

Music, Language and Environment: an interview with David Dunn by René van Peer (1999)

David, over the years you have written and recorded a set of compositions in which the music is intended to work as an intermediary between humans and their environment. What got you interested in this?

I think it began as a fairly naive fascination with sound. Even as a child I was very interested in natural history and in the behavior of living things. Growing up in southern California I spent a great deal of time being in the wilderness environment there. That was certainly an innate interest, but part of it had to do with an intuitive fascination for sound as it existed in an outdoor environment. One of the first projects that I actually succeeded in doing when I was 19 years old, was *Nexus 1*. I took three trumpet players into the Grand Canyon. My interest was in the reverberations of the canyon itself. The trumpets were set up to be sound activators of that acoustic environment. Over the course of being inside that canyon for three or four days, an event occurred that was quite unexpected – at least on my part. The trumpet players were perched very far apart from each other, playing and hearing these reverberant structures within this immense open space. Three ravens flew over. We hadn't seen any ravens during the previous days. They appeared as soon as the trumpets started playing. They began to fly in front of the trumpet players, doing barrel rolls and all sorts of aerial acrobatics, cawing in and out of the trumpets, and matching pitches with the trumpets. It was very unexpected and very dramatic. It basically set in my mind the question of what was going on here. This was certainly not the intention of this as a composition. It was something more spectacular and interesting from what my intention was. The question began to arise in my mind that I was proceeding with an assumption that the environment was somehow this fabulous signal processor that could modify sound and produce new sounds – but what resulted was evidence of an intentionality for communication that could exist within the living environment. That shifted my focus. It was more to answer the question of what was really going on there that I began to focus on for the next fifteen years.

In what way did you pursue it in the various compositions that followed?

Starting first with the idea of specifically interacting with another species. While there were a number of other works that dealt with acoustic resonance and similar kinds of ideas, the next major work that really began to address that question was a work called *Mimus Polyglottos*. The idea was to focus on that property of sound making as something that would emerge from the interaction that was occurring in the environment. The focus was on one particular species: the Mockingbird. The name of the piece is the Latin name of the species. They are probably the most spectacular mimicking bird in North America. One thing that they are noted for is their ability to imitate mechanical sounds. I've heard them imitate the sounds of broken washing

machine motors or the sound of a Volkswagen engine that needed a valve job. Of course they also imitate the sounds of other birds. I used to live on the edge of a place in San Diego called Florida Canyon in the center of the city; and at the other end of this canyon is the San Diego zoo. I remember one morning being awakened by the sound of monkeys in my backyard, and thinking, "oh my god, monkeys have escaped from the zoo." In fact it was the Mockingbirds who travelled up and down this canyon. They would learn to make these monkey sounds and carry them back and forth. What really got my interest was the idea of focusing on the possibility of interaction, and to use sound (as it's constituted in music) as a modelling for this kind of interaction in order to provide evidence of the actual intelligence of the bird. Rather than trying to exploit the sounds of the bird, I was interested in trying to challenge the bird's ability to mimic these sounds that are so foreign to its environment. Even though Mockingbirds have been extensively studied, there still is not a convincing theory as to why they mimic other bird calls to the extent that they do. You can hear much of the song repertory of other North American birds occurring in Mockingbird songs. So the idea was to really try to challenge its ability to mimic in the natural environment. The result was quite spectacular. The sounds were electronically produced square waves, which are about as unnatural to our ears, as aggressive and mechanical as is imaginable. I would go out at night, around three o'clock in the morning, during their mating season. The males sit stationary in trees and sing all night. I set up a loudspeaker and played back a stimulus tape. It was a pre-recorded tape because I didn't want to be accused of reacting to the bird. I wanted to see what the bird's reaction would be to the stimulus. There were certain attributes to the tape, ratios of sound to silence that were somewhat imitative of the kinds of ratios of sound to silence that the Mockingbird's song has. It was also within the frequency spectrum that Mockingbirds generally exhibit. We played it to the bird and instantly the bird started to imitate and match pitches there appeared to be some form of improvisation around this foreign sound source. From that point on, rather than concentrating on a single species, the idea of mind in nature was what really captivated me. My interest was less about notions of music per se, or creating music, than it was with using music as a model for providing evidence of minded systems in the natural environment.

You mean that a mind in the environment would express itself sonically?

Exactly. I think that's where my work parts company with a lot of the major thrust of experimental music that has been concerned with the acquisition of nature sounds (bird calls or whatever). The lineage that extends in experimental composition through Cage, and the idea that the sounds are a potential resource for the composer. While I think that that position is aesthetically defensible, the tendency in Cage's work, and a lot of people who followed him, was to decontextualize the sounds. My interest has been in recontextualizing the sounds in a serious interactive manner, to go back into the environment and to try and establish systems for providing evidence that these sounds are not just materials for human musicians. These sounds are the evidence of purposeful minded systems of communication. These things have an integrity that is part of a huge fabric of life. While they may be useful in terms of expanding our

concepts of musicality and the materials of music, I think there is something more profound that needs to be examined. It's precisely this idea of communication and how to recontextualize our understanding that concerns me.

The fact that you use the word communication can suggest that what you're doing is establishing something that you might call language. Is that correct?

Yes. One of the major issues is not so much looking at human linguistic structures per se, but rather at the idea that music has been a kind of conserving strategy for ways of communicating that are related to human linguistic structures. The characteristics of those things that we call music as a human activity throughout the trajectory of our species, have been closer to how other forms of life may communicate. In some sense I believe that music has been a way of conserving just that way of interacting with our world. When you look at what we call the music of many indigenous peoples in the world, they often exhibit a lot of those characteristics. Certainly it is about social interaction, but it is also about social interaction in an environmental context.

Where humans place themselves in an environment, communicate with it, and are part of it, rather than stand apart and (as some sound recordists seem to do) pretend that they're not there.

That's right, and I want to be totally up front about that. My work is about making it clear that my presence is part of that. I can't remove myself from that process of observation. What I am trying to do is create interactive situations which encode the process of observation as part of the interaction, and make that self-evident.

When you talk about the mind of an environment, do you mean by that the very species that are in that environment, that call together, and that together constitute something that has an organisation to it, a kind of arrangement?

Absolutely. Music is a means by which humans give back and communicate to the totality of that mind. In the daily circumstances of life, we are surrounded with a fabric of sound that is the voice of a generative source. When we make music, it is to match the level of that. Music is about matching the fabric that speaks to us on a daily basis. Most of human music making throughout our history has been outdoors. It hasn't been made in cathedrals. That is a very recent circumstance. We may believe that we are somehow divorced from that generative source when we move indoors but I think that one of the meanings of music has to do with conserving that original intention. When we talk about spiritual aspects of music, what we are really doing is trying to re-stimulate, or trying to find some recapitulation to these other levels of music as a communicative source with the living world.

In what way would you yourself, as a composer, as somebody who puts together sounds, try to arrive at a language or a format to make this communication happen?

Well, that specifically involves a shift in the understanding of how we talk about language. Most of the traditional notion of language has been based upon a cybernetic model, input/output modes of communication, that somehow we are these signal-processing boxes in which signals come in and go out, and that there is an objective characteristic to language. I don't think that's true. I think language speaks us rather than us speaking language. We swim in this soup of language that is a heritage of our species, and we share that with everything that makes sound. That soup is also in us and we give voice to it. But it's not something that is objective in a simple sense. I think there is no such thing as a fixed meaning. We're always in a process of dialogue that gives rise to meaning. That's a dynamical process. In that sense, when I talk about environmental language, I am really talking about something that has to arise from an interactive circumstance. It's an emergent property. One of the most profound insights of scientific thinking in the later 20th century is this concept of emergent properties. There are these complexities which arise from apparently simple modes of interaction. They transcend the structures of what we would expect to be present by these interactions, and something much more complex arises. Just as life is probably an emergent property, so is language.

To set the record straight, when you use the word interaction, you mean something different than what people make it mean in computer related contexts.

Oh, absolutely. I think that's largely a misnomer as it's used in computer culture. What we are generally referring to in our computer is a constrained reality. Most software programs that are referred to as interactive are actually a box with limits imposed. We can move within and have some sort of apparent free will, but it's highly constrained and highly contrived. What I mean by interactivity is that which takes place between living systems. And, again, there's an occasion for something highly unpredictable and highly complex that can arise from these circumstances.

And you have enough experience with computers, using them in music and everything, to be able to say that?

Well, I am definitely not anti-technology. I use it constantly. An aspect of my work is to use these technologies in a way that they make these issues more problematic rather than simplifying them. I am very interested in the apparent contradiction of using hi-tech tools in a natural environment for a basic reason. Most of what we live in now is a technological environment. That's the status quo. That's the social ground which constrains us. The degree to which we understand these tools, is the degree to which we have freedom from them. If we don't understand them, and don't know how they work, we easily ascribe to them some mystical significance and belief that the machines are doing our thinking for us. I basically think they are trivial. But no more or less trivial than other tools. Please understand that my criticism is directed at most of the claims that I witness. I actually believe that there are valid forms of interactivity that involve machines, but very few.

To get back to this idea of communication within environments, do you have examples of that in other compositions, how that works?

The chronological progression of a lot of this work gets very problematic. My focus began to move away from interactions with a single species to the idea of these complex interactions where mind is seen as an emergent property of a large ecosystem or habitat rather than just the interaction with a single species or a single member of another species. The evidence for that is what is encoded in the sounds themselves. The shift of interest began when I started to realise that what we call music is, again, the sonic fabric which emerges as evidence of this property of mindedness. That's where I began to focus. I began to set up these circumstances for interaction which would involve very large open areas and multiple species and multiple situations to give rise to something similar to the archaic idea of an entelechy or spirit of place. My focus then became to provide evidence for that by participating in the location over a longer period of time. Much of this work does not sound musical per se to the average listener, and it wasn't conceived musically. But what is evident is the complexity that arises and that complexity has a fundamental integrity that is similar to a musical experience.

Can you give examples of that in pieces that you did?

There's one project called *Entrainments 1*, where I simply started out by playing an oscillator in a forest location. This stimulus was completely foreign to the location. Beginning with something that is in some sense an intrusion, but not a destructive intrusion, then allowing time to see what will happen in terms of this intrusion, documenting that, and then building upon the response that may occur. In the case of *Entrainments 1*, I simply sat in a location and played a single sine-wave oscillator, optimizing the acoustical resonance of the location. It was just a very simplistic procedure, the frequency being manipulated over an hour's time. Twenty minutes into doing this, a Blue Jay came and flew within a foot of my face, and started to scold me. *(laughing)* It was very aggressive and very focused, I assume in response to the sound that was I was making. The next step was to build upon that in various levels over time. I took that recording, the Blue Jay with sine-wave oscillations, and fed that back into the location, doing subsequent re-recordings over time. Each layer became a document of the changes that accrued to that. The project also involved another level, where I took a poet friend and had her sit in that location. Her stream-of-consciousness description of that place was used as another source material. That psychological process became an encoding of some aspect of a larger mental process. All these things were mixed at various levels, and repeated back. It took several months to do this piece, to build up these layers. By the end it began to function as a chaotic attractor, a basin of attraction to the wildlife that existed there. Rather than being repelled, they were being attracted. I'd add a layer and I'd see these wonderful numbers of birds flying into the location and just listen. The process provided me an occasion to see something I never expected. The other interesting level is how we assume these technologies to be unnatural. In fact, the natural world, other forms of life, find them as fascinating as we do. These are things that I do not necessarily understand. They are just things that I observed. I don't ascribe

to them some sort of mystical quality, or pseudo-spirituality. This work was a very didactic process, to simply see the transformations and changes that can occur. It is probably similar to what humans have always done as part of the heritage of what we have called music. I don't make claims for this being something extraordinary. In fact I am making claims for it as something highly ordinary.

Do you still make such pieces?

I haven't for several years. I plan at some point to go back to that, but the frustrations I began to feel were twofold. First of all, I was interested in trying to push these things, so that each piece became a kind of progression of focusing on these issues. I see no point in repeating the same kinds of things over and over again. I basically took it at that time about as far as I could. The next step necessitated a greater sensitivity in myself, a greater knowledge in terms of what I was observing, and in terms of my need to understand what I was observing. This involved my moving in the direction of looking more at human language and how consciousness is encoded in terms of that. That has been much of my work in recent years, and that is a kind of preparation for taking the previous work to another level. The second aspect was the need for greater refinement in the nature of the tools and technologies that I was using. At some point I stopped being interested in using things like traditional musical instruments. While there is a tremendous elegance and beauty to the acoustical characteristics of human musical instruments, there was something that just felt contrived about having a clarinet or trumpet being placed into this circumstance. Even though they are quite convenient, and there is a certain facility available in terms of the skill that a good instrumentalist brings to that, the level of contrivance became too jarring for me. The latter works only involved human voice, simple speech language itself as a pathway to interaction; and electronic sounds, for the speed of processing that could occur. But I was even more interested in trying to use what was there in the environment. That began to move in the direction of the last project called *Sonic Mirror*, the idea that these technologies could afford a level of macro self-reference to the environment itself. *Sonic Mirror* was definitely a utopian proposition. The idea was to build a stationary cybernetic sound sculpture capable of processing acoustic data within an outdoor environment. My hope was that the sculpture might eventually function as an autonomous system, structurally coupled to its environment such that learning between machine and environment might take place. After going through several major attempts at refining these technologies, I began to feel that the technology had not reached the point that I needed it to be at. It still is not at that point, at least to my satisfaction. But I think it will be, and at that point I will probably continue with that work. But when I do, I will hopefully have another level of understanding because of the other work that I have been doing.

Have you done other work in relation to natural environments?

I have always had an interest in sound recording. I've worked off and on my whole life as a professional sound engineer and recordist. One of the things I have always been interested in is nature sound recording. It provided a way of paying the rent. At this

point I have very mixed feelings about that kind of work, for a number of reasons. First of all, we have a tendency to confuse the map for the territory. These kinds of recordings are often put forth as some sort of preservation action, when there's actually nothing being preserved. We might be able to talk about preserving an ecosystem, because living things are still alive, and we're trying to optimize the conditions for their survival. But when you're making a sound recording, you're not preserving anything except an illusion. It's a technological projection, a construction that is no more real than if I was to make a drawing of that location. There's nothing real being preserved. It's a flattening out of the complexity of an acoustic environment. It's just sounds that ultimately are energy patterns that have been put onto a storage medium, so that we can later make a loudspeaker cone move in space. And I find it actually offensive when so much of this soundscape work makes these claims for environmental activism. I think it's nonsense. In fact it often does the opposite. It actually misdirects people away from the reality and imposes this contrivance as if it were real. That's the mixed feelings. However, I do think soundscape recording can be a successful aesthetic medium like photography. It can tell us something important about the world if it is put forth honestly.

You made a guide for listening to natural environments. Is this the subject matter of that book?

Very much so. It was a two-edged thing. First of all, to try to talk about my own particular slant on what the sounds of nature mean, more as a strategy to sensitize people to the process of hearing life in general. The other edge of that two-edged sword was to make it very clear that the recordings themselves are these contrivances. That they are not a substitute for the reality. And if one is really interested in preserving that reality then get involved at a political level or join Earth First and do something about it. Most of the time, what you hear in these recordings is someone who sat long enough between periods of airplanes and cars passing that they can get something that appears to be a pristine recording. To put that forth as the reality is a lie.

That example that you just gave of a person sitting there, putting up his microphone and recording a span of sound in between cars passing, that is part of another record that you made, where you tell that that is what you did.

Yes, I make that very upfront. That particular CD, called *The Lion In Which the Spirits of the Royal Ancestors Make Their Home*, was a byproduct of a trip to Africa where I was on assignment to do waterhole habitat recordings for zoos. In the process of doing that, I recorded a bunch of other sounds that were much more interesting than the so-called pure nature sounds. All the sounds on that CD are basically problematic. The piece was composed to put forth a veneer that would appear to be another set of nature soundscape recordings, when in reality, if you listen closely to all the sounds that are present there, every one of them is problematic. They aren't at all what you first think they are. For instance, there is the very beautiful sound of a waterhole in Zimbabwe, both at night and during the day. There are frogs and lions roaring, and it appears to be

the natural environment. If you listen very closely, you hear a little thread of water running in the midst of the sound: kerosene driven pumps bring that water up from the aquifer in a game park. Without that human technology, the estimate is that 80% of the wildlife would be dead in a year. Humans have so altered this so-called wilderness, circumscribed it with fences, and created the necessity for the technologies to be there as a maintenance action in order to keep these things alive. What we're really listening to is global park and not wilderness. We're listening to something where the animals are in a very large zoo, but it's still a kind of zoo. The contradictions are rife. It's those kinds of contradictions that really began to interest me from a sound recording standpoint, rather than trying to record something as a pure environment that long ago ceased to exist. My interest has been the opposite, to use the recording vehicle to articulate the contradictions themselves.

There's also human singing on that record. Both the natural habitats and the cultural environments that are on this CD have this idea of not being pristine, of being in a phase of change, which is somehow in contradiction with one of these tenets that was always present in ethnography or anthropology, that you could freeze a culture and describe it in that way, whereas a culture and a natural environment will always be in states of change.

They will always be in a state of transition, and in order to even be alive they have to be involved in dynamical processes of change. So, what that CD was really about was documenting something about the processes of change, rather than illusions about what African society is, or what African environments are. Somehow the West, the First World, looks at the Third World and thinks that these things all need to be preserved in some simplistic manner. I think that the Third World is probably the place we should be looking at for many clues about cultural change that may be part of our own future. What I am really focusing on is not some Romantic notion about traditional African religion or environment, but rather about the complexity of cultural interactions and collisions. That has traditional aspects, but it also has aspects which are completely unpredictable. It's something of such extraordinary complexity that our Romantic views just are not operable anymore. And that's what I find interesting.