Passing the Torch:
Three Generations of Teaching Music Composition

Part One: George Perle and Paul Lansky
February 19, 2002
Upper West Side, New York, NY

1. A Lifelong Relationship
2. Direct vs. Indirect Advice
3. Collaboration and Independence
4. 12-Tone Tonality
5. Self-Criticism

Part Two: Paul Lansky and Virgil Moorefield
April 5, 2002
Princeton University Music Department, Princeton, NJ

6. Who Teaches Who?
7. The Studio as the Orchestra
8. Different Listening Modalities
9. Confronting Compositional Demons
10. The Student-Teacher Relationship
11. From Being in the Class to Being Part of the Syllabus

Part Three: Virgil Moorefield's Composition Class (Video Only)
April 18, 2002
Northwestern University, Chicago, IL

12. Reacting to Aphex Twin
13. The Impact of Context on Listening
14. Reacting to Squarepusher

Conversations Filmed and Transcribed by Amanda MacBlane and Molly Sheridan

Part One

1. A Lifelong Relationship

PAUL LANSKY: We've been talking for 40 years, so…

GEORGE PERLE: As I approach my 87th birthday, I sometimes feel I've talked too much.

PAUL LANSKY: Well, it's been over forty years since I showed up at your freshman harmony class. Your first day at Queens was my first day at Queens.

GEORGE PERLE: Yeah.

PAUL LANSKY: And, I thought, you looked so young at that point. You were already in your forties but I thought you were so young that you'd just gotten out of graduate school and I learned you were already a famous composer.

GEORGE PERLE: Was I?

PAUL LANSKY: Well, that's what they told me. So, that's 1961? For two years you were my theory and counterpoint and harmony teacher. I think that was my best composition training…

GEORGE PERLE: It was a harmony class.

PAUL LANSKY: Well, yeah, but it was still composition. You taught it as a composition course, but I remember you made us write a piece based on a Beethoven…

GEORGE PERLE: Bagatelle?

PAUL LANSKY: No, not a bagatelle.

GEORGE PERLE: Sonata?

PAUL LANSKY: I don't know. (hums)

GEORGE PERLE: Scherzo, yeah that's probably right.

PAUL LANSKY: Yeah, the Scherzo from Opus 28. And then you always insisted on doing the exercises yourself and that was a very good composition lesson, but you never talked about your own music. There was something implicit that it was immoral to teach your own music. I think you tended to think that you weren't a very good harmony teacher, I think that you were very good. And the thing I remember most, as I think back on it, was this incredible attention to detail. I mean, you'd spend a half hour trying to decide if G-sharp was a better note than A in a given context.

GEORGE PERLE: And there's something else, which is that composition students come into class and show a piece, but there's nothing there but notes. No phrase marks, there's no dynamics, there's no articulation markings.

PAUL LANSKY: Yeah, right, right. (laughs)

GEORGE PERLE: And I don't understand that. That's not the way you hear it. You can't play that way, you can't do anything without these other things and then I find out that they don't know what to do.

PAUL LANSKY: Was that the case with me? I was a terrible composition student.

GEORGE PERLE: I don't remember that you were terrible at anything. I mean you were always the best student in the class.

PAUL LANSKY: You're just saying that!

GEORGE PERLE: Even though you didn't have absolute pitch…

PAUL LANSKY: I still don't have absolute pitch. Do you? Have you lost it?

GEORGE PERLE: I still do, I still do.

PAUL LANSKY: But I tried to study composition. I was a very pretentious student, I remember. I thought I knew how to compose, but I really didn't.

GEORGE PERLE: Well, what did you learn?

PAUL LANSKY: Well, your way of teaching composition was never to suggest specific things that I should do, but you used to grunt and groan a lot about what I showed you, and I kind of inferred that you were trying to make a subtle point, but I wasn't picking it up and I remember spending a lot of time, in a way, trying to read your reactions to pieces. I think I understand what you were talking about, but they were never really about the pieces as much as they were about the approach to composition, that way of putting together a piece. You probably don't remember anything I showed you. I probably don't remember anything I showed you.

GEORGE PERLE: I remember you showed me a piece that was very much influenced by Webern.

PAUL LANSKY: Is that right?

GEORGE PERLE: Yeah, do you remember that?

PAUL LANSKY: No, I've forgotten that. What piece is that? You probably remember it better than I do! I think our most intense time was in that harmony class.

GEORGE PERLE: Were your lessons private or was it a class?

PAUL LANSKY: I would bring pieces around to you after a couple of years… I would bring pieces in just one at a time. I was always very hesitant. You were always very gentle. But, in a sense, very often, you were trying to say something that I wasn't quite understanding. And you did suggest I write a solo flute piece at one point, because you thought that was a good solution…

2. Direct vs. Indirect Advice

GEORGE PERLE: When I came to Queens to teach I had been teaching in Louisville before that…

PAUL LANSKY: Davis. You had been in Davis before that, I think.

GEORGE PERLE: Yeah, that's right, I came from Davis and before that I had been teaching at Louisville and when I left Louisville, about a year after I left Louisville, I got a postcard from somebody who was studying composition with me there and this was a year after I'd seen this person and he said, "I finally figured out what you were trying to teach." It was a year after I'd seen him.

PAUL LANSKY: The thing I liked about studying composition with you was that you didn't ever say with positive authority that something was bad or something was good, something was wrong. You would stick a fork around the edges and try to be indirect about it…

GEORGE PERLE: Well, I don't know if I was trying to be indirect.

PAUL LANSKY: And as much as you didn't know what to say, you didn't think it was the best piece of music that you've every seen and you did sort of imply that there was something else that I should be doing. You didn't ever tell me what to do which I really liked a lot and that's still sort of my model for music education which is you can never really tell anyone anything, you have to give them the ability to figure it out by themselves. One of the best educational experiences I ever had was with the French horn. I studied with Joseph Singer who was the hornist at the Philharmonic. I started with him when I was in high school and he never, ever told me what to practice between lessons. He wouldn't say, you know, practice this exercise or do such and such. All he would do is criticize my playing and so I had to figure out what it was that I needed to do. And I think it was the same with you. You were a little more elliptical about it than he was because when you're listening to somebody play, there are many more specific things you can do. You can't say, "Maybe you should play another piece." But with composition it's a different matter. I noticed with some of my graduate students at Princeton who've written a lot of music that it's never a question of me telling them that there are specific things wrong as much as trying to get a larger perspective. But I think when I was studying with you I really was in a position of not being very good at putting pieces together. I don't think, you know, I don't think I actually started to write pieces that I thought were real until I was well into my thirties and you were always very good at suggesting that there were approaches that I should be using. No, you didn't suggest that there were specific approaches that I should be using as much as you worried about the consequence of the way I was putting together a passage.

GEORGE PERLE: Maybe I just didn't know what to say.

PAUL LANSKY: Well, but that was an important fact. I think that was an interesting fact that you didn't know what to say. And actually I sort of learned more from you directly when we started collaborating. Should we tell the story of our collaboration?

GEORGE PERLE: Well, obviously we have to… The reason he's hesitating is that it's a special kind of circumstance, which rarely happens and when it does happen you're lucky.

PAUL LANSKY: I think it was a very important thing for both of us.

GEORGE PERLE: Yes, it was. Well, it was said that I didn't talk about my own music and do you think I should have?

PAUL LANSKY: Well, I think the reason that you didn't talk about your own music is the same reason you didn't talk about my music. You felt that there were things about it that were either not that interesting to talk about or that were much too difficult to talk about. And it devolved to a kind of discussion that you didn't want to have.

GEORGE PERLE: Maybe it had something to do with the way it would bring up the question of 12-tone music in my classes, which was to bring a piece in and tell them nothing about that piece before they looked at the music so that they had to approach it as a totally attentive experience. We would've looked at the piece a lot and discovered everything we could about it and then we would discover what really happens in the piece and not some formula that somebody's plastered on top of it… In a way, it's not unrelated to this other thing I mentioned -- refusing to look at anybody's compositions without the markings on the piece that belong on a piece that's going to be played.

3. Collaboration and Independence

GEORGE PERLE: You were responsible for the most important aspect of our relationship, which is that you came to me with a piece of mine and wanted to know what I was doing. What was the piece?

PAUL LANSKY: Was it a string quintet?

GEORGE PERLE: No, the string quintet… there is a string quintet. That's not this discussion. Well, it doesn't matter.

PAUL LANSKY: Well, this is when I was already at Princeton.

GEORGE PERLE: Yeah, so you had been at Queens for how long?

PAUL LANSKY: I was at Queens for five years.

GEORGE PERLE: So you were studying with me all the time?

PAUL LANSKY: Yeah, pretty much, pretty much. I took Hugo Weisgall's composition class, but you were the one…

GEORGE PERLE: You showed me things.

PAUL LANSKY: All the time. Sure, sure.

GEORGE PERLE: Yeah.

PAUL LANSKY: We had two years of harmony and counterpoint and two years of composition lessons and you gave me my lowest grade, you know, when I was at Queens—

GEORGE PERLE: Sorry about that.

PAUL LANSKY: You gave me an A-! So, but I interpreted that well, that was good. But your book came out when I was a freshman.

GEORGE PERLE: My first one?

PAUL LANSKY: Yeah. *Serial Composition and Atonality.* And, there's a section in there where you talk about your own theoretical work, which I never understood and you refused to talk about it. I remember you said something like if you can't figure it out, you'll never want to know. So after I left Queens, I was writing a wind quintet, which I've since thrown out, and I decided to start with that. And I arbitrarily did something that you didn't describe in your book, and I then I wrote you a letter apologetically and said, "You know, you'll probably think this is really silly, but I did this," and you wrote back saying I had doubled the possibilities and you had never thought of doing that. So that led to a pretty intense series of creative collaborations that lasted about three years and then we sort of parted. I was interested in a different sort of approach and you went on to write ten more books about it.

GEORGE PERLE: You're exaggerating.

PAUL LANSKY: Two?

GEORGE PERLE: Well, yeah, they stop. You have an extraordinary capacity for significant theoretical work and when I showed you my own work you had been a student of mine for five years at that time. Because even when you weren't studying with me, you still were in a sense…and you began to ask me about my own work and came up with unbelievably relevant analytical observations about it.

PAUL LANSKY: It's always much easier to look at somebody else's work than to look at your own!

GEORGE PERLE: Well, you had a special insight into what was involved, which eventually led to some confusion on your part as a composer. But that's something else…

PAUL LANSKY: [laughs] Tell me about it, George.

GEORGE PERLE: You know it very well. You went through a state of profound depression because, as a result of what the two of us were doing together, you got stuck in your own composition.

PAUL LANSKY: That's true.

GEORGE PERLE: I think that you quit the composing thing for about a year. For a long time…

PAUL LANSKY: Yeah, that sounds about right. Sounds right.

GEORGE PERLE: And, you're probably blaming me for it!

PAUL LANSKY: Oh, no, I wouldn't blame you for it. It is interesting. The thing that I learned was that no matter how rich the theoretical approach is, everyone has to work out their own way of dealing with it. But you were just exploding with musical output. Every time I turned around, you know, there was a new piece. And that was also kind of demoralizing.

GEORGE PERLE: Sorry!

PAUL LANSKY: I was trying to put together everything and I just kept getting pieces in the mail. You threw out some of them though. You threw out the Toccata. The string quartet, which you dedicated to me, you threw out, too.

GEORGE PERLE: Yeah, I threw that out. But the Toccata I saved. That was later.

PAUL LANSKY: You saved that, yeah. Maybe you should revive that string quartet. You have to dedicate a piece to me. You owe me one since you threw out the piece that you did dedicate to me. I think I've dedicated some pieces to you.

GEORGE PERLE: Well, the collaboration that I had with you was enormously influential on my work and that's not something that always happens between teacher and pupil. It happened between Alban Berg and Arnold Schoenberg.

PAUL LANSKY: But they didn't collaborate, though, did they?

GEORGE PERLE: No, but it wasn't the same thing. Schoenberg's influence on Berg was tremendous, but it had different consequences on Berg than it did on Schoenberg. The business with Bartók is very interesting because Bartók never talked about technical aspects of his music. He never taught composition. I think he lost something by not teaching composition. Just as I lost something by not working with you earlier…

PAUL LANSKY: Well, I don't think we were ready to…I certainly didn't…

GEORGE PERLE: You didn't know what you were doing, but the connection between the teacher and pupil can be—I'm not saying it always is—but it can be very important for the teacher and this was the case for me when you and I were working together. I didn't anticipate this, but that's what happened. And I think it would have been better for Bartók if he had wanted to talk about the special things that he was doing in his music—He gave piano lessons. You know, he was a great pianist; he taught piano, but he didn't want to teach composition.

PAUL LANSKY: When we were collaborating it was still in the days when people wrote letters and you were an inveterate letter writer and your collective correspondence is probably huge. So we had a stack of correspondence this big and all kinds of other things came up. We had a fight that came up once, actually about teaching, I think because I think I either implicitly or explicitly made a criticism of your teaching. And I said something, you were talking about states of transition—one thing led to another and I said something, I can't remember the details, but I said something to the effect—

GEORGE PERLE: I remember exactly what you said.

PAUL LANSKY: Oh, really? You have a better memory than I do. I shouldn't have brought this up! [laughs] What did I say?

GEORGE PERLE: I don't know if I really want to repeat it. [laughs] I was his teacher but he wrote me a letter that said, "I wish you wouldn't get so upset when I say something that you don't understand right away." I should've said go find yourself another teacher, but…

PAUL LANSKY: Well, that was also a kind of discussion we had when I started working with computer music because you thought that only computers should have to listen to computer music!

GEORGE PERLE: Well, I'd make an exception out of you.

PAUL LANSKY: You'd make an exception! Well, I'm very grateful to you.

GEORGE PERLE: Well, you sent me one of your first compositions after this connection that we had and I hope you don't mind me saying so, but it wasn't very good.

PAUL LANSKY: I don't mind!

GEORGE PERLE: And…

PAUL LANSKY: What was it, a piano piece?

GEORGE PERLE: Yeah, a piano piece.

PAUL LANSKY: I had written a really nice piano piece before that, remember? That you liked a lot.

GEORGE PERLE: Yeah. And that had nothing to do with…

PAUL LANSKY: Nothing to do with that…Right.

GEORGE PERLE: And it was the first thing that had to do with my own composing in all the years that I had been teaching.

PAUL LANSKY: The first?

GEORGE PERLE: The first—

PAUL LANSKY: The first time that anyone had sent you a piece?

GEORGE PERLE: People had shown some kind of interest on a theoretical level, but I had never had anybody trying to do the same thing. And you tried, so I remember that that was a momentous event in my life.

PAUL LANSKY: But it wasn't any good!

GEORGE PERLE: Yeah, but still, it was a momentous event in my life that there was somebody besides me—I had been working since 1940, before 1940.

PAUL LANSKY: Thirty years? This would have been the late '60s…

GEORGE PERLE: That's right. To see what the implications were of this different way of thinking about 12-tone music. And here, let's see, it was more than 20 years, because I wrote my first piece based on symmetries in…

PAUL LANSKY: 1938.

GEORGE PERLE: I got very interested in the Berg *Lyric Suite*. Did I talk about the Berg *Lyric Suite* in class?

PAUL LANSKY: Oh, all the time. We used to derail you from covering the lessons by asking you to talk about Berg. It was a standard technique in class if we weren't ready, we'd say: "George, please talk about, or Professor Perle, please talk about Berg." [laughs]

GEORGE PERLE: Anyway, you sent me a piece that was based on these principles that I hadn't talked about and I had some criticisms of it and then you came up with something, you wrote me, but there was a difference in our basic philosophy about composition. I think there was.

PAUL LANSKY: Well, there still is.

GEORGE PERLE: There still is and this is the thing that eventually led you into the computer music. There aren't really a lot of people who are interested in the thing that interests me, whether it's my composing and you probably aren't either.

PAUL LANSKY: No, I'm interested in…

GEORGE PERLE: Yeah, but you're interested in—you're not interested in the way I'm interested.

PAUL LANSKY: No, I think we're very different at this point.

GEORGE PERLE: Nobody thinks the same way about these things as the way I'm interested in thinking

PAUL LANSKY: Well, I think the same is true for everyone. I don't think anyone's interested in things the way I'm interested in them. I think I wrote one successful piece that was a result of our collaboration, that was my first computer piece, *mild und leise*, which now is actually my most famous piece because part of it's been sampled by a famous English rock group Radiohead, so I get mail about it all the time, but that has nothing to do with our collaboration. But, that was the first piece I did that I thought was directly the result of the collaboration, it was my attempt to really do something in my own terms. And your response to the piece was fairly clear. Well, you may have been faking it but I wanted to believe that you actually like it. Do you remember it?

GEORGE PERLE: Yeah, I remember it.

PAUL LANSKY: I think you disagreed with some way I was constructing some things in there.

GEORGE PERLE: Yeah, but I also realized I wasn't going to have much impact on what you were doing.

PAUL LANSKY: I wrote a string quartet too, which sort of is along those lines.

GEORGE PERLE: There comes a point where if a pupil and a teacher are close, there comes a point when problems develop. There becomes a point where there's some kind of a conflict which it doesn't do any good to talk about.

PAUL LANSKY: When do you think that point came about with us? Was it about that time, the early '70s?

GEORGE PERLE: Really as soon as you began to compose.

PAUL LANSKY: Yeah, that's probably true.

GEORGE PERLE: After that long period where you couldn't compose at all and I was composing like crazy.

PAUL LANSKY: Yeah.

GEORGE PERLE: Thanks to the insights that I got in our discussions and the opposite things happened with you.

PAUL LANSKY: Well, I was a much younger composer. I was in my late twenties and I was really just learning how to begin to compose at that point and I really don't think I knew what I was doing, so to be presented with such a formal theoretical apparatus at that point, I think is not that helpful in a lot of

ways. For you, this was sort of a way to help you tie together things that you had been doing for 30 years. I hadn't even been alive 30 years.

GEORGE PERLE: Yeah and things I had missed out on by not showing them. I never talked about these things until after I had been composing for over 20 years, doing certain things that I believed in and that I described in some articles, but I never mentioned any of my own composing.

PAUL LANSKY: That's right.

GEORGE PERLE: And afterwards I came out with a book that showed most of the examples from my own music.

PAUL LANSKY: So it was at that point that I moved more towards computer music and away from…

GEORGE PERLE: As a way of getting rid of me.

PAUL LANSKY: Well, in a sense I think students have to exorcise their teachers.

GEORGE PERLE: Yes, they do.

PAUL LANSKY: A very good moment for me came when it ceased to upset me if you didn't like something that I did!

GEORGE PERLE: Well, it was a big responsibility trying to teach you because you took everything I said very seriously.

PAUL LANSKY: Very seriously. But, you were an enormous influence, George. In all aspects of music you were a tremendous influence and it took a lot more time to have more faith in my own judgment. I think that's an important aspect in teaching composition, to give your students enough confidence in their own judgment that they don't take what you say as an absolute fact. So by the time I was 45 or so, I learned that you were going to dislike things that I thought were terrific.

GEORGE PERLE: Well, I also learned that if I wanted to do certain things, I would have to do them myself.

PAUL LANSKY: We started to collaborate on a book and it became clear very quickly that there were going to be two different versions of the book. My version of the book would have taken 6 pages and I actually wrote those 6 pages, and your version of the book which is about 12-tone tonality and is about 220 pages. Your book was much more interesting than my 6 pages!

GEORGE PERLE: When you wrote the 6 pages, I agreed with you.

PAUL LANSKY: [laughs] So I actually wrote my thesis on this and in a way it kind of took the fun out of it because I used kind of baby linear algebra to explain the whole thing and it sort of took the mystery out of it. And your ways of talking about it are much more exciting because they're more complicated in a way. There are more nooks and crannies, more dark corners, more mysteries. I think my approach was to try to tell the more all-encompassing, simple way of looking at it and that kind of took the fun out of it, because I don't think that's the way music works.

GEORGE PERLE: But, in my experience being your teacher, I owe you more than any teacher I ever worked with, so I learned a lot from teaching you. Schoenberg said something like that about his own pupils. You had a special insight into what I was doing and a real gift at seeing certain connections. And a big part of it was not only your own special gifts, the special way that your mind works that was relevant to it, it was that you were coming at it from the outside, and you see things, which I did when I first tried to figure out what Schoenberg's 12-tone system was about. I came up with this stupendous insight that…

PAUL LANSKY: That was totally wrong.

GEORGE PERLE: That was wrong. I mean it came from a wrong interpretation. But you're making a mistake that is pregnant with meaning and that was the case—what you did when you looked at my work, or when I explained my work to you, was what I had done when I first looked at Schoenberg. I made a mistake in interpreting something, and my mistake was truer than the thing that I was looking at. You know what I mean? And you, coming from the outside also without any preconceptions about what 12-tone music was supposed to be, came with a new insight to it as Bartók would've done when he was writing his fourth quartet if he had ever talked about this music to someone instead of keeping it all to himself…

4. 12-Tone Tonality

GEORGE PERLE: Let me talk about the mistake I made in connection with Schoenberg. I just mentioned it in this review of a biography of Schoenberg that just appeared. I don't know how many people are going to realize how important it is?

PAUL LANSKY: The new biography or what you are going to say?

GEORGE PERLE: Let me go and get that review… This was in the *Wall Street Journal*.
These are two paragraphs. "It was Schoenberg's hope that his 12-tone method would lay 'the foundations for a new procedure in musical construction.' He saw the role 'invented to substitute some of the unifying and formative advantages of scale and tonality.' And he also saw it as functioning 'in the manner of a motive which must be invented anew for each piece.' This is the point at which in 1937, maybe 1938, I came upon the *Lyric Suite* and figured out a lot of what happens in 12-tone tonality from there. Then I tried to find out something about Schoenberg and this is what I found out, that the tone row was supposed to function as a scale and a motive at the same time. And this is the conclusion I came to at that time. 'There was an intolerable contradiction in the dual nature of the tone row. In tonal music the scale and its harmonic component defined the language, whereas motives are what a piece is about; a way of saying something about language. Schoenberg does not resolve this contradiction. Neither understandably does Mr. Shawm.' That's the author of this book. That's something very important there and if I had studied with Schoenberg the way that you have studied with me, I would've pointed this out to him. That the scale and the motive aren't the same thing, that they can't be the same thing. They're not supposed to be the same thing and particularly if you're conceiving the tone row as "'invented to substitute some of the unifying and formative advantages of scale and tonality." And what I realized is that the 12-tone system as I had come to it was way ahead of what Schoenberg had come up with. Schoenberg's idea was impossible. It wasn't what he wanted and there are places where he practically says that, you know? Anyway, what I came up with way back in 1937, I began to study Berg; I began to study the *Lyric Suite*. By 1939, I looked at Schoenberg, I thought about Schoenberg and came up with my own notion about what a tone row is supposed to be. It had to do with my own insight, which was correct about what Schoenberg was looking for.

PAUL LANSKY: I've always meant to ask you this, if you're looking at the Berg *Lyric Suite*, it's a sort of skewed example because the set in the Berg *Lyric Suite* was also congenial with your approach because of the axis of symmetry, so maybe that was a bad piece to start with. That totally confused you. Turns out that the set of the Berg *Lyric Suite* has interlocking dyads that form the same interval.

GEORGE PERLE: Yeah, yeah. If you start the Berg set of the first movement in the second half and then move on to the first half, you have the basic symmetry.

PAUL LANSKY: So then you came across the chart that Berg made years later.

GEORGE PERLE: Yeah, but that was a long, long time later.

PAUL LANSKY: Yeah, but that shows sort of you probably weren't that far off the mark when you were looking at Berg and you were probably further off the mark when you were looking at Schoenberg.

GEORGE PERLE: I think the basic criticism I had at that time was completely valid. You either have a scale or you have a motive. A scale can serve as a motive sometimes, but it's a secondary use that it has in that case.

PAUL LANSKY: It can only be referential. It can't be both.

GEORGE PERLE: Right. And Schoenberg was looking for a scale. He was wondering about the problem of what you do with the twelve notes. How do you make a scale out of all the notes? And the scale, the diatonic scale takes some notes. If you transpose a perfect 5th up, you lose one note, you get one new one, but it's the same structure. Now we've only got all twelve notes, so we've got only one mode, nothing but half-steps instead of all the different modes we had before. And you only have one scale; you can't have any transposition. It's like having the piano with all the keys white. So, instead of jumping into it and doing what Schoenberg was doing, I did something that made more sense. I remember something that you said to me. You came to visit us in the country…

PAUL LANSKY: Was it Maine or Woodstock?

GEORGE PERLE: Woodstock. To talk to me about what I was doing. You wanted details and you asked questions. Do you remember that?

PAUL LANSKY: Yeah, I remember.

GEORGE PERLE: And then you had your insight and wrote me about it. And I wrote back to you that you'd come upon something that had been puzzling me for 22 years by then and that's exactly vis-à-vis what I was doing. It was exactly the thing that I had done in relation to Schoenberg. But it all comes from looking at something from the outside.

PAUL LANSKY: With some sort of objectivity.

GEORGE PERLE: I'm trying to think about how I can present it here.

PAUL LANSKY: Well I can help…

GEORGE PERLE: Do you want me to tell them what my idea of a tone row is? Symmetrical sums and so on?

PAUL LANSKY: Well, maybe, you can talk about sums and differences.

GEORGE PERLE: That would be even worse.

PAUL LANSKY: More confusing?

GEORGE PERLE: I'll dump it in your lap [laughs].

PAUL LANSKY: Gosh, I think I forget at this point! [laughs]

GEORGE PERLE: Well, in Schoenberg's systems you have a set and you also have a retrograde and an inverted retrograde. Did you see that cartoon in *The New Yorker* about this? [laughs]

PAUL LANSKY: No.

GEORGE PERLE: It's worth finding… I had a sonata for unaccompanied cello—this goes way back—and I temporarily withdrew it; I felt there was something wrong with it. And somebody I'd never met wrote to me a number of times and wanted to see it. And I said, "Well, it needs revision, I can't show it to you right now." And then a publisher wanted it and so I looked at it again. There was something wrong with it. It needed a crescendo in the first three bars and that's all it needed. [laughs] So that was what was wrong with it!

PAUL LANSKY: Yeah, you'd be surprised!

GEORGE PERLE: So maybe there's nothing seriously wrong with what we did.

PAUL LANSKY: Well, I think I can explain the contribution of your system in simple terms, which don't require a sort of, too many technical terms.

GEORGE PERLE: Yeah. Don't call it my system.

PAUL LANSKY: Our system or the system?

GEORGE PERLE: After all, there's so much that Bartók did and so much that Berg did—

PAUL LANSKY: This "way of looking at things" then.

GEORGE PERLE: There was already a very solid basis. There's some pretty significant music that's involved with exactly this by a composer named Bartók and a composer named Berg and some other composers too.

PAUL LANSKY: Well, I think an important distinction is that it actually creates a sort of coherent harmonic language which is consistent across all pieces that use this kind of system and that's based on the notion of symmetry. And an important thing to think about is that a pair of notes—I mean, this is true in the 12-tone system too, but it has a different complexion in this approach—that a pair of notes is typically thought of as an interval and thinking of symmetry as an important aspect of this way of doing things, that pair of notes also has got a significant membership in a different way of looking at things which is instead of thinking of it in terms of difference, you're thinking of it in terms of sum. So that C and D are typically thought of as being a pair of notes that have an interval of two semi-tones and that's a difference of two, but B and D-sharp, B-flat and E natural are considered members of the same class of things that C and D are. So interval and sum are considered equal and this of course occurs in the 12-tone system by definition.

GEORGE PERLE: Yeah, by definition. If you want to think about it at the piano, you can play a chromatic scale with your left hand and your right hand going in the same direction, and you're keeping the same difference when you do that. You can also play it with the left hand ascending and the right hand descending and when you're doing that your are keeping the same sum. Anything which is on that scale, let's say you start with two C's go down a half step and go up a half step and you get B and C-sharp. Go down another half step and go up another half-step and you get B-flat and D, it's the same sum. Now both of those ways of evaluating an interval are of primary structural importance in a lot of Bartók and in Berg's use of the 12-tone system in the first movement of the *Lyric Suite*. A lot of Berg's music, no matter what kind of 12-tone music he's writing, symmetrical rhythm. You see, there are two ways of looking at an interval. C and D are the same as C-flat and C-sharp.

PAUL LANSKY: Yeah, but the interesting thing about it is that the intervals, the dyads are then embedded into tetrachords and trichords which sort of look at this in a more complicated way so you get a kind of sense of harmony which is—in the 12-tone system, the sense of harmony is essentially aggregates because there's the sense that there are always 12 tones circulating, in this system, in this way of looking at things, I don't like to call it a system—this way of looking at things, you also—

GEORGE PERLE: What's wrong with having a system? Beethoven had a system. Bach had a system. Why can't we have a system?

PAUL LANSKY: Well…

GEORGE PERLE: I know it's a shame to say Beethoven had a system.

PAUL LANSKY: I just don't like the word system.

GEORGE PERLE: Why not? It's a good word. Don't let people who don't know any better steal the vocabulary from you. Didn't Bach and Beethoven have a system? They had the same system. They had the diatonic tonal system.

PAUL LANSKY: The point is that any collection of four pitches, any collection of four notes, even if several of them were the same has got a sort of metric in this system. So that if you take a C, a C-sharp, and a D-sharp and an A-natural, let's say, then there's a way of looking at that which brings in a set of relations to a lot of other tetrachords that is external to any specific piece so it's kind of a generalized sense.

GEORGE PERLE: That's exactly what Schoenberg was looking for. I mean, he didn't have this solution to it, but it's the kind of thing he wanted to have.

PAUL LANSKY: Well, it's hard to say. I mean, that's your idea…

GEORGE PERLE: That's what he said.

PAUL LANSKY: But it's a very interesting way of doing things and I just felt that I wanted to explore different directions and different ways to go about things, but in a way, maybe you need to go through a lot to get to that point. This is interesting.

GEORGE PERLE: I think other things have come into music as a result of not having a scale. As a result of the irrational part of what happens in music, which is also a constant reminder of the Schoenbergian revolution, what Schoenberg called the emancipation of the dissonance. There was a whole universe of musical possibilities just in terms of quantities. It's really overwhelming that nobody was using them and there were ways to use it. Starting with Opus 11, No. 1.

PAUL LANSKY: Opus 16. No. 1… A lot of the pre-12-tone things Schoenberg was doing…

GEORGE PERLE: The thing I was doing was trying to work with this in a systematic way. I said something about combining two chromatic scales moving in parallel motion or moving in opposite motion. And I'm getting into the business of four notes, which you were talking about before. I saw these harmonic possibilities falling out of this and because, in the 12-tone system you have these two

aspects, prime and inversion—we don't care about these because we're not dealing with a motive, you're not concerned with retrogrades.

PAUL LANSKY: In this system.

GEORGE PERLE: Right. You're dealing with these entities that are created by this material. So I would combine two sets, one of which was the inversion of the other and get my material that way.

PAUL LANSKY: I should say before you go on that the important distinction between what you are talking about and the ways in which the 12-tone system functions is that there is no pre-defined sense of order; there's no pre-defined sense that you have to go from this note to this note. In other words there was sort of a free-floating harmonic language.

GEORGE PERLE: Like tonality.

PAUL LANSKY: Yeah.

GEORGE PERLE: You know, when you write tonal music, nobody tells you that every time you get to that note, you have to go to that note, you know? I mean, even if you're dealing with notes that have a harmonic function, like the leading tone, you don't have to go to the tonic.

PAUL LANSKY: Right.

GEORGE PERLE: There's some kind of defined way *not* to go to the tonic that's interesting.

PAUL LANSKY: True.

GEORGE PERLE: I didn't like the notion of being told what the next note is going to be.

PAUL LANSKY: But it's a different way of looking at things. I mean, in the 12-tone system, that is the relevant structure.

GEORGE PERLE: Yeah. You suggested that something interesting would happen if we could combine two sets that were transpositions from another instead of inversions. And the reason I didn't do that is that I thought I had to do something that was complete. And, well you can see why I thought that. And it didn't even occur to me to try the other. But you get the same kind of completion when you get the two sets that are moving in the same direction because then you can also have two sets that are moving in the opposite direction to the first—so that there are two sets moving in the same direction in the opposite way.

PAUL LANSKY: What I think had emerged was that the way you had been thinking about it had been in a two-dimensional sense that sort of everything goes like this. And…

GEORGE PERLE: Any idiot could have thought what you thought!

PAUL LANSKY: Yeah, any idiot could've thought of what I thought of.

GEORGE PERLE: This idiot didn't!

PAUL LANSKY: No, that's O.K. But then what we came up with, which I think is really quite beautiful, is that things didn't just go this way and this way but they also went this way, so this is where we actually diverged—I started to think of it in terms of four dimensions, as sort of a four-dimensional array: X, Y, Z, and then transpositions of the whole thing and you had all these little slips of paper—you probably still do! The slide rules?

GEORGE PERLE: I threw them all away.

PAUL LANSKY: You threw all the slide rules away?

GEORGE PERLE: I think I threw them all away. Of course, every now and then I think I threw everything away.

PAUL LANSKY: Because I would come to your studio and there'd be all these slips of paper.

GEORGE PERLE: And we don't need that anymore.

5. Self-Criticism

PAUL LANSKY: I'm sort of embarrassed by any of my work that I've written more than two years ago. And if you go back 20 years, I regard my pieces as juvenile. My attitude towards my own work is that each piece kind of builds on the next and as such it's standing on the shoulders of my previous work and to my mind a lot of my earlier pieces are groaning under the weight and I'd just as soon rather toss them out. And I do think that you taught me to have a sense of objectivity, so maybe 20 percent of the pieces I write I throw out. I just had the experience of listening to a piece that I had written a couple of years ago, about 5 or 6 years ago and something was bothering me about it and I played it for Steve Mackey, and he sort of agreed. He said it was sort of like home run derby, instead of playing baseball… The piece was never quite getting there. I actually ended up calling it *Honorable Mention* and then I just had the experience of listening to it again and thinking it's really not bad; it just needs more work. So I worked on it and I worked on it and I actually re-synthesized it and used different sources and changed it and it was getting better and better and I finished and I listened to it again and it just still didn't make the grade.

GEORGE PERLE: Did you know why it didn't make the grade?

PAUL LANSKY: No, I'm not sure. I'm not sure. I think I know why.

GEORGE PERLE: Because I don't think you have to know why.

PAUL LANSKY: I don't think I know why. If you knew why, every time you wrote a piece, you could make it successful. That was an interesting lesson that I learned from you early on, that throwing something out can be a very liberating experience. My first computer piece I started working on in 1967 and I was a graduate student at the time and I worked on it for a year and a half. And I just kept working on it and working on it, trying to make it better and then finally one day I listened to it and I said, you know, this really stinks. And I just threw the whole thing out and just discarding a year and a half worth of work was really hard but it was also very liberating because I knew it wasn't sitting on my shoulders anymore. So, that's one thing I learned from you, George. Better to throw it out… but you should revise that string quartet! Or change the dedication on one of the other pieces. You still owe me one! Now that I mention the string quartet, why did you throw it out, do you remember?

GEORGE PERLE: Well, it was too…

PAUL LANSKY: Too systematic.

GEORGE PERLE: I don't know.

PAUL LANSKY: Let me just say one more thing. Another thing I think I learned from you, which is really interesting is that the piece shouldn't really demonstrate its method, that the piece should be able to stand on its own, without having to refer to its method. You shouldn't see its construction and that really is my thinking with computer music too. That the piece shouldn't be a demonstration of its own technology. The piece should sort of rise above its own technology and be something more.

Part Two:

6. Who Teaches Who?

PAUL LANSKY: I remember you showed up…when was it?

VIRGIL MOOREFIELD: October of '94.

PAUL LANSKY: October of '94. And you were really interesting to us because you have such a diverse background… Did we admit you the first time?

VIRGIL MOOREFIELD: I didn't apply.

PAUL LANSKY: You didn't apply!

VIRGIL MOOREFIELD: It was a pre-emptive strike on my part!

PAUL LANSKY: Actually, we were waiting for you to apply because you had this diverse background in recording and electronics and comparative literature and spoke five languages and would have no trouble writing a thesis. So we were sort of waiting for you to apply and you would have gotten in the first time, but then you applied about a year later. So, in a way, you're the model of the kind of student we like here because you didn't come expecting us to clue you into things, but you came because you expected to engage in a community of people who were doing similar types of things. What we liked about having you around was that you brought things that we really didn't have very much of. We did have some connection to recording and some connection to popular music, especially through Steve, but your background was quite different so this must have been sort of a culture shock at first.

VIRGIL MOOREFIELD: Yeah, it was and it wasn't. What I liked when I came here basically was getting the news that it wasn't about whether this should be a B or a B-flat, I think, was the expression you used when you first spoke. And, you know, in a way, it felt like a stretch, coming from playing with bands like Swans and Glenn Branca that were in a totally different world. But what I wanted was really to be able to stretch out as a composer and to be given the time to do that. And to be around people who also were not only doing it, but engaged in a community and really talking to each other. I had the choice between here and another place and I just remember being fascinated by what was going on with your music, because one can turn that around and say, well, it was very unusual in the academic world and that the kind of music that I was finding, that people do, defined what you do there. I saw a lot of things I wanted to, I heard a lot of things there that I wanted to know more about, so—yeah, it was a good situation in that I wasn't coming here to be shown note by note how it should go.

PAUL LANSKY: Well, we don't know!

VIRGIL MOOREFIELD: [laughs] There weren't really any doors to run into. They were kind of open and you could sort of run through them at any speed you wanted, which could have various consequences. [laughs] No, I absolutely loved my time here.

PAUL LANSKY: Oh, it was great having you here. I think implicitly that you never really teach anyone anything. You really just teach them to learn. So what I always tell people when they come to interview is that we want to teach you to be your own best composition teacher and that anything that we could tell you would probably be something that you would just file away. So it's, you know, a sort of a mixture of

approaches we use. We never assign composition teachers. So, I don't regard myself as your composition teacher and I don't think you regard yourself as my composition student.

VIRGIL MOOREFIELD: Well, I don't know about that! I actually got a lot more of that than I expected. I thought that I was going to come here and essentially spend four years composing and just keep right on going the way I was going and doing what I was doing only more so. I was actually surprised at the extent to which I became involved in being influenced by your music and by other people's music here, and really finding a community of graduate students that I learned a lot from. I just thought this would be a retreat to compose, and somehow an exam got in there and the dissertation got in there [laughs], and now I'm teaching people. But I think for me, if it had been a situation in which it was expected that I come see you every week, I probably would not have shown up or not wanted to. It would have been "I have to do this," but what worked very well for me was that I could show up or not, so it was attraction or promotion. We did meet rather regularly.

PAUL LANSKY: Yeah, we met but I think I was the one that learned more from you.

VIRGIL MOOREFIELD: Well, I think it was a former President, Shapiro, who said once in one of the papers here that Princeton will change you but you will also change it. And in my small way, I like to think that that's what happened because I remember when I got here, the idea of the studio as a musical instrument, you know, stealing from Brian Eno, was foreign to a lot of people. And actually you were the person who asked me, "Will you come to my seminar tomorrow?" on 24-hour notice and talk about the studio: the Brian Eno studio as a musical instrument. And I remember a light going on because that just felt like a whole store of knowledge that I had that I had never really talked about, it was sort of implicit.

PAUL LANSKY: I remember you came with a huge stack of CDs. We couldn't even possibly process a tenth of them in the time of the seminar.

VIRGIL MOOREFIELD: I remember the clock just going like this [motions to imitate clock] three hours just went by like that and nobody seemed bored. So that was the beginning of what I do now. The day in which I realized I have something to offer here.

PAUL LANSKY: But what you were doing you had done for a time.

VIRGIL MOOREFIELD: I had been doing it but not thinking about it in terms of knowledge to be passed on, it was more almost unconscious activity. Of course I compose this way. Of course this is what I do. It wasn't self-conscious. Now it's more so because here we talk about what it is that people do when they compose.

PAUL LANSKY: I owe you a tremendous debt of gratitude. I remember when I played a bunch of piano things that I'd done for you and you just looked at me and said, "Paul, your piano samples really suck!"

VIRGIL MOOREFIELD: [laughs] Did I put it that way?

PAUL LANSKY: Yes, it was something like that.

VIRGIL MOOREFIELD: I probably did.

PAUL LANSKY: So you clued me in to using Kurzweil samples and it just changed everything. And ever since then I have been listening a lot differently to things.

7. The Studio as the Orchestra

PAUL LANSKY: I think, a large part of learning to compose is learning to listen. And it's amazing to me always, how many things you don't hear at first…Especially when you're doing electronic music you set up sort of a minimal set of expectations and what you did that really was tremendously valuable to me was to come in with ears that had been trained in the studio and you just were able to say, "If you really want to do this right, then this is what you ought to do." Teaching here is just such a joy because I basically think it's a big scam because the students here teach us and I'm constantly making appointments with graduate students to show me how to do things.

VIRGIL MOOREFIELD: It's the trick I've copied from you! I'm finding the same thing! As I was telling you over lunch today, it's so nice to have graduate students who will solve problems that one need merely think of. It's a wonderful resource. I think that's a really interesting point. I was surprised by your reaction. Because I basically came here from running my own recording studio in New York and people would come in regardless of level of talent and they wanted something for their money. You were always on the spot as far as making the best possible recording. And so, just in the field I got that training of just how good it sounds, because otherwise my skills as an engineer, as the designer of the studio, are not up to par. But that's what I ended up doing, and that's where you influenced me I think, is to go to the other side and say, well, that's the orchestra now. We've used this metaphor a lot. Our orchestration is what the quality is of the samples we use or in your case, with your very high level of manipulation of samples or even how the music itself is put together in the computer. And what I got from here was the transition. In my older recordings there's this sort of two-sided thing going on where I'm paying attention to the production, but really I was writing out every note.

PAUL LANSKY: Right.

VIRGIL MOOREFIELD: And thinking about the notes as the important thing. And the other thing was that it was just a good recording. When I got here and was exposed to your music and the kinds of things that we talked about here on the electronic side was the idea that "Oh, look, we don't have to write every note." As you've said, we can gently tap the computer and send it on it's way. And that is really what I got, thinking of the orchestra inside the computer or in the studio. They're increasingly becoming the same thing.

PAUL LANSKY: Well, it's extending the metaphor of composing. The metaphor of composition as a note to note process is something that doesn't exist in the studio in some way because you're dealing with data which is not quite time-lined in terms of specific note-time events, so that's really useful. But yeah, I learned a tremendous amount too. We taught a course together.

VIRGIL MOOREFIELD: Oh, that was fun!

PAUL LANSKY: Yeah, that was interesting. I couldn't have taught the course without you…

VIRGIL MOOREFIELD: Ditto!

PAUL LANSKY: Well, I'm not sure that's true. I'm sure you would've been fine. But it was a lot of fun. We taught an electronic music composition course.

VIRGIL MOOREFIELD: But one which didn't use the traditional model of what an electronic composition course would be. We were basically using commercial recording software and bending it to our purposes.

PAUL LANSKY: But my educational model there too was to sort of throw people into the deep end and they'll either drown or come out with something.

VIRGIL MOOREFIELD: Absolutely.

PAUL LANSKY: A couple of students drowned, I think.

VIRGIL MOOREFIELD: Yes. Yes.

PAUL LANSKY: But most of them came out.

VIRGIL MOOREFIELD: I do remember one student not showing up all semester and showing up at the concert, before the intermission, with his CD, which we played. It didn't sound that great, though.

PAUL LANSKY: No.

VIRGIL MOOREFIELD: I really got a lot out of that. I discovered that I really loved teaching being here, and that was really the course when it came into full bloom for me because you tended to work in that course in the way that I think I have assumed, I would call it organized chaos in that we didn't say, you know, here's the handout, here are points one through seven, work these and come in next Tuesday. We said, here's the studio, here's how you do a couple of things, play with it and bring in a composition of one minute in two weeks. And they did!

PAUL LANSKY: My attitude towards technology and studio stuff in general is that you have to learn it by yourself. Nobody can really ever tell you anything and the stuff that people can tell you, you can figure it out or you can read the manual. I was telling you before that my proudest educational moment was about 10 to 12 years ago when some students were building an application and the sound icon on the application was me saying, "You'll figure it out."

VIRGIL MOOREFIELD: Oh, I see. They had put it in.

PAUL LANSKY: They had put that in.

VIRGIL MOOREFIELD: They had sampled your voice and put it in the about window.

PAUL LANSKY: Yeah.

VIRGIL MOOREFIELD: Yeah, that's a great little "earcon."

PAUL LANSKY: I have no idea…

VIRGIL MOOREFIELD: I think that's an important part of how I can now say we work in our teaching; all the work that I did with you was always project driven. It wasn't so much, "You're going to learn the principle of this or of that." It was, "We're going to make something." And so then the working out of the issues comes from finding your way toward making your product sound the way that you want it to

be, which is really how the world operates. I mean, that's how we actually learn and exist. We pick up these pieces and we construct actions out of them.

PAUL LANSKY: My experience from the very beginning working with computers was that there's just an endless stream of stuff that you could learn. And, at least, the way I function is that I can't learn anything unless I have some sort of immediate application for it. The analogy I always use when people ask my advice is, just imagine trying to learn tax law. Why would you want to learn tax law? Well, the reason you want to learn tax law is because you can get some money back!

VIRGIL MOOREFIELD: [laughs] Right!

PAUL LANSKY: So, the reason that you'd want to study LISP or C++ is that you have some reason to get sound out of it. And I've actually learned this the hard way. Like, I've studied a bunch of computer languages, I went through the book and I did a few of the exercises and I didn't have any application for them and then in two weeks I'd forgotten them entirely.

VIRGIL MOOREFIELD: Absolutely. I remember asking in a class how you had put a composition together. And you said, "I forgot." [Lansky laughs] and I thought you were being disingenuous. I thought, "Paul Lansky, great composer, does not want to share his secrets." Well, you know, a couple of weeks ago, I was looking at one of my older MSP patches, and I couldn't remember what I'd done. It still worked, but I had to go back and trace and trace—Oh, that's what I was thinking! It really does leave you, because you're engaged in making the product and unless you have a use for it, there's so much information out there.

PAUL LANSKY: Well, I was being disingenuous.

VIRGIL MOOREFIELD: Oh, O.K.! [laughs]

PAUL LANSKY: No, the question of how you put something together is, for me, not as interesting as trying to describe what it ultimately is that you put together. I was very proud of that talk I gave in my course on *Idle Chatter Junior* because I had never thought about it before. I didn't want to tell the students what it takes to put these patterns together, because their eyes would glaze over and they would fall out of their seats. So, instead what I wanted to do was to try to reconstruct what it was that I thought I had to learn to do in order to deal with the constraints I was operating under. And I had never actually thought about it before in that piece in terms of noticing that since I didn't want to use linear predictive coding, I didn't want to use some sort of fancy technique, I went through this much simpler processing. I was much more limited as a result, to a narrow bandwidth and that my reason for using other sounds in there was to flesh out the spectrum and that's much more that kind of thing that I think is useful to people. Especially in technology, the sort of how-to stuff, I think, is best done with the manual.

VIRGIL MOOREFIELD: Or even not the manual, if you can possibly get away from it.

PAUL LANSKY: Actually, what happens with me very often is that other people do an RTFM, so…

VIRGIL MOOREFIELD: [laughs] You might want to explain what that is.

PAUL LANSKY: RTFM is an acronym. Anyone who knows or does this stuff will know what that means.

8. Different Listening Modalities

PAUL LANSKY: There are several aspects to learning to listen that I think are central. One is learning to hear through culture. I remember when I grew up in the fifties, I loved rock 'n' roll. I couldn't get enough of it. Jerry Lee Lewis and the Platters, I just loved 'em. And then I got really serious about music. And I remember very distinctly, forgetting how to listen to the music that I loved and I remember very distinctly, for quite a while, just hearing it as noise. Mozart was my idol and nothing, I imagined, was more interesting than Mozart. It wasn't until the Beatles came around. The Beatles were actually a little bit older than I am, but maybe just a year or two and what the Beatles are doing are actually responding to the same music. All the early Beatles music is essentially a response to early rock 'n' roll. That coincided with that really violent period in the '60s and I think listening changed radically. Things really made a big turn in my listening so I noticed that I was able to listen to a lot more. And all of a sudden my listening was not so culturally focused, it was more sort of focused in a way that was much more able to tune to various kinds of things. Then coming to Princeton in the '60s was very interesting. There was a whole new dimension to listening that was being engaged and contrary to what a lot of people think, Princeton was a good place to learn to listen. A lot of people around here were doing experimental things… One aspect to listening is being able to tune your ears and not just to the details of the music, but also to the cultural and social aspects that surround the music and you know, this is happening all over the place, with Steve Reich and African music and Indian music and those kinds of things. It's still amazing to me how many people in academic circles are not able to really tune their ears to a real variety of ways of listening to things. That's one thing that I tried to do a lot in composition teaching is to help people to sort of learn what it takes to readjust their listening apparatus to understand something. I'm doing a graduate seminar now, which is so interesting and it's been O.K. so far. The topic of the seminar is music that forces you to recompile your software. The idea is to engage some pieces that are not directly down your alley, that are not exactly the kinds of things that you'd engage, and try to figure out what it takes to accept them on their terms. We've done a variety of pieces. We started out with a Feldman piece for string quartet and piano, which is a wonderful piece. It's not that difficult really, but it does require a different measure of listening, in terms of time span and being able to understand the modification of detail. And we've done Louis Andriessen's *De Tijd*, which I think is a wonderful piece, but very difficult. Yesterday we talked about Ferneyhough's Fourth Quartet and had a really interesting discussion. We tried to come to grips with Charles Ives. We spent a whole seminar on Ives' Fourth, which is a really hard piece to understand. I think it takes a lot of work… But anyway, the whole focus of the seminar is on learning to listen to pieces that are just not down your alley. This sort of goes back to the moment that rock 'n' roll started to sound good to me again. I noticed that one has to do something with one's head in order to adjust to the music coming in. Music is kind of a sharing of minds: someone is saying something in a language, in a culture, and you have to learn to deal with it. So those are the kind of things that are sort of at the basis of my attitudes about composition and listening and the idea of the Generals Concert that we do. What piece did you engage for the Generals Concert.

VIRGIL MOOREFIELD: I did Varèse's *Ionization*.

PAUL LANSKY: Right.

VIRGIL MOOREFIELD: I conducted that and I did a production piece.

PAUL LANSKY: But Varèse is probably down your alley.

VIRGIL MOOREFIELD: Yeah. I cheated.

PAUL LANSKY: What we like people to do is to take pieces by composers who are sort of not really down your alley. But that's O.K. The other education—the other critical thing that is in my education philosophy is I think it's interesting for somebody to find compelling reasons not to do the things that we suggest…

VIRGIL MOOREFIELD: That was always acceptable. It seemed that if we had a good reason or did what you did well, you could really just say—you just wanted us to do something and mean it! But coming back to what you said about the Beatles, that was a very interesting cultural moment for me too because the first LP I owned was *Revolver*. I was 10 years old at the time.

PAUL LANSKY: That was a big record collection you had.

VIRGIL MOOREFIELD: Yeah, well, you know as a 10-year-old my budget was limited! But I remember in terms of engaging listening—first of all, that was when I sort of came on board, when I teach those things now I have to sort of try to divorce myself from all of the sort of emotional content that it has for me, so I can hear it the way someone hearing it for the first time today would. But what's interesting about that cultural moment, the mid-1960s, that you were talking about and also the composers that you mentioned which I think to most people would be a sort of an unlikely link from what we were saying about the Beatles (of course, you were talking in a different context), but in fact, that is to me a very interesting place and I found a way into experimental music and a love for, shall we call it art music, and popular music and really not accepting the distinction through that period of the Beatles. You know, that period in the mid-1960s is when Paul is listening to Stockhausen and John is going out with Yoko Ono and the whole conceptual thing is coming in to play, and, you know, the very experimental work, which now looking back did start with *Revolver*. I mean, "Tomorrow Never Knows" was one of my very favorite tracks and I think it's no accident that "Setting Sun" by the Chemical Brothers sounds a lot like it and that's a contemporary or 1990's record. And that actually seems to have coincided historically with my time at Princeton strangely enough, at the turn that a certain part of popular music has taken. And that is that there is sort of return in, for lack of a better word, electronica or intelligent dance music, what people refer to as IDM, to real experimentation and to engaging, interestingly enough, the sorts of things that you and other electronic composers have been doing for a long time. I think it's no accident that Radiohead is sampling your music and there's this sort of interest in popular circles because in fact, in a way, that generation has found you in a different way--has found the things that were experimental when they first came out between the '50s and the '70s let's say--and is really influenced by that. I really like the idea that we can talk on all different levels; that our serious music is in fact also listened to by someone outside, beyond the walls of the institution and that's something I think people don't think of this place as at all. Seeing how some kind of cognitive dissonance with me, with my Ph D. from Princeton, you know, and having written music in a rock style and toured as a drummer with various rock bands. But there again for me, it goes back to having worked with Glenn Branca; I was first exposed to his music in the 1980s and I started playing guitar with him in 1987 and, of course, Glenn sort of works that same spectrum, you know, because his whole spectrum is entirely rock 'n' roll: Theoretical Girls and, of course, Sonic Youth coming out of his group and playing with them.

PAUL LANSKY: You played in Sonic Youth.

VIRGIL MOOREFIELD: No, we opened for them at Royal Festival Hall last summer.

PAUL LANSKY: Oh, I thought that you had played with them last summer.

VIRGIL MOOREFIELD: No, that would be nice. They're a great band. No, I actually joined right when Glenn was replacing them because they all left his group at the same time. But working with him was this way in for me to actually engaging all of these different levels of music at once because, you know, Glenn's music can be forbidding or/and can be at the same time loud, of course, and can be an absolute, you know, torrent of rock emotion. And it's very interesting, of course, because he also works on this level as a "serious composer" and is certainly taken very seriously. But the interesting parallel that I found to your music is that you have a very different musical personality—in some ways they couldn't be more opposite, but it's very interesting to have worked with both of you because there are certain commonalities in the music. I see your music as also running the gamut. One can listen to it as a very highly advanced work of art that engages both the technical and the emotional and puts them all into one place, or one can simply sit back and say, "This is great!"

PAUL LANSKY: The three-minute pop song.

VIRGIL MOOREFIELD: Yeah, well, maybe sometimes 20-minutes!

PAUL LANSKY: The six-minute pop song…

VIRGIL MOOREFIELD: Right, the six-minute pop song! But that was something that I was really able to work with and working here, particularly working with you, and I gravitated, I think, toward you because of that very span. That's something that's still hard on the other side to get people to engage as well.

PAUL LANSKY: Yeah.

VIRGIL MOOREFIELD: Oh, that art stuff, you know. You can also get, you know, rock is supposed to be the Sex Pistols…

9. Confronting Compositional Demons

PAUL LANSKY: The thing that I constantly come back to in my own music and in teaching composition or just working with composers is getting people to really be honest with themselves and to really do something not only that they like but that has a lot to do with who they are. I think one of the dangers in studying composition is that you don't compose the music you want, you compose the music your teacher wants and so the model I often use, especially with advanced undergraduates, is as you're sitting there composing, try to imagine who it is that's peering over your shoulder and as you write something, who is it whose opinion you're questioning when you write it. I think everyone has this problem so, in a way, a large part of learning to compose is learning to exorcise the demons that are sitting on your shoulder while you're writing. And those demons are substantial. I mean, everyone has got those and everyone has got to learn how to do without them, so what I sometimes do and what I encourage other people to do, is to write music, not to please those demons but to piss them off. [Virgil laughs] and so you write something and say such and such is going to hate this, but that's O.K. because I really like it.

VIRGIL MOOREFIELD: Yeah. Is it like John Nash with the figures walking along next to him?

PAUL LANSKY: Yeah, yeah.

VIRGIL MOOREFIELD: And you just kind of say, yeah, O.K. "Hi." [laughs] There you are.

PAUL LANSKY: Yeah, that's right! So but I think this sort of thing goes back to a lot of things that happened in the '60s in the convergences of so-called rock and concert music or art music, is that lots of people started to listen in different ways and it's been a really exciting moment.

VIRGIL MOOREFIELD: Well, I certainly couldn't agree more. Going back to that seminal moment when I came into your class and was just talking about production, essentially…

PAUL LANSKY: It was my undergraduate seminar that you were talking about.

VIRGIL MOOREFIELD: Right, right. And it turned into my dissertation basically, which seems to have written itself pretty much. I mean, we had a good run of it…

PAUL LANSKY: You know how to write, so…

VIRGIL MOOREFIELD: And that was another thing that was in the air that I hadn't really considered, but it's turned into a class at Northwestern, which has been very successful and I plan on doing it again in the future and it really again brought together different elements that I had but hadn't really put a name on them and so I wasn't able to use them consciously the way it is possible now in that we can listen to production as composition.

PAUL LANSKY: Right.

VIRGIL MOOREFIELD: And I think when you're talking about cultural modes of listening, one of them is, "Well, gee, maybe the greatest interest in a lot of these songs isn't the chord progression necessarily, or that's one level of it, but then there's the whole way in which it's put together, the whole orchestration of it."

PAUL LANSKY: Actually, mainly I think because of the Radiohead thing, I've started to listen to some stuff that I probably wouldn't have listened to otherwise and wasn't that aware of. It's partially because I've just been barraged with mail. I get 4 or 5 letters every day about this and people are always saying have you listened to such and such and what do you think of this? And one thing that was really interesting to me about the Radiohead issue was that I think the piece that they used my sample in was sort of symptomatic of a crisis that they were going through which is not that unfamiliar. That is one of those compositional crises, you learn to do something well and you don't want to simply rehash the same piece over and over again. My benchmark for a second-rate composer is someone who writes a good piece and then rewrites it again and again. And as a result of that, I started to listen to certain other aspects and notice things that I thought that I was good at and didn't necessarily really want to return to engage, so extensively, like the whole issue of harmony was something that I spent a lot of time on. My *Idle Chatter* pieces are in a way sort of, you know, in a way you can describe them, I'll say this, as a theory teacher's wet dream [both laugh] so, you know, I just really indulged myself in writing these suspended ninths and sliding circles of fifths and tritone substitutions and do all those kinds of things and then I heard this piece that Radiohead did and not only was it not in any key, it was just in one chord and it was really hard to tell, you know, a little bit of G-minor, a little bit of E-flat. They were simply sort of dwelling in one place and that was an interesting kind of moment for me because I think that I learned how to sort of rethink some aspects of composition that come because of the convergence of technology and computers—audio technology and computer technology. I learned that there are focuses on sounds and different ways of listening that mirror this…you get my drift?

VIRGIL MOOREFIELD: I got your drift until that last comment. I didn't quite understand. Did you mean that there was a way of listening to something that was more of a sound field than a tonal progression?

PAUL LANSKY: That's right.

VIRGIL MOOREFIELD: That's funny, you know, it's an interesting conversation for me because, you know, I'm becoming aware of things that I brought to the table when we were working together and thinking of myself as the student and thinking that I brought things to you that complement things that I got from you because I'm now more interested in harmony, which is something I never really engaged in much before; didn't find very much need for it. But I'm really interested now in having pitch collections that might make a certain chord together and sort of throwing those out into a piece and letting them take their course but then also controlling where they might go. So, you know, a lot of your composition seems to me, works with this kind of controlled random thing where you set up a certain set of conditions where you say, this could happen or that could happen, but you don't just let it go, as you say, in *Idle Chatter* for example. There are very specific things going on so you know, I think, that the first level of becoming aware of algorithmic composition is, "Oh, look, we're going to do things that are random," but stopping there is only half the story. And it seems to me that the push and pull of harmony, the tension and release that's already built in that people already can respond to, is a great mechanism.

PAUL LANSKY: But I think that also brings up the whole issue of the power of technology that, in fact, in the studio, you're now confronted with the ability to create lots and lots and lots and lots of notes and do it very easily. And the level of intervention that you engage as you do that is really critical and important. And in a way, teaching students about studio technology is different from teaching them about traditional composition in that in traditional composition, teaching somebody to write a violin sonata or something like that, you're teaching them how to put together familiar shapes so they actually have to sum things up without the benefit of a music processor. Well, when you're working in the studio, you get into the situation where you can do so many thousands of things very easily that you lose sight

of what critical judgment means and I think in the course that we taught there were lots of moments when what we were doing more than anything else was not teaching students how to do things as much as how to have more fine control over the things they were doing.

VIRGIL MOOREFIELD: Certainly. I couldn't agree more. The editing seems to be the very important process, right?

PAUL LANSKY: In a way you can actually use editing as a metaphor for composing when you come to studio technology.

VIRGIL MOOREFIELD: I think one of the big challenges in working in the studio, especially now with everything networked, is to not simply take pre-made pieces, put three of them together. Now of course, I mean, the danger there is to be called a reactionary, right? "Well, why wouldn't you want to try that?" Well, the thing is to me again, accessing all the different levels that are possible, drawing from both--let's call it traditional composition and studio technology--really to me makes the most interesting music, the music to my ear that sounds the most complete because to my ear, because the temptation is just to simply loop a sample and just to let it go. I mean, you could say, I suppose somebody could write a violin sonata and simply copy a famous composer's violin sonata.

PAUL LANSKY: They do it all the time.

VIRGIL MOOREFIELD: Exactly. I suppose the same process happens there, but I think the idea of the ability to manipulate notes and not necessarily to really put them down on paper, even if you say, I want this group of notes to have this set of possibilities is a fascinating way to go and combine well with studio technology.

10. The Student-Teacher Relationship

PAUL LANSKY: I think the relation that Virgil and I have is similar to the relation that George and I had in that just as I don't think that Virgil thinks of me as his composition teacher, he thinks of me as someone whose work he admires and from whom he can learn something and I feel the same way about him. I mean, I've learned a lot from Virgil. That really, in a sense, mirrors my relation with George. I was in George's harmony class for two years and I had to write Bach chorales and Beethoven scherzos and he was unrelentingly critical. That was sort of a kind of more traditional educational experience, but what I really learned from George was that he was in a sense, somebody who, first of all, I knew felt strongly about what he was doing and he really liked what he was doing. So the ethical model that he presented was one that I took very seriously, because he really knew that he was his favorite composer. And I think, in a sense, that, I think every composer should be his or her own favorite composer and in George's composition lessons with me, we'd often hit a brick wall where he couldn't say anything about my music; it was either fully formed or it was never going to be born. So, George would sometimes resort to, "Well, let's go and look at some of my music." [laughs] And so, I didn't really learn the act of composition, the art of composing through George as much as really developing an attitude to get into your own head and doing something that you liked and that you took seriously. And since I had such great respect for George's abilities as a musician and as a composer and I really like his music, and I still do like his music, I felt that what I really learned from him, was, as I said, the ethics of composition more than the physical process of composing. And I feel the same way about my graduate students. We don't get graduate students here who really need to be taught how to compose, so of the few students we admit here every year, we almost always admit students who already know how to compose. So our relation to the students is to give them room to breathe and give them elbow room, room to maneuver and discover what it really is that they really like about their own work and the kinds of things that they feel are compelling. And to, in a sense, not only teach them to be their own favorite composers, but also their own best composition teachers. And I think my relation with Virgil is more along those lines, than maybe…

VIRGIL MOOREFIELD: I certainly agree with everything you said. I never felt that, in fact, I probably would have expected to just have something to resist as I said earlier in this conversation. The doors were simply open and you could run through them at any speed you wanted and I found a pace that was comfortable for me. There are a number of things here that were simply overwhelming to me. One is the general level of achievement that you're around when you're here. The other is, I believe I was told the first week I was here, "Well, you know, anything you write will be performed." So I wrote an orchestra piece, and it was read by the New Jersey Symphony… The kind of resources you have around here are just staggering and that, in fact, is practical. You know the concerts that happen here where everybody gets together and you listen to an electronic piece of an orchestral composer and vice versa. I think it's a great exposure to all those different things. But in terms of our actual "lessons," I believe they did consist in fact of my playing what I was working on and you playing what you were working on.

PAUL LANSKY: Right.

VIRGIL MOOREFIELD: And I found myself very interested in what you do and how you do it because it was very different or really it extended to me what really is possible, it gave me a wider conception of what is possible. And, of course, innovation is failed imitation, so you know, if I do try to imitate you it comes out sounding different because only you are you and I'm me.

PAUL LANSKY: Of course.

VIRGIL MOOREFIELD: And that's also something that I got here and I really find—it's not been so long since I left the place—but I find myself simply continuing to pursue my own path and I think there are enough things laid out on the table, you know, between my years in New York and then coming here and then topping it all of with the concentrated experience to keep me busy for a lifetime.

PAUL LANSKY: One thing you said sort of reminds me of what I think is an interesting metaphor. You know, in T'ai Chi there's a thing called push hands?

VIRGIL MOOREFIELD: No, I don't know that.

PAUL LANSKY: You don't know T'ai Chi at all? Well, the idea in push hands is you push but the other person doesn't push back but yields and you're sort of swept forward in the process and that's sort of a lot like our compositional teaching model. We sort of encourage our students to sort of show their work to everybody and what actually very often happens is that we give contrasting advice. So you know, he'll show something to me and I'll say, "Well, you know, I like it a lot, but maybe you should do blah, blah, blah, blah." And then you'll show it to Steve and he'll say, "I don't like it a lot, or I do like this a lot but maybe you should do something else." That's sort of the analogy of this, the metaphor that you use about finding something to push against because as soon as you find something to push against, it yields…

VIRGIL MOOREFIELD: Or you…

PAUL LANSKY: You fall flat on your face.

VIRGIL MOOREFIELD: Yeah, well, that is essentially—I mean, we talk about all being free, and the thing is that when you really are free you've got to make choices. And there's not someone standing over you saying you have to make this choice. Then you're really left with who's going to make the choices? Well, you have to do it yourself. But, yeah, I really enjoyed the generally uncritical attitude you took. I always felt that I could play you stuff in progress. It didn't always have to be polished and perfect. And that's a very vulnerable position to be in as a student.

PAUL LANSKY: Yeah, composing is especially delicate in that respect. You're really putting your life on the line.

VIRGIL MOOREFIELD: [laughs] Yeah! Absolutely!

PAUL LANSKY: And it's really hard, I find this especially with undergraduate composers because they work really hard on something and you can criticize it, but you have to be very careful because it's not just the composition that you're criticizing.

VIRGIL MOOREFIELD: Right. The person is very identified in the composition. Yes, this is their work.

PAUL LANSKY: Their inner-being and their inner-turmoil is very often in there and I think it's a mistake to teach people not to invest their music with their inner-life and the things that they care about, so it's a very delicate process and it is good in a way to not give them something to push against.

VIRGIL MOOREFIELD: Yes. At the same time, I do recall times when you would say, "I would put that first. It's a good place setter." Or I think you once said to someone, "The advice is free; it costs nothing." And suggested that they change some particular part. So, the attitude is supportive. I don't

want to generate that somehow nothing happens and that everybody just does whatever, because that's not what happened.

PAUL LANSKY: Oh, what I like to say is, "I'm gonna really tell you what I think, but I'm only gonna tell you what I think if I feel that you won't take me seriously. So, what I really want is for me to give you my opinion, but I don't want you to feel that you have any obligation to believe what I say." So I like it a lot when I feel free to say, "I really think…" I don't want to pretend that as a composition teacher, I don't tell people what I think, because I try to really say what I think, you know. If I think something is not working, then I will say it, but the thing that I always say is that it's really up to you to develop the inner resources to evaluate my opinion reasonably and if you cannot evaluate my opinion reasonably, then I'm not going to give you my opinion, so, yeah, you'll get your money's worth only if I think that you're not investing your own money.

VIRGIL MOOREFIELD: [laughs] Yeah, I see exactly what you're saying. It's kind of like, "I'll tell you what I think, but don't take it to the bank." Right? You really need to come out. You're responsible for your own actions, I mean, that's what it basically comes down to.

PAUL LANSKY: Yeah.

VIRGIL MOOREFIELD: And news is that that doesn't just mean that everything is hunky-dory, it means actually more responsibility than being in a situation where you must do A, B, C, D, and E.

PAUL LANSKY: For instance, George was sometimes similar in regard to that in that there were many times when it was clear to me when he didn't want to tell me what he thought because he didn't think that it was fair to criticize the object so much, as it was reasonable to evaluate the sort of process that you used to get there. So that's why he would then bring out his own music because he would say, you know, "I got something that I liked and this is how I got here," rather than saying, "I think that you were wrong in that respect." So in a way I think I'm responding to George's hesitancy as a composition teacher. Maybe he was hesitant for the same reasons that I am bold because he knew that I would take what he said very seriously, so I guess I try to act like a fool so my students don't take me too seriously, so I can say what I think.

VIRGIL MOOREFIELD: I don't really think that's the effect you have. I know what you're saying though as a concept. Yeah, that's a very tricky thing that I find in teaching composition. Sometimes, I'd wonder, "Well, do I just not get it, or do I not like the kind of thing they're doing." And then I have to step back and say, "Well, if they're doing it well, I have to try to understand what they're doing," and then, if they're doing it well, I say, "You know, fine," because maybe I hate a certain kind of progression or, you know, a piece that's all piano or something like that, you know. Piano, bass and drums, for example… Something I might hate just on the face of it, you know that combination and yet, if they're doing well, leave them be because it's not their problem I don't like that. It's a perfectly legitimate thing to do.

PAUL LANSKY: But I think as a composition teacher, you do have to learn, that's why I'm so interested in the seminar I'm doing at the moment, the one that forces you to recompile your software, because I think as a composition teacher it's really important in a way just to suspend judgment and to learn to evaluate things and learn the terms. So that's why I think it's important for our graduate students to be able to deal with music that is just not down their alley and also with the Generals Concert. I should say, what we do in the General's Concert, part of general exam is, we tell the students to prepare two pieces one by some composer who they admire but with whom they don't feel this close kinship with and then

to prepare a performance of that piece and then to prepare a performance of a piece that's a response to that …

VIRGIL MOOREFIELD: Which is general composition.

PAUL LANSKY: The point is to prepare a piece by a composer that they admire and but don't feel is someone who's just down their alley.

VIRGIL MOOREFIELD: Well, in a sense, that's an interesting duality. Because I did that with Varèse because I like beats and Varèse has no beat. It's not 4/4 or 5/4 it's all this really overlapping, highly complex, dense structure.

PAUL LANSKY: It's events.

VIRGIL MOOREFIELD: Yeah. Exactly.

PAUL LANSKY: And pulsations.

VIRGIL MOOREFIELD: Exactly. It's a very different conception of rhythm so, I was in fact walking that line between something that's not what I do but that I do admire. It's a tricky place because, you know, if you have to prepare something by someone you hate, well, you just might hate it. You know, you might night have to get on the other side of that one.

PAUL LANSKY: Yeah, oh, yeah.

11. From Being in the Class to Being Part of the Syllabus

PAUL LANSKY: I taught a course on music after 1945 and I do play some of George's music, and I play them your music!

VIRGIL MOOREFIELD: Which one did you play?

PAUL LANSKY: Let's see, the one with the machines…

VIRGIL MOOREFIELD: Oh, *Slot Machines*!

PAUL LANSKY: *Slot Machines*. Right. I also played the one that I love, *Put a little distance between me and the job baby*.

VIRGIL MOOREFIELD: Yes, yes.

PAUL LANSKY: And a lot of students appreciated that. I did a whole section in the course on the studio, the convergence of the studio.

VIRGIL MOOREFIELD: Not your typical "Music after 1945" course!

PAUL LANSKY: Oh, well, that was a big part of music since 1945.

VIRGIL MOOREFIELD: Oh, absolutely, but I remember a German book that came out a few years ago and only certain music was in it, so it's a broad band that you're engaging in, a broad spectrum.

PAUL LANSKY: Yeah, yeah.

VIRGIL MOOREFIELD: I do play Paul's music to students. At some point in the course, I've only been at Northwestern since last fall, but one of the first things I did when I started a course called the Virtual Recording Studio was to play them *Ride* and not tell them who or how or anything, just what do you think? And I've had a pretty good response. One of the more strictly minded people said it was the only real composition I'd played all day. I'd played Radiohead, I played Chemical Brothers, I played some Steve Reich. But it's interesting because everybody accepted *Ride* but some people for some reasons and some people for other reasons, you know? So there was a very serious minded student who had this notion of what composition is and he accepted that and the pop people did as well. So it's a very interesting thing when it works in that broad band that one can actually cross in the listener's mind as well as one's own.

PAUL LANSKY: Yeah. I played George's Adagio for Orchestra for the students. They liked that a lot. And that was sort of my week about American original composers. I played George with George Crumb and Elliott Carter and some others. When I teach this course I do like to do a lot of mainstream composers, but so many courses on music after 1945 consist of nothing but Stockhausen, Berio, Xenakis, and Varèse so, you know, I did a lot of that stuff, but I also did Leonard Bernstein. I think he's a major composer.

VIRGIL MOOREFIELD: Absolutely, what was your main take? Did you do mostly art composers and also some pop? Because I may have taken the course from the other side…

PAUL LANSKY: I see. It was mostly art composers with some pop. I didn't really want to do a lot of pop stuff because that really isn't what the course was about. I think mainly the sort of composers who don't sell huge amounts of CDs!

VIRGIL MOOREFIELD: Right. I took it from the other side, you know, teaching the course "Producers, Composers." I had to—I felt compelled to do a side bar on art music so we would get into Stockhausen who was, you know, Björk's and Kraftwerk's and Can's hero and Varèse was Zappa's hero. It's so interesting how composers not heard by very many people have influence by their conception of music and expanding the frontiers of what's possible. And so, that was an interesting other way around in a course that was mostly pop music.

PAUL LANSKY: Yeah, yeah. I did, I guess, in the pop music stuff, Laurie Anderson is probably the closest I came. I did some Autechre…

VIRGIL MOOREFIELD: That's pretty close!

PAUL LANSKY: And Brian Eno.

VIRGIL MOOREFIELD: Which Brian Eno?

PAUL LANSKY: Um, let's see. *My Life in the Bush of Ghosts*.

VIRGIL MOOREFIELD: Oh, yes.

PAUL LANSKY: I like that.

VIRGIL MOOREFIELD: We had listened to that…

PAUL LANSKY: That's right. And I also did, I can't remember what it's called, it's the one that's on the *OHM* anthology. We had a really interesting discussion on Robert Ashley's *Automatic Writing*. It was a really interesting piece and we sort of went on to Brian Eno. That was kind of interesting too.

VIRGIL MOOREFIELD: Yeah, we did *My Life in the Bush of Ghosts* in Producers/Composers. [laughs]

PAUL LANSKY: Yeah, well, that's a seminal recording.

VIRGIL MOOREFIELD: Yeah, it was years ahead. I mean, when they had to go on a put everything onto tape loops and…

PAUL LANSKY: That still works.

VIRGIL MOOREFIELD: Oh, it's fantastic. I think if you just put it on and played it for somebody I doubt they could say, oh, yeah, this is 20 years old.

PAUL LANSKY: That's right. So, and I think I played some of your stuff around that time too. It's still out on the Web page if you want to look at it.