Acoustic and Transmission Ecologies

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Transcript from the recording's auto-generated captions, lightly edited for clarity. Bracketed notes mark audience questions.

Okay, so let's begin this story. These are some images here from Iceland, from East Iceland, where I was living part of the year from 2013 until roughly 2019. One of the features of East Iceland, in this particular town of Seydisfjordur, is that it's the place where a very deep fjord is present. So it's possible for some larger ships to come in from other places in the world, particularly from Europe. It's also a place that is dominated by fog at many times of the year. And there's only one road in and out of this small town to get to the next town over the hill, where there's also an airport and more infrastructure, and the highway system that links the rest of Iceland to this area. And that road gets closed each year for a grand total of some months at a time due to the fog. So it really is a defining feature here. Obviously in Iceland you're also just below the Arctic Circle, so there's also quite a broad oscillation in terms of daylight, or lack thereof.

When I first moved there I was on an artist residency, and the project that I worked on was specifically using pirate radio. I mentioned earlier that I'm a radio and transmission artist, as well as now working in other forms. What radio and transmission art means for me is that I've made artworks that are for broadcast on terrestrial radio stations, your usual radio station, but I have also made a lot of work that works with the electromagnetic spectrum - specifically, for me, the parts of the radio spectrum. That includes AM/FM, shortwave, CB radio, UHF, VHF, and also areas like VLF and ELF, which are considered very low frequency and extremely low frequency. That doesn't refer to acoustics; it means portions of the electromagnetic spectrum.

So what that means is that I'm interested in working across these signal ecologies that have been established since the late 1800s in global politics and military and communications, trade, etc., and in which the actual access by the average person is a very small sliver of that giant possible area. One thing about listening to a lot of radio, especially when you're in particular spots on the globe, is that you do wade through quite a bit of radio static, and radio static is not of uniform consistency. It has a lot of features and characteristics that relate to things like proximity to other kinds of transmission towers, the weather, the architecture of the space you're in, how close you are even just to electrical fields with your receiver, or in my case, also working with transmitters, how close I am to other kinds of transmitters, transmitter towers, power supplies, etc.

So this idea of being accustomed to and drawn to a space where the signal is not necessarily about the content and the conduit, but might be more about the positioning of the listener and the positioning of other actors in that ecology - in that case, so-called noise becomes really interesting, and it becomes a way to understand the existence of different sorts of other actors in the system. It also is a way of understanding presence. One of the things I've often thought about is that radio is not a container. Radio is a set of relationships. And being in very low-visibility sets of relations nonetheless makes it interesting to think about both trying to understand a space or a territory, or trying to perceive it through other means.

One of the things that I did with that project over time, working in Iceland, had to do with nocturnal listening, because often I was able to receive shortwave signals at night with better accuracy than during the day, based on the equipment that I had. And I also became interested in the experience of distance. If the stated desire for communication is sometimes to collapse distance, or to achieve harmony or union or complete closeness, I think it's really interesting to think about how broadcast enables a productive experience of distance, and the idea that something might be far away - but that farawayness could be because, in radio terms, you're dealing with a number of different factors, not just geography. So something that seems far away might in fact be close and vice versa, because of signal strength or the position that you happen to be in: if you're in a building like this, or outside on a hillside, those sorts of concerns.

When I moved to Santa Cruz and the Bay Area to take up my position here, I felt like I entered into a new foggy zone that felt very familiar in some ways. One of the things that I appreciated about the fog line between Santa Cruz and Sonoma counties, which is the area along the coast I have moved in quite a bit, is the amount of activity that is influenced by the fog. But the question I had was, how do I record the fog as an audible experience? How do I make some trace or some document of these experiences? And so instead I decided, well, let's think about the fog as a kind of position. Inside of that, people and creatures and actions take place. What might those be, and how do they flourish because of the fog? So rather than trying to capture the fog, it was more like: what's the significance of fog through its other kinds of actors?

I appreciate this image. Some of you might recognize it if you've spent any time on Potrero Hill in San Francisco: you can see Sutro Tower in the distance. So this is your city broadcast infrastructure, hiding inside our foggy marine layer, rolling in and hugging the hills. The project I was working on that specifically explored this was called Fog Refrain. It was related to a 22-hour radio commission that I had received through a group of curators based in Germany and Luxembourg, in 2022, when the city of Esch-sur-Alzette in Luxembourg was a European Capital of Culture. They had a lot of cultural funding, and the independent radio station Radio ARA was having 100 days of radio art, allotting these 22-hour sections of time on the radio to artist groups or artists. So I decided to work on this as a 22-hour project, and did it as a live, continuous performance on the air. It went from 2 p.m. until noon the following day.

The way I organized it was to do a lot of recording together with some of the graduate students that I work with here: Gonzalo Nunez, Abram Stern and Gabriel Saloman Mindel. We all went out and did a lot of recording within the fog line and tried to figure out what the forces at work are. As a compositional strategy, one of those was to go to the Golden Gate Bridge. I was revisiting it constantly and paying attention to all of the different rhythmic and visual elements taking place there, and then used that as a bit of a score to generate other kinds of sounds, along with field recordings that I had been making.

So this is what it looks like when I'm at, I don't know, probably hour 16 or 17. As I say, it's a mixture of field recordings. Another feature of this was the fog beacons that historically were part of the ecosystem of the Bay Area. You've probably heard the foghorns at some point in the Bay Area. There are also fog beacons that let you know when there's a certain amount of moisture in the air but it's not fully foggy to the waterline. Those are a little more subtle; you can hear those here in the Santa Cruz area too. But in the 1930s, there were Morse code beacons broadcast on radio - little one- and

two-letter Morse code beacons associated with specific spots at the entryway to the San Francisco Bay. So I was using a combination of these as part of my radioscape.

And I had a fog tracker. While I was sitting in Luxembourg, I was able to see, based on another artist's fog tracker online, whether the fog was fully in the bay, or hovering out to sea, or where it would be. I had picked different points and decided: if the fog is this far in, we'll hear the Morse code beacons; if the fog is further in, we'll hear the fog beacons themselves; and if it's really foggy enough, we'll be able to fire off a foghorn inside of the overall 22-hour improvisation. Also, if I had recorded sounds from, say, four in the afternoon, I was only allowed to play them between 4 and 6 p.m.; if I recorded sounds at three in the morning, they had to be played between 1 and 3 in the morning. So I tried to keep the organization of the day very true to the experience of being in this space.

Another favorite spot is just outside of Davenport. What I learned from all of this was this constant engagement and re-engagement with this particular local area. To be quite honest, when I moved here, I was still very much traveling every time I wasn't teaching, and the Covid era really caused me to stay put and to deepen my interactions here in ways that were more meaningful. So it also meant continually revisiting the same spaces at different times of day or evening, maybe making recordings, maybe making notes, making observations, or just being there. It was this desire, at least for myself, to feel more grounded or rooted here.

The other thing, of course, is that if you're tracking fog after 2020, you're also wandering around in a lot of burn scars. So this is some of the hillside from the bottom of Big Basin looking out onto the ocean, areas that were quite incinerated in 2020 during the CZU Lightning Complex. This turned into a side project with one of the people I was working with, Gabriel Saloman Mindel, who is also a longtime performer, artist and composer. We worked together on a project called Between the Fires, which was meant to continue this investigation of the forest at the same time that I continued to be interested in the fog. That project continues until now.

One of the things we were interested in here was not just the ways in which something like fog can take a variety of different shapes or morphologies, or the ways in which noise can be shaped in different ways. I was interested in the fact that hard objects can start to look like other stuff. I don't know if this looks like something else to you, but to me, I see a couple of different images in this, as well as in this. So we continue to return to these spaces over and over. As we started composing, both with some field recordings but mostly creating new electronic music inspired by the things we were noticing, one of the principles of the work had to do with animals as plants and plants as animals. We also picked up quite a lot of burnt wood, especially chunks of burnt redwood bark that looked like a big burnt haunch, for instance. So we were busy bowing on that, and using different pine cones and such attached to electronics and small sensors, working some of those materials into our process in the studio.

And finally, I wanted to mention another really long-form project that is based in Vancouver, which is where I originally come from. I'm not Indigenous to Vancouver; I'm settler stock. But the Sto:lo River, which is also called the Fraser River, is a pretty ancient river in terms of its form. Its form has been very consistent over a long time, at least coming through the mountains, until it reaches the delta, where the Fraser River delta, or the Sto:lo River delta, has really moved a lot in the Vancouver area. It's a pretty interesting space: it includes a major international airport, and it used to have one of the

most formidable salmon runs you've ever heard of, as well as different kinds of fish. It's a space that is really dominated by transmission systems because of the airport, so you have air traffic control at its highest intensity there, as well as all the usual sorts of signal traffic. And then you have a tremendous number of creatures; there are semi-local pods of orca whales and dolphins just off this river delta. So it's a space where a lot of different kinds of worlds meet.

So we created this piece called Water Line, which would later be called Estuary Almanac. Again we blended a mixture of field recordings: acoustic sounds, underwater sounds, radio signals from all different parts of the radio band, electrical fields, and some electronic sounds that were inventions, based on things we knew we wouldn't be able to record - our inventions of imaginary creatures that might be in the water, for instance - but really following the pattern of the tide. The piece was on a six-hour cycle, and we used a generative algorithm that my collaborator in Absolute Value of Noise created, in order to have this piece cycle over a six-hour period for 16 months. So it was essentially a different piece each time, made out of the same sorts of elements but constantly shifting based on whether it's high tide or low tide, if the tide is slack, or if it's rising or diminishing.

This was a commission that we did for German and Austrian national public radio, for some of their experimental radio programs. What they had asked us to do was create something continuous, a kind of continuous ambient piece that they could slot in between elements on a radio show as needed - something that could fill in but also be constantly changing, so it sounds different whenever they tune in and add it to their programming. It was also running on a server that was open to any listener, so there were definitely people who were leaving it on for days at a time and clearly sleeping to it. For us, it was the first time we were really making work that was very long, durational and deeply ambient in this way, that nonetheless was really tethered to a specific place. At the same time, the specificity of this is also a bit elusive, because waves do sound like waves in many places, and there are elements of different birds or different parts of the signal structure that are common. Air traffic control is in English all over the world. So there's a commonness to something, even though it was very specifically tied to this place.

So that's all I'll talk about for now. But maybe I'll quickly mention one more thing, which is that I currently have an installation called Hole in the Wall, which is based on my experience with gophers in my backyard digging under my little unit. It's currently at The Lab in San Francisco, on 16th Street and Capp, and you can literally crawl into a hole in the wall and experience some rodent space. Again, it has evolved out of this interest in being very committed to the ultra-local, and also, in this case, exploring that which is considered abject - the idea that the portal to the underworld might in fact be held not by a three-headed dog or something more fantastical, but by something as banal as a gopher. So I'll leave you with those, but I'm happy to take any questions if there's time.

[Audience question about the installation's timeline.]
It's up until June 27th. And actually another of our Film and Digital Media PhD community, Kevin Corcoran, also has a piece in the same show. There are four pieces in the show; it's called The Wet and the Dry. It's based around ideas of composting and human interactions not just with the more-than-human, but also with industrial leftovers.

[Audience question: How did you find the fog affected sound and radio - what does it sound like?]
Well, the fog itself doesn't necessarily make a radio signal different, but it does nonetheless cultivate

what people are doing, because there's daily fog. So there are habits around seafaring. There are ways in which certain kinds of ecological environments thrive that might not otherwise. Even the fact that we have redwoods is entirely because there's fog; the redwoods basically stop at the fog line. So it was a way to try to put a spot on the map, but also an imaginary spot, related to this ephemeral thing of the fog. It's an interesting thing to ask: how do I broadcast the fog? Well, I broadcast all the other stuff that's taking place under the fog. Some of my favorite recordings came from the BART trains. There are people who move the BART trains around at night between stations and do repairs, so I had recordings of their chit-chat on the radio, and recordings of birds feeding. I had set up contact microphones on bird feeders to attract different ones, so they sound like massive dinosaurs landing. One of the things I like about fog is that it has a tendency to distort our idea of how things look, or how large or small something is, in this low-visibility space. So I was also trying to use that principle with the sounds I had, to be a little bit confusing about how large that bird is: is it a pterodactyl or is it a finch? Being able to distort, or enhance, an imaginary space of what something is like. So it's both a documentary and kind of fictional at the same time.