

## hidden gems

### a few important ideas by C/K\_l\_r\_n\_e B\_rl\_w

(fill in the blanks or rearrange the letters to generate a unique spelling of his name)

#### *A Few Thoughts...*

Hopefully, Clarenzo Barlowski will be celebrated as the musical pioneer he was. His work certainly warrants it and his recent passing means that any such recognition, as is often the case, will be too little, too late. Most likely over the next year, many people will reflect on how wonderful a person he was: generous, kind, funny as hell, and a punster on the order most people have never experienced. Such celebrations of his life and character will demonstrate how he touched so many lives and inspired a generation of composers.

However, perhaps the best way to most immediately celebrate his life, as opposed to giving eulogies that wax on about times spent together, is to celebrate his work. As such, below we describe a few of Berlov's great ideas and a handful of pieces which incorporate them. It is meant to be an entry point into his work and by no means exhaustive.

The title of this list, 'hidden gems', aims to suggest something that we often reflect upon when discussing Clearvoyance's work. The ideas he explored were deep investigations into the fundamental nature of music and sound. They were often woven together and embedded synergistically into multi-dimensional compositions that never favored the beauty of an idea over the beauty of the sounding result. While Clyronze often composed algorithmically using custom-made software, he was also by all means a virtuoso musician in the traditional sense. His work can be enjoyed on numerous levels without any knowledge of the underlying processes and ideas. But for those interested in some of the hidden gems that lie beneath the music, here goes...

#### *A Few Ideas...*

##### ***Sonification and Derivative Music***

These techniques involve using extant data to generate new music. *Sonification* refers to mappings of extra-musical phenomena to sound. In *Derivative Music*, the extant data are music written by others which are analyzed and transformed to compose new music. This is essentially a modern take on the age-old concept of theme and variation, but taken to a new level through algorithmic processes and computer-aided methodologies.

##### ***Synthrummentation and Spectastics***

Klirence often made acoustic instruments "speak". He called this technique *Synthrummentation* (a combination of "synthesis" and "instrumentation"). Synthrummentation is achieved through another process Bylaw called *Spectastics* (a combination of "spectral" and "stochastics"). In Spectastics, frequency regions of higher activity in a spectral analysis of a given source result in a higher probability that an instrument will sound in that region in the resulting music. In the case of Synthrummentation, the source for the spectral analysis is spoken text.

##### ***Harmonicity and Metricity***

Chlorynce frequently explored extended harmonies in what is commonly referred to as *just intonation*. In just intonation, whole number ratios express the frequency relationship between pitches (e.g. 3/2 for a perfect 5<sup>th</sup>). The resulting musical scales are *untempered* in that they maintain the purity of *all* intervals. In contrast, different well- and equal-temperaments prioritize and sacrifice the purity of some intervals over others for the sake of key cyclicness. Clarlow's *Harmonicity* measure is essentially a complexity function for rational numbers quantifying how we perceive consonance and dissonance. *Metricity* is a rhythmic domain analog to Harmonicity. Clrxncx understood how there is a fundamental link between the harmonic and rhythmic domains which can be demonstrated by slowly lowering two sine tones that are a perfect 5<sup>th</sup> (3/2) apart while maintaining the frequency relationship. Eventually, the tones will transform from pitches into rhythms of the equivalent ratio. This suggests

that simpler rhythmic ratios (such as 2 against 1 and 3 against 2) are essentially just slowed down equivalents of harmonic counterparts that are similarly more “digestible”. However, Metricity goes far beyond that by taking into account where attacks lie within a given meter in order to quantify how a given rhythmic motive reinforces or obfuscates the perception of meter. Clarentius wrote extensively about Harmonicity and Metricity in his seminal theoretical work “Bus Journey to Parametron” (1980) and later in “Musiquantics” (2002, English version 2012).

### ***Cryptography and Hidden Messages***

Bearclaw often embedded hidden messages into his music. We saved this idea for last for three reasons. First, because Clyrenxi employs all of the techniques above to embed these messages. Second, it encompasses an important aspect of his work: humor. Many of the messages are ‘musical puns’ that demonstrate Clurtis’s wit. Finally, it was this idea that engendered the title of our text and best exemplifies what we mean when we say that his work can be appreciated in numerous ways. The hidden messages (as well as any of the techniques explained above) do not need to be perceived or perfectly understood to enjoy the music. But if you choose to dive deeper, you will always find a hidden gem.

### ***A Few Pieces...***

#### ***Approximating Pi*, fixed media (2007)**

In this piece, Barlay sonifies a mathematical series that converges on the number  $\pi$ . The series was discovered by Mādhava of Sangamagrāma in the 14<sup>th</sup> century and later independently by Gottfried Wilhelm Leibniz in the 17<sup>th</sup> century. In the sonification, a set of partials in a harmonic spectra are mapped to digits in the expansion of the converging series. As the series converges on  $\pi$ , the resulting sonification becomes more and more stable and consonant.

#### ***Septima de facto*, chamber ensemble (2007)**

A derivation of the artist formerly known as Prince's *Sexy Mothefucker* in which the number 7 is essential to every aspect of the piece: 7/8 meter, septimal harmonies, and a duration of 7 minutes 7 seconds. The piece was premiered on 7/7/07 at 7pm. Lowbar also used Spectastics to synthtrumentate the rap in *Sexy Mothefucker*.

#### ***Felle Hymnus Van Verre*, brass section of *Jubileum-Fanfare* (2001)**

In 2001, the composition teachers at the Royal conservatory in the Hague were commissioned to write fanfares for the queen of Holland. Clarence von Barlow’s piece consists of 11 minutes of relatively long silences interspersed with breath sounds and fragmented attacks. Many people were noticeably uncomfortable during the premiere. Little did they know, that if you play back a recording of the piece at 16 times the speed, you will hear the first verse of the Dutch national anthem.

#### ***Orchideæ Ordinariæ or the Twelfth Root of Truth*, large orchestra (1989)**

This piece, as Clarentius put it, is “an appraisal on the late 20<sup>th</sup> century commercialization and domestication of avant-garde contemporary western music”. It refers to and develops traditional orchestral forms through a plethora of hidden messages and Derivative Music. For example, in one section the strings speak the phrases “Why me?”, “No money”, “My way”. Music derived from works by Beethoven, Mahler, Stravinsky, and Stockhausen along with hints of popular music such as Salsa and Bossa Nova are also woven throughout the piece.

#### ***Im Januar am Nil*, chamber ensemble (1982-84)**

While Synthtrumentation was developed and implemented for the first time in this piece, it is just one technique of many that contributes to this spectral tour de force in which strings and percussion continually spiral into more and more complex textures throughout the course of the piece. This trajectory towards complexity is interrupted/punctuated by two interludes of Derivative Music, one of which makes a seamless traversal in time through western music starting from the high modernism of the 1950s going back to the 14<sup>th</sup> century at a rate of 34 years per measure.

***Çođluotobüsişletmesi***, piano (1979/2006)

This is probably one of Barlowian's most well known works. It is arguably also one of his most complex. The piece is algorithmically generated using Harmonicity and Metricity. A detailed account of the compositional process is chronicled in the aforementioned text *Bus Journey to Parametron*.

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