Artistic Sonification Tim Perkis

Some informal remarks from a seminar completing my 5-month residency in 2013 at IMéRA, the Mediterranean Institute of Advanced Research, an institute of the University of Aix-Marseille.

I want to thank you all for coming out today for this workshop on Sonification and Improvisation. In essence, for me this day is an attempt to come to grips with the result of my residency here at Imera – a chance to have a discussion about some of the ideas that have dominated my thinking during my wonderful five month stay here, to report on some of the work I've completed, on what has worked and what hasn't, and to discuss what I've learned by working with an array of remarkable and fascinating people here in Marseille.

I came here with the stated goal of exploring "the sonification of scientific data." While this is a subject that interests me greatly, in the weeks before I arrived, I started to wish I had defined my intentions a bit more broadly, and could use my time here to pursue some other of my ongoing interests: my questioning thoughts about the usefulness of scientific sonification; the relation between intentionality and randomness in musical performance; and primarily to just continue my ongoing development as an improvising musician, a way of playing that demands working in collaboration with other musicians.

My fears that I wouldn't be able to pursue these threads during my residency were completely unnecessary. What I found in Marseille were opportunities to explore all these things, and more that I couldn't have foreseen. In my time here I've discovered the existence of a sophisticated discourse on the nature of sonification that I didn't imagine, in the work of the scholars

present today, Samuel Bodreuil, Peter Sinclair and Jean Christofol. All this took place in the context of a place that by its nature is an ongoing working meditation on the different forms that art / science collaboration can take – really an environment of great freedom where I could pursue the work I wanted to do.

As well, outside of IMERA, I found multiple opportunities to play and collaborate: in the course of my residency I played 5 concerts in and around Marseille, both solo and with other local and visiting musicians; performed and gave talks elsewhere in England, France, Germany and the Czech Republic, and am currently working on two duo recording projects, one with my old musical collaborator guitarist Jean-Marc Montera, and a new musical friend, cellist Emmanuel Cremer, who along with Birgit Uhler and George Cremaschi will be performing with me later today.

I began working with computers and music in the late 1970's, working in the context of an experimental music tradition inspired by the works of John Cage and DavidTudor. At that time, there was a strong sense of embedding musical composition and performance in a physical context, an idea that meant for those of us doing electronic music, whenever we made a new composition, that meant making a new electronic circuit. The behavior of the circuit WAS the music, and this way of working, which began in the context of analog electronics, was quickly extended to using the new small microcomputers which were becoming available at the time. Along with my friend and collaborator John Bischoff, in 1979 I formed the musical group The Hub, which was dedicated to exploring the potential of building semi-autonomous networks of computers to make new and unexpected music. I've been working on and off in this way ever since, most recently in an appearance by the Hub in Birmingham England last February.

One might describe this way of working as making simulations of things that never existed: designing "living" dynamic systems of interaction, complex, anarchic and asynchronous communication between computers each running different composer- written software programs, and having them each create sound: this sound was the music. In essence – although we have never used this terminology to describe it – sonifying the results.

The belief underlying this way of working is that as human beings we have an in-built ability to "listen into" complex sounds, to find out about them. Clearly we can distinguish the inner dynamics of a process that makes a sound: a plate crashing to the floor would never be mistaken for a handful of forks and knives crashing to the floor. Similarly, can't the sonification of a complex dynamic system implemented in software prove enlightening and interesting?

A similar belief seems to underlie the practice of scientific sonification: the belief that we can listen into a complex sound, and glean understanding about the processes that are forming it, and if these processes are driven by some scientific data set, that patterns in the data can be revealed in the act of listening.

But what is revealed in a sonification? We aren't really performing an 'analysis', such as is revealed in a graph, but what we we get instead is a form of "embedding." What we receive is a sonic environment.

Sonification, the word itself, contains in it the strong implication that it is mapping or transformation or representation (perhaps) OF something. But rather that a representation of an object, it is more a matter of making atmospheres.

Over time, in my work with using computers to make these

"simulations of things that dont exist", I've come to see what I make as more instruments than compositions.

Instruments, sure, in the sense of a musical instrument, but also in the sense of a tool, an implement, something that helps us make these atmospheres, make these sonic environments. And in this sense, the work shares something with improvised musical practice.

What does my electronic instrument – or indeed, any musical instrument in the hands of an improviser — do? It makes audible an atmospheric potential, the emotional and conceptual tenor of a moment in a room, the undefinable atmosphere of this place, at this time, with these particular players present.

Improvisational music performance performs a kind of inspirational interrogation of the world. So it seems, to bring it around to my work in scientific sonification, music, rather than an abstracted sonification technique, stripped of musicality, is the proper context for this work.