## Notes

1. Edward Herman & Robert McChesney, *The Global Media: The New Missionaries of Corporate Capitalism* (London: Cassell, 1997).
2. Jacques Attali, Noise: *The Political Economy of Music* (Minneapolis: The University of Minnesota Press, 1985).
3. R. Murray Schafer, *The New Soundscape* (Vienna: Universal Edition, 1969); R. Murray Schafer, *The Tuning of the World* (New York: Knopf, 1977), reprinted as *The Soundscape: Our Sonic Environment and The Tuning of the World* (Rochester, Vt: Destiny Books, 1994).
4. R. Murray Schafer (ed.), *World Soundscape Project. The Music of the Environment Series*, (Vancouver: A.R.C. Publications); No. 1, *The Music of the Environment* (1973); No. 2, *The Vancouver Soundscape* (1978); No. 3, *European Sound Diary* (1977); No. 4, Five Village Soundscapes (1977); No. 5, Barry Truax (ed.), *Handbook for Acoustic Ecology* (1978).
5. See the CD World Soundscape Project, *The Vancouver Soundscape* (Cambridge Street Publishing, 1997), CSR-2CD 9701.
6. R. Murray Schafer, *The Tuning of the World* (New York: Knopf, 1977); R. Murray Schafer, *Voices of Tyranny, Temples of Silence* (Indian River, Ontario: Arcana Editions, 1993).
7. Barry Truax, *Acoustic Communication*, 2nd edition (Westport, CT: Ablex Publishing, 2001).
8. Barry Truax, 'Electroacoustic music and the soundscape: the inner and outer world', in John Paynter, Tim Howell, Richard Orton & Peter Seymour (eds.), *Companion to Contemporary Musical Thought* (London: Routledge, 1992), pp. 374–98.
9. R. Murray Schafer, op. cit. (1969).
10. Barry Truax, 'Composing with time-shifted environmental sound', in *Leonardo Music Journal*, vol. 2, no. 1, (1992), pp. 37–40; Barry Truax, 'Soundscape, acoustic communication & environmental sound composition', in *Contemporary Music Review*, vol. 15, no. 1, (1996), pp. 49–65; Barry Truax, 'Techniques and genres of soundscape composition as developed at Simon Fraser University', in *Organised Sound*, vol. 7, no. 1, (2002), pp. 5–14.
11. Barry Truax, 'Composition and diffusion: space in sound in space', in *Organised Sound*, vol. 3, no. 2, (1998), pp. 141–46.
12. For Pendlerdrøm, see Barry Truax, *Islands* (Cambridge Street Publishing, 2001) CSR-CD 0101.
13. Barry Truax, 'Discovering inner complexity: time-shifting and transposition with a real-time granulation technique', in *Computer Music Journal*, vol. 18, no. 2, (1994), pp. 38–48.
14. Barry Truax, 'Real-time granular synthesis with a digital signal processor', in *Computer Music Journal*, vol. 12, no. 2, (1988), pp. 14–26; Barry Truax, 'Composing with real-time granular sound', in Perspectives of New Music, vol. 28, no. 2, (1999), pp. 120–34.
15. Barry Truax, op. cit. (1998).
16. Barry Truax, 'The inner and outer complexity of music', in *Perspectives of New Music*, vol. 32, no. 1, (1994), pp. 176–93.
17. John Levack Drever, 'Soundscape composition: the convergence of ethnography and acousmatic music', in *Organised Sound*, vol. 7, no. 1, (2002), pp. 21–27; Hildegard Westerkamp, 'The soundscape on radio', in Daina Augaitis & Dan Lander (eds.), *Radio Rethink*, (Banff, Alberta: Walter Phillips Gallery, 1994).
18. Reynold Weidenaar, *Magic Music from the Telharmonium*, (Methuen, NJ: Scarecrow Press, 1995).
19. Ronald E. Milliman, 'The influence of background music on the behaviour of restaurant patrons', in *Journal of Consumer Research*, vol. 13, (1986), pp. 286–89.
20. Harold Mendelsohn, 'Listening to radio', in Lewis Dexter & David M. White (eds.), *People, Society and Mass Communication* (London: Macmillan, 1964).
21. Michael Bull, *Sounding Out the City: Personal Stereos and the Management of Everyday Life*, (Oxford, New York: Berg, 2000); Michael Bull, 'Investigating the culture of mobile listening: From Walkman to iPod', in Kenton O'Hara & Barry Brown (eds.), *Consuming Music Together: Social and Collaborative Aspects of Music Consumption Technologies*, (Dordrecht: Springer, 2006).
22. Barry Truax, op. cit. (2001).
23. Denis Smalley, 'The listening imagination: Listening in the electroacoustic era', in John Paynter, Tim Howell, Richard Orton and Peter Seymour (eds.), Companion to Contemporary Musical Thought (London: Routledge, 1992), pp. 514–54.
24. Leigh Landy & Rob Weale, 'The Intention/Reception project', in Mary Simoni (ed.), *Analytical Methods of Electroacoustic Music* (New York: Routledge, 2006), pp. 189–200.
25. Barry Truax, op. cit. (2002).
26. Dennis Smaley, 'Space-form and the acousmatic image', in *Organised Sound*, vol. 12, no. 1, (2007), pp. 35–58.
27. Simon Emmerson, 'The relation of language to materials', in Simon Emmerson (ed.), *The Language of Electroacoustic Music* (London: Macmillan, 1986).
28. Cathy Lane, 'Voices from the past: compositional approaches to using recorded speech', in *Organised Sound*, vol. 11, no. 1, (2006), pp. 3–11.
29. Leigh Landy, *Understanding The Art of Sound Organization* (Cambridge, MA: The MIT Press, 2007).

# Space is Something that Arrives with the Sound

## Interview with Takuro Mizuta Lippit
## Arie Altena

Takuro Mizuta Lippit, who performs as a turntablist under the name dj sniff, is the artistic director of STEIM in Amsterdam. STEIM (Studio for Electro-Instrumental Music) is a centre for researching and developing instruments and tools for performers in the electronic performance arts. It is also a laboratory, studio, workshop, and international meeting place, and it regularly programs live electroacoustic music concerts. From its founding years – STEIM was set up in 1969 – the emphasis has been on developing instruments and tools for performing electroacoustic music, though various projects at STEIM have dealt with spatial multi-channel sound too. The emphasis on performance and on building instruments for live improvisation, is a conscious strategy to get away from a situation where electroacoustic music is defined as listening to sounds coming from speakers without anyone being present on stage. As spatialization of sound has developed mostly from within a paradigm of multi-channel sound installations, I thought it might be interesting to ask Taku about his views on *The Poetics of Space*. I interviewed him at STEIM in October 2009.

What is your opinion on multi-channel sound and spatialization?

My experience of listening to multi-channel installations and multi-channel sound compositions is that I never find them truly convincing. Focusing on where the sounds actually are often distracts me from what I want to listen to. The spatial aspect confuses the compositional aspect as well as the performance aspect. You are suddenly and unnecessarily distracted if a sound is placed behind you in a surround sound cinema. It takes you out of the narrative, because you are not sure if it is inside or outside the narrative. I always had an ambiguous feeling about the spatialization of sound. That feeling was confirmed when I met Joel Ryan, a composer and performer of computer music who also works at STEIM. He only works with stereo and says he is not interested in spatialization of sound. Instead he wants to add air to the sound – I think that is how he formulates it – he works with what is in between the sounds. I think all musicians work with space, but placing sounds in space is not the way I approach it. For me space is something that arrives with the sound: with the sound the space also comes together. While the composition or performance unravels, spatial aspects arrive too. For me this is a much more powerful experience of space. It is not just about physical space, but also about internal space, compositional space, and it is always time-stamped. As a performer I would always deal with space starting from time. Each moment opens up a different space. Sachiko M, who plays pure sine-tones, actually plays space. She lets the space emerge by sending out a pure signal, rather than placing sound in space. The space comes together through the sound. I don't think this approach would work as an installation, it works because she is there on the stage, and you go to hear her do it at that moment, as a concert.

What, then, do you think of Edwin van der Heide's approach to spatial sound?

Edwin is actually working with the medium in a very strict sense. The digital and the analogue technology that he uses and the space in which he performs are all judged at the same level of rigorousness. He has a very strict and perfectionist approach. If he has a speaker moving through space, each element of the installation is used to enhance the core idea to the maximum. The result of that sort of precision reveals the medium. My favourite piece of his is the spinning speaker, *Spatial Sound*, which he made together with Marnix de Nijs. That one is frightening! You think there is no way somebody is able to control that thing and it goes so fast! It is so carefully and precisely made, and that is why it is such a powerful piece. I do not see him primarily as a spatial composer: rather as a result of how he works, his pieces bring out the space.

Can you explain the programme you proposed for the Sonic Acts Festival? I suppose it builds on the ideas you just put forward.

I proposed a residency of Yutaka Makino and Hans W. Koch. Yutaka works in a more traditional electroacoustic sense with spatialization. His dissertation is about making a spatial sound system that is scalable to any space and any number of speakers. His compositions on the other hand are almost site-specific. He tunes them to the resonant frequency of the room and to the resonant frequency of the body. In his piece for the Wave Field Synthesis installation he build fields of sounds that cause phase cancellations in different parts of the room. So when you stay still, almost nothing happens, but when you walk around you hear the multiple different ways in which the sounds emerge. What I like about his work is that he is also a performer with a strong presence. This connects to what STEIM is about: you do not hide behind your compositions. Hans W. Koch works on smaller spaces. My favourite piece by him is a self-multiplying FM-synthesis patch. It keeps multiplying until it crashes. He has an ensemble of people who play this patch on their computers, and they all sound more or less the same, until the computers crash. Every computer has a unique sound when it crashes, so you get this wonderful noise. He is dealing with the notion of the internal space of the computer, but he also has pieces for cell phones that use feedback, with people calling in. I was trying to find artists that were not focusing on space itself, but somehow their work as performers suggest an internal space.

What is your thought on the current rise of interest in dealing with space and spatialization in music? More than ever I hear concerts using multi-channel sound installations, or ensembles playing in different parts of the room.

Otomo Yoshihide is also performing concerts now where he places musicians in different places in the room. I don't know if it is a bigger movement than before; it just is another method or inspiration. It might have to do with working against standards and conventions; the standard is still two channels, and facing an audience. There is lot of talk about dissolving the stage and the performer–audience boundary – it connects to that. It also has to do with technology, with laptop music, and with the fact that it is much easier now to route sound to different speakers. And there is of course an academic research agenda. There are a lot of institutions

that have unique multi-channel setups. If you are a student or resident at one of these institutions, you will obviously compose for these setups, because they are amazing. I also think that for laptop musicians, most of whom are not physical performers, spatialization is an obvious direction to take: to have an external focus. Improvisers on the other hand are often very aware of where sounds are placed. Someone like Evan Parker, the English saxophonist, often plays in churches; he is very conscious of space, also of the internal space of his instrument and of his lungs. As a performer you learn to play the space, you adapt to it, you discover little things and you play with it, as opposed to trying to control or define the space and then let people experience it. Spatialization does not play an important role in DJ culture. Even though there were some experiments with spatialization, it has always been about the DJ facing the crowd. It is important that the sound comes from the direction of the DJ, that it is one-directional. The same is true for the Jamaican sound systems with its stacks of speakers: the *selektor* and the DJ are always in the middle facing the crowd. So, coming, as I do, from both DJ culture and improvised music, spatialization is not really a path that I, as a performer, put my energy into.

Yet you say also that sound is always already spatial.
        If you make a sound, it opens up so many possibilities, it comes with so many references, especially in a concert situation. You are throwing the audience not just one sound, you throw them a bundle of things: the reference, the sound, the texture and the space. There are better ways of dealing with space in sound then having an array of speakers. What is important is thinking of sound and space not as physical properties – as sound that comes from there – but from a compositional perspective. It is simplistic to say that eight speakers are equal to eight sound sources. Maybe there needs to be more technical development together with compositional development. Probably what is still lacking for the Wave Field Synthesis systems with multiple arrays of speakers, are toolkits or environments that allow you to intuitively compose for the system. There is also a fundamental difference between sound art and music: what works well in a sound art context, one where you walk in and out, does not necessarily translate well to a concert situation, with its specific mode of listening and defined time frame. Many people who are engaged in multi-channel work play with the idea of sound art. As a performer I set boundaries for myself to make easier decisions, so I do not deal with sound spatialization. If you set off intending to break the boundaries of musical performance, you are opening a whole new can of worms…. [*Laughs*] I have enough to deal with already. The better ways to deal with space in music probably have to do with focusing on how we listen. Rather than bundling up spatialization in technical issues of how to spatialize sound, it's more interesting to look at how we can listen.

Isn't that exactly what quite a few of the people who are working with space are doing – focusing on listening behaviour?
        The people working in computer music and electroacoustic music are usually not really doing that; most of them are dealing with models of spatialization on a technical level.

Yet the works of Alvin Lucier seem to be a major source of inspiration for many musicians at this time? What do you think of Lucier's work?
        Lucier's work is amazing. And it is amazing that he did it all so early. His works are not about technology at all; most of his pieces can be reproduced with simple, available technology. He selects a process, not a technology or a material, and that becomes the motif of the composition. I don't know how important the spatial aspect is in his works. Listening to them certainly makes you aware of the space, of the room. But I'm not sure that was his intention, he starts with a phenomenon or a method to build a composition, and that brings out the space. That is a much stronger statement about space. I always think his pieces should be in any curriculum: they are great exercises. They don't deal with technology; they can be adapted to whatever you have. They are good exercises in how to listen and how to compose. I was reading Steven Connor who quotes R. Murray Schafer saying that all Western music can be defined by its walls, which is a very insightful and true statement, but for me that is not really about how you listen to music. Of course you can define music by the walls, but you do not listen to the walls.