

Dropping the Bass: The Influences and Evolution of Modern Dubstep

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Abstract

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The purpose of this paper is to investigate the extent of influence earlier dubstep productions have had on the genre's apparent evolution. Five songs spanning various key points in the evolution of dubstep have been chosen and analyzed to fulfill the purpose of this paper. Dubstep is a darker, slower sub-genre of electronic dance music that has only recently come into existence. Dubstep has evolved quickly from its origins, but some key characteristics have been consistent. For example, the tempo is always around 140 beats per minute, the augmented kick-snare drum pattern is always present, the vast majority of productions are in a minor key, and all motifs and ostinatos are 2 or 4 bars in length. Dubstep typically has two sections - an introduction and a drop section. However, there has been significant evolution in the drum machine rhythms and timbre. For the drums, artists have stopped focusing on syncopated cymbals in favor of displacement towards the alternating bass-snare pattern, shifting the beat around. With regards to timbre, a dominating prevalence of sub-bass ostinatos has faded to synthetic sounds which are much fuller and span a wider range over multiple octaves. Harmonic ostinatos were popular in both sections for earlier productions, but recently, the drop sections have tended to be homophonic.

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Introduction

Dubstep is a sub-genre of electronic dance music that emerged in the early 2000s, focusing around abnormally slow drum patterns coupled with dark and deep synthetic bass lines. Dubstep spawned as a break from London's two-step garage music, which differentiated itself from most electronic dance music in the fact that it does not feature a kick drum on every beat, but every other beat. Dubstep took these previously mentioned traits but emphasized creating a much darker sound than traditional two-step garage. These bass lines, along with unpredictable, syncopated drum patterns create tension that is present throughout many early dubstep productions. Recent dubstep productions are considered to be in the same genre as the ones produced 10 years ago but appear to have significant differences. These more modern productions have scrapped the deep, rumbling bass for a heavier, dirtier sound, creating much more aggressive timbre. Through researching and analyzing signature dubstep productions throughout its existence, the extent of influence earlier dubstep productions have had on modern productions is explored in this paper.

Research Question

How influential have primordial dubstep productions been on the evolving musical style of modern dubstep?

Drumset Rhythm Patterns

Dubstep productions follow a basic percussion pattern consisting of alternating bass and snare drums. This was based on London two-step garage music (hence the "step" in dubstep), which had the bass and snare drums alternating beats, but all except very early dubstep productions had augmented this pattern. This augmentation has come to be known as "half-time", and is now a staple in any dubstep song. Other drum samples were sometimes added for texture, and to change the timbre of the song, but this trend has faded as dubstep

progressed.

In the earliest dubstep productions, like “Fist of Fury”, by Horsepower productions (released in 2002), the drum structure is one more akin to a two-step pattern than a dubstep pattern with the bass drum hitting on the first and third beats, and the snare drum hitting on the second and fourth beats, as shown in diagram A below. “Fist of Fury” also contains heavy syncopation of hi-hats, and an empty beat where the bass drum should be on every other measure, which aims to disconcert the listener from a predictable rhythm.

Diagram A: “Fist of Fury”



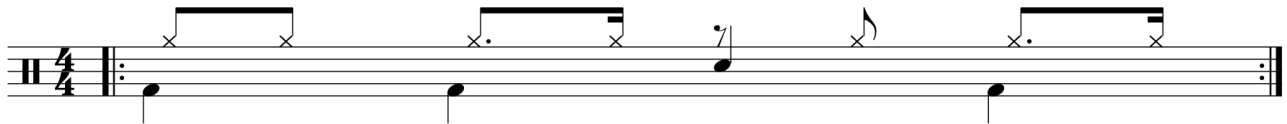
However, in 2005, an up-and-coming producer called Skream, who signed onto the same label as Horsepower Productions, released “Midnight Request Line”, which has come to be considered as dubstep’s most signature tune (NYMag.com). Skream used the augmentation and syncopated hi-hats to create a tense, heavy, and dark tune. In between the first and third beats, Skream adds syncopation of fickle, echoing hi-hats, keeping the listener on edge with its unpredictability. Adding more to the tension, Skream uses the snare drum to abruptly truncate the activity, leaving the 4th beat of every measure empty of percussion. Skream also changes up the pattern; for example, he sometimes will extend the hi-hats and cymbals for an entire measure, or will have sets of measures be simply a bass drum on every other beat. A diagram of these patterns is shown below.

Diagram B: “Midnight Request Line”



Later on, in 2007, the next influential tune was released: “Cockney Thug”, by the producer Rusko. From a structural standpoint, Rusko draws influences from two-step, dubstep, and arguably even house music (which is a type of Electronic Dance music in which the drum patterns consist of a bass drum every beat). Rusko fused these together to create a more danceable tune. The bass-snare pattern is still intact, but Rusko also added a bass drum to the second and fourth beats as well, along with minor syncopation of hi-hat cymbals. A diagram is shown below.

Diagram C: “Cockney Thug”



By 2010 mainstream dubstep producers, including Flux Pavilion and Skrillex, had simplified their percussion, leaving the trend of syncopated cymbals behind. Flux Pavilion, who has become one of the most popular producers of dubstep to date, released “I Can’t Stop”, which was one of his earliest, most successful songs. “I Can’t Stop” uses displacement of the traditional pattern, as shown in Diagram A, with the bass and snare drums, but does not add additional drums for syncopation. A diagram is shown below.

Diagram D: “I Can’t Stop”



Skrillex’s “Scary Monsters and Nice Sprites” uses quick but unsyncopated higher register drum samples for his introduction, but transitions into the signature dubstep drum structure until the drop section. In his drop section, shown on the next page, he adds variety to

the traditional drum structure by elaborating the snare drum every other measure with extra sixteenth notes for texture.

Diagram E: “Scary Monsters and Nice Sprites”



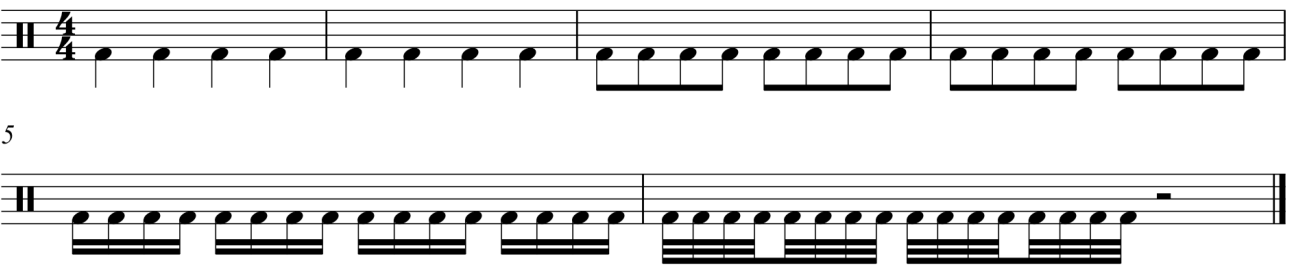
In earlier dubstep productions, the augmented bass-snare drum pattern became firmly established, along with heavy use of syncopated hi-hats, in part due to its predecessor, two-step. However, as time went on, use of syncopation faded, along with the use of extra drum sounds to complement the fundamental pattern, and producers started using displacement to tinker with this established pattern. Even so, the bass drum hitting on the first beat and the snare drum hitting on the third beat remain an integral part of dubstep.

Drumset Rhythm Patterns - Diminution

Another popular drum technique used in dubstep productions, especially those with a “drop” section, is to take the kick drum and have it hit on every beat, diminishing note values to build anticipation for the new “drop” section. Producers also use this to give an illusion of acceleration in the song, but the tempo does not change, only the note values. An additional technique is to cut most, if not all sound coming after this diminution, to add suspense in waiting for the drop section. “Midnight Request Line” is the earliest song I’ve analyzed that uses this technique, diminishing a snare drum progressively from every other beat to 16th notes over 8 measures, with a different section, containing the same drum pattern as in Diagram B, being introduced after two measures of near silence. A diagram of this is shown on the next page.

The second system of the musical score, labeled '7' on the left, contains two staves. The first staff continues the melody from the first system, starting with a treble clef and a 4/4 time signature. It contains six measures: four measures of quarter notes (G4, A4, B4, C5) and two measures of eighth notes (G4, A4). The second staff begins with a bass clef and contains six measures: four measures of eighth notes (G3, A3, B3, C4) and two measures of whole notes (G3, A3). The system concludes with a double bar line.

Diagram G - “I Can’t Stop” Diminution



Structure

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and bass, which ranges from 160 to 200 bpm, with relative ease (soundonsound.com). The only tune that does not follow this is the earliest tune, “Fist of Fury”, which clocks in at 133 beats per minute (beatport.com). This is due to the fact that “Fist of Fury”, while considered dubstep, still has heavy influence from two-step garage. The generally standard vivace tempos featured in dubstep productions create a lively song to dance to.

Also, all dubstep productions are in a simple quadruple meter. The structural format of dubstep usually consists of an alternating A section and B section. The A section is referred to as an intro section, and the B section is referred to as a “drop” section. The A section usually has three to four layers progressively added over the course of the section. Dubstep productions do not usually start with percussion, but add it in as another layer to progressively increase the complexity and energy of the section. Rather than a melody occupying a focal function, an ostinato is present, always consisting of a synthesized sound. A possible reason for the use of ostinatos is to make the music much more predictable, allowing the listener to have an easier time dancing to it. The other layers consist of either ambient textures, bass lines, or, only in more recent productions, vocals that have been electronically filtered.

Structure - Drop Section

While there is no rigid definition of what a “drop” is in dubstep, the B, or drop section, usually exhibits a much fuller sound, especially in the lower registers. In dubstep, especially in earlier productions, the music can be felt as much as it can be heard, due to the prominence of the sub-bass register. In earlier productions, like “Fist of Fury” and “Midnight Request Line”, the B section is more texturally dense than the A section - meaning it has more layers. Furthermore, all sections for earlier productions are in homophony. But a recent trend has been to actually reduce the number of layers and transition from a predominantly homophonic intro section to a monophonic drop section, putting even more emphasis on the melody, which is

often ostinatos that are repeated.

Another popular technique in addition to the diminution explained above, is to introduce vocal samples right before the drop, in order to set the tone of the drop section. Both “Cockney Thug” and “Scary Monsters and Nice Sprites” use this technique. Both vocal samples are very aggressive and alarming in nature. Skrillex samples a viral youtube video of a girl screaming, “YES! OH MY GOD!”, which sets the tone into a similarly aggressive drop section.

(youtube.com). Similarly, Rusko samples a monologue by actor Alan Ford, which profanely concludes with the vulgar remark, “Now Wake. The Fuck. Up!”, introducing the drop section.

Harmony

A significant trait of dubstep is the prevalence of minor keys. Their purpose is to add tension and express (darker) emotion that major keys would not be able to express (soundonsound.com). This trend was set early on; over 80% of Horsepower Productions’ *In Fine Style LP*, considered the first dubstep album, was in a minor key (beatport.com). “Midnight Request Line”, “Cockney Thug”, and “I Can’t Stop” all are in various minor keys as well. However, in pursuit of innovation and diversity, some recent producers have started using major keys. A prominent example would be “Scary Monsters and Nice Sprites”, which is in a key of A sharp major (Beatport.com). This could be attributed to Skrillex’s aim to produce an upbeat dance tune rather than strictly following the traditional dubstep traits.

In general, most dubstep productions have stayed in the minor keys to convey a sense of dark, overbearing tension that major keys would not be able to express. But there has been a trend to experiment with major keys, perhaps to convey a more uptempo vibe that would nod to dubstep’s categorization as a sub-genre of Electronic Dance Music. With that being said, minor keys are much more traditional and accepted for a true dubstep production from any point in time.

In addition to the prevalence of minor keys, dubstep is often in homophony, incorporating multiple layers of ostinatos and/or drones. This has remained relatively consistent throughout, probably owing to the fact that dubstep is a sub-genre of Electronic Dance Music. Oftentimes ostinatos will be progressively introduced to add complexity and momentum to the song, as shown in “Midnight Request Line”. However, as dubstep has progressed, the use of harmonic layers has stayed consistent in the A sections, but the drop sections have become monophonic. Parts of “Cockney Thug”’s drop section are monophonic, until a trumpet ostinato is added, and both “I Can’t Stop” and “Scary Monsters and Nice Sprites” are monophonic throughout the entire drop section. With that being said, both have ostinatos in their A sections.

Melody

In terms of melody, dubstep has been consistent with most forms of electronic dance music when examining it through a melodic perspective. Dubstep typically contains motifs that are short, two to four bars, that are repeated extensively throughout the song. This is a key characteristic for all Electronic Dance Music forms discussed in this essay. These motifs are predominantly diatonic and are often derived from the home key’s arpeggio. For example, in “I Can’t Stop” by Flux Pavilion, each section, A and B, has a motif of four measures, which is derived from its home key of C minor (beatport.com). Similarly, Skream’s “Midnight Request Line” has motifs of two measures, also derived from its home key of C minor (no correlation to both tracks being in C minor specifically).

Timbre

Dubstep is also unique from other sub-genres of Electronic Dance Music in that it is driven by sub-bass. Sub-bass is usually defined by any sound that is below 60 Hz (independentrecording.net). At these frequencies, the music is primarily felt rather than heard. One popular way to create these deep sounds is to use a music composition program such as

Native Instruments' Massive. In Massive, there are numerous ways to manipulate sounds by using a multitude of filters and distortions. Different combinations lead to bizarre and novel sounds that dubstep productions, especially the more recent ones, have become known for. The most famous one is the signature 'wobble'. The wobble is created by combining multiple sine waves of different frequencies, and then adding filters to achieve the wanted timbre. Both the intro and drop sections of Horsepower Productions' "Fist of Fury" have a wobbling drone that persists throughout the song. But it was not solidified as a key trait of dubstep until Rusko's "Cockney Thug", making it "one of the most familiar hallmarks of the nu-dubstep [era]" (guardian.co.uk). The conjunct ostinato is constantly a 'wobble', oscillating between different overtones in a legato fashion (guardian.co.uk). In Flux Pavilion's "I Can't Stop", the melody in the drop section also has some traits that resemble wobbling, with changing legato overtones transitioning the melody note by note.

When the music is played through a quality set of speakers that can properly handle the amount of bass, like a concert venue, dubstep is felt as much as it is heard. While I have not had many opportunities to listen in depth to these songs using a professionally prepared sound setup, the few times I have has provided a much different listening experience than in my headphones (which I have used to do most of my research). For example, the one time I heard "Midnight Request Line" on a large, quality set of floor speakers, I was blown away by how overwhelming the bass line was towards the song as a whole. The bass was so powerful it was shaking myself along with the pictures on the wall.

I have also gone to a Flux Pavilion concert, and I remember the drop motif of "I Can't Stop" could be very well felt as much as heard, but it did not dominate the song like Skream's signature "Midnight Request Line" would have. I know my research is not as complete because of limitations outside of my control/budget, but my observation is that over time dubstep has

shifted from these overwhelming bass lines to sounds that are much fuller and in higher registers, preventing sub-bass from being a priority.

Use of Instrumentation

Dubstep productions (with very rare exceptions), solely contain synthetic instruments and samples, which is a key characteristic of *Electronic* Dance Music. Percussion also seems to be done synthetically by a process referred to as gridding, and not performed by a human drummer. Gridding is used by music producers to easily compose drum patterns on music composition software that repeat and loop themselves perfectly with little to no variation. This gives the songs a tone of familiarity and predictability that Electronic Dance Music is known for. The music itself is produced on a computer; early producers were fond of FL studio, a music production program (soundonsound.com). When dubstep producers perform live, they use a computer along with DJ equipment to create a continuous mix featuring many different songs.

This is not always the case however; some artists will incorporate live instruments, particularly drums. Big Gigantic, another dubstep producer I saw live, had both a live saxophone and drums, in addition to the traditional DJ equipment. Also, Flux Pavilion has stated in an interview that he does use live instrumentation in some of his productions, and all of his voice samples were from himself. He used to be a singer-songwriter, and from recording his own songs at night, he became intrigued by sampling, which has led him to producing electronic music. However, Flux Pavilion also wants to produce his next album with as many real instruments as possible, nodding to his roots in traditional music forms (<http://www.theedgesusu.co.uk>).

Until very recently, dubstep productions almost exclusively have consisted of synthetic instruments; therefore, it has always been considered a sub-genre of *Electronic* Dance Music. But, in pursuit of diversity and evolution, there have been various methods of incorporating

non-digital elements beyond the basic DJ equipment, from having live instruments in concerts to recording instruments in the studio to complement computer-produced sounds when producing a record.

Conclusion

How influential have primordial dubstep productions been on the evolving musical style of modern dubstep? After thoroughly analyzing multiple dubstep productions, sampling various periods from its advent until its most recent popular releases, the primordial releases have been heavily influential in some elements of music. Dubstep has always been produced in the realm of 140 beats per minute, with an augmented drum pattern with a bass drum hitting on every first beat, and a snare drum hitting on every third beat. Melodically, dubstep has remained largely static and faithful towards its classification as Electronic Dance Music. Looking at harmony, dubstep has been somewhat static, with predominantly minor keys being used along with heavy usage of ostinatos and drones. But more recently, some artists have started to experiment with major keys and have stopped using harmonic elements in their drop sections.

Even though some dubstep productions have been incorporating real and live instrumentation into their productions, synthetic instruments have been a signature characteristic of dubstep since its break from two-step. Additionally, another key trait of dubstep that has stuck since its beginning is the prevalence of sub-bass.

However, dubstep has also evolved in other areas, especially in regard to rhythmic and timbral elements. Earlier productions emphasized dominating sub-bass while leaving the higher registers void of sound until broken by a crisp snare drum or brittle hi-hat. But recent productions have reversed this trend to some degree, by creating melodic ostinatos that span multiple octaves, but they generally still occupy the sub-bass frequencies. Also, the trend of syncopated hi-hats has faded away, putting more emphasis on the bass-snare drum pattern,

which is sometimes displaced. Modern dubstep producers have also experimented with using real instruments that have not been sampled or produced by a computer, when earlier productions were exclusively mixed and produced digitally.

Since dubstep is ten years old at the time of this writing, finding sources has been challenging, so only by cross-checking sources I have found along with knowledge I had garnered through my obsession with dubstep could I validate my sources. Print sources were simply not an option for me, and I had to rely on many '.com' sites, along with British newspapers such as The Guardian and online portions of BBC.

Also because sources on dubstep are usually less technically analytical than in other genres of music, the five pieces of music I chose were somewhat subjective in nature. I knew that "Fist of Fury" was the opening track on what some sources consider the first dubstep album, that "Midnight Request Line" was the track that firmly established dubstep as its own sub-genre and not just an aimless break off of two-step (pitchfork.com, youtube.com). However, the other tracks I had to choose are based on my own judgement which was a mixture of the popularity of the song and its influence on the genre as a whole. Rusko admits that "brostep", or the more recent style of dubstep, was his fault when Cockney Thug became so popular (vita.mn). Circus Records, Flux Pavilion's label, has become very popular recently, shown by popular hip-hop artist duo Kanye West and Jay-Z sampling "I Can't Stop" (theverge.com). Skrillex was nominated for five Grammys in 2011, and won three, including Best Dance Recording for "Scary Monsters and Nice Sprites" (theverge.com).

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