

Roedde House Museum Classical Series
presents

Notes on *The Numerical Mediation of Tempo*, Lecture given by Roger Mathew Grant on September 14, 2017 at the University of British Columbia, Irving K. Barber Learning Centre

As personable as he was erudite, Dr. Roger Mathew Grant proved an excellent choice to present the opening lecture in the first event of a two day conference on rhythm entitled *Entrainment and the Human-Technology Interface*. The rhythm conference itself opens this year's series of School of Music colloquia which encompass such diverse topics as the music of Birtwistle and C.P.E. Bach as well as a demonstration of the Chinese *guqin*.

From the first moments of the lecture, Dr. Grant demonstrated his exhaustive knowledge of this topic, which has at its heart, the humble metronome. When one considers the relationship between musicians and technology in terms of *entrainment*, or, biomusicologically speaking, the ability of an organism to synchronize with an external rhythm, images of practicing rapid 16th note passages to the relentless tick of that implacable task master immediately spring to mind. As was presented later in the lecture, at this time, the metronome has become such a ubiquitous tool that you will likely find a metronome app on any music student's phone.

Such was not always the case. In those unthinkably distant days of ancient history when composers were reliant on words to convey an affect and its traditionally accompanying tempi, a term such as *allegro* could be interpreted any number of ways. This inherent ambiguity led to a current of dissatisfaction among certain composers and music critics, and the search began for more concrete methods of standardizing performance tempi. Although a rival camp, in the form of the pendulum, also enjoyed relatively widespread use for a time, the unwieldiness of such devices, added to the difficulty presented by non-standardized weights and measures across Europe, ensured that the portable and practical metronome emerged the clear winner.

The original device, patented by Johann Nepomuk Maelzel in 1815, with its wooden obelisk frame and metal rod with adjustable counterweight, remained a standard tool for musicians into the last quarter of the previous century, and it still evokes memories of piano lessons past. In its early days, this now familiar tool quickly revolutionized the practice of music at the most elemental level. Anxious to exert control over their compositional legacies, certain composers immediately championed the metronome as a concrete means of transmitting their intended tempi.

Beethoven was one such composers to specify metronome markings in his scores shortly after the device's invention. Ironically, spirited debate as to what he actually intended by these markings has led to wildly divergent recording tempi in the century following his death. Speculations that Beethoven's metronome may have been broken, that he mistook a quarter for a half note in his markings, or that he was a poor judge of his own tempi have all contributed to this amusing or alarming divergence.

Our thanks to the McGrane-Pearson Endowment Fund, David Cousins, Katherine and Fred Hume, Mark DeSilva, Gretchen Roedde, Johann Krebs-BC Pianocraft, and many other donors for their support

All donations over \$25 are tax deductible.

Musicians have historically been both drawn to and repelled by the metronome, and this conflict between the benefits of standardization and the constraints of rigidity has continued in various forms up to the present day. Some opponents feared that musicians were becoming too rigidly entrained by extensive reliance on the metronome as a practice aid. Others found it eerie to rely on a machine to generate and dictate pulse, preferring individual taste and the human element as guiding musical principles. There was also concern that musicians continue to take into account live performance considerations such as acoustic and decay when determining appropriate tempo. Regardless of the position adopted, the overall effect was that the entire music community held some opinion on the matter of standardized rhythmic entrainment as dictated by the metronome.

Over the past two centuries, the metronome has become so iconic that Dr. Grant was able to demonstrate how it has entered cultural memory as an avatar or symbol of temporality and memory. Artists such as Vratislav Karel Novák in Prague, Kristin Jones and Andrew Ginzel in New York City, and Man Ray have used the image of the metronome in sculpture and collage respectively to reference our global standardization of time and to evoke the often uncomfortable bridge between the rational absolutism of numbers and the more personal emotive aspects of music.

Following the final section of the formal lecture, there was a lively question and answer session spanning such digressions as non-isochronous time keeping devices, the 20th century American prevalence of metronomes in the practice room when they were originally used only to set tempo, and the fact that metronomes as discrete devices have become obsolete with the widespread use of smartphones. (Dr. Grant himself uses the Steinway metronome app at home.)

In a fascinating coda to the lecture, the speaker posited that the industrialization of the 20th century, represented in microcosm by the metronome, created an ideal of standardization, whereas, in the 21st century, the musical and societal ideal is individuation and self-stylization. Such a premise clearly demonstrates how deep knowledge of one particular subject can lead to broader global understanding through the efforts of a truly gifted scholar.

Dr. Roger Mathew Grant, Assistant Professor of Music at Wesleyan University, is an expert in eighteenth-century music, the history of music theory, Enlightenment aesthetics, early modern science, and theories of the affects and the passions. His first book, *Beating Time and Measuring Music in the Early Modern Era*, was published by Oxford University Press in 2014 and won the Emerging Scholar award from the Society for Music Theory. Dr. Grant is a former junior fellow of the University of Michigan, and he earned his PhD in music from the University of Pennsylvania.

Catherine Laub is a graduate student in historical musicology at the University of British Columbia. Holding previous degrees in voice performance and pedagogy from Indiana University and Westminster Choir College, she has been active as a performer, teacher, composer and artistic director in Vancouver and abroad for more than a decade.