ENVIRONMENT, CONSCIOUSNESS, AND MAGIC:
an interview with David Dunn by Michael R. Lampert
(1988)

ML: For a composer to arrive at the point where you are today, it would be a very long journey if you started from a traditional European background. Your background appears to be different, since you started studying with Harry Partch at a young age.

DD: Actually, my initial training was classically oriented: I started out studying the violin as a child. I probably started composing in a serious manner at the age of fourteen.

My interests, even in the very beginning of my compositional career, have always been fairly eccentric. Even though I was writing serial music and Stravinsky imitations, I was always doing "oddball" things at the same time, which led to an interest in electronics and tape music. I also developed an interest in Partch's music at that time. When I was seventeen years old, I made the point of going to a particular university with the specific intention of connecting with Partch. I really wasn't interested in the university per se, but Partch's main assistant taught there, so I enrolled in his theory class. Within the first year of college I began working with Partch and studying his music.

ML: How did Partch's use of pitch materials interact with your work in the electronic medium?

DD: Perhaps it did in an indirect way. Probably the first coherent style that I tried to work in was serialism. I wrote a twelve-tone

quartet at age sixteen and tape music came immediately after that. I was mostly working with *musique concrete* at that time, taking sounds from instruments and the environment and transforming them into short tape pieces. The association with Partch was inspiration to think beyond these established ways of making music.

ML: How long were you associated with Harry Partch?

DD: I was an assistant to him and worked intensively with him for the last four years of his life, from 1970 to 1974 when he died. I performed with him primarily for the film *The Dreamer That Remains*. I was living in the basement of his house, assisting him in the process of preparing and tuning his instruments. He was quite ill at this time. Under his tutelage I was primarily serving as an instrument technician, but I was also working as an assistant on a variety of levels. He called me his "factotum."

After Harry died, I continued to be very involved in performing his music until 1980, which was the last public performance which I took part in. This was a series of performances we did for the Berlin Festival, and a live broadcast on West German Radio of Partch's composition *The Bewitched*, a dance-theater work.

ML: How did this powerful early contact with Partch influence the way you thought about music?

DD: That's a good question. It certainly influenced me in a way that I would not have considered at the time. I was passionately interested in Harry's music, yet my work bears very little semblance to his except on the level of a sort of "rugged individualism." It has to do with experiencing Partch's dynamic personality and imagination at an early age. I not only saw the beauty of that, but also the pain and suffering that can come with that type of gift. I couldn't be very naive after having seen what Partch's work meant to him, both the beauty and accomplishment it represented, contrasted against the extreme

difficulties that Harry encountered during his lifetime. His particular path was unique: it was neither popular nor academic, and it never really had a place in the world to reside within.

Harry's support system was always ad hoc. He could never really count on anything or anyone, with the exception of a certain amount of patronage that was given very generously by Betty Freeman, at the end of his life. Except for that, he received some small grants and support from a few private foundations and academic institutions in a very limited way. Oddly enough, it often wasn't the music departments which helped him. At certain points his work was supported by linguistic departments, engineering departments, et cetera, at odd numbers of different universities. For the most part, Harry supported himself his entire life doing menial work. He had been a migrant farm worker, a newspaper proof-reader, and during the Depression he was a hobo. So he really didn't have a support system and he really didn't want one if it meant compromising his work. He wouldn't have turned down support but it had to come in a form that he felt was honest. He never made his work conform to a pattern that was academically or popularly acceptable. This was certainly a very interesting role model for me. The only way that I could be authentically influenced by him was by making the choice to strike out on my own, whatever that meant.

My music is not like Partch's--I'm not involved in the same issues that he was, except in a peripheral way. In any case, I operate under a different set of criteria, to the point where so much of what I do today strikes out beyond the boundaries of music per se. However, while it is outside of what many people consider to be music, I certainly see it as connected to a lineage or tradition of music-making. At this point, I am more interested in seeing how music informs a trans-disciplinary perspective.

ML: Experimental music is very often a synonym for avant-garde music, yet your music seems to be truly experimental in the sense that you are actually conducting experiments in the

sonic medium. Does the term "experimental" fit your music, and how do you feel about the term in general?

DD: I think that it refers to a school of thought that has tried to differentiate itself from what was previously known as the avant-garde, and after that was known as "new music." For the most part, new music is now part of a traditional perspective, and is largely academically acceptable. It comes out of a school of thought that was popular in the sixties and seventies which has now become quite influential, even in terms of popular music. A composer like Philip Glass has a tremendous popular following, equivalent to someone like Aaron Copland or Leonard Bernstein during their respective generations.

ML: Socially acceptable...

DD: Yes, and while I'm not particularly a fan of any of these composers, it is evident that their appeal is quite broad-based. Glass appeals to a very diverse public, one that listens to rock and roll, new-age music, even jazz, in addition to the ethnic music that has gained in popular interest during the last decade. Leonard Bernstein had a similar appeal, certainly with a piece like *West Side Story*, which was concerned with very diverse musical idioms.

I feel that the new-music community has purposively moved into that realm. I see the New Music America Festival as an attempt to try and establish a more broad-based support and interest for the kind of music that was considered very fringe during the sixties and seventies. It's a very diverse set of musics that fit in with that: experimental jazz for instance, or the music composed by Pauline Oliveros, Alvin Lucier, and Robert Ashley. Much of this parallels the continuation of integral or total serialism, in addition to other types of music that were associated with academic institutions on the east coast or in Europe. All of these distinctions are now a bit blurred. I see my work as somewhat outside of these traditions, even though I was influenced by all of them.

What I specifically mean by the term "experimental music" is similar to what experimental refers to in the scientific sense. I'm not making a claim for "doing" science, but I am making a claim for the relevancy of certain activities within the domain of an experiential exploration of sound and consciousness from a trans-disciplinary perspective. What I see as experimental is that I'm actually trying to create experimental situations, the outcomes of which are uncertain. This is not John Cage's indeterminancy where partially controlled situations allow for certain kinds of musical results. His results may or may not be predictable, but there is a certain kind of gestalt which is predictable, a certain type of mannerism towards shaping sound which is characteristic of Cage's work. His musicality is amazingly sensitive and consistent.

In my work I set up an interaction with the environment, using sound as the vehicle or the medium by which the interaction unfolds. I do not know what the outcomes of these interactions will be. This process has been accused of being unmusical and that may very well be true. However, for me, the final outcome is the area of true interest. I'm interested in gaining information from an experimental situation that can't be arrived at otherwise.

ML: You also studied with Kenneth Gaburo.

DD: I consider Kenneth to be my main teacher.

ML: As I understand it, Gaburo's work is often involved with linguistic theory, the interplay of acoustic and electronic sounds, as well as other concerns, all coming from a composer with a traditional background, yet experimental in a certain sense. How does this inform your work?

DD: The major focus of Kenneth's work, to give a very brief synopsis, has been the interrelationship of music and language. He attempts to explore what the boundaries are, while trying not

to make assumptions about any dichotomy between these two phenomena. He often specifies a multiplicity of languages, musical and otherwise, that are contrapuntal in their organization, thereby creating a synergetic resonance that is expressive. This influenced me a great deal, and I was interested in studying with Kenneth so that I could have access to his thinking about language and music. I felt that there was a specific gap that I needed to fill concerning my interest about the physical environment and music. The assumption was that there were certain connections between language and the sounds of the wilderness as a linguistic phenomenon. Studying with Kenneth helped me to formulate some more concrete directions regarding the exploration of this relationship.

ML: Kenneth Gaburo's work, while very experimental, is still presented within a more traditional "concert" setting. On the other hand, your music is tending more toward the sacred domain of pure science. Do you believe that music may be able to intuitively "pre-create" the results of more rigorously scientific experimentation, and how does this relate to your current work?

DD: Xenakis has made claims that musicians haven't really known what they were working with, in the sense that certain kinds of formal mathematical concepts were worked out intuitively by musicians long before they were actually mathematically formulated. I have a feeling that certain kinds of intuitive leaps can be made within the boundaries of what I'd call art that are relevant for science. In this case, I mean art as a way of engendering an exploratory perception of the world. I think there is now a general feeling of constraint with the traditional roles of both science and art. They are looking to each other out of desperation.

Part of science's particular problem is its assumption of objectivity, trying to posit a world that is non-participatory, where the scientist is trying to diminish or negate himself from the process of observation. I've been interested in systems that involve what historian Morris Berman has termed "participatory

consciousness," referring to a distinction between the world-views of the Middle Ages and the modern world. What differentiates most cultural views prior to the seventeenth century is that they rested upon an assumption that the observer was not separate from the thing observed. This is a very old tradition and the most active continuation of it is occult science.

ML: Does art then offer an alternate view of reality?

DD: Not really. I operate under the assumption that these things aren't separate. For me, the aesthetic response is what Gregory Bateson referred to when he said, "beauty is the pattern that connects." I interpret that to mean that the aesthetic response, the perception and apprehension of beauty, becomes a sort of resonance: we see and feel our own individuated mind expand to include something that we previously didn't assume to be part of us.

ML: Referring to the larger Self as the pattern that connects, I can see a certain continuity in your thought regarding the identification of this larger state of resonance with the environment. In Cage's work, the emphasis has been shifting from the smaller self as a composer to the larger Self as a participant in and creator of larger structures that dwarf the individual. Does your work fall within this Cage-inspired lineage?

DD: There is a certain American tradition that is connected with Cage's indeterminate processes. I certainly see that what I'm interested in would not have been possible without Cage's contributions. Cage wasn't alone in this, he has been a major figure in the movement to expand the use of musical and sonic resources to include an emancipation of all sound. But in this idea's articulation, there's still the feeling that these sounds are merely materials to be used for composition. Cage wanted to abstract the sounds and allow the sounds to be themselves. I'm interested in understanding a sound and its context as part of a purposeful, living system with attributes of mind.

For certain composers, their interest is in taking these sources as raw material for manipulation. I'm interested in regarding these as conscious living systems with which I'm interacting. It isn't to manipulate the sources and create "groovy" sounds that no one has ever heard before. I want to regard these sources as sentient beings and their sounds as the evidence of complex-minded systems. The compositions then become a process of setting up an interactive situation in order to create a collaborative work that is evocative and representative of a larger system of mind inclusive of myself and other living systems.

ML: Such as in your composition *Mimus Polyglottos* (1976)?

DD: Yes. In that project I worked with a single species. I spent a year studying the mockingbird, *Mimus Polyglottos*, which is indigenous to the southern United States. These birds are extraordinary mimics and will often change the sounds they are imitating in seemingly creative ways. I've even heard them mimic automobile engines and washing machines. The compositional process was to find a stimulus that would be close enough to the bird's own song yet challenge the bird's ability to mimic. I used an electronic sound source and recorded the interaction in realtime. I regard it as a successful composition because it was a coherent language construct that creatively included the bird's cognitive apparatus.

ML: David, in your compositions there has been a very interesting progression of notations used. Starting with mostly standard electronic diagrams as in *Mimus Polyglottos*, you changed to large, semi-determinate spiral struc-tures such as those used in *Ring of Bone* (1981), and then in *Entrainments 2* (1985) you used topographical maps with oscillator, microphone, and performer placements designated. This seems to be a largely indeterminate type of notation.

DD: Actually, this was mainly a descriptive type of notation, a recollection of something that was largely word-of-mouth. In

some sense the environment specified this notation. The score itself is a way of representing the structure that unfolded interactively.

ML: Is notation adequate for the type of work that you're doing now?

DD: It depends on the project. The chronological sequence that you refer to was not a conscious exploration of notation itself. The notations reflect different ways of working with the environment or language over a number of years. Some of these pieces that you refer to, *Ring of Bone* for example, have these spectacular scores that result from a sort of "genetic engineering" of language, a recombinant linguistic DNA constructed of phonemes. I analyzed a text in precise detail and then constructed the composition out of pattern relationships embedded in macro- and micro-levels of structure. There's no traditional way of notating those kinds of complexities, and I'm a firm believer in the idea that the process of composition should determine the notation. These pieces aren't about twelve tones to the octave, or anything like that.

ML: Yet you use vertical structures to represent pitch and horizontal to represent time.

DD: Not necessarily. In *Position As Argument*, for text recitation, violin, and tape, the violin part can be entered into at any point, top or bottom, right or left. However, there are very specific rules as to how you can proceed. It's almost like a subway map and the pathway is up to you. At the same time there are severe constraints. While you can explore any path you choose, over the course of the piece you have to exhaust all of the possible pathways. It combines determinate and indeterminate aspects.

ML: In *Position As Argument*, the violin part was derived from a verbal text, using an analysis of the information as the basis for your derivation. What method did you use?

DD: This involved taking the text and breaking it up into its phonetic components, and then analyzing the structural relationships between all the available phenomena for an entire segment of text. I then traced these out and assigned a carefully chosen equivalent violin sound for each individual phoneme. After that, I created a matrix by tracing the unfolding of a particular pattern. For example, where you would see a particular word in the text, you could also find the same word in a different time domain, imbedded throughout the text and distributed in a manner that was previously invisible.

ML: So the words are found, matched with violin analogs to the phonemes, and distributed like a crossword puzzle throughout the text, up and down, backwards, and so on?

DD: Sometimes. Any particular word within the text falls within a linear order. It has a syntactical sequence. Most of the words in the text could also be discovered by connecting the phonemes between the words. Take the word "the." If it occurs three times in the text in its normal sequence, you may also be able to find the various phonemes which make up the word imbedded in other words. The sequence of those imbedded phonemes seemed to be meaningful because of the patterns that would pop out of the texture.

ML: And by using the analogs, the patterns become more discernible?

DD: Yes. It's also a way of structuring the composition as intrinsic commentary on the text.

ML: Yet the use of phonemes in this composition is different than in *Madrigal* (1980), for example.

DD: Yes. In *Madrigal* I was using phonetic notation for a different purpose. I recorded one minute of environmental sound and transcribed it through learning to articulate each sound vocally: birds, insects, airplanes, and whatever else took place during

that one minute. After finding a way to reproduce each sound with my vocal apparatus, I'd transcribe that sound into English phonetic symbols, with additional signs. I then organized a piece of music for voices that consisted entirely of that transcribed source combined with electronic transformations of the original environmental recording.

ML: The use of the term madrigal for the composition's title is certainly appropriate given the propensity of the early English madrigalists to use the sounds of birds and other animals within their vocal compositions.

DD: I certainly saw that piece as a continuation of that tradition.

ML: In listening to your latest composition *Sonic Mirror: Simulation 1*, I was perplexed with the overall steady-state soundscape, juxtaposed with a highly unpredictable interaction of sound sources. How and why did you create this piece?

DD: I'm involved in creating a set of simulations for a very large utopian project. This is an expansion beyond the level of interaction with large ecosystems that has occupied me: connecting ecosystems with other ecosystems and applying telecommunications technology to the nonhuman world. What *Sonic Mirror* will ultimately be is an expansion of the interactive digital technology that I've been involved with on a limited scale. I want to create a stationary cybernetic sound sculpture which will be satellite-uplinked to similar sculptures in other locations. The idea is that such systems would function as sonic mirrors processing electromagnetic data from a particular environment. The sculpture might function as an autonomous entity that interacts within an autonomous environmental intelligence. What interests me is this process of interactive reflection back into the environment. I think of it as applying current technology toward the rediscovery of natural magic. This is a great tradition that uses elementals as a ground of power. In my

case it is a marriage of music and electronic technology which serves to invoke an archaic relationship to nature.

Now that's a pretty wild idea, right? [He laughs]. Since I feel a sense of responsibility about this, I've started by creating simulations of these technological-environmental-human interactions. I've used recordings of the environment in a studio situation where I've had sufficient technology to work with. Eventually this technology will be made portable so that it can be used outdoors in the environmental context. The recording you heard was the first simulation that I've done. This involved taking a recording from the Cuyamaca Mountains in San Diego County and running that through electronic devices (analog and digital) to create a series of pattern tracings which are entirely determined by the environment itself. In a sense, I'm trying to remove myself from the situation as much as possible, allowing the audio recording of the environment to control the sound technology. I then interacted with these patternings in real-time using another computer system and digital sampling device.

ML: Were the sounds that the environment triggered chosen by you?

DD: I programmed the timbres.

ML: Do you plan to interface these systems with other?

DD: Well, these are really study pieces that are being developed in order to play with possible techniques. Ultimately, one ecosystem will interact with another eco-system, using satellite or balloon transponder technology.

ML: Is the concept of mind really applicable to the environment or is this the superimposition of human concepts upon nonhuman entities?

DD: One of the consistent assumptions of certain so-called primitive societies, the Pygmies for example, is that the environment is a living, cognitive entity. The rainforest is the support structure for a complex intelligence. The control mechanisms of the forest --what we now call an ecology-- they saw as a diety. The Pygmies call the forest "mother" and regard themselves as part of this more inclusive consciousness. There are very old models for this kind of thinking.

This concept of mind is also related to current scientific investigations in the fields of systems theory and cybernetics, not to mention the ecological philosophy of Gregory Bateson. We know that in a climax rainforest, for example, there are very involved homeostatic processes of self-regulation at work. This can be thought of as a coherent system in the same way that an individual human organism can be regarded as a complex ecology of subsystems, often with their own autonomy. It's hard to look at films of cellular activity in the human body and not have some sense that each cell has its own autonomous purpose. We are like corporate entities made of all these cellular communities.

The question of mind and the Cartesian assumption which negates it in other living systems is, for me, completely untenable. A new branch of science, known as cognitive ethology, rigorously makes the case for complex attributes of mind amongst animal life. Studies on bees imply that they exhibit complex patterns of behavior and communication that approach a high level of intelligence, or at least an intelligence far exceeding what we have previously imagined.

ML: And this holds true for vegetation also?

DD: There's certainly evidence that trees communicate through chemical signals. What that may mean in the larger scheme of these issues is still an open question.

ML: You've written about music being an unconscious replacement for destroyed ecosystems. For instance, there is a correlation between the rise of industrialization in Western Europe and the development of increasingly complex musical forms from monophony to massive symphonic structures.

DD: I've speculated that there may be a relationship between these two phenomena. I've wondered if there is some connection between the loss of environmental complexity brought on by the rise of industrialization and the increased complexity of Western music as an attempt to recapture a lost complexity of environmental sensation.

My assumption has been that music is a very important activity, something that is pervasive amongst all cultures. My interest has been in seeing music as an archaic form of language, perhaps pre-verbal. There appears to be some connection between music and animal communication behavior that is very suggestive of an evolutionary continuity. One of my intuitions is that music is, in many ways, a holdover from our mammalian and reptilian identities. The model that I'm using here is Paul MacLean's triune brain theory. He hypothesized that new brain structures have subsumed previous ones throughout the course of evolution. His theory is that, within the human brain, interactions between the reptilian, mammalian, and neocortex are some-what insufficient. We may behave as if we have three different kinds of brains vying for control of the organism.

To think about music in this light is interesting. Perhaps music is a vestigial means of connection between our mammalian identity and our more rational cognitive apparatus. Perhaps it is a remnant of some communicative behavior appropriate for interaction with these larger ecological systems of mind. It might be a means to reaffirm that continuity.

We consist of these subsystems, each of which may require a certain range of environmental conditions in order to maintain a stable identity. The biospheric disequilibrium which

industrialization has engendered, through destruction of environmental complexity, must be sensed internally by individuals. As we've increasingly become creatures of the urban milieu, perhaps we have used music as one of the means to stabilize these archaic aspects of the human mind. It becomes a compensation for our alienation.

ML: Does the evolution of your music from *Mimus Polyglottos* to *Entrainments 2* signify a reintegration into these systems that we are disassociated from, via the conscious manipulation of sound?

DD: Possibly. The shift of emphasis has been a progressive expansion of context: moving from interactions with a single member of another species towards interactions with complex environments. I've tried to expand the sense of "mindedness" that I've been working with. *Entrainments 2* was the first one of my projects that had an audience in the traditional sense --with approximately fifty people present at the performance. It also involved a wide variety of life forms and human interaction with the environment. There were people moving through the space with electronic sound generators and a computer set up to process the environmental sounds in a cyclical manner.

It was influenced by the ancient Chinese geomantic art of *Feng-shui*. Geomancy was used throughout the world as a process of articulating a balanced relationship between humanity and the environment. The Chinese believed that the Earth has lines of energy flow throughout its body in a manner similar to the acupuncture meridians mapped in the human body. I'm very interested in these archaic systems of understanding environmental balance: seeing ourselves as an intrinsic part of larger systems. I would be happy if my work serves no other purpose than to suggest ways in which we might rediscover this sense of fundamental connectedness.

ML: Your work suggests that it may be possible to understand and communicate with the environment through the use of technology and linguistic systems.

DD: Well, I don't see it in terms which are that cut-and-dried. I'm not making any claims for being able to take an environmental recording and decode it for hidden messages. I'm probably closer to the ancient Greek oracles whose messages came in very ambiguous forms. I feel that we have to redefine our relationship to the environment in a way that is life-enhancing. This is not just for the sake of wilderness preservation. It is also a very human issue because our lives depend on the maintenance of the whole system. This idea of environmental language isn't really language in the sense that there's a code that needs to be broken. I'm referring to language in the sense that we're engaged in a coevolutionary scenario. We need to compose processes of interaction which will help reestablish a saner balance of humanity within the biosphere. The language I'm envisioning is an experiential, dynamic process that explores whatever tools and metaphors are available in that direction.

ML: And this would include music and music composition, with the types of intuitive thinking which may be engendered by those activities?

DD: Sure. All of these may provide clues. I have no desire to go back to archaic forms of music in order to reestablish this balance, just as I have no desire to go back to archaic forms of religion. Given who we are in the twentieth century, and the peculiar perspective that we have as residents of this century, we wouldn't be satisfied with returning to archaic ways of behaving. But there are clues provided by all of these things, and I think that it's necessary to examine them, and whatever else we have to find our way out of the mess we're in.

Gregory Bateson's statement that "the experiment to live without religion has failed" is a very profound one. To me that doesn't mean we should go back and embrace old forms unconsciously. I

think it means that we have to create a religion appropriate to the circumstances that we are living in.

ML: And the same for music?

DD: Yes. What I'm really expressing is a spiritual and ethical imperative. The point is not whether someone is making "good" music. The question is: to what use can we put music that is life-enhancing? That may mean not making music in the manner that we're used to. It may mean dropping music altogether. In either case, within this immense cultural history which we call music there may be clues for our continued survival on this planet which only music may provide. My intuition is that music does offer clues towards our survival, and I'm much more interested in that than in being a composer.