

An Interview with Eliane Radigue

by Bob Gluck

Eliane Radigue is a French composer of electronic music and a student of Tibetan Buddhism. Her work has been played in galleries, museums, on the radio and at festivals throughout the world. I spoke with her by phone as part of an oral history project regarding the electronic music studio at New York University, which operated during the late 1960s and early 1970s. It began as Morton Subotnick's private studio, to which he invited composers to freely use. Our conversation began with her earliest work and continued through her time at NYU, her return to Paris, and a period spent at California Institute of the Arts in 1973. We then discussed her aesthetics, compositional approach, and rationale for her choices of synthesizers. The interview took place on November 16, 2008.

Learning electronic music in Paris

I was educated by Pierre Schaeffer and by Pierre Henry, at Studio d'essai in Paris. This was in 1955-57. There was no formal instruction at the time, and so I learned about tape editing, looping, and mixing techniques by doing actual

work. By that time, it was called *musique concrète*.

I had to leave Paris for family reasons and as a result, couldn't find equipment on which to work. Equipment was very expensive at the time. I returned to Paris in 1967, and Pierre Henry asked me to be his assistant. Doing this for a year brought me to what I really wanted to do. Working with Pierre Henry, you really come to know about the tape medium. Henry was working with recorded sounds and he saw himself as a "hunter of sounds."

Exploring tape feedback techniques

By this time, my interest in electronic sounds was growing, particularly in feedback effects that happened between two tape recorders or when microphones and loudspeakers were placed in proximity. Several musicians, like David Tudor, were already doing this at the time. Learning to keep a microphone and speaker at the right distance apart was something that evolved for me. By accident, I discovered that you could slightly change the sound by putting one finger very lightly on a knob on the recording system. Learning to control the accuracy and care of sounds in these ways gave me a way of working and thinking about sound. I was fascinated in particular by the sounds produced by beats and the sensations that were produced by these means.

After the year assisting Pierre Henry, I started working independently. I gave up composing by means of recorded sounds. I was now mainly using electronic sounds produced by the relatively primitive means of the time and recording them. This musical vocabulary led me to a new type of work. My appreciation of beats and other natural effects grew.

In New York City and the NYU studio

I started going to New York in the early 1960s. I was married at that time. My husband, a painter and the father of my children, once brought us there on a one-year contract with a gallery. I got to know James Tenney, who became very important in my life. Through him I got to know David Tudor, John Cage and others in the very active, intense New York life of that era. I went to music or dance concerts every night. The artists Bob Rauschenberg and Andy Warhol were my friends. I came to know Steve Reich, Phil Glass and Jon Gibson. During the time when I met them, Steve and Phil were working together.

It was a few years later that I again lived in New York, from September 1970 to June 1971. It was then that I worked in the NYU studio. I lived on the Bowery, near 8th Street. My life was divided between time in my loft with my children and time in the studio. I had a French

friend who was married to an American man, and then there were my children. Sometimes, composers would invite people to their studios for rehearsals. But except for visits from friends, I didn't have a life beyond the studio and my children.

Discovering the Buchla at NYU

Steve Reich introduced me to Michael Czajjowsky, who invited me to the studio at NYU. I wanted to go there because it had a modular synthesizer that was accessible for use. Where in France could you find one [of those]? Laurie Spiegel and Rhys Chatham were there during the same period and we crossed paths in the studio from time to time.

Meeting the Buchla was the beginning of a great love affair. Oh my God! The first three months were difficult since there was no documentation. I had seen Michael Czajjowsky work at it only once and I hadn't yet met Rhys Chatham. The difference between working with audio on tape and voltage control, interconnecting the plugs and modules: the simplest thing required new learning. Of course we all knew how to use tape recorders. But it took three months to make our own discoveries; it took that much time to sort out what I wanted from the effects that I rejected. But sound was easier to produce with the Buchla than it was with tape. My goal at the time was to work and tame the synthesizer. My first piece on synthesizer

was played on April 6, 1971 at the New York Cultural Center, on 59th Street and Central Park South. It was called *Chryplus*.

There were not many opportunities to meet the other people who worked in the studio. Except for brief, occasional meetings at the door, we didn't see one another. We blocked out our studio times on a scheduling board on the wall. We had to be ready to leave when the next person arrived. I got to know Rhys and Laurie because they came to my concert at the New York Cultural Center. Rhys called me afterwards to say that he had come just to be polite, but really liked it. After that we got together very often, going together to events here or there. I remember one of those concerts, which took place in a swimming pool. It was by the wonderful musician Max Neuhaus.

Through Rhys, I had my first of several annual concerts I did at The Kitchen. It was then in a very small place on Mercer Street, near Washington Square, before it moved to Broome Street. The piece played was *Psi-847*. I also got to know Tom Johnson, who reviewed my concert in the Village Voice. I found the way he wrote about his experience about sound to be very interesting and so I sent him a note thanking him. That's how we came to be friends. I remember hearing a piece of his played by bassist Joelle Leandre,

and later in Paris his *Four Note Opera*, which is such an intelligent work.

Returning to Paris

By the end of my year in New York, I realized how hard it was to live there. New York is a tough city. I found the neighborhood where I lived, between Spring Street, Washington Square and Eighth Street, to be charming and exciting. There were many opportunities to go to concerts, sometimes classical, and these were important to me. I remember coming back at night and enjoying the changing sights, the subways, and the metallic sculptures at Times Square station. I had a very good time. I loved the people I met and now my very best friends are mainly from New York or California. But life was too tough and I missed Paris.

Something inside me said that I had to put my roots where they belong. I realized that I was not only French, but in fact, Parisian. My daughters didn't want to live in New York and my mother was in France. In fact, when I was living in New York, I had to return to Paris every three months, just to breathe the pollution of Paris! And so, although I found Paris to be a provincial city upon my return, it was so nice to be back and live there. Until then, I had thought that I could live in any city in the universe, but that's absolutely not true. I was disappointed in myself, but I had to go back, and I did so in June 1971.

Since my son loved the United States and decided to live in New York, I returned nearly annually. I've made many extended trips, sometimes as long as three months at a time.

Choosing the ARP synthesizer

Once I discovered that I could really work with one of these instruments, I looked around at every type of synthesizer available. I decided that the ARP synthesizer was absolutely it. Ever since then, it's been my instrument. Here's why: on the Buchla, it's not easy to keep track of how you've connected the patch cords (all the spaghetti!) and set the position of knobs on the modules. The slightest change would change things. I had my own system of graphs to remember which modules were connected to one another, but it was not easy to remember where you were at a particular time. I liked the way the Buchla sounded; it was a really beautiful instrument of that generation. The Moog was easier to use, but I found the quality of the sounds to be less subtle.

The ARP has very nice sounds, and this was the most important thing. It has very delicate modules, and it is easy to use. The system of matrix switches that interconnect the modules is almost like a musical score. At a glance, you knew where you were and what it was controlling, without going in search of knobs and modules. The only thing I

didn't use on the ARP was the keyboard. It could have been useful for composing, but I didn't want to bring it back to France. What I really wanted to do was work with the sounds within the sounds, the parameters of amplitude, modulation, and the like; I was fascinated by working with sound. On the ARP, I found that very slight changes, such as moving a knob very slightly, just a little touch here or there, could result in almost unnoticeable changes in a sound. Also, the ARP filter is really the best I have ever heard. It's a very beautiful module. The ARP and I have been "married" for 40 years.

Tonal uncertainty and ambiguity

The instability of synthesizer oscillators was not a problem for me in the way that it was for others who were doing drones. One could have the same issues on the ARP. The fact is that the matrix switches leaked slightly and the sounds were not precise. But I loved that, since it brought in a kind of uncertainty. I was not looking for specific tonalities; I loved the ambiguity, which was a goal of my work. Of course you can always define a frequency range for the oscillators, but the resulting pitch could be ambiguous: maybe it's a G or an F#, or maybe it's an Ab. The music was floating and very slowly changing. And this requires time, patience, and great accuracy of listening and perception. I have always been very

fascinated by changing mode or tune, sometimes by accident. You can guess where you are, but maybe you are no longer in the preceding tonality. By now it could be another one.

I was also fascinated by the immense power of the partials, the natural harmonic series within a tone. Consider how a piano is made so the bass note produces this incredible energy around the sounds of its harmonics, floating naturally in their own intonation. There is no need for just intonation or equal temperament since the natural harmonics resound in their own way. Over the years I have worked with this, I've discovered that if the tuning is too precise, the result is flat. Two notes even less than a quarter tone apart produce some slight beats, and this fascinated me.

CalArts and the Serge Synthesizer

I visited CalArts at the very beginning. James Tenney was there. I returned there as a composer-in-residence that lasted a few weeks. Then, I got to know Serge Tcherepnin and Charlemagne Palestine. I had the opportunity then to learn about Serge's synthesizer, which had such beautiful sounds. We had a lot of wonderful discussions, especially about the economy of his design. I told him that horizontal, slightly sloped sliders in particular are easier to work on for many hours. Serge agreed with me

and after that, many of his instruments followed this configuration. I thought about working with Serge's synthesizer and if I were to use another instrument, it would be Serge's. In 1999, I did an electronic piece at CCMIX, where they have several old analog instruments and I said: "The Serge is the one I want." The most recent piece I completed uses sounds from the Serge and sounds from my ARP, and so it's a kind of wedding between the two! Unfortunately, this was the only time I had to work with this beautiful instrument.