

**jungle drum and bass:
a musical vanguard of innovative approaches to
existing technologies**

**nico oved, april 2002
published in rokon magazine #14, oct. 2007**

Jungle/Drum and Bass is a genre of electronic music that evolved from the creation of the breakbeat. In turn, the breakbeat was musical faction of electronic music that broke away from the House mainstream in the late '80s. Rather than the looped quarter note beat of House and Techno, the breakbeat was one or more entire bars sampled. Producers could then brake down the sample into its component drumbeats and rearrange them in any way they saw fit. This is the essential difference between the regularly timed beat of House and the raining syncopated snares of Jungle/Drum and Bass.

This music emerged in London during the late '80s when numerous musical factions – all technologically innovative in their own way – were brought together to synthesize Hardcore or early Jungle/Drum and Bass. This time in inner-city Britain was unique in the sense that despite Britain's rich history of musicians, the vast majority of dance music was imported from the United States

and countries in Europe such as Germany. (Shapiro, ix)

Warehouse and open field parties – the precursors to modern raves – were occurring in the UK as early as 1978, yet in 10 years, no real tradition of electronic music production had begun domestically. However, in places like London's East End and Brixton, young club-going kids soon began to combine the imported electronic music with influences of the urban underclass. Many of these people were black Caribbean immigrants and nearly all were quite impoverished. This may either explain or complicate their pioneering approach to electronic music technology. Taking advantage of turntables, samplers and computer programs – some even provided by the government through social programs – early producers like Grooverider, SUAD and Lenny D Ice were able to fuse early breakbeat (or Hardcore) with elements of reggae and ragga soundclash events from Jamaica. These soundclashes were musical battles where DJs vied for the crowd's approval all while being coaxed on by loud mouthed and quick-tongued emcees in jumbled patois accents. What emerged was rapid fire, snare-heavy breakbeats over heavy, aggressive ragga basslines, all accompanied by virtually indecipherable patois lyrics. This was Jungle's first major phase:

Ragga Jungle.

It is precisely this mosaic of musical, cultural and technological influences that is both a prerequisite and in essence, the definition of Jungle/Drum and Bass. Its lineage can be traced through geographic locations, their corresponding musical genres, the technology and how it was used to make that music. From Jamaica came the Reggae soundsystem culture. This is where engineers first began to create backing tracks for emcees to toast (talk) over. Then the scene shifted to the Bronx where Jamaican immigrants brought their sound systems, but had to modify how the music was played for American tastes. This is where the first experimentation in mixing between two turntables occurred. Now shift to Detroit, Chicago, Frankfurt and Berlin, where by the early '80s, in-house studio engineers had begun to create simple dance tracks with synthesizers and samplers appropriately called House. Finally, it was in London where dissatisfied British Hip Hop fans began attending early House raves and through them, the break was finally brought to electronic music. Brian Belle-Fortune said it best: "The thing with the church of Jungle is that it allows you to come – needs you to come, with previous musical baggage." (Belle-Fortune, 88) It is this baggage, a virtual

history of misusing and defining new uses for musical technology, that leads to the proposition that the Jungle/Drum and Bass (dnb) genre is defined by and was created through its unique use of various music technologies.

* * *

As dnb is a truly postmodern music in the sense that it is a mosaic of appropriated styles, cultures and techniques, it is necessary to trace the roots of these various influences which all, in one way or another, stem from a new and unique approach to existing technologies.

reggae/dub

Jamaica seems an odd place for a worldwide musical revolution to find its roots. But it was here that the first real soundsystem culture began. Hand-in-hand with these soundsystems came the first dubplates, which were essentially low quality records that could be produced quickly. Here too, DJs first began to experiment with phasing out the vocals of a song and replacing them with their own. This whole process began in a ramshackle studio in the Waterhouse district of Kingston, Jamaica in the mid '60s. A small-time record producer named King Tubby was re-engineering a few tracks in order to make remixes – then known as “specials”. “He began cutting back and forth between the vocal and

instrumental tracks, embellishing the rhythms with heavy doses of reverb, echo and delay.” (Gonsalves, 11) Once released, the new sound became known as dub. These ‘naked dance rhythms’ would become the perfect backdrop to toast (talk) over. One of the first and greatest talk-over artists, U-Roy, would take a popular tune, phase out the singing and anoint the track with his own stream of screeches, yelps and catch phrases. (Gonsalves, 11) Out of simple studio experimentation, the essential trinity of two turntables and a microphone had emerged. An early DJ would play one Dub record and toast over it. Once the tune was done, he would simply cut the cross fader over to the second turntable where another tune would be cued up.

These were the days when the DJ and the MC were the same thing. In order to perform though, these DJs had to have soundsystems. They would save up and purchase their own huge systems consisting of turntables, a mixer, an amplifier and the all-important speakers, bass-bins and horns. These systems were often mounted on the backs of trucks. The DJ could then rent their musical equipment and services to events throughout the island. As with much technology, there was incredible competition to have the biggest bass bins or loudest woofers. This competition

manifested itself in Reggae "soundclashes", where DJs would bring their own systems and new Dub Plates to a location and play their hearts out, vying for the crowds' approval. Very quickly, parts of this culture began to find their way to the US.

hip hop

Immigrating to New York in '67 at age 12 from Kingston, Jamaica, a DJ named Kool Herc came to live in the West Bronx. Herc understood the Jamaican soundsystem scene, and had heard the early talk-overs of the new DJs like U-Roy. By 1973, Herc started his own soundsystem and played neighborhood block parties. Yet, he found that the New York Black and Hispanic crowds would not dance to reggae. So he began talking over Latin-tinged funk that the crowds found more appealing. Gradually he developed a style that was so popular that he began buying records for the instrumental breakdown rather than the whole track. He would play the 'break' sections of these records – the part where the percussive beat was played in its rawest form. But because the breaks of the songs weren't very long, he expanded them by using two turntables with double copies of the record. These breaks, like their Dub counterparts, were perfect for MCs to talk over. But

more importantly, it was Herc's new approach to the soundsystem and turntables that gave birth to Hip Hop. (Gonsalves, 15.)

Two of the three major predecessors to dnb had been established by the early '80s. However, it was active Hip Hop fans, with passive Reggae backgrounds that they had absorbed as children who became the pioneers of dnb. By the late '80s, there were "b-boys who'd grown tired of Britain's inability to produce a cohesive Hip Hop scene and had started to look to the raves for that unity. Similarly the raves drew on Reggae and Ragga's soundsystem mentality, inspiring the crews to leave the [Hip Hop] parties behind and explore the cybertech vision of the rave." (James, 5) However, we are getting ahead of ourselves here. In order for dnb to exist, House music and early raves must establish themselves.

house

It was House music that bridged the gap between Disco of the '70s and Rave of the '90s. This was the first truly electronic genre of music. It evolved quite simply from, "house musicians using down time in studios to create simple dance tracks." (James, 3) These "musicians" were studio personnel that when working, usually were not even credited on the albums they helped produce.

However, they marked the shift from the high profile Rock star to the relative anonymity of the electronic music producer.

By 1988, this music had gathered an incredible underground following, with a few thousand people going to rural meeting points and following a automobile convoy to the secret location of an outdoor rave. That was a summer when many enthusiasts discovered that they were not alone and were in fact, a part of a growing subculture. Like the summer 21 years before when the Hippies made the same realization, the summer of '88 was quickly dubbed the "Summer of Love". These outdoor parties were dominated by what was then known as Acid House. But soon, British b-boys took their Hip Hop and soundsystem backgrounds to the early House raves. Then, new tunes that eschewed the 4/4 beat of House began to be produced. These House tracks that incorporated the breakbeat were simply called Hip House tracks. However, it was not until the Rage night, organized by Fabio and Grooverider at the Heaven Club in London in 1989 that Hip House came into its own and was considered a true genre: Hardcore. (Belle-Fortune, 89)

* * *

Thus far, the geography and musical predecessors have been

traced. However, discussion must move to the specific musical technology and how it was used in new and unique ways.

turntables

A giant section of the Classical music industry depends on musicians and conductors playing and interpreting other people's music. Just as a playwright needs actors and a crew to give life to the words on stage, producers need DJs to play their tunes and DJs need producer's music. Rather than exploitation, it's an interactive celebration. Everyone's in it together. (Belle-Fortune, 138)

A dnb producer would have no place without a DJ to play, interpret and popularize their music. "After giving your tune to a DJ like Grooverider it becomes something else in the mix. There are occasions when, in that *long dark tunnel*, a 'third' tune is created which no one in the house expects." (Belle-Fortune, 129)

Turntables were hardly invented with their modern application in mind. In fact, the turntable has had to be modified to embrace its shift from being merely a playback device to a mixing one. The essential ingredients to mixing two records together are both to sync the speed of the records and then sync the beats and bars themselves. To do the

first, a fine pitch-adjusting device had to be added. Now rather than being limited to playing a record at either 33 or 45 rpm, a DJ could finely adjust a records speed up to 12 rpm between and beyond those two marks. Thus, faster and slower tracks could be synchronized. At Rage, "Fabio and Grooverider experimented with the decks, pitch shifting plates to plus 8 and distorting breaks to a manic level." (James, 13) In order to beat-match and bar-match, a DJ must be able to manipulate a record with his hand while still allowing the wheel to spin at its regular speed. Early DJs placed a sheet of waxed paper on the wheel as a layer underneath the record, but quickly felt slip-mats were created to separate the record from the wheel.

All of the above is common to DJs of every genre. However, rather than simply syncing 4/4 on beats of House or Techno, a dnb DJ must deal with off-beats. As Toronto DJ D-Realm told me, "the mixing style is definitely different. It is more difficult since there are many different beat structures and many possible sounds. All are capable of clashing even when beat-matched." Even though dnb DJs do things a little differently, all DJs have had to coax performance out of old turntables in ways they were not designed to be played.

lathes/dub plates

Think of a Dub Plate as a temporary record; one that can be cut from a tune you completed in the afternoon and then played the same night at a party. They were "originally made of a clay compound but are now metal based [and coated with acetate]. The quality of the sound deteriorates with repeated plays." (James, 32) The first Dub Plates can be traced back to Jamaica and the Dub culture of engineers like King Tubby remixing "specials" to be played at soundclashes that night for extra crowd approval. Strangely, this technology has been adopted by dnb DJs but not Hip Hop or House ones. For a dnb producer, the Dub Plate became a way of testing new material to see how crowds respond on the dance floor. If it went well, by distributing Dubs to exclusive DJs, they could create hype for the tune before its release and hopefully bolster its future record sales. "Dub Plate transactions can be a crew or loyalty thing. There's often huge dissatisfaction about tunes being given to the 'wrong' people or too many Plates being put into circulation. The lack of exclusivity somehow devalues the beats or the DJs playing them." (Belle-Fortune, 44) However, the Dub Plate culture quickly became one that could be described as novelty over quality. "The fast moving

dnb scene is so tied up with the freshness of the beats that it almost seems that having the latest test presses, more so Dub Plates, is what it's all about. DJs can get caught up in the politics of tune acquisition..." (Belle-Fortune, 128) In essence, a mediocre new tune could enliven a crowd much more easily than a good old one. Now, with the proliferation of labels, this phenomenon is beginning to curb itself, and as a result, Dub Plates still pack the punch they always have. By simply adding a vocal sample to an existing tune that refers to the club or city you are playing in, and then playing the personalized Dub for the audience, a DJ can guarantee the crowd will tear the roof off – all for \$75.

samplers

"All sounds are sacred. If not in this life, then in the next – looped, time stretched, reborn and primed." (Belle-Fortune, 34)

The Sampler is a technology that is unique to breakbeat-oriented music. In fact, the breakbeat itself needs to be sampled. Conversely, House and Techno use drum machines to program regular beats. That technology is too primitive to handle the intricacies of dnb. In Hip Hop, Kool Herc manually sampled the break sections of records by using two copies of the same record and cutting over to the

second copy once the break on the first had ended. With the evolution of electronic musical technology came an electronic sampler, which could record snippets of a sound and play it back looped. With computers, a producer could see a visual representation of the sample and cut it up and rearrange it in anyway he saw fit. He could play it backwards, add effects or time-stretch it. The electronic sampler was essential to Hip Hop, but it was the computer sampler that truly allowed the sample manipulation that dnb required. In fact, one three-bar sample is used in the vast majority of dnb tracks. It is the break section from a '70s soul tune by the Winstons called *Amen Brother*. Appropriately enough, the break has become known as the Amen break. Jungle producer 0=0 explains:

Without *Amen Brother*, featured on the old Winston's soul release, breakbeat orientated dance music styles, especially hardcore and jungle, would have painted a much different picture over the years - namely one without such a classic series of kicks and snares. But more importantly that inspiration to really take a loop and mutate it via effects and rearranging into a completely different drum track may have been lost. It was the Amen break which practically invented this element of breakbeat culture, and it thoroughly deserves a good

worshipping from all of us for that. Listen closely at about 1:26 minutes in, where the naked sample dropout takes place - a sampler's dream come true no doubt, and it really makes you wonder what was going on inside that drummer's head as he laid down that classic percussive loop. To think he never knew that that 6 second breakdown he was jamming out would be used in literally millions of records over the following decades is quite astonishing.

(Author's correspondence with 0=0)

Often used on the Amen break, time-stretching was an early, dnb-unique production technique that further manipulated the sampled break. *Terminator*, Goldie's classic dark track of '93 "was the first time that the time stretching technique had been used on the beats; [it is] an effect which allows you to alter tempo without changing the pitch." (James, 20) By cutting up a sample into tiny fragments and then doubling or tripling those fragments, but keeping all the copies in the same order, a time stretch is achieved. These are the types of effects and manipulations that were made accessible to the public when studio equipment was either mass produced enough to drive prices down or synthesized in a computer program.

the home studio

"The home studio revolution [is] at the root of dance music culture..." (Belle-Fortune, 34)

Even though House was pioneered by professional studio employees, the real explosion in dance music production occurred when the technology became cheap and small enough to take home. It was this step that was the essential ingredient in allowing the various genres of dance music to flourish independently of the often overbearing major record companies deals. "Access to cheap, sophisticated equipment is [the key to a producer's] ability to compose and record alone at home. With that, they can have their music 'performed' without the help of major record companies." (Belle-Fortune, 35) However, this was only taken further with the home computer. Now, rather than a prospective producer being able to throw together a few pay cheques to purchase a piece of studio equipment, they could more often than not, obtain a pirated computer program that can do the same thing for free. Essentially, the home studio has democratized electronic music production by eliminating the prohibitive costs of building a professional studio. Likewise, now CD burners allow DJs to avoid the \$75 it costs to cut a Dub Plate

and instead, instantly make a CD that can be mixed with his records during his set that night. "In terms of production, new technology gives you the resources to make professional tracks on a home computer. You can achieve the same effects and sound that used to cost thousands of dollars in hardware and equipment. This also lets you burn it to CD, then play it out on the radio or at a club the same night, for about a 10th of the cost of cutting a Dub Plate." (Author's correspondence with I.N.S.)

Again however, the above are not really unique to dnb. What is unique, is what comes out of the use of those technologies. For instance, dnb "frequencies are definitely taken to opposite extremes, with many layers: low, low bass and high, high treble. This creates a fuller sound compared to many other genres that tend to stay within a short span of frequencies." (Author's correspondence with D-Realm)
This, combined with a much heavier reliance on sampling truly sets dnb apart from other electronic genres.

As an interesting side note, dnb is unique not only in how its producers use the technology available to them, but also how some of them originally got access to that equipment. It was the Bristol music project that first encouraged Roni Size's interest in electronic music. (Belle-Fortune,

31) This project was a government funded social program that placed musical recording equipment and trained instructors in community centers in British inner-city ghettos. Instead of learning to rob or deal drugs, Roni Size learned to mix and produce at his local boys and girls club. Likewise, the legendary and seminal DJ and producer DJ Hype got into production through the Islington Music Workshop and the National Association for the Rehabilitation of Young Offenders. (Belle-Fortune, 40) As a part of his parole during the mid '80s, the British government sent him off to a studio to learn a trade. He created a worldwide following and you now can bring him to your city for a mere \$10,000 an hour, plus expenses. All this just forces one to think that social programs can succeed beyond a government's hope, if they are merely better targeted to appeal to those entering them. We could learn a thing or two from Britain.

* * *

Dnb is only the latest face of a lineage of musical genres. All these genres grew out of their new use or misuse of existing technologies. Dub phased out the lyrics and instead added a live MC. Hip Hop mixed between two records to capture only the break section. House pioneered the use of entirely electronic methods to music production. Finally, dnb –

in a truly postmodern tradition – appropriated elements from this cultural and musical mosaic that surrounded it and synthesized them into a completely new genre. This genre too, is defined by its unique use of technology. From the personalized Dub Plate, to the time-stretched sample and the frequency range, dnb sets itself apart from the rest of electronic music as a true black sheep. And I think they like it that way.

appendix

(A discography of specific tracks that are landmarks in style and musical direction.)

The Winstons - *Amen Brother* (70's?)
Sonz of a Loop da Loop Era - *Further Out* ('91)
Goldie - *Terminator* ('93)
Congo Natty - *Code Red* ('94)
Shy FX and UK Apache - *Original Nuttah* ('94)
Krome and Time - *The License* ('94)
DJ Hype - *?ugees or Not* ('95)
Adam F - *Circles* ('95)
Alex Reece - *Pulp Fiction* ('96)
The Terrorist - *The Chopper* ('97)
Roni Size/Reprazent - *Brown Paper Bag* ('98)
Bad Company - *The Nine* ('99)
Kosheen - *Hide U* ('00)
Andy C and Shimon - *Body Roc* ('01)
SP Collective - *LK* ('02)

bibliography

1) Belle-Fortune, Brian. *All Crew Muss Big Up: Journeys Through Jungle Drum & Bass Culture.*

Independently Published,
London: 1999.

2) Gonsalves, Eddie. "*Version*" in
Dojo Magazine , volume 0, issue
2. Spring, 2002. pp. 11-15.

3) James, Martin. *State of Bass.
Jungle: The Story So Far*. The
Boxtree Imprint of Macmillan
Publishers, London: 1997.

4) Shapiro, Peter. *Drum 'n' Bass:
The Rough Guide*. Rough Guides
Limited, London: 1999.

5) <http://www.breakbeat.co.uk>

6) <http://www.torontojungle.com>

7) ATM Magazine (various issues)

8) Knowledge Magazine (various
issues)

9) XLR8R Magazine (various
issues)

author's informal correspondence with:

0=0 (Criminal Beatz)

Corey K (DNA Records)

D-Realm (Intimate, Rinse)

D-Region (Furious Records)

Dave Whalen (Visionary, Flex Records,
Vinyl Syndicate)

DJ Fear (Criminal Beatz)

DJ Premis (Rinse)

Double A (Dune Recordings)

Everfresh (Vinyl Syndicate)

I.N.S. (Syrous, Rinse)

Jordan Dare (Signal to Noise, Dune
Recordings)

Krinjah (Urban Sound Resistance)

Marcus (Visionary, Flex Records, Vinyl
Syndicate)

Slip & Slide (Orion, Vinyl Syndicate)

Stranjah (Flex Records, Criminal Beatz)