemeral structures on the beach to house this house music collectively is a sonic ritual of gathering, as most sound system culture and sonic gatherings are.





Ascolto by Ines Dessaint, Tonin Letondu (France). Photo: Joel Gale imaging

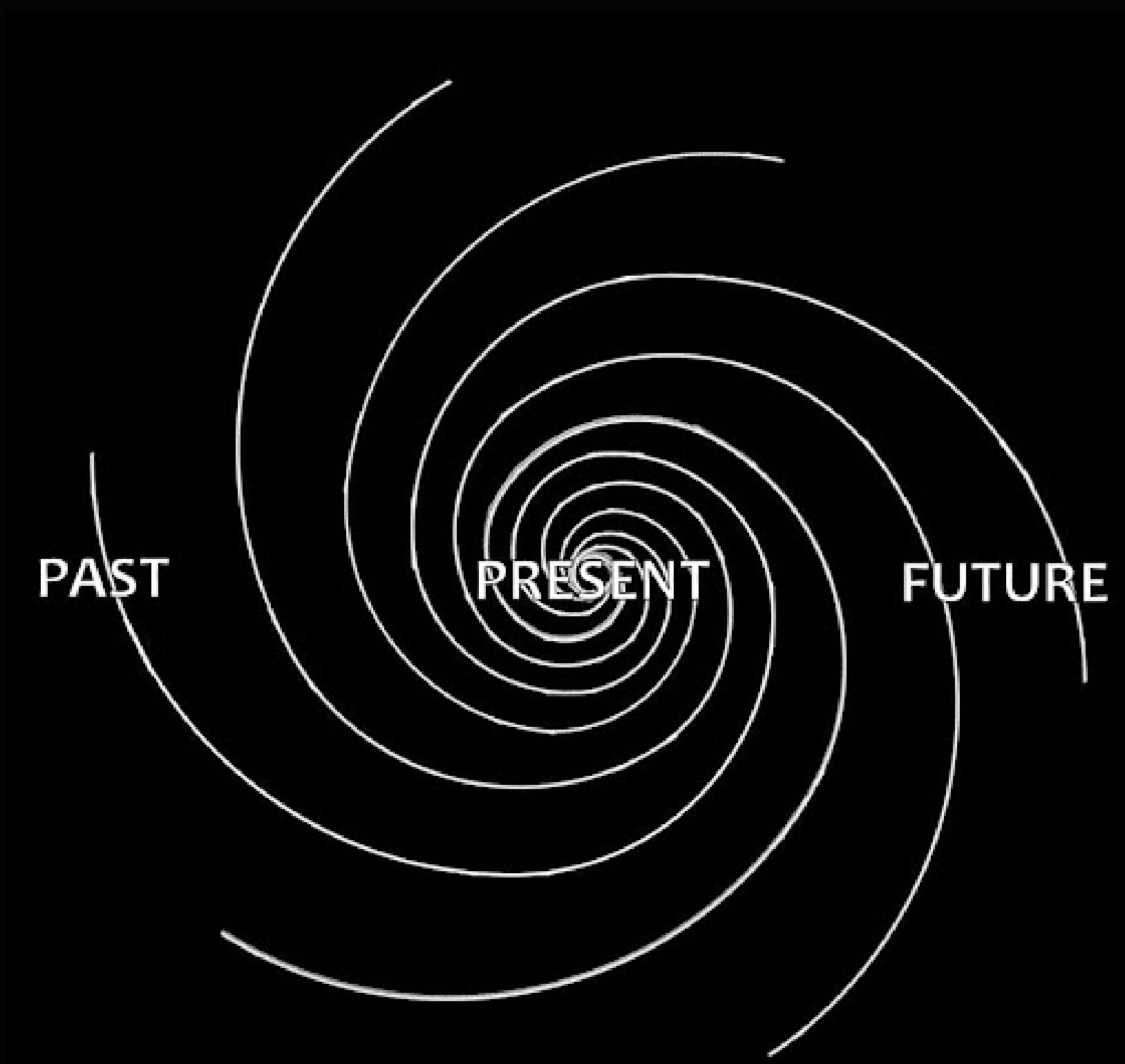
I'm interested in site specific horns of many kinds, even just as sculptures or conceptual installations. This horn was installed on a coastline and is both shelter architecturally and a conical horn for amplification of sounds acoustically. It encourages people to interact with it, walk inside, listen sit, and think about sound just with its simple design. The design of the horn is simple yet the shape is recognizable as having connection to sound which people inherently want to interact with. This creates a space for sonic ritual and interaction. It's also ephemeral in nature and I can see it moving and being site specific, and interacting differently with different spaces in different acoustics and with different weather and lighting etc. There factors make this environment real and alive.



Bunker 599 - RAAAF Architects

Bunker 599 is a memorial architecture project. Im interested in minimalism, drone music, simple gestures and materiality and this project creates a beautiful memorial with the simple gesture of splitting this military bunker in Norway in half and extruding a walkway into the lake. It creates an (acoustic) space for silence and thought while still being extremely true to its function. Poetically it opens up the history of the object clearly and utilizes the material it was made of to its advantage. I think material studies are important in sonic spaces, especially concrete, in relation to underground rave culture in warehouses in the 80s and 90 in NY and the UK. Simple gestures go a long way and this can be applied in many practices, and this is a reminder. This project gives thanks and homage to the land, a historical event and people lost, by making a sacred space out of en exiting object from that history.

Timeline (and non-time)





500BCE
Indian classical music

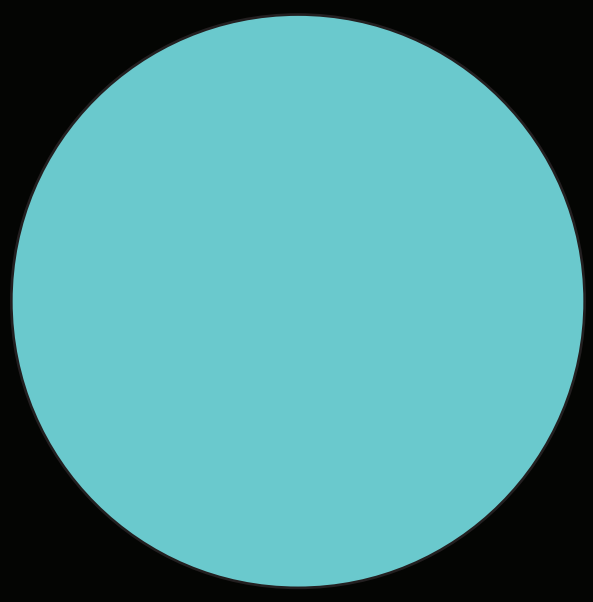
Indian classical music is rooted in drone and the idea of elongated and sustained notes. This extraction of time brings sonic content and sound qualities to an architectural scale. Their tuning systems are based off of Raga, which roughly translates to certain tunings for different parts of the day, as a cyclical, day long ritual of sound, specific to the cycle of the day. The music is programmed with the cycle of the day, as architecture is programmed and oriented for the environment it's in. This performance of music and collection of non-linear time applied to the ritual pushes the boundaries of music and is unlike the strict westernized music scales that developed elsewhere.



pre 1636

Lenape Indigenous culture

During my research I found that the Lenape Indigenous tribe lived on that land first. Sound became a huge part of my research because it was an ally and familiar medium for me to research the Lenape people and the current day techno and music scene. I then began drawing connections in sound between the Lenape people and the current inhabitants of Bushwick. The rhythm and minimalism in sole heart beat rate drum and vocal use I the indigenous songs of the Lenape people directly related to techno. The ritual practice of performance and dance to simple repeating rhythmic beats and vocal drones directly relates to the ritual practices of
attending raves and listening to techno. Both are celebrations, the Lenape people are celebrating the land and the environment, and I am celebrating music, meditation and ritual practice in itself in parallel to the Lenape people. My research on various forms of sonic practice to present my research brought me to granular synthesis because of its relation to nature, generation and generativeness, an initial state of being, and evolution over time.





1636

The First Baptist Church

The church is a space for religion and ritual, its acoustics are important in amplifying the song, and the preacher. In relation to the sacred and the profane, it's interesting the dichotomies between the church and sound cultures. People gather to listen and partake in a ritual all facing forwards to the preacher or the DJ, curating a sound and telling you a story. Sound is important in both spaces, people gathering for a ritual happens in both spaces.



1901

Victor Talking Machine Company

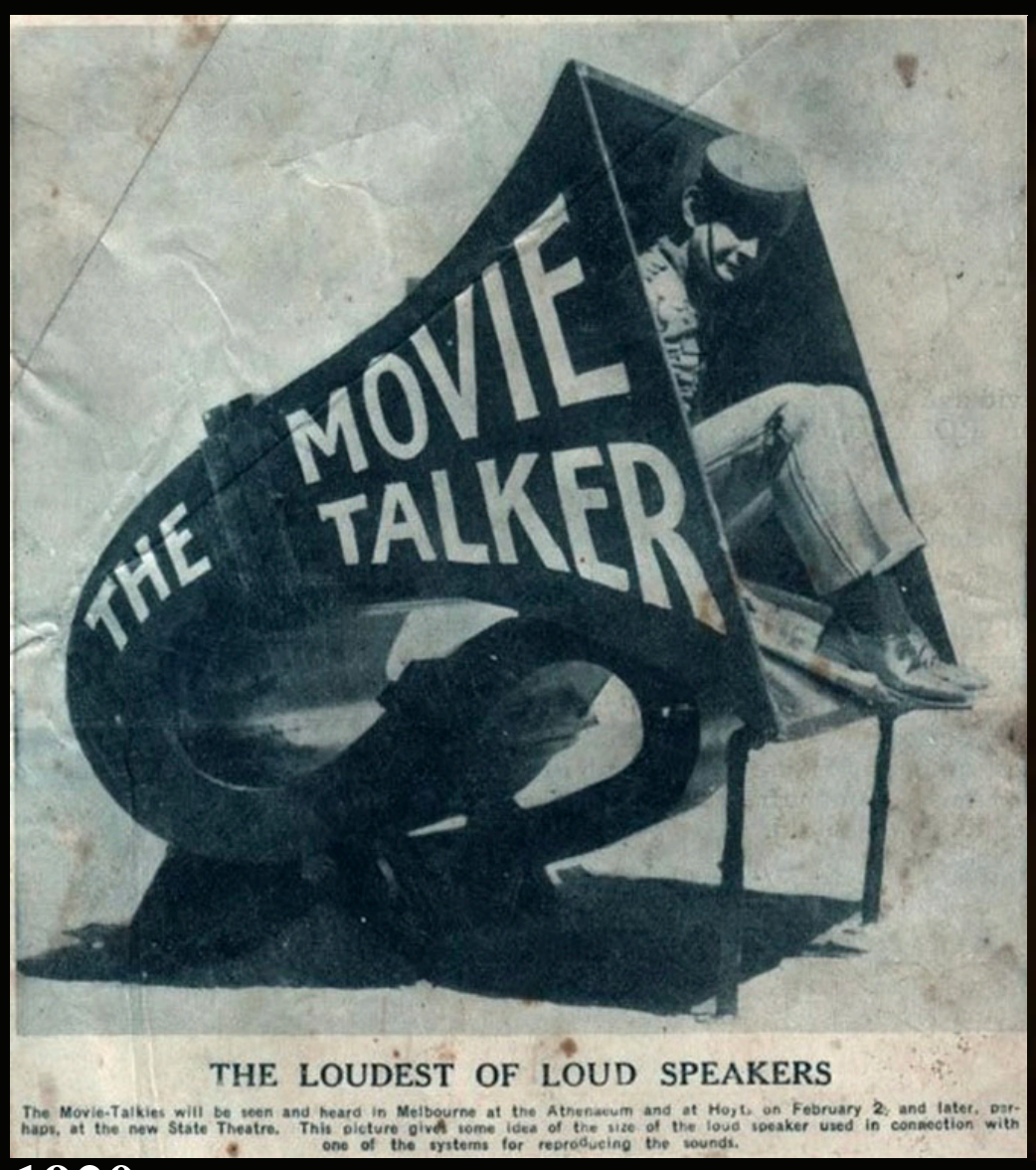
Thomas Edison was issued a British patent for a system using compressed air as an amplifying mechanism for his early cylinder phonographs, but he ultimately settled for the familiar metal horn driven by a membrane attached to the stylus. In 1901 Victor talking machine company began to manufacture photographs as a way of listing back to recordings, with completely acoustic amplification from a needle connected to the familiar (then conical) horn. This is the beginning of horn acoustics and would set the stage for amplification of sound for millennia. (See the Steam and Wireless Museum in Rhode Island!)



1916

Cabaret Voltaire and DADA

Dada coalesced among émigré artists and writers in neutral Switzerland during 1916, with Hugo Ball and Emmy Hennings founding the Cabaret Voltaire as a venue for nightly performances and manifestos. Participants framed their activity as a protest against war, nationalism, and cultural conformity, adopting strategies of nonsense, chance, and ridicule to negate prevailing aesthetic values. This was a space that created a movement through the ritual of performance and gathering. It was a space for music and counter-culture that shaped many ritual and experimental practices. Dadaists worked across media, including sound poetry, simultaneous recitation, collage and photomontage (especially in Berlin), and the use of found objects and assemblage. In New York and Paris, Marcel Duchamp's readymades became emblematic of Dada's anti-art stance.



THE LOUDEST OF LOUD SPEAKERS

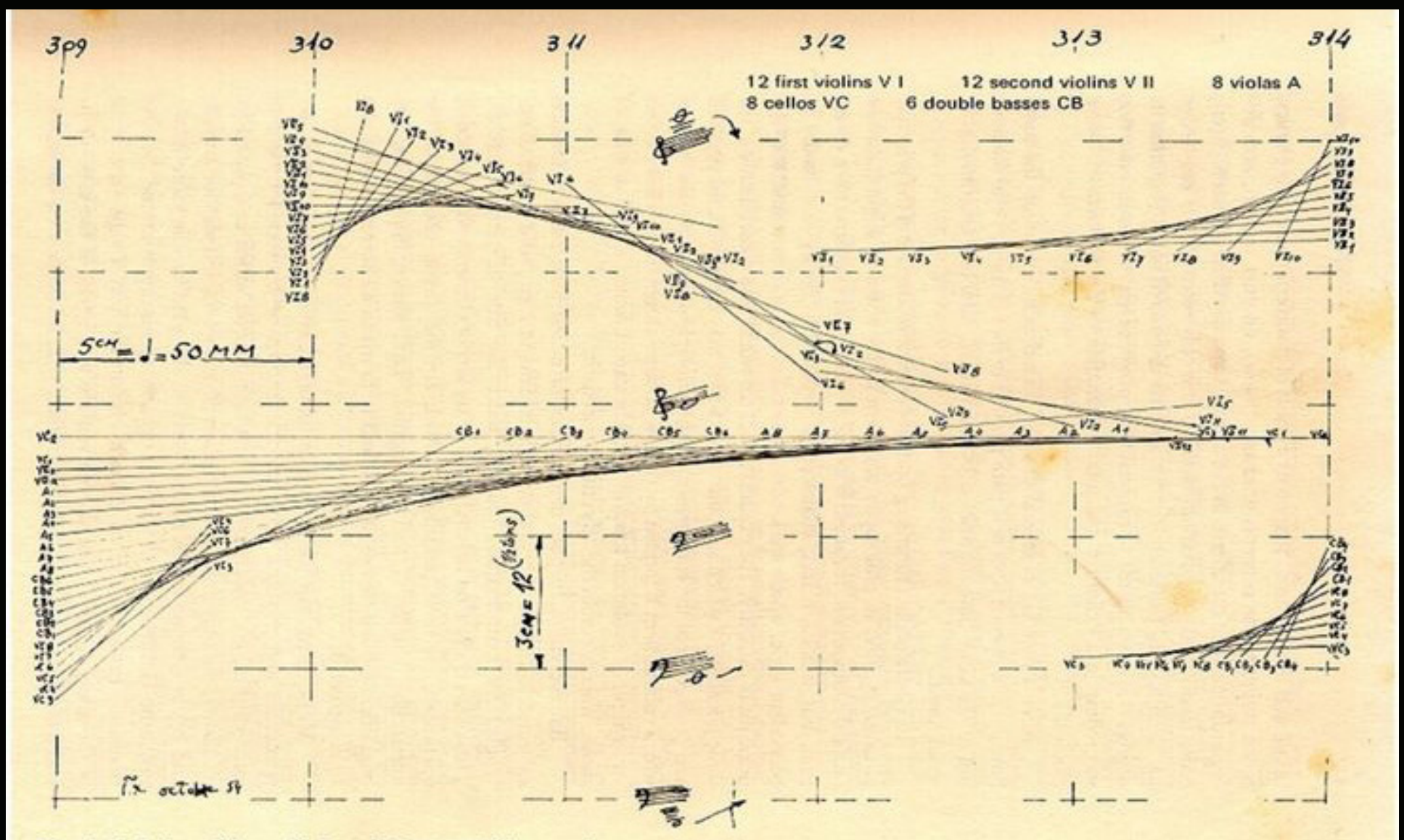
The Movie-Talkies will be seen and heard in Melbourne at the Athenaeum and at Hoyts on February 2, and later, perhaps, at the new State Theatre. This picture gives some idea of the size of the loud speaker used in connection with one of the systems for reproducing the sounds.



1920

Vitaphone and Talking Pictures

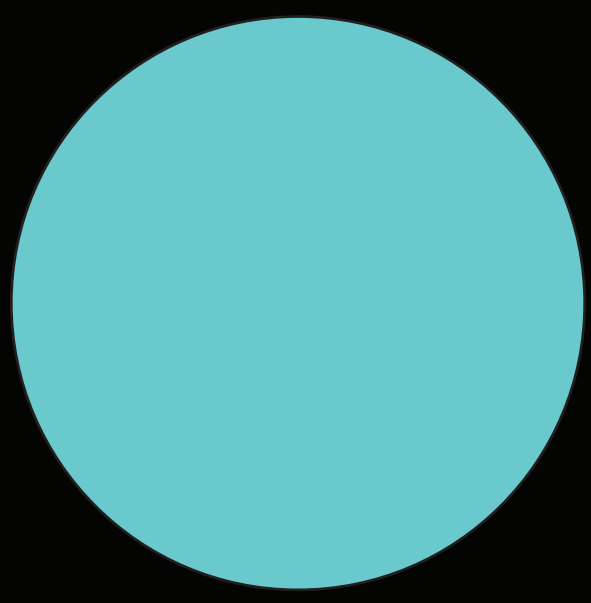
Here we the see the Vitaphone in the form of the western electric 13A speaker horn, used in movie theaters in the 1920s for some of the first talking pictures. This horn design used compression drivers at one end and a long beautiful sculptural architectural folded horn path to amplify the sound from the speaker driver out thorough the horn purely based one the design. Enthusiasts still use horn designs and public address systems use horn designs to amplify sound efficiently. These acoustic properties of the exponential hours can be scaled up to an architectural scale for bass frequencies and low extension. The design of this object was the first of its time, but these speakers were hidden away behind the screen. This informed sound honrs and Altec Lansing for the next 20 years.



1950

Metastasis by Iannis Xenakis

Xenakis broke free from traditional composition in the sense that written compositions were more visual and less timeline or note oriented. This encouraged performers to enter different states of stasis, lengthened gestural notes and experiment with weight, timing and gesture while performing pieces. Alongside that, Xenakis was compiling sound compilations and other experimental recording and playback techniques to manipulate sound into a multi-dimensional medium. He focused on creating architectural structures to house the performances that interacted directly with the composition weather it be directional lights, Spatial Audio or other experiments with sound and space. This storytelling thats non-leniar and site specific is important to my practice today.

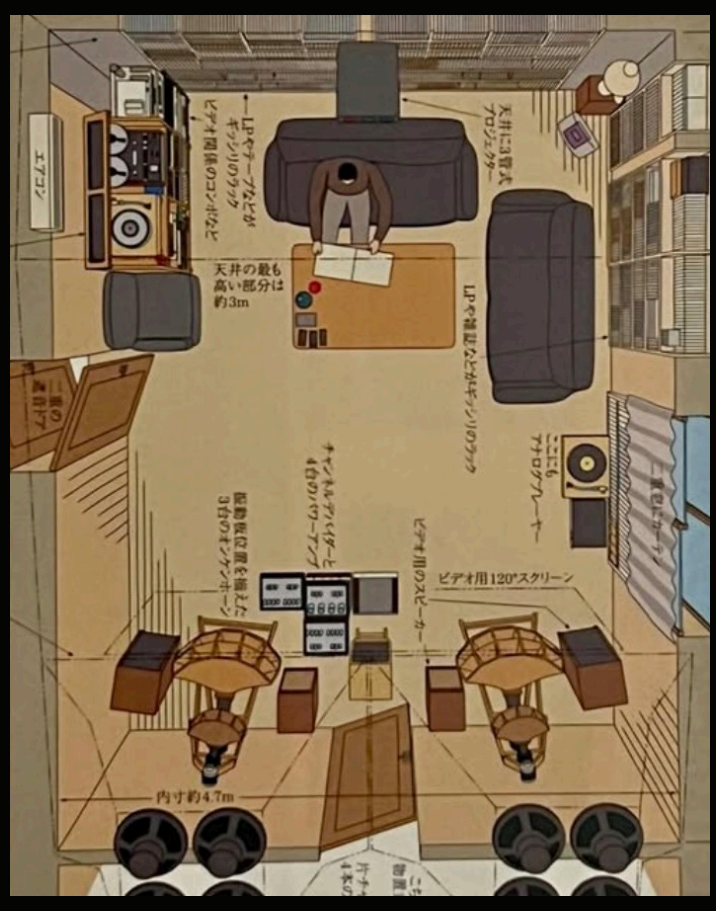




1955

Japanese Hifi Culture

Japanese Hi-Fi sound culture developed from post-WWII rebuilding, fueled by a global Hi-Fi movement and a unique cultural emphasis on craftsmanship, excellence, and listening. Key elements include the rise of the listening bar (Jazz Kissa) in the 1950s, a culture of high-quality DIY audio enthusiasts, and the meticulous, craftsmanship-focused production of audio equipment by major manufacturers that earned a global reputation for quality and innovation. This involved modifications to homes and rooms architecturally for opimal acoustics and curating listening experiences.





1960

Soundsystem Culture in Kingston JA

Soundsystem culture brings the
community together to engage in the ritual practice of collective deep listing, giving thanks to the land and celebrating dance and music culture. Dub is a subgenre of reggae most popular in the late 1960s and early 1970s. It is commonly considered a subgenre of reggae, though it has developed to extend beyond that style into techno and house music. Generally dub consists of remixes or "dubs" of existing recordings created by significantly manipulating the original, usually through the removal of vocal parts, emphasis of the rhythm and drum sections and with the addition of echos and reverb, with cuts of the original vocals. Because of the importance of the drums and bass in the tracks, it became the most popular genre for the sound system, as the culture focused and competed on making the loudest, bassiest sound systems for emphasizing those parts of the music.



1974

Music Concrete

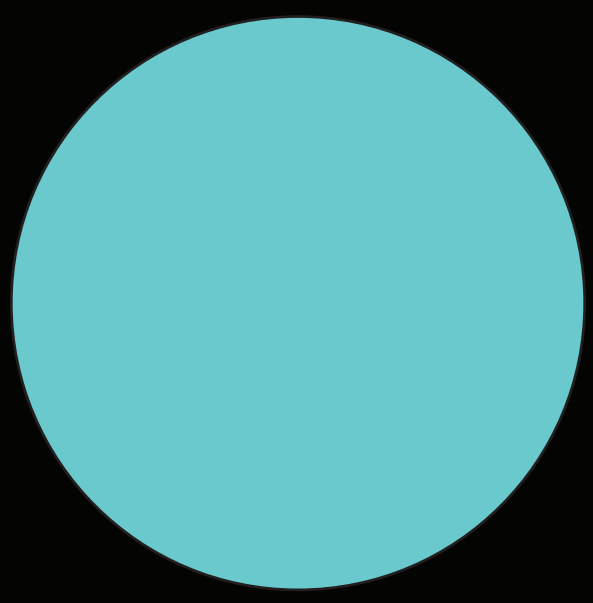
“The Acousmonium is an orchestra of loudspeakers arranged in front of, around and within the concert audience. It has been designed to be directed by a performer who projects a sound work or music into the auditorium space via a diffusion console. The Acousmonium can take many forms, changing at will to adapt to the type of work and to circumstances. It was designed and inaugurated by François Bayle in 1974, and is still mainly used for the performance of acoustic works. But it is also used by artists performing mixed musical forms, improvised music and multimedia.” During the Music Concrete movement from the 1940s to the 1970s, people began to experiment with loud-speakers as members of an orchestra and as objects in a spatial performance. They are set up the same way musicians in an orchestra would be placed, with different acacousticualities for different sections of the orchestra, and with composed sound separated to these specific speakers. Alto, Ten-or, etc.



1980

Paradise Garage

within a predominant monoculture, the depictions of the sacred and the profane are weaponized to control and erase the imagery of counter-cultural movements, therefore further marginalizing their members. The sacred is elevated as an untouchable realm associated with established values, while the profane is cast as deviant and rebellious counter-cultural movements, seeking safety, work to unlearn narratives and reclaim symbolism to represent their journeys, create new spaces, and build community. The diptych of club and DJ culture: the crowd facing forwards, the elevated di, the sound coming from the front ~ and the church: the priest at the front, the crowd facing forwards, both collective listening, both gathering for a sonic act, both ritual in nature, both a party in some ways, both giving homage to some god or some earth.



Glossary:

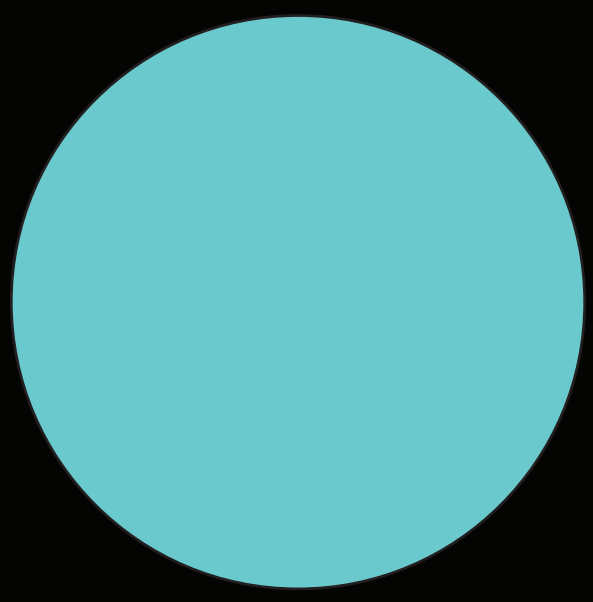
granular synthesis - *Granular synthesis is a sound design technique that breaks down an audio sample into tiny segments called "grains," which are then reassembled and manipulated to create new sounds and textures. This method allows for creative control over a sound's properties, such as time-stretching and pitch-shifting, without changing the other. Applications range from subtle audio manipulation to creating complex, otherworldly soundscapes.*

Drone music - *drone music is a minimalist style of music defined by long, sustained tones and subtle variations. It can be found in various styles, including ambient, experimental, folk, and metal, and is known for its slow pace and emphasis on timbre and dynamics over rapid chord changes. Genres that use drones include Indian classical, Celtic folk, and drone metal.*

Soundsystem culture - *Sound system culture is a community-based music and party culture that originated in Jamaica in the 1950s and spread globally, centered on large, custom-built speaker setups. It involves a crew of DJs, selectors, MCs, and engineers who use a powerful, mobile sound system to play music for a community, fostering a sense of unity, innovation, and self-reliance. Key aspects include musical competition (sound clashes), creating unique sonic spaces, and a deep connection to genres like reggae, ska, rocksteady, and dub*

Deep listening - *Deep Listening, a practice developed by composer Pauline Oliveros, is a form of meditation and active listening that involves being fully aware of the sonic environment, including external sounds, internal thoughts, and the relationships between them. It encourages a voluntary and intentional engagement with sound that goes beyond simple hearing, incorporating practices like sonic meditations, improvisation, and a heightened awareness of all perceptible vibrations, both musical and non-musical.*

Horn loaded speaker - *A horn-loaded speaker uses a flared horn to efficiently couple the sound from a smaller driver to the air, increasing loudness and improving dynamics. This design makes the speakers more sensitive, requiring less power to achieve the same volume compared to conventional speakers. By controlling the sound's directivity, they can focus sound into a specific area and reduce distortion.*



Bibliography:

Biserna, E. (2023). Going out: Walking, listening, Soundmaking. Umland.

Blasser, P. (2015) Stores at the Mall. A Dissertation submitted to the Faculty of Wesleyan University in partial fulfillment of the requirements for the degree of Master of Arts in Music. Wesleyan University Press

Britton, K. (2011). Constructing the ineffable: Contemporary Sacred Architecture. Yale University Press.

Campt, T. (2017). Listening to images. Duke University Press.

Chude-Sokei, L. O. (2016). The sound of culture: Diaspora and Black Technopoetics. Wesleyan University Press.

Delany, S. R., & Cheney, M. (2022). Starboard wine more notes on the language of science fiction. Wesleyan University Press.

Fishkin, D. The Kerf of Sound. University of Virginia, Music - Graduate School of Arts and Sciences, PHD (Doctor of Philosophy), 2025-05-02, https://doi.org/10.18130/c2yb-c954. Online Archive of University of Virginia Scholarship

Frazier, R. T., Caldwell, B. R., & Jafa, A. (2023). Kaos Theory: The Afrokosmic ark of Ben Caldwell. Angel City Press.

Gooden, M. (2016). Dark space: Architecture, representation, Black Identity. Columbia Books on Architecture and the City.

Han, B. (2019). The Disappearance of Rituals: A Topology of the Present. Polity

Monte Young, L. (1960) Compositions 1960. MoMA Collection

Moten, F. (2017). Black and Blur. Duke University Press.

Muggs, J., & Stevens, B. D. (2020). Bass, Mids, TOPS: An oral history of sound system culture. Strange Attractor Press.

Roads, C. (2004). Microsound. MIT.

Rodgers, T. (2010). Pink noises: Women on electronic music and sound. Duke University Press.

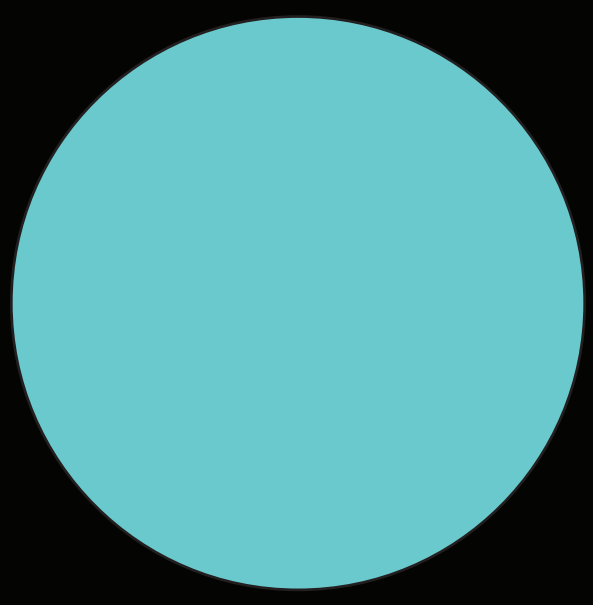
Schafer, R. M. (2013). The soundscape: Our sonic environment and the tuning of the world. University of Simon Fraser Library.

Sharpe, C. (2016). In the wake: On blackness and being Christina Sharpe. Duke University Press.

Tarkovskiĭ, A. A. (1986). Sculpting in time. Bodley Head.

Toop, D., Réveillon, A., & Valensi, R. (2022). Ocean of sound: Ambient sound and radical listening in the age of communication. Éditions de l'éclat.

Wilson, P., & Stewart, M. (2008). Global Indigenous Media: Cultures, poetics, and politics. Duke University Press.




ROLLS
R1200
MOSFET POWER
AMPLIFIER
342


hode Island School of Design is pleas
recognize the following donors for t
enerous support of the Future by Des
mpaign and the Bayard Ewing Build
esign Studio Project.
Roger Leaf
Deborah Berke B.ARCH '77
Sean M.P. Cannon B.ARCH '01
Wilfrid L. Gates, Jr. '65 LA
The Bank of New York
Kathryn '72 PH + Cornelius de Boer B.ARC



