

Born under a Bad Star:
Analysis of abstract loop based composition through
Aaron Funk's Szerencsétlen

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Abstract: There are a variety of parallels between the development of modern electronic music and western art music. The composition *Szerencsétlen* on the album *Rossz Csillag Alatt Született* (2005) by Winnipeg artist Aaron Funk otherwise known as 'Venetian Snares' embodies these parallels. Though a novel system of computer assisted analysis, this complex tangle of historical, technical and compositional materials is unraveled. This paper proposes a model for analyzing music of this type.

**Born under a Bad Star:
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Szerencsétlen**

There are a variety of interesting parallels between the development of electronic music and western art music. Current trends, and a quickly evolving musical landscape can be compared to the well documented western musical tradition. The composition *Szerencsétlen* on the album *Rossz Csillag Alatt Született* (2005) by Winnipeg artist Aaron Funk otherwise known as 'Venetian Snares' embodies these parallels as well as many differences. The historical context, technology and compositional techniques used in *Szerencsétlen* create a complex tangle that defies conventional analysis. These analytical challenges can be overcome with musical detective work and technical ingenuity.

The climb from a popular musical style to acceptance as an elevated form of artistic expression is steep. The struggle to include jazz as legitimate art music took many years and the endeavor continues to this day. However, it is no longer acceptable for educated musicians to dismiss jazz as 'dance music' because of its association with the dance hall. To dismiss jazz as an artistic musical form would be a rejection of a major portion of North American music history. Recently, the struggle for legitimacy has been taken up by electronic music. Electronic music is not to be confused with electroacoustic, a musical tradition that is firmly associated with western art music history. Like jazz, some music scholars are quick to dismiss all forms of electronic music as 'dance music' because of its origin in repetitive popular music styles that grew out of the disco movement of the early 1980s. As electronic music diversifies and matures as a genre, new artists are taking this form to new levels of abstraction and sophistication. The study and analysis of electronic music poses unique challenges that stem from a rapid evolution outside the western art music tradition.

Art Music and Dance Music

It is interesting to note that a great deal of western art music owes its origins to 'dance music'. There are obvious examples, such as *Bach's English Suites* and *Chopin's waltzes*. But a more subtle proliferation of dance patterns is included in the majority instrumental music from the Renaissance to the end of the Romantic period. Features like standard accompaniment patterns, harmonic rhythm, ground bass, and formulaic chord progressions can be traced back to early dance music in some form.

Standard accompaniment patterns and dance forms are popular because they represent an elastic framework that a composer can stretch to create interesting forms of tension. The tension produced by stretching occurs after boundaries are understood. Once boundaries are established, the composer can defy these limits and challenges the expectations of the listener. Expectations can be challenged because they are built into the musical and cultural context of any given point in history. Ideas like the modal and tonal systems, sonata form, and the twelve tone system, are boundaries where composers stretched, crossed and explored new territory.

In the current cultural context, *Bach's English Suites* are no longer functional dance pieces despite names like *Prelude*, *Allemande*, *Courante*, *Sarabande* and *Bourée*. It is not impossible to dance to this music, but function has taken a back seat to the artistry and the sophistication of Bach's artistic expression. In the 18th century Bach experimented with the dance frameworks and from them built a complex network of tension release events. The same process is happening in 21st century electronic music. Specifically with the more abstract electronic music works like *Szerencsétlen*, which translates as “unlucky” in Hungarian.

Underground dance music culture has created a new set of commonly used dance patterns. Like western art music, electronic dance music is largely defined by pulse, pattern, and tempo. As progressive tastes developed and deemphasized practical use as dance pieces, style and genre came to be determined by a growing set of cultural, sonic and contextual factors. Each electronic music style encompass numerous sub genres, each with its own character, qualities, and historic context. The

history and context of the materials and characteristic features of *Szerncsélen* brings together Bartok, drum and bass, and hardcore.

Tempo in Beats Per Minute

60–90 bpm
90–120 bpm
120–135 bpm
135–155 bpm
155–180 bpm
180 + bpm

Dance Music Style

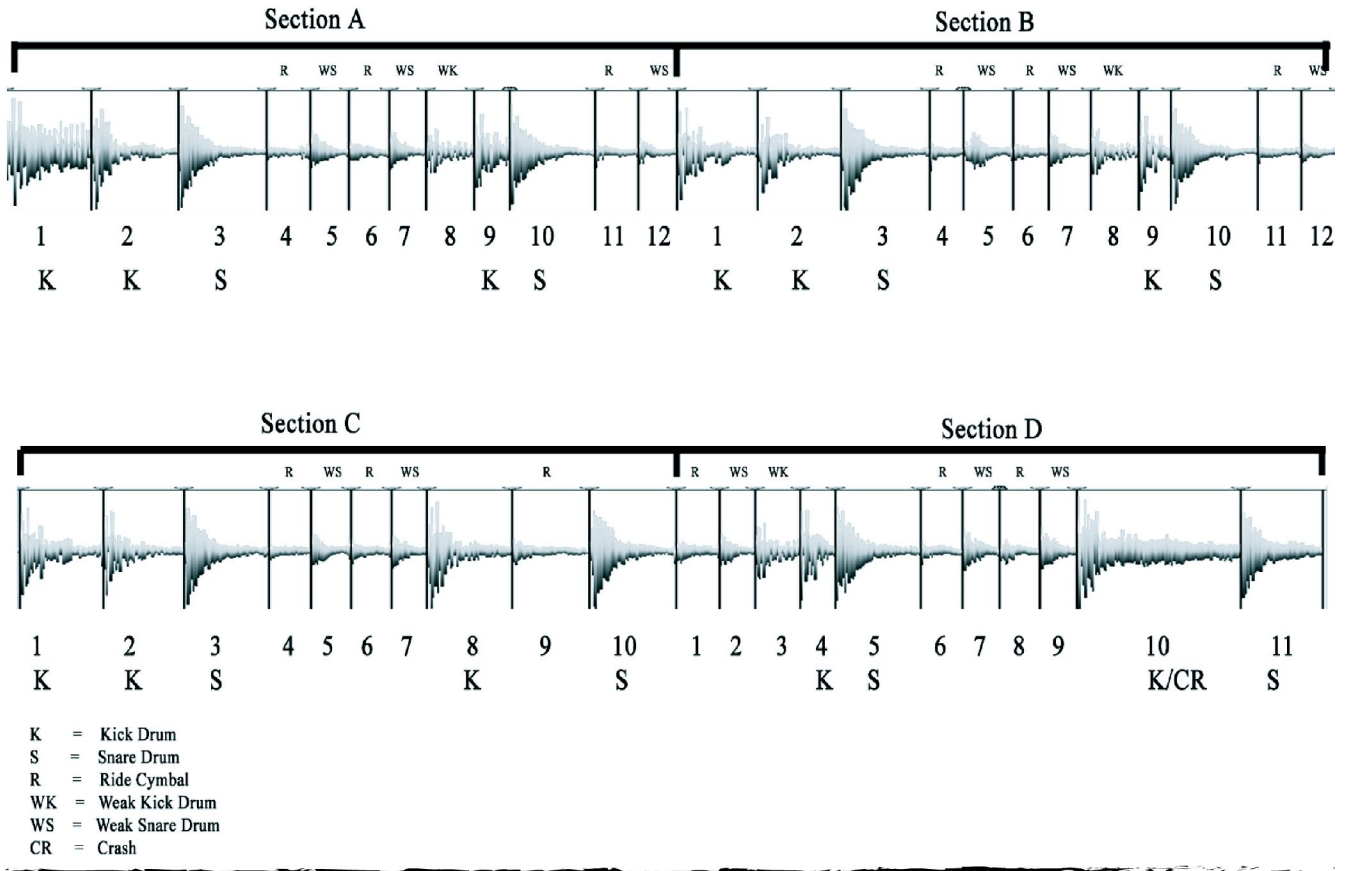
hip hop and dub.
trip hop and big beat.
house
techno
drum and bass and breakbeat
hardcore and gabber

New Frameworks in the Digital Age

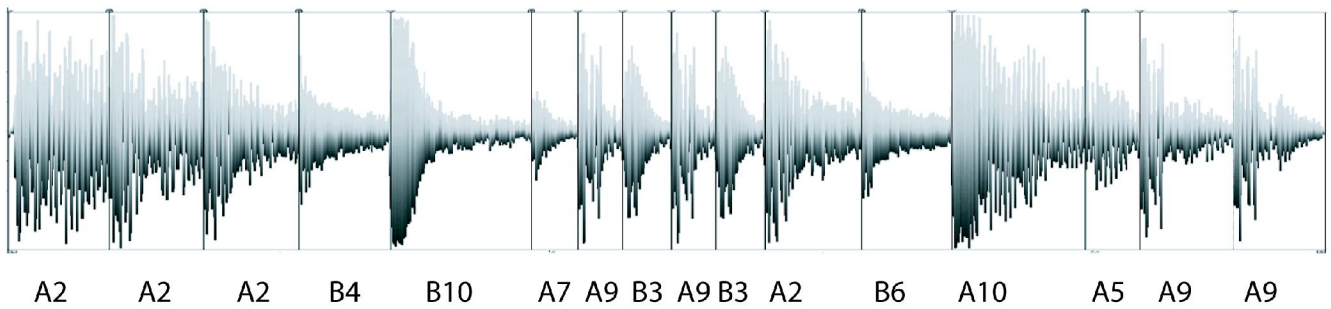
The use of accepted structural frameworks, cadential progressions, themes and quotations are common in western art music. These structures are handed down from one generation of composers to the next through written notation and the music education system. Electronic music has a similar way of transmitting its frameworks. A similar, but uniquely electronic approach, can be observed in the evolution of electronic music. Modern electronic artists use a very direct form of transmission and quotation. They literally lift the recorded materials from other artists without permission and combine them to create a new works. This instant re contextualizing is possible because of advances in music technology. Electronic music producers of the 1980s were able to record and play back sounds taken from existing recordings. They used samplers like the Fairlight CMI (Fairlight) and later the more powerful Roland S series. The sound fragments they discovered, and integrated into their creations are called samples and loops. Suddenly, artists were pouring through old funk and gospel recordings in search of the perfect drum breakdown. Breakdowns, or 'breaks' were selected and sampled in terms of their sonic potential. One of these breaks would have enough potential to carry several genres of electronic music from the 1980s into the 21st century.

Breakbeat Analysis:

Amen Break



Szerencsélien Break



The *Amen Break*:

The cult phenomenon of the *amen break* illustrates important parallels and differences between western art music and modern electronic music. The *amen break* is a four bar drum solo from a B side recording by the 1960s soul group called The Winstons [See Audio Example, Track 2]. The six and a half second drum loop from the track *Amen Brother* (1969) was perfect for sampling because it was fully exposed, perfectly in time, clean and tight with interesting syncopation. The *amen* was so widely used by electronic music producers in the 1990s that it became “an ubiquitous piece of the pop culture sound scape” (Harrison). From underground gangster rap and drum and bass to European breakbeat, the *amen break* was everywhere. When the underground electronic sound became popular with cooperate America in the late 1990s the *amen* was used to sell everything from cars and bluejeans to antidepressants. (Harrison)

Szerencsétlen is an example of a work composed well into, and beyond, the late 1990s period of obsession and fetishization of the *amen break*. Using modern audio processing tools, artists like Aaron Funk, Square Pusher and Aphex Twin, sliced up, pitch shifted, transposed distorted and compressed the *amen break* into new and interesting patterns. [See Breakbeat Analysis] The resulting pieces of music often sound nothing like the original. Because the composers became familiar with the possibilities and limitations of the *amen break* framework, they are able to mold it into a staggering array of new works. The *amen break* is similar to any number of the frameworks that proliferate in the evolution of western art music. It is a self referential network of possibilities that composers bend in order to create tension release events.

It is difficult to determine exactly why it was the *amen break* that became a compositional framework for so many composers. Aside from being fully exposed and in near perfect time, there are specific aesthetic reasons why this sample is so popular. The tuning of the snare and the kick drum are particularly high and bright. [Breakbeat Analysis Slice D5] When *the amen break* is sped up it sits perfectly in a bass heavy mix, or on its own. The desirable quality of early reflections and

reverberation or “room” sound that comes from vintage 1960s recordings gives the *amen break* a raw human quality. Electronic music artists like Aaron Funk create interest by taking a naturally beautiful drum sound and cutting it in unnatural ways. [See Breakbeat analysis] In this way they can over-emphasize specific sonic characteristics that are buried in the original recording. For example, some of the snare strokes and reverberation trails that are barely audible, [Breakbeat Analysis Slice A12] can be featured prominently in a new context. The dynamic variation and accent patterns in the original Winstons drum solo allow the *amen break* to be rearranged into a large number of phrase structures. The *amen break* can be split into at least forty-five distinct sound slices. Using drum machines, or computers, these slices are triggered individually, in larger groups, or simultaneously.

Forms possible with new technology

Electronic music is inseparable from electronic technology, just as orchestral music relies on complex instrument technology. While instrument technology has been refined over over hundreds of years, electronic and digital technology is in its infancy. In both cases, reproduction of musical sounds in a live setting relies on technology in some form. However, the notation system that developed alongside western music culture allows for musical compositions to be continuously re-interpreted as instrument technology continues to develop. The music of J.S Bach being performed by Glen Gould on modern pianos, or Wendy Carlos on Moog synthesizers (Deutsch 83), exemplifies how the western system of notation allows for new reinterpretations of older works.

Electronic music has no standardized notation. (DeLio 43) Some of the early electroacoustic pieces such as *Sockhausen's electronic study no.1* (Stockhausen) had a graphic score and technical manuals that consisted of lists of times, durations, frequencies, envelope settings and amplitudes. These electronic pieces are simple enough to document and reproduce with modern technology in a way similar to western notation. However, with the addition of interdependent sampled sounds and complex chains of signal processing, this type of notation becomes impractical and most often

impossible. To solve this problem electroacoustic composers resorted to combined notation, text and images to act as visual aides for analysis, discussion and following the score. The electroacoustic listening guide developed because of western art music's emphasis on printed music. Like the printed score, the listening guide is an abstract representation of the sound. However, there is one important difference, it is nearly impossible to recreate a performance of an electroacoustic composition using a listening guide. In the case of electroacoustic composition, the written musical tradition predates the art form, therefore the composers quickly encountered incompatibility issues.

A standardized printed notation was a non issue for electronic music produced in the 1980s and 90s. Conventional notation was not part of electronic music's early development. From the outset electronic music composers were tied to technology that evolved too rapidly to be standardized. Printed notation was impractical and impossible. The evolution of electronic music follows a model that is more akin to a modified oral tradition, rather than a written genre. (Truax 119-120) Instead of an abstract representation of sound that requires specialized education to interpret, the sounds themselves are saved in the form of vinyl pressings, CDs, sample libraries and modern digital formats. Wav, Mp3, Aif and more recently FLAC (Flac). These sounds are passed down and re-contextualized as new technology developers and musical trends change. (Harrison)

The rapid evolution of music technology in electroacoustic and electronic music has advantages and disadvantages. The invention of the home PC and the digital audio workstation has allowed more artists to access powerful sound shaping tools. With each new product generation, software and hardware manufacturers compete for market share by introducing new features, improved work flow and increased functionality. *Szerencsétlen* would have been impossible to create in an analog recording studio. Sonic possibilities are greatly increased as computers allow for precisions not possible with conventional instruments or notation. However, the lack of score limits performances to the recorded medium or live performance by the composer.

Characteristic gestures through rhythmic resolution:

Tension and release events in *Szerencsétlen* are drawn from techniques commonly used in loop based electronic music. In this particular style, repetition and variation of complex materials quickly creates a large complex structure. The construction of *Szerencsétlen's* patterns can be broken into three tiers: Long phrases, Loops and slices. Long phrases of eight or sixteen measures are the structural backbone of the work. Each long phrase is made up of varying percussion loops in 7/4 time. The loops are made up of re ordered and processed slices of the *amen break*. [See Breakbeat Analysis] Understanding how these three levels interact with one another is the key to understand the tension release events in *Szerencsétlen*.

The composer builds up expectation by manipulating rhythmic resolution (McLachlan 61). As the loop repeats, the pulse becomes rooted in the mind of the listener. As syncopation is introduced tension builds. This tension continues to build as the slices are re-arranged into unpredictable patterns. The composer then gains control of very precise tension release events that are similar to the cadential patterns in tonal music. Just as the harmonic rhythm increases before affirming or eliding a tonic, the rhythmic interest increases before a rhythmic resolution. Events preceding rhythmic resolution are called 'builds' in common electronic music terminology. The builds used in *Szerencsétlen* can be categorized in the following ways:

Off Beat Shift (OBS):

When the accent pattern of a loop is displaced by a short rhythmic value. This syncopation increases the rhythmic complexity for a short period of time. The length of the shifted material is proportional to the strength of the subsequent rhythmic resolution. If too much material is displaced and the memory of the previous pulse is dissolved, the resolution is very jarring.

Example. [M. 11, Breaks A]

Rollup (RU):

When a slice or group slices is repeated in quick succession with a clear motion towards the

Point of Rhythmic Resolution. The motion can come from a linear pitch shift or a dynamic envelope. Roll ups can be extremely short to emphasize single beats of a pattern, or they can be very long and emphasize the rhythmic resolution of an entire section. [M.8, Breaks A]
[M. 6, Break A]

Rolldown (RD):

A rolldown is similar to a rollup, except the pitch shift will be down as well as the volume envelope. [M. 16, Break A]

Rollovers: (RO)

when a syncopated pattern spills over the next point of rhythmic resolution. The effect is a delayed resolution that interferes with the pulse pattern of the subsequent loop.

[M.M 6 – 7, Break A]

MicroLoop: (MicL)

a sub loop is established inside the pulse pattern of a larger loop. Micro loops are often created based on asymmetrical patterns that displace the pulse pattern of the against the larger loop.

[M. 7, Break B]

MacroLoop: (MacL)

a sub loop is established inside a pulse pattern that is larger than the average pulse pattern.

[M. 16, Strings A]

Pause: (P)

When the listener comes to expect increased syncopation at the end of phrases, it an effective compositional device to remove the rhythmic patterns altogether. If not overused, the effect is to increase the intensity of the rhythmic resolution in the next loop. [M.8, Strings B]

Combinations: (C)

'Builds' preceding points of rhythmic resolution are often used in combination to increase the effect. For example, a pause and a roll up. [M. 8, Break A]

Formal analysis: [See Formal Overview]

Introduction: (0:00 – 0:39) Measures 1-16.

Here samples of Bartok's string quartets are combined with timpani samples. The



samples outline the melodic material that will be used throughout the work. The theme slowly comes into focus as key notes are emphasized. The layering of the sampled materials are cobbled together to form short phrases. These short phrases do not sound like a real string quartet because of unnatural cutting and pasting of the decay trails on the original recordings. These are hidden to a certain extent by a reverberation effect unit that is being applied to the sampled string slices. The strings may not sound real, but the sense of line and drama is real as the *Szerecsétlen* theme unfolds.

Breaks A: (0:39 – 1:18) Measures 17 - 32

This section introduces the *amen break* material in 7/4. The breaks are combined with thematic materials foreshadowed in the previous section. The *Szerecsétlen* theme continues throughout, acting as an anchor for the complex break patterns. Rollovers, offbeat shifts as well as other builds are used to create tension until resolution in measure 33.

Strings A: (1:18 – 1:56) Measures 33 - 48

Bartok's string quartets are sampled heavily in this section. It begins with material from the beginning of the work and summarizes events that occurred earlier in the piece. String A: can be further broken down into a 4 + 4 + 8 pattern with *amen breaks* bookended by phrases created from Bartok quartet samples.

Breaks B (1:56 – 2:35) Measures 49 – 64

This section returns to similar material as Break A. Intensity builds and the work becomes more frantic as rollups, pauses, rollovers and micro loops are combined in quick succession. A squelchy synthesizer lead line replaces the strings as the primary focus in measure 57. The elimination of the

strings as primary focus pulls *Szerencsében* towards more common textures associated with hardcore underground music styles. The synthesizer fills out the harmonic space with a thickness that string instruments are unable to produce. The section intensifies until measure 64 where it collapses.

Strings B + Pizz Transition (1:35 – 3:30) Measures 65 – 88

This section marks a return to the introductory material of the piece. The *Szerencsében* theme is being outlined with pizzicato passages. These samples sound artificially round and perfect. They might not be samples from Bartok quartets but pizzicato sounds from a sample library. There is an eight measure transitional section between the pizzicato material and the Breaks C section. The listener is expecting the piece to return to the stable 7/4 pattern but the rhythmic resolution is elided with a sequence of rolldowns, rollovers, micro and macro loops. This section would be akin to a chain of deceptive cadences in tonal music. The transition out of this section is a pause with a drawn out distorted rollup.

Breaks C (3:30 – 4:31) Measures 89 – 112

The main theme is transposed down a tritone for the final breakbeat section. In this section, the sound materials in *Szerencsében* have transitioned away from live sounding instruments to a harsher electronic aesthetic. The interest in this section comes from combinations of harsh and warm analog synthesizer lines with fake sounding strings. Extreme stereo panning is added as a compositional device to intensify tension and release events.

Outro (4:31- 4:50) Measures 113 - 120

The work ends with a sampled pizzicato pattern combined with sampled tympani sounds. Both of these instruments bang out the ever present melodic progression. The ending lacks closure and may seem weak considering the variety and careful attention to detail in the previous sections. However, this is the third track on a larger album so it is important to consider the context in which it is heard. Also, endings for electronic compositions are often created to facilitate live performance. A simple and repetitive ending acts as the perfect segue when mixing tracks together in a live performance context.

Direct Contact with Western Art Music

In the 1990's an increasing global market and interest in abstract electronic music has created an explosion of professionally active artists. While many of these artists were operating within their own sub culture vacuums, some artists were aware of, and are influenced by, the western art music tradition. Stockhausen, Xenakis, Schaeffer and Cage are of particular interest to many modern electronic musicians. (Huegli) The proliferation of expensive digital equipment in the 1980s and 90's caused underground artists to become interested in the analogue aesthetic. Many artists found themselves using old analog equipment that was sold at low prices as professional studios upgraded their technology. As copyright regulations for sampling popular music tightened in the early 00's, 20th century composers were discovered by electronic musicians as source material for obscure and interesting sounds. Not being a commercially viable product, the copyright holders of 20th century music lack the legal resources to protect their recordings. Artists, who worked re contextualizing preexisting sound materials were drawn to Schaeffer and the aesthetics and history of *musique concrète*. Other artists were drawn to the studio works of Stockhausen (Stockhausen). Despite becoming aware of the fact that their ideas may not have been as new as they had once believed, not all creators of abstract electronic music were content to align themselves with western art history. Some electronic music producers reject the idea of art music and continue to believe they are rejecting all established musical tradition. Aaron Funk's music is a blend of both of these ideas. Although he is aware of his place in history Aaron Funk is likely to poke fun at any established tradition as he is to embrace its artistic aesthetic. In his early work he was more likely to mock tradition, but as his work matures there seems to be a more sophisticated and informed use of historical narrative. Evidence of this can be seen in his treatment of Bartok samples in his Hungarian themed album *Rossz Csillag Alatt Született*. From their relationship to dance, artistic aesthetics and direct quotation, the aesthetic of modern music and underground electronic music have many points of contact.

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Szerencsélien Measures 17 - 24

♩ = c. 176

Primary Break

Formal Overview

