What made you start field-recording?

My love affair with field-recording actually began in enclosed dark rooms! I was captivated by film soundtracks, and especially spatialized mixes of multiple sound sources, ambient and environmental, language and music, narrative and non-narrative. When I was an undergraduate, 1967-71, I learned sound recording technology from Herb Deutsch, co-inventor of the Moog synthesiser. I studied musique-concrète and electro-acoustic composition with him and that’s when I first made some field-recordings to gather sounds that could be manipulated in the studio to compose experimental film soundtracks.

At the same moment I studied with an anthropologist named Colin Turnbull, who worked in the '50s, '60s, and '70s, in the Central African rainforest with the Mbuti, the so-called “pygmy” people. Colin made some very successful ethnographic field-recording LPs for Folkways and Lyricord Records, and his book *The Forest People* described the rainforest as a sonorous environment where listening was hugely significant, where people knew about place through listening. I was inspired by Colin’s anthropological work on sound and environment while making recording experiments in Herb’s synthesis lab. From that conjunction came a first hint that I could combine field-recording, sound composition, and anthropological work. So I got hooked on field-recording at the same time that I realised that anthropology was a discipline that could theorise listening and could theorise sound.

Then I went to graduate school at Indiana University in 1971 to study with Alan Merriam. The “operating manual” of the time was his 1964 book, *The Anthropology of Music*. In my first seminar with Merriam I had to write a paper in response to that book. I began with two questions: “What about an anthropology of sound?” “What about ethnographies which are tape recordings?” Joining together my experimental interests from film and electro-acoustic music with what I had learned from Turnbull about rainforests and human engagements with sound it was already clear to me that recording was a critical mode of field method and of representation.

This confluence was what made me start field-recording in earnest in 1975 when I first went to Papua New Guinea for my initial fieldwork in the Bosavi rainforest. One of the very first recordings I made after I arrived in Bosavi was of a group of guys who were clearing a forest for a new garden. Simultaneously I was hearing birds, I was hearing yodelling, I was hearing whistling, I was hearing singing, I was hearing talking, I was hearing yelling and I was hearing machetes and axes and trees coming down all around, I was hearing the earth move, and I was hearing streams and creeks and insects. It riveted me and made me realise that if I were to unravel that experience, I would be have to be doing it through sound recording as much as through any other analytic equipment.

**With Merriam, when you proposed an anthropology of sound, how did he react?**

Not terribly well. In those days, there was considerably more boundary work going on between studies of language and music and ambient or environmental sound. Not to
mention between anthropology and all areas of music study and practice. Ecology and
music had not really merged and the whole discourse on place had not yet happened in
anthropology. Merriam came from a musical background and was trained in the ’50s as a
structural-functional anthropologist. His book was a manifesto critique of the kind of
ethnomusicology that was then being taught in Music Schools. It replaced a heroic music
narrative with a heroic anthropology narrative. My idea of dismantling this and rerouting it
through the electro-acoustic avant-garde, or connecting with linguistics and the study of
voice, or connecting with radio sound art, or connecting with communications and ecology
and environmental studies was, let’s say, “very 70s.” This wasn’t Merriam’s bag. I was
reading Gregory Bateson at the time, and Wittgenstein, Chomsky, and Sapir and Whorf.
There was a lot of fascinating intellectual turmoil at the time and my sense of what
recording could be, what sound could be as an object and a subject, what the different
strategies could be for representation, for publishing and for analysis, were all about
crossing borders and not reinforcing the disciplinary fences of language, music,
communication, environment. At Indiana I was also taking classes in electro-acoustic
composition with Iannis Xenakis. Merriam didn’t think that was what a proper “social
scientist” should be doing. I learned a great deal about the history of anthropology’s
engagement with music from Merriam, but basically he thought that an “anthropology of
sound” was more a youthful distraction than an intellectual frontier.

You also studied with Jean Rouch, didn’t you?

Yes, a little later. After two years of anthropology and music and linguistics at Indiana, I
took a year off for film school. I did a semester with Carroll Williams at the Anthropology
Film Centre at New Mexico; Carroll was very engaged with sound in film, and had an
amazing knowledge of audio technology. Then I went to Paris for a semester to study with
Rouch, who made some very radical experiments in film sound from the 50s. All of this was
before I went to New Guinea. So before I did fieldwork I had had quite a strong dose of film
sound, and direct cinema methods. At that time, 1973, I bought one of the first stereo
Nagra recorders imported to the United States. I was working my way through graduate
school by using that Nagra as a sound recordist on film projects. I was in the film union as
a sound recordist and I could make more money working as a recordist on films – all of
them totally trivial, if technically challenging – than I could as a musician. So this is when I
learned the techniques of field recording for voice, ambience, and music with the early
generation of studio quality yet portable stereo reel-to-reel field equipment, matched then
by exciting developments from Sennheiser and AKG with studio quality yet rugged and
field operable phantom-powered cardioid and hyper cardioid microphones.

When I went to Papua New Guinea in 1975 with that stereo Nagra, anthropologists –
certainly anthropology doctoral students – were writing ethnographic monographs as a
principal standard for representation. Recording for radio broadcast or LP production was
understood to be totally secondary or superfluous in terms of serious ethnographic
representation. I wanted to buck that trend. My first New Guinea publication was also the
inaugural LP in the Institute of New Guinea Studies series. I wanted to accomplish two
things: to herald in sound the publication of my ethnographic monograph, Sound and
Sentiment, which came out the next year, and to honor a commitment to helping Papua
New Guinea’s newly independent government and research institute start an LP record
series to encourage researchers to make field-recordings into circulable representations of
cultural history.
I'd like to return to that forest clearing with all of its incredible layers of life, the biotic, the human, the geographic and the geological. Had your technical preparation given you a way of determining what to record and how to record it? Were you looking for particular sounds or could you remain open to whatever sounds you could find?

No, quite honestly I didn’t really have that kind of preparatory process. It was more an improvisation, recording simply as a way of being present and of deep listening. So I would put on the headphones, strap the heavy Nagra (packed into the recorder were 12 D cell batteries) into its harness that held it up against my belly, slip my hand into a weight-lifter’s glove and hold a rigid bar with stereo microphones, old AKG 451 EB pre-amps and CK-1 or 8 capsules that I experimented with in A/B or X/Y configurations. I would walk with this rig in the way I had learned, from Rouch, to walk with a camera to record the body’s tracing of space. I wanted Bosavi people to see and naturalize me wearing this stuff, to see it as part of my uniform, my everyday work outfit.

In order to demystify the whole thing I ran a lead out of the Nagra into a small cassette recorder so that everything I was recording on reel-to-reel generated a simultaneous cassette copy. I would later sit down with the reference cassette and a bunch of headphones and play the recordings back to people. It was important to play back over headphones rather than over loud-speakers because I didn’t want the sound to dissipate into the world. I wanted people to listen to the recording as I had been listening when I originally recorded it. So we would sit down around the cassette recorder with one, two, three, four, five people wearing headphones and they would spontaneously start talking about the recordings as they listened. I soon realised this was the beginning of a whole methodological programme for recording and feedback and more recording. I came to call this method “dialogic editing” and was inspired by Rouch’s similar experimental methods in film feedback. Recording wasn’t just about gathering things but it was the invitation to a conversation about what was going on in the world as recorded, about what we were listening to, how we knew and questioned the world by listening to it, how we edited and arranged its meanings like a composition. This became a method through which I could really engage people, so that’s how it became the foundation of a dialogic recording process and the basis of all the research I did in New Guinea across the lines of language, music, song, and rainforest ecology.

Having acquired so many recordings how do you determine which one to use in a particular setting? How did you determine which recordings to play back in New Guinea?

I played back everything for people and very quickly came to appreciate – especially in the case of songs – that Bosavi people were very critical and very evaluative in their commentaries. Over a 25 year period, I recorded over a 1000 different songs in Bosavi, and those songs are maps and contain within them are some 7000 place names. Attention to the poetics of those songs taught me how they mapped social geography, biographies, histories of listening, histories of movement, histories of living and working in the forest, histories of coordinated relationships between people and birds and water and insects and all the things they sing about, with and to. So in time I realized that what I was collecting was not so much field-recordings but a real-time archive of ecological and aesthetic co-evolution. Field-recording became a cornerstone of a methodology for thinking about sound as an ecoaesthetic archive of multiple relations, environmental-animal-human-
cosmological relations; and thinking about sound-making and sound-listening as archival practices on the ground in the memory-work, the history-work, the creative work of the people in that community I was living in.

As I would accumulate the recordings and return over the years, I began to realise that I could edit the recordings dialogically as well. The first LP I made was totally edited dialogically, the selections were the selections the people had made from that body of listening with me. The very first track on the first LP was the 12 minute long “Welcome To The Forest,” of people whooping and hollering and cutting down trees from that initial recording I had made. That’s exactly what people wanted to have as track one on the A side of the LP. The recording was 15 minutes of continuous real-time and from it I edited the final 12 minute piece. These were the days of stopwatch and razor-blade edits on reel-to-reel tape. It was a primitive kind of editing but it is interesting now to think that I didn’t just publish whatever came out between turning the tape recorder on and switching it off. From the beginning I recorded and edited using the musique concrète techniques I learned as an undergraduate.

When I recorded Voices of the Rainforest in 1990, I had multiple tape recordings and was able to do this all with considerably more sophistication. So you can listen, for example, to the recording of a woman who is singing a song at a creek. I would be in the creek with her and my Nagra recorder listening to her singing. I would then make another recording of the water in front of her. Then I would put up some poles 10 feet behind her and into the air to record the sound of the cicadas and the insects and the ‘surround.’ Then I would make another ‘surround’ recording from the shore opposite to where she was sitting. This way I would recreate a whole ambient space, a virtual studio in the field, and end up with four pair of stereo tracks. Then I would put those on four cassette recorders and play it back through a little mixer and have the singer turn the volume knobs up and down on the mixer. That way I got an approximate sense of her experiential mix of the water, the insects, the environmental space and the close-up, intimate sound of her voice as she sat on that rock singing in the creek. That was the dialogic basis for what I did when I took the recordings into Mickey Hart’s studio, transferred them onto a multitrack recorder and edited twenty two hours of sound into the one hour Voices of the Rainforest, a day in the life of the forest and Bosavi people. Everything you hear on that CD was originally recorded like this, as three, four, even five or six recordings to build up and create a local space and time; to make a day in the life of the forest and how Bosavi people know and sense and participate in an environment of sound. There was a connection between, on the one hand, the dialogic field methodology of recording and playing back, and, on the other hand, using the potential of studio multitrack technology to engage a local aesthetic for listening.

For other people who use field-recording strategies as part of the wider practice, the question about what they look for in a recording often involves an answer that addresses some kind of aesthetic judgement (for example, “what do I prefer” or “what is consistent with what I have done before”) or technical questions about the perceived revelation of space or the avoidance of wind noise or mic handling noise. It is very interesting to hear of your dialogic approach at both the level of recording and of mixing.

I think the dialogic approach came organically out of a long-term ethnographic project that continually made me think and rethink my initial questions: “What about an anthropology
of sound?”, “What about ethnographies which are tape recordings?” Research became a matter of listening to the Bosavi world as a way of being in that world as a stranger, and wanting to imagine being less than a total stranger by being there in conversation, in dialogue. In the beginning I called all of this work anthropology of sound. Later I called it acoustemology, that is, acoustic epistemology. That development was possible because I continued to record in the same Papua New Guinea community for 25 years, in fact it was pretty much the only place I was recording from 1975 to 2000. I was aware of the aesthetic value of the material, of course. But I principally imagined field-recording as experimental practice, as a way of constructing an anthropology of sound, of joining methods of dialogic editing and theories of sound as knowledge production. This approach was very much related to my writing but it wasn't until later that I wrote reflexively and reflectively about the meaning of recording. It came to a head after I had produced two LPs, after I had produced an experimental radio show that was heard by Mickey Hart of the Grateful Dead, which in turn led to the rather unique and extraordinary opportunity to make *Voices of the Rainforest*. Then I could really join together the full range of experimental ideas about sound and representation and community to make a commercial recording that was equally sounds of the environment, and sounds of people. *Voices of the Rainforest* was a complete mixture of genres: electro-acoustic composition, world music, radio documentaary, film soundtrack.

This is going to sound an odd question given that its answer is implicit in what we have just been talking about but to what extent to you think that you, yourself are part of the recordings?

I am always part of my recordings. I can always listen to my recordings and recover my breath, my bodily presence.

Do you think that the audience or the listener has access to your legible bodily presence on the recording?

Maybe, maybe not. I am not sure how people respond to that but for me, the recording is always the audible trace of my presence as a listener. My recordings are always an archive of my history of listening and of the history of listening that is being recorded. You could say that my field-recording praxis is to listen to histories of listening. That is why I am always part of the recording, always present in some way even if that presence is not audibly legible to the listener.

There is another history of recording, one that involves setting a microphone up on a tripod and cabling back so that the recordist is determinedly not present, at least in terms of their body's motor actions, such as their breathing. How do you appreciate that kind of work with microphones and recording devices?

Yes. Of course I appreciate many kinds of approaches and encourage all kinds of experiments with field-recording. And I have made some recordings like that, even imagined setting things up and later returning to pick up the recordings and receive them as if they were a message in a bottle. But it has never been central to my practice. To me, the film camera or the sound recorder, these kinds of apparatus, are equipment for contact with the world, equipment for interchange with the world, equipment for enhancing a way of living in the world. The real joy and pleasure of recording is an enhanced sociality, an enhanced conviviality, an enhanced way of engaging with listening to people, to places, to
objects, to all manner of sound-making things, including the sound of myself breathing, myself walking, the sound of my heart beat, the sound of myself recording. The sound recording process and object always is a recording of social relationships in action; that’s why I think of the sound recorder as a device to produce an enhanced social, physical co-present relationship with objects, with others, with myself, through the medium of sound. That’s why I like to carry the recorder, why I like to be in the world with it close to me. That is particularly why for many projects I now like the DSM technology, because I can wear the 2 or 4 channel microphone system on my head.

Perhaps *Waking in Nima* answers your question too, as the method for that recording is more hybrid, mixing my usual approach with the tripod and cabling approach you mentioned. So the idea with *Waking in Nima* was to explore that wonderful, transitional auditory experience of waking as a site for theorizing the emergence of auditory consciousness. Since I am lying in bed as an agent in that setting, I am not walking around the world with a recorder strapped to me. The microphones were positioned the night before, outside my window, and on the roof, static in different places close and far and cabled in to the recorder. I was in my bed and the recorder and headphones were right next to my pillow, bringing me a heightened version of what I had experienced on many mornings over years of waking in that bed, in that place, Nima, in Accra, Ghana. At 5am a timer went off just before the mosque, and the recording started automatically. In time I reached over and put on the headphones. The recording is an experiment in what it means to come to consciousness acoustically. The question it asks and answers is: did I hear that? Or did I dream I heard that? So this is an example of a field-recording where I am more physically detached from the equipment.

**When you presented the work recently in San Francisco at the Ethnographic Terminalia exhibition as part of the American Anthropological Association (AAA) conference, was it a multi-channel installation?**

No, it was a mock-up model of my bedroom in Nima. There was a make-shift room, a little mattress on the floor, a mosquito net falling over it. On the mattress was a pillow where a pair of wireless headphones rested. Under the pillow was a hidden ipod with a spider connection to multiple headphones on pillows next to the bed. On the wall above was a photograph I made from my bed, through mosquito netting, of the sun coming through the window as I would first experience light at dawn, copresent with those sounds. The invitation was to sit with headphones or get in my bed and listen to what I listened to. Presenting the work this way was designed for an academic anthropology convention attended by many people who have woken up repeatedly in some place that they call “the field.” I was interested in posing the question: have you ever wondered what happens when you wake up “in the field”? What is unique about it? How do you know difference in the world though the way you wake up hearing it? I wanted to encourage people to think about coming to consciousness as an analogic icon for a number of different aspects of field-work.

Presenting this to anthropologists also made me think: wouldn’t it be wonderful to develop a sound project where people around the world recorded a five, ten or fifteen minute piece of them waking in different places and exchanged them for conversation? You would have to think of a way to create a circulatory routing system, something like acoustic pen-pals where you would exchange waking experiences. That is somewhat under the radar for anthropology, but by no means a weird proposal to suggest to you or to my other friends
who are artists. So presenting the work at the AAA gave me a kind of pleasure to engage a little in disrupting the normativity that surrounds the idea of waking “in the field,” –indeed, even disrupting what “in the field” means.

When you talked about the time before you made your journey to Papua New Guinea, I don't think I appreciated when it was that you first embarked on your studies in anthropology.

I went to Indiana University in 1971, simultaneously did photography and film school parts of 72, 73, ’74, was in New Guinea all of ’76, ’77 and I finished the dissertation at Indiana in 1979. Then I got a first job, from 1980-1985, at the Annenberg School of Communications where I was teaching film-making and sound at the University of Pennsylvania.

I didn't start teaching anthropology at all until 1985. Since then I have tried to hold joint positions between music departments and anthropology departments, to organise things in such a way that I can continue to work both with people who want to do anthropological research and with people who want to make art. For me art-making is something that could be and should be more central to anthropological thinking. But it has never happened. Field-recording could be an important piece of making the connection. What are we listening to? How are we listening? What does it mean to be conscious as a listening subject? What does it mean to embody a history of listening? What does it mean that we live lives that are biographies of listening? Those questions are equally relevant to anthropology and art practice, but I think they are not in the conscious awareness of anthropologists the ways they are for artists.

Mmmm.

So when you ask “How am I using my recordings?” Well: I am using my recordings as ways to gather data on the history of listening and to theorize listening subjectivity. I am using them as ways to continually question the history of listening; and I am using them as ways to imagine art-making as creating archives of the history of listening. I am making these recordings public as ways to document my specific experience – *Waking In Nima*, for example - which can then promote reflexivity: What is waking up as a process of coming into your body acoustically? What is our experience of a relational place in the universe – how is acoustemology a relational ontology? Going back to *Waking in Nima*, my acoustic waking is relational with roosters, trains, relational with mosques, relational with churches, relational with car engines, relational with breathing, relational with other people waking and working, relational with many spacetimes of auditory consciousness.

So I use my recordings to think about the social; I use my recordings to think about the acoustic; and I use my recordings to think about how the social and acoustic are constantly inter-twined and inter-dependent. I derive a huge pleasure from circulating recordings: not only do they make possible conversations like this one that we are having, but they make possible ways of sharing things about experience that can simultaneously be theoretical and abstract but at the same time, very, very immediate. The experience at the Ethnographic Terminalia exhibition of having the *Waking in Nima* recording available not through public playback on speakers but to be listened to on headphones under the mosquito netting, involved 100s of people sitting down and slowing their breathing for a minute or two or five, sometimes even ten or fifteen minutes. Such exhibitions are ways of encouraging people to modes of attunement, to attentiveness through listening as a very
bodily practice.

This is all such rich material, Steve, and I'm really glad to be talking to you tonight. But I am also conscious that you have a meeting to go to in 15 minutes.

OK, I'll put my foot on the accelerator! I like this list of questions that you have developed! I would answer them all by saying that in the years that I have been doing this, what I have realised is that recording is a way of amplifying experience, a way of helping people question – and it has certainly helped me question – what it means to be a listening agent and what it means to be a listening subject. My key trope for all your questions – what made me start field-recording?, what do I look for in a field-recording?, how am I part of them?, what inspires me?, how do I make the recordings public? – would be the trope of amplification. I think that “amplification” is a caring and generous way to connect practices that are familiar and relevant to artists with practices that are familiar and relevant to anthropologists engaged with intellectual projects about how humans experience being in this world. Sound as a way of knowing – this idea of acoustemology – specifically links with the trope of amplification. So for me field-recording, its joy, its challenge, is a making of an acoustic mirror, a kind of machinery for making palpable, for making audible, for making public, for circulating and amplifying some aspect of what it means to listen in on social and sonic relations. Thanks Angus.

Recorded on Skype, December 4, 2012