Spectral Signage: A Discussion with Steven Feld

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Figure 0. Costas Nakassis (CN; top-left), Meghanne Barker (MB; top-right), and Steven Feld (SF; bottom); 4 May 2020, online in Chicago, Illinois, London, England, and Santa Fe, New Mexico.

Preface. This discussion with Steven Feld occurred online on May 4, 2020 for around two-and-a-half hours. It covers a wide range of topics: Feld's training and background; the relations of linguistic anthropology, semiotics, linguistics, film studies, visual anthropology, musicology, and acoustemology; linguistic poetics, iconic power, and visual form; spectralism and the trace; relationality and interspeciality; the Anthropocene, the

atomic bomb, and COVID-19; among other topics. This conversation builds upon Feld's keynote lecture, "Spectral Signage" for the workshop *Sense and Semiosis: Bridging Conversations between Linguistic and Visual Anthropology* (September 26–28, 2019, at the University of Chicago, organized by Constantine V. Nakassis and Meghanne Barker, funded by the Wenner-Gren Foundation), as well as the discussion that followed. A recording of the online conversation was transcribed by Emily Kuret and Constantine V. Nakassis, and edited by Meghanne Barker, Constantine V. Nakassis, and Steven Feld for readability, completeness, and context. References were later added as endnotes, and visual images and sound recordings discussed during the conversation were intercalated into the final text.

- Meghanne Barker and Constantine V. Nakassis

MB: Steve, it was wonderful to have you join us in September for the *Sense and Semiosis* workshop and great to have you joining us for this special issue on images. For both of these forums, Costas (Nakassis) and I wanted to bring together linguistic and visual anthropology into a closer dialogue but didn't want it to be limited only to the visual. Your work on what you've called *acoustemology* is so great in pushing us beyond that. So, to start us off, I wanted to ask you to talk a little bit more about acoustemology as a general approach.

SF: Okay, well, I'll broach that question first from the linguistic side. One of the things that I remember really clearly when I was a graduate student in the early '70s in linguistics and anthropology was that Indiana University was a very extraordinary place, because Tom Sebeok was there, and there was a world of talking and thinking about the semiotics surrounding Tom. At the same time, Tom had, to put it mildly, difficult relations with folks in anthropology and linguistics. Anthropology at Indiana had "anthropological linguistics." That was Carl Voegelin's world, and it was largely Sapirean and it largely related to Native American languages in the Southwest. It was also steeped in the legacy of alums like Dell Hymes, Oswald Werner, and Ken Hale and early streams of linguistic activism about native knowledge.

And the linguistics department had the classic divide between the people of, say, the Fred Householder generation, who were really deeply engaged with the legacies of Edward Sapir and Leonard Bloomfield, and then people who had been in the first wave of scholars trained at MIT and UCLA, who were proselytizers for transformational grammar and the study of syntax; and the only language they worked on was English. There were some exceptions to that, like Charles Bird, who was multilingual and who worked with musicians and orators in Mali, in addition to studying Bambara syntax, and who was really deeply engaged with poetics.

So, what happened to me was that I had a kind of classic reaction to linguistic anthropology and linguistics and semiotics all at that time, which was all around the question, *What about the sound?*

I mean, think about the early '70s, how little work there was on prosody. There was work certainly on intonation, like Dwight Bolinger and people like that. But it was a world in which the actual sounds of language, and the huge relationship between the spectrum of language sounds and other kinds of sounds in the world—the idea that, you know, language involved *listening*—this was not really what people were talking about. This was pre-everyone-getting-stoked-up-on-Bakhtin.

And, you know, semiotics offered a real area of hope. I mean, here is Tom Sebeok editing books not only on language, not only on cross-species relations and zoosemiotics, but on drum surrogates and speech surrogates in language and all of these language—music relationships.² And so, I felt a kind of opening from linguistics, and particularly from semiotics, toward the idea that language could be much more about sound, and this was in real distinction to what was a growing kind of consensus there to study syntax. And there was barely any talk about semantics. It was like, you could kind of get a little bit of that for dessert if you did your syntax homework very well. Then Bonnie Kendall, also a Voegelin student, came on to replace him, and brought semantics and the study of homophony and polysemy into the foreground. And that contributed greatly to my thinking about sound as a way of knowing.

Ethnomusicology at Indiana was presented through Alan Merriam's idea of the anthropology of music, and that was really something that came out of functionalist and '50s, sometimes quite behaviorist, ideas that music starts with something called "conceptualization," then moves into something called "behavior," and then it has these things called "contexts" and "functions." And that was Merriam's versioning of his mentor, Herskovits's program for expressive culture. I remember that Merriam had us write a paper in response to the *Anthropology of Music*, his 1964 book that was a sort of theoretical manifesto that we were all supposed to master. It was in the same semester that I was taking a course with Carl Voegelin on Introduction to Anthropological Linguistics. And the first sentence of my paper responding to Merriam was, "What about an anthropology of sound? What about an anthropology of voice?"

That was in 1971. And I think probably that was what got me going with acoustemology and thinking across language and music, poetics and voice, and not wanting to be specific to any one of them. It was what got me particularly interested in all of those forms between speech and song, and all of those ways that the study of music, musical sound, and the study of linguistic sound and sense really could be approached together, approached acoustically, with a focus on the relationship between the materiality of sound and its sociality.

And that's really kind of the birth of acoustemology. It took me twenty years before I used that word. I mean, in the '70s and '80s I referred to my work as anthropology of sound or anthropology of voice. It wasn't until the early '90s that I introduced the word *acoustemology* and really tried to focus on ways that we could think through relations between language and music,³ rather than just sort of taking theories from generative grammar and seeing if they could be applied to musical structures, or taking ideas from studies of the formal structure of music and looking at how they were language-like or not language-like.⁴

It seemed to me that the dominant syntax-driven approach to language and music was totally wrong-headed; that the thing to be looking at was *sound*. It was Carl Voegelin who realized that I was interested in this, and he turned me on to reading Sapir and made me write an extensive essay on Sapir's work on sound patterns and symbolism.⁵ And he turned me on to Roman Jakobson and got me thinking about Jakobson's work about the grammar of poetry and the poetry of grammar.⁶ And that's what got me into iconicity.

As soon as I sort of caught on about iconicity with Jakobson, then the acoustemology thing *really* made sense, because the semiotic plane was a powerful way to create much more of a conversation between linguistic and musical anthropology. The visual part of that also came through Jakobson. But that was a little later. But anyway, that's a little intellectual genealogy ((laughing)), or a personal genealogy of how those ideas emerged for me.

CN: I was going to say, one of the great moments in that Sapir essay, "Sound Patterns in Language," is where he's talking about form-feeling, about how we get a feeling, an affective feeling of phonemes based on the phonology of the language. (**SF:** Yeah.) In the lecture, you showed this slide about sound symbolism and Bosavi phonology to explain the impromptu composition of a song by Ulahi, a Bosavi poet, prompted by the cicadas in the rainforest, who had come alive with the rising temperature (Figure 1). That just each vowel in Bosavi has a sound symbolism and is a resource for composing an impromptu song—I mean, that just blew me away.

Ulahi's improvised song	sound symbolism/gloss
o de de e-sb ab o wa wo	[buzzing continuously] dɛ [buzzing continuously repeatedly] dɛ-ɛ [decaying here and swooping outward]
ɛlɛn-ibo dɛ-nibo siyasiya-bo ɛlɛn-ibo-o wa wɔ	cicadas [buzzing around doing] dɛ [humming above and decaying] cicadas [decaying here and swooping outward]
gulε-ε	[sounding downward and repeatedly buzzing]
Manimi-a gulε-ε wa wɔ	at Manimi [sounding downward and buzzing] [decaying here and swooping outward]

Kaluli vowel space and iconic equivalences

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vowel spacevowel height/depth iconic equivalentsiu[i] "hum"[u] "drop down"eo[e] "crackle"[o] "pop"εo[ε] "buzz"[ɔ] "swoop out"a[a] "decay"
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Figure 1. Ulahi's song and the Kaluli vowel space

SF: Well, I remember as a first-year graduate student being so blown away by Sapir's experiment in sound symbolism, just saying over and over again in my mouth "[li] [lo] [lo]" and just all of a sudden thinking what an amazing idea that was! And then to read in Jakobson, who in this kind of quirky, fabulous way, where he describes putting on the blackboard the words "big, bigger, biggest" and ((laughing)) talking about the reaction of people seeing the words enlarge right in front of their eyes with the number of strokes to make those words; and what happens when you repeat them. And, of course, you immediately say to yourself, why didn't I think of that?! ((laughs)) It was amazing how these simple examples captured so much of the notion of what is beneath the surface of a speaker's knowledge of their language.

And so things like that definitely fed into this acoustemology idea, because if sound is a way of knowing the world, that really opens up to things like deixis and all kinds of ways that sound symbolism is related to affective qualities about duration, motion, height, depth, length, you know, all of the ways that language does fabulous work pointing, temporally and spatially. And to realize that some languages have entire poetic registers that encode these things and use them as a resource—they become a profound resource for their speakers—but also that there is also a

relationship between the *poetic* side of it and a side of it, which was what Sapir was fascinated with, and obviously what Whorf became obsessed with, which was concepts of *precision*.

In that little chart (Figure 1), I explained how for Kaluli speakers /u/ sounds are felt to radiate from above to below. And /ɔ/ sounds felt to radiate outward. So /gu/ can be a waterfall, but it also can be a generic sound dissipating downward in the world. And /gɔ/ can be the sound for something radiating outward. So, you know, if trees are being cut down and there's a bunch of six- or seven-year-old kids standing next to me, and I'm recording this, they might be going: "/gu gɔ gu gɔ gu gɔ/." Well, here is an affective, bodily, experiential—totally embodied—kind of moment where we are beyond even the most sophisticated kind of idea of what an iconic is. And then the discovery that, you know, okay, languages have reduplication, so you can have not only /gugɔ/ but /gugu gɔgɔ/. And I hear people using this phrase /gugu gɔgɔ/ and I'm wondering, you know, like what is that? So, okay, continuously downward moving sound: /gugu/; continuously outward moving sound: /gɔgɔ/. So, what is that? Well, here we are really in the land of Benjamin Lee Whorf. Because /gugu gɔgɔ/ signifies reverberation, or echo. So, if you are confused by the relationship of the continuously downward moving sound and outward moving sound in the forest, well that is exactly what an acoustician would call an echo.

So, here's something that we can understand both in an affective, embodied way and also as a metalanguage, a technical or precise way, for describing a phenomenon of sonic motion in the forest. So, it seemed to me that in this term /gugu gogo/ you have the world of Whorf, the world of Sapir, and the world of Jakobson, as if the three of them were sitting at a table creating sound words for drinking a cup of coffee! It just seemed like ((laughing)) once I figured this out, this grand world of acoustemology leads to affective and reflexive dimensions of language, you know. And that acoustemology had something very much to say about this meeting point for linguistics, anthropology, and music. And that it's *not* just about onomatopoeia and it's *not* just about poetic or special uses of language. It's about the fundamental power of iconicity within the linguistic facility to do all this amazingly creative work.

CN: Can I ask—and I was just thinking about this because the late Nancy Munn, who also worked in Papua New Guinea, was also at Indiana University for a time in the 1950s before she went to ANU (Australia National University). And interestingly, she told me that she wanted to do linguistics when she first went to Indiana but was turned off by some of the work that was being done there, and so she turned toward, I think in an interesting way, affective questions of embodiment and to a certain kind of phenomenology. I wanted to ask you where and when the phenomenological side of this question came in for you. Because I know Merleau-Ponty and others in the phenomenological tradition are important in your thinking. And that has long been a missing component, it seems to me, to the study of language, along with all the other things you are talking about.

SF: I think Nancy was inspired in some of that by the presence of David Bidney at Indiana. I also was inspired by his courses on philosophical anthropology, but I learned how Peirce conceived his entire body of work in relation to phenomenology from Sebeok. Before that my first interest in phenomenology was as an undergraduate at Hofstra, where a lot of smart Columbia University graduate students and recent PhDs taught, sort of like a field school before they got their first jobs. So, David Michael Levin, an extraordinary phenomenologist, now retired from Northwestern, taught a course in continental philosophy and phenomenology briefly at Hofstra when I was in undergraduate. Basically, a course about existentialism and phenomenology. I took a lot of philosophy as an undergraduate, but that one got me really quite excited. And David has a book called *The Listening Self.* He has a trilogy that delves into areas of the senses. So, he has been

very interested in the philosophy of listening and the relationship between the history of listening and the history of what has been imagined as what lies in the center of human being.

But, in graduate school I benefitted from a great accident: studying with Robert Plant Armstrong. He was not very well known in anthropology, but he did a PhD in anthropology under Herskovits, a literature dissertation. And then he got very engaged in the press world, becoming director of Northwestern University Press, and starting their series in continental philosophy and phenomenology. Bob had a degree from the lowa Writers Workshop, and he was a phenomenal writer in his own way—publishing books of limericks, all kinds of quirky genres, you know, he was a very special and distinct guy in the world of anthropology. He started Ibadan University Press in Nigeria and got very, very involved in the world of Nigerian art, publishing an extraordinary trilogy in the anthropology of aesthetics, starting with a book called *The Affecting Presence*. ¹⁰

You know, the reason why we had early on translations of Merleau-Ponty is that Bob Armstrong took an—he was deathly afraid of airplanes—he took a ((laughs)) boat and he went to France, where he met Madame Merleau-Ponty and arranged for the translation of all of that work in English, including the work of Mikel Dufrenne and all of those books on phenomenology in the social sciences in that series. He was a great support for people in anthropology who were into phenomenology and who were terribly marginalized, like David Bidney. So, Bob was transitioning between Northwestern and a job teaching aesthetics in Dallas, and Alan Merriam convinced him to come to Indiana for a semester to teach a course on the anthropology of aesthetics. And I was a graduate student and I was assisting him. We all read *The Affecting Presence* and I was just totally blown away by it. And Bob, during the semester that he spent at Indiana, finished the second book in that series, *Wellspring*. He read *Wellspring* to us as his course of lectures at Indiana; and, anyway, we stayed very friendly until his last days. He was just a remarkable and, you know, incredibly inspiring presence.

And he was the one who encouraged me to apply work on perception and sense to an anthropology of sound and encouraged the early ideas I had about acoustemology. He really inspired me to push the visual dimension of it because he was also profoundly interested in the complexity of iconicity in visual and material fields. So, it was Bob that said "put the sound and vision stuff together and then I think you really have something." And that was the year before I went to Papua New Guinea.

MB: That was something that I wanted to ask you about, because I was thinking about how a lot of visual anthropologists and ethnographic filmmakers are also concerned with the issue of the relationship between the visual and the sonic. So, I wanted to know more about what you got by starting with sound and then moving on to the visual, versus starting with an interest in the visual and then becoming aware that sound is also really important?

SF: I had what you could say was a kind of backdoor introduction to the visual. I was channeled into art schools and art exercises from the time I was young because I am profoundly dyslexic. And in the 1950s they didn't really know much about dyslexia. But they knew that I couldn't read. So, I basically got by by memorizing things. And I realized the joy of developing a visual memory. You know, as a kid I could spend time in museums and with artworks just the same way I could with recordings, and I was very happy to learn things in that way. And luckily, I had a mom that read to me all the time and made it easy for me to learn to memorize things. I even got into a music conservatory by an act of fakery. Once they told me what all the pieces were that you would have to play for the audition, I just memorized all of them. Memorizing music is no problem for me; I have a near—photographic memory for music. So, I think there is something about the wiring, now that

I've studied some stuff about dyslexia. And depending on sound for memory and depending on vision for memory—I'm not talking about, like, *Mind of a Mnemonist* or Luria or those kinds of things ((laughs))—I'm talking about adaptations and strategies that dyslexic kids develop to survive. And, certainly, in the '50s I think that, you know, I got through school and life just learning to memorize as much stuff as I could about images and sounds.

But it wasn't that I was a synesthete in any kind of way. I didn't have all kinds of senses of relationships between sounds and colors or anything like that. It's just that listening to a piece of sound and looking at an image, I could figure out intuitively that both of these things could be reimagined as a kind of paint-by-number thing where things were placed in different positions. And that the positions were relational and that it wasn't a matter of memorizing the discrete things but memorizing the relational positions of them. I couldn't have said that when I was a kid but, you know, that's what I understand of it now. There has been a lot of Gestaltist work that has been done on dyslexics and the particular kinds of memories they develop. So, I think I had this sort of back-door engagement with the world of the visual; but sound was the dominant one for me because I came from a family of musicians and I was surrounded by music and was involved in music-making from a very early age.

But then I went to photography school and then I went to film school. I took a year off of graduate school, actually, to go to film school because I knew that this was as important to my understanding of anthropology as much as anything else. Also, I had read- there is an absolutely astounding moment in the "Poetry of Grammar and Grammar of Poetry" essay, where Jakobson uses a Gestaltist idea and the source that he quotes for this, in order to indicate its veracity, is a handbook on film editing, what was the most important manual on film editing at the time! And I'm sure he was familiar with the entire works of Eisenstein and the theories of Kuleshov and Eisenstein in film editing because they were very much part of the world of poets like Mayakovsky and so forth.

I was blown away that in order to make a linguistic argument he would draw on a film editing manual, basically, to talk about how the juxtaposition of shots has a similar kind of organization to the juxtaposition of grammatical elements; that is, that they can remain so far beneath the surface, yet at the same time if you tweak them just a little bit, they are capable of producing *both* surprise and non-surprise. And this was one of his ways of talking about what it means to emerge into the poetic from the merely grammatical, or the merely ungrammatical. And that just completely blew me away. And I thought, I wanna read this book! ((laughing)) I wanna know what film editors know!

Jakobson was basically saying that film editors were like grammarians: the problem they had was to understand the relationship between space, time, and the way that the conscious and the unconscious works in the organization and potential reorganization of these elements. And he talks about how amazing it is in film but also, at the same time, how intuitive it is, that you could have a shot, an image of somebody, you know, like I'm here in this chair and then in the image, the image continues, and I get up, like this ((gets up)), and then I move out of the frame. And I only have to move to about here ((moves half-way out of the frame)) and then in the next shot I can be in a different room. And you will understand, completely, what this compression of space and time is. You don't have to question it. And somebody who is a good editor knows exactly the point at which I can be moved out of one shot and moved into the other, and what this is about and why it will work mentally.

And Jakobson somehow grasped the idea that in terms of thinking about iconicity and grammatical concepts, this was it! You know, that film was this unbelievably profound testing ground for what later became called "cognitive studies." But the idea that film and that the visual can do all this

profound work, compressing space and time or expanding space and time, and that this is like the power of language; that I can say: "Meghanne, London" and in, like, three seconds I can imagine a person and a place even though I'm 5,000 miles away from Meghanne and London.

And that's what's going on with those song maps in Bosavi that I wrote about in *Sound and Sentiment*. ¹³ What I realized was that the song maps were like little films! By using things like these elements of language, or using place names and sequencing them, you can compress or expand time and space, you could create a movie, you could create this amazing memoryscape, you could create this poetic cartography simply with a limited number of linguistic elements and this extraordinary ability to control their juxtapositions.

CN: The poetic element in Jakobson is the glue that makes it all work because, it's interesting, in film studies this issue comes up in the '70s for people like Christian Metz, who are doing a kind of structuralist account of how montage works, and it doesn't quite work, it's missing something. It's missing that element that you're pointing to, that Jakobson had his finger on: that grammar, iconicity, juxtaposition, montage—they all work together, they're not separate aspects that you can so easily pull apart.

SF: And this is why I think that all the structuralist attempts to do so-called film grammars were instantly so flat! I translated an essay by Metz from the French for one of the early issues of *Studies in Visual Communication*. An essay of his called "The Perceived and the Named." And it's a very smart essay. It's very interesting, but it's kind of off, though it's closer to this side of the story than the things that you find in his book *Film Language*. But when he veered toward phenomenology and more toward perception, he got it right a lot of the time; and he was closer to Jakobson. In that book *Film Language* there is a desire to, you know, it's like an exercise in filmic bondage! I mean, ((laughing)) it's like an exercise in taking the structuralist paradigm and trying to, you know, force it on all these visualist categories, and kind of lock them up and tell them that they must obey these rules ((all laughing)). And it just falls flat on its ass!

CN: I wanted to move this discussion towards what you are working on right now. You have training in photography and film, music, linguistics, anthropology, ethnomusicology, and throughout your career you've written books, you've done sound albums, you've written musical albums, you've done documentaries. And all these different formats are recognized formats.

But in your most recent work you're pushing the boundaries of the format of your academic, acoustemological work by *not* writing a book, *not* making a movie or an album but instead recording curated, live, multimodal lectures, along with a written lecture on Goffman's "The Lecture," right? 16 I'm curious to hear how you got to there from the documentary, from the art installation, from the book/article form. Could you could speak a little bit about this current project that you are working on?

SF: Well, writing is very difficult for me in the sense of writing something abstractly. But what I realized was that as long as I could speak something, or imagine speaking to someone, I can write. And since most of writing is re-writing anyway, the way I draft something is by hand, never on a computer; you know, as if I am speaking it. Then I realized what a liberation it was to be asked to give lectures, because then I can really, fully imagine speaking, both in my own interior dialogue and in the multiplicity of external dialogues; in effect, that I could perform a Bakhtinian polyphony. I realized that this could be the genre that could really be my genre, ((laughs)) that could really be my kind of genre groove that I could get into, that would really be my world.

So, the lectures for this project, one of which I gave at the *Sense and Semiosis* workshop that you put together, are an example of a kind of Bakhtinian distillation of how to create a polyphonic performance. It's something that is intermedial, something that starts with voice, that starts with how I want to speak something rather than how I want to write it, and that tries to stay close in its articulation to the spoken. Even though it is written out as a lecture the spoken form of it is really much more like a speaking register than it is a formal written register.

The idea is to try to stay close to the live, performative speaking register and join within it all of those kinds of images, sounds, memories and experiences, and snippets of stuff that I have. And on the visual plane, the idea is to put a number of images that would basically be like footnotes, like the cover image of a book where I am getting an idea, or a picture of a person with whom I've been in a conversation (e.g., Figure 3 below).

So, one kind of polyphony in the lecture that I gave to you all is the relationship between still-images (photographs, drawings, spectrograms) and the stream of the voice. Other layers of the polyphonic are different kinds of visual creations in film, either by me (e.g., "Tettix," a video sound art piece about histories of listening to cicadas in Plato) or by somebody else (e.g., Yasujirō Ozu's 1953 *Tokyo Story* or a clip of Martha and the Vandellas performing "Heat Wave" on television). And, of course, the other kind of polyphony is the dialogue between my lecture and Goffman's essay, "The Lecture."

But the two key words for this kind of lecture-thing that take us beyond just lecture as performance in Goffman's sense are *intermediality* and *polyphony*. There's a kind of internal polyphonic process that is being performed at the same time as a kind of more dialogic version of the polyphonic process, and there's a reliance on these layers of the intermedial, things that serve as little memory aids or, you know, the equivalent of footnotes or things like that, that try to bring the references together. And these kinds of things are actually most successful when they are not linear-type explorations or attempts to make a diver-like plunge beneath the water into the depth of a singular question or problem. Rather they're more successful, or the conversation is more lively, when they can bring together more layers of my internal conversations as well as more dimensions of the external conversation.

So, this is what immediately just got me so, so happy and excited about participating in your workshop where people were trying to bring together sound and image. But I can't remember ever, ever being asked to participate in something that brought together the linguistic and the image. And of course, from a semiotic point of view, what runs throughout all of my stuff is a tremendous reliance and ongoing inspiration from the Jakobsonian fount of thinking about iconicity and, of course, where that took so many, like Michael Silverstein and his work on iconicity and deixis and larger semiotic paradigms and all these other kinds of things.¹⁷

The other part of this is Goffman. I always enjoyed the extent to which Goffman was devilish. And "The Lecture," it's really his most devilish essay and there's a lot of tongue-in-cheek in there, and a lot of the personality of Erving in that essay. And there is a lot of stuff in there that is the pain-in-the-ass Erving, and there is a lot of stuff that's just the brilliant Erving. But what I liked most was this kind of extraordinary honesty in saying, you know, that you write something down to give as a lecture but once you *know* that it's going to be published, then you don't have the right to speak it anymore, because the thing that's coming out in print is exactly the same thing.

And I thought, I really wanted to subvert that idea and work with it. And say that as long as it's a lecture and you continuously transform it in relation to the specific audience and the specific

questions they have and the specific background and the specific purpose of the meeting then it can live for a long time. You know, committing it to print and literally "retiring" it as something that you won't ever say again doesn't have to happen. So, I've had these four pieces that I've, you know, basically continued to play with for ten years and just kind of kept them rolling. I could turn them into a book. I could choke you with footnotes ((laughs)) on every sentence in every one of these lectures. I mean literally choke you with footnotes. ((laughs))

But the idea is not really to try and prove that I actually did some scholarship and went to the library and read some stuff. The idea is more to create a genre that can simultaneously produce pleasure and reflection and introspection, and again I go back to Jakobson and his idea that this is what the poetic really is about as a register of language, as a profound resource. So the idea to take the performativity of the lecture and project it onto the Jakobsonian poetic plane, to perform it as something that is doing exactly the auto-referencing that Jakobson theorizes the poetic to be, and to work that through the multiple layers of how language and sound or music and images of different kinds, moving and still, all contribute—in different kinds of layered, theoretical, and performative ways—to, you know, the *depth* of the poetic. So, rather than theorizing poesis or just talking about Jakobson and how his work was so powerful, I just try to throw something out there that *performs* it. People can go back to the source, fine. And if not, that's fine too. Just have fun with it. It's less, you know, about proving this, that, and the other thing or showing that there are all these real-world connections between X, Y and Z.

And, you know, when somebody says to me, "You have cherry picked your examples from New Guinea, and Japan and Greece," my response to that is, "Yeah, damn right!" Cherry picking is exactly what poetics is all about. But this is exactly Jakobson's point: the whole of language is a sea of potentially consummatable iconicities, only a few of which get consummated. But when you grab on to a particular trend where it is consummated, you can have a hell of a good time. And that's what poets do, you know.

CN: You were saying, in reference to the poet, but I just can't help seeing the musician in you coming out. You know, as musicians, we have the genre of the recorded studio album, which is like the book for academics. But then we also have the live album and the bootleg. It's true for academics that we have recordings of people giving lectures as bootlegs. But we don't really have the live album. And this point about Goffman is really interesting because two of the concluding points of "The Lecture" are that lectures provide access to the presence of the performance and the performer as well as being a kind of ritual of authority. It sounds like you're playing with one but subverting the other, because it is a kind of a subversion of scholarly authority in a way, but it's also about pushing back the kind of the death that comes with the representation of the lecture in writing, while keeping the kind of liveness of it. You've recorded the lectures already for a DVD, is that right?

SF: Yeah, so I gave a version of this lecture as well as two or three others in a series in Germany, "The Anthropology of Music Lectures." They invite somebody to come for a week and they invite three or four scholars from around Europe, and students apply and come. It's PhD students who come, and they workshop their stuff to the visiting faculty. And one person gives a lecture every day, basically, on the four main days of the thing, which presents a body of work. I thought, you know, I'm just going to do this thing and really work on the Goffmanish notion of the liveness of juxtaposition and really perform my whole distillation of the Jakobsonian dream and create sensuous environments rather than lectures.

And what was really interesting was that, by the last one, people weren't even taking notes. It was great! They were just listening. And looking. And the conversations got better, which gave me a sense that this particular genre that I was trying to invent was also a way of encouraging a particular kind of presentism of the audience and just a way of saying, like, "let's just get into this." And it's not about who I am quoting, or who I'm not quoting, or how deep I go around something to make you feel "yeah that's authoritative, this guy really knows his shit about Japan or New Guinea or Africa," or whatever it is.

And, you know, in a Goffmanish sense, we're constantly at the metalevel, at the level that this is communicating about what it means to do a kind of live knowledge production show in which the lecture becomes very much an act of deejaying. So, on the airplane on the way home from Germany I began to think to myself, I can't publish this stuff! The idea of writing it up as a book and then creating a website—I have already been through that. Like, no no. So, I imported the PowerPoints and I've been working on editing the four PowerPoints, and then I recorded my voice and I'm making each one into a 45-, 50-minute performance for the DVD. The pieces are very earcentric. I want you to be able to listen to them, and, at the same time, engage with their visual elements.

So, they are meta-acoustemological, in the sense that they are about sound as a way of knowing, but they are also using sound to perform and promote sound as a way of knowing. They are about listening to histories of listening. But they are also about the production of a particular consciousness of what it means to listen to a history of listening.

And they're playfully engaging with "The Lecture," one of my favorite pieces by Goffman. And I heard him talk about that essay; I didn't hear him read it, but I heard him talk about it in a seminar that we had in Annenberg back then. Goffman died the third year I was at Penn, in 1983. The back of my first apartment abutted the back of his house, so I saw him in the neighborhood a lot. I'd bump into him in the grocery store and stuff like that, had some conversations with him, got to know him a very little bit, not well, but nobody really knew him that well. I really found that piece very provocative. You might also know the piece by Goffman called "Gender Advertisements" which was published as a monograph in *Studies in the Anthropology of Visual Interpretation* before it was then re-published.¹⁹

Goffman, throughout his life, lived this fantastic split. He refused to have images taken of himself. There was nothing that pissed him off more than anybody with a camera anywhere near him. There was an opening event when the lobby was redone at the Annenberg School of Communications in 1982. And there was an opening event in that big lobby, and everybody was standing around with drinks and stuff like that. And some students from Annenberg were meant to film that event, just make some little thing of it. I was standing with Goffman and Larry Gross and a couple of other people and a camera started walking toward us. And Goffman saw the camera coming toward us and maybe when it was about 4 or 5 feet away, and he realized it was—, he was participating in this conversation but he realized that the camera was starting to come in and train on him. The guy was coming in, and Goffman did this ((SF holds up his two middle fingers)) and said "MOTHER FUCKER, YOU FUCKING MOTHER FUCKER GET THE FUCK AWAY FROM ME YOU MOTHER!!!" And the guy just ran! ((all laughing)) It took three seconds for the guy to get to the other side of the room.

Goffman knew exactly what to do to make sure that he would not be recorded, that his image would not be taken. He protected his image, I mean, there are very few photographs of him. I think that

Gillian (Sankoff) said that she only knew of a few photographs of Erving and they were long before she knew him, long before she married him.

But at the same time Goffman had a box the size of a file cabinet in his office and it had all these postage stamps and clippings. Like all the books in his library, if they had a photograph of the author on the back of them, he cut them out and he kept them. And all these things from the newspaper, he had all these hand-cut clippings. He showed them to us, and when he was writing *Gender Advertisements*- And for him this was really serious empirical work; I mean, this was the perfect zone for studying presentation of self, right? It was perfect Goffman material. So, he was able to simultaneously refuse having his image taken and then to transport himself into this zone where he had this little laboratory with hundreds of examples when people's faces are recorded when they are unaware or when they were fully aware, or how they are used for publicity purposes, or how they are used to send the message that "this is off-the-cuff," "this is authentically," you know, "this is just a guy standing in the lobby with a drink in his hand, being social." And he was-((laughs)) he really got it about this stuff. He would take one of these pictures and put it in his palm and hold it up, and do the Magritte thing: "This is not a picture," and then drop it and say, "Now what is this?" "This is a representation," you know, but "Just what is it?"

So, he really got it about the materiality of images even though he- you know, I think that if he had lived longer he would have published quite a bit about this, because he understood that the social order required the regulation of images and the production and circulation of images that were considered authentic.

CN: Goffman in "The Lecture" seems to be, as you say, devilishly tongue-in-cheek in exploring the questions of participation frameworks and footing, and what it means to be a speaker: an author, an animator, a principal. You are using that in these lectures, but it seems like to me that you are also pushing a slightly different point, which is this point that you are saying about acoustemology. That is, that the *form* of the argument is doing a certain kind of conceptual work. Which is what I really appreciate and makes it really powerful. You aren't just talking about it, you are enacting it.

I wanted to ask you about that: so, in the lecture you gave at the *Sense and Semiosis* workshop, one of the tropes is the heat wave. You follow heat wave from Martha and the Vandellas's song "Heat Wave" to Bosavi and the kind of improvisational singing about cicadas during heat waves; to heat waves in Greece during the austerity measures and in ancient Greece; to the heat generated by the nuclear bomb in Hiroshima and Nagasaki in Japan; and to the heat wave and the use of cicadas in Ozu's *Tokyo Story*. So, the heat wave and the thermometric nature of the cicada (whose singing comes alive as the temperature rises), that trope, and the form of the argument, functions through juxtaposition, as you were saying. It's like an Eisensteinian montage. I wanted you to talk about that more, about the relationship between juxtaposition and the thing that it's always compared to in film studies, narrative. (**SF:** Yeah, yeah.) And that's the Eisenstein versus the classical Hollywood film.

I wanted to hear you talk about why that form makes so much sense for the argument that you are making. There's a little bit of an irony here, as well, because the image that we have of narrative is the wave—a narrative goes up to a climax and comes back down again to its denouement—so it seems as though there is a very deep irony about form and concept in the lectures themselves.



Figure 2. Martha and the Vandellas sing "Heat Wave" on Ready Steady Go! (1965)

SF: Yeah and, you know, the notion of the wave is one of the most important metaphoric founts in so many areas. I mean, it is very synaesthetically connected: the wave as this thing that dissipates from something in the way that the dance in the "Heat Wave" video from Ready Steady Go!, where Martha and the Vandellas do this gesture, they do this kind of thing ((gestures)) (Figure 2). It's kind of the idea of something that radiates outward and dissipates into the world and stays there. And it registers on the body, but it doesn't stay the same. It's constantly something that can transform into something else. So, I was thinking about Jakobson and "big, bigger, biggest" and stuff like that, and iconic dimensions of language and thinking about the wave, the heat wave as a way of starting something with one idea—something like the song, "Heat Wave"—and then radiating into other kinds of things. Something starts to dissipate and becomes kind of vague, only to be replaced by a new center. And, you know, when Jakobson writes about the power of the figure and the ground in poesis, he is talking about exactly this.

I mean, the notion of the figure and ground becomes so important in any kind of narrative theory. And also, when you think about both realist, non-realist, narrative and non-narrative forms of editing, there is a notion of what lingers in memory, only to be replaced by something else, only to come back in a stronger form, you know. Think about classic people who work with film and were very interested in its psychological plane, like Hitchcock. You see this and you see why.

And then, talking about waves, there is this world of filmmakers called the "New Wave." And what did the New Wave, *La Nouvelle Vague* seize on? They seized on exactly that, you know, and there is nobody who lived to study Hitchcock like Truffaut, as a filmmaker. You put so many cards on the table and then you start replacing them and then you let some of them drop off. And you test the extent to which the viewer will keep in memory a phrase, a voice, a sound, something that is happening off screen, some little visual elements and so forth. So, there is a kind of memory sleuthing in the production of every film of the New Wave. And what it was, was this seizing on the power of the psychological.

And, of course, this was very much about the affective and the relational as well. And so, I've always been very powerfully taken by that particular moment in the history of film; but apart from

that, the wave idea also captured that idea of Kenneth Burke, who said that once you grasp the trend of the form, it invites participation.²⁰ And it seems to me that this is what Jakobson was really on about in thinking about iconicity, that, you know, I can say "vicious, violent" and then turn to you and you will come back with another /v/ sounding word that is like *vicious* and *violent*. But it I start off and I say "vibrant" or "vamp" you'll have to go a different way with it. It's not that all /v/ is going to go *vicious* and *violent* or all /v/ is going to go *vibrant* and *vamp*.

But once you grasp the trend, it invites your participation to run with it. And Jakobson said that this is the poetic facility. And that is exactly what I was trying to describe with Ulahi's poetic facility, for example, in the lecture (Figure 3). Once you grasp the flow ((sings Ulahi's melody)), you know, it's like, Oh yeah! You're in her groove, you're in her mouth! You're in her world! She's got you! And this is what Jakobson thought was so powerful about iconicity: that it just gets you like *that*. And then you feel that, you get in the groove, you get in the desire to participate, to echo.



Figure 3. Ulahi and her son Bage in Bosavi, Papua New Guinea, 1977. Photo by Steven Feld.

Audio clip of Ulahi and Cicadas (Recorded by Steven Feld) available in online version of article at https://www.semioticreview.com/ojs/index.php/sr/article/view/63/115/

CN: That's another great Sapir metaphor too: into the groove, into the groove of culture.²¹

MB: Yeah, and I think that this discussion of the wave is something that I wanted to bring up, and I was hoping we could talk about the notion that you bring in the lecture that you gave at the *Sound and Semiosis* workshop, what you call "spectral signage." Could you talk more about that because I think that what you are getting at is that iconicity is a dynamic force, that we might not initially think about if we are just thinking, "Oh, iconicity is sound symbolism that is having a kind of one-to-one relationship between sound and meaning." But you seem to be interested in this really dynamic aspect of iconicity.

SF: Yeah, you know, in versions of that talk that I've given before, I've used the title "Hearing Heat." So, hearing heat kind of relates to the wave and what Costas was just talking about. When I read your statement (for the *Sense and Semiosis* workshop) and I was thinking about bringing the linguistic and the visual together and, you know, kind of articulating both of them as part of the wave of sound, I decided that the notion of not the sign but of the *signage*—the mark that lasts, the mark that stays, the mark that resounds, you know—that *signage* rather than sign would be a gesture toward the Jakobsonian thing.

And *spectral* was a way to take it back to this kind of anthropological lineage. When I first read Boas, one of the things that really blew me away was that he pretty much said that the reason why you would want to study language or music or visual art is because these things take place beneath the registry of consciousness. And when you read his book *Primitive Art*, or you read his essay on the arts in *General Anthropology*, or when you read stuff from that early moment, like "On Alternating Sounds," you realize, okay this is really the profound influence of psychophysics, which really led to the study of synesthesia and the interplay of the senses and all of the relations of the senses. ²²

And, of course, the grounding notion there was the spectrum, the idea that heat rises and falls on a spectrum, that color moves on a spectrum, that sound moves on a spectrum, and so forth. So I thought that was a kind of anthropological common denominator to all of the different kinds of signage that I would be hanging and flapping wave-like through this thing, that the term *spectra* is the one that really related most to the lineage in anthropology which acknowledged that acts of creation, acts of being, acts of performance that exist beneath the level of immediate consciousness are the ones that provide these deeply profound clues to things about feeling and thinking.

And, you know, unfortunately, the Lévi-Straussian version of this got such a bad rap. But I read Lévi-Strauss as somebody who tried to run with Jakobsonian ideas in like a zillion ways and some of them were really just dead-ends because he beat them to death; or because he just allowed living in his own creative head to take over the show. But he was also profoundly influenced by this idea, which he gets into in his book about masks, and which he gets into it in his essay about Ravel's *Bolero*. ²³ In the places where he writes about art, he gets into it a little more gracefully than the places where he talked about mythology. Unfortunately, people still think of him most in relation to his formula-driven mythology stuff. But I think a lot of his other essays and his thoughts about art are really profound.

I just want to tell a story here: you know *La Pensée Sauvage* was dedicated to Merleau-Ponty. ²⁴ I think it's the only book by an anthropologist dedicated to Merleau-Ponty. And I was very struck by that. And I was in Lévi-Strauss's office one time. I was a student in Paris in 1974. And Lévi-Strauss had called Jean Rouch and asked Jean Rouch to bring a certain film to him that he wanted to see. And I happened to be studying with Rouch at that time and so we piled in Rouch's little car and we went to Lévi-Strauss's office. And we went up there and we delivered this thing. And we're standing on the front side of Lévi-Strauss's desk. And on Lévi-Strauss's desk there were two framed photographs: one faced the seat where a visitor would sit and one faced his own seat. And the photograph that faced the seat of the visitor was quite obviously a photograph of Maurice Merleau-Ponty. And when we left, I remember saying to Rouch, "do you know whose picture is in the other photograph?" And Rouch laughed and said "Who would? Who else has been on the other side of his desk?"

So, I forgot about that completely. And then after Lévi-Strauss died, his students made a very dreamy film circling his office and Jean Jamin sent a link of it to Jim Clifford. And Jim sent it to me. And when you see the back side of the desk there's the picture and it's almost exactly the same picture of Merleau-Ponty! I mean, it's just slightly reframed! So, I mean, either of them could have faced either way. I just laughed my ass off! ((all laughing)) That was so incredible! You could conjecture: Oh, it's his wife, it's his kids ((laughs)).

Anyway, I think that that presence that the power of Merleau-Ponty had for Lévi-Strauss in relation to thinking about mind, you know, that there was some deep, underlying understanding there about perceptional experience, you know. But that was kind of beyond reach, in a way that Jakobson wasn't beyond reach. He could run with Jakobson in his mind in a very different kind of way than he could with Merleau-Ponty. It was almost like saying, "I just can't do this kind of philosophy but here is something that I can do something with." But I was just blown away by that. ((laughs))

Lévi-Strauss used the word *spectral* quite often. You can find it particularly in chapter four of the *Mythologiques*. ²⁵ Jakobson was, of course, no stranger to the spectral. And it entered into all the Gestaltist language, you know, Jakobson was very aware of the work in gestalt psychology as it pertained to visual art. I mean, I'm sure Jakobson was one of the great consumers and readers of Gombrich—for example, Gombrich's essays on perception and art—because they align so well with his own conception of literary art.

CN: One of the directions that the spectral, and some of the work that the concept is doing, is that it's getting us to the question of the analog, the iconic, and intermediality—because the spectral is light, it's sound, it's heat. But the other direction that you seem to be pushing is different from Jakobson, and maybe Lévi-Strauss, too, which is this question of the interspeciality. (**SF:** Yeah.) And all the examples in the lecture really powerfully show the link between the heat wave and the cicada, both in the phenomena but also in the form of your analysis of them. So, again, I'm really taken by this form—concept relationship, because you're working with musical notation, photography, anatomy drawings, and wave forms of amplitude, spectrograms, and thinking all of those things together.

The spectrum does so much work here to link all of these things that are in some ways pretty discrete, or even at odds with each other. Because you say, for example, "but like linguistic notations musical ones are crudely anthropocentric, completely omitting acoustic niche interactions of co-present species." Which is all brought together in these images (Figures 4–5); in the first you have this beautiful juxtaposition of the spectrogram, the musical notation of the pitches of Ulahi's song, as well the ambient noise of the cicadas that falls out of the way which we notate music. And in the second you have the wave-form of Ulahi's song alongside the spectrogram of the entire sonic envelop—her voice, the crickets—and the sound symbolic phonemes that make up the lyrics of the impromptu song.

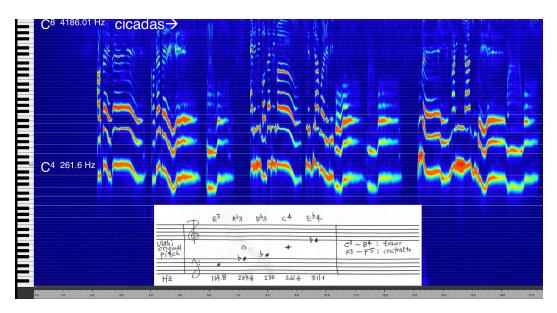


Figure 4. Spectrogram of Ulahi's song, alongside piano roll and music notation of her original pitches

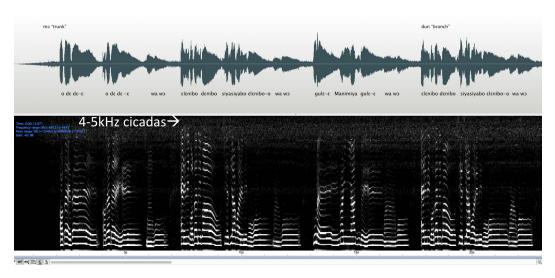


Figure 5: Wave form, linguistic form, and spectrogram of cicadas and Ulahi's voice in intermedial resonance.

Audio clip of Ulahi and Cicadas (Recorded by Steven Feld) available in online verison of article at https://www.semioticreview.com/ojs/index.php/sr/article/view/63/115/

SF: Yeah, the idea is that there is a kind of broadband material; and, you know, for me this is a kind of playful ground because I can do collage-work here. In the first image, for example, I can take a spectrogram that I make with a so-called scientific program, I can stick a bit of music paper on top of it with something that is hand written, I can write on top of it indicating things, and then I can put a piano keyboard in there, which, you know, *no* acoustician would do. I mean, that would be like-((laughs)) I mean, basically, I am effacing the science of the acoustics, which is a way of saying, like, "Yeah there is materiality here but look at all this fucking sociality that's in, like, every gesture that's happening acoustically!"

So, this is a way of making acoustics relational, a way of pushing beyond what's just visualized in a spectrum, and to say that the spectrum is also a place of things that are absent presences. They might be absent from the visualization. An acoustician could look at this and tell you different kinds of things about the relative strength of the partials, or all that kind of stuff. A phonetician could look at something like this and tell you all kinds of things about points of articulation and the construction of the vowel space and where there is variation and slippage and where there is regularity and blah blah, okay? I could do this with a program like PRAAT or a phonetics program. I could run it through these wave-analysis programs for musicians, or ones like Melodyne, or visualize it with editing software like ProTools.

There are many ways to visualize the spectrum with tools that linguists or phoneticians or musicians or musicologists or film editors use. They all use forms of these things. But I'm constantly juxtaposing them, not because that's a way of giving you a better scientific idea but because, basically, I am using them as visual materials that evoke the idea that the spectrum has to be simultaneously thought the way it is felt, which is visually, sonically and melodically, verbally, and of course where you started—the notion of the interspecies; you know, in linguistics or music we notate what it is that the humans do. And like anything else that's co-sounding or co-present or in the mind of the person who is speaking or sounding is not in the transcription! It's noise in some kind of way, right?

So, I wanted to bring in a very different kind of idea of- I mean, I didn't want to get into it polemically with Donna Haraway and those folks, but I wanted to bring in a very different kind of level of thinking about the companion species idea. Too much of the companion species riff that has influenced anthropology has come from this stuff about humans and dogs or the animals that humans live with. With cicadas and a way that people live with them in Bosavi, I want to signal a more blurred relationship between wild and familiar, you know; Bosavis can identify them visually, but obviously it's much more part of the acoustic world that they live with.

I wanted to also make a gesture that sonic niches or sonic spectra have much more, always have more than a human presence in them. Your sonic spectra ((gesturing to the lighting in Costas's room)) have that annoying 60 Hertz that is precisely between A-sharp and B-natural that is emanating at a very, very low level from that kind of light that's on your ceiling. I don't see a light on Meghanne's ceiling but I see those lights on Costas's ceiling. So, I know you (Costas) are somewhere between A-sharp and B because 120-volt electricity is at 60 Hz. When we say that electricity is ungrounded and we hear a hum, that hum of course is the same spectrum as the spectrum of the light, and so forth.

So, to go back to what Meghanne said, I think what was important to me for this version of the lecture, for this audience at the *Sense and Semiosis* workshop, for this conversation, was to bring in the notion of the spectrum because of the way it links the sonic and the visual, the verbal and the vocal, the temporal and a-temporal, the narrative and non-narrative, and the signage. All these things can become these momentary marks. But they also pile up and become an accumulative biography of this thing called the "heat wave."

CN: I think it is so powerful because you have moved us now from juxtaposition to something like resonance, where Ulahi's voice is resonating, but not overlapping, in frequency with the cicadas, right? Almost as if her mouth is resonating with the atmospheric sound, which is resonating with the temperature of the molecules bumping up against each other as the temperature rises ambiently, is resonating semantically and phonologically with the organization of vowels in the phonology of language and in the space of the mouth (Figure 1). I think that's something that's really powerful. I

think it's really brilliant how you are able to bring it out through juxtaposition but then moving us somewhere beyond that, by showing us the iconism between the spectrogram, the wave form, the linguistic token, the musical notation (Figure 5 above), and it's doing this kind of analytic work that I think is really compelling and really interesting—so that we are seeing heat, we are hearing heat, we are feeling heat in all those different modalities.

SF: Well, one of the things that I really try to perform in terms of iconicity is starting out with the things that could be most concrete, like the song "Heat Wave," and like the quotations from Dipesh Chakrabarty and Walter Benjamin, ²⁶ and then the ethnographic example from Bosavi, for which I *do* have a kind of ethnographic and linguistic authority. But then move into an area where I have no authority, which is Japan and Yasugirō Ozu's films, but I just happen to be a close listener to film soundtracks, and in *Tokyo Story* the sound of cicadas is doing this important work for the film. And then into an area where, again, I don't know the language and I don't have a certain kind of authority, but I am a companion listener and a reader of poetry (e.g., Socrates's discussion of cicadas on a hot day in Plato's *Phaedrus*): in Greece; in those cases, I am reading and having a momentary experience in Japan or a momentary experience at Ilissos, outside of Athens.

So, the wave dissipates and, of course, I've tried to use the Japanese example and the Greek example as things that have increasingly less concreteness, increasingly less authority. Where things become increasingly more speculative, increasingly more grand in the world of conjecture and possibility and resonant thinking, you know, to go back to resonance.

So, iconically, the heat wave starts with a very concentrated blast. The song "Heat Wave" moves into a kind of more familiar ethnographic blast and then lingers in these other sorts of resonances. Which is also a way of saying that you can't know every world in sound the way I, as a 14-year-old, would have danced to the song "Heat Wave" and come to embody those gestures. Or, the world of spending 25 years hanging out with a poet like Ulahi and recording a couple hundred of her songs and doing what you have to do, as we all know, in linguistics and anthropology to get to a point where you think you can speak about someone else's poetic world with some kind of sense that you get it. And you can help someone else get it.

But most of the time our encounters with worlds are more like what happens when I go to see an Ozu film and then start to wonder, "Well, what the hell does that have to do with the rainforest in Papua New Guinea?" Or think about a passage rereading lannis Xenakis and think about my experience taking a course with him?²⁷ Or think about why stochastic (music) theory became itself such a deep spectral or mathematical way (to compose), and became so important to the area of composition now known as Spectralism—which is where people do scientific analysis of particular kinds of sound clusters or blocks, and then work through that instrumentally, also with their knowledge of the overtone structures and the particular material properties of instruments and how they can sound those things?

So, I think Spectralism itself is something that can have these immediate moments of primal power and then just kind of fade, very nicely, into various foregrounds and backgrounds. I was thinking about using the notion of iconicity in the title of the *Sense and Semiosis* lecture, as a nod to Jakobson, but it seemed like it was more important to evoke the notion of the spectrum, again going back to what Meghanne was saying, because the spectrum really takes us right back to the origins of a series of questions in anthropology that really derived from psychophysics, from that world that I remember so well as a student in high school dropping a ping-pong ball into a fish tank of water and learning how to measure those waves.

The spectrum takes us back to thinking about how and why Franz Boas could go from writing a thesis about the color of water to understanding alternating sounds in language.²⁸ What was it about psychophysics? What was it about, you know, experimental psychology and its relationship to trying to grasp these core structures of experience and feeling, that really motivated an explosion of linguistics and anthropology?

At least in anthropology's classic period, the visual and the sonic and the linguistic were understood as really part of the same field of the expressive power of culture. This was before a time when all of these things were so technicalized or so separated. I mean, the word *holism* is a dirty world for many people. But there was something about holism and it came from an impulse. And for me the notion of the spectral or spectral signage is a way to kind of gesture *backwards* to that impulse, but also gesture *forward* to a time when linguistic anthropology and visual anthropology could explore their common interests in powers of representation, and really try and keep things as much as possible on this more meta- or theoretical level of the spectrum.

MB: Something else that is coming up from your series of examples, and going back to this question of the interspecies intervention that you are making, you have this statement in the lecture that I like a lot: "intervocality *is* intercorporeality." There is this way in which you are trying to call our attention to other ways in which we're coexisting with other species that are going to be far less obvious to us than our interactions with our dogs, for example. Which is, again, part of linguistic anthropology's thinking about the limits of awareness and trying to make us aware of them in terms of our coexistence with these other species like cicadas.

And then, as you move through these examples—from Martha and the Vandellas and Ulahi's improvised songs about cicadas in Papua New Guinea to cicadas in Ozu's films or in ancient Greek poetry and to nuclear blast memorials in contemporary Japan and heat waves in post-austerity modern Greece—we increasingly see a politics of what is at stakes for thinking about this as well. I think that really comes out in the last example of commemorating the nuclear blasts in Japan. In this example, it's not just that we are hearing things in the background or singing in ways that are similar to cicadas, but also that our human actions have profound effects on one another as well.

SF: Yeah. You know, the notion of intervocality in my invocation, of course, raises the name of Bakhtin. This is also a story about where Bakhtin didn't go far enough. I mean, he got to the point where he could say that the word in language is half someone else's, ²⁹ but the half someone else's left up in the air the abstractness of "the half" and the "someone else." The intercorporeal seems to me to fill in "the half" and the "someone else," right? It's a way of saying, well if Bakhtin kept going and, you know, really got the anthropological part of this, he would have ended up talking about all these things. And then the power of this, of course, is that the half someone else could be a cicada, not a person!

Once we take that step, then we can understand those sounds that Ulahi is making; we can see that she is living in an intervocal, intercorporeal world, which is one that we could say is cosmopolitan in the sense that it imagines an all-species kind of vocality; we can see that what is in her ears is just as important as what is coming out of her mouth, that she is a co-spectral presence. The cicadas are a spectral presence for her, as she is a spectral presence for the cicadas. And so, you know, if intervocality is intercorporeality then we've got the other piece of Bakhtin saying "the word of language is half someone else's." We actually start to specify what "the half" is, and we start to specify what "the someone else" is and what the someone else could be.

And, for me, the most powerful thing is that for Ulahi, that urge to sound, to speak, to come forth linguistically is to participate in whatever the cicada's sentence is, whatever the cicada's phrasing is, that world that is all around her. And whether or not her actual harmonics reach up into the place of most resonance for the cicada (see Figures 4–5), or the way throat singers can do this with sounds of rocks and water in Mongolia and on and on, what is important and powerful, for me, in all these kinds of examples of intervocal relations between material forms and across species is that there is a kind of inclusive acknowledgement.

What Ulahi's saying and *how* she's sounding it is an explicit acknowledgement of co-presence, which is an explicit acknowledgement of co-living, of intercorporeality. And that really is a kind of powerful moment for me, this way of extending the Bakhtinian or the Jakobsonian read of this kind of sounding and iconicity and to taking it into that intercorporeal world of co-living and co-listening.

And, you know, I think that this gets extended in such a powerful way in the case of the nuclear bombing in Japan and its commemoration because of the way the bombing simultaneously created these spectra that are haunting because of their absence in the present. In August 2005 I attended the sixtieth annual commemoration of the blast in Hiroshima in the Peace Park. In the ceremony there is a moment of silence and a bell is rung. When the forty thousand people that had come were hushed for the bell to ring, in the silence all we heard were cicadas, which are the sound of late summer in Japan. In 2006 I was commissioned to compose a sound piece, which I made by layering cicada samples along the sound of the bell being rung in the 2005 ceremony (Figure 6).

The Last Sound

radiophonic installation commissioned by the International Community Foundation in 2006

cicada texture constructed from 815 sound samples, recorded daily at 8:15 am in the Hiroshima Peace Park

peace bell recorded 8:15am on August 6, 2005

played back and re-recorded through two 1940s home radios, one each from Hiroshima and Nagasaki, donated by survivor families to the Hiroshima Peace Museum

Figure 6. "The Last Sound" by Steven Feld.

Audio clip of The Last Sound (by Steven Feld) available in online version of article at https://www.semioticreview.com/ojs/index.php/sr/article/view/63/115/

What I tried to do when I composed this bell piece, "The Last Sound," was use both the limited range of the radios and the fact that radios were made to broadcast voices, to play recordings that were very, very compressed. It's like a recording that has been circulated around the world 400 times, each time with some kind of loss of quality. When you get to that level of quality and compression and you play the recordings through a 1940s home radio with a speaker this big

((gesturing a small size)), and tubes that are who knows how old, there is something about the haunting lack of the spectra and the way that there are all kinds of overtones and all kinds of sounds of that bell that you're not hearing! I wanted to sound something that has a tremendous sense of loss in it, but at the same time has, like, this really, you know, a ringing almost to the edge of being distorted presence.

And so, the radiophonic installation was for me like composition is for many composers: it was a way of just working in a limited space and time with very specific materials that could be spectrally organized in a way that they sounded simultaneously like an alarm, like a siren. They evoke the siren of memory. So, I wanted to work with the material in ways that everything about the cicadas in the recording is maximized, in terms of their acoustics, and everything about the bell is treated so that it is constantly losing something, so that it's dissipating into something.

And this image (Figure 7): this is from the exhibit at the Hiroshima Peace Museum where they show the position of where the bomb would have detonated over Hiroshima.

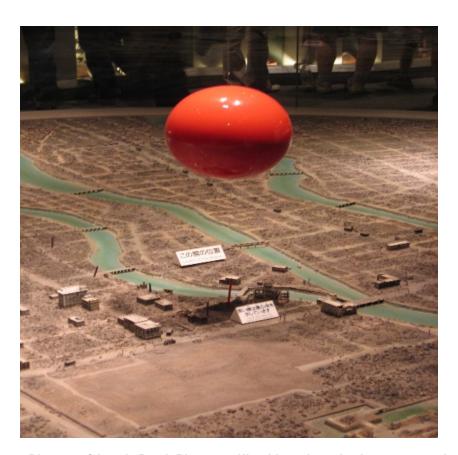


Figure 7. Diorama of Atomic Bomb Blast over Hiroshima, the red sphere representing the bomb blast one second after detonation (Peace Memorial Museum, Hiroshima, Japan).

Photo by Steven Feld.

And what is so powerful about that whole area is that there is a large circumference there that they've never rebuilt. They leave it in constant decay. Right in there is the side of a building (the Atomic Bomb Drone), there's just a wall that every minute more of it is crumbling. I stood there and I just kind of breathed that whole atmosphere and was just so blown away by it.

But at the same time, just on the other side of the highway is the baseball stadium, and there's this whole other world of sound. I mean, one of the most famous baseball teams in Japan played there: the Hiroshima Carp. And, you know, here's this very American thing, baseball, being played with this utter enthusiasm and vigor by Japanese people. So, there is this whole other story of this colonial deal with America and Japan; and baseball that was there, you know, that's in the background. I decided not to use that. I went to the baseball game, I recorded the baseball game: the cheers, the incredible participation. You know, I was sitting there with thousands of Japanese people, eating popcorn and having a great time watching baseball. And this is, like, one hundred and fifty feet away, literally, the other side of the road of the boundary of the Peace Park! It's like this what-the-fuck moment that you have crossing that street. You know, I could have made a whole piece about that.

But that moment of the call to silence in the Peace Park in 2005, and then the cicadas taking over—that was like a figure—ground moment, maybe the strongest figure—ground moment I can remember in my whole life, in terms of sound. So *that* had to be the piece, from the creative side of it. But it's this image of that ball over this area, and this whole flattened landscape that's been left, as a visual moment of memory and meditation.

And the relationship between that and the notion of silence—I mean, that's also a relation of spectralism: the relationship between silence and loudness, visual forms of emptiness or things crumbling and sonic forms of things dying down or dying out. There's so much there about every imaginable way that we metaphorize loss and think about it. And then to discover that there's this whole world of poetry in ancient Greece going back a very, very long way, where the loss of the cicadas is the loss of these souls (in Plato's *Phaedrus*), and this powerful notion that they come out and scream their heads off and then leave. And, you know, you think about that...

I was recently reading some different visualizations of *Fables de la Fontaine*. And one of de la Fontaine's famous stories is the one about the cicada and the ant. And, you know, the cicada is always the musician and the singer. And then what happens is that the cicada is singing all the summer and then finds itself without food when the north winds come. And he goes to the ant and asks for some food and the ant says, you know, Okay you better dance for it and stuff like that. And you see how all of these Greek ideas have resonated in all these other kinds of ways into French mythology, and all these mythologies and the representation of the cicada in all this literature for kids.

It just kind of blew me away that the cicada is represented in today's anime for Japanese children exactly the same way that it is represented in Haiku from centuries ago, in terms of this image of loss. And also, it's spectral because the cicada, the sound that it makes, the sound that's evoked in all the names for the insect, and the sounds that it makes in all of the poetry are all about shrillness of the cicada's sound. "Shrillness" would be the onomatopoetic translation of the Japanese words according to the Japanese linguists I talked to.

CN: What's so powerful that also comes out as you build through the cases is that you start with the most putatively local kind of phenomena—anthropologist in an out of the way place—and we end up with World War II Japan. But as you are pointing out, the case of Bosavi is totally cosmopolitan. And from there we end up with something that is, I don't know what the word for it would be, globalism? Globality? And you start to gesture to the politics of the Anthropocene, and the line that we see as we come out through the poetic pattern of the talk is an image of a kind of holism. How would you describe that, this moment of interconnections across time and space? And how do you show that there is a kind of relationality in the face of something that is its opposite: the

cessation, as you are saying, the loss, the disappearance of the cricket or the disappearance of thousands and thousands of people...

SF: Yeah. Well, I think it's a good observation, and it's important to me in a couple of senses: one is that it's very powerful that many accounts of Anthropocene history link it to the atomic bomb. Because the term *anthropocene* is coined by scientists who study atmospheric chemistry. So how does atmospheric chemistry change? Well, when you start blasting off atomic detonations and you look at ten years, then twenty years, then thirty years of how many of them are going off all over the place for experimental reasons or whatever, and then people start talking about, "Well, wait a minute! This has really transformed atmospheric chemistry forever."

I think that many people think about the Anthropocene in terms of the concept of acceleration, which of course is also spectral. The concept of atmospheric chemistry also takes us into the spectral, right? Because we are talking about the relationship between chemical traces that manifest themselves on a spectrum of everything: light, smell, heat, taste, you know, all of the different ways that they present, and all of the different ways that we imagine we can measure them.

So, the Anthropocene notion is very much tied to a new regime of measurement of what it is that humans have done to the planet. And I get really cranky with all these kinds of titles about the "ruined planet" and all this kind of stuff because the notion of ruin is not really what we should be thinking about. What we should be thinking about is the relationship between these spectral measures of our impact and what it means to transform our consciousness of that, so that we think more relationally in terms of how our traces are there.

And these are, literally, traces. I mean, one of the terms that is most used in the field of spectral analysis in French is *traces sonores*, sonic traces. That is what a spectrogram is: *le trace*, of the trace—it's the trace of the sound. And what is the trace? It's a way of relationally visualizing a set of horizontal and vertical parameters. Well, spectrometry in chemistry, whether its atmospheric or any other kind of chemistry, goes back to this notion of how do you trace something? What is a trace element? What is a trace?

Linguistically, we could do an entire set of genealogies and histories of the ways that the Anthropocene notion is itself a new history of spectralism, a new history of trying to measure these traces, you know, what are the traces? And what does it mean to become aware of the danger that the trace represents to the viewer or to the listener?

And just think about all the commentary that's been going on in the last six weeks during this COVID-19 thing about "Oh look at this: here is a graph of how the ozone layer is changing in a good way" or, you know, "Here are all these people in cities and there is no noise!" And people are starting to connect the *lack* of sound to being able to hear more the birds and whatever it is because there are fewer airplanes. There's fewer cars. So, now there's this other kind of relationality, you know? The plunge in oil prices, the fact that people aren't driving and taking airplanes quite as much, and all of these other traces where it re-visualizes—traces—history in then/now graphs.

The spectrum comes back to say that we are in a state of spectral reparation, literally. When we change things, even for a short period, like these last six weeks globally. Putting it in the context of Anthropocene thinking we should think about it as *spectral reparation*, you know, a kind of way of retracing lost or changed spectra. And, you know, throughout the talk for the *Sense and Semiosis*

workshop, the reason why I tried to stick to certain kinds of visualizations is because of the idea of the trace.

There's lots of things there that are often more heard than seen. How many people have held a cicada in their hand, the way I hold it in my hand and get someone to photograph it in Japan, for example. So, you know, I try to play constantly with hearing the things you can't see or seeing things that overwhelm our hearing because we *can't* hear them, because there's all this anthropogenic noise that takes over.

CN: And also, that we've come to the realization of the relations that we've *already* been in and haven't been able to attend to because of that noise. (**SF:** Yeah.) The realization that we, in some sense, are being reconfigured in novel ways because of the global pandemic but also that there are certain kinds of continuities that people are coming to a kind of awareness about, that they just didn't realize were there until, like you said, people stopped traveling. You know, scientists apparently can detect the tremors of earthquakes better now that there is less transportation. You can hear the ground.

SF: Right! Just think of that news clip in Greece that I showed in the talk where people are jokingly saying, "Oh, we have gone down to the beach for the new austerity measures to reach us," as if the austerity measures are the wave coming out of the ocean, and they are just going to wash out your little sandcastle that you are building on the shore! That whole kind of idea that you wait for the austerity measures like you wait for the wave on the beach, that's like wow! That's, like, too much! People are going to think I paid for this! ((all laughing)) You know, like this was done by screen actors guild or something! ((all laughing))

MB: I really like the way you have taken this from the spectrum to the trace; and we actually wanted to sort of try and wrap up the discussion today by relating it to what is happening in the present moment. And this discussion of traces and tracing is also an appropriate way for us to end our discussion, given the present moment.

CN: If only they were tracing in the United States, right?!

SF: You know, on NPR (National Public Radio) this morning, I was listening to an epidemiologist from Johns Hopkins, and to, you know, the whole way that authoritative voices—what you could call "public punditry," the particular invocations of forms of expertise—now are this performance of a counter-Trumpian narrative, because Trump is all about denigrating science and expertise and making it clear that these things are not necessary or useful to him. So, NPR participates in this, introducing people by their rather impressive credentials: their position at the Johns Hopkins School of Public Health, and as senior scholar of this and that and so forth.

And the woman comes on and says the only way that we are going to be able to deal with this pandemic is social distancing and social tracing, because every case is individual and we have got to understand that even when we use terms like "herd immunity" and what it means for 70% or more of the population to be in a particular kind of place vis-à-vis this thing for public risk and public safety—that it's the *tracing* that matters. And I think that's a direct quote from what she said this morning on NPR.

This whole notion of tracing as a visual, literal graphicalization of connecting me to you to you, you to you, you know, every one of us. So, I'm thinking, wow! Have they ever read Clyde Mitchell and network theory ((laughs)) in old anthropology and stuff like that? I mean, think about the whole

anthropological history and the idea of the social network. And, of course, the work we do when we study kinship or we study social relations—basically we imagine and retrace all of the layers of history that are the traces of relationality.

So, when I say that I am listening to histories of listening, I'm listening for the possibility of tracing and retracing relationalities. And when we think about COVID-19 and think about the power of the juxtaposition of the notion of social distancing—maintaining space, six to eight feet—and the notion of social tracing, that tracing is like saying you gotta connect the dots! There is no single dot on any graph here!

So, it just takes me right back to spectralism. Any way of thinking about pattern takes you to the trace. Bateson didn't say it exactly that way, but in that chapter of his on grace, style, and information in primitive art—one of the early essays in *Steps to an Ecology of Mind*—he talks about tracing the paths of consciousness.³⁰ He says, here you have this multiple metaphorical field: the path, the trace, consciousness, and then, of course, relationality.

We're in a metaphoric moment that really is going to be very powerful for thinking about sociality. And I think, ultimately, what's important about linguistic anthropology and visual anthropology is how they are going to participate in this. You know? How both of these take us back to this ecology of mind. The visual and the sonic, the verbal and the vocal, the spectral, you know, trying to work intermedially to combine these things is a kind of ecological approach to mind.

And when Bateson talks about the one level of the pattern within another level of a pattern in a Balinese painting he is talking about exactly this: how do you trace? You know, it's almost like reading Jakobson talk about how rhyme works and how parallelism works. I mean, Bateson is talking about parallelism! He calls it "grace." Jakobson calls it "poetics." Bateson calls it "levels." Jakobson calls it parallelism. But where Bateson's really good is that he calls it an "ecology of mind." I mean, it is an ecological way of thinking about the spectrum, or thinking about consciousness. And when we get into the interspecies side of it, and we get into the Anthropocene side of it, and all these dimensions we were just talking about, or getting into COVID-19, then we are really back to ecology of mind. We're really channeling Bateson very strongly.

CN: Steve, they'll think that we gave you a script, it's such an eloquent wrapping up of the conversation!

MB: Yeah, thank you so much. You have given us so much to think about. I can't wait to share this with the readers.

SF: You've indulged me with the broken record of the one thing I like to talk about most, my iconic groove or whatever.

CN: I think it's been so great; if we had a vinyl machine we could just press it right now ((all laughing)).

SF: Well, thank you, you've been really generous. And it's been great to think with you.

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