# Eighth International Conference on Music and Sonic Art: Practices and Theories (MuSA 2017)

## Rethinking Musical Instruments event.

## Transcending borders between the acoustic and the electroacoustic: redefining boundaries through composition for sensor enhanced bass clarinet.

This paper explores the issues raised when writing for sensor enhanced bass clarinet and electronics. The metaphorical borders that exist between a digital interface and a traditional acoustic instrument are considered. The implications for the composer, the performer and the listener are discussed. The paper also considers other cultural borders that exist when combining traditional acoustic instruments with electronics. Transcending the symbolic borders between the acoustic and the electroacoustic is essential in order to produce a coherent, self-contained composition and performance. The paper examines strategies for achieving this. Another perceived border that arises in this context is that between a mainly noted-based approach to composition and a mainly texture-based approach. The ways in which these differences manifest themselves and become embedded into the compositional process are explored. Alternative approaches to notation are presented, in particular the adoption of a system which combines traditional Western notation with new ways of notating extended techniques and electroacoustic sounds. In order to break down the borders between these two systems, the notation of the electroacoustic part must mirror the properties of traditional notation in that it should be both prescriptive and representational. It must be intuitive to understand, and it must be transferable to other compositions in order to encourage the growth of new performance practices. The paper offers strategies for creating an electroacoustic language that compliments the output of the acoustic instrument. To achieve this, the gestural affordances of the traditional instrument must be mapped onto the digital environment in such a way as to exploit the existing skillset of the performer. The challenge is to create an interface mapped to a system of notation that works for the composer, the performer and by extension the listener. It should also be reusable in different contexts. This encourages the emergence of new musical languages. Borders between the traditional and the new are challenged and a new repertoire for the bass clarinet as an enhanced instrument emerges.