

Spectromorphological Notation - Notating the unNotatable? Modeling a new system of timbral and performance notation for ethnomusicological, musique-mixte and electroacoustic music compositions.

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Research Team

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Abstract

This project, *Spectromorphological Notation-Notating the unNotatable? – Modelling a new system of timbral and performance notation for ethnomusicological, musique- mixte and electroacoustic music compositions*, is an exploration of the potential of the creation of new models of musical notation that focus on timbre. Supported by the Malaysian Ministry of Higher Education (MOHE) and Sultan Idris Education University (SIEU), the researchers have developed several models which have the potential to be further developed into functional, semiotically rich notations of timbre. An initial issue in the research was the establishment of a definition of the elements of timbre. This involved a major literature review of the philosophical and ontological writings on this topic, and deciding which components of timbre could be expressed through spectrograms - the chosen vehicle for our study. The project connected to several related research projects and we were joined by two French researchers (Prof Marc Battier and Prof Pierre Couprie) from the University of Paris, France. Built around 3 major sub-projects and bookended by Symposia held at SIEU, three models have been developed. The sub-projects are *Notating timbre in Traditional Malaysian Music - an ethnographic approach*, *Developing Timbral Notation for Performance* and *Notating the Timbre of Electroacoustic Scores*. The first two sub-projects yielded models of notation that, in the view of the researchers, offer considerable potential for further development. These notation forms are based around the colours with which spectrograms populate their visualisation of harmonics (overtone pitches) and a

novel form of notation that is based on the Islamic 'Uthmani' Recitations. In the third sub-project, *Notating the Timbre of Electroacoustic Scores*, it became apparent that, though spectrograms could be an important component of a timbral notation for this genre, the complexity of the music, and its cross-over of technology, space, and sound source requires a notation system that reflects all the possible elements. It was felt that the scope of this facet of our modelling was beyond the self-imposed scope of the project. Two compositions have been prototyped in development, both in the second sub-project *Developing Timbral Notation for performance*. Both offer scope for development to a stage where performance is possible and, in such development, will solidify the concepts and processes already modelled from this project.

PHOTOS

1. Dr Blackburn and Dr Penny presenting at the TENOR conference, Sorbonne University, Paris. May 2015
2. Dr Blackburn with Professor Marc Battier visiting UPSI. June 2014
3. Dr Penny and Professor Marc Battier visiting UPSI. June 2014
4. & 5. Working with Prof Hasnizam Wahid at University Malaysia Sarawak. August 2015.





