

STEVE REICH SAYS his music comes "from loving jazz, Bach, and Stravinsky," but A. M. Jones also had a big impact. He wrote Studies in African Music, the book that Reich says showed him "a brand new musical technique," one that, ultimately, opened the door on a new way to compose. Reich learned about the book at a composers' conference in California in 1962. At the time, he was a graduate student at Mills College, having already completed degrees in philosophy from Cornell and composition from Juilliard. Reich's teacher at Mills was Luciano Berio, and the class had gone to the conference for reasons more avant-garde in nature. But Reich, who was originally a percussionist, obtained the book and became fascinated by the rhythmic subtleties of African music as demystified by Jones. And in a mix that included elements of jazz (particularly John Coltrane's modal period, experienced firsthand), Reich began incorporating African ideas about rhythm and structure into his own personal brand of Western music, creating large canonic forms that gradually and perceptively unfold over long spans of time. Using these forms inside a steady rhythm, but with almost no harmonic movement, Reich created "process" pieces, some of which have become monuments of early minimalism.

While still at Mills, Reich experimented with electronic music. By 1963, the year he graduated, he had begun making tape loops from short spoken phrases that he had culled from other audiotapes. He would begin by starting the two loops exactly together, then allow them to go slowly out of sync with each other, thus creating, through what he labeled a "phase-shifting process," a continual stream of new musical material, a result of the gradually changing relationship of the two loops. This is how he wrote both *It's Gonna Rain* and *Come Out*, his two most significant early works. Reich says he wrote *It's Gonna*



Steve Reich, New York, 1971. Photo Credit: Richard Landry

Rain while still under the influence of Terry Riley's *In C.* (He had played in its premiere performance in San Francisco the year before.)

Reich moved to New York in 1965. By the following year, he had transferred his musical ideas from electronics to live performers, creating

Piano Pbase, for two pianists, and Violin Pbase, for four violins (or solo violin and tape). The following year, he wrote Pendulum Music, for four microphones feeding back as they swing and slowly come to rest, over four upturned loudspeakers. The connecting thread in all of Reich's music from this period is a gradual phase-shifting process of some type that allows a relatively small amount of musical material to be cycled through all its possible permutations, in a slow and orderly way, that is perceptible to the listener. Reich says that even when you can hear the process, there's still a lot of mystery involved.

In 1970, Reich studied African drumming, first in New York, then in 1970, Reich studied African drumming, first in New York, then in Ghana. He says he saw what he learned as validating what he was doing as a composer. The next year, he wrote *Drumming*, a ninety-minute work in four sections for tuned drums, marimbas, glockenspiels, and voices. His most ambitious work to date, it was given three consecutive premieres in New York in late 1971, at the Museum of Modern Art, Town Hall, and the Brooklyn Academy of Music. Not only did *Drumming* start the expansion of Reich's ensemble (from four or five people to eighteen, five years later), it also signaled the beginning of a renewed interest in harmony and orchestration on his part, resulting in such landmark minimalist pieces from the seventies as *Music for Mallet Instruments, Voices, and Organ* and *Music for Eighteen Musicians*. It is somewhere around this time that Reich says "minimalist" stopped being a suitable term for his work.

In the early eighties, Reich, who up until then had worked exclusively with his own ensemble, began writing pieces for other groups. First came *Tebillim*, for four sopranos and orchestra, premiered in 1982 by the New York Philharmonic and conducted by Zubin Mehta. Others include *The Desert Music*, for chorus and orchestra, from 1984; and *Different Trains*, a 1988 work commissioned by Betty Freeman for the Kronos String Quartet, in which Reich incorporates a tape collage of spoken voices and the whistles of trains. In the early nineties, Reich collaborated with his wife, video artist Beryl Korot, on *The Cave*, an evening-length, multiscreen, theatrical event. Called by some a new form of opera, *The Cave* uses Arab, Israeli, and American spoken material, the speech melodies of which Reich cycles back into the music.

I met Steve at his apartment on lower Broadway, close to Chambers Street. We talked in his studio, a small room filled to overflowing with multiple marimbas, a piano, and his tapes and scores. While the room itself was small, the conversation went everywhere. Reich is savvy, educated, and articulate; he knows what he wants to say. And what I really wanted to hear about was how it all began.

DUCKWORTH: How do you define minimalism?

I don't. I steer away from that whole thing. Minimalism is not a word that I made up. I believe it was first used by Michael Nyman in about 1971. (He is an English composer and writer who wrote a book called Experimental Music.) Terms like impressionism which is a nice parallel because it was taken from painting to apply to music—are useful in that they denote a group of composers. If you say minimalism, I know you're talking about me, Phil Glass, Terry Riley, La Monte Young, and maybe John Adams. But as a descriptive term, I'd say it becomes more pejorative than descriptive starting about 1973 with Music for Mallet Instruments, Voices. and Organ. As my pieces extend orchestration and harmony, that term becomes less descriptive, until by the time you get to Tebillim and The Desert Music, it's only called minimalism because I wrote it. But the larger issue is this: that kind of classification has traditionally not been the province of composers, even when they wanted it to be. Schoenberg was famous for loathing the word "atonal." He said there was no such thing and wanted to have his music called "pantonal." And nobody could give a tinker's damn what he wanted—the words twelve-tone and atonal have stuck to this day. And I think that that decision is correctly the province of journalists and music historians. I understand the reason for having it, but I don't get involved. My job is composing the next piece and not putting myself in some kind of theoretical box.

DUCKWORTH: Are you sorry the term stuck? Is it useful, or has it boxed you in?

REICH: I leave it for you to judge. Nobody seems to accuse me of writing the same piece over and over again.

DUCKWORTH: Do you find that people are disappointed when you don't write the same piece again and again?

REICH: I'm sure there are some who wish I'd write Drumming or Music for Eighteen Musicians for the rest of my life, but I'm just not that kind of composer; I move on.

DUCKWORTH: The first piece of yours I remember hearing was the early tape piece *It's Gonna Rain*. Do you remember what was going on in your mind as you were writing it?

REICH: There were a number of things. I became aware of African music via a composers' conference that was held in 1962 in Ojai,

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California, when I was still a student of [Luciano] Berio's at Mills College. The class went down to Ojai, and among the various dignitaries was Gunther Schuller, who was writing his history of early jazz. In talking to us, he mentioned that he had wanted to find out what black Americans had done musically before they came to America, and in doing so he had discovered a book. The book was Studies in African Music by A. M. Jones. I went back to the Berkeley Library and got it out. And although I had heard African music before—I'd heard records, I knew that it swung, I knew you made it with drums, I knew it was very rhythmic—I hadn't the faintest idea of bow it was made; bow it was put together. Seeing this book was quite a revelation for me in terms of seeing a brand new musical technique laid out on paper.

DUCKWORTH: What did you see?

REICH: It can be summarized as repeating patterns, more or less in what we would call 12/8 time, superimposed so that their downbeats don't come together.

DUCKWORTH: Were you also interested in jazz at this point?

Ich: I had a lot of interest in John Coltrane's music, because he was alive and playing in San Francisco. When I wasn't at Mills College during the day, I was going to the Jazz Workshop at night listening to him. I had been interested in jazz since I was fourteen, but Coltrane's music was particularly interesting, because he was working with one or two chords. That was the modal period, when there was a lot of music happening based on very little harmony. It became clear to me that what Coltrane was showing was, that against a drone or a held tonality, you could play basically any note, and noises as well.

DUCKWORTH: Didn't you also conclude your formal education about this same time?

REICH: I got my M.A. in 1963. And instead of applying for jobs teaching harmony and theory, I decided that I really was not cut out for academic life. I opted to take a job driving a cab in San Francisco, which I proceeded to bug with a microphone. I surreptitiously recorded conversations and noises, and made them into a tape collage called *Livelihood*. (I later bulk erased it, which is another story.)

DUCKWORTH: Why didn't you want to go the teaching route?

REICH: I became convinced that I didn't want to get involved with teaching music, because the energies that I needed to compose were the very energies that were depleted by teaching. This is something that I had observed in teachers of mine. And that led to forming an ensemble.

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DUCKWORTH: Had you had any previous experience with ensembles?

REICH: I actually had, believe it or not, an improvising group in 1963 in San Francisco. Members of that group included Jon Gibson, the reed player now with Phil Glass; Tom Constanten, who played with the Grateful Dead; and Phil Lesh, who plays bass with the Grateful Dead, but was occasionally a trumpet player in my group. What this group did, basically, was play what I called *pitch charts*, which were pieces influenced by Berio.

DUCKWORTH: What were these pieces like?

REICH: Everybody played the same note—free timbre, free attack, free rhythm. Then everybody played two or three notes, basically building up to the full twelve notes. The way we moved from one group to the other was that one player would play a kind of audible cue. That idea was taken from African music. The effect of these pieces was to hear the same chord atomized and revoiced in an improvisational way. Ultimately, I felt it was kind of vapid and didn't really have enough musical content.

DUCKWORTH: What were some of your other early pieces like?

REICH: I did a piece which was influenced, I would say, on the one hand by Bill Evans and on the other hand by Morton Feldman . . . and on another hand by Stockhausen's ripoff of Feldman called *Refrain*, which is long, very beautiful chords hit on mallet instruments or struck on the keyboard. I made a multiple piano piece, performed at the San Francisco Tape Music Center, called *Music for Three or More Pianos or Piano and Tape*. Basically, it was a series of chords which formed an harmonic progression. It could have been chords for a jazz tune in a sense . . . a little darker, a little bit more à la Schoenberg of Opus 11 or Opus 19. The rule was you could play the chord for any duration, you could arpeggiate the chord, you could play parts of the chord, you could make little submelodies out of the chord, but when one of the voices, live or on tape, moved on to the next chord, you moved with it. So you always played over the same notes. I didn't know Morty Feldman's

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Pieces for Four Pianos, which is a kind of phase piece, but later I saw the resemblance.

DUCKWORTH: Did you have any composer friends at this point?

REICH: I became friendly with Terry Riley in 1964 and helped him prepare the first performance of *In C*. I gave him a lot of my players to play in the first performance; I played in it; and I also suggested to him in the course of rehearsals that he put a pulse in to keep everybody together: a drummer, basically, who ended up playing high Cs on the piano. While that was important, perhaps, I certainly learned a tremendous amount from putting the piece together, and I think it had a very strong influence on me.

DUCKWORTH: Didn't you start experimenting with tape loops about this same period?

REICH: Tape loops were something I was fooling around with since about 1963. I was interested in real sounds, what was called musique concrète in those days, but I wasn't really interested in the pieces that had been done. I thought that they were boring, partly because the composers had tried to mask the real sounds. I was interested in using understandable sounds, so that the documentary aspect would be a part of the piece. And I think that It's Gonna Rain is an example of that, as is Come Out. It's Gonna Rain is a setting of a text about the end of the world. I recorded this incredible black preacher, whose name was Brother Walter. And I must say, I think It's Gonna Rain is a good setting of the Flood, though not a setting in any conventional way. I would describe It's Gonna Rain as a piece of vocal music, albeit obviously from an experimental standpoint and very much from the sixties.

DUCKWORTH: How did you get the initial idea for It's Gonna Rain?

REICH: It was when I was fooling around with tape loops of the preacher's voice, and still under the influence of *In C*. I was trying to make a certain relationship: I wanted to get "rain" on top of "it's," so that the net effect would be "rain, rain, rain, rain" coming out of one contrapuntal voice, while the other voice would be going "it's gonna, it's gonna." In the process of doing this, I put headphones on and noticed that the two tape recorders were almost exactly in sync. The effect of this aurally was that I heard the sound jockeying back and forth in my head between my left and right ear, as one machine or the other drifted ahead.

Instead of immediately correcting that, I let it go . . . took my hands off of it for a bit. What happened was that one of the machines was going slightly faster, and the sound went over to the left side of my head, crawled down my leg, went across the floor, and then started to reverberate, because the left channel was moving ahead of the right channel. I let it go further, and it finally got to precisely the relationship I wanted to get to. But what I realized was that instead of making a particular canonic relationship, which was a momentary part of an overall composition, I had discovered a process which was a series of rhythmically flexible canons at the unison . . . beginning and ending in rhythmic unison. This immediately struck me. It was an accidental discovery, but a lot of people could have heard that same phenomenon and said, "Line the machines up." It impressed me that I'd hit something that was more significant than what I was trying to do in the first place. Suddenly, I got the idea for making a tape piece that would be much more of a process.

DUCKWORTH: How was the first performance received?

REICH: I didn't play the second half of it, so it wasn't perceived, obviously, for what it really was. I was feeling very disturbed at that stage in my life. The latter part of It's Gonna Rain seemed so paranoid and depressing that I suppressed it. But it's the second half which really sticks it to you technically and musically. After coming back to New York, and feeling somewhat less pressured, I listened to the second half and realized it was obviously part of the piece. Curiously enough, whenever I find people who like the piece, they have a similar attitude: it's very disturbing but they really like it. You know, it's a heavy trip—bad vibes—but there's substance in there that gets to you.

DUCKWORTH: How did you choose the material for Come Out?

REICH: Come Out is a refinement of It's Gonna Rain. The material was selected from ten hours of tape. I was asked to be the tape editor for a benefit for the Harlem Six group. I said, "Okay, but one thing: if I hit some material, allow me to make a piece out of it." So in the course of going through all this material, that little phrase, come out to show them, was chosen. I was combing through this stuff trying to find the juiciest phrase I could get, because I realized that that's where it was at: to get raw speech material that really had musical content, and then go from there. The radical step had been taken; now it was time to do some fine tuning. Come Out may

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not have the raw energy of It's Gonna Rain, but it has more refinement and musical focus.

DUCKWORTH: I don't want to put words in your mouth, but it seems to me that since those pieces were written you've come to the conclusion that tape music is a dead end.

REICH: Well, that's what I began to feel in 1967, and that led to a dilemma.

DUCKWORTH: What was the dilemma?

me as extremely musical, but on the other the process seemed to me not only indigenous to tape, but *only* for tape! I didn't think it could transfer to live music, and therefore it was a gimmick. That was my attitude toward electronic music, and it has remained that ever since. I don't teach, but insofar as I occasionally visit student composers on university campuses who bring me some electronic idea, I say to them: "How would you do that with instruments?"; or, "What does that suggest in terms of instrumental music?" I think those are very good questions to ask. And I kept asking myself that. The answer was, at first, it can't be done. Therefore, what was this?

DUCKWORTH: How did you finally transfer the idea from tape to live performance?

REICH: After several months in 1966–67, I finally sat down at the piano and made a tape loop of myself playing a repeating pattern. Later it became one of the patterns of *Piano Phase*. And I played it back and just started to play against the loop myself. I found, to my pleasant surprise, I could do it. I could control it. And what's more, it was a very interesting way of performing because it wasn't improvising and yet it wasn't really reading either. That seemed very exciting indeed. The next step, which happened in late '66 or early '67, was that Arthur Murphy (who was the first member of my ensemble and a friend from Juilliard), and I went out to Farleigh-Dickinson College to do a concert. It was the first concert I was ever asked to do. So we went out there, and it was a very exciting evening, because, you know—look Ma, no tape—we could do it after all. Very rapidly in 1967 I produced *Piano Phase*, *Violin Phase*, and *My Name Is*.

DUCKWORTH: Before you left San Francisco in 1965, were you getting many performances of your music?

REICH: Well, various things happened. I did some theatrical music for the San Francisco Mime Troupe. Then there was another concert this improvisation group I had been working with presented, also at the mime troupe's theater. Then there was actually a one-man concert of my works which was done at the San Francisco Tape Music Center in January 1965. What happened between January and August of '65 I don't remember too clearly except that it was not a very happy time in my life and I was making plans for getting out of there and going back to New York

DUCKWORTH: Did you come back to New York with a reputation, or were you more or less unknown in the community?

REICH: I was totally unknown. Charlotte Moorman wanted me to do something in her Avant-Garde Music Festival. I let a tape be played, but it got lost in the confusion of her festival. And I learned then that it's better to keep silent until you have an opportunity to present your music in the right circumstances. What happened was that in 1967 I gave three evenings at the Park Place Gallery which were pivotal. That *did* make an impression. Basically, the program was a four electric-piano version of *Piano Phase*, played by myself, Art Murphy, James Tenney, and Phil Corner; Jon Gibson played *Reed Phase* against tape; Arthur Murphy and I played an improvisation; and then the two tape pieces, *It's Gonna Rain* and *Come Out*. Everybody downtown ended up coming. Rauschenberg was there, and all the dancers were there . . . it was an important series of concerts.

DUCKWORTH: How had you arranged the concerts?

arts. The Park Place Gallery in 1967 was the hub of minimal art. Everybody hung out there. I was not very much in touch with composers of the type that would be doing new music, because on the one hand there were people up at Columbia-Princeton who I felt totally out of touch with and unsympathetic towards, and on the other hand there was the John Cage group who I felt totally out of sympathy with. So there was really no place for me. I felt I was sort of forced sociologically—because I lived downtown and felt at ease downtown—to become associated with the Fluxus/Nam June Paik confluence of taste: surrealism and Cage. But I had no use for it, and I still don't. So I waited until something came along. What came along was a group of painters and sculptors who had a gallery that everybody liked to go to, and they invited me to do a concert

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there. Paula Cooper ran the gallery. It was an attractive and huge space on LaGuardia Place near NYU. The first night, not that many space on LaGuardia has people came. But the word spread, and the crowds grew; it was just word of mouth. I learned then that it's better to shut up and wait, and do it right rather than running around trying to get a piece done here and a piece done there. As far as performers were concerned, I felt I had to play my own pieces with my own ensemble. I didn't even know what other performing groups to mail them to. So I was doing what I had done in San Francisco, which was getting in touch with friends. Jon Gibson had come back to New York, Art Murphy was here, and they were the ensemble. James Tennev had taken an interest in what I was doing, and he was someone who was connected with Cage. I got to know Cage at this period of time. I felt the paradox of being thrust sociologically into an area where it was assumed that I would be part of the whole chance mentality, but I really wasn't. More recently I've come to enjoy Cage's Roaratorio and my respect for his integrity is enormous. I just never really was close to his ideas about indeterminacy.

DUCKWORTH: Why do you suppose you avoided all that?

REICH: It just wasn't for me. I'm not an opera composer now, though we're living in a very operatic age. I know its "in the air," but I can't be what I'm not. Writing an opera is something you don't do if you're not sure about it, and I'm sure I don't want to do it. So at that period of time, it wasn't any historical consciousness; it was pure intuition . . . automatic pilot. I was someone who had come from loving jazz, Bach, and Stravinsky. That's really why I became a composer. It was that kind of music that brought me to tears, and nothing else. Still is. So all that stuff seemed "interesting," but it wasn't for me.

DUCKWORTH: Did you feel you were going against the current?

REICH: Only when I got back to New York. Then I began to realize that I was somewhat in isolation. I knew what Riley was doing, and I knew what La Monte was doing. They were the people I knew who were doing something like this, but we didn't get on personally at that time. When Phil came along, I befriended him and gave him the ensemble to use because it was nice to have somebody to talk to.

DUCKWORTH: How did you and Phil Glass meet?

REICH: After the last night of the concert at the Park Place Gallery, who should come up but my old friend Phil Glass, who I hadn't

seen since we were students at Juilliard together. He said, "I'd like to show you some things I'm working on, because they're sympathetic with the kind of thing that you're doing." He had already done some film music with Ravi Shankar, which undoubtedly had meant something to him. And he showed me a string quartet that he had been working on. The string quartet was beginning to get tonal. There was a hint of repetition, but there was no system to it; it hadn't really gelled. So I would say between 1967 and early 1968, basically what I did was to give him musical ideas and lend him my ensemble. If you look at his early concert programs, you'll see that his early ensemble was myself, himself, Jon Gibson, Arthur Murphy, James Tenney, and Dickie Landry, who he recruited. By early 1968, he had done a piece called One Plus One. And One Plus One was to Phil what It's Gonna Rain was to me. It was his first original musical insight-the additive process. After that, he wrote a piece which he dedicated to me, but later took the dedication away. It was called Two Pages for Steve Reich, but is now Two Pages, subtitled Music in Unison. Basically, what happened between Phil and me was very much the kind of thing that had happened to me with Riley, which is that a lot of things are floating around in your mind and somebody comes along who really sets things straight. The difference is that, for whatever reasons, he has been unwilling to admit that. And that has been the source of some grief between us, for sure. I don't quite understand, with all the success that he's had, why that remains something that he's very uptight about. But those things happened; they are documented in programs, reviews, and scores. It's not conjecture.

DUCKWORTH: You know, what seems strange is that just as you appear to be drifting away from working with tape and electronics, all of a sudden the phase-shifting pulse gate appears out of nowhere.

REICH: No, it didn't appear out of nowhere. The idea of phase shifting obviously made a huge impression on me, and it got carried over into the live pieces. I had the idea that instead of doing it in contrapuntal fashion it could be done as a monophony—a single line of music. And the way it would happen is if every note in a repeating melody was thought of as a little point, all of which could be lined up either in a pulsing chord or moved out of sync into a melody. A light bulb went on with that. And once that light bulb went on, there was no stopping it.

DUCKWORTH: But it went off pretty fast, too.

It went off as soon as I finished. But I had to finish. I had to slog through everything in great detail. I went out to Bell Labs and REICH: wired up I can't tell you how many circuits. I'd never even built a Heathkit before, and suddenly I was wiring state-of-the-art Fairchild integrated circuits.

DUCKWORTH: Did the phase-shifting pulse gate actually work the way you wanted it to?

REICH: Eventually I looked at it all as a kind of technological detour. It took a performance at the New School and at the Whitney, and I began to think, "This thing is stiff; this thing is unmusical; this whole thing is a waste of time." And off it went to the basement. It's still in the basement today.

DUCKWORTH: Are you one of those people who thinks that a lot of the technology is a waste of time because it subsumes you?

Oh, totally. There are some people that are really dedicated to it, and they get off on it. But I must say that I learned a great deal from that experience. I think it was my final lesson. This one really cracked me over the skull but good, and I think I learned my lesson.

DUCKWORTH: So you turned to writing Four Organs?

REICH: Yes. Four Organs was very much taking the technical insight from the box, as I refer to it, and turning it into music. Four Organs is pivotal because, to put it crudely, I'd been working with short notes and I started working with long notes. The whole phase-shifting process seemed to me oriented to quarter notes, eighth notes, and sixteenth notes. It didn't seem like it would be very interesting to have a phase piece in slow motion. (Actually, I think it probably could have been.) So Four Organs was a similarly maniacal, singleminded investigation of one technique—only this time it was gradual augmentation. I must say that I look on Four Organs, and most of the phase pieces up to but not including Drumming, as études in the best sense of that word. I don't think that they're going to have a tremendously wide currency in the future, but I think that they'll have some place because they teach technique. If the technique has any value, then at least this is an étude for mastering it. Therefore, Piano Phase is very useful. Anybody who can play Piano Phase on two marimbas can breeze through Drumming. It's duck soup after that. Four Organs is very different. It's a very radical slant on augmentation, and also, perhaps, a humorous comment

DUCKWORTH: Four Organs was so different from your earlier music. How was the first performance received?

It was done at the Guggenheim Museum as part of a series of concerts that Phil and I and members of the Sonic Arts Group (David Behrman, Gordon Mumma, and Alvin Lucier) talked some curator into presenting. This concert was a media breakthrough. It was a very small concert numerically, because the Guggenheim has a small auditorium, but Alan Rich came and wrote a full page about me in New York magazine. In any event, when Four Organs was done, the public reaction was rapt attention, because the people had come to hear me, and they were the two hundred people who knew my music in New York.

DUCKWORTH: But did they know what to expect?

They knew sort of what to expect. They knew it wasn't going REICH: to be a great deal of fast changing. The program there was Piano Phase, Phase Patterns, and Four Organs. Alan Rich not only wrote a full page about it, he perceived it very accurately. He said it had every tone in it, but the third degree was missing. He also noticed the point at which it took on an extra beat and began to grow.

Was the second New York performance as controver-DUCKWORTH: sial as some of the reviews make it seem?

In 1971 Four Organs was played by the Boston Symphony REICH: with Michael Tilson Thomas playing and conducting, along with me and two members of the Boston Symphony, and members of the percussion section shaking maracas. In Boston, it received polite applause and polite boos-and that was that. But Michael decided that he would bring it to Carnegie Hall on the BSO subscription series in 1973. And that concert proved to be quite an event. On this particular concert he had programmed, besides me, the Liszt Hexameron, which is a very odd piece for six pianos. I think Liszt had had Chopin and himself and various other virtuosi of the day playing the various quasicadenza sections. So when they performed it in Carnegie Hall, they had various pianists of the day impersonating the virtuosi of the nineteenth century. Now the kind of listener who's going to get off on that, and who's coming to the BSO subscription series . . . the last thing in the world that person is going to want to hear is my Four Organs . . . but there it was. I didn't think about that at all at the time. I was so preoccupied, so innocent, thinking about wires and rehearsals, that I didn't think about E SCANDALD

the program and the audience. But when we started to play the piece, we got about five minutes in and there was noise from the audience. And that noise just continued to grow and grow until we got lost. Michael Tilson Thomas had to yell out bar numbers so that we knew where the hell we were. When it was over I went back. stage and said, "Did we get together at the end?" "Forget about that," he said, "this has been a historical event."

How were you supporting yourself during that period DUCKWORTH: of time?

I was a social worker for NYU. I used to go ring doorbells and REICH: say, "Do you have any children between the ages of seven and eighteen?" If they did, I would try to make an appointment for somebody else to come back and ask them some questions. I was making between twenty-five and thirty-five dollars a week. Now don't ask me how I survived. But this was 1965. I was paying sixty-five dollars a month rent. I mean, man, it was another world. Basically, I operated entirely on intuition and did what I wanted to do. I just didn't think about making a living.

DUCKWORTH: Did the concerts at the Whitney and at the galleries come about because you really hustled for them?

No, they weren't hustled after. They happened because I was friendly with artists who came to rehearsals and who were interested in what I was doing. As I said, I was living in the art world, as opposed to the world of composers, at that time. I was involved with painters, sculptors, and filmmakers because they liked and understood what I was doing.

DUCKWORTH: What about the trip to Africa and your interest in the gamelan? You've said before that that interest developed over a long period of time, but what was the trigger that really got you to Africa?

As I mentioned, I discovered the Jones book in '62. And I was aware of the fact that what I had done had similarities to African music. But bear in mind that before I went to Africa I'd done Piano Phase, all of the tape pieces, Violin Phase, Phase Patterns (which is Drumming on the keyboard), Four Organs, polyrhythmic pieces in 12/8, everything. All the new information came from the Jones book. But what happened was that in 1970 I was still thinking about this and about non-Western civilization generally, and begin-

ning to appreciate its importance. Undoubtedly it grew out of an interest in jazz and an interest in American black people. It's Gonna Rain and Come Out are both black voices; that wasn't accidental. And Come Out was used as part of a civil-rights benefit. The interest in African music was very much a feeling (particularly with Coltrane in his late music) that American black culture was simply a European overlay on an African culture. So what was African culture? Since I was so interested in jazz, where were the roots of this stuff really coming from? I never would have become as interested in African music if I hadn't been an American and raised on jazz. But the trigger was that in 1969 or '70 I found out that there was an African drummer at Columbia University. So I went up one night to Columbia, and sat in on the African music drumming class. And suddenly I was talking about going to Africa. I got a tiny little travel grant of seven hundred dollars from the I.E.E., borrowed the rest from the bank, flew to Ghana, studied there for five weeks, and got malaria. Consequently, when it came time to study Balinese music later, I didn't go to Indonesia; I went to Seattle and Berkeley.

What did you learn on your trip to Africa? DUCKWORTH:

The trip to Africa was very instructive, not really for new REICH: information (as I've said over and over again), but as confirmation and encouragement. Being in Africa was kind of saying, "Yes, acoustical instruments are more interesting than electronic ones; and yes, an entire civilization can survive on predominantly percussive music; and yes, there's tremendous variety within this." I came back to work on Drumming. But what it was really doing was getting me back to when I was fourteen years old, saying, "I can really be me." Africa was a big green light.

DUCKWORTH: How do you respond to the criticism that you were really skimming the surface off of another art form?

Well, I'm as guilty as Picasso was when he looked at African REICH: sculpture. You've got to remember that I had already "skimmed the surface" off that art form, if that's what I did, long before I went there. The African content of Piano Phase or Violin Phase, because they're in 12/8, is as great as Drumming. There's no musical technique new in Drumming that hadn't been there before I went, except the very opening of the piece, which is a rhythmic construction completely out of my own head, and has nothing to do with Africa. It simply uses the drums. And the drums weren't coming

from Africa. As a matter of fact, they come precisely from a concert at Juilliard . . . a percussion concert. There was a guy who played bongos mounted on stands with sticks. I always remembered the bongos mounted on stands with sticks. I always remembered the bongos mounted on stands with sticks. I always remembered the bongos mounted on stands with sticks. I always remembered by unbelievable in the standard played by unbelievable. I had always thought of bongos as being played by hand. So when I was ready to do *Drumming* I thought, "Hmm . . . bongos." And that's what happened.

DUCKWORTH: Did *Drumming* go through a lot of transformation and change with the ensemble? Did you put it together over a period of months?

I put it together over a period of time, but it didn't really change that much. I mean, there were details like resulting patterns REICH: that were worked out in rehearsal, but it's not a piece that had tremendous changes due to the working out. What actually happened, though, was that the process of composing Drumming was very much tied in with working with my ensemble. What I was doing, and what I did with other pieces, up to Music for Eighteen Musicians, was that I would write a little bit and immediately start rehearsals. Rehearsals would rarely result in a change of notes or rhythm, but after Drumming they would often result in a change of orchestration. My ensemble became a laboratory for learning orchestration of the sort that I have become involved in. In Drumming, there were many conceptual questions, which then suggested orchestration that was then worked out. For instance, at the beginning of the piece I found myself singing along with the drums, so I ended up doing that. (I've since dropped that; I just let the drummer play the resulting patterns.) In the marimba section, when I was composing it, I really heard-because I was in that receptive frame of mind-female voices in the room. They appeared to be an acoustical result of the multiple marimbas. So I contacted Jay Clayton and Joan LaBarbara, who actually helped work out these marimba resulting patterns and sang them later in performance. In the glockenspiel section, I heard whistling, because that's the only vocal thing that you can hear in that tessitura. And eventually it's so high you can't do that; the piccolo has to come in. So the introduction of voices and piccolo in Drumming, which are significant because they were pursued later in other pieces, was the acoustical outgrowth of the music itself. I was literally forced to make the selections which the combination of overtones and resulting patterns sounded like. I was merely imitating

their sound, and finding the voice or instrument which created that.

DUCKWORTH: Did *Drumming* begin in your mind as a four-part piece?

REICH: No, it didn't.

DUCKWORTH: How did the different timbres emerge?

I bought the drums and started fooling around with them, REICH: which is what I always do. I compose with the instruments—nine out of ten times, the piano. If I can play it, I use it. If I can't play it. I use some kind of electric keyboard equivalent. Out of that, this particular pattern evolved with that basic African 12/8 ambiguity: Are we in three or are we in four? And Drumming is constantly going between one and the other. That's why twelve is such a magic number, because its subdivisions are the most ambiguous. But when I got done with the drums I thought about the bells I had brought home from Ghana. I liked them, but didn't want to use them in my music because I didn't want to use any non-Western instrument that I hadn't grown up with. And the marimbas . . . it just seemed like the piece wanted to be longer. I don't know when I got the insight that I would continue the rhythm but the pitches would change. Basically, that's all Drumming is-going through the same rhythmic processes in different note combinations and different timbral combinations. Indeed, the transition from one group of instruments to the other is merely a change of timbre, because the notes are identical and the rhythms are identical. When the glockenspiels came along, that was perhaps the biggest surprise. Then it seemed incumbent on me to put it all together.

DUCKWORTH: Why were the glockenspiels a surprise? Did everything develop a step at a time?

REICH: Well, what was happening is that when working with the marimbas I began to realize that I was going to work up higher and higher in the tessitura. I bought three-octave marimbas, and the lowest note is F below middle C. The lowest note in the first drum section of *Drumming* is G\$ below middle C. I was down at the bottom of that instrument. So everything I did was going to go up above there. Now once I got up there I either had to end, or I had to do something else. The tessitura, because it's physical as well—it's literally on the other end of the instrument—seemed to suggest going up above that. So the glockenspiel was the result. It was my

bell in contrast to the African bells. Well, that carried the piece up to a range of pitch which is basically at the top of the keyboard where pitch begins to disappear.

DUCKWORTH: Was the amplification that you used a practical consideration to get everything balanced, or did you like the sound that you were getting?

Both. I like the intensity of it, and I like the projection of acoustical detail all through the hall. You have to hear the detail, so you have to have a microphone. And that has been the way I've been using amplification ever since. You know, there are two ways to use amplification. There's bad orchestration that you patch up with a microphone because you didn't balance things right originally. And there are balances which are impossible unless you amplify. So what I do with amplification is to create balances that are acoustically impossible, and to unify the sound source of the entire ensemble so that it's all coming from the loudspeakers, which is basically why I will amplify the glockenspiels. They don't usually need it. But it takes the piccolo and the glockenspiels and melds them together a little bit more. It makes the mix better. This is my one and only use of electronics. And I'm very committed to that. That's all I ask from electronic music.

DUCKWORTH: As you were writing and rehearsing Drumming, did you have the feeling that it was going to be a major piece?

REICH: I began to realize that after I got into the second section. Once I got to the marimbas, I began to see how it was using everything I had learned compositionally up until then. Plus, I was inventing an orchestra. So yes, it became clear to me. And also, other people were reacting. If you'd never heard that sound before, it was pretty striking.

DUCKWORTH: How were you holding the ensemble together? It had grown to a large number of people by this point.

REICH: Drumming was where it changed. Drumming started out with a quartet or a quintet and ended up with twelve people. Part of Drumming was simply finding the additional people. Meeting performers who were in the same neck of the woods as I was: musicians who were interested in non-Western music, particularly percussionists. I met Russ Hartenberger then, who was studying south Indian drumming at Wesleyan, and through Russ, Bob Becker joined

the group later. Also, Jim Preiss, who was and still is at the Manhattan School of Music, joined the group. So the whole process of working with my ensemble expanded. Finally, in December 1971, the Museum of Modern Art, followed by Town Hall and the Brooklyn Academy of Music, all presented the premiere performances of Drumming one after the other.

DUCKWORTH: In the same season?

Within a week. Then we went to Europe in 1971, and that, of course, proved to be a major part of my life, because I ended up playing more over there than over here. Now that's evened off, but up to 1980 there was probably more European activity than American.

When did you start supporting yourself as a composer? DUCKWORTH:

About 1971 or '72. Seventy-one was a pivotal year, because REICH: enough concerts began happening to finally make this transition from part-time social worker to performer. I was not making money writing anything; I was making money playing it. So the ensemble, which started with close friends, branched out from there. Finally, there was enough to survive just playing concerts.

When I first heard Music for Eighteen Musicians, I was DUCKWORTH: taken with how lush it sounded compared to your previous music. How did it get to that point?

Well, it got to that point largely through a piece called Music for Mallet Instruments, Voices, and Organ in 1973. In that piece REICH: what happens is Drumming gets married to Four Organs. Basically, that piece was the big breakthrough for me, because, so to speak, it put the long tones and the short tones together again. Four Organs was this freak piece-an augmentation piece. It had nothing to do with all the other things that I was doing. Finally in the mallet piece I said, "Ah, put these two things together." So that was very important at the time. And Music for Eighteen Musicians is merely, in a sense, an outgrowth of that piece with a couple of twists. Of course, the pulse is perhaps the single most important thing in the piece.

DUCKWORTH: You mean the breath pulse with the wind instruments?

Yes. The breath pulse and the mallet pulse. REICH:

What's the difference between the breath pulse and DUCKWORTH: the mallet pulse? Are they two separate concepts?

REICH: Yes. The breath pulse was thought of as a foil and a complete contrast to the mallet time. I thought of it metaphorically as one of the few visual images I ever had with a piece: drummers playing by the seashore, their feet bare and their pants rolled up, drumming with their stands set up right where the water comes in, playing in strict time while the waves wash in and out.

DUCKWORTH: What are the "couple of twists" that distinguish Music for Eighteen Musicians from Music for Mallet Instruments?

Music for Eighteen Musicians included the idea of changing the harmonic rhythm, so that something that was going on in mallet instruments, woodwinds, or voices would appear to be changing when, in fact, it was merely being reaccented by the changes in harmonic rhythm. This is an outgrowth of Music for Mallet Instruments, where the harmonic rhythm, although it augments, always comes in on the second beat. Music for Eighteen Musicians is in 12/8, and the reaccentuation—the ambiguity—is played upon by those changes in harmonic rhythm. Now, there's a base that's shifting underneath those ambiguous patterns, highlighting their ambiguity, to create the sensation of longer lines-even though, in fact, they're all one bar long. The breath as a foil for the ongoing metric pulse is undoubtedly very important. And most important of all is that this piece is structured harmonically—the pulse is a series of middle register chords. The reason I stress that is that I've become increasingly clear about this. Everyone talks about rhythm with me; I've talked about rhythm with me. But harmonically speaking, what I've been doing right along has been taking something in the middle register and, when basses finally began appearing in my music, reharmonizing something that continues in the middle register or upper register with a changing bass. Now as we all know from the recent history of Western music, what this goes back to, unambiguously, is Claude Debussy. The reharmonization of the flute motif in Prelude to the Afternoon of a Faun is the quintessential statement of that kind of technique. I think it's something which is probably in my head and in the head of lots of American composers from birth, because it's so embedded in jazz, in Gershwin, and in movie music, that we don't even notice it. It's only in the last couple of years, and partly through keeping in touch with William Austin at Cornell, who is a Debussy scholar, that I'm beginning to reassess Debussy myself. You know, if you don't follow Wagner, you go to France. I did and I didn't even know it.

DUCKWORTH: How does this insight effect your music?

I have now begun to use the idea of harmonic ambiguity in the middle register as a linchpin, allowing you to move from key to key without giving away your hand. I can work in functional harmonv. but the functional part of the harmony is the key signature; the bass is coloristic. If I'm in two sharps, don't ask me whether I'm in D major, B minor, or E Dorian. I'll change from section to section. I'm in two sharps—that's functional. But whether it's major, minor, or modal . . . that's coloristic. Now that's the kind of thing that obviously comes out of Debussy. But I've only recently gotten clear about it. That is what is happening in Music for Eighteen Musicians, because the pulse was written in the middle register piano and put into the marimbas too. And that's the functional skeleton of the piece. The very first chord is either D major or B minor, and it's harmonized both ways right at the beginning. The pulse has it with the bass clarinets on a B, it comes back, it seems to cadence on a D, it goes back into B, and then it goes to D. The fact of the matter is, what's functional is that series of chords, which stay almost within a constant signature. I think that that piece was a breakthrough to getting clear about the kind of harmony that was implied in Piano Phase.

DUCKWORTH: Well, Music for Eighteen Musicians certainly has more of a bass line than any of your earlier works.

REICH: To me it was, "How do you use the bass in this kind of a music without using a drone? I don't want to use a drone." I mean, that part of Terry Riley I just completely rejected. That's foolishness to me. So it was a real problem, and then solutions began to appear.

DUCKWORTH: A moment ago you said *Music for Mallet Instruments* was important because it was a marriage between *Four Organs* and *Drumming*. What did you mean by that?

what happened was that in *Music for Mallet Instruments, Voices, and Organ* there was a combination of basically all the pieces that I had written. You see, *Four Organs* had nothing to do with *Drumming, Violin Phase, Piano Phase*, or *Phase Patterns*. All those pieces have no long durations; they are all made up of short notes. There's nothing longer than an eighth note or a sixteenth note in the entire piece. *Four Organs* is not a phase piece; it's a study in

augmentation. Four Organs stood there like an iceberg. I didn't know how it would ever relate to the rest of my compositional vocabulary. In Music for Mallet Instruments, finally, something clicked whereby I saw a way to relate the process of augmentation to the kind of ongoing, fast-moving music I had been writing in eighths and sixteenths. So you get these two processes of building up a canon in the mallet instruments, which when it finally reaches the canonic point turns the key in the latch of augmentation, which allows the voices and organ to get longer and slower. The faster the mallets get, the longer and slower (the more augmented) the voices and organ get, until in the middle you finally get the resulting patterns and everything else I had done to date coming to flower. So at the time, and in retrospect as well, it was a real breakthrough piece. It combined two different, unrelated techniques in a related way within one composition.

What happened in your thinking that caused you to go DUCKWORTH: in that direction?

REICH: Almost all of the compositional breakthroughs happen in one of two ways for me. They happen at an instrument while I'm playing and improvising within the context of what I write, and in the process the "Aha!" phenomenon takes place and I cease improvising and start writing. Or, in the process of writing a piece, while I'm taking a walk, eating a meal, or washing a dish, and running it by in my mind, something that I hadn't thought of suddenly presents itself-usually a rearrangement of preexistent material. As I remember, in Music for Mallet Instruments it was something whereby I was playing repeating patterns on the marimba and suddenly began singing long tones over them, and it clicked as to how they could be combined.

DUCKWORTH: What about the arch forms in each section of Music for Mallet Instruments?

Well, I remember thinking, "Ha, another take on the Bartók fourth and fifth quartets," which were works of his that I looked at with a great deal of interest while I was a student at Juilliard. That formal arrangement struck me as a very powerful one. And the arch form, right up to The Desert Music and Sextet, is an important overall form for me.

DUCKWORTH: Is it fair to say that the way you work is to take one of these powerful, basic forms and explore it for a while?

Yes. REICH:

What attracts you to these forms? DUCKWORTH:

My experience as a music student was that I dug into a few REICH: works that I felt very attracted to. And that may be a hallmark of my limitations and my strengths.

How do you get such vitality out of such basic shapes? DUCKWORTH:

You give them a new slant. As a composer I seem to be able to stay with a particular bit of material or a particular formal arrangement and push against it, rearrange it in different ways. Look, the arch form has been with us a long time in various ways. It's in Bach's Cantata No. 4. Formal invention in Western music can be reduced to a few forms, and those forms recur. There are an awful lot of sonatas written, but that is a form I'm not attracted to because of its lack of formality and, so to speak, its narrative aspect. I'm much more interested in the earlier contrapuntal forms and the twentieth-century derivatives of those.

But in 1973 wasn't it radical to be going back to tradi-DUCKWORTH: tional forms, particularly coming from the 1960s where we had to reinvent the language for every piece?

First of all, you've got to remember that in the late sixties I REICH: was in a very isolated position. I wasn't at ease with the academic environment. I didn't enjoy the music of either the very conservative types, who were still trying to preserve Americana, or of the radical types, who were trying to write like Boulez, Stockhausen, and Berio. Later on, when I was in San Francisco and was among a more emancipated type, I also was not at ease because I didn't feel like imitating John Cage. So there was really nowhere within the musical establishment at that time that I felt was for me. I was forced back on my own resources.

What were those resources? DUCKWORTH:

My resources were a combination of a radical turn of mind wherever my musical intuition points, I try to follow it to its ulti-REICH: mate conclusion-and, at the same time, to search for whatever correspondences I could find to some point in musical history, Western or non-Western. When you find something new and you find out how it relates to earlier musical practice . . . that for me is a great confirmation that in fact you're on solid ground. I began to

realize that basically all the phase pieces were a variation of canonic technique. Then I thought, "Ah, of course this works. Why shouldn't it work? I'm just writing canons at the unison where the subject is short and the rhythmic interval between voices is variable."

DUCKWORTH: Why do you suppose that many of the more conservative musicians don't see any relationship between the kind of music that you write and music history?

I think that they're looking at music history in a very contemporary and limited sense. If you look at what I'm doing and the music that was in ascendancy when I was emerging, then it's hard to see what the relationship between my music and twelve-tone music, serial, or chance music is. But if you look at my music to see where it fits into Western music, you have to see the diverse areas that originally attracted me: the twentieth century (particularly Stravinsky and Bartók), and Bach and before. Those are your reference points. And, I might add, more recently an understanding that a lot of what I do notewise has to do with Debussy. I have come to what I feel is a very clear awareness now that I am one of the many Americans working in the French rather than the German tradition. Wagner, Mahler, and so on are not composers I can enjoy, analyze, or learn anything from; Beethoven is the last German composer that I can begin to relate to. Whereas Debussy, Ravel, and Satie are an increasing revelation. I'm beginning to understand the relationship between Paris and New York in the twenties and thirties, and Copland's studies over there . . . and Gershwin. I see myself in that sense as a continuation of the French influence in America as opposed to the German one. My love of German music ceases with Bach. I mean, I can enjoy Haydn and, a little bit less, Mozart and, a little bit more, Beethoven, and then it just goes away.

DUCKWORTH: You performed with your ensemble for so many years. How did it feel to give *Tebillim* to the New York Philharmonic?

REICH: Actually, I had a good experience with the Philharmonic vis-à-vis the emotional response from the orchestra. I was girded up like a warrior when I went off to the Philharmonic. I had proofread the parts until my eyeballs were falling out, and I had tried to anticipate any cue that could possibly bother anybody. Unfortunately, what happened at the New York Philharmonic was that, because it was the first concert of the year, a whole day of rehearsal was lost. So



Steve Reich and Beryl Korot filming "The Cave," Hebron, 1989. Photo Credit: Maryse Alberti

there was a Tuesday and a Thursday, but no Wednesday rehearsal. The orchestra almost got lost in the first performance, because they'd never played it through before they were on stage. They did little bits that sounded pretty good, but when they had to get the continuity, catch cues, and move on, it was horrendous. After the first performance, I went up to Mehta's dressing room and spent twenty minutes just going over where he had to throw a big left-hand cue. It got better, but it never got past the hanging-on-fordear-life stage. But I didn't experience any hostility.

DUCKWORTH: Is *Tehillim* more linear and less cyclic than your earlier work?

REICH: Yes. I did not make a precompositional decision before *Tehillim* that I would write a piece that had no repeats, but the music of *Tehillim* was forced on me by the words. When I was first working on it, I had on the piano the text, which I had transliterated into English after going through the Book of Psalms in Hebrew and in English and choosing those parts of the psalms that I felt I and in English and choosing those parts of the psalms that I thought could say with conviction and put them in an order that I thought

made sense. In addition to that, I had those little drums, those little tuned tambourines without jingles, which is probably similar to what they had in the biblical period. I found myself just going over the language and a melody would pop into my head, just the way it has been going with composers for thousands of years. So the melodies came out of the words. I felt that in contrast to the earlier tape pieces, which was the last time that I dealt with words as opposed to vocalise, I couldn't just repeat words in the psalms. Tebillim has unabashed melody and accompaniment. Basically that is a way of making music I've avoided. I used to make remarks in the seventies about getting rid of the melody and thickening the accompaniment until it became a music in and of itself that contained melodies. That is certainly not a description of what's going on in Tebillim.

DUCKWORTH: Do you like working with orchestras now?

REICH: I very much enjoy it. It would feel terrible to think that if I didn't play my music nobody else would.

DUCKWORTH: But there was a time when you didn't want anybody but your group to play it.

REICH: That is absolutely correct. I'm very glad I did that too.

Because by making it something that was only played by my group,
the original performances that people heard were really good ones.

DUCKWORTH: Do you listen to popular music today?

REICH: Not much, no. Occasionally. You hear it whether you want to or not. Occasionally I will listen to a Talking Heads or a Brian Eno record, or something that sounds like a retake of my own music. I don't get very involved in it; I'm not as involved in it as some other composers around.

DUCKWORTH: How do you feel about popular music that imitates your sound?

REICH: Well, I'm pleased. I was a kid who was terribly involved with jazz ... very impressed with going to hear jazz musicians and trying to play jazz drums. I was never involved with rock and roll, because rock and roll was Fats Domino and Bill Haley, and I preferred Charlie Parker and Miles Davis. But somehow it seems to me there's a certain poetic justice in someone like myself being influenced and affected by Charlie Parker, Miles Davis, and John Coltrane; and then,

at a later date, the kinds of people that I might have been in my early teens and twenties, who are now playing rock and roll, are interested in what I am doing. (Not in any kind of a literal sense, but in a broad one.) I had that interest; why shouldn't those who now have that interest have a similar interest in me? I believe that it helps the classical music and the popular music of a period to have some kind of a discourse. Charles Ives, George Gershwin, and Aaron Copland, everything we consider great American music has had either a great or small amount of that in it, because that's a particularly American truth.

DUCKWORTH: Do you think that success has altered your music?

REICH: To the degree that I can answer that I'd have to say no. But let me say two things. First, if music doesn't move people emotionally, it's a failure. I don't want people to find my music "interesting"; I want them to be deeply moved by it. So certainly I care how people react to what I compose and certainly I'm pleased that so many people want to listen to my music. That said, the second thing is that when I'm composing, alone in my studio, I write for myself. I don't believe you can write what you think people want to hear without becoming a hack. So I compose what I want to hear, and if I love it, maybe you will too.