

Composition title: *Thambile* (2016)
 Duration: 12:06
 Composer: Miles Warrington
 Technical requirements: 4 channel sound system with sub woofer; computer with Pro Tools and two contact microphones
 World Premiere: UNYAZI Electronic Music Festival, University of Cape Town, 2016 with Cara Stacey (uhadi bow) and Petrus De Beer (viola)

Introduction

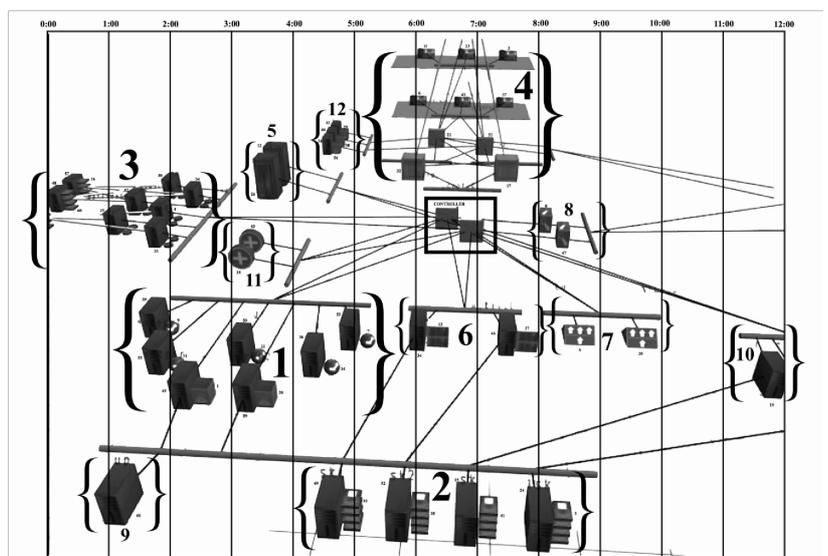
Thambile (2016) is an electroacoustic work scored for uhadi bow, viola and live electronics. The work was composed as part of the New Music South Africa UNYAZI Electronic Music Festival with the theme ‘*Infrastructures*’.

Ideas turn into physical things — our roads, our buildings and so on. In unseen ways, soft infrastructure, such as communication, education, networking technology development and many others, drive the way we build things in the world around us. They are the ideas and systems behind the creation of our physical world - the hard infrastructure. As with these unseen ways, in softly almost unheard ways, the music in this work is conceived as an analogue of these soft infrastructure ideas but where they result in hard infrastructure and physical changes to our environment and urban spaces.

Composition

With amplification and live control parameters, the sounds of the live uhadi bow and viola are mixed with a pre-composed ‘tape’ track of material generated from the recording of extended techniques played on the Xhosa bow. This becomes an extended metaphor for the soft infrastructure types morphing into the hard type once the sounds have been processed – something that is only achieved when soft types are built-upon each other. The processing involves precisely controlled applications of amplification to the live instruments (always playing softly) and layering with the electroacoustic material. The viola part is written almost exclusively with noise-making extended techniques – much like Helmut Lachenmann’s *musique concrète instrumentale*.

The piece is structured by using metadata-driven soft infrastructure networks as the outlining forms for composition and the sounds build in unseen, unheard ways with each other. The network is comprised of sets, with each set containing elements of musical data, and are linked via connection lines of ‘communication’. The musical data is the electroacoustically transformed uhadi bow sounds. The picture to the right here shows the overall form of this network:



The elements in each set unfold in linear time indicated on the top together with the live acoustic instruments. Each of the numbers in each set correspond to different categories of transformed uhadi sounds.

The sets and their data can be expressed in the following way:

So for the first group of sets (A), the top section it can be expressed:

$$\sum X \quad \begin{matrix} af \\ \{i = 1\} \\ A(i) \end{matrix} = \frac{f}{A(3)} + \frac{f}{A(4)} + \frac{f}{A(5)} + \frac{f}{A(8)} + \frac{f}{A(11)} + \frac{f}{A(12)} =$$

So for the second group of sets (B), the bottom section it can be expressed:

$$\sum Y \quad \begin{matrix} bf \\ \{i = 1\} \\ B(i) \end{matrix} = \frac{f}{B(1)} + \frac{f}{B(2)} + \frac{f}{B(6)} + \frac{f}{B(7)} + \frac{f}{B(9)} + \frac{f}{B(10)} =$$

X and Y are ‘summations’ of the meta-data and reveal themselves in linear time as the piece unfolds. The collaboration between the musicians – performers/composers/controllers – builds on the practical application of the translation between the soft infrastructures of communication and shared knowledge and the hard infrastructures we get as a result of the soft kinds working behind the scenes as it were. In the end then, what you can possibly make-out/hear are the machines of industry – saws, lathes, diggers, compressors, electrical transformers, compacters, engines etc.