

Composition title: ***Syphon α*** (2017)  
Duration: +/- 7 minutes  
Composer: Miles Warrington  
Technical requirement: 1 or 2 contact microphones; 1 or 2 condenser microphones; computer running with ring modulator set and tape track loaded; 2 or 4 channel fixed media system (See score for details).  
World Premiere: UPMEF (University of Pretoria Music enrichment Festival), 2017 with Misha Melck (piano)

### **Introduction**

***Syphon α*** (2017) is a title formed from mixed words, each with their meanings mingling to form the idea behind the piece. Originally, the work started off as a piece for ensemble and tape but was reworked for version with piano and live electronics + tape track. The Greek symbol 'α' (alpha) is used to denote the prioritised position of the original material in the piece - the 'alpha' cypher as it were. This cypher or 'fixed quantity of sound' is the result of a 120 second fast-paced sequence of notes performed on a MIDI keyboard and recorded.

### **Composition**

The piano parts are processed live and performed in 'isolation' from the tape parts (always with the lids closed and with the spines of each piano facing the audience), where the impact of the unprocessed raw acoustic sound is minimised as much as possible in the overall sonic picture. This processing takes place in the form of ring-modulation, with the modulating frequency set to 2321 Hz for both parts, which is a pitch between C#7 and D7. This is very specific in that it creates deliberate tension between the base-line pitch of the original material of C# (visible in the image above) and the transformed material with the raw unprocessed piano parts. Furthermore, certain pitches in the material, such as certain register D's, C#'s, G#'s and so on, produce a percussive effect not dissimilar to a prepared piano where rubber stoppers or screws are placed between the strings. Besides this, the intention is that some of the isolated sound from each piano will mix with the processed sounds emanating from the speakers in spite of the closed piano lids. The ring modulation is supported by two microphones present in each instrument - a condenser cardioid microphone and a contact microphone attached to the metal frame in the upper part of the instrument's register, where most of the material to be performed is written. The pianist always plays very softly (ppp).