Morton Subotnick on making your own creative too

June 29, 2017 - Morton Subotnick is a composer and musician known as a pioneer in the development of electronic music and multi-media performance. Most of his music calls for a computer in addition to live electronic processing; his oeuvre utilizes many of the important technological breakthroughs in the history of the genre. His record, *Silver Apples of the Moon*, was the first electronic work commissioned by a record company and is commonly regarded as a modern classic. The album was recently entered into the National Registry of Recorded Works at the Library of Congress, an honor for which only 300 recordings throughout the entire history of recordings have been chosen. This year Subotnick, now 84 years-old, will present *Silver Apples* in its entirely to celebrate the record's 50th anniversary at a series of live performances to take place at Lincoln Center in New York City.

As told to T. Cole Rachel, 2238 words.

Tags: Music, Process, Beginnings, Inspiration, Independence.

You're credited with helping invent the synthesizer as we know it today, as well as being one of the first people to compose for electronic music. How did that happen?

I'll try to break it down for you. Around the end of the 1950s, I was in San Francisco with a bunch of other people that are all pretty well known at this point. We were all recently out of school and just getting started in the world. I was a clarinetist—a very good clarinetist—and I was playing to make a living. I was playing with the San Francisco Opera orchestra part-time, traveling with a chamber ensemble playing Brahms, Beethoven, and their music, and composing.

So I was safe. I could always make a living playing the clarinet. I was very good. But I was also interested in the avant-garde and electronic music that had just begun. The first real studies into electronic-based music happened in 1955 in New York and Germany and I knew a little about it. I had no background in science though, so I didn't know much about what was going on.

Around that same time, the transistor was used for the first time in a commercial object. Before then, the technology for music was very unreachable by most standards because it required vacuum tube technology, which was very expensive. Most people couldn't afford it. Before then it's safe to say that less than 10% of the population of the world could listen to any music that wasn't 10 feet away. Then the transistor came along and changed all that.

I was talking to people about this in the symphony but they couldn't have cared less. My interest in electronic music and the future of what music could become continued to grow. I thought, gee, I play the clarinet very well, but other people can play what I'm playing. I write music and it's okay, but I'm not Beethoven or Bach, nor will I ever be. I just felt like I could see this big change in music that was about to happen. Technology was going to change everything. Absolutely everything. I had no idea how it was going to do it, but there was no question that it was about to happen. How many times do you find yourself at this pivotal moment in history—and you know you're there, and you're capable, perhaps, of being part of it in some way?

I kept thinking that what's going to happen is that people who make technology are going to create the machines and the language for which people will try to make music. And those people—the scientists—don't know anything about music, so they're probably going to do dumb things.

I just thought that if I have the aptitude, and I certainly have the desire, I should jump in at this point. I should give up the clarinet and all that and dedicate myself to this emerging art work. This is a historic moment. So in 1961 I did a piece using technology to make music, at least in the best way that I could at the time. It was a big sensation and people said things like "this is a new art form being born" and things like that. I realized that in order to make the kind of music I wanted to make, I'd have to create my own tools. So I wouldn't say that technology itself changed my life, but the *idea* of it changed my life. And I did my best to contribute to that technology and what it would become.

So that's the long answer. It wasn't like it came to me, the technology, and I just started using it. I spent two and a half years trying to figure out what I was going to do with it, trying to make things work. Eventually I put an ad in the paper, and Don Buchla answered the ad and together we built one of the earliest analog synthesizers.

Were you experimenting with computers at that point?

Computers couldn't really do anything at that point. I refer to that period time zero. We were at the moment zero for what the technology could do in terms of making music. I don't know what I would have done had there been computers that could do that. I just knew that I couldn't wait for that. It felt like a critical moment. It was always about wishing for the ideal machine, the ideal tool, and then trying to make that. It was a lot of problem solving.

So it was a long process of trial and error, trying to find the equipment that could make the sounds you wanted?

It was about a 40-year period of struggling to make the synthesizer. I moved to New York just as it was finished. It was the beginning of 1965 and I was working on what would become *Silver Apples* at that point, starting at the end of 1965 to '66. It got commissioned and was released in 1967.

I was never satisfied and that's part of the reason I stuck with it. I experimented with lots of different ways of making these machines work. For the longest time I would just tell myself that, if things didn't work out, I could always go back to the clarinet. As it turns out, after about 1980, I couldn't go back any more. I couldn't. It was really hard for me to play it and try to keep up. I mean it was okay, but I wasn't the clarinetist I was earlier.

Luckily, it all worked out. I gave up the analog work at the end of the '70s as the computer became accessible to the home. I dedicated myself to that for a while. Still, it wasn't good enough to do what I could have done with the analog synths. The problem with the analog equipment is also what's good about it. You can get your hands on it and do lots of interesting things. But if you do that, and you wanted to do the kind of complex compositions that I was doing and perform them in public, you would need a room full of machines and 25 hands and arms to be able to do it.

So I didn't come up with satisfying a way to use computers back then. They weren't as good as the analog equipment at that time. They could do things like children's programs and things like that and gradually they did get as good. I gradually moved over to composing with computers. Buchla made a newer system than the one I was working with which you could pair with computers and I joined the newer technology with computers with that. That's basically what I'm doing at this point. So I'm using both, the best of both, hopefully.

You've done a lot of work to educate people about music and music-making. It's common to hear people say things like, "I don't have a musical bone in my body," or "I could never make music"? Do you think that's true? Can anyone make music with the right tools?

Yes and no. It depends on what you mean by it. That's part why I started doing things for children, creating computer programs that would help them create. It's a big problem people have with learning. It's not just with music, it's a big problem in *everything*. I'll give you an example of what I'm about to talk about. This actually happened in a classroom in Russia. A math teacher decided he wanted the kids to really think, and not just memorize. So he said: "Today, we're going to *really* think. I don't want you to just throw your answer out. Imagine there are three birds on a fence. And a cat jumps up and eats one. How many are left on the fence?" Answer it.

Two?

No, there are none left. Because the other two would have flown away. Now, if I had asked you, what if there are three birds on a fence and a cat jumps up and eats one? You would have said the other two fly away. But because I said it's math, you just can't think of it that way.

Similarly, in public schools it's required that you go out and do something with your body at least a half hour during school time, right? We call this P.E.—physical education—but what does that mean?

It should mean physically educating the body to be able to move. So what do we do? We say, today we're going to do baseball. Yes, it's true that playing baseball is a physical activity, but it doesn't do much for your body. Also that's not physical education, that's a sport education. You're learning how to play baseball. And some people are good at it and some people aren't. So the ones who aren't good at it sit on a bench and they don't do anything.

So I make a distinction between physical and sport. And the same thing goes with music. It can be musical, or it can be music. So now we're going to do creativity. "Musical creativity." Sing after me. *Dah dah dee dee dee dum*. Go ahead.

(Sings) *Dah dah dee dee dee dum*.

Not too bad. You missed a couple of things in there. But that's not musical creativity. That's imitation. Some people are good at it and some people aren't. But we all can walk, right? And we can all run. But that doesn't mean you can go to the Olympics. We can all go up and down with our voice. You hear people singing Happy Birthday, they all go up and down together. They don't all get the right pitches because that requires ability that they may not have. Can they sing at an opera? Probably not. Can they even sing a tune that people would listen to? Probably not. But that doesn't mean they're not musical. It doesn't mean they can't do music.

Yeah, so the answer to the question is that not everybody can be a musician, but everybody is potentially musical and has the capacity to appreciate music. It's like almost anyone could learn to play chess, but to be able to strategize and be really good at it requires a kind of concentration that very few of us have. Composers often have a kind of advanced skill at hearing things and putting things together. So maybe not everyone can be a "composer," but it doesn't mean that everyone doesn't have the ability to compose.

I remember when I finally started touring a little bit with the Buchla, it must have been the mid-'70s. I did a concert at the Walker Arts Center. When it was over people walk up and they want to see the wires and everything. They want a closer look at all the machines I'm using. I was folding up everything and everybody had left but this young woman who was still standing there. She said, "This is amazing. I now know what I want to do in life. I want to do this. How long do you think it's going to take me to learn?"

I didn't want to discourage her. I've been at it a long time. At that point I'd been at it for about 17 years, but I didn't want to dampen her enthusiasm, so I said, "Certainly within a year." And then she said, "A year! Forget it, that's too long!"

I think if you put in the amount of time that I put in, you could get good at almost anything. It's just a matter of what you choose to commit yourself to. It's not that mysterious. I remember a relative, when she found out I wrote a piece for an orchestra, she said, "How do you do that?" I said, "Well you do this and that" and I tried to explain how I write music. She said, "Can you actually read music?" And I said, "Of course I can." She said, "Oh! I just thought composers somehow heard music and it just came out."

I think today people don't always think about stuff like that. They don't realize how much effort things take because, in general, everything is so much easier. I mean, not *everything* is easy, of course, but you have so much available to you, so many options. Still, it's exciting think beyond these tools. It's exciting to problem solve. It's exciting to to think beyond what's available to you now, to imagine the kind of tools that haven't been created yet… and then to create them.

Morton Subotnick recommends:

One of my favorite things to listen to is Bach's *The Art of the Fugue*. It's not terribly complicated, but it requires a certain amount of concentration. I used to listen to it a lot. I would take about 40 minutes out of every day around lunch time to read mail, have lunch, and then lie down and listen to the entire *Art of the Fugue* for maybe an hour. I still come back to it again and again, even to this day. It's such and amazing work.

Essential Morton Subotnick:

Silver Apples of the Moon

Name
Morton Subotnick

Vocation
Musician, Composer, Inventor

Fact

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