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A Composition in Three Acts with Steven Feld

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(TB): We would like to construct a conversation about life, work, sounds, in sum, your world. The experience of just having finished reading *Sound and Sentiment*, made us want to make a first question about the dedication in your book to “the boy who became a *muni* bird,” in the memory of Charlie Parker, John Coltrane, Charles Mingus and *ane kalu ɔbɛ mise*. It would be very interesting to listen to your considerations on what was on your mind and heart at that moment.

(SF): I had a very strong feeling — this is 1979, when I am writing my dissertation, which bears the same dedication — I had a very strong feeling that this book, this imagination, the possibility of this encounter, could never have been possible without the boy who became a *muni* bird. So, my foundational dedication is to the world of mythology, which makes it possible for people to travel from one culture to another, and to reduce the gap between them through the poetic. It’s the story that made possible for me to begin to imagine that there was something from my world which I could bring to a beginning of an understanding of the complexity of another world.

Parker, and Mingus and Coltrane all were characters who died young, with enormous mythology surrounding them. Mingus even created a mythology by writing *Beneath the Underdog*. Part fantasy and part autobiography-memoir, it’s a mythocosmos of his world. Coltrane, particularly in the later period of his life, after *A Love Supreme*, devoted himself to spirituality and sonic structures of the universe, and of healing. His spectrum of sound was a spectrum of hope, the cry of freedom.

I’m from Philadelphia, and Coltrane spent a formative period of his life in Philadelphia. For me, he is forever a mythic reference. The number of times that I walked to the house that he lived in, in Philadelphia, and just stood there in awe, as if I was in

the most extraordinary cathedral on the face of the Earth, was the same way that I found myself standing in the rainforest, listening to birds. I just felt that these musicians all offered me, during different times of my life, a way to think about music as transportation, music as a connection beyond the immediate physical world, beyond any simplistic idea of the spiritual.

TB: We now would like to ask you about what we may call “the acoustemology of your childhood and youth”: The subjective dimension of sound and music in your life, in your sonic memories, of sound and sentiment at home, neighborhood, city or cities, of your background.

SF: I was born in Philadelphia, in the eastern United States, and my father was a pianist, very accomplished in the world of popular music and jazz. He played for us every night, and pretty much continued doing that until he died in 2018, at the age of ninety-five. When I was very little, I would only go to sleep under the piano at night. I have a very powerful, primal memory of the vibration of his seven-foot long Steinway B piano — lying on the rug underneath it, feeling his foot tapping, and hearing the harmonies of jazz standards and popular songs. When I was old enough to stand next to him at the piano, my father had me take my left hand and put it on top of his, and taught me to sing the bass lines of hundreds of songs, which is how I learned jazz harmony. To this day I can do that. Even though I didn’t become a bass player, I vocalized the bass part often for my father, and then when I started playing trombone and tuba, I would play the bass parts, and also the melodies within. So, I grew up in a very musical world. My grandfather played the drums and my uncle was a violinist. My mother’s family was also very musical. My mother’s sister, a wonderful singer and pianist, became a music therapist. She was my first babysitter, because she was fourteen years old when I was born. She sang with me constantly from the time I was little, a very memorable part of my earliest years.

We also had home recording technology —before the era of reel-to-reel tape recorders— we had a wire-cutting disc machine. It was a large turntable, and on one side there was a tonearm for playback, on the other side there was a tonearm for cutting

the discs, and they faced in opposite directions. There was a large tube amplifier underneath, in a big box, and a microphone. I have recordings of myself singing and playing music with my family from age two and a half. There are songs in Yiddish, in English, me vocalizing and fooling around with my grandparents telling jokes. My first “solo” recording was a recording of another recording playing on my 45rpm player! So I became a sound engineer at the age of three and a half [laughter]!! I loved making these recordings and listening to voices of all of my family. I think it instilled in me a powerful sense that the most basic connections with sound and music are ancestral; they connect voices with times, places, and memories. And our experience of coming into the world and learning to be in the world involves a magical moment, the moment when we realize that each person has a different voice, that everyone sounds differently.

My first real consciousness of similarity and difference was just this: like certain very memorable words and phrases, certain juxtapositions of Yiddish and English words. I remember singing along with a Mickey Katz recording: “*matzos* and *knishes*/they’re so delicious.” The words and sounds don’t really balance or rhyme in a strict sense. But combining familiar and special Jewish foods and, for emphasis, elongating the word “delicious” joined sound and pleasure in a distinctive way. My grandparents came from different parts of Europe -Austria, Hungary, Romania, and Russia- and their voices were such a special part of how I came to know and love them. Without understanding that this was sound as a way of knowing in the world, and sound as a way of becoming, my early childhood was very profoundly about sound.

The next part of my childhood was also very profoundly about sound, because this was the 1950s and I am dyslexic. I did not learn to read easily, and even when I did learn I didn’t read well for a long time. I had to develop my own way of reading, by scanning for the ideas rather than encountering them in a linear fashion. What others learned by reading closely, I learned by memorizing. I learned a lot of things about being in the world by just memorizing sounds and sentences. The same thing happened with music. Teachers said that I could never be a musician because I would start to play something, and I would juxtapose two rhythmic values, just like reversing or scrambling two words of a text. So every time I had to audition for something, or perform with a

school group, I just memorized the music. There was a constant interaction between the record player — sometimes my father would record things for me to learn from listening back- or my mother reading and me repeating over and over until I had a good memory for long sequences. My connection to technology, memory, sound knowing, also had this strange twist from an early time. Dyslexia was a handicap. But it became a power, something that I could control and hide from people. Because in those days, in the 1950s, if you were dyslexic, people said you were stupid and that you would never be able to progress, especially to university.

TB: Do you think memory is a very strong element in your way of knowing?

SF: Yes. When I went to the rainforest and I was listening to a bird, I typically could not see the bird, so I would look into the place where the sound was coming from. I would ask people the name of the tree, the names of the leaves, things about the other trees nearby, what kind of food or fruit it was. This was like a painting by number, something familiar to my way of knowing and learning. I made these little maps in my mind, that were both visual and sonic — this or that sound went together with this or that tree or place as a picture. This gave me an initial way to understand the complexity of the rainforest world. But then, I started recording experiments. I would record the sound at the ground level; I would record the sound at the height of my head; and then I would record the sound five feet higher than that. Then, I would record the sound at five feet distance; and the sound at ten feet distance. From there, that makes like an “L,” imagine this “L,” okay? Imagine that the “L” actually creates three unequal triangles, and these unequal triangles are the map of where things live in the world. So, birds that sound at a certain height and depth of the forest are usually heard in this part of the triangle; birds that are from the canopy down into the middle forest are heard at this level; and birds that are on the ground and moving up are heard at this level. Then, I began to realize that sound is space as much as it is time. If I wanted to understand the forest as a spatial and temporal sound system, I had to learn a different

way of hearing. My Western way of hearing immediately defaulted to my eyes — looking up, or looking out. This didn't work at all. I had to learn to listen in this other kind of way: a relational way, a way in which you relate sounds by where they move from, and how their depth and their immediacy moves within this kind of spatial world of the forest. This was wonderful! It was not a formal experiment like cognitive science, but it was a way, ethnographically and interactively, to use the medium of recording to create an experiment in dialogic hearing, or dialogic auditing, how to listen in dialogue. And to begin to understand an approach to listening, that was a Bosavi way of understanding the sound and the rainforest. This, of course, affected my recordings over the years, so this kind of idea — to learn to listen in a new spatial idiom — was one of the most beautiful parts of my experience of the forest.

TB: Going back, Steve, you talked about your experience with your childhood, and now arriving at youth. How did you begin to think that you wanted to play music? What did you want to do, to study? How did you end up studying anthropology?

SF: I was being groomed, or developed, to be a musician because teachers told my parents that I did not have the mental aptitude or skills to enroll in university. So, when I was in junior high school and high school, I devoted all of my time to music. I was a terrible student; I didn't like school, it was extremely boring, and reading was especially hard. I was always daydreaming. So, I played music and I especially loved jazz music and the challenge to improvise. I grew up in a place where there was a tremendous amount of jazz music, and where the relationship between the Jewish community, the Italian community, and the Black community was very fluid in its relations around music. Of course, it was also deeply racist and opportunities were never equal. There was so much prejudice in the 50s and 60s, but still I was very lucky. I was able to study with Black musicians, I was able to study with Italian musicians, and these were very, very skilled people, they helped socialize me into the world of musicking. My father had a wonderful record collection that was like another curriculum. By the time I was in the tenth grade, I could tell you every song that Art Tatum ever played, and what key it was

in. I was absorbing everything that I could from LP recordings, and trying to play along with them. I just had a huge desire for musical knowledge in those years, and it's probably what kept me sane, especially as an alienated teenager.

(FB): You have this history with sound technology and music. You also had a very strong transcultural experience doing music with people from different ethnic communities. You kept this transcultural experience in your academic life as an anthropologist. Can you tell us more about your life as a musician? Did you play gigs, concerts, weddings? Did you have a routine as a musician? How have these experiences influenced your work as a scholar?

SF: Yes, I played in popular music groups, I played gigs, I played in big bands, I played in small dance band combos, I played in blues bands. In those days, blues bands were adding the trumpet, and saxophone and trombone as a horn section. Remember Blood, Sweat, and Tears? The Al Cooper Band? The Paul Butterfield Blues Band? I listened to all that blues music with horns, and I loved it, I played a lot of that. I went to college in 1967, and I had an amazing accident, or let me say, three accidents.

The first accident was that there was a wonderful jazz teacher, a jazz trumpet player, and he knew a lot of musicians in New York, and encouraged my lessons with jazz men. His name was Herb Deutsch. Herb also was the co-inventor of the synthesizer with Robert Moog, and in the basement of the Music Department at Hofstra, we had the original Moog pieces of equipment, from 1964. I saw these things in 1967 and told Herb how I wanted to learn about them. In 1969-70 our school had the first college Moog synthesizer studio, and a year-long course in production of musique concrète and electroacoustic music. It was my third year in college and I loved that course, everything about it. I became very good with recording and with splicing tape, and I was making little soundtracks for movies. I became a huge devotee of the work of Edgard Varèse, of Pierre Schaeffer, of all the luminaries of musique concrète, and at the same time I realized that the synthesizer was a very interesting tool for understanding the materiality of sound.

A second accident: I was very politically active, and in my first year in college, in the springtime of 1968, with other people, I organized a “teach-in” against the Vietnam War. In the afternoon, somebody walked into the room and said that Dr. Martin Luther King had just been murdered. In that moment, two anthropologists, Sam Leff and Gerry Rosenfeld, who later became mentors and friends, discussed the historical relationship between racism and militarism, why there was a deep connection between the murder of Dr. King and the murder of Vietnamese. They explained how racism works by erasing the value of other lives, making it easy to kill without feeling of any common humanity. They showed how this was part of white supremacy and ideas of a “master” race. I was completely astonished. I had never heard the word “anthropology,” I had no idea what this was! So, in my second year, in the fall semester of 1968, I signed up for an introductory course about race, genetics, and biological anthropology, and another introduction, to social and cultural anthropology. And that was it. I just thought, “This is amazing! This is really amazing!” It was at that point that I thought, “Okay, I want to do anthropology and music.” I loved the way that these two worlds seemed compatible: that jazz was also about social activism and civil rights, and about equity, and about a different vision of human relationships; that electronic music was about the frontier of understanding that all music is sound, that every time you sit down with a synthesizer, you can invent a new instrument. This seemed so close to the thinking in anthropology, this idea that when you engage seriously with a different culture, you have to invent different tools to understand how others compose their lives. I began to think about composition in music and composition in society as these very similar kinds of things, with both fixed materials and many that were unfixed. In electronic music you have a sine wave, and in society you have relations of parentage. But inside the relations of parentage, you can have so many variations. And inside the knowledge of how to use a sine wave, you can also have so many variations! This was with me from the time I was nineteen years old, it was incredible and I remember it today as if it was yesterday!

Then, a third accident: my college hired Colin Turnbull to teach anthropology. Colin was at the American Museum of Natural History in New York City developing the African exhibition. I took a course with Colin in 1969, and we became great friends when he

hired me to transcribe Mbuti music. Colin was a musician, an excellent harpsichord player, with incredible background in church organ music. He was my first model of how one could be a musician, but devote the sensibility of musicianship to understand social relations. Colin was a great inspiration, just like Herb Deutsch was an amazing inspiration. So in music, I had this world of jazz and electroacoustics, and musique concrète; and in anthropology I had this world that was engaged with race, with history and culture, and with power.

It was Colin who said to me, “You know, you have a very good ear. You can hear things very quickly and transcribe them, you have no problem with these things. You really should think about studying music anthropologically. I would love to take you to the rainforest in Central Africa, it would be fantastic for you to listen to that. And you like music technology, you know how to record.” So here I am, twenty years old, and I begin to imagine, “Oh, there’s a life where people do these things”.

Colin said, “Look, I want you to go to a place with a very strong program in African studies, and where they respect the study of music, so you can develop your skills and go to the rainforest in Central Africa.” He sent me to Indiana University to study with Alan Merriam, who was also a scholar of Central African music, and had made recordings there.

After my first year of graduate school, in 1972, I met two people who remain dear friends until now, almost 50 years later. This is Edward and Bambi Schieffelin, who worked in Papua New Guinea. I heard their recordings and was deeply intrigued, even mesmerized by some of the songs. And even though Central Africa was my interest, I knew quickly that Melanesian music also was very inspiring.

After a few years, Alan Merriam sent me to Paris to meet Gilbert Rouget at the Musée de l’Homme, and to meet the musicologist Simha Arom, and to learn about the legacy of French Central African research and recordings. But there, in Paris in 1974, Hugo Zemp said to me, “Look, Steve, I’m Swiss, I grew up speaking French and German, but I’m going to tell you: to be from outside the French system and to try and work in Central Africa, it’s going to take you a very long time. You’re going to have to really develop a mastery of French, you’re going to need a lot of time here, it’s not going to be

an easy path. I have just started to work in Melanesia, in the Solomon Islands, the music is incredible, and we know very little about Melanesian music.” So Hugo encouraged me to follow him to Melanesia, and the Schieffelins encouraged me to follow them to Papua New Guinea, just as they were about to return. So the next year, I went to Melanesia, with absolutely no training! All of my training was for Africa! And I didn’t get to Africa for almost thirty years!!

FB: We have a question about your formation in art. You had experience with synthesis, anthropology and jazz music. The combination of all this knowledge in your academic work reflects your high level of sophistication. We observe that in your sound and music recordings, you go beyond traditional ethnography. There is a lot of experimentation in the way that you record, but also in the way you represent different contexts through sound. How does this relate to contemporary art and sound art? You mentioned that you lived and studied close to New York City, do you see any influence or relation with the vanguard scene in the 60s and 70s?

SF: Without wanting to be nostalgic about it, I think I was very lucky because New York, from 1967 to 1971, was incredible in terms of jazz, in terms of visual arts too. And because as a child I was dyslexic, I was always in the art classes, making pots, painting, doing photography; these kinds of things came to me more easily, like music. It seemed like the wiring in my brain accepted the patterns of sounds and images in their many connections, and this stimulated me a lot. I became involved in radio in New York, I became involved in artist happenings. And I was part of the “Angry Artists Against the Vietnam War,” movement when I was in college. I was especially absorbing everything I could about the history of cinema and hoping to go to film and photography school. I would watch silent films and imagine soundtracks, like how I could use a tape recorder or synthesizer to make my own soundtracks. Technology was always there with me. Because I couldn’t read well I couldn’t enter into the magic of the world with books. So I entered through these technologies of making images and making sounds.

I went to film school during the summers when I was in graduate school. I took one year off Indiana University, against the advice of Alan Merriam, to go to film school and in Paris met anthropologist-filmmaker Jean Rouch, who became my teacher, later my friend, and I became his American translator. My connection to French ethnographic cinema also became very important. Rouch helped me deeply to understand that anthropology and art were compatible as research, as practices. Just like I first discovered that anthropology and composition were compatible. Before I said that as an undergraduate I discovered this compatibility, studying kinship systems like studying analog modulation and synthesis. It was in graduate school, and through photography and film, that I had a similar realization about the compatibility of anthropology and visual composition.

TB: Going to what we could consider a second part, thinking your research with Kaluli, as a complex arc through a long period of time. And in that arc, you experiment with different ways of interaction, collaboration, and representation through text, through sound, through film, over a long period. This last recent movie, the amazing CD and recording experience, all of those, and your wonderful thesis. Does it make sense to you to call your relationship and work with the Kaluli as an expanded ethnographic composition?

SF: You know, the current book that I'm writing is called *Research as Composition*. I introduced this phrase earlier on when I talked about Colin Turnbull, Herb Deutsch and my formation. I am interested in the way in which society, like language and music, draws from a world of possibilities to create sub-worlds of naturalized relations among things human, non-human, material, and imaginary. We freeze these things too much when we use words like "identity" or "culture." Of course, this is one kind of composition: there are both fixed and movable elements in the composition of life and lives, in interaction and in relation. So I have tried to use what sensibility I have from music and art to talk about the idea that the representation of research should be explicitly acknowledged as composition.

The politics of the future is also a kind of composition: it means I had one kind of relationship with Bosavi people in the 1970s and 80s, we were being composed and composing one set of relations when I was with the generation of the parents, and the grandparents, and the great-grandparents of the people I work with now. These young people, they have more education, they speak multiple languages, they can converse with me in Tok Pisin and English — their grandparents certainly could not. They want to use me as a resource, so our present and future relationship is about composing this resourcefulness — “what am I as a resource?” — to a community that taught me so much and trusted me so much.

For example, with the composition of the *Voices of the Rainforest* CD and film, I have a very specific responsibility to making things that contribute to a sustainable future. I mean, Bosavi people own these things, and they get the royalty money from them. Thirty years of money from these projects have helped to keep mining, logging, and extraction companies out of the forest. We don't have COVID there because we have the money to send helicopters with supplies and educational materials.

In every stage of the relationship between research and composition, there's always the central question of trust. And trust transforms into new obligations, it transforms into new relationships, it transforms into new possibilities; most of all, it transforms into the idea that — autonomous of me as a researcher, as an academic — these things can have a life. People can listen to *Voices of the Rainforest*, or watch the film, and they don't have to know my name. But they will remember that place and the profound relationship between the sounds people make and the sounds they hear in their world.

I learned to think like this almost forty years ago, and it was not in conversation with academic researchers. It was from talking to Deadheads, and Grateful Dead drummer Mickey Hart. In 1983, Mickey heard my radio piece, *Voices in the Forest*, a day in the rainforest in thirty minutes. He asked me if he could play it at a Grateful Dead concert. And phones were ringing for weeks! “Where can we get this?” Mickey said, “If I want to know what it is, Deadheads will want to know what it is!” He knew his community, and the response really opened me to the idea that research as composition

was also, fundamentally, a kind of sonic activism. It was a way of not just sharing things that I know, but of actively transforming the consciousness of other people, far beyond academia.

It's very important to me that *Voices of the Rainforest* is part of the history of the environmental movement. People listened and connected the plight of the rainforest in New Guinea to numerous local battles with logging, mining, and extraction companies.

With me and Mickey there is an almost forty-year friendship now, and I take a lot of criticism for this. People say, "You have abandoned the academic mission, or the intellectual work, just to work with a rock star, and you only make these things for Grateful Dead fans." But I don't see this as a question of abandoning one audience and choosing another. I see this as composition. I compose something with the idea that it is a self-generating machine: it keeps creating new possibilities for looking and listening. Yes, we can share a film like this with the community of ethnomusicologists in Europe, or Brazil or the US. But many of the people who rent and watch the film are Deadheads. At Mickey's request I even prepared film and sounds for the summer 2021 Dead and Company tour. This played in thirty cities, and at each concert there were between 20-25 thousand people. For me, my name doesn't matter, the idea that I am the author of an academic work does not matter. What matters is that more people get to travel to Papua New Guinea in this new way, and see how Bosavi people there compose a life. And how, together, we take a Bosavi history of listening and my history of listening, and we create the possibility for a new history of listening.

[FB: it's a way to spread scientific knowledge through experience, a very experiential way of communicating and wide-spreading knowledge. I understand that in the movie, there's an ambisonic treatment. The film was made for the movie theater, right? I saw it on Vimeo on my TV, but if I had seen it in the movie theater, it would have been another experience; you can listen to the layers of sounds in the forest and you can feel the movement of sound or its position in space.

SF: Yes. On a laptop or TV you listen to stereo sound. But in the movie theater, you can hear it in 5.1 or 7.1 immersive surround sound. It's like an ecological rock concert; I call the experience an 'ec(h)o-rockumentary'.

TB: Steve, you said something very interesting. You said, "now, and to the future, I am seen as a resource." How do you think you were perceived in the 1990s, and how were you perceived in the 1970s?

SF: In the 1970s I was young. And when I arrived for the first time, I didn't know a word of the language. I was introduced as the younger brother of another person, the linguist Bambi Schieffelin, who people knew. That meant being introduced as the mother's brother to her son Zachary who was five years old at the time, and as the brother-in-law to her then husband, Edward. All of my relationships were formed around this family. People said: "Bambi brought her little brother because he's a song man in his own place, and he's going to help collect these songs and write them down, so that we have our song history." You could maybe call that me as a resource, but the most important part about my relationships with the community in the 70s was that I was young and needed help and socialization, like a child. I was young, and the men that I was hanging around with were young. We went hunting, and we went fishing, and we went hiking to close and distant places. And all the time we were listening in and to the forest. Also, I had teachers who were elders, the fathers and grandfathers of my agetates. But my relationships were really defined by my youth and the idea that I was like an empty bottle into which people had to pour local knowledge, local ways of being. And if I absorbed this knowledge — if as a vessel I accepted these things — I would, in time, become useful. Whether it was learning the language, or learning the songs or learning about the birds, I was a student in and of another world. At that point, people were not or asking if I could get them scholarships to go to school, or if I could bring more medical supplies — the kinds of requests I now get each day when I visit.

In the 80s, when I came back and people saw and discussed my book, I began to transform in social position, and a new phase of dialogue, and of dialogic editing

began. It was as if, in the 70s, they taught me geometry, and in the 80s they said “okay, now you’re ready for calculus.” In the 80s, I began to study things that were linguistically, sonically, culturally, geographically, much more complicated. And the same thing again in the 90s. During that period, Bambi, me, and five local people, compiled a dictionary of the Bosavi language, and in 1999, when we returned with published copies, relations again changed. It was like, “these people work for us; they understand that there are things that are important to us; they can help us achieve our place in our country.” So coming back with the book and LP in the 80s, and then the CD and dictionary, marked sequential transitions. People increasingly asked about America, about Australia, about the outside world. The young people were full of curiosity; they wanted me to teach more English, and they wanted to become more sophisticated about their country and the world.

Twenty years after our first encounter, they became the anthropologists. It was their turn to say, “Some people say that our world moves around the sun, is that true? Can you explain?” They said things like: “We have our stories, but the missionaries told us they are not good, and we must listen only to their stories. But do you think they are true, or like our stories?” And then: “Is the world going to end with a big flood, with us thrown against the rocks like fish, and then die in an explosion?” All this evangelical and apocalyptic rhetoric that missionaries preached from 1970: for the first time, Bosavis asked me: “Are these stories true? Or are they like our stories, like our story about a rat that goes to the moon by piling up sweet potatoes.” So, this whole reconfiguration of the relationship between what is a story, what is a history, what is truth: people developed this new consciousness, and I think it’s because, after twenty years of being around anthropologists and understanding our willingness to take their subjectivity seriously, they were holding the mirror back to us. People wanted to understand the moral foundation of my world as much as I wanted to understand the moral foundation of theirs. This involved a transformation of the way in which we could discuss knowledge, listening, and feeling.

In 2016, when *Voices of the Rainforest* was twenty-five years old, Mickey Hart said to me, “What do you want to do?” And I said, “I want to go back to the analog tapes,

and to recompose *Voices* as an immersive sound surround concert, taking it beyond the previous work. So, together with Dennis Leonard at Skywalker Sound, I spent a year recomposing it in digital. And the response to the presentations was: “this is like a film soundtrack, so where are the pictures?” Then I went back to all of my old pictures, all of my old footage, and decided to return to Bosavi to ask: “Can we now work together and make a movie?”

So, in 2018, I returned with film colleague Jeremiah Richards, and we worked locally to add film to the soundtrack. In 2019-2020, we went back with Bambi as well. We first showed the film at the University of Papua New Guinea, to an audience with students as well as local anthropologists. The chair of the anthropology department at the University of Papua New Guinea graciously introduced the film, and another anthropologist, the director of the National Museum, offered a generous commentary. That was an incredible experience! We had some Bosavi people in the audience too, and they were very proud. Then, we took the film back to show in the rainforest villages. Once again, I experienced how research as composition continues to be generative. After villagers watched the film, they said, “we want another movie now! We want one about the guitar band music, about our life now, about being the children and grandchildren of the ones in this movie. We all want to speak.” So we filmed interviews, discussions about the present moment and politics in Papua New Guinea, and comments about logging, and everything Bosavis are experiencing now. That’s the film we’re working on now, called *New Voices of the Rainforest*.

TB: And tell us how it was to go back after so long?

SF: It was incredible! But now, of course, even before going back, I was regularly talking to people on WhatsApp because of the arrival of cell phones. Before I went back it was possible to talk about the movie. People said, “when you come back, we want you to bring computers with all the old pictures in them, and we’re going to sit, day and night, and we’re going to look at all those old pictures, and we’re going to talk to you about the old pictures, the ones we want in the movie.” There was only one thing that

surprised me. Bosavi people absolutely insisted that there be pictures of me, at every point in time, from the time I arrived there. From their point of view, the story to tell is also their story with me. I imagined that I would be on the outside of this, but they thought that was ridiculous. “No, no, we love those pictures of you with our grandparents, we love those pictures of you in black and white. You need to show people that you came here like a little boy and we taught you how to be a real person.”

FB: It’s a kind of reverse ethnographic authority, this “we want to show that we taught you”. It’s not that you have been there, but “you have been there to learn from us.”

TB: It’s very interesting how, not only in the book, you go through so many ethnographic experiments, like the calculated mistakes in performance and song construction, the group sessions, listening together, with recorded material; so many different experiments. It really made us think of the relationship between Flaherty and Nanook, and Jean Rouch and his action concept of “shared anthropology,” a term very similar to “reverse anthropology” or “symmetric anthropology.” The more we dive into Rouch, the more avant-garde we learn that he is. He was talking about so many things before these concepts, right? We had a question about how much Rouch and others were an inspiration to you. We know dialogical editing was a conversation with postmodern anthropology, but how much was it a dialogue with Rouch?

SF: When I went to Paris as a student in 1974, I learned that Rouch had a very critical perspective about so-called “reflexive” anthropology in the United States. He said there were too many inside jokes, or inside stories about the author. He thought that film could be a corrective to this, because somebody has to be behind the camera, somebody most take that responsibility. And those in front of the camera can talk to the person behind the camera in a way that is different to the conventions of what ten years later was called “writing culture.” Rouch told us students: “remember, you can take the camera from your hands and put it in somebody else’s hands so that they film you.” Rouch said that American “reflexivity” did not comprehend the concept of authorship.

Of course, he was talking about the French “auteur” theory in cinema. Rouch never called his films “reflexive” even though that is how, from the time of *Chronique d’un été* in 1960, others saw them. He said “I make ethnographic film in the first person.” And he insisted that no matter how reflexive, no matter how shared, there has to be a first person. He said, “I’m the first spectator of my films, in the viewfinder, seeing the film for the first time as it’s being recorded.” Rouch felt the necessity of authorship, of personal responsibility.

In the 80s and 90s, Rouch liked my ideas of “dialogic editing” and “dialogic auditing.” But not because he had read Bakhtin (he hadn’t), or knew linguistic philosophy. No, for him it was a practical matter, a matter of pride in method. Rouch was meticulous about bringing his African colleagues to Paris or taking his films to Africa. He really felt that film was a powerful intervention in ethnographic practice because it promoted and depended on feedback. People could watch a sequence in a ritual and say, “no, you can’t do this!” Rouch always gave the example of a film he made, very early on, about hippopotamus hunting, where he put music on the soundtrack for suspense. When local people watched the film they said: “no, no, no, that’s silent! You can’t be distracted by music when you’re hunting a hippopotamus!” Rouch later wrote about this lesson, declaring, “music is the opium of cinema.” So, yes, Rouch’s engagement with playback and feedback was a serious inspiration for me. And from it, I developed numerous practices of dialogic editing and dialogic auditing.

TB: We have a second question that is also related to that. And that is very interesting and thought-provoking, when you say that the exercise of music composition inspired by the Kaluli musical language was a way that you found to understand the Kaluli’s musical conceptions, or music theory. The exercise of music composition and singing in Kaluli seems to have given you the privilege of accessing the experience of being emotionally affected by Kaluli music and sound.

SF: Well, that’s another example of research as composition. The research required the mindset, the tools, the desire to compose. We also have to understand that

it's a kind of play and that it's risky. And that a lot of the time you will be told that you are wrong or even stupid. It's like if I said to you: "name Steve mine is." You respond by shaking your head and say "he's a native speaker of English, so why is he speaking an ungrammatical sentence to us?" You're not native speakers of English, but you know that I should have said "Steve is my name." When you're studying a language that you don't understand, a very good linguistic technique — because it involves speaking, audition, playback and feedback — is to deliberately state things that you know, or you intuit, are ungrammatical in the other language. And you are always asking yourself: what kind of reaction am I going to get?" To say "name Steve mine is" then is a productive cross-linguistic experiment.

In addition I had to think about the relationship between everyday language and the language of song. If I can say this sentence, can I also say it in song? If not, why not? Understanding that there is also a poetic grammar involves experiments with feedback and playback. So, singing songs, composing songs, researching composition were inseparable conceptually. But then, the question of how to represent that, how to tell the story. How am I going to compose what I know and what I don't know? And how can I present it so that other people can engage with it and criticize it and see where it can take them, or how it might inspire their own thinking.

WC: Steve, does this exercise of composing in Kaluli idiom, and singing and playing with Kaluli, have some influence, or are inspired by, for example, Mantle Hood, and by bi-musicality? Or another way, another inspiration?

SF: No, I was not inspired by Mantle Hood's "bi-musicality" idea. I thought that the notion of "bi-musicality" was naive, and that it was based on a very trivial analogy between language and music. Bilingualism and bi-musicality are very, very different things. And so I thought this idea about bi-musicality was pretentious, and potentially racist. Mantle Hood was a very good musician and a very smart guy, but you must remember the review of his Balinese LP in the journal Ethnomusicology by Ernst Heins. Heins played Hood's recording to some expert Indonesian musicians in Amsterdam. And

they were very critical and even said “the rebab player is a little out of tune” — and that was Mantle Hood. Then, Heins said, “these are all Americans.” To which the musicians said, “That’s incredible! Fantastic! Wonderful! They’re amazing!!” To me there was never, in ethnomusicology, enough of a really critical discourse about the damage that this idea did. It remains incredibly naïve.

I think it’s great to go to any culture and study with master musicians. And I think it’s great that master musicians from other societies teach in Western conservatories. But the idea of a world conservatory of music is not ethnomusicology. It’s just like training Chinese students to play Western European art music so that their Chinese-ness is not in the equation. Look at the piano players from all around the world who play Bach. That’s great. But it’s really quite different to a bunch of undergraduate students in an American university playing specific gamelan repertory. And it is also really different from a graduate student going somewhere and doing serious research which includes learning an instrument. Paul Berliner, for example went to Zimbabwe in the 1970s to study *mbira* in the context of Shona cosmology. He became a masterful *mbira* player, masterful enough to work with Cosmas Magaya and write a book that brings out the depth and the complexity of Cosmas’ knowledge of his tradition. That has nothing to do with “bi-musicality” and everything to do with musical research based on a very respectful, very healthy relationship between an ethnomusicologist and a local musician.

I want to be critical of the “bi-musicality” word and idea, but at the same time I want to be very positive and very open about the tremendous value of deep study of a musical instrument, or a musical set of practices, with a master from the society in question. I went and studied the *gyil* xylophones in West Africa with Nii Otoo Annan, and when I performed with him, typically playing an inner part, it’s really about the respect of being his student. I think there’s an important history of musical respect that is embodied in some of these legacies within ethnomusicology, which I would never want to denigrate in any way. But, in general, the idea that ethnomusicology is about “bi-musicality” does no service to our students or to the musicians whose collaboration we seek in the research process.

TB: We would like to talk about the theme of co-aesthetics and emotion. *Sound and Sentiment* ends with the evocation of a co-aesthetic relationship between the researcher and his subjects; you present the idea, or the provocation, that beyond a subject-object relationship, there is a human dimension permeated by affection, feelings, and emotions. Your crying when you receive your sister and Schieffelin's letter, or even Gigio's crying when he hears the *gisalo* you composed, impacted by the sadness of Bambi and Buck's departure, highlights the sensitive dimension present in the ethnographic meeting, which is a meeting between subjects, between people. How does this relate to the idea of participant observation, and what do you understand as co-aesthetics?

SF: The term "participant observation" is colonial, it goes back to a very early period in anthropology, it was an attempt to make anthropology seem like a scientific activity. But of course, it's a fiction. If you live with other people, yes, you participate, you eat dinner with them; yes, you observe, you watch how they eat dinner; you learn not to eat with the wrong hand, or the wrong implement, etc. There's absolutely no science to it, there's no rigor to it. The words "participant observation" use the magic of the word to create an aura, a prestige, as if something is controlled and scientific. But this has always been a colonial fiction: it's always been something that we use to dignify, or to pretend that we are doing something like science. I don't believe that social science should imitate the surface features of physical science. I don't believe we should pretend that we are working in a laboratory with molecules when we are working with people. And when we work with people, the only thing that we have is our skill as people — that we are human. We know that difference is very real but, in order to reduce the gap in the difference that separates us, emotion, emotional logic and the cognitive dimension of emotion is a very important part of what we can do.

The idea of an anthropology of emotion emerged in the early 1980s, around the same time as *Sound and Sentiment*. Many people felt that if we used the word "emotion," or we used the word "affect," just like if we use the word "art" or "aesthetic," that somehow, we diminish the science, we diminish our claim that what we're doing is truly

scientific and controlled. I have the opposite point of view, and I've always had the opposite point of view. To use the term "participant observation doesn't really explain anything. Emotion, on the other hand, is a way of acknowledging that, in any circumstance, all of the participants have feelings, and you must pay attention to them; also, you can't deny the fact that other people are interested in your own feelings and your own emotions. Sometimes, if I had a wrinkled look on my forehead, Bosavi people would come up to me, look at me and say, "What's wrong? Are you angry with me?" or something like that. This idea that, in some cultures, emotions and the state of feeling, the state of mood, the state of affect, is very transparent, and it's necessary to acknowledge this, is very important. In Bosavi, we have established empirically that crying is a very important part of ritual, and expressive culture and aesthetics.

But even in other cultures: for example, in my film about the *Por Por Funeral For Ashirifie*, the chief of the driver's union is addressing the family of Ashirifie, and he is caught in a difficult situation. There's a white man there with a camera. That can be a potentially difficult, explosive situation. So what did the chief do in that moment? He looked at all the members of the mourning family and — it's in the movie — he looked at them and said: "some of us have never seen a white man cry." That is a very powerful statement, coming from a black man to other black people. He continues: "but if you were there, you would know that this man cried, so he is here now as one among us." That was a way to say that my role there was as a mourner, mourning the loss of Ashirifie; but also, that my presence with the camera would not be something that would be difficult for anybody. The camera was, in that moment, my musical instrument, my instrument of mourning. He established — without even saying my name, without telling the story of my involvement with the driver's union or my friendship with Ashirifie — for a whole group of people who, most of whom had never seen me before, that there was something particular about this relationship.

For me, if we use the word "co-aesthetic" to describe these kind of moments, it's really a way into the idea that being present requires acknowledging that there is an interrelation of feelings; there's always an interrelation of feelings and emotions in any situation: it defines the nature of how we look at each other, how we talk to each other,

how we trust each other. If people look at the pictures of our four faces now, will they know that we've been talking before, that we know each other? Some people will say "oh, yes, it's obvious, these people are comfortable with each other, they trust each other," and other people will say "well, you can't know until you hear the different voices." We use many different ways of deciding whether we trust each other. When I speak a sentence and you nod your head, or your eyes get a little wider and then smaller, or you make a small smile, or you lean down like you're writing something: all of these things are part of the flow of communication. It's impossible not to call these things "aesthetic." They are stylized by people in the presence of each other. When we are truly present to each other there is smell, there is touch, there is a whole other set of things with our bodies in space and time together. And with this, there is pleasure.

Whether or not we call this the "anthropology of aesthetics," or the "anthropology of emotion," interpersonal relations start with feeling: there's no kind of relationship that does not involve feeling. We can't separate feeling from relationship. All I was really doing — I really say this with modesty and candor — was acknowledging that the development of my relationship with people in Bosavi was part of the aesthetics of epistemology. Feeling and emotion are central to epistemology, they are central to how we know, to how we believe something is true or not true. The very conditions of knowledge are related to the very conditions of feeling; these things cannot be separated. To say that we can know things apart from our attraction to them, apart from our feeling of being co-present, apart from our feeling that there's a certain warmth in another person's voice that you like, or there's a certain sharpness in another person's voice that makes you stand back, or whatever these things are; these things are immediate to us, and one of the most immediate features is the voice. The voice is an experiential organ of truth-making. The foundational organ of affecting articulation is the voice, like touch: voice is a form of touching, it's a form of co-experiencing, there's affect in everything. It doesn't matter if I say, "salt is sodium chloride." I can make what seems like a completely transparent scientific statement; but you know that, if I say it to you in a certain way, you know that I'm making a joke or that it's theatrical. Yes, we can try to reduce what we do to participant observation, but it seems to me it's been necessary, for a very long time,

to be more honest and say, “what we’re doing is not participant observation; what we’re doing is relating in order to inquire into relation and relationality.” Relating means that there is an affective, emotional, co-aesthetic, co-presencing dimension, it’s about the meaning of presence. How can you have presence without aesthetic? How can you have presence without feeling? All I was doing was acknowledging what I thought was honest, and what came directly from my experience of being there. To me, this understanding of co-aesthetics drives a final nail in the coffin of functionalism.

TB: We now would like to focus on the term “acoustemology.” It’s very interesting to follow your work, and very revealing when you proposed “From Ethnomusicology to Echo-Muse-Ecology” in 1994, and then to the “acoustemology” term. It would be important to hear from you about the story of the extension of meaning of this concept in your work.

SF: In 1972, I started using the term “anthropology of sound,” and that was because I was a student of Alan Merriam, and I was developing what I thought was an intellectual and theoretical response to his paradigm of the anthropology of music. I felt that the anthropology of music was extremely weak in the dimension of language, voice and poetics. The chapter of Merriam which is about song texts doesn’t get into the questions of voice and performance. So one response to this idea of an anthropology of music through an anthropology of sound was to really insist on an anthropology of voice.

Another dimension of the anthropology of music paradigm that was very weak was technology: by this time, in the 1970s, we were experiencing revolutions, many revolutions in music technology, music-making all around the world was being transformed by the relationship between technology and live music-making. The idea of an anthropology of sound would include all of the technologically mediated dimensions of sound-making, and emphasize the sound rather than the music, in the sense of “music in culture” of Alan Merriam.

Then, there was the dimension of species: the anthropology of music paradigm had nothing in it about non-human sound-making, and the relationship between non-

humans and humans, and the importance of all-species and interspecies perspective. These ideas — an anthropology of voice, an anthropology connecting species beyond the human, an anthropology of sound that insisted on mediation and technology — these were the kinds of things that were on my mind with this idea of anthropology of sound. In my field work in the 70s, and in the 80s, this was very useful to me: in terms of *Sound and Sentiment* and thinking about the developments of those times in symbolic anthropology, and cognitive and structural anthropology.

By my later field work, especially the experience, in 1990, of recording *Voices of the Rainforest*, the original CD, during a three-month period of field work in Bosavi that year, I realized that something was not right, that I had already gone beyond this idea. I was trying to grasp this, and it was through a deep rereading of the work of Maurice Merleau-Ponty that I realized that what I was really reaching for was not an anthropology of sound, but an anthropology of acoustic perceptions. The more and more I read and thought about the phenomenology of sound and the phenomenology of perception, I realized that what I was trying to do was understand sound as a way of knowing in the world. Knowing the birds in the forest. Asking: how could it possibly happen in human evolution, that we have a society where the best ornithologists are also the best composers? What kind of historical, ecological, cosmological, aesthetic creative conditions could create such a society? What equipment does it take — mental equipment — to grasp and go into the profound nature of a question like that? What does it mean, in that kind of world, that every child, at age twelve or thirteen, will know seventy-five or eighty species of birds, and their sounds, and where they live, and everything about them? What does it mean that in one thousand recorded songs, we find seven-thousand names of places that map this world? That song is a poetic mapping, a poetic cartography of the forest?

I started reading more and more about epistemology, and I was deeply influenced by John Dewey's book, *Knowing and the Known*. Instead of thinking about epistemology in terms of the logical conditions of truth, I was interested in epistemology as the experiential conditions of felt truth, and the idea that these experiential conditions could be culturally different, or culturally specific. And this is what was important to me in

putting the words “acoustics” and “epistemology” together: taking sound in the fullest sense — its materiality, its acoustics — but also recognizing that all materiality has a sociality as well; that acoustic knowledge can be shared knowledge, it can be circulated knowledge, it’s relational knowledge. That’s what led to the word “acoustemology.”

In the summer of 1993, there was a 60th birthday party for the composer Murray Schafer in Canada, a conference called “The Tuning of the World” to honor him. There were a lot of Canadians there, and a lot of radio composers, and people who were part of Murray’s world of musical composition and radio sound art. There were geographers there, and people who acknowledged the way Murray Schafer had been so influenced by Marshall McLuhan. All of the people who were part of the original “Tuning of the World” project in the 1970s, in Vancouver, were there as well. By that point, I knew all of that work: I had read Murray’s books, I knew the *Vancouver Soundscape*, I knew the *European Sound Diaries*. I found myself the only anthropologist at this meeting, and one thing that I really liked about Murray — many of his ideas I disagreed with, of course, and I wrote about that, we had a very honest set of disagreements with each other — was that he was not afraid to coin new words, he was not afraid to use words in a way that could be dramatic or evocative. I thought that one of his great skills was as a communicator, by the way he used these words. He did not do a great job about defining them, but he used them to ask people to think about things in different ways.

So, when I gave my speech — which was that essay, “From Ethnomusicology to Echo-Muse-Ecology” — I used the term “acoustemology” for the first time. I said, “in the tradition of Murray Schafer, I’m using a new word,” and that “acoustemology is a way for us to focus on the relationship between sound and knowledge, not just on the relationship between sound and function, or sound and structure, or sound and history, or sound and environment.” I wanted to focus on sounding and knowing, on sound as knowledge production, in any place, in any time, in any environment, in any historical context.

I didn’t use the word “agency” because I didn’t want to get into Bourdieu and sociology, but I was talking about agency and habitus. I wanted to take the anthropology of sound and make it post-structuralist, into the dimension of agency, and action, and

the “actant” of Bruno Latour’s actor-network theory. I wanted to go in all those directions, not with the heavy sociological words, with words, “acoustics,” plus “epistemology” that I thought the audience would better understand. Some people thought this new word was completely ridiculous, and some people thought that it was fun and interesting. Myself, I had no idea that this concept would take off. Now people often ask me, “when are you going to write a book about acoustemology to detail all of the methods, and all the theory?” And my answer is always the same, “Never.” Never would I ever want to do such a thing. The important thing is the word and where it can take your imagination in composing research, composing interpretation. But I don’t want to tell you what you should do with it; that’s of no interest to me.

TB: You mentioned many authors that inspired you. We wondered about Gregory Bateson in this sum of readings that you were doing at the time.

SF: Bateson influenced me from a very early moment. While I was in Papua New Guinea, in the mid-1970s, I read *Naven*. But before, in 1972, when I was a graduate student, the collection *Steps to an Ecology of Mind* was released, and that reached me much more. Bateson’s essay *Style, Grace, and Information in Primitive Art* touched me very deeply, because it went beyond the theory of homologies, and into a relational theory of art perception, art production, and co-aesthesis. What I got from reading those essays, and then going back and forth between those essays and *Naven*, was the idea that Bateson was always interested in a cybernetic epistemology; a relational epistemology; that relationality was really a core concept from him: the idea of relations — of, and through, and by relations; that relations are generative forces, that they are systems that produce systems; and that they have dimensions of entropy, they have dimensions of acceleration, they have dimensions of vitality, they have dimensions of conflict. This very rich idea of ways of thinking about systems. Cybernetics was the obliteration of functionalism for me. I saw, in what Bateson was doing, a way of thinking through the idea of a system, and understanding that the most important thing about a system is that it’s never closed. In human societies, the nature of systems is not only

that they're open, but that they proliferate their own internal dimensions of demise and transformation.

The concept of "transformation" in the 1970s, in Noam Chomsky's generative linguistics, combined with these ideas from cybernetics and Bateson, and information theory, and systems theory, and ways of thinking about complex systems. I was mesmerized by this idea of relating complexity to epistemology, to a cybernetic epistemology, what Bateson called "an ecology of mind." The idea that ecology was a way of thinking into the complexity of systems, and of understanding that human-environmental relationships, like social relationships, always have contradictory materials within them materials for flourishing while always decaying.

Cybernetic epistemology, systems-thinking, thinking through relations, knowledge production as relation production: this, for me, at that moment in the early 1970s, brought together generative linguistics, cognitive theory, and ecological theory. There were other things that also influenced me in that period, 1971-1975 of graduate study, but they were coming from avant-garde music and art. I took a course in graduate school during those years with the composer Iannis Xenakis, and I learned about stochastics and mathematical modeling in music, the relationship between music and architecture, systems and chaos. There were many things musical and visual art and particularly cinema that were interesting to me at that time. music. But, in the world of social science, Bateson's cybernetic epistemology, or ecology of mind, was very inspiring.

FB: Going back to a previous theme, how about the relationship between listening and the other senses, inside your concept of acoustemology? How does the anthropology of sound, or acoustemology, relate to an anthropology of the senses? Where is the place of the body, the gesture and the other senses inside the acoustemological triangle?

SF: *Sound and Sentiment* arrived at the moment when the anthropology of the body, the anthropology of the senses, the anthropology of emotion, all began to flourish.

I was part of early conferences, and anthologies in those areas. It was also the moment when feminist anthropology — and its way of theorizing the body, and emotion through gender really brought “difference” into a much broader consciousness. I was influenced, later on, by feminist theory, but what was different about my perspective was that I was constantly trying to engage these ideas through aesthetics and heightened feelings. I was trying to think about the body as a sight of amplification, and the dramatic movement between the way the senses are always in the background — part of our way of knowing and feeling — and then, have these ways of coming into the foreground, coming into consciousness. Most people were trying to describe the senses and the body as routine conditions of being. What interested me was the idea that you could study these things backwards: rather than studying them first, as the unconscious and background conditions of being, that you could start with these public expressions, with these public displays, with publicly shared dimensions of this; and then move backwards into it. But I made certain kinds of critical assumptions and mistakes at that time, because I was so influenced by structuralist ideas of nature and culture. It wasn't until much later, and under the influence of my students, that I saw the greater potential of gender for theorizing the relationship between crying and song in Bosavi.

The body as a ground of being was something that I understood right away, from the beginning in Papua New Guinea. In Bosavi, you count on, with and through the body [Steve demonstrates counting on the body]. You count seventeen up the left side of your body to here [points to left nostril], and then eighteen is here [points to third eye], and then in reverse there's seventeen more here [runs hand down his right arm]. That creates a mathematical system of base thirty-five, but it's based on anatomy, it's based on the fundamental understanding that the body is a design of symmetry. If you put a necklace around your neck: there's seventeen shells here [points to right side of neck], and seventeen shells here [points to left side of neck], and then one, of a different kind, in the center. Or, you build a house: there's seventeen house posts on each side [makes a big circle with hands], and then one opening in the center [points to center]. The design of the necklace, the design of the house, the design of the body, the design of the numerical system are an ecology of knowledges. In the 70s I saw these things in more structuralist

terms, rather than, as I would understand them now, in a more deeply phenomenological sense, as the way in which the terms of the body are the terms of the world. The way in which the relationship to the body is itself a kind of architectural blueprint — or an archetype — that structures and mediates all kinds of aesthetic, material, spiritual, conceptual understandings. So, the idea of the body as a primary ground of being and relating, you could take something as simple as the system of counting, and then, from there, as my colleague Jadran Mimica did, present the case for a Melanesian imagination of infinity, detailed in his book *Intimations of Infinity*. The idea is that the body is like the fundamental puzzle that people have to operate with, and why there are different kinds of bodies becomes another kind of fundamental puzzle; and, from that, the structures of difference. The same thing with the voice: why is it that each and every one of us has a different sound to our voice? Isn't that remarkable, that as many humans exist on the Earth, each one of them has a different sound? Why do we have a different sound in our voice? It's because we each live in a different body, and the voice is itself a relational sphere of all the materiality of bones, and what's in our head, and what's in our body; each one of us is a different kind of resonating chamber.

So the voice, like the body in general, becomes a primary material for the imagination of difference. How can you separate that from aesthetics? How can you separate that from knowing and memory? Years from now, if I'm not here and you are, you listen to a recording of my voice, you will always know my voice, hold it in sonic memory and not mistake it for any other voice. You will always relate to my voice as the mechanism by which I spoke a certain truth, that is, the mechanism by which I related to a question from you; the mechanism by which I took seriously the subjectivity and intellectual importance of your question, and then gave you something that comes from me. The voice becomes the person in a very deep sense, it's no wonder that voice became such a primary metaphor for identity. So, the idea that voice is the primary machine of difference, but also that, from the time before you speak, you are hearing certain voices, and you'll always be able to know them as unique persons. You pick up the phone and, instantly, you know who it is. The person on the other end of the line has only to say a few words or make a few sounds and you conjure the full image of a body,

a presence, a person, a relation. This is an extraordinary thing that we take for granted; it's a very powerful background condition of the body and knowledge. That alone is enough to justify the idea of acoustemology, of sound as a way of knowing, the fact that each one of us has a different voice. Imagine: I will never mistake Tatiana's voice for Wagner's voice or Wagner's voice for Felipe's voice. It doesn't matter if you're the same age, and the same size, and the same health, and come from the same region, or speak a similar dialect, or speak English with an exactly similar accent, or say words a certain way. I will never mistake the two. How is that possible? How can our listening, our attentiveness to voice as difference be so powerful machine for memory and for making difference? What accounts for that? It's really a very strong indication that human beings are profound listeners, and that listening is very connected to the most basic experiential truth, knowing, and memory.

FB: Thank you for a great, great answer. We are changing the subject now to your work with bells. In your work with bells, you are aligning different social contexts and social experiences by the presence of an object: the bell. By seeing your videos and listening to your audio recordings, we observe that it is not just the object or the type of the sound the bell makes, its timbre. That is important but also the way that the bell resonates in space; the way that the bell contributes to build these very different contexts, these different situations. Can you talk about your work with bells, about how you came to this idea?

SF: [Steve brings a small bell into view and rings it] What is it, really? It's a machine. But the bird behind me is also a machine. The question is: what kind of machine? Thinking about birds, bells, and cybernetic epistemology, the spirit of Gregory Bateson speaks to me, to say: "a bell, like a bird, is a machine that produces the consciousness of space, that produces the consciousness of time. That is what bells exist for and birds exist for in the world." Every moment of their life, every moment of their being, Papua New Guinea birds write a story about space and time. And that story is relational, is ecological; it cannot exist without trees, and fruit, and people, and

seasons, and weather. The bell struck me as the same thing, and the realization came when I was walking in Greece, near the Bulgarian border, in Macedonian Greece, with Charles Keil

in 2000. We were hearing bells all over the place, but we couldn't see them. Which leads to connecting sound and knowing through questioning how one is placed in a history of listening. And for me it was just like being in the rainforest, where you can't see those birds, but you hear them and know they have a complex ecology, a complex relational life. For me, the idea was not to just go and study "oh, church bells, they're very interesting," or "oh, the bells of the town," or "ringing the Angelus," or "ringing the hours of the day and the night"; it started, for me, with goats and sheep. And I realized: that relationship between the shepherd, the dog, the goats, the sheep, the bell, and me tells a story of ten centuries of European history, the same way that those birds in the rainforest tell a story of forty thousand years of Melanesian history.

The more I got to watch bell makers in Europe, I began to realize that there's a profound historical relationship between listening and identity. Colleagues told me stories of shepherds taking them into their homes and, with tears in their eyes showing the bells of animals that were no longer living. They were keeping the bell, the same way you might keep a shirt with the number of a great football player. Other shepherds would play a game with me, they would say "okay, I'm going to turn my back and tell you who is where." And then: "that one most close to me, on my right side; that one has a brown spot just over the left shoulder, it has a mark where it was cut under its eye on the right side, and it has two bells, there's an older one and a newer one." They could tell the story of these relational histories, these acoustemological ecologies, detailing every bell on every animal they had. The bell is the voice of that animal, a voice that lives in relation to other voices, animal and human. How does the bell maker make every bell just a little different to all the others, so that each animal has a different voice?

And then, I went to carnival, and heard the way bells create a noise that turns the world upside down. Imagine, each dancer with 30kg bells on their body, jumping around in the streets: it's incredible! So, I began to think, "okay, this is an ecology, this is an acoustic set of relations" — the voices of animals, the voices of shepherds, the voices

of people, the sounds of carnival, the sounds of the church... this is a sonic way of writing European history as histories of listening to social relations, the relations of humans and animals. When you walk through the countryside, and you're with a shepherd and you hear these bells, you are listening to an ancient technology, listening to a long relational ecology. But then, in the shepherd's back pocket, you see a cell phone, or a transistor radio; and maybe it is turned on, playing a news broadcast or something like that. For me this is like a sonic time capsule where thousands of years can reverberate in just one second. I began to collect all different kinds of bells and to keep them around me, on the desk, on the shelf, on the window ledge. To live with these things around you is to experience their sonic life in an ecology, in relation to a radio, a doorbell, a stove, a ringing phone, a barking dog.

Some of the most recent and compelling work that I've read in the anthropology of sono-visual aesthetics is about Aboriginal Australian uses of ringtones. People program their cell phones so that the ringtones are telling which spirit ancestors, which clans, which relations might be trying to connect with them on the phone. There is a wonderful book about this, *Phone and Spear*, by the Miyarrka Media Collective, in Australia. A member of that collective is an anthropologist named Jennifer Deger and she has been doing research collaboratively and collectively with Yolngu people for years. *Phone and Spear* presents the same kind of relations, the same kind of deep acoustemology that I've been trying to describe with humans and birds and spirits and ecology in the Bosavi rainforest; the same thing I'm talking about with humans and bells and spirits and pastoral village ecology in Europe; the same thing I've worked on in West Africa, with humans and car horns and spirits and urban ecology. It is right there, in the way that Yolngu Aboriginal people in northern Australia have seized on the phone as a technology that can be ancestral and modern through the ringtone, through the liquid photographic art of the screen, to a whole world of spiritual, cosmological, ecological, local designs. I think that contemporary technologies, and historical ones, must be listened to for their enunciation of these ancient and deep histories of relating. If I had the time right now I would love do an empirical study of cellular phone ringtones and how they connect to the world of birds, weeping, and poetics and song in Bosavi.

FB: The other part of the question is about your emphasis on visual and sound representation on the Bells' projects, moving away from textualization. Can you talk about this way of dealing with this theme in this part of your work?

SF: Well, if an anthropology of sound is going to be successful, it must equally be an anthropology *in sound*. Sound is a primary material of sociality, a place where sociality and materiality achieve a powerful synthesis in history and imagination. So why not use the medium of sound and image as a primary argument for how this is so? We cannot just rely on writing descriptions and abstractions; textualizations are limited. And so are graphs, spectrograms, drawings, and transcriptions. What makes the anthropology of sound and acoustemology an experimental way of thinking into aurality, and the materiality of sound is the possibility to work, to research, analyze and represent, in and through sound media. How can we innovate the work of inquiry into sonic knowing through the media of sound? Here's an example from the mountains in France. There I heard cows, with heavy bells around their necks, disappearing into the mountain forests as the Angelus rings at 7 o'clock. How could I explain that to you in a text? What I listened to was one sound moving from background to foreground in a certain way; and then another co-existing sound, moving to background, then to foreground. Sound like this is so dynamic that we have to use sound recording and composition to enter into its dynamism. We have to be able to use our auditory equipment to feel the space, to feel the time, to feel the duration, the relationship between duration and amplitude, and the envelope of each pulse of sound.

With bells, it was even more powerful for me. Imagine listening to bells and bagpipes at the same time, moving in the sound production, moving along with sound-making objects. This is just like birds and singing in the rainforest.

Let me try to explain it another way. Doesn't it strike you as strange that, for so many years, the study of ethnomusicology imagined that the way to study music was to remove anything that might be happening at the same time? That is not a study of music, that is a study of sanitation; that is a study of extraction. It's like me saying to you "the

only way that you can study a language is to remove conversation, to remove the environment, to remove everything except syntax and semantics. So, it seems to me that ethnomusicology, like sociolinguistics, has to rebuild the context from the extracted something called “music”; rebuild so we talk about music in context. Well, what else could it be? How could there be music without context, unless we’re talking about music that’s just generated by a computer. But even that has a context, it has a program, it has a circuit. What could possibly be without a context? Is ethnomusicology really a discipline based on the idea of restoring context back into something that lost it? How did it lose it, anyway, in the Garden of Eden?

The first time Alan Merriam heard a recording that I made in Papua New Guinea, he said, “that’s really interesting, but it’s going to be hard to transcribe the music because of the baby crying.” And I said “That *is* the music. You’re the guy who talked about music in context!” I mean, can you imagine studying lullabies by removing babies from their mothers’ breasts? How can you possibly do that? What I’m trying to do really comes down to the same question. Over and over again it is the question of the way sound and listening is relation - relationally connecting and connected to knowledge in and of the world. If we want to understand sound as a way of knowing, we have to be prepared to know through and with sound; and not to default to words and graphs.

WC: Moving to another subject of discussion, about your production in 1990s, specifically, in your reflexion about world music: the politics of world music, commodification, appropriation, cultural appropriation; the relation of this production, about [the] situation in the 1990s, with other production, in particular in your ethnographic research; how you interpreted, and how to view this production in the whole of your work?

SF: It’s a really great question; really, really important to me. You know, Wagner, I was teaching at the University of Texas, in Austin, I went there in 1985, and I had a real honor there, because I had the first position where I was one half in the anthropology

department, and one half in the music department. And that gave me the possibility to create a real bridge. At that time, *Sound and Sentiment* was only a few years old, but I already realized that the world that my students would study was not the world that I studied. In 1986, I introduced a course called “Popular Music and Mass Media” for the first time. Austin, Texas was a big center of live music and music production, and this created an important location for theory and practice. I had students from communication, anthropology, literature, - many different areas. My idea was to promote ethnographic work in recording studios, different sites of production, night clubs and so forth. But then, something happened! I start teaching this course in early September and just weeks later, in October, came the release of the LP *Graceland*, by Paul Simon. And this incredible moment opened up multiple sonic, political, racial discussions, especially about South African musicians and Paul Simon, about the world of pop stars, and power. The recording completely opened up what I thought the next generation of ethnomusicologists must study: power, industry, capital, and the circulation of music in light of globalization theory. The South African student in the class was Louise Meintjes, who went on to write a book called *Sound of Africa*, about the South African recording studio; and then *Dust of the Zulu*. Also in the class was Tom Porcello, who did the book *Wired for Sound*, and studied the recording studios in South Austin; and Aaron Fox, who was studying country music in south Texas bars. I had wonderful, wonderful students! And even if I understood that they would not be going to go to the rainforest in Papua New Guinea, I could not have anticipated their many creative and original projects.

I wanted to focus on the aspect of representations in this new situation. So, I wrote about Paul Simon and *Graceland*, about David Byrne and Brian Eno and *My Life in the Bush of Ghosts*; and I wrote about the story of the *pygmy POP*. I wrote about the kind of connections between the way in which ethnomusicologists produced records, with a kind of innocence and naïveté, and then how these recordings became raw material for new industrial practices and new forms of ownership for people who were much more powerful than their sources – indigenous others. I became very interested in an emerging consciousness, the collective ethnomusicological trauma and

embarrassment where recordings made in respect for indigenous people contributed to a new musical colonialism. The “world music” articles that I wrote, and the kinds of work I encouraged, was, really, for people to always connect the study of mediated popular music to the question of power, and to follow the money, follow how sound circulates, and the place of race, of gender, and of class in these emerging circulations.

Even though this was not my primary field work, I found myself very much engaged with it in solidarity with my students. For me, this took on an additional dimension when I began to work with Mickey Hart and Grateful Dead. That did give me a kind of ethnographic experience, of working in the world of rock stars and rock power, and really trying to understand that in a more deeper, and anthropological kind of way.

TB: We were talking about how, more or less, the first works that we’ve learned from you, were exactly these works, these articles; and how they came out about the moment of the acoustemological turn in music studies, and cultural studies. That’s really interesting in terms of learning from you, this story, thank you. How about the Leadbelly Legacy Band. We tried to look online, but we couldn’t find anything about that project.

FB: It’s just a simple question, because we are curious about all the things that you have done. We are organizing all the material you produced. This first arc of our interview, we thought, “let’s talk about memory, sonic memories, experiences as a musician, as an artist, formation at school and university” and then we wish to talk about ethnographic work. We discovered this band, but we couldn’t find more information about it. We know that Alex Coke played, and it’s very interesting because this is a kind of folk repertoire from Leadbelly, but played by a jazz band, but we haven’t had the opportunity to listen yet.

SF: I moved to Austin, Texas, in 1985, to work at the University of Texas. My first week there, before school started I was having an interview with the National Public

Radio, and they told me that in addition to the phone it would be recorded live. So a woman knocks on my door, and she has a Nagra, and she introduces herself, Mary Yznaga. We record the interview, she sees that I have instruments and recordings around the house. So she says to me: “my husband is a musician, and he’s waiting in the car!” [laughter] So I said, “Tell him to come inside, I want to meet him!” So, that was Alex Coke, and we became very close friends, and continue to play music together to this day, more than thirty-five years later.

The University of Texas had a big collection of Leadbelly materials, because the Lomax family was from Texas, and there’s a lot of Leadbelly archival materials at Austin. Alex asked about the Leadbelly songbooks and I found them in the collection and we began to study them with our regular weekly improvisation group. We began to think about an Art Ensemble of Chicago kind of approach to this material. In the group with us was the avant-garde clarinetist and composer Bob Paredes and also Catherine Schieve, an avant-garde accordion player, and the experimental singer Tina Marsh. We added a drummer and a bass player, did some performances and a recording. It came out on cassette, then LP, in the late 1980s, and then on CD some fifteen years later. After that Alex and I had another project, the Live Action Brass Band, playing brass band music from New Orleans.

During the same period, at the University of Texas, there was a Brazilian band in the music department, led by an ethnomusicology student, Larry Crook, who was studying the *banda de pífanos* of Recife. Larry was a very good musician, and invited me to play trombone — we were playing *forró*, we were playing *frevos*, we were playing *bossa*. The brass band and Brazilian group played for the carnival in Austin every year. There was a lot of samba, and for that they didn’t need a trombone, so I learned to play *agogo* bell. So even though I was busy teaching in those years, through Alex I got to play with many people, and with my students I also got to play Brazilian music.

FB: We have a question about anthropology and the use of recording technology. You have always been using up-to-date technology in your work. In the 70’s, on your fieldwork, you used a Nagra multitrack recorder and different types of microphones.

Now, in your last movie, you're using ambisonics immersive audio to produce sound representations of the Bosavi world. The use of this kind of equipment demands a specific kind of knowledge. Of course, as a musician and sound engineer that has been working with films, you knew how to use this type of gear.

However, there is something more that it's not just about the technology itself, but what you can output from that. What representations you can produce.

Your recordings for *Voices of the Rainforest* and *Rainforest Soundwalks* go beyond a standard ethnographic sound recording that is focused only on the register of a song, a music form or any kind of performance. The recordings are very experimental, and they offered a more experiential opportunity to listen and understand this context that you have been in contact with. These recordings had an innovative way to approach an ethnographic audio recording and because of that, for sure, they demanded an innovative way to use technology.

Can you talk about that: the relation between technology, phonographic and ethnographic register and audio representation? Can you also talk about these two projects?

SF: I have been making sound recordings all of my life. I'm just preparing for my trip to Italy tomorrow, and I'm taking two things with me: I'm taking a pair of twenty-year old microphones that I wear on my head, because it's my way of taking notes on everything I hear. And I'm taking a 360 degree ambisonic VR microphone recorder [shows microphone]. This is not "standard equipment" for ethnomusicology! But to be interested in sound as a way of knowing is to be constantly experimenting with listening. And to experiment with listening, you have to understand the different ways that technologies listen, and how to listen with them, or how to listen against them. With *Voices of the Rainforest* and all of these projects, of course I wanted to use the most contemporary technology, the newest technology. Why wouldn't I? This is like my question about ethnomusicology and context — if you wanted to really understand something about a particular sound, why would you use a cheap recorder to record it? Why would you just use your cell phone? Why? It would be like saying "I want to be a

theoretical physicist, just give me a ruler, I don't need a computer"; or "I want to be a molecular biologist, but I don't need a microscope, I don't need genetic testing." Why do we, in a discipline that is interested in sound, accept anything but the most experimental, innovative — the best technology we can use? We have a tremendous amount of work in ethnomusicology that is very unoriginal. Why? The lack of imagination is directly related to the lack of desire to experiment. If you want to experiment, you have to invent the tools of the experiment.

Rouch, who taught me so much about film, wanted to invent a new kind of cinema, a *cinéma direct*. To do that, he had to liberate the camera, so that he could easily carry it on his shoulder. He had to liberate the microphone, liberate the film stocks, so that he could film without big lights. He had to dismantle the ritual of classical documentary cinema. To make a cinema that's direct he needed a direct technology; where it didn't exist he tried to invent it. Why did Kudelski invent the Nagra? His girlfriend was a journalist, and she said that the portable tape recorders of the time were too heavy. Can you imagine if Kudelski's girlfriend wasn't a journalist, and we didn't get the Nagra?

The Nagra was incredible! But what did Richard Leacock do? He took a watch; and he took the crystal out of the watch, and he used it to synchronize the Nagra recorder and the camera, without a wire between them. How do you liberate the camera from the tape recorder, but make it possible for them to be in synchrony? You take a watch, and you take the crystal out, in 1959. If you want to do something that's interesting, you have to be willing to experiment, you can't just sit around and wait for other people to do it.

When I wanted to make the recordings of the bells I went to Leonard Lombardo, a microphone inventor, and I started to work with him. I started to use his DSM recording technology and learned how I could control, with very small movements of my head, the whole way in which I could create 360 degrees of sound. I don't know how to make a microphone myself, but I worked with somebody who does. To me, this is just obvious, that if you want to explore something, if you want to ask new questions, you need need new tools. Why do we take a program and hack the program? We hack the program because we see a limitation with existing programs and want to know how to push past that limitation.

People told me, “it’s going to be impossible to record the rainforest, you have all these reflections of sounds, because the trees are everywhere.” That’s when I started making experiments: learning to record at three different levels of height of the forest, and two levels of depth. And then to relate the recordings to local conditions of knowing, to the acoustics of sonic movement in the forest. And from there, little by little, through dialogic auditing and editing, I learned how to create recordings that were both ethnoaesthetic, co-aesthetic productions with the Bosavi people; and, at the same time, time and space accurate, scientific recordings. You can listen to all of my recordings and create a series of triangles; and I can tell you who and what lives in each one of those triangles.

The method of the *Voices of the Rainforest*, soundtrack, in 7.1, is aesthetically very interesting, but you also get to hear seventy-nine species of birds; you get to hear all of these different kinds of sounds of water; of insects; you get to hear the different times of the day; you get to hear a certain season of the year. You get an acoustic picture, like a paint-by-number cartography. And it asks and answers your questions as you listen: “Who lives here?” Who lives in this picture that I’m listening to?”

For me, that’s the part of it that was fun, and the most creative and artful kind of science. When people ask, “why did you take one year to compose a soundtrack, my response is, “why not?” If it’s interesting to the Bosavi people, it should be interesting to me, and interesting to you too

TB: Last question. You’re writing this new book; we were curious to know what you’re thinking, what you’re writing about. And also, maybe related, it feels as though the studio as an instrument, as a form of art, withstands your anthropological imagination. This image of you in a studio, in the rainforest; we had that image. So, it would be wonderful to end with these two questions.

SF: I’ve done many projects which relate to the use of the studio as an experimental laboratory. For example, I made the recordings of the toads in Accra, and then I gave those recordings to a percussionist, Nii Otoo Annan, and I recorded him

overdubbing the toads. Then we studied them, and then we put together the *Bufo Variations* CD. I also recorded Nii Otoo playing solo guitar songs, and then, ten months later, when he came from Accra to the US to visit me, we went in the studio, and he overdubbed ten tracks, on each one of those songs: with bass, and with drums, and with bells and with shakers. He's a one-man band on the recording. But the process also gave me a window into his musical mind, and that window was reorganized on Pro Tools, because I could see the guitar part, I could see the drum part, I could see the bell part, I could see how everything went together. So here I have Pro Tools, giving a window into the way in which improvisation and structure are constantly at play. In other words, I use the creative agency outside the studio and with it creative conditions for creative agency inside the studio. Then, I can make experiments: if I don't understand something, I take one of the Pro Tools tracks, and drag it forward a few microseconds. And then I take that, mix it, and play it back. If people don't say anything you have one new set of answers and questions to follow. If people laugh and say "oh, that guy was drunk," — you know and followup with something else. You can learn so much by going back into the studio and back into the tracks.

So the project I'm doing now, trying to describe this kind of mentality, is what I call "research as composition." I am trying to describe how the idea of composition affects every dimension of the way I think about research, and then how research itself comes into a constant new dialogue with the possibility that — with these media of film, and sound — you're creating something that's more like a composition, whether or not it informs a traditional idea of analysis. In other words, I'm trying to demystify the interaction between my acoustemological mind and acoustemological worlds that fascinate me. Whether it's composing with the sounds of birds, bells, toads, car horns, or guitar music in Accra; playing with the Accra Trane Station band, I'm trying to understand the place of new technologies in creating new kinds of relationships, new interactions, new collaborations. And at the same time we can use this to make CDs, or make films, which brings money, respect, power to artists who traditionally don't have it. Research as composition is what I call this practice, this relational ecology.

TB: At the same time, it's an explosion of your work, in terms of how much your work has been translated to Portuguese, in the last decade. So, everyone is there, right with you.

SF: I think that it goes back to some of the questions from before. When I was a student I imagined that research meant the obligation to mostly do textual work, to publish and present my work in more conventional ways. But, as soon as I published *Sound and Sentiment*, and found that people were interested in the experiments, like the color photography, or related LP recording and radio programs, I decided that it was necessary to do as many creative projects as possible, including projects that are non-textual. Through the years I find that I enjoy this kind of experimental research as composition more and more. I think that it certainly makes me feel closer to students, closer to young people; it makes me enjoy the feeling that I'm old, but I'm still a hippie.