The Science-Music Borderlands

Reckoning with the Past and Imagining the Future

Edited by: Elizabeth H. Margulis, Psyche Loui, Deirdre Loughridge

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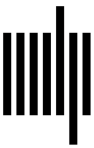

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15 Conversation with Pamela Z

Pamela Z, Psyche Loui, and Deirdre Loughridge

[*Editors' note*: Composer, vocalist, and multimedia artist Pamela Z has won numerous awards, including the Rome Prize and a Guggenheim Fellowship. She is known as a "wild virtuoso" (*New York Times*, January 7, 2021) for her experimental extended vocal techniques and the use of text, sampled sounds, found objects, and innovative gesture-to-sound programming. We spoke with Pamela Z to learn about her perspective on embodied cognition, the intersection of music and language, and the role of experimentation in creativity—topics that recur throughout this volume.]

What is your background as a musician, and how did you integrate technology into your practice? In my first public performance, I was five years old, and it was the elementary school talent show. I've been singing all my life and I used to play with found objects. I used to try to make sound-making objects out of the little pods that fall out of trees and, when they dry, they turn into maracas. I used to string rubber bands on the knobs of my dresser drawers to make a stringed instrument when I was a kid. Pretty early on, while I was still in elementary school, I started playing with machines.

When I was really young, my father bought us—they were a newfangled thing—cassette tape decks. They were the old-fashioned ones that had a long shape with buttons along the front edge that you could press down and then a little spring lid popped up to put the cassette in. I was trying to learn how to multitrack by singing into one and then playing it back and recording it to the other one and back and forth and so on.

By the time I was in high school, I was sort of a singer-songwriter and I was writing songs and playing guitar. At the same time, I was singing in the concert choir and the show choir and performing in school plays and musicals. When I went to college, I started as a music major. I was a voice major and I was playing in clubs by night as a singer-songwriter and also in a band, and by day I was singing opera arias and art songs. It wasn't until after I got out of school that I started working at the local public radio station.

I had a show called "The Tuesday Afternoon Sound Alternative," and I used to do a free-form program that combined all these different musics that I liked, which were completely broad and crazy. So in one show I would segue from Varèse to The Ramones to The Roches to Laurie Anderson. It was through that radio program that I became aware of a lot of experimental music. I got more interested in trying to do something more avant-garde, and I became disillusioned with the music I was playing because, to me, it seemed really conventional.

The cover tunes I was doing were starting to be more like David Byrne and Tom Waits. I was including more interesting things, but I still felt like the music on my turntable at that time was completely unrelated to what I was actually playing. I was listening to text-sound compositions and people doing experimental music, like Pauline Oliveros and Brian Eno and his collaborations with people like David Byrne.

I bought a four-track cassette recorder and was creating pieces that were different from what I was playing in clubs. They were things that used layers of my voice, and then I discovered the digital delay. That was the day I found my voice as an artist, when I started playing with layering, looping my voice in real time, and discovering all kinds of things about repetition, timbre, texture, and the harmonic, melodic, and rhythmic structures of speech sounds. All that became much more evident because I had this live sampling device.

I moved to San Francisco in 1984 and kind of remade myself. At that point I had been living in Boulder for ten years and was making a solid living as a musician, but I was playing in clubs as a singer-songwriter, doing folk rock and cover tunes that were emulating those other people. All of a sudden I was looping my voice and wasn't interested in playing the guitar anymore. I found this amazing contemporary music and performance art community, and that was the beginning of the way I work now as an artist.

How did your conceptualization of music and instruments change after you began to experiment with musical elements? At that time, pop music to me was really a commercial, bubblegum kind of music. I never thought of what I did as being pop, but it was definitely more in the popular realm in terms of the audience, the accessibility, and this idea of writing, learning, and singing songs that everybody could learn to sing along. I felt like my listening to music and sound opened up. I realized that there's a broad spectrum of music, and I love all of it. I stopped investing myself into that particular niche because this other area was so much more moving for me to do, to experiment with sound, to think about music, to know that it doesn't rely just on melody, harmony, and rhythm but instead that music is more about timbre, texture, and processes changing over time. Music practices or ideas became more interesting to

me, things that were more experimental. Then I also became interested in combining acoustic sound with sound that was either electronically manipulated or produced.

Are there specific kinds of responses you aim to provoke in listeners through your performances? I don't really think about music in terms of a way of expressing emotions. My goal is for the work to be good, for it to be affecting in some way, but I don't have a strong need for it to be affecting in any particular way. There are some pieces I do that make people laugh. There are some pieces I do that make people tear up. It's not because I set out to make them tear up, and when they laugh, it's not because I set out to make them laugh.

Sometimes I don't know until I perform the work in front of an audience what the reaction is going to be. I just hope they will be moved by it in some way, or they could also just be moved intellectually. Maybe the work just makes them think about things they hadn't thought about before. I don't start my composing with an agenda of how I want them to feel when they hear the work. I think the work will discover that.

I definitely want there to be a connection. I want them to feel something or notice something or be riveted by it for whatever reason. I think it varies not just from artist to artist but also from piece to piece within an artist in what way listeners will be riveted or in what way they're going to react. The key is that I hope it's not so definable that you could write it down as a mission statement.

In your experience, how do different tools allow different interactions, especially in terms of embodiment? I like to think of the tools I use as being no different from more conventional tools. With the early musical instruments that had a plectrum for plucking a string, the only way you could change the dynamic was to be plucking, just one string or two. When they invented the pianoforte, suddenly the nuance of how you hit that key changed everything.

I know there are a lot of people who, when they play repeated notes, never use the same finger to play each iteration of that note. I think part of the reason is to give them more speed, but more than that, I think it's to give each iteration of that repeating note a slightly different feeling.

There's a large humanness to that repetition and less machineness. Somebody who studied all their life has gained some deep knowledge of their instrument. They have a relationship with it and can interact and tease out all kinds of different qualities of sound.

With my instruments, there's a certain amount of that. Like with the gesture controllers, for instance, there's a way of using them so that when you do one thing, it always has a certain result. Then there are things where you learn to be more nuanced in your approach and it gives you more nuanced results.

I think one of the biggest differences is that if your instrument is constantly changing because technology is constantly changing, it keeps you on your toes in a different way. Let's say you're a cellist and every six months a luthier comes to your house and reworks your bridge so that your strings are a slightly different distance apart. Now you've got to start all over again and gain some facility with an instrument you're not used to. Most pianists have to play a different instrument in every concert, so they have to get used to differences in slightly different instruments.

That's the big difference between more electronic-based instruments versus acoustic instruments. With traditional instruments, you can gain a level of virtuosity without these constant interruptions because the instrument itself is changing radically. Those musicians get to spend a whole lifetime establishing an intimate connection with and physical understanding of the same instrument. When you're working with electronics, half the time you're just futzing around: "I had to install the upgrade to this plug-in, and now it's not playing nicely with this other thing," or "Now I have to rewrite this because it doesn't work anymore, and now I won't be able to do this one function that was an important part of that piece when I performed it."

What is the role of found objects and their affordances in your work? If your mind has the patience to notice sounds and organize them in the way you're hearing them, they become the music. The found object and found sound ideas are an extension of that kind of thinking, but I also think it has to do with broadening the definition of what you can call music. I'm sort of broadening the definition of what you call an instrument—going from the idea that an instrument is something an instrument maker designed for its qualities and how well it can produce sound to the idea that an instrument is anything you use to make sound. If your medium is music or sound, then your instruments are the things you can make sound come from.

There's a fine line that can be crossed when using found objects. It can be corny when somebody is just trying to replace very specific things with other things that make similar sounds. When my sister and I sang in the talent show, we would use those long brown pods that fell from trees. After a few days, they would dry out, and then you could shake them and make a sound. Maracas were designed to be big rattles that produce a really nice, clean, shaky sound. These pods probably had more of a muted shaky sound. We were using them where you would use maracas, but that wasn't necessarily a very sophisticated use of a found object.

As an adult, instead of trying to find an object that will make a sound just like an instrument that already exists, I look for an object that might result in a new sound I haven't heard before. My thoughts about using found sound objects are connected with my enjoyment of using found text instead of a composed libretto. All those

things are about discovery. It's part of those happy accidents that happen, sounds you might not have come up with if you were limited to canonical practices and prescribed objects.

A lot of found objects are so good that they end up becoming part of the arsenal of more conventional music. Thunder sheets are an example. Now you find many orchestral works in which percussionists are expected to use thunder sheets because there isn't any conventional instrument that can produce that sound.

If you were a cognitive scientist, what would you study? I'm very admiring of scientists. I love mining what they do and using those artifacts as material in my own work. I'm very interested in the different resonant qualities of different spaces and that kind of thing. I think that, sadly, I have to admit, it's a circular thing because it all folds back into what I do. I wish I knew more about resonant frequencies because I wish I knew more about what I'm doing when I'm mixing a piece and putting in EQ filters. I wish I had a better handle on that stuff.

Or maybe being a linguist would be interesting to me because I love language, and I love it on all these different levels. I love it on the level of understanding the literal meaning of languages, and I wish I could become fluent in other languages. I've tried to study a lot of languages, and my problem is that I studied too many so I never became fluent in any of them. I'll never stop studying languages.

Maybe being a linguistic researcher would interest me the most. I like language not just because of its grammar or structure but also because of the sound languages have, the rhythms that exist in different languages, and even the different regional accents within one language.

I'm interested in what's going on in the brain when it's processing language. I'm interested in this strange way that, in my work, I like to use language that's fragmented and repeats a lot. I'm fully aware that you can't strip language of its meaning, so if the people listening to your piece are native speakers of whatever language you're using, you can cut it into a lot of fragments but you can never wash it clean of its meaning. What can happen, though, is that through repetition, it can lose one meaning and start to take on another meaning, or the meanings of two different words start to morph with each other, and the sound of words repeated over and over begins to change. There's a whole host of people creating works by transcribing the pitch and rhythmic material from speech, and I never tire of that.

Another thing I would study is memory. I'm always fascinated when I hear about really bizarre incidents involving amnesia, like when people forget an entire swath of their knowledge yet remember everything else. How does that happen? You hear stories about people who forgot how to speak their main language but can still speak another

language. Or musicians who forgot how to play music and had to start over, like a child learning an instrument all over again.

Is musicality unique to humans, or is it widespread among living things? The first two things that come to mind are birds and whales. The question is, is what we interpret as being music also music to them? I don't know if there's any way to know that, but I would think that people in your field would probably be able to figure out a way to determine how a bird sees songs. Are they songs? One thing that's really interesting about birds' songs is that they are taught. The adult birds teach the song to the children, and they always sing the same song. They may have variations or longer or shorter versions of it, but that is the family song and they pass it on to the young. That's interesting to me. We call that a song, but is it a song? I don't know, but it's wacky how much more complex bird "songs" are than they seem to be. They're so high in pitch and so fast that we hear it as just a chirp. But if you take that sound and stretch it out, you find that it's a complicated melody with thirty notes in it. Every time they tweet it, it's the same melody, and it's even in the same key. The pitch is very high—birds have this tiny little syrinx instead of a larynx. Frequency is determined not only by the speed of the vibrations but also by the *length* of the vocal cords. We're not equipped to hear or perform bird songs unless we time-expand them and pitch-stretch them so that they go down into an octave we can perform and they're long enough so that we can hear the intervals and rhythms involved. Then we can learn those songs, and they seem pretty musical to me. It would be weird, though, if every human family, tribe, or group had just one song and everybody had to learn it and always sang it from beginning to end in the same key. Would we call it music? Would we call them songs? All I can say is, it seems musical to me.

Whale songs are the opposite, lasting about eight hours. You could do the opposite thing and squish them. Then you could hear the contours of the song, which is a very specific one. The whales sing it again and again to one another. It is transmitted through vibrations in the water, and the other whales can hear it.

The songs of birds and whales seem closer to music to me. Other creatures make noises, but a dog barking somehow doesn't seem to fall into the category of music. I mean, in a Cagean way, you could say all sounds can be music, and many people have taken samples of dog barks and cat meows and composed music using them. On their own, without somebody organizing them in a particular way, they seem more like talking, crying, shouting, or whining than singing. Emotionally, though, a dog's whine does seem to express the same thing our whine does! Dogs don't whine when they're happy, and when a person they like leaves, they stand at the door and cry.

Birds, on the other hand, do seem to be singing. When I was growing up, my mother had canaries, and the males put on an incredible concert. These canaries would do an entire concert with all these trills, and it seemed varied and complex. As a kid, I never thought to record it and slow it down. One bird named Twerpy was the best singer of them all. After Twerpy died, my mother got another canary, but it didn't sing. I don't think it ever occurred to us that the bird was a female, because the females don't sing; they only chirp a little bit. Only the males sing these big elaborate songs. My mother went out and bought a vinyl record of the Hartz Mountain canaries and played that record for the bird, trying to get her to learn! Twerpy never needed the help of a choir.

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