

# AURORA FORUM AT STANFORD UNIVERSITY

## Creative Collaboration: Steve Reich and Beryl Korot Art + Invention Speaker Series

### Pigott Theater

### Presented with the Taube Center for Jewish Studies

7 January 2010

**Mark Gonnerman:** Welcome. Our program tonight is part of the Art + Innovation Speaker Series presented by Stanford Lively Arts and the Stanford Institute for Creativity in the Arts. Tonight's presentation is co-sponsored by the Taube Center for Jewish Studies, the University Office of the President and Provost, and Stanford's Office of Public Affairs. We're grateful to all of the people who have worked so hard to make this evening possible.

We're especially grateful to our guests, who just flew in from New York City: Steve Reich and Beryl Korot. I will begin by introducing them formally and then we will have a conversation driven by two works that we're very interested in tonight, one called *The Cave* and the other called *Three Tales*. We'll be having this conversation up here amongst ourselves and then open up for audience audience-driven conversation. So we'll all have a chance to participate, ask questions, enjoy the work, and think about the gifts that the artists have brought for us this evening.

Steve Reich is one of the very few living composers who can claim to actually have changed the course of music history, and it's an honor for me to introduce him here tonight. In 2006, he celebrated his 70th birthday, and that prompted concerts and conversations about his work around the world. In 2007, he was awarded the Polar Music Prize by the Swedish Academy of Music. Former winners of that prize include Pierre Boulez, Bob Dylan, György Ligeti, and Sir Paul McCartney. (I want to hear about your connections to all of these musicians.) In 2009, he received the Pulitzer Prize in Music for *Double Sextet*. Ezra Pound once noted that artists come in two types: there are the inventors and there are the masters. Steve Reich claims for himself the title of inventor, but it's becoming very clear that he's a master of invention and a master of the language of music and of music composition. We're really grateful to have you here tonight.

Beryl Korot is an internationally known video artist who has created multi-monitor installations that have been shown all over the world. She cofounded a journal called *Radical Software*, an early video and media studies journal, in 1970, and is best known for her multiple-channel works, one entitled *Dachau 1974*, which has come to be known as a classic in the genre, and another in 1977 called *Text and Commentary*. Then she

spent a decade as a painter, weaving her own canvases. I think now she's interested in video painting. We may get a chance to talk about that. And she has collaborated with her husband and partner, Steve Reich, on the two pieces I mentioned before: *The Cave*, which came together in the years 1990 to 1993, and *Three Tales*, which was produced in 2002. Both of these works brought video art into a theatrical context with contemporary classical music in pioneering ways.

Both of our guests are true pioneers who turn vision into art in order to stimulate thinking and create the conditions for positive social change. That's typically what we like to think about here at the Aurora Forum.

Joining us in the conversation is Vered Shemtov, who is the co-director of the Taube Center for Jewish Studies and a teacher of Hebrew language and literature here at Stanford. She works on two main topics: rhythm, rhyme, and ideology in Hebrew literature and on issues related to Jewish and Israeli perspectives of space. Her current work focuses on rhythm in modern urban spaces, and she is particularly interested in Jewish cities, especially Tel Aviv.

We're very happy to have all of you here tonight. Let's talk about your life and your art. I'd like to begin with a story, because everyone loves stories that people tell about how they met – how they first met. What was the situation when the two of you first became acquainted?

**Beryl Korot:** We met at The Kitchen. I don't know how many of you know about The Kitchen. It's an experimental center in New York for video and music and dance performance art. A mutual friend of ours, Peter Campus, a photographer and video artist, introduced us and we started going out almost immediately in 1974. That's how we met.

**Gonnerman:** You must have been attracted to each other's art because you're both very interested in rhythm and pattern. Did you begin talking about art?

**Reich:** Later. [Laughter]

**Korot:** Well, actually, Steve was going to Berlin and I joined him, but it was my first trip to Germany. It was 1974, and not much had been said ... it's hard to believe now, but really at that point almost nothing had been said about the Holocaust. It just really wasn't part of a general conversation in the world. Even survivors weren't talking about it. Nobody was talking about it. But I felt that if I was going to visit him in Berlin I should go to visit Dachau. That was actually a very early piece – a four-channel work based on weaving structures because I was interested in the hand loom as the original computer on earth in that it programmed patterns. And when I came back with this very static footage from Dachau, I created a four-channel work with paired channels of outside the camp and then inside the barracks (farther away and then closer up), each rhythmically presented in pairs (one and three, and two and four). That piece actually became the basis of Steve wanting to work with me on *The Cave* many years later, and *Text and Commentary* after that. Actually, my background as a kid was in piano, so I

definitely had a sense of time and knew how to deal with that intrinsically. The loom is that kind of thing, too. So that was an early connection.

**Gonnerman:** So *The Cave*, Steve, had a really long incubation.

**Reich:** Well, it took from about 1989 to 1993, but we were not actively working on it the whole time. Actually, the idea came for it when we decided we would have a business meeting, so we went to a coffee shop around the corner from where we lived in New York facing City Hall. I think it took about five minutes to decide we were going to make it about the Cave of Machpelah. Now, most people in the audience would say, "What?" and that's exactly what the third act of the piece is about. *The Cave* is a music theater work in three acts, and in each of the three acts we ask a different group of people the same five questions. The questions are: Who for you is Abraham, who for you is Sarah, who for you is Hagar, who for you is Ishmael, and who for you is Isaac in order of appearance in the Bible? In the first act, we ask Israeli Jews, in the second act, we ask Palestinian Muslims, and in the third act, we ask Americans, who are mostly Christians. The beginning of the third act begins with an avant-garde theater director saying, "Abraham Lincoln?" and we said, "Central casting. You're in." [Laughter]

The idea for *The Cave* came very, very, very quickly because it's something that was very, very ancient and very much at the root of all monotheistic religions, because Abraham, who really is the one who discovered God as we think of him, had also become enormously contemporary. We did this during the period of the First Gulf War, and there was a front page of the *New York Times* while we were doing the piece that had a photo on page one with the caption, "Missiles at site of Abraham's birthplace." They were referring to Basra, which is the old Ur, which is where Ur of the Chaldeans is. This is where Abraham came from, so at that location the Iraqis (Saddam Hussein) had placed missile placements. So the ancient and the contemporary were headlines, and we didn't show the piece then. Everyone said, "Oh, you've got to show it now." We said, "No, we think we can wait," and we did, and it was better.

**Gonnerman:** Do you have anything else to say before we take a look at some of the footage?

**Korot:** We actually came to this meeting that we had with two stories of Abraham. Steve came with the story of Abraham as the revolutionary, and I came with the story about Abraham serving three guests who turn out to be angels, only he doesn't know they're angels, who come from the desert. But in his hospitality, which is a trademark of him and many people in that part of the world (that's a very essential trait), he's actually been circumcised at a very old age, and he's sitting under a tree and these angels, who are strangers, come out of the desert. He leaps up to offer them hospitality and runs to tell Sarah to make something. And he runs into a cave, where he sees a calf running ahead of him, to kill it and serve it to his guests. When he goes into the cave, he smells something verdant and he sees these two apparitions and knows intuitively that this is Adam and Eve. But, as in many traditions where he may stay and meditate or go farther into the cave, he runs back to his guests to serve them. This place, the cave, over many hundreds

and thousands of years, became known as the Cave of Abraham, where Abraham and Sarah and Isaac and Rebekah and Jacob and Leah and Adam and Eve are supposed to be buried. And on top of this cave today sits this Herodian structure. In the twelfth century, a Byzantine church was put on top of it. Then, when the Muslims came, they built a mosque on top of that. So for the purposes of this work, we also needed a place to go to that located this story about the roots of the West, in a sense. At that time, it wasn't a time when religion actually was that much in the culture as a conversation or as something that people were aware of or thinking about very much in the late eighties and early nineties (not in American culture, but very much in that part of the world). Now, when we asked people in the Middle East about Abraham, Sarah, Hagar, Ishmael, and Isaac, they were very aware of those people and they referred to one another as cousins. As Steve said, back in America it was very much Abraham Lincoln to some people.

In order to show you this tonight, *The Cave* exists only as a performance piece and as a video installation. It exists on five separate screens, and musicians and singers were placed around and above the screens. For tonight, I took these five separate tapes that I have and I imported them into the computer and made a mock-up of just the screens, so bear with it. But you'll get a sense of what the timings were like. The music sounds good.

**Reich:** No it doesn't. It's sample instruments, for those of you who know what that is.

**Korot:** That's a little bit from the stage. We're going to be watching five imported screens.

**Reich:** You're also just going to see ... the first act is over an hour long, and you're going to see five minutes of it.

**Korot:** Yes, the whole piece is actually about two hours, and I have the "Casting Out" section that I imported in, which is the casting out of Ishmael in Act 1. That will be followed by Act 2, which is the Palestinian Muslim section. There is a section on Hagar. So that will be what I'm showing from Act 2. Then in Act 3, we're just showing the opening four minutes.

**Vered Shemtov:** Maybe since you already introduced the cave, the place itself, maybe something to add is that Machpelah (The Cave of Machpelah) in Hebrew means "double," so you're talking about two traditions at least, and it is in the name of the place itself.

**Korot:** It's a place of intense tension, and it is the only place on earth where Muslims and Jews actually use the same building to worship in.

**Shemtov:** ...at different times.

**Korot:** Very much so, at different times.

[Excerpts from Acts 1, 2, and 3 of *The Cave* are shown (see our video of this program).]  
[Applause]

**Shemtov:** Thank you. It's really a great opportunity for us to be able to sit here at Stanford and to have a conversation with you. I'm glad to start the conversation by asking you about your choices. You had quite a lot of material that you gathered for this project, and I was wondering how you decided what to include. What part of it had to do with musical decisions, visual decisions, and decisions that had to do with the meaning, the content, and how did you negotiate among them?

**Korot:** Well, it's funny. When I look at it, I realize that Photoshop, which I'm sure most of you are familiar with, was just starting at that point. So it gave me an opportunity in working with the piece to take fragments of people's clothing, or whatever situation we'd find them in, to kind of create an abstract *mise-en-scène* for them. Who are the characters? There are three sets of characters in this piece. There are the ancient characters, who live through the words of the interviewees, and then there are the singers on stage, who have their own presence. And every time you see a person, you're also hearing them in an aural portrait of themselves. So throughout the work, they're in both a visual portrait of themselves and in an aural portrait of themselves. Steve and I went through a lot of the material together.

**Reich:** *You* went through the material.

**Korot:** Well, I guess I went through it first. We had decided we were going to deal with Abraham, Sarah, Hagar, Ishmael, and Isaac, each of whom developed separately. In each of the different acts, their characters develop. But I would give Steve a whole lot of material on each of these different characters and then he would listen to their voice melodies.

**Reich:** Basically, I got a rough edit from Beryl, sort of getting rid of most of what we did. There were thousands of hours of interviews. There were people we interviewed who are definitely not in the piece at all. Basically, I had to, as Beryl pointed out, weigh how they said what they said. Was their voice boring or did their voice have a melodic content? Kids are very melodic: "Daddy, I want an ice cream." Actually, in kids it's because their larynx is not very well developed, so it's very flexible and very melodic. As we get older, it tightens up and some people have a very monotonous voice and some people have a very melodic voice. It also depends on what the situation is. If you're excited, if you're trying to put something across, then you have more speech melody, or you might very well have more speech melody. So that's an ingredient that must be there because, finally, what are we doing? We're doing a piece of music theater. If he doesn't work for music theater, then he doesn't work.

Then, of course, we are trying to tell a story, so we're showing Abraham as seen by the Israeli, Abraham as seen by the Palestinian, Abraham as seen by the American. To make that cohesive and interesting and sometimes funny is a real consideration, too.

Weighing the content and the musicality of what's going on really takes a long time. It wasn't like composing music in the normal sense of just dealing with the notes and the instruments, which takes me a lot of time as it is, but this basically had to first work. What is the order of samples? How do they work? Also, in *The Cave*, from a musical standpoint, for those of you who are interested, with each person, I felt it was not right in a moral, ethical sense to monkey with their voice by computer – change the pitch, change the tempo. And not everyone speaks at the ordinary words-per-minute equals 120; they speak at what they speak at. They don't speak in E-flat. They speak in whatever they speak in. So I'd find something I like, but it's always moving into a tempo that is completely unrelated to the tempo that precedes it. So you've got to write into the music a couple of what are called "tacit bars" where the musicians aren't playing and have some pre-recorded material so that they can hear what's happening. The conductor is changing tempo every forty-five seconds. This piece is a bear to play. So in *Three Tales*, which we'll get to, I decided, no way; this is not religious subject matter and I am going to monkey with it in a big way, and I did. Mea culpa. But here, it was very time-consuming work, also to change from one key to another that you would normally never modulate to. How do you do it, and, OK, this is how I'll do it. But it was a very labor-intensive process.

**Gonnerman:** Could you say more about the ethics of that?

**Reich:** Well, it began in *Different Trains*. In the piece in 1988, which is the first piece I used pre-recorded material in, the voices that I used were those of the women who took care of me as a child, basically, my mother and my nanny for the first ten years of my life, and a black Pullman porter. My parents were divorced when I was one year old, and I spent six months with my father and six months with my mother. That's the way the court decided it, and I spent four days on a train back and forth. This was in the 1930s. People didn't fly. I asked myself when I did the piece what was going on in 1937 and 1938. Well, in those years, we all know what was going on. Hitler was trying to take over the world and taking every Jew he could get his hands on and throwing them into eastern Germany and eventually into Poland, and they weren't here to talk at Stanford University. They were people about my age. So I felt this piece was kind of a memorial, and I didn't want to monkey with their voices. So again, I faced this situation in *Different Trains*, but it's a much shorter piece. In introducing me to that way of working, it also gave me the idea to ask Beryl to work with me. People had asked me, "Would you do an opera?" and I said, "No, I'm not interested in traditional opera." And to spend three years doing something you're not interested in is a ticket to suicide. So then I thought, What's the matter with me? I don't have anything.... And suddenly a light bulb went on when I was doing *Different Trains* and I thought, Well, I'm using audiotape. What if I could work with a video artist and you could see the people speaking and have live musicians and singers on stage singing and playing what they say? That became our video opera.

**Shemtov:** Were there also choices that had to do with what people said? I'm sure you have your own idea of who Abraham is for you, or Sarah or Hagar. Did this play any role in your decisions? Is your voice there, too?

**Korot:** Well, I guess in what we chose and who we chose to speak, but I think what we did in *The Cave* is that we felt very responsible to the people, more than I can ever imagine in anything else I ever did. We felt so responsible to be as true as possible to them and to not distort their words too much. So we didn't. And there were a lot of people who answered wonderfully but didn't look right when they said the things, or their voices, as Steve mentioned before, weren't appealing, and they didn't make it into the piece. In a sense, we were casting for the work, too, so some people came and they didn't make the final cut.

**Shemtov:** So, to keep the different voices of those you had already chosen. The story itself is a story about diversity and unity because it is one family that becomes two people; it is a place that belongs to two people. So it seems that the piece itself also keeps this feeling of many and one at the same time. We have five screens, but we are moving from one screen to the other. You are kind of controlling our movement from one screen to the other.

**Korot:** There are timings based on the score. Our common language was time code. Steve could time code his score and video is time-coded. He could hand me a score with numbers on it so that if I wanted for a particular section – and I work a lot with blanks, which are pauses (rests in music, in a sense) – so I knew we were dealing with Nadine Shankar, who was the woman in the red dress, and I would have details from her work and then I would look at the score and decide, Oh, this is interesting; this is happening here, so I would put in a pause that would correspond to something that was happening musically in the percussion or something. That's part of the cohesiveness of the work.

We tried at some point to do something where I wouldn't be paying attention to what was going on in the score, and it was horrible. It really didn't work. We had a rule, too, I remember, that we had to stick constantly to the documentary both visually and aurally – that we weren't going to muck around with their voices. And a lot of times I'd end up in a room where the décor was just awful and the lighting was terrible, and somehow we just thought, OK, this is their house; this is the way it is, and we just stuck with that through the whole thing. It was just a kind of discipline that we had.

**Reich:** I think one of the big aesthetic breaks here is that multi-media, as it was known in the sixties, seventies, eighties was kind of a very loose whatever goes on. The idea of synchronization – really working hand-in-glove with video and music – was unheard of, or let's say never practiced. So these pieces, for better or worse, really are absolutely locked together, and you either like that or you don't. But that's a big break with the multi-media idea.

**Shemtov:** In addition to video and music, there are also texts, not in the parts that we have seen here, but you included texts. Maybe we saw one piece that had a little bit of writing in it in the background as a detail.

**Korot:** That was just a painting.

**Reich:** There are big sections of just text.

**Shemtov:** There are big sections that are just text and religious text. Can you say something about including text?

**Reich:** There were two ways that we presented the texts. Mostly, there was something called a typing instrument, which was actually a piece of software invented by Ben Rubin, who was out at the media lab and was the tech adviser for the piece, whereby you can type out a syllable of a word at a time: And-Sa-rah-A-bra-ham's-wife-gave-him-no-chil-dren-dot-dot-dot-dot-dot-dot-dot-dot. And in each of the “dot-dot-dot” in French and “dot-dot-dot” in German, you literally see these syllables just like following a bouncing ball. So the piece opens that way and at first it's just amplified type – the amplified computer keyboard – and then it's doubled with clapping and then it's doubled with claves, which are pieces of wood, and then it's doubled with bass drums when the angel comes in and talks to Hagar. The angels talk with kick drums, I want you to know that, those of you who are into rock and roll. [Laughter] That's their language. That was the typing instrument, and a lot of the piece had these sections that were just telling the story in this very forceful form.

Beryl invented another way of telling it, which is scratchy pens writing it out by hand on yellow pads shot right up close so that each word fills the screen in three different languages – German, French, and English. Very effective.

**Shemtov:** This is more about the “how.” I'm wondering also about the “why.” Did you feel that this story could not be told without the texts? Was that a crucial part for you?

**Korot:** Yes, it all came from that. That's how we know the story; it's from the texts. So the texts just seemed to be a crucial part of it. We had no storyboard for this work. It was an exploration, and these texts meant something to us. As I said before, it was a time when people really weren't thinking of the impact of religion in the world (people here in the West were not thinking about it at all), so it was bringing back a kind of root of our own – a source – and therefore the use of the texts seemed logical. It wasn't anything we even had to think about; we just did it.

**Gonnerman:** What has been the reception overall for *The Cave*?

**Korot:** People love *The Cave*. It's been like that. It's been a love affair. It was a love affair with the whole group. We had a huge group of people and we're still all close to this day. It was amazing. We've traveled all over. And the audience, too. We've had conversations all over the world with people about this piece. When you see the whole thing (you're just seeing a postcard – one little part)...

**Reich:** A bleached postcard.

**Korot:** And an old bleached, discolored postcard, at that.



**Gonnerman:** What are possible opportunities to engage further with *The Cave*?

**Korot:** Well, I had a funny experience this summer. I was a guest artist at the Flaherty Seminar in the Northeast. It was Robert Flaherty who did *Nanook of the North*. He was one of the first documentarians, and every year they have a seminar. Anyway, I went and there was a man there who programs for the Black Maria Film Festival. He said to me, “You know, I have a friend at the NFL who is a big fan of your husband’s music.” I had brought *The Cave* as a video installation to this seminar and he fell in love with it. He said, “You know, if I talk to this guy at the NFL, he may want to help you out and make a mock-up,” (which would be a lot better than what I’m showing you). So right now it’s sitting in their server – all five channels he’s streamed in – and as soon as this season is over, he’s going to create a mock-up for me that supposedly will be good quality and I’ll be able to show it better.

**Gonnerman:** I hope that happens because it would be an excellent teaching tool on so many levels.

**Korot:** Yes. Thanks to the computer, we can at least share it to some extent. Steve wants to go on now to *Three Tales*.

**Gonnerman:** So we’re time-coded here, too, all of us.

**Korot:** There’s another piece, actually, that we wanted to show.

**Gonnerman:** And Steve has already alluded to the fact that it’s quite different. The production of the next piece, *Three Tales*, was driven by different concerns musically, and so forth.

**Reich:** One of the central concerns was that it be on one screen. That’s what you’ll see.

**Korot:** *Thee Tales* was three tales from three parts of the twentieth century. The first was “Hindenburg,” the second was “Bikini,” as in the Marshall Islands, and the third was “Dolly” as a cloned sheep, but it also dealt with artificial intelligence and other things. It was looking back to an early part of the century that looked back to the nineteenth century with hot air balloons and then ends with this zeppelin crashing in Lakehurst, New Jersey, with a swastika on its tail and people coming out of the burning gondola and the captain saying it was not a technical failure. So it was a vision of technology as the savior for all of our problems, yet also the war. The middle of the piece is “Bikini” in the Marshall Islands – a group of people who were living in a kind of paradise. And then we had this war and all of these ships and tests come to this island. And there’s a subtext for this piece that also is biblical. It comes out of two stories in Genesis that deal with the creation of man: one being man of dominion, man and woman made together; and the other being man made from the dust and the woman from his rib. The first is people of dominion; the second are a humble people. And those two people meet in Bikini.

The third act is technology coming into our bodies and how we're being transformed by technology. We'll just show you the last ten or twelve minutes of "Dolly," which begins with Adin Steinsaltz and then goes to Ray Kurzweil and Richard Dawkins and Bill Joy and Cynthia Breazeal, who invented a robot called Kismet.

**Reich:** And Kismet is in it big time.

[Excerpts of *Three Tales* are shown (see our video of this program).] [Applause]

**Gonnerman:** So here we are, under the tree again at the end of the day. You said before that you didn't mind manipulating the voices because this isn't a religious piece, but it strikes me as a profoundly religious piece.

**Reich:** Well, yes and no. But the speakers by and large, with the exception of Rabbi Steinsaltz, are scientists. I also was thinking in terms of musicians. As I said, *The Cave* is very different. There's stopping and starting and anybody who knows my music knows that basically it's very rhythmically driven. I was a drummer when I was a kid, and the idea of being able to do this kind of a musical theater piece and just have everybody go at a tempo was really uppermost in my mind, and this seemed like the appropriate material for it. But certainly what you say is true as well, in a less literal sense, but certainly it's true.

**Gonnerman:** I was struck by a note in your article on Hebrew cantillation, where you explain that biblical texts are not scientific treatises, but they give us a sense of why the world was created and what our place is in that world.

**Reich:** I don't think I talked about any of that. I think I talked about the music of the texts and how that was notated in what I call the *ta'amy hamikrah*, the little accents that are only in the printed edition.

**Gonnerman:** Well, there's a note where you make this distinction.

**Reich:** I think what I tried to note is that in the very first word of the Torah, the Bible, is *Bereshith*, and it's commonly translated as "in the beginning," but as Vered knows better than I do, it's actually "in the beginning of," so a process still going on, and it implies that there might have been many universes before ours and this is the one that we're focusing on because it concerns us, not because it's a history book or a scientific treatise on how many days it was or wasn't, but it's trying to tell us something about how we should live as human beings. And that is its overwhelming purpose. It's not a scientific description of how things happened. People get completely waylaid in that.

**Gonnerman:** What is your answer to that question, How should we live as human beings?

**Reich:** My answer to that is that Sabbath is a really good idea. It would be really good in large preparations and it would be really good in human life to just take off from

sundown Friday to sundown Saturday. Just don't answer the phone, don't write, don't use money, don't drive in your car, just walk, talk to your wife and your children and your friends, and see what happens.

**Shemtov:** Can I ask you something about the reason you just mentioned: that it has to do with the way that you're using *ta'amy hamikrah* with the chanting of the text. But does it also have to do with the reading of the Bible in short sentences?

**Reich:** Gregorian chant is the way of presenting the original Latin text of the New Testament. In *The Cave*, you didn't see it, but the second act – the Muslim act – begins with a *muqri'*. The *muqri'* is the man who chants the Qur'an. We got a real superstar. It was the *muqri'* of Al-Aqsa Mosque. He's sensational. His pitch is.... He's famous; he makes recordings chanting the Qur'an because the Qur'an is properly not said, it's sung. And the Torah is chanted in the synagogue on Shabbats and sometimes twice on Mondays and Thursdays. It's not read. So religious texts that I'm familiar with ... sutra chanting is very beautiful. I have some very beautiful recordings of Japanese sutra chanting in the Buddhist tradition. So sacred texts are properly understood as sung messages. I mean, they are books to be read, by all means, but their most forceful delivery is in terms of their being chanted.

**Gonnerman:** We want to open up to audience questions, but before we do, I want to go back to what Beryl was saying about the different narratives that play in *Three Tales* with the perspective of human beings as dominant and the perspective of human beings as humble or of having a caretaker role in relation to the earth. How do each of you feel about an emerging perspective on human beings as co-creators, being that both of you are highly engaged in creative work?

**Reich:** We didn't create the earth.

**Gonnerman:** But these clips here – the human capacity to participate in making evolutionary steps, evolutionary developments – has reached a point where we have to ask ourselves that question. What is the role of the human being given these possible powers that we now have? This verse from William Carlos Williams that you have in *The Desert Music* [1984] is so apropos. William Carlos Williams: "Say to them:/ Man has survived hitherto because he was too ignorant/ to know how to realize his wishes. Now that he can realize/ them, he must either change them or perish." So what do we do about the situation now where we can realize wishes that are probably dangerous for the species in the long run? What do you recommend?

**Reich:** [To Beryl]: Do you want to tackle that?

**Korot:** No. [Laughter]

**Gonnerman:** But you put the question out there in *Three Tales*.

**Reich:** Well, you can put a question out there, but it doesn't mean that you're going to sit back and smile and know the answer – have it up your sleeve.

**Korot:** This is just a theater of ideas.

**Gonnerman:** Yes, a theater of ideas. And we're in that now as we engage in this conversation.

[To the audience]: There are microphones. If you have a question, raise your hand and someone will give you a microphone.

**Question from the Audience:** I love *The Cave*. It's beautiful to see it with the video. My question is about the relationship with land. The struggle obviously in Palestine and Israel is land-based.

**Reich:** No, it's not.

**Question from the Audience (continued):** Well, that's a different discussion. What I noticed is that you have a recording that I just saw in video – one excerpt of a Native American, and he's talking about his own relationship to his own people. I was wondering what your motive was.

**Reich:** His name is Jeffrey Sabala. He's a Hopi Indian and he was very well spoken. We recorded him at the University of Texas in Austin where we did a lot of the third section of *The Cave*. When you see him here, he says, "I have no idea." Everybody thinks he's kind of a jock and they laugh at him, and then at the end of the first act, he comes back. He says, "I have no idea. I know I was raised Hopi. I know I can go back to the res, so I have no idea." And why should he? His cave is the Hopi Reservation in Arizona. But that's America. We were very fortunate that he would step forward to participate.

**Question from the Audience (continued):** Was it an accident?

**Reich:** Well, if you believe in accidents, yes.

**Korot:** Well, of course, in the first two acts, people are so in that part of the world and in the cave and in those places there and in those characters, but America is so different, so it starts off with Abraham Lincoln. We are very creative here with our sources, and then there's all the diversity, so it was the American act and he is part of that act.

**Question from the Audience:** Thank you both for coming and sharing your works. I wanted to ask about technology since both of you are pioneers in your respective fields. What tools of technology are not yet out there that you wish you had at your disposal to come up with more creative pieces to share?

**Korot:** I don't have an answer for that right away.

**Reich:** No, I have everything I need.

**Gonnerman:** You just came across a great new tool, didn't you.

**Reich:** It was started for this piece. In 1970 I wrote a piece called "Slow Motion Sound." You've all seen slow motion in films, and you've also seen freeze frame – just stop the action. I wanted to do the sync sound of that, so you would slooooooow down the voice without changing the pitch. Now, back in the seventies, if you slowed down the voice, you got Darth Vader. So it took until the digital period where nowadays you can do this and you can do it with very high quality. And then Rubin took something from Macs that came out on Earcom and put a new front on it. And you would actually have someone say "zerooooo," and that "o" can go on forever. I think it's called granular synthesis, and it's just sort of going back and forth over this little sample. But musically it's very interesting. I actually want to use it in a piece I'm just about to begin for the Kronos Quartet – take that held vooowell and have a violin or a viola double that tone, and then the next person comes in and ends in something else. Richard Dawkins (you don't hear him here) says, "A fishhhhhhh is a machine in the water." So a band of noise, which is the end of "sh," is also prolongable indefinitely. So this piece that I'm going to work on will use this idea that in the seventies was impossible to do and became in the early twenty-first century exceedingly possible to do. I have had no unfulfilled technological wishes since that time.

**Question from the Audience:** I was wondering if you could tell us a little bit more about the history of voice melody that you were talking about. I know now that there's this auto-tuning craze. I don't know if you know what that is.

**Reich:** You have a very melodic voice.

**Question from the Audience (continued):** Thank you. But if you could just explain more about your involvement with that, and also if at some point you could give us a little explanation of the *Mallet Quartet* that some of us will be hearing on Saturday night.

**Reich:** Well, we'll have plenty of time to talk about that at the concert. There will be a pre-concert talk.

Voice melody is no discovery of mine. If you read the *Uncollected Essays on Music* of *Leos Janáček* back in the nineteenth century, he used to walk around Prague with a music notebook and he would write down how people sang and what they said. He even transcribed a railroad conductor yelling out the names of a stop. And in those days in Czechoslovakia, the educated people spoke German, so he yelled it out in German and he yelled it out in Czech. And Janáček writes both down and says, "You see how ugly this major seventh is in German and how beautiful this rounded triad is in Czech." [Laughter] And then he would use some of these speech melodies from his book in his operas. It's like you say to your dog, "Hi, how are you?" [in a snarling tone of voice] and the dog recoils. It ain't what you say; it's how you say it. So tone of voice is part of the life we

lead every day. That's how we understand each other. That's why the written word is one thing and the spoken word is something else entirely.

**Gonnerman:** So actually you don't always care if people understand what people are saying in this music?

**Reich:** Well, musically speaking, how many people here understood what Bob Dylan was saying in *Bringing it All Back Home*'s "Subterranean Homesick Blues"? I mean, what? I don't get it. But there was something that said, Hey! So now you're going to check out the lyrics. And the more you check them out, you say, "That's incredible." Even if you listen to *The Messiah* by George Friedrich Handel, you may not catch every word. You probably won't. But if the music magnetizes your ear and you say, "Ah!" then perhaps you will check out the text and then get more out of the music. But the music must work in and of itself to make you interested in what's being said, I believe.

**Shemtov:** Do you think it's the music and then some specific moments in which you do catch a word and then this gets you into the rest of the text or the connection between the text and music?

**Reich:** I think everybody has a different experience, but that was sort of how I experienced it. I think some people do that. They listen to the music and, like you say, they catch a word or two and it either gets them interested or it doesn't.

**Question from the Audience:** On the Janáček story you told, can you talk about the fact that everyone we saw in *The Cave* was speaking in English even though it wasn't their native tongue. Can you talk about the choice?

**Reich:** Right. Yes, it's a good question. Well, if *The Cave* was properly recorded in Hebrew and Arabic, I'd still be working on it. [Laughter] When you're doing this kind of work, you have to not just know what the word means, as in *Webster's Dictionary*. You have to know all the rays of innuendo that come out of a word. And I'm a master of English just the way you are, and like every other stupid American, that's the only language I'm a master of. So that's why. Basically, we just insisted that people speak English, although you're quite right: if we had used the other languages, it would have been an entirely different piece, but I would have been incapable of doing it properly.

**Question from the Audience:** I also want to thank you for your work. I was wondering what you think of binaural beats or high-resonance harmonic sounds that induce beta brain waves. There is new sound technology coming out, for example, something called binaural beats, and it makes a high resonance image. It's also in chanting. You were mentioning you've heard people chant, and in Buddhist chanting.... I was just asking if you're interested in the different kinds of, of if you're familiar with any of the research that has to do with how sound affects brain states and what you thought of that.

**Reich:** I'm sure that there will be further research and they'll strap electrodes to our brains and find a lot of information that has to do with music, but I'm not a scientist.

Some of you maybe should know that in 1965, a composer friend of mine, Alvin Lucier, did a piece called *Music for Solo Performer*. And it was Lucier himself or David Tudor, who was the pianist associated with John Cage, strapping electrodes on their brains and just sitting there and they could get alpha waves when they were meditating. It would send out signals to loudspeakers that were suspended over the piano with a brick on the damper pedal [Laughter] and you'd just get these vibes. And when they couldn't get the alpha waves, there would be silence. So at the time, it was crude, but I guess a very prophetic piece. But that's the extent of my knowledge of that whole area, but you're certainly right that that's a huge area and I'm sure a lot of people are working on it. I'm sure a lot of very interesting things will come out of it.

**Gonnerman:** I'm surprised by the silence around the alarm that's was sounded as we listened to "Dolly." Any questions about that?

**Question from the Audience:** I was curious as you've made so many years of work and you're obviously dealing with issues of technology here. As artists, as creative people who obviously still have this intense urge to create and make new things and challenge your own languages, how do you feel about going back and saving old works? How do you feel about things that you made perhaps in less technologically ideal situations? How do you feel about going back and re-working those? How do you feel about those issues?

**Reich:** I could never do that. *Come Out* and *It's Gonna Rain* from 1965 and 1966 are what they are. They seem to be doing just fine without any further ado, so that's the way they are and that's the way they're going to stay as far as I'm concerned.

**Gonnerman:** You've said your job is to create the next piece.

**Reich:** Yes. I also should add that after *Three Tales*, I think if I saw one more sample I was going to get seriously ill, so I've been writing nothing but music for instruments and voices since 2002, and this piece with Kronos will be the first venture into technology in seven or eight years.

**Gonnerman:** Do you have anything to say about that, Beryl, because you rely so much on documentary material?

**Korot:** Well, just in these pieces. For me, I was very excited to finally be able to work with the technology that was available when I did *Three Tales*. That was like, Thank goodness; I finally have some flexibility here. Because a lot of the complexities used to come in through juxtaposition of things, but really no flexibility with the image at all, so when I look back at *The Cave* and think, Oh, it's amazing that that was so cutting edge at the time. We were working with some people out in California who actually advanced remote technology, and all of that was edited with these five decks next to my Mac Plus computer. It's just amazing to think back, and Photoshop was just happening. But now I work mainly on aftereffects actually, and that's still happening. This was finished in

2002, so it's still very much ongoing – the same programs. And that is nice to have that flexibility to bring in film and photographs and be able to animate.

**Gonnerman:** We have time for one or two more questions and then we'll be able to continue the conversation and you can meet the artists in the room adjacent to Pigott Theater when we conclude.

**Question from the Audience:** I was wondering perhaps if some of your older pieces are guided or shaped by a process which is phasing or augmentation. To what extent do you already know what you want the final product to sound like and kind of guide the process to arrive there, or do you start with the process and kind of see where that takes you?

**Reich:** I stopped working with processes in 1968 when I wrote an article called "Music As a Gradual Process," which is a great essay and very accurately describes everything that happened before 1968, as all music theory does. Four-part harmony describes what Bach did by ear and does not prescribe what you should do now. It's very good to know about those things in four-part harmony because they will help you in unforeseen ways. That's been my experience. The last phased piece was *Drumming*, and that was 1971, of which I'll play part one tomorrow night, so that was almost forty years ago, and I haven't done anything with it, nor do I plan to. Every piece is certainly influenced by what went on, but I guess, in a nutshell, the rate of change in what I do has accelerated, so in the piece *Music for 18 Musicians*, there's more harmony there than in every piece that preceded it in the first five minutes. If you're listening to *Tehillim*, it sounds like you're getting back into conventional Western classical music, which you are, in a sense.

**Gonnerman:** *Tehillim* was the piece that was playing when we came in tonight.

**Reich:** Right. So sometimes going forward involves going back into your own tradition and using harmony, orchestration, or counterpoint in the more extended sense of the word. And I've done a lot of work with a lot of vocal pieces: *You Are (Variations)* in 2004, *Daniel Variations* in 2006, *Proverb* in the nineties. All these are pieces that are vocal pieces, and they're a big part of what I do. But right now, I feel that I really would like to work with extending these vowels or consonants, and that's all I know. I will generally have to work out a harmonic scheme of where the harmonies are going to move in the piece and what instruments are playing. In the case of Kronos, it will probably be two or three string quartets and this pre-recorded material. Beyond that, we'll find out.

**Gonnerman:** I'd like to conclude with an invitation and a recommendation. A performance of Steve Reich's music by So Percussion will take place this coming Saturday evening. And Steve Reich and Beryl Korot will be on campus for the next couple of days. Also, I'd like to recommend that you get hold of Steve Reich's collected essays, a book called *Writings on Music: 1965 to 2000* (Oxford University Press, 2002). It's a delightful experience to read what he and Beryl, who also has some essays, and they both are there in the interviews, have to say about their art. There's no mystification; there's no mythification. It's very straightforward, clear, insightful, helpful writing about art that will help you engage better not only with their own body of



work but with a lot of things that have happened in American art, especially since 1945. I highly recommend that book to you.

This Art + Invention Speaker Series is intended to create a community of inquiry around art, and we hope you'll continue to engage with this work and with each other not just immediately following this conversation, but come to our upcoming events and performances at Stanford Lively Arts and talks that are offered by the Stanford Institute for Creativity in the Arts. There are all kinds of opportunities here at Stanford to meet people and think about art and the humanities in general.

Thank you very much for being here with us tonight. [Applause]

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**Steve Reich, Composer**

Steve Reich's 70th-birthday year (2006) was marked with festivals and special concerts organized by companies around the world. In 2007, Mr. Reich was awarded the Polar Music Prize by the Swedish Academy of Music. Former winners of the Polar Prize include Pierre Boulez, Bob Dylan, Gyorgi Ligeti, and Sir Paul McCartney. In 2009 he received the Pulitzer Prize in music for *Double Sextet*.

**Beryl Korot, Video Artist**

Beryl Korot is an internationally known video artist who has created multimonitor installations which have been shown all over the world. She is best known for her multiple channel works *Dachau 1974* (1974) and *Text and Commentary* (1977), and her two collaborations with composer Steve Reich, *The Cave* (1990-93) and *Three Tales* (2002), both of which brought video art into a theatrical context with contemporary classical music.

**Vered Shemtov** is the Eva Chernov Lokey Senior Lecturer in Hebrew Language and Literature and Co-Director of the Taube Center for Jewish Studies at Stanford University.

**Mark Gonnerman** is founding director of the Aurora Forum.

*The Cave* by the Steve Reich Ensemble conducted by Paul Hillier is available on Nonesuch Records 79327(1995).

*Three Tales* DVD & CD set by the Steve Reich Ensemble & Synergy Vocals conducted by Bradley Lubman is available on Nonesuch Records 79662 (2003).

**Comments?**

We welcome your comments and suggestions via email to [auroraforum@stanford.edu](mailto:auroraforum@stanford.edu) or via the feedback form on our website: [auroraforum.org](http://auroraforum.org).

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The Aurora Forum is directed by Mark Gonnerman and sponsored by Stanford Lively Arts, The Stanford Institute for Creativity and the Arts (SiCa), The Office of the President and Provost, and Stanford's Office of Public Affairs

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