

[Back to Issue 8](#)

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The Sound of Time is not *tick tock*: The Loop as a Direct Image of Time in Noto's *Endless Loop Edition* (2) and the Drone Music of Phill Niblock

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There are, in Gilles Deleuze and Felix Guattari's formulation, two possible ways to conceive of time. There is, firstly, *Chronos*: the time of measure that situates things and persons, develops a form, and determines a subject, and then the time of *aeon*, the indefinite time of the event, the floating line that knows only speeds and continually divides that which transpires into an already-there [*un déjà-là*] that is at the same time not-yet-here [*un pas encore-là*], a simultaneous too-late and too-early, a something that is both going to happen and has just happened. ¹Whilst it sometimes appears in their work as though these two different times were two different possible models that could be used to describe time, it is rather the case that they describe not so much time itself as a relationship to time, a relationship that can be either, in the case of *Chronos*, transcendent, time being extensive, divisible into fixed and known measures and used to gauge finite periods, or else, as in the case of *aeon*, immanent, time being merely a dimension of the plane of consistency upon which everything is situated and from which everything springs, an absolute outside that cannot be surpassed nor, therefore, judged in finite terms.

Neither of these formulations would appear, at first, to have anything to offer an analysis of the loop as a temporal form, for the subject perceiving time as *Chronos* sees only an inexorable progression towards a

finite end, a perception producing a single line therefore that does not return to cross over its own trajectory and form a loop, whilst the event-filled time of *aeon* that is conceptually but a dimension of the immanent possibilities of creation and life does not produce a hierarchical series of sequential moments to which we could return and thereby force time back on itself into a loop.

And yet, for Deleuze, if life is able to endure and if creation is sustained as an active force, this can only be because of an eternal return. The very possibility of language, then, to take but one example, is dependent on a return to pre-existing forms, but each linguistic act of creation does not return to a past moment that would be identical to its prior incarnation as though we were only ever capable of representing in our present an originary past moment. Rather, the repetition of past linguistic acts upon which the very possibility of language hangs brings about a repetition which effects difference in itself, the eternal return (the *déjà-là*) being then precisely that which drives us forwards towards a future (the *pas encore-là*) which will necessarily be different from what has come before since it has time, itself driven by difference, as one of its dimensions.

Perhaps it is then possible to consider the loop as a temporal form that would indeed be able to inform a consideration of Deleuze's concept of the time of *aeon*. But if we are able to do so, then this will only be possible if the loop we are dealing with is a pure loop. Let us explain. A loop, according to a dictionary definition, is formed when a line curves back to cross itself, so, for instance, a strip of paper whose two ends are pulled together in such a way that they meet each other in a straight line would form a loop. A loop formed in this manner, however, cannot be said to describe the temporal form of *aeon* found in Deleuze's work since it is possible to ascertain in this loop a starting point and an end point, the loop being formed, then, from a finite span whose extremities can be ascertained. A loop of this kind does not sufficiently describe a Deleuzian plane because one is able to apprehend it in an extensive

mode, to measure the loop as the length or duration between two returns of the point at which the beginning and end meet. It is in extensity, let us remember, that we apprehend the time of *Chronos*, that measuring, fixing, form-creating mode of time proper to a transcendent philosophical stance which believes itself able to apprehend all objects in existence from a remove, whilst the temporal mode which we have suggested might be usefully informed by the figure of the loop is the time of *aeon*, the time related to a philosophy of immanence, the time which eternally returns since it always contains within its present the virtual forms of all possible past and future events.

It might of course be objected that a loop formed in the manner described above can fuse its ends together so neatly that the break becomes impossible to ascertain. However, in many of the cultural forms that employ a loop this ideal or pure loop would seem difficult to attain. For instance, the loop is often used in online artworks utilising a movie format because of the obvious advantages a short looped movie holds over a longer linear movie in terms of bandwidth. To create a looped movie of any kind whose break cannot be found is extremely difficult, however, especially if the movie takes as its subject matter objects in the world deployed in time and not simply objects created from digital code. Indeed, it could be argued that in all loops that start out with a finite block to be looped, a break will always be present, a moment of hiatus, as when a stylus in a locked groove on a vinyl record jumps back to the groove's beginning. And whilst this moment of hiatus may not be as perceptible as the locked groove's click and may indeed, in spite of what we have suggested, seem to be imperceptible, it will always be present in such a loop, even if only conceptually. More than this, however, a loop such as this which starts out from a finite block which is repeated in a purely mechanical fashion is, one might argue, not creative in the truly productive sense of the term that Deleuze attributes to difference, for it does not deploy repetition as difference in itself but, rather, a banal form of Platonic repetition which merely represents or reproduces an originary figure whose

concept remains absolutely identical² although this will not necessarily be the case for all instances of artistic deployment of such a loop; as Deleuze goes on to suggest, artistic practice often consists of introducing a disequilibrium into the dynamic process of construction when an element of one instance is combined with another element of a following instance, a point to which we will return later. We must then search for a different kind of loop.

If we have posited the locked groove as a model of the kind of loop that cannot usefully serve an analysis of the time of *aeon*, this is no coincidence, for an excellent example of the pure loop that would not be formed from a finite block can be found on a vinyl record unlike any other, Noto's *Endless Loop Edition (2)*. Part of Carsten Nicolai's *bausatz noto infinity* project, each part of which (for the time being) consists of vinyl records inscribed with concentric grooves, ³*Endless Loop Edition (2)* for its part is a work made up of two ten inch vinyl records, each side of which is cut with twelve grooves which run not in the normal spiral fashion of this medium but, rather, in a loop or, let us say for the purpose of clarification, a circle, the form most often associated with the loop yet which is nonetheless fundamentally different from a loop, the latter being a dynamic, genetic form that can only exist at one given point along its perimeter or trajectory at any one time whilst a circle is a complete form with an unbroken perimeter and fixed spatio-temporal co-ordinates that endure together in perpetuity. This release is, for Carsten Nicolai, aka Noto, an attempt to carry out an analysis of a record as a physical-mathematic medium. To this end, the basic frequencies [sic] are mathematically connected directly to the physical specification of the locked grooves. (the frequencies hav[ing] been cut to meet at the zero point so that it creates a constant sound / tone). ⁴This is a record, then, conceived of primarily as a conceptual exercise and it is by considering it in this same way that its exemplification of what we have termed a perfect (or, for Nicolai, endless) loop becomes clear. For deployed as a material artefact, the loops on this record would, of

course, have a beginning point, the moment at which the stylus drops into its groove. However, if one considers this loop as a conceptual experiment, it is impossible to say what each loop's start point would be, even more so in the knowledge that the sound source for each groove is a mathematical constant calculated according to its physical specifications which is to say a sine tone. And yet, given the nature of the medium on which the loop is inscribed, it is at the same time impossible to apprehend this groove as anything but a loop; it is not a circle since (as even the most basic knowledge of a vinyl record will attest) its deployment in time will never present the sonic content (and thereby spatio-temporal co-ordinates because of the correlation between the two) of all points of the groove at the same time; rather, successive moments will appear, all of which seem to be the same and thereby create a constant tone, but which, because of the inextricable relation to the progress of time that the loop has inscribed into its ontology, present difference in itself.

This is not all there is to this release, however, for as well as having its grooves cut in a concentric fashion, the other peculiarity about this release is that each disk has two holes into which to insert the turntable's spindle: one in the very center of each disk (which is to say in the normal position) and one off-center. When one plays these disks using the central hole, each of the grooves produces a uniform tone, but when one uses the off-center hole the lopsided rotation produced creates a speed differential in the trajectory of the stylus running through each groove and, subsequently, alters the previously uniform nature of the tone, the pitch now fluctuating up and down. To consider this in terms of the temporal model proposed here, we could once more argue that this aspect of the loop provides further proof of its link to the time of *aeon*, for if the eternal return of time is in the most literal sense created by the rotation of the earth on its (off-center) axis and its orbit around the sun, then our experience of time from a perspective that is inseparable from both of those movements will necessarily be somewhat elastic, producing a sense of a continuum which is not experienced as we would attempt

to measure it when we apprehend time as Chronos, each minute, each hour, each day appearing identical in length. Thus, just as the stylus in the grooves of *Endless Loop Edition (2)* (grooves from which there is no escape, no possible outside) produces a continuum from an eternal return, a continuum that constantly passes through different speeds and intensities when the rotational movement of the plane is set off-center, so we on the plane of immanence (which we cannot observe from a transcendent position, an outside) partake in the production of a continuum, a continuum that returns at different speeds and intensities, producing a flow which is constant yet always different to itself. Time flies at the same time as the minutes drag.

We have then posited that *Endless Loop Edition (2)* enables us to apprehend the loop as a diagram of the temporal form which would describe the way in which the eternal return operates in Deleuze and Guattari's formulation of the time of *aeon*. Nonetheless, it does so arguably only on a conceptual level because when one deploys *Endless Loop Edition (2)* as a material artefact and plays it on a turntable, regardless of which spindle hole is used, the sound material contained on the disk (which consists primarily of sine tones, let us remember) is not sufficiently dense to envelop us and we are thus easily drawn out of its drone and pulled back into the temporal co-ordinates of our everyday world governed by the time of *Chronos*. The drone music of Phill Niblock, however, can in many respects be said to operate according to similar principles to *Endless Loop Edition (2)* but, what is more, to be sufficiently dense to envelop the listener and allow her to *experience* an aeonic relation to time.

Niblock's normal composition technique involves recording a musician or various musicians playing sustained tones on the instruments specified for any particular piece. These tones are then manipulated so as to remove any attack and decay from them and, in turn, these smooth tones are layered one upon the other, slight discrepancies in pitch, microtones and Hertz differences resulting from a note played in different

octaves producing a pulsing or throbbing effect as well as creating sum, difference or combination tones which are not present in actuality. The generation of these combination tones is dependent on a mathematical differential generated between two different pitches that produce what David Soldier terms auditory hallucinations. As the latter explains in the liner notes to *Music by Phill Niblock*:

The highest pitch played in *Five More String Quartets* is roughly a G-sharp resting on the top line of the treble staff. The lowest note is played by the cello, around a G-flat at the bottom of the bass clef. If you hear higher or lower pitches (or pitches in the middle that are not centered around G-natural) and are listening on distortion-free speakers and you are in a non-reflective room, you are hearing auditory hallucinations produced inside your ear. These pitches, called sum, difference, or combination tones, are determined by the played (fundamental) tones. For instance, if a violin is playing a pitch close to a G-sharp above middle C, say 420 Hz (cycles per second), and a viola plays a flatter pitch an octave lower, say 200Hz (a little above G), the sum tone is $f_1 + f_2 = 620$ Hz (close to a D-sharp above the violin note), the difference tone $f_1 - f_2 = 220$ Hz (an A below middle C), and the combination tones derived from harmonic frequencies, for example $2f_1 - f_2 = 640$ Hz (between the sum tone D-sharp and E-natural). These auditory hallucinations are audible at sound pressure levels from about 20 dB to 65 dB. [5](#)

Although dependent on mathematical formulations, these difference tones are far from being merely a conceptual element of Niblock's work. Niblock wishes his listener to experience these tones and in order for this to happen, very specific conditions must be in place for the optimum generation of these combination tones. It is for this

reason that Niblock is famously exigent about the conditions in which his pieces are played and demands the very highest quality equipment for the playback or performance of any of his pieces: equipment must be able firstly to deliver a very high degree of precision and fidelity in order to capture the difference between the smallest of microtones; its response must be of the highest reliability; and it must be able to play the piece back without distortion at incredibly high decibel levels, Niblock demanding almost impossibly loud playback levels for his pieces. By layering tones over each other in increasingly dense structures and demanding a very high volume level, Niblock follows in the footsteps of La Monte Young and Conrad in wishing to envelop his listener in sound so that liminal harmonic relations are experienced from *within* the sound – what Douglas Kahn terms listening inside sounds.⁶ What is important about this for the purposes of the present analysis is that by thus enclosing the listener within sound, the listener is (unlike the listener to *Endless Loop*) unable (aurally) to leave the auditory space of the piece and thus able fully to experience its most essential dimension, namely time. For as well as being dependent on mathematical formulations, like *Endless Loop Edition (2)*, by deliberately removing any attack or decay from the recorded tones and extending them by sequential repetition, Niblock can be said to generate his drones by creating a pure loop that has no discernible beginning nor end, by instigating an eternal return of his basic sound material. Conceptually similar to Nicolai's work, then, Niblock's *démarche* goes one step further than Nicolai since he wishes to act upon the listener *in time*, to alter our perception of our relationship to time.

Niblock attributes the birth of his compositional technique to a personal experience. As he explains:

In the mid 1960s, I was riding a two stroke, Yamaha motorcycle up a long mountain slope in the Carolinas, stuck behind a diesel engine truck. Both of our throttles were very open, overcoming the force of gravity. Soon,

the revolutions of our respective engines came to a nearly harmonic coincidence, but not quite. The strong physical presence of the beats resulting from the two engines running at slightly different frequencies put me in such a trance that I nearly rode off the side of the mountain. [7](#)

According to Niblock's description, then, the pulsing created by the near harmonic coincidence of the two engines created a trance state, a state, that is to say, in which the subject is removed from the punctual co-ordinates ordinarily used to orient oneself. Indeed, the space created by this effect is one in which there are no punctual co-ordinates, the apparent temporal beats not being imposed from outside as a measure of time as in the time of *Chronos* but, rather, created as an intensive effect of the event born of a differential relation. Niblock's aim was to translate this experience into a musical experience and judging from various commentaries on the experience of listening to his works, he would appear to have succeeded. His entire musical career has been described as an exploration of the musical possibilities of the timeless continuum; [8](#) some have suggested it is intended to steal your sense of time from you, [9](#) that it slows time, [10](#) that it achieves a balance or merely a state where organized sound floats and stands still at the same time, [11](#) its effect being to drone your own self into a real-time oblivion; [12](#) listening to his work, different commentators have said, time feels suspended a 20 minute piece can seem less than five [13](#) and time seemed to stand still. [14](#) It would seem, then, that Niblock's music manages to remove those listening to it from the punctual co-ordinates of the time of *Chronos* where time can be regimented and known by the imposition of arbitrary units of measurement, instead to plunge the listener into the time of *aeon* where the capacity of those very same units to measure time fails utterly.

It might of course be argued that Niblock's music is

ultimately no different from any music employing a drone, a feature common to many musics from around the world, especially Hindustani music and the vocal music of the Russian, Greek, and Bulgarian Orthodox Churches. However, whilst in such musics the drone is generally a continuous note which plays an accompanying role to other musical happenings, in Niblock, the drone is everything. More than this, however, it can be suggested that his compositional technique further frees time from its moorings in *Chronos* by relying on a form of repetition intended from the outset to generate difference and differential relations. For whilst each piece relies on the repetition of a set number of original tones, these tones are layered in such a way that differential relations are deployed vertically – Hertz combinations producing the pulsing effect mentioned, the immanent measure of time – and horizontally, the editing, manipulation, microtonal alterations (a microtonal interval being arguably but a different level of intensity of the original tone as opposed to a different tone) and gradual phase shifting of each tone producing a difference between various instances of a repeated tone so that, as one critic has noted, when you listen to each piece straight through [1] it never seems to change, yet jump around within a track and the differences are stunning.¹⁵ This technique employed in Niblock's work might thus be termed a properly artistic operation since according to Deleuze artistic work does not employ repetition in a banal or Platonic fashion as does, for instance, a decorative motif in which a figure is reproduced, while the concept remains absolutely identical.¹⁶ For Deleuze, on the contrary,

This is not how artists proceed in reality. They do not juxtapose instances of the figure, but rather each time combine an element of one instance with another element of a following instance. They introduce a disequilibrium into the dynamic process of construction, an instability, dissymmetry or gap or some kind which disappears only in the overall effect.¹⁷

It might also be suggested, however, that Niblock's work brings about a properly temporal operation. For to deploy in a temporally-based form such as music a banal repetition in which each instance of the figure (or tone) would be governed by an identical concept would be to produce in the work itself the time of *Chronos* or chronological time in which every past moment is measured in units which are conceptually identical to their predecessors. By founding his work on the difference that arises from the repetition of tones, however, Niblock creates in this time-based artform a *direct image of time* experienced from the inside – the only place from which one can experience the time of *aeon* since it cannot be viewed (and measured) from a point of transcendent remove. Even though music is arguably the artform which bears the most intimate and certainly longest-standing relationship to time, this capacity for art to constitute a direct image of time is generally reserved for cinema in Deleuze's thought, for cinema, freeing perspective from a transcendent point of organisation is able to show us cosimultaneously multiple perspectives, times and even (in the cinema of what Deleuze terms the time-image) different realities, a glimpse of the multiple virtual forms that might be produced by the differential flow of time experienced from the inside in which everything is *déjà-là* and *pas encore-là*. And does this not also describe Niblock's work which is but a drone, a pure loop which immerses us in a continuum displaying no punctual co-ordinates that can serve as a privileged position or perspective from which to experience the work? Does Niblock's work not in fact provide an even more complete direct image of time since it is nothing but an eternal return which is always *déjà-là* (its immanent terms fixed from the start by the choice of tones) yet always *pas encore-là* (its dissymmetry both vertically and horizontally always producing differential relations which can never be known in advance)?

Here again we must remember the difference tones produced by Niblock's pitch combinations which, producing a vertical dissymmetry, come to generate a virtual present, which is to say a potential only ever

realised in the eventual (*événementiel*) circumstances of each listener. Indeed, explaining the physiological mechanism that governs the (hallucinatory) perception of these tones a complex process resulting from a dissymmetrical or nonlinear relationship between the frequencies arising from the auditory stimulus (the fundamental or played tones) and the actual movement of mechanoreceptive cells which is affected not only by the external stimulus but also by cellular voltage shifts that occur with the opening and closing of ion channels Soldier finishes by suggesting that,

the pitch hallucinations are apparently the result of the opening and closing of cellular ion channels. The hair bundle's new hallucinatory vibrations are transmitted through the ear's basilar membrane, activating other hair bundles in the region of the cochlea responsive to the new frequencies. The auditory nerve, and the cerebral cortex are therefore unable to differentiate between real played frequencies and those arising from this special characteristic of the frequency responsive cells in the ear. [18](#)

These hallucinatory vibrations, then, can be said to be (in a very real sense) a glimpse of the multiple virtual forms produced by a differential flow experienced from the inside: they are not objects in reality which can be apprehended in extension but entirely new forms dependent on differential relations, forms which are always immanent (*déjà-là*) yet simultaneously *pas encore-là* since only ever present in the deployment of the work in time which, experienced from the inside in an aeonic relation, is itself always only ever this cosimultaneity of possibilities.

Niblock's music is indeed then a direct image of time, and in a sense it is only ever this since it is a continuum in which are present both the same (the *déjà-là*) and the different (the *pas encore-là*). Indeed, as Gerard Pape

suggests,

In the music of Phill Niblock, we are confronted with the aural equivalent of *trompe-l'œil*. Apparently static clouds of harmonically dense material turn out to be not so static as they appear. What's more, one has the distinct impression that the music is changing spatially over time. How is all of this possible? The key is in Niblock's use of time. In his music, the experience of time is as very slow and continuous. There are no disruptive, discontinuous musical events to disrupt the flow of time. Time is suspended. Niblock's music gives the impression of *having always been and continuing to be*. Yet, this is not the idea of Being as stasis. Each time one feels that Niblock's music isn't changing, one realizes that it is never the same, and yet, always the same. Being and Becoming as one. Moving Immobility. [19](#)

It is precisely in this seemingly paradoxical or impossible state of moving immobility that Niblock's reflection on time lies, within its apparent stillness in which harmonic fields shift and change, and yet somehow stay the same [20](#) that the time of *aeon* is experienced. Indeed, as another commentator has suggested,

Niblock's dense stationary waves are, ultimately, essays on Time itself. Niblock manipulates our perception of Time by disguising change as stability. As Saint Augustine said about 16 centuries ago, If I don't think of it, I know what Time is. The more I think of it, the less I know what it is. That is precisely what Niblock does to us: he makes us think of Time. His floating galaxies of tones force us to focus on the very nature and essence of Time. [21](#)

Niblock's work is, then, the ultimate still life displaying a motionless progress, and it is in this respect that it constitutes nothing but an image of time itself. [22](#) As Deleuze writes of this very concept of still life,

There is becoming, change, passage. But the form of what changes does not itself change, does not pass on. This is time, time itself, a little time in its pure state: a direct time-image, which gives what changes the unchanging form in which the change is produced. [...] The still life is time, for everything that changes is in time, but time does not itself change, it could itself change only in another time, indefinitely. [23](#)

Embodying the apparent oxymoron that is called into being by the very term still life, Niblock's music takes on the unchanging form of time that is itself change, a constant potential for movement within difference in itself that does not proceed inexorably towards an end but rather bends time's arrow back on itself, forcing it into a loop whose form can now also be apprehended as the form of difference in itself. It is then perfectly justified to describe Niblock's work, as one reviewer has, as the aural expression of re-contextualizing the space-time continuum, for in creating music in the manner described herein he proposes a (pure) loop as the form which gives us a direct image of time stripped of the co-ordinates with which we normally apprehend it, an image (and experience) of time without seconds, minutes, hours, days and years, an aural glimpse of the multiple virtual forms produced when we experience time as difference from within and do not count it from without. [24](#)

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Issue 8

Home

Facts

People

Reviews