

Speed in Music, Brain and Body

Ned McGowan

Speed, as a function of time, is full of enlightening musical character. Take some common terms to describe tempo in music: *largo* (broadly), *adagio* (slow and stately), *allegro* (fast, quickly and bright), *vivacissimo* (very fast and lively). Formulated by humans, speed is relational and it reveals aspects about how we think and feel.

My aim in this artistic research is to dissect the experience of speed in music. Taking artistic and pedagogic experience as starting points, the research considers the embodiment of rhythm and duration as experienced by practicing musicians and utilized by composers, exploring neurophysiological questions such as how temporal resolution relates to human physiology, the relationship between speed and emotion, the difference between physical and mental mechanisms for tracking time, and the length of a 'moment'. The areas of performance, composition and notation as they relate to speed in music are explored both scientifically and artistically.

There is a visceral sensation to speed that gives rise to its expressive power, whether at extremely slow speeds, virtuosic blister, in a solitary line, in multiple simultaneous strata or in the profound absence of speed in the form of silence. It is these inherent qualities that I would like to fully excavate, shine a light on and hopefully reinvent in this research.

For this performance I would like to perform three pieces which explore speed from different approaches.

1. *Workshop*, for flute and tape (12 min)
2. *The Speed of Time*, for solo contrabass flute and metronome (6 min)
3. *Cycle Games*, for voice and tape (10 min)

Workshop explores mechanical and industrial speeds, typical to pre-electronic music and the movement of instruments (flutist performer) and machines (samples of various industrial machines).

Link to recording:

https://drive.google.com/file/d/1QbbF94Wp1saz89_2MBXQB_rK_6osychk/view?usp=sharing

Link to score:

https://drive.google.com/file/d/1J_xghDXL_fNcYBBpRtqYnPCWU7rlCE4Y/view?usp=sharing

The Speed of Time is one piece from Rhythmic Etudes - Book One. The piece is to played live with a metronome showing metrical downbeats every six seconds. Topics explored musically are: the relationship between the density of notes and perception of duration, human time vs. machine time, different speeds through a systematic increasing of the tuplet (subdivision of the beat). This performance will feature an arrangement of the etude for solo contrabass flute.

Link to recording with score:

https://drive.google.com/file/d/1-3kcEyZGapdc8ArK9qyeAv5T0ADcUoo_/view?usp=sharing

Cycle Games is a vocal work I am currently finishing up composing which explores a meter constantly divided into the two frames of 4 and 7. A dual layered piece, the frames run concurrently and rhythmical material is exchanged repeatedly between the two layers, revealing different metrical, rhythmical and speed identities. I will perform the work solo with a tape part pre-recorded with one part.

Link to demos:

<https://drive.google.com/file/d/1kXaKRbVGPo98loHy8JGsmnf3GjfkO14d/view?usp=sharing>

<https://drive.google.com/file/d/1p9M0T5XX4KqNghZl9BOtOZGH44ij9ift/view?usp=sharing>

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Ned McGowan (1970) is a flutist and contemporary classical music composer, born in the United States, living in the Netherlands. Known for rhythmical vitality and technical virtuosity, his music has won awards and been performed at Carnegie Hall, the Concertgebouw and other halls and festivals around the world by many orchestras, ensembles and soloists. As a flutist he plays classical, contemporary and improvisation concerts internationally and he has a special love for the contrabass flute, in 2016 releasing

the album: *The Art of the Contrabass Flute*.

His works include *Concerto for iPad & Orchestra (2012)* which has been played numerous times in the Netherlands, the US and Brasil, *Workshop (2004)* for recorder and tape, six pièces *mécaniques (2012)*, written for Calefax & Eric Vloemans, *Cleveland Times (2016)*, commissioned for the NFA Flute Convention, *Bantammer Swing (2008)*, a concerto for contrabass flute and orchestra, which premiered in Carnegie Hall by the American Composers Orchestra, and the recent *Garden of Iniquitous Creatures (2016)*, for the Grammy Award winning sextet Eighth Blackbird.

Ned is a professor of composition, ensembles and Advanced Rhythm and Pulse at the Utrecht Conservatory and Music and Technology branches of the HKU University of the Arts Utrecht. He holds degrees in composition from the Royal Conservatory Den Haag and in flute from the Cleveland Institute of Music and the San Francisco Conservatory of Music. In 2014, he was awarded the Alumni Achievement Award from the Cleveland Institute of Music. In September 2016, Ned started an artistic research PhD entitled *Human Speed in Music* at the Leiden University and the DocARTES program in Ghent, supported by the Netherlands Organization for Scientific Research (NWO).

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