

# Feedback

## A Practice Research Project on Moving(-)Listening with Sonic Feedback

Scott McLaughlin and Maria Kapsali

### Context

Our collaboration started in 2018 and centers on the relationships between a feedback system that responds indeterminately to movement and a performer moving in response to sound. We are interested in the sounds, movement, imagery, and patterns of behavior that emerge from this “intra-action” (in the parlance of Karen Barad), and we wonder whether a practice of feedback could offer a tangible exploration of a form of auditory subjectivity as discussed in writings by Jean-Luc Nancy, Don Ihde, Steven Connor, and David Levin.<sup>1</sup> We ask if a system of audio feedback can allow one to practice a relationship with the world that is shaped by a prioritization of sound and follows its characteristics. Our joint effort provides an aesthetic and artistic interrogation of Nancy’s question: “What does it mean for a being to be immersed entirely in listening, formed by listening or in listening, listening with all his [*sic*] being?”<sup>2</sup> Our provisional answer to Nancy’s provocation is that immersion through/in listening is by default an embodied process and can be greatly enhanced by inhabiting acts of movement/perceiving.

The feedback system is simply a wireless microphone attached to the mover, some EQ and compression, and a loudspeaker. The sound of feedback changes in pitch and gestural-behavior as the spatial configurations (position/angle/surface reflectivity/etc.) between the microphone and loudspeaker are altered. This is a nonlinear and fairly unpredictable relation, where a flying leap in one position might elicit the same level of change as a micro-movement of

the wrist in another, or produce no change at all. The varying sound levels shape the exploration. Low volume can foster small movements, and the exploration is focused on the threshold at which feedback begins, while higher volumes produce continuous intense feedback, which in turn affects movement quality and relationship to space. This sometimes leads us to endow the system with animist properties and to regard it as a semi-autonomous entity with a behavior of its own: sometimes wild and unyielding, sometimes gentle and malleable.

The following text comes from a transcribed conversation that took place in June 2022 after a two-hour session in a seated auditorium (see figure 1) at the University of Leeds. The dialogic form aims to capture the intersubjective process through which knowledge and understanding emerge (between us, between us and the space, in the pauses and the ellipses) as well as to replicate the main premise of the practice. The back and forth that takes place between moving body and audio system is mirrored by the movement through which ideas are being thrown back and forth between us, and, in this process, augmenting, changing, becoming defined. A key theme that emerged in the discussion is the relationship between sonic and physical space and how it becomes morphed, experienced, and modulated through the intra-action of movement and sound.

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**Scott McLaughlin:** That was fun.

**Maria Kapsali:** That was great fun!

**SM:** If I closed my eyes, I could almost tell what kind of movements you were making. I could tell when you were making movements like “that” [demonstrates flowing circular movement of the whole body]. Any movement that was twisting the microphone around you could be heard in the feedback. It was as if the sound was going through that same process.

**MK:** I think now there are three elements to this. There is the body (whether that’s an instrument or a human body), there is this feedback system, and there is the space. And I think what we’re finding out is that I use the space as an instrument both for structuring the movement *and* the sound, so you can’t really tell those things apart.

SM: When you say “the space”, you also mean the *things* in the space? I mean, you were doing a lot of moving around seats and . . .

Fig. 1: Clothworkers Centenary Concert Hall, University of Leeds (UK). Photo credit: University of Leeds—Andy Ward

MK: . . . yeah, yeah, yeah, but what is particularly interesting in this space [see fig.1] is that it has those levels, the vertical levels, which are not often used in movement practice, as this tends to take place in studios with flat floors. I think what you asked me earlier, about the relationship between a sonic space and an architectural space, becomes really fascinating in this room because while I *know* that I’m on those steps and I’m in that kind of space, the *sound* also creates a space for me. The two may or may not overlap. For example, when I go back and forth, the way I experience space is like I am in a threshold, even though I know that there is no physical threshold as such. Yet the sensation/impression/imagery of being at a threshold is very real, because it emerges from the movement, and it is confirmed by the sound.

SM: . . . yeah, the sonic threshold, which is not the same as the physical threshold around you . . .

MK: . . . yes, but what I need in terms of actual real physical space is some kind of ability to move on a trajectory. So you see, there are ways that physical space and sonic space map onto each other, and some mappings work better than others. So when I was up there [Maria points at the railings at the side edges of the auditorium], and there was a point where I went to the edge and I looked down and then it started doing a very high pitch, and that was a point when the two mapped onto each other *so beautifully!* The level of the space and the level of sound kind of needed each other. It was this space that created this sound.

SM: . . . and you were holding onto that railing and just moving back and forward very gently and just crossing back and forth over those thresholds . . .

MK: . . . yeah! there was something about the high pitch and being somewhere quite high. Because for me, the experience was that I was looking down, and I could see the floor was quite far down and I was quite high up, and then I was doing this movement [coming onto my tiptoes and going back and forth], so there was again a point where the sonic space with the architectural space kind of came together, and this really intensified the experience.

Another interesting feature is those points where the sound just goes on, when I stay still, and the feedback sound is continuous and static. And while I was in this space (still movement—high volume), in my head, at that moment, I called this place “prison.” So I remember I was in a crouching position and the sound kept going without changing and this can be quite intense and even unpleasant, and there is something about “OK, how I’m going to get out of this now?” That’s affordances, no?<sup>3</sup> That’s where body and space come together. So what does this space afford me to do? And what is this body capable of? So I think I understand these points as prisons, because they give me a sense that I need to figure out some way to get out of them.

SM: You could of course just stand up and walk away, so what’s the prison? What’s forming the constraints?

MK: Yeah, *exactly!* And yet this is the word that came to my head, and I don’t want to let go of it.

SM: Yeah, yeah, I think it’s really rich.

**MK:** But you're right, I'm in complete control, yet somehow I feel [not], maybe because of the intensity . . .

**SM:** Yeah, the sound really does fill the space. It has a physical presence.

**MK:** Yeah, completely.

**SM:** When you describe that you experience this as a prison, it's the kind of thing that I would think—as a composer—to suggest ways to respond to. If you find a point where there's just completely static sound, then that forms a kind of barrier, so you could treat that as “How do I get out of this without the sound changing,” or “how do I get out of this in such a way that ‘this’ sound keeps going but another sound comes in as well?” So if the sound changes, then I'm not getting out, I have to go back to where I was, but if I can bring in another sound *while* keeping that sound going, that's my escape route.

**MK:** That's a really nice constraint . . .

**SM:** . . . and this will sound silly, but you know, in those kind of crime movies where someone has to break into a vault with those laser beams everywhere . . .

**MK:** . . . yeah, yeah . . .

**SM:** . . . and they're trying to get through the beams [contorts and wriggles body under imaginary lasers] like that, you're setting up a really strange physical constraint that you can't see.

**MK:** Yeah, yeah, that's how it feels. It completely feels very different from what I can see with my eyes. And this is why I don't simply get up and change the configuration or switch off the mic and stop the sound. I know that I can do all these things, but I want to be able to respond to what it is giving me on its own terms. If it is too loud and I switch it off, I cancel it out, but in this way I also kill the relationship between us. So the question is how to get out of this sound whilst keeping the relationship alive.

**SM:** It seemed like when I was watching you, when you put your hands on railings, or you would climb on the chairs or use them to support you, that there's very much a feeling of affordance there, that you're in this very rarified situation where you're moving *with* the sound. The chair affords certain kinds of positions that you wouldn't do otherwise, but they also seem to *anchor* you in some ways.

**MK:** Yeah, and that's why I said it's a triangulation.

**SM:** So . . . space, body, and sound, basically?

**MK:** Yeah, and I think this is what we keep finding. Last time when we were at the car park [outdoor rooftop car park space], in some ways it was a much more monotone space. But then, I started playing with those railings, which I treated more as sound sources, and that was different.

**SM:** So there is something about this environment: the steps, the chairs, and the sound.

**MK:** Yeah, yeah! It affords so many possibilities, and it's the intricate possibilities, then, between what do those things allow me to do *and* what sound happens when I do those things? At some points, I was led by the space and at some points I was led by the sound.

**SM:** I really like that you've got both of these things. One of them is very much an embodied skill you've had for a long time—working with spaces, that's your training, moving in relation to

spaces and objects—and moving in relation to sound, would you say that’s a newer skill that you developed? Or a newer practice?

**MK:** Yeah, that’s the whole idea through this work.

**SM:** Is the triangulation, then, evenly weighted? Or I guess, as you’re moving around, you keep changing. You focus on a spatial thing, or you focus on the sound, and then they come into a kind of balance?

**MK:** . . . and sometimes they come into relationships that surprise me.

**SM:** When I saw earlier after you were standing at the top left edge holding onto the rail, and you started walking back along the row of seats, and there was a moment where there was just one really low sound. You seemed to stop in your tracks then move back and forth in and out of that low sound.

**MK:** Yes, when things like this happen, that completely transforms my experience of space.

**SM:** The *presence* of the sound in the space really alters it, because there’s a kind of thickness to the sound, there’s a weight to it. I think there’s something to be said as well about the difference between doing it with this huge Genelec speaker [model 1037, 120W] that is filling this entire space. Can you imagine doing this in something like a club space, using their full nightclub sound level? That would be worth trying.

**MK:** Wow, yeah!

**Maria Kapsali** is a performance practitioner drawing on somatics, specifically Feldenkrais and Skinner Releasing Technique, movement improvisation, and the psychophysical training of Philip Zarrilli. Maria has led the development of two prototypes of movement sonification (Sonolope 2016–19 and echome 2020–present). Movement sonification is approached and developed as a tool that foregrounds the intersections between movement and listening.

**Scott McLaughlin** is a composer of experimental music in the US tradition of indeterminacy following John Cage. Scott’s research builds on Alvin Lucier’s approach to materiality and sonic phenomena, David Tudor’s work with open networks of resonance and feedback, Nicolas Collin’s indeterminate feedback, and Pauline Oliveros’s focus on listening and responding to the environment.

## Notes

1. Karen Barad, *Meeting the Universe Halfway* (Durham, NC: Duke University Press, 2007); Jean-Luc Nancy, *Listening*, trans. Charlotte Mandell (New York: Fordham University Press, 2007); Don Ihde, *Listening and Voice: Phenomenologies of Sound*, 2nd ed. (Albany: State University of New York Press, [1976] 2007); Steven Connor, “The Modern Auditory I,” in *Rewriting the Self: Histories from the Renaissance to the Present*, ed. Roy Porter (London: Routledge, 1997), 203–23; David Levin, *The Listening Self* (London: Routledge, 1989).
2. Nancy, *Listening*, 4.
3. James J. Gibson, *The Ecological Approach to Visual Perception* (London: Psychology Press, [1979] 2015).