

Re-scaling Beethoven: very long, very short [presentation notes]

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Introduction

(SLIDE 1: TITLE)

The innovation of sound recording and reproduction technologies some 145 years ago spurred composers to imagine and indeed create works of extreme duration very long – lasting days, years, or more – and conversely, very short– miniatures of a few seconds that nevertheless encapsulate 'large' expressions or denote a corpus of pre-existing music.

(SLIDES 2-3: GULLIVER)

Comparing Leif Inge's *9 Beet Stretch* from 2002, and a section from Johannes Kreidler's *Compression Sound Art* from 2009, this paper reflects upon idea-based sonic art that explores duration. Listening to such works tests Karlheinz Stockhausen's notion of 'unified time structure', as well as Pierre Schaeffer's definition of a musical object as necessarily having an "overall temporal form" that allows "optimal memorisation"; especially, he claimed it could neither be "too short", nor "too long". In this perspective, we ask: what makes us understand a 'work of music' as a unitary whole?

(SLIDE 4: SCHAFER)

Schafer advanced that the *soundscape of the world* is a "macrocosmic musical composition" (Schafer 1977, p. 5). Ever since there was a listener – recall that a soundscape consists of events heard – the 'world soundscape' has been playing: here, there, and everywhere. If the world can be listened to as music, it is the longest piece that could ever exist; it is continuous, changing, and it is currently being performed.

(SLIDE 5: STOCKHAUSEN)

Stockhausen introduced a "basic concept of a single, unified musical time". Conceptual categories, he said, "such as color, harmony and rhythm, dynamics, and 'form', must be regarded as corresponding to the different components of this unified time" (Stockhausen & Barkin 1962, p. 42).

(STOCKHAUSEN YOUTUBE 75 sec)

(SLIDE 6: CHRISTENSEN)

(SLIDE 7-8: ROADS)

The structuring of periodicities can be significantly expanded, well beyond what is humanly graspable (Roads 2004, p. 3-6). All acoustic phenomena are integrated, from infinitely long (and old) waves of movement, to infinitesimally short (and fast-lived) physical vibrations that approach the theoretical limits of our current understanding of time and space.

(SLIDE 9-10: MUSICAL DIMENSIONS)

Sound examples

(SLIDES 11-25: LONG AND SHORT PIECES)

- Long:
 - Cage, @YouTube 30 sec
 - Inge, mp3 60 sec
- Short:
 - Napalm Death, @YouTube
 - Kreidler, @Keynote

Five perceptual constructs

(SLIDE 26-28: FIVE CONSTRUCTS)

We use five perceptual constructs to discuss how duration affects the ontology of musical works.

Continuity. Any process that is long enough tends to be perceptually broken down into segments. While the sense of hearing is active '24/7', and it commences in the unborn foetus (e.g. Marx & Nagy 2015), there are psychological constraints to our listening attention – sooner or later, the mind wanders – and there is a biological limit to staying awake. We can hear when asleep, but not listen. In the context of commercial environments, the *servicescape* (Bitner 1992) is semi-designed, often using *moozак* (Truax 1978-99) that is both an agent and an outcome of “the expanding, nonstop life-world of ‘late capitalism’” (Crary 2013). The perspectives of *ubiquity* and *metabole* (Thibaud et al. 1995) give rise to the question of how sound events emerge in the mind, and how the perception of single events relate to the perception of the soundscape as a whole (Lindborg 2015b).

Slowness. Not all works of long durations of listening (and viewing) contain slow music but most do. Inge's *9 Beet Stretch* has a duration of exactly 24 hours. A stretched-out interpretation of Beethoven's *Ninth Symphony* that "maintains all the pitches of the original", this long duration is enabled by techniques of granular synthesis, with grain size and density carefully adjusted to the character of the music in different parts of the source recording. Continuous and minimally transformed interpolations of the original audio material effectively creates novelty: a slow, stretched-out, and original work of music.

Repetition. With the conceptual composition "Vexations", Eric Satie created an extremely long piece by having the pianist repeat a simple four-line segment hundreds of times. Working with turntables and records, Schaeffer exploited the "infinite repeatability of the fragment", forcing himself to distinguish the sound as an object of perception, separated from its physical-material cause. Through repetition, there is no longer event, but sequence, and possibly music. Linking repetition with (sonic) continuity, it seems that a truly long piece of music must be continuous in the sense that there are no segments of non-activity.

Recognisability. Musical miniatures were popular among classical composers. Beethoven's "Bagatellen" were perhaps exceptional in that they did not rely so much on inherited schemes (often popular dances and ditties), but rather became informal experiments in musical form. Kreidler (2009) proposed a 'near-vertical music', including the "complete Beethoven symphonies, played in one second". At the very end of that second, we might grasp the distinct sound of voices, emanating from a lossy compression of the *Ninth Symphony*. Kreidler explores the borderline between recognisability and machine-art.

Specificity. It is possible to increase the lossy compression of data so that eventually, when it is extreme, the perceptual linkage between input and output is severed. In the case of very short pieces, Kreidler's 'compression art' balances at the edge of recognisability in order to remain specifically connected with the original. But the problem of specificity reappears also at the other end of extreme duration. As the musical structures of a piece of music are drawn out in time, their specificity decreases, until the relevant connotation disappears entirely; at the extreme, there is only the ubiquitous metabolic drone. Luckily, through this process of lengthening, other qualities are gained; or rather, they are gradually revealed. Rehding (2015) writes: "as the tempo of the music slows down, the previously inaudible dissonances automatically move to the center of our attention. The liminal deceleration of the music cannot help but bring the details into focus." This analysis is apt for *9 Beet Stretch*, or similar meta-compositions. However, Schafer's 'universal soundscape composition' cannot be time-stretched, and it cannot be made to represent anything but itself.

After having considered, albeit briefly, the essential aspects of long and short music, I will make three claims. Firstly, that Inge's *9 Beet Stretch* is not a piece of "24/7 music", as has been claimed by Dittrich (2017). Secondly, that Kreidler's *Compression Sound Art*, specifically the 'Beethoven symphonies in one second', deals not with compression but with lossy compression – an important distinction. Thirdly, a listening-based understanding of these works depends crucially on the cultural status of the source material.

Iconicity. The slow music of *9 Beet Stretch* manages to establish itself as a piece with a specific identity, exactly because it relies on a well-established cultural icon. The listener is drawn into the materiality of the orchestra and the voices - an imagined reality of the trace of something that *did* exist. If it is true that, as Cutler (2016) writes, “plundered sound carries, above all, the unique ability not just to *refer* but to *be*; it offers not just a new means but a new meaning”, it implies that when we listen to *9 Beet Stretch*, we listen, in fact, to three things at once: firstly, Beethoven, as a cultural artefact, in the semantic listening mode; secondly, the sounds themselves, in the reduced listening mode; and thirdly, audio stretching in and of itself, in the causal listening mode (cf. Lindborg 2019).

By definition, derivative works only exist as extensions of previously created works, and their force of artistic novelty (if any), depends on their ability to retain a cultural connection with the original. This connection is evident in Kreidler's collection of 'compressed cultural icons'. While these are bursts of musical humour, Inge's piece draws the audience into an embodied mode of listening, offering an approach to the transcendental.

To sum up: For very long musical pieces, we posit that the defining concepts are *continuity*, *slowness*, and *repetition*; and for very short pieces, they are *recognisability* and *specificity*. In conclusion, we propose that the principle that allows the serendipitous connection between Inge's and Kreidler's works is the overarching concept of *iconicity*: an extrinsic quality enabled by technologies of appropriation.

Connecting long and short

(SLIDE 29-37: MY PROJECT)

- Process towards: *Midi van Bee21*, @Keynote, mp3

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