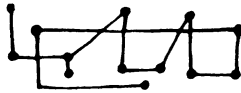


# HIS OWN MUSIC: PART TWO



## UR-CONVERSATION WITH JOHN CAGE PRODUCED BY RICHARD KOSTELANETZ\*

### II. AFTER 1970

*YOU HAVE SAID that the function of composers is to hide beauty.*

That has to do with opening our minds, because the notion of beauty is just what we accept. If we hide beauty by means of our music, we have enlarged the field of the mind.

*I don't quite understand that.*

It seems clear to me! If I just made everything "beautiful," then I wouldn't help either myself or anyone else. No change would take place.

\*John Cage, *various interviewers* (see Bibliography). Part One appeared in our previous issue. This article is excerpted from the forthcoming book, *John Cage Conversing*, scheduled for publication (in German translation) in 1988 by the DuMont Buchverlag, Cologne.

*So you do think about people when you write.*

Not particularly, no. I don't know what my music sounds like until I hear it. I don't know how I would compose if I were thinking about what someone else would be hearing. I try to do my work as well as I can. That's the best I can do. If I thought about the listeners, I wouldn't know which ones to think about.

—Symposium moderated by Arnold Jay Smith (1977)

Every now and then, in my writing of music which gives freedom to the performers, I encounter a performer who says, "I don't want to be free. I want to be told what to do." I have a piece for people I don't know which gives both the possibility of freedom and the possibility of being told what to do. The piece is called *Etcetera* (1973), and it has conductors. The musicians can either go to the conductors or stay by themselves . . . I try in that piece to give an instance of this society that would have both freedom and no freedom. And then, in other pieces, I give instances of how it is to be free, and in still others I give instances of how it is not to be free. I think it's true that some people need to be told what to do. They can't use freedom. But there are other people, like myself, who hate to be told what to do, who need freedom. We're going to have, I hope, in the future all those varieties of people.

—Interview with Monique Fong and Françoise Marie (1982)

*Could you tell us about this Thoreau piece that you've just done?*

It's called *Lecture on the Weather*. My understanding was that they [the Canadian Broadcasting Corporation] wanted a piece in the neighborhood of thirty minutes long, the way broadcasts go. Since the bicentennial is an occasional piece in referring to the past, I thought besides referring to the past of the United States, I would refer to my own past too, which is basically my silent piece 4'33", which I wrote in 1952. All of my music since then I try to think of as something which doesn't fundamentally interrupt that piece. So I multiplied 4'33" by different numbers, and you come to the conclusion of course that any length of time is a multiple of 4'33", that it's only our mathematical system that would let us settle on five times 4'33", and six times, and seven times. There are other ways of having multiples, and there isn't anything that isn't a multiple of it. It's a sliding field situation. So it becomes a question of proportions.

—Interview with Cole Gagne and Tracy Caras (1975)

The *Journal*, as you know, is illustrated by Thoreau, and I removed his drawings and then in chance-determined spaces put musical notations having the duration of one breath, and surrounded by speech; so that the performer has a book which is illustrated with musical notations, and he speaks, he reads, he vocalizes those single breaths. The piece as a whole is a multiplication of the proportions of my silent piece of years ago, and it begins, as the first performance of that did, at Woodstock, with the sound of breeze. In the second movement rain begins, as it did when David Tudor played it in Maverick Hall in the woods near Woodstock. In the third movement originally, the people began speaking when they saw that no sounds were going to be produced by the pianist. But since they're speaking all the way through this work, the *Lecture on the Weather*, the progression is not breeze to rain to speech, it's breeze to rain to thunder. In the live performance in the hall, which will be broadcast, the lights will also go down, and the drawings of Thoreau will appear as lightning in the last part.

—Conversation with Ellsworth Snyder (1975)

I've done a number of works involving environmental sound, ambient sound, and one of them was *Score with Parts* (1974), which I did for the St. Paul Chamber Orchestra. I used the environmental sound of dawn at Stony Point, New York, where I had written the music, and David Behrman made that recording, and he made another recording for me for the piece called *Etcetera*. Again it was ambient sound not at dawn, just anytime during the day. It was composed for a dance that Merce did in Paris called *Un jour ou deux* (*A Day or Two*). And when I was invited by the CBC to make a bicentennial piece called *Lecture on the Weather*, I thought also of asking David Behrman to make a recording of wind, rain, and thunder for the whole thing. Somehow he didn't receive the letter that I sent him. He was at York University in Toronto, and it went to the wrong part of the university. It just wasn't received. Finally I telephoned him, but he was then committed and couldn't do it and thought I should engage Maryanne Amacher, for, he said, she did the best recordings of ambient environmental sounds. I knew that her work was very beautiful. I had heard it, and I agreed with him immediately. So I engaged her to do that and her friend Luis Frangella, an Argentinian, to make a film of lightning with the drawings of Thoreau as the flashes of light. So that Thoreau himself became the thunder. And the speakers preferably would be people who had given up their American citizenship and were becoming Canadians, so it was a *dark* bicentennial piece. Like Thoreau, it criticized the government and its history. And the twelve speakers are speaking quotations from the "Essay on {the Duty of} Civil Disobedience," the *Journal*, and *Walden*, according to chance operations.

*Which are coherent quotations, not fragments, as in Mureau or Empty Words?*

They're coherent, but they're so superimposed that you can't understand

anything. It's the same experience you could have if you had twelve radios going at once. Or if you had tuned between stations and could hear several going at once.

*That's not the same experience at all, because with Thoreau you're dealing with a fixed and highly charged body of material.*

—Conversation with Richard Kostelanetz (1979)

I'm working now on a piece for orchestra. It's the other bicentennial commission for the Boston Symphony. There were six orchestras, and they commissioned six composers, each orchestra commissioning a single composer; and then the six orchestras have access to these works, though they're not obliged to play them. The only one that's obliged to play is the one that commissioned it. It was the Boston Orchestra, with Seiji Ozawa as conductor, who asked me to write, and I agreed. I don't know the precise nature of what I'm doing yet, but I know that it includes a *renga*, which is Japanese linked poem. *Waka* is a single poem of five-seven-five (which is haiku), plus seven-seven. But *renga* goes on and on, any number of *makas*. So that this will make a longer piece than the one I wrote a year ago for the St. Paul Chamber Orchestra, which was *Twelve Haikus*, followed by a recording of the dawn at Stony Point [NY]. The notation is not in conventional notation, but is in graphic notation, in that the drawings are the drawings of Thoreau, from his *Journal*. So they can be played by Western instruments or oriental instruments, and I don't specify or distinguish between string and wind instruments, even. So that for the Boston Orchestra I will write 102 parts, and the conductor will have the score, which gives the drawings, and tells how many instruments are playing in a drawing, and how loud it is. The parts that the players are given will be literally parts of the drawings, so that when all of them play together, the drawings are all expressed. But the expression of the drawing in sound is not the same as the expression of the drawing on paper. Though one would logically look for a connection between the two, poetically one wouldn't. Now whether or not there will be other things in this piece for the orchestra than the *Renga*, I don't yet know. But if I follow my present inclinations, there will be a circus of music that one might have heard in 1776. By "circus" I mean many pieces going on at once, rather than one alone. Because seen from a particular point of view, music is simply the art of focusing attention on one thing at a time. In my recent works, since about 1968, I have tried not to focus the attention on one thing at a time, and have used this principle that I call "musicircus"—of having many things going on at once. Which is what takes place in the *Musicircus* [1967] itself, which is not written down but has been performed, and it takes place in *HPSCHD* [1969], and in the *Song Books* [1970].

—Interview with Cole Gagne and Tracy Caras (1975)

You could make a work in which you only thought of one thing. I have a piece called *Variations IV*, which says nothing about the sounds in it. It says only where they are to be produced. Rather it gives means of finding where these points in space are. You could also make a composition in which you said nothing about the sounds. Your only concern would be when.

—In a symposium with Richard Kostelanetz, et al. (1977)

*How did you come to write Renga with Apartment House, 1776? Can you say anything about the composition itself?*

Yes. There are two pieces which are played together, for the purposes of the Bicentennial Celebration. One is called *Renga*, which is a form of Japanese poetry. The shortest form of *renga* is thirty-six groups of 5-7-5-7-7 syllables, and that's what my piece is. But instead of having ordinary musical notation, it has drawings of Henry David Thoreau which came from his *Journal*, placed by means of chance operations in spaces comparable to this poetic structure; then taken apart in seventy-eight parts so that they read from left to right. I did that in order that the parts could be played either by contemporary instruments or by instruments of the eighteenth century, or other instruments including oriental instruments. Not much advantage has been taken of that by the various orchestras, but nevertheless that possibility exists. Together with that I made a piece called *Apartment House 1776*. I wanted the "1776" to sound like an address. Through chance operations I found sixty-four pieces, either anthems, hymns, tunes, ballads, two-steps or quick-steps for the military, marches, and imitations of Moravian music. Through that I had to face what I hadn't faced previously in my work: the question of harmony, and I found a way finally of writing harmony that interested me, which was, actually, to subtract from the original pieces, so that the music consisted of silences-sound-silences. So that each sound that occurs in those harmonies is preceded and followed by a silence. Then the sound comes from its own center, rather than from a theory.

—Interview with Art Lange (1977)

Satie has avoided problems of being understood through seeming to people to be too simple to bother to analyze, I think—so that people leave his work alive without analyzing it. But I didn't do that. I analyzed it and I still find it beautiful. I think it was because he had, as I've had, a rhythmic (empty time) structure rather than a structure connected with the surface result (the notes). I'm arguing on the other side of the fence from critics who say that my work is trivial since it can't really be analyzed in the conventional sense. What can be analyzed in my work, or criticized, are the questions that I ask. But most of the critics

don't trouble to find out what those questions are. And that would make the difference between one composition made with chance operations and another. That is, the principle underlying the results of those chance operations is the questions. The things which should be criticized, if one wants to criticize, are the questions that are asked.

I had the experience, in writing *Apartment House 1776*, of wanting to do something with early American music that would let it keep its flavor at the same time that it would lose what was so obnoxious to me: its harmonic tonality. My first questions were superficial and so resulted in superficial variations on the originals. Not having, as most musicians do, an ear for music, I don't hear music when I write it; I only hear it when it's played. If I heard it when I was writing it, I would write what I've already heard; whereas since I can't hear it while I'm writing it, I'm able to write something that I've never heard before. The result was that I was working so fast, and against a deadline in the case of *Apartment House 1776*, that my first questions were simply questions about subtraction from the original [William] Billings. Namely, seeing that a situation had four notes, I would ask, "Are they all four present, or only three, or two, or one?" And unfortunately, the first time I did it, I did it with respect to a piece that was interesting in itself, so that when I subtracted from it, it remained interesting. When I played it, it was new and beautiful. And so, not being able to hear them, I then did that with respect to the forty-three other pieces, and it took me a long time. When I got to a piano and tried them out, they were miserable. No good at all. Not worth the paper they were written on. It was because the question was superficial. I hadn't found what was at the basis of my trouble with tonal music. I hadn't rid the music of the theory. The cadences all remained recognizable.

Then I thought I should include silence. I did that (asking, "Are four present, or three, or two, or one, or none?") and again wrote a beautiful piece. I again wrote all forty-four pieces and again they were not good. So I came back to the problem and saw that I had to go deeper into it. Finally I took—my question was for each line—which tones of fourteen tones in one of the voices were active, and I would get through chance operations an answer like this: number one, seven, eleven, and fourteen. The first sound I would write from [William] Billings, put it down and extend it all the way up to the seventh tone; and at the seventh tone, a silence would begin that would last to the eleventh tone. I would then write the eleventh tone, and it would last to the fourteenth, and at the fourteenth, a silence. Therefore, the cadences and everything disappeared; but the flavor remained. You can recognize it as eighteenth century music; but it's suddenly brilliant in a new way. It is because each sound vibrates from itself, not from a theory. The theory is no longer in power. The cadences which were the function of the theory, to make syntax and all, all of this is gone; so that you get the most marvelous overlappings.

*The reactions to that piece have been extraordinary, particularly in Los Angeles about two years ago.*

That's because of the superimposition of so-called spiritual musics, which offended some of the Jewish people in the audience.

*It was not intended in any way to do this?*

No, I was concerned. I knew that something might happen because people who sing such music don't have the habit of singing while another person is singing something else. And I had to explain to each singer carefully what was going to happen to get them to accept that before they did it. It was particularly hard with Helen Schneyer, who said that she didn't think that she'd be able to sing while other people were singing; that her work meant too much to her. She said, "I won't like it," and so I used a simple device. I said, "Life is full of things that we don't necessarily like." But now she loves it. They all love it because it is a kind of ecumenical feeling to have everything, all the churches, so to speak, together. The Indian chief was marvelous; he mostly wouldn't let me talk at all when I first met him.

*He talked you over.*

Yes, because for years he had given pow wows in a tourist trap between Montreal and New York and so he didn't know how to stop talking. Finally I said, "Swiftly, I must tell you what it's going to be like for you to sing in this piece." He put his hand on my knee and said, "Don't bother, I understand. There are going to be many things happening all at the same time."

—Interview with David Cope (1980)

*Were the Etudes Australes the result of a commission?*

No. Grete Sultan was working on my *Music of Changes*, which I had written for David Tudor, and that involved hitting the piano with beaters and also with the hands, and it didn't seem to me that an ageing lady should hit the piano, and so I told Grete that I would write some pieces for her, and these are the result.

*Did you cast around a while before finding the ideas?*

Took me months before I got it.

*When you came up with the idea of using the star maps?*

No, I had that idea at the beginning, but the idea of writing etudes for the two hands, each hand separate from the other, was original to this piece. I don't think anyone has thought of doing that before. The lower pair of clefs in each system is for the left hand, and the upper pair is for the right, and they both go through full ranges. The right goes from the low A in the bass clef to the top of the piano, and the left goes from the bottom of the piano to the C above the treble, so that hands are continually crossing. That's what characterizes these etudes.

—Interview with Tom Darter (1982)

It uses, as I always do, the chance operations of the *I Ching* whenever a question needs to be asked; otherwise, it uses star maps of *Atlas Australia*—that's why the pieces are called *Etudes Australes*. They move, as not all of my music but a great deal of it does, from one situation to another, so that the first etude has the fewest aggregates, the fewest chords, and the last one theoretically has the largest number of aggregates or chords—two notes at a time, three, four, and five at a time. I had made a catalogue of what triads, quatrads, and quintads could be played by a single hand unassisted by the other, and I found that there were around 550 four-note chords and five-note chords for each hand. This permitted the writing of a music which was not based on harmony, but it permitted harmonies to enter into such a nonharmonic music. How could you express that in political terms? It would permit that attitude expressed socially. It would permit institutions or organizations, groups of people, to join together in a world which was not nationally divided.

—Conversation with Ellsworth Snyder (1975)

*How were star maps used in composing the piece? It's obvious that you didn't simply place the maps on some music paper.*

I put a transparent strip of about  $\frac{3}{4}$ " width over the maps. It was the width that diminished the number of stars. The trouble with star maps is that there are too many stars to make a piece of music. And within this width I was able to distinguish the twelve tones of a single octave, so this became like putting a strip one octave wide over the map. Then through chance operations I broadcast these tones to the available octaves for the right and the left hands, so that these—the notes on the page—are not the positions of the stars vertically, though they are horizontally; but not all of the stars, because the maps I used were in a variety of colors, and according to chance operations I either traced just the blue and green or the red and orange or the yellow and violet stars, or combinations.

*What relationship did that have to those aggregates you mentioned before?*

After I had the notes, one of the questions I asked was, which of these notes are aggregates, and which are single notes? In the first *Etude* that question is answered by only one number [out of sixty-four possible, through the *I Ching*], whereas in the thirty-second *Etude* it is answered with thirty-two. It ends with a situation which is half aggregates and half tones, or potentially that.

—Interview with Tom Darter (1982)

*Do you have any interest in synthesizers?*

I've worked with David Tudor in what we call live electronic music. Synthesizers lead toward a taped version of something that is fixed, and I've tried to keep things changing. I myself don't keep a collection of records. The few



records I have I don't use as records because I don't have a machine to play them on.

*The things you've done with David Tudor have used electronic circuits that were created specifically for the purpose of that performance.*

*Cartridge Music* is an example. And more recently, pieces called *Child of Tree* and *Branches*, in which I amplify plant materials. There I give directions for improvisation because the improvisation can't be based on taste and memory since one doesn't know the instruments.

*How exactly does that work?*

If I have a piece of cactus, either by means of an alligator clip attachment or by means of a cartridge with a needle in it, I can connect the cactus and the spines with the sound system, and then by plucking one of the spines or touching it with paper or cloth or something, I can get a very beautiful pitched sound, and the pitch relations between the spines of a single piece of cactus often will be very interesting—microtonal.

—Interview with Tom Darter (1982)

*Could you tell us something about the structure of Branches?*

It's improvisation within a structure determined by chance operations, so that what each musician has is eight minutes divided by chance operations into smaller groups, not of seconds, but of minutes. So it would be, for example, four minutes, two minutes, one minute, one minute. Or it might be four minutes, four minutes; or it might be three minutes, two minutes, two minutes, one minute. Then there are ten instruments, and what is an instrument can be determined by each performer. For instance, one spine could be one instrument, another spine another. Or the whole cactus could be an instrument, and there are ten of those, and the tenth one is the pod rattle, and must go in the last section of the eight minutes. Then between one eight-minute performance and another there is to be silence, also determined by chance.

I had thought of it, if it were to be played by a number of people, as it was the other evening, as being determined by each person independently of the other. But what the Nexus group did was to determine it for the whole group, and to play it in what you might call vertical harmony, rather than, as I had imagined it, contrapuntally, with each person independent of the other. I explained to them that their understanding of the piece was different than mine, but my directions are actually always ambiguous, and I do that in order to leave the door open for a musician to make an original use of the material.

*Did you work with Nexus on Branches prior to the performance?*

No. No, I just let them do what they do. If you would ask me—because they probably would if we had a chance to talk—what I thought of the performance and so forth, I would lead them away from continual activity to a sense of silence

as activity. So that within one of the structures, say, four minutes, it's not necessary to be continually making sound. You can fill that four minutes by simply putting one sound halfway through the third minute. Instead of being a lawmaker I would like to have my work take on the character of stimulus or suggestion. I don't mean that in terms of license, but in terms of poetry.

—Interview with Laura Fletcher and Thomas Moore (1983)

*Most people knowledgeable with your life know that you are an expert in mycology. How has your study and work with mushrooms paralleled your work with sound; or has it?*

I certainly think that is true in my case with mushrooms. I've had for a long time the desire to hear the mushroom itself, and that would be done with very fine technology, because they are dropping spores and those spores are hitting surfaces. There certainly is sound taking place. I mentioned this in the last article in *Silence*, in that humorous article. I would still like to do that. It leads, of course, to the thought about hearing anything in the world since we know that everything is in a state of vibration, so that not only mushrooms, but also chairs and tables, for instance, could be heard. One could go to an exhibition of sounds in which you would see something and hear it as well. I would like to do that.

—Interview with David Cope (1980)

I just was in San Francisco and then I went to Santa Cruz to see my friend Norman O. Brown, who has written those beautiful books, *Life Against Death* and *Love's Body*; and we had very interesting conversations. And that thing that Jesus said in the New Testament came up, about considering the lily, which is a kind of silence; but now we know, through science, that the lily is extremely busy. We could say that Jesus was not thinking scientifically, or not thinking microscopically, or electronically; but then we could agree with him, because the work of the lily is not to do something other than itself. In other words, it is not production of something else; it is rather reproduction of themselves. And that perhaps is the proper work for us all, and that, I think, could bring us back to silence, because silence also is not silent—it is full of activity.

—Interview with Alcides Lanza (1971)

*Are you familiar with some of the work that was done about eight years ago with wiring plants with electrodes and tying these through synthesizers?*

Yes, I've done that.

*What were the results?*

It was most interesting, and I have a project (unfortunately it hasn't taken place yet) to amplify a city park for children. It was to be done at Ivrea near Torino where the Olivetti company is. There is a marvelous hill in the center of the city that is high and has a beautiful view of the Alps, and is isolated enough from the traffic sounds so that you could hear the sounds of the plants. The project fell through, but I was invited to do the same kind of project in Rome and also in Zagreb; but I haven't accepted it until I accept the place. I was spoiled by that marvelous situation in Ivrea where the silence—when you weren't playing the plants—was very audible and beautiful; you could hear it as if you were in a concert hall. In other words, I wanted the silence of the mountain to be heard by the children after they had heard the sounds that they themselves had made by playing the plants. We were going to have a programmed arrangement so that every now and then the plants were going to become unplayable, and the children would be obliged to hear the silence. Otherwise the children would have been making noises continually.

Did you hear the music with cactus [*Child of Tree*]? That was what that came out of. For a dance of Merce Cunningham's I used cacti. I made the sounds on cacti and a few other plant materials. That led to the idea of amplifying a park, and that's led to the idea that I've found quite fascinating: a piece of music performed by animals, and butterflies, which sounds fantastic now but is almost within reach, I think, with our technology.

—Interview with David Cope (1980)

*Do you consider works such as Branches and Inlets to be an extension of something that you were doing in Cartridge Music, or does the inclusion of natural objects have a significance that makes the works totally different?*

No, they're a move in the direction of improvisation.

*You've frequently spoken out against improvisation, because it relies so heavily upon habit and personal taste.*

I'm finding ways to free the act of improvisation from taste and memory and likes and dislikes. If I can do that, then I will be very pleased.

In the case of the plant materials, you don't know them; you're discovering them. So the instrument is unfamiliar. If you become very familiar with a piece of cactus, it very shortly disintegrates, and you have to replace it with another one which you don't know. So the whole thing remains fascinating, and free of your memory as a matter of course.

In the case of *Inlets*, you have no control whatsoever over the conch shell when it's filled with water. You tip it and you get a gurgle, sometimes; not always. So the rhythm belongs to the instruments, and not to you.

*Cartridge Music* has several people performing programs that they have determined by means of the materials. But one person's actions unintentionally alter another person's actions, because the actions involve changing the tone controls and the amplitude controls. So you may find yourself playing something and getting no sound whatsoever.

—Interview with Cole Gagne and Tracy Caras (1980)

I received a letter from the very fine violinist Paul Zukofsky, and after I finish the work I'm working on now, I will work on a piece for him. He said that since my return, through the piano etudes that I wrote for Grete Sultan, the *Etudes Australes*, a return, as he put it, to stricter notation of music, that he would hope that I would write something for violin. When I went to see him the other day, I asked him what he thought was lacking in strictness about the piece I wrote in the fifties for a string player that is graphic, and for some reason he thought that that was suggestive of spontaneity. Whereas nothing could be more strict than graphic notation, since you could take a ruler, as I took to write it, and find out exactly what was to be played. In fact, that notation is so strict, that I felt that I was putting the performer in a strait jacket. It was that tendency, which is exhibited also in the *Music of Changes*, that was one of the things that led me toward greater indeterminacy, leaving freedom to the performer.

*There are two works for a string player that can still come out sounding very different from performance to performance, in terms of the arrangement of the graphs themselves. It was the problem that the graphs were so specific which bothered you?*

No. They could sound different because I don't specify what can be done on a single string. I had found through talk to the New Music String Quartet—Broadus Erle, Claus Adam, [Matthew] Raimondi, and [Walter] Trampler—that no one is in agreement as to what can be done on a stringed instrument. Ask two people how many notes can be played on the G string, and you'll get two different answers. Zukofsky now is writing and studying very carefully the possibilities of the violin, and I have somewhere here in these papers now tables that he gave me—and he's going to make further tables—of what can actually be done, and what the physical action is in playing the violin.

This is what I took into consideration when I wrote the recent piano etudes. In most music, if the right hand is doing something very difficult, then the left hand rushes to its assistance. In this piece, there are two staves for each hand, and as far as I know it's the first piece for two [autonomous] hands for the piano. There have been pieces for one hand, and always for the left hand, I think, alone. The reason being that the left hand had been reduced to serving the right and making the accompaniment, so that then when it was a piece for the left hand alone, it could do fancy things. No two things happen at once. Therefore, in this notation, which is in space, a decision has to be made about which comes first,

and it's sometimes very difficult to figure. The activity of the piece consists to a great extent of the hands crossing—which is also rare in piano music. Grete Sultan, for whom I wrote these pieces, has had to learn to sit differently than she ever sat before, so that she can quickly and without seeming to, shift her weight, so that she will be in a situation where she will be able to do what there is to do.

Each thing is at its own time, and the only things that are sounded together are the things that have a stem connecting them. There would in most music be harmonies, and there are aggregates of sound. What I did was to make tables to see how many sounds a single hand, unassisted, can play, when it plays two notes, three notes, four notes, or five notes. I found that there are around 546 four-note combinations, and about the same of five notes—I forget now what it is of three notes. In that way you move into a situation that includes, one might say, harmonies, but in which the music is not based on harmony. Where the space gets so complicated that you can't write the notes, I refer with a letter to an appendix. Each etude is two pages, and the composition was made through the use of star maps and *I Ching* chance operations, and where through those things it got to be too much, this device was used.

So you see, there's indeterminacy here. Now, are we going to say that it's less exactly notated than the string quartet? What are we going to say about that? is why I showed you all of this. I would say it's no less exact; in fact, it may be more exact.

—Interview with Cole Gagne and Tracy Caras (1975)

Now I'm making some songs with the same title [*Ryoanji*] and I thought that I should make a difference. First I wrote some songs that were just like the oboe pieces. It was as though I was continuing writing for the oboe, and instead was writing for the voice. And I thought, "No, that's wrong, the voice is different, and I must write it differently." I began to write something different, and again I felt myself to be "ungifted," in the dark, not knowing how to do it. And so finally I made . . . I was watering the plants, and I had rather clearly in my mind the impression of how I would go about writing for the voice. And so I picked up the phone and called the singer and I made an appointment, actually for yesterday at two o'clock. This was two days ago. So then when yesterday came, and it was getting closer and closer to the time of seeing the singer, I was almost on the point of saying, "No, it isn't right," and calling her up and saying that there was no need for it. But then I decided to go on with it, and I showed her what the new idea was and then what the oboe idea was, and it was the oboe idea that was right. You could tell when she sang it, not only from how it sounded but from the way she seemed to be when she was looking at the music; so then actually the new idea was getting closer to the drone, and the old idea wasn't anywhere near the drone. So I think what's happening is that when I start to work

now I'm trying to go in response to those drones, and that I haven't found my way yet.

—Conversation with Morton Feldman  
(Bunita Marcus and Francesco Pellizzi) (1983)

I'm now calling these pieces [*Branches, Inlets and Child of Tree*] *Improvisation 1* and 2, then there will be 3 and 4 {and, more recently, for B.L. Lacerta, A and B}. 3 is the piece we do for Merce's dance called *Duets* and 4 is the one we do for *Fielding Sixes*. And there we use cassette machines, playing cassettes in a special way. Number 3 is simply playing them all pianissimo, and there must be four players. Then each one in the period of the whole time is allowed one crescendo. It makes a very nice situation. Each person has the same material. In that case we have six cassettes. And in the case of *Fielding Sixes*, John Fullemann made an arrangement so that you can slide the speed of the machine. Then we have twelve recordings and they're constantly sliding. Four people playing the same ones and different ones going on at the same time—sometimes the same, but never at the same moment. {This piece is being revised, 1986, to be more like *Improvisation 3*, its mirror version. That is, rather than one crescendo, there will be “descents” into silence from a general mezzo-amplitude; and there will be no sliding.}

—Conversation with Andrew Timar, et al. (1981)

*At what stage are the Freeman Etudes now?*

The first sixteen were finished, and then [Paul] Zukofsky discovered that I had learned a little bit too much about what was violinistic. When I had a B above the treble clef, it could be played on any one of the four strings. But if it seemed to me to be more appropriate to the first or the second string, I would then not involve the third or the fourth string in the chance operations. When he discovered that, he suggested—and I agreed—to go back over the string indications to find out again what string should be used when it was at all physically possible. Then I go over it with him again, and where it's literally too difficult, just impossible, then he refuses the chance operation. He accepts some and refuses others, so it never gets to be a pure chance situation. But it goes more toward that than it did.

So they're being revised. The first six are finished, and two more have been revised but not yet copied. Then we'll go on through to the sixteenth. I've begun work on the last sixteen. {They will be recorded not by Zukofsky, who recorded I–VIII, but by János Négysesy, who now plays I–XVI.}

It's given Zukofsky notions of things that could be done that he didn't know

about. I'm keeping a record of all of his answers to my questions, and he proposes to go over them and publish them.

—Interview with Cole Gagne and Tracy Caras (1980)

*Some of these works are very difficult.*

They are, yes, they're very difficult.

*Did you have a virtuosic element in mind?*

Yes, and these are intentionally as difficult as I can make them, because I think we're now surrounded by very serious problems in the society, and we tend to think that the situation is hopeless and that it's just impossible to do something that will make everything turn out properly. So I think that this music, which is almost impossible, gives an instance of the practicality of the impossible.

—Interview with Laura Fletcher and Thomas Moore (1983)

*Are you distressed that the interest in [your early] works might be at the expense of your more recent works?*

No, I don't think that that's the case because some people play the newer music too. In particular, the recent etudes for piano and violin interest many people. So I don't think that there's any problem.

My basic attitude towards all this is that I have my life, and my music has its. The two are independent of one another. I'm of course interested in the life of my music, but after a while I'll die and it'll have to take care of itself, so I'm trying to let it take care of itself to begin with.

*In your recent music, do you feel a carry-over from one piece to the next?*

No, another thing happens with me. I work in many ways in a given time period. And not only do I make music, but I write texts, and now I make etchings. I do all of these things in different ways. Some ideas that I have I drop, and others I pick up from the past, and so on. So it's not a linear situation. It's more like overlapping layers. For instance, at one extreme you have the *Freeman Etudes* for violin, which are very determinate; they are written down in as exact a notation as I can make. (That was a request of Paul Zukofsky, with whom I've been writing them.) But at the same time I'm developing an interest in improvisation, which is probably freer than anything I've done before (including the indeterminate music).

—Interview with Cole Gagne and Tracy Caras (1980)

*How do you use the chance operations?*

In the particular case of these violin etudes I start with star maps and I place transparent sheets on them. I place the star map at a point which is convenient for the paper. The maps I use have blue, green, orange, yellow, red, and violet colors. I combine the blue and green, the red and orange, the yellow and violet, then make these colors singly or in pairs, or all three; and that gives seven different densities. My first question to the *I Ching* is, "Which of those seven possibilities (blue/green, red/orange, yellow/violet, red/orange, blue/green with red/orange with yellow/violet) am I dealing with?" Meanwhile I have made a table relating the number 7 to the number 64. The number of hexagrams in the *I Ching* is 64. If I divide 7 into 64 I get 9 with a remainder of 1. That means one group is a group of ten. The six groups, 1 from 7, are groups of nine. I arrange the tables so that three groups of nine are the beginning of the 64 and then the group of ten is in the middle, then the other three groups of nine are at the end. Then I can toss three coins six times or I can use as I do a computer printout. A young man at Illinois {Ed Kobrin} made a computer program for me. It makes my work quicker than it would be if I used coins or the yarrow sticks.

The result is I quickly know which stars I am to trace. Then my next question is how many stars am I to trace? I take simply a number, 1 to 64, and then after I've done it, I ask, "What next am I to do?" Then when I finish enough tracings to make two pages of music—which was my decision at the beginning, to have each etude have two pages (so the violinist wouldn't have to turn pages)—I now have a band of tracings of the stars, and it's been designed so that it's wide enough for me to distinguish the twelve tones. These twelve tones can appear in different octaves in the violin. My next question is which octave it is in. I put that down, then I take the papers, and I can then transcribe the stars to paper.

Each one of the stars is not a single tone, it might be an aggregate, it might be two tones or it might be three or it might be legato or not and so forth. My next process was to find which passages are legato and which passages are détaché. Instead of making it even—that is to say, 1 to 32 being détaché, and 33 to 64 being legato—what I do is I ask the *I Ching* where the dividing point is between legato and détaché, and it might say it's number 7, so then 1–6 would be détaché and 7–64 would be legato. And then I ask the *I Ching*, "For how long does that last?" and it might say for fifty-three events. After fifty-two events, I ask again. Then all the other questions that can make a tone in detached style special and different from another one are posed. I list all the possibilities and then find out which ones are operative.

When I start building up intervals or triads or quatrads on the strings, I then through chance operations find out which finger is touching which note on which string. Then I call up Paul Zukofsky to ask what he can reach with which other finger which chance determines; then I catalog his answers. I index them in a book. He thinks we will eventually publish his responses because we're getting to know what is possible in the way of two, three and four-note chords in



the way that he himself is surprised at. He is surprised at what we are learning in this work we are doing together. Rather than working from choices I work from asking questions, so that the composition is determined by the questions that are asked and you can quickly tell if your questions are radical. By radical I mean penetrating. If they are not radical, the answers aren't.

If they are basic, then what happens is something that you haven't heard before.

—Interview with Maureen Furman (1979)

When you work with percussion, you work with instruments that you actually have in hand. If you leave those instruments where they are and go to another city and look for the same instruments there, you won't find them. You may find similar instruments, but if you listen to the sounds they produce, you'll hear that they produce different sounds than you heard in the previous city from the first collection of instruments. The nature of percussion music, then, is quite open and often quite unpredictable. If you listen to the sounds around you, no matter where you are, you will enjoy the sounds if you hear them in that open fashion, so that you become attentive to what happens rather than insistent about what should happen.

I just finished a piece for orchestra called *Ryoanji*, which is the name of a rock and sand garden in Kyoto, but the piece preceding it, which is like it, is for solo percussionist. In making the piece for orchestra, I didn't really change it radically from what it was as a percussion piece. There will be twenty instruments in the orchestra piece, but no instrument is specified. It could be any twenty instruments, and any one of the twenty parts could go to any of the twenty instruments. All of the instruments will play the same rhythm, and all of the instruments can produce any sound, or any combination of sounds, the instruments can produce. Once a musician decides what sound he is making, he must, throughout that rehearsal or performance, make the same sound, as though he becomes the player of a single percussion instrument. There are notations in the score for playing a little ahead of the beat, or a little behind the beat, or on the beat. There are also notations for playing a sharp sound and playing a sound for its full length. Those are the only variations. It means that piece, each time it is played, will have a different sound that can't be predicted by the composer, the performers, or the listeners. And yet, each time they heard it, they would know what was happening.

—Interview with Bill Shoemaker (1984)

I think what I'd like is to talk to you about the most recent experiences I've been having with sound, which were surprising to me. They concern drones that are so much with us when we're inside houses or even concert halls; I spent my life thinking we should try to get rid of them. We of course never do get rid of them, because if the drone of the refrigerator, for instance, stopped, we'd call someone and get him to start it going again. We'd be more concerned with keeping the food in good condition than with the acoustic experience. But what has happened is that I'm beginning to enjoy those sounds, I mean that actually I now listen to them with the kind of enjoyment with which I listen to the traffic. Now, the traffic is easy to recognize as beautiful, but those drones are more difficult and I didn't really set out to find them beautiful. It's just that in, say, the last three months they are, so to speak, coming to me.

*Well, we try to ignore them or we walk away from them like a person who has a refrigerator in his house that acts up occasionally.*

The ones that behave erratically—I don't know about your refrigerator, but the expression “acts up” suggests that it's not a plain drone, it's something else; and that would be obviously beautiful. But it's just the ordinary drone that's becoming interesting to me. And, as I said, I have a feeling that it's as though the sound was finally reaching me rather than I was reaching it.

*Well, actually—by just concentrating, by accepting it—you're probably just getting into its focus like any other tone; you're accepting it as a very focused tone.*

What's beginning to happen that goes along with that is a heightened awareness and interest in *where* sounds are. For instance, this one that we're hearing now that comes from the humidifier, in back of me, and you can see that it is as interesting as a rock or something. It defines a point in space.

*Do you think of inventing your own drones?*

I have a new piece that is called *Ryoanji* after the Japanese garden in Kyoto; I'm writing a number of different pieces with the same title. That's the garden that has fifteen stones in raked sand. I made a piece for percussion which looks less to me like any music I've ever written; but today when I was looking at it, and I knew you were coming, suddenly it looked to me like hearing these . . .

You asked whether I would invent a drone; well, this comes close to that except it's not really a drone, because it's metrical music for percussion. I don't say what instruments, but I do say that there should be at least two instruments in unison, and I told Michael Pugliese who's playing it, for whom I wrote it—that if he could use five or six and get a constant unison, I would like that very much.

—Conversation with Morton Feldman  
(Bunita Marcus and Francesco Pellizzi)(1983)

I have spent most of my time in recent years working with what are now called acoustic instruments, rather than electronic instruments, the reason being that many young people now working with electronics do very beautifully—and my longtime associate, David Tudor, and David Behrman do also—so that I have the feeling that work is being done. What I've tried to do in recent years is find freshness and newness in the situations that are the most conventional—acoustic piano without preparations, and the violin, and recently, the flute, the voice, and the double bass. My recent work is not electronic. I have been exploring in this set of pieces called *Ryoomji*—not the ones for percussion or for orchestra, but for soloists: oboe, flute, voice, double bass—glissandi within that limited range. The ranges change from one piece to another. Some are very narrow, and some are wider; but none are wider than an octave. What I was searching for in each case with each instrument was that part of the range that yielded a very smooth glissando.

—Interview with Bill Shoemaker (1984)

One difference between [Harry] Partch and myself—also a difference between myself and Lou Harrison—is that they became interested in intonation and control of microtones, whereas I went from the twelve tones into the whole territory of sound. I took noise as the basis of it. I don't try to make the situation between what is musical and not musical more refined as both Partch and Harrison do; but I start from the other direction, from noise, and don't use sounds that don't do honor to noise.

And I suggest that the same thing might bring about an improvement in society; that instead of basing our laws on the rich as we have, that we would do well to base them on the poor. If we can have laws that make poverty comfortable, then those laws will do well for the rich; but the other way around is oppressive.

—Interview with David Cope (1980)

I'm listening now to the sounds in the street; and I'm writing a new piece [*Etcetera 2/4 Orchestras*] which will have as part of it, of its material, a recording of this traffic.

*Especially this sound of cars driving over manhole covers?*

Yes, which recurs.

*So it doesn't have any regular rhythm?*

Well, the rhythm it has is going to be so slow, the beat of this music is going to be so slow, that I don't think you would be able to understand it as rhythm.

—Interview with Birger Ollrogge (1985)

I always want to start from zero and make, if I can, a discovery. Some works, of course, fall together in a group as, for instance, the *Sonatas and Interludes* or, recently, the *Quartets for Concert Band and Amplified Voices*, and for orchestras and *Hymns and Variations* for twelve amplified voices form a group. So that a new piece in such a group is one more in a field of possibilities, the field itself already having been discovered. Sometimes this discovery is of material (plant materials as in *Child of Tree* and *Branches*, water-filled conches as in *Inlets*, or, earlier, radios as in *Imaginary Landscape No. 4*) and sometimes it is of compositional means as in the *Music of Changes* or, currently, the *Freeman Etudes* for unaccompanied violin and *Roaratorio* for folk musicians, speech and tape. I do not know what role this desire to start from zero plays in my music except that my father was an inventor and in my work I have tried to follow in his footsteps though he was an electrical engineer and not a musician.

—Reply to “10 Questions: 270 Answers” (1980–81)

*Do you have any unfulfilled ambitions?*

I have unfulfilled projects. In particular, the thing I would like to do is make what I call the “Thunder Piece,” which is to record an actual thunderstorm and then use the thunderclaps of *Finnegans Wake* sung by a chorus and electronically transformed [to fill up the sound envelopes]. And then the orchestra would be the rain. This is a project suggested years ago by Marshall McLuhan.

—Interview with Jeff Goldberg (1976)

*Would it be accurate to say that there is a polemical feature to your work as a composer? Are you more interested in changing the way music is perceived by audiences, performers, and composers than you are in changing the shape or history of music itself?*

I think there is a didactic element in my work. I think that music has to do with self-alteration; it begins with the alteration of the composer, and conceivably extends to the alteration of the listeners. It by no means secures that, but it does secure the alteration in the mind of the composer; changing the mind so that it is changed not just in the presence of music, but in other situations too.

—Interview with Cole Gagne and Tracy Caras (1980)

*Do you perhaps think of your music as serving the hoped-for deinstitutionalized future, or the future of deinstitutionalized society?*

I hope that it is, but I am not certain that it is usefully so.

*Why not?*

Well, because I know in my own case that I can change myself through what I do in music, that I can become a different individual. My mind can change. My thoughts about sounds and my experience of sounds has changed through my making of music. And the change that has taken place is that, rather than depending upon music for the expression of ideas or the experience of emotions, I find my greatest acoustic, esthetic pleasure in simply the sounds of the environment. So that I no longer have any need not only for other people's music but I have no need really for my own music. I am happier without any music. And the only reason I go on making it is because people insist upon it.

Now, since I have seen this revolution take place in my mind with respect to music, and since I agree with Marshall McLuhan that the whole society is now an extension of the central nervous system, I could hope that the world mind of which we all are a part could change; but I am not certain that it would change as a result of music.

*What would you do if people did not ask you to make music?*

Perhaps we have to go back to my silent piece. Implicit in this piece which is called 4'33" and which has three movements, implicit in it is that the movements can be of any length. I think what we need in the field of music is a very long performance of that work. It is the fulfillment of my obligations in some way to other people, and I wanted to show that doing something that is not music is music.

—Interview with Nikša Gligo (1972)

*Then why do you bother writing music?*

The answer is simple. I promised Schönberg—my teacher—to devote my life to music. The fact that I enjoy all these sounds doesn't mean that I should stop writing music which may lead other people in this direction, don't you think?

Besides, how would I spend my life? Of course, I have lots of things to do, and as I get older there are more and more things that interest me, including macrobiotics. But I'd go on writing music even though personally I have no need for it.

—Interview with Maureen Furman (1979)

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