Around and above, weightless…

Some themes are recurrent in my music: the use of voices, the multiple transformations that radically modify the original sounds whilst keeping a clear trace of their energetic profiles, the use of clouds of particles, the broad use of spatialisation and multiphony,…

But some instruments inspire new ways of doing things. The spatial discrimination made possible by the 44 speakers of sound dome in the Kubus at ZKM and it’s driving software, the Zirkonium made me want to explore spatialisation modes that are not possible with traditional surround systems where the positioning of a sound in the centre is done by sending the same level to all speakers, which barely works for the few lucky listeners in the small sweet spot in the center of the hall. The possibility of moving sounds across or near the centre convincingly made me want to revive old ideas of spatialisation that I had dropped because usual sound systems couldn’t concretise them.

I decided to write algorithms that extend the use of the Zirkonium by integrating, in Max/MSP, and under the control of the Zirkonium OSC position messages, Doppler effects and distance cues: filtering and ratio between direct and reverberating sounds. Allowing the sounds to be moved beyond the boundaries of the concert hall while maintaining all the advantages of the Zirkonium helps materialising those ideas. But this piece uses also sound spatialisation in a way that goes often beyond moving and locating sounds, going from disappearance and reappearance, coalescence and dissolution to the creation of demultiplied sound masses and the emergence of space-rhythmic forms impressed on sound materials.

The spatialisation and the sound transformations are both controlled in real-time with sensors (accelerometers, gyroscopes, digital Theremins, contact microphones). Linking sound analysis and sensor data with the spatialisation they control also creates a strong bond between the nature of sounds and their spatial manifestation.

This desire to interpret electroacoustic music beyond traditional acousmatic music spatialisation and to improvise with the help of sensors grew from my work for the last 10 years with the choreographer Michèle Noiret and her dancers.

The setup of the dome also means a predominance in sounds localised around and above the audience which favours the feeling of floating, weightless sound sources. This feeling of weightlessness has been resonating with me for a long time and this instrument allows me to explore it musically deeper than ever.

Todor Todoroff