



"An entertaining and insightful read for everyone from seasoned hip-hop listeners to the casual fan." — Mickey Hess, author of *The Dirty Version* and *Is Hip Hop Dead?* and editor of *Icons of Hip Hop* and *Hip Hop in America*

THE CONCISE GUIDE TO

HIP-HOP MUSIC

**A FRESH LOOK AT
THE ART OF HIP-HOP,
FROM OLD-SCHOOL BEATS
TO FREESTYLE RAP**



PAUL EDWARDS

Marley Marl

Prior to Marley Marl, hip-hop records were mainly made by either session musicians replaying disco and funk hits or from the sounds of drum machine programming—where you create a track with pre-recorded drum sounds that come with the drum machine.

There were problems with both these approaches. Using a live band meant you weren't using records and "breaks" as the earlier pioneers of hip-hop had done (see p. 133-135), so the music was often more like disco with rapping over it, rather than its own, new genre. And using drum machine sounds meant you were limited to the default sounds that came with the machine—these were often more electronic and "thin" sounding, rather than the soulful, "big" sound of drum breaks on records.

Marley Marl brought in a whole new way of creating beats, which is the foundation that most hip-hop beatmakers still use today. He discovered that he could sample small, individual parts of a record (usually drum hits, such as the sound of a kick drum or a snare drum), allowing him to program drum patterns with the sounds sampled from records, instead of the stock drum machine sounds.

Evil Dee, Beatminerz

Marley was the dude that started us sampling. Because he discovered sampling by accident. . . . He was sampling some vocals and he sampled a kick or a snare, I think, and that's when he figured out, like, yo, wait a minute, you know what this means?!¹²

This meant that instead of using the often tinny and "small" drum hits and sounds from a drum machine, he could take a snare

drum sound from a funk record or a kick drum sound from a rock record, for example, and use those sounds to create new drum patterns. This instantly changed the sound of many hip-hop records, as beatmakers now had a huge range of sounds at their disposal—they could use any drums from any record ever made.

Marley Marl

I made a mistake at Unique Recording Studios . . . sampled a snare inside a sampler by mistake when I was trying to get a voice off the record. I started playing the snare along with the track and I asked the engineer, "turn off that [other] snare, that [other] drum kit. That weak-ass, thin drum snare, turn that shit down." Now I'm popping a James Brown snare with my beat I just made, I'm looking at the engineer like, "Yo, dude, you know what this means?" I was like, "I can take any kick, any snare, any hi-hat, and make my own pattern with the drums that I hear on a record? It's crazy!" People didn't find out for like four years what I was doing. Why is his drums sound so crispy? Russell Simmons [of Def Jam Records] and them pulling their brains out trying to [figure it out] . . . cats told me about the sessions, [saying,] yo, Russell's screaming at us, "Why can't you make records like Marley Marl? He's in his living room! You're in a million-dollar studio!"¹³

Marley went on to produce many of the key early golden age releases, with beats based on this new technique, such as records for Eric B. & Rakim (see p. 171) and the Juice Crew, as well as later releases with LL Cool J and KRS-One.

DJ Premier

Marley Marl is my idol of hip-hop. He's like the James Brown of hip-hop.¹⁴

Paul C.

Now that parts of a record could be sampled and pieced together, beatmakers started taking this further and began honing the techniques. Paul C. was hugely influential in this, creating intricate and seamless “chops.” This is where parts of one or several records are “chopped” up into pieces, ready to be sequenced into new patterns with the aid of music production equipment.

CJ Moore

You couldn't get [a sample] into the recording medium unless you chopped it up and put it back together, one bit at a time. For example, you've got a kick from Ohio Players, a snare from James Brown, another snare from Herbie Hancock, a hi-hat from MFSB—you've got different [drum] kits recorded in different rooms at different times on different boards. The challenge was to tie that in together to make it sound like one kit. Make it sound better than it did when it came off the record, which was usually trashed.¹⁵

Cut Chemist, Jurassic 5

The drum programming on “Snake Eyes,” [a song by Main Source, produced by Large Professor who was mentored by Paul C.], that's [the drums from the song] “Synthetic Substitution” chopped up really nice. That's an example of what I think good production is and how I'm influenced—chopped to the point where it doesn't sound chopped. It's totally natural sounding.¹⁶

Pete Rock

I always listened to [Ultramagnetic MCs'] “Give the Drummer Some,” trying to figure it out. I thought maybe [Paul C.]

knew someone at Polygram that had James Brown's reels. There's no way in the world he could sample [Dee Felice] and take the sounds out. Those are the illest drums I ever heard.¹⁷

A use of the chop that Paul C. developed was to take out unwanted parts of a record. For example, if there was a drum loop with a horn sound you didn't like in the middle of it, you could “remove” the horn sound by cleverly chopping that whole segment of the record into pieces and putting the pieces back together in the right way without the horn.

Large Professor

I saw [Paul C.] chopping up James Brown's “The Chicken” with the horns and shit. And then he starts to play it, but without the horns, and I was like, “Oh shit!”¹⁸

Paul C. also used a technique where he would “pan” a record to take a sample from just one of the stereo channels (i.e., just the sound coming from the left or right speaker). If there was a record where the drums were recorded on the left channel and the bass was recorded on the right channel, this meant he could take just the drums, without the bass, if he sampled just from the left channel. Using this method, more elements could be sampled more easily—rather than waiting for a part of the record with just drums, you could wait for a part where the drums were only in one channel, even if other sounds were present in the other channel.

Large Professor

[Ultramagnetic MCs' “Give the Drummer Some,” from 1988] is early sample innovation. Paul C. was an extreme sound scientist, and this may be the most prime example of his futuristic approach. To take the James Brown “There Was a Time” off the *Gettin' Down to It* album and pan [using

only the left or right side of a stereo record] to get only the drums, was unheard of at that time.¹⁹

Ced Gee, Ultramagnetic MCs

That was one of the things Paul showed me: sometimes the drums would be clean on one channel, so you have to pan the sound. You have to pan the drums on the Dee Felice Trio record to get the sample we used in “Give the Drummer Some.” Once we started panning records, it was crazy.²⁰

These technical innovations that Paul C. introduced helped beatmakers to better translate the ideas in their heads into actual records and set the stage for many later, notable beatmakers, such as Pete Rock and DJ Premier, both of whom have used chops extensively. He was also a mentor to Large Professor, who passed many of his techniques on to other well-respected beatmakers in person.

Large Professor

That’s what Paul C. brought to hip-hop: the chop. You gotta make it do what you want it to do. Pete Rock mastered the chop; he’ll make a record go crazy. I love the stabs and programming those little sharp pieces.²¹ [Paul C.] just kinda took me under his wing . . . I saw how his shit was set up and everything. He’s like, “Yo, press this button and press this button! I’ll see you in a minute,” then he’d go to sleep and shit! And I’d be sitting there, pressing the buttons! That’s how I was taught.²²

Tragically, Paul C. was murdered in 1989 just as his career was blossoming, but his innovations live on as fundamental, standard techniques used by today’s beatmakers.

Domingo

Paul C.’s contribution to late ’80’s, early ’90’s hip-hop was crucial to the New York sound. Paul C. was a mentor to many and his production techniques got picked up by many New York producers, including Large Pro, Ced Gee of the Ultra Magnetic MCs, and even myself. I had the honor to work with him a few times. If you don’t know who Paul C. McKasty was, then do yourself a favor and [look up] his name. Real hip-hop history right here.²³

The Bomb Squad

Public Enemy is one of the most acclaimed groups in hip-hop, and a large part of their sound is due to their production crew, the Bomb Squad. The second Public Enemy album in particular, *It Takes a Nation of Millions to Hold Us Back*, is often named as one of the best albums of all time, in any genre (see p. 172).

They pioneered the use of a massive barrage of samples, often discordant and abrasive, to produce a wall of sound—layering samples upon samples and triggering multiple sounds to create musical breakdowns, such as in the middle of the track, “Night of the Living Baseheads.” This really opened up producers’ imaginations to what could be done with sampling and hip-hop production.

James Lavelle, UNKLE

[Public Enemy’s album, *It Takes a Nation of Millions to Hold Us Back*, it was] similar to [the gangsta rap group] N.W.A., it had that power. The production at the time was unreal; Bomb Squad were the best out there. It took hip-hop to a completely new level.²⁴

Rather than using a few drum sounds or just a sampled riff from a record as the basis of a song, they often used many small pieces, intricately put together to create a dense soundscape. Due to sampling becoming more expensive and litigious in the 1990s, as older artists realized they could charge more if they were sampled by popular hip-hop artists, the Bomb Squad's early signature sound has been difficult to emulate.

Chuck D, Public Enemy

Public Enemy's music was affected more than anybody's [with the change in the expense of sampling], because we were taking thousands of sounds. If you separated the sounds, they wouldn't have been anything—they were unrecognizable. The sounds were all collaged together to make a sonic wall. Public Enemy was affected because it is too expensive to defend against a claim. So we had to change our whole style, the style of *It Takes a Nation* and *Fear of a Black Planet*, by 1991.²⁵

Rather than relying on sparse drum beats or melodic funk, R&B, or disco loops that previous hip-hop usually employed, the Bomb Squad often went for a loud, noisy, unmelodious sound, comparable to certain punk or heavy metal artists.

Hank Shocklee, the Bomb Squad

We didn't want to use anything we considered traditional R&B stuff—bass lines and melodies and chord structures and things of that nature. The sound has a look to me, and Public Enemy was all about having a sound that had its own distinct vision.²⁶

MCA, the Beastie Boys

I remember listening to *Nation of Millions* over and over again when it came out, with headphones. That was the

first time someone had approached a hip-hop album like other artists—rock artists is what I mean—would approach an album.²⁷

Hank Shocklee, the Bomb Squad

If you go back through musical history, anything that was done that pushed the envelope was perceived as noise. Rock 'n' roll was noise. Classical music was noise. We came across with a new form of music—basically taking music that was already pre-recorded and pulling out the frequencies and sustaining them and stretching them and bending them and controlling them in a fashion that felt to us like rock 'n' roll. We took anything and made it feel like a rock guitar, whether it be a horn blast or a violin string pad.²⁸

Due to the experimental nature of their way of producing, they were also responsible for new techniques, such as an early form of "filtering," where certain sound frequencies are removed, several years before it became a standard practice.

Hank Shocklee, the Bomb Squad

Now those are presets, [processes that come as standard functions on studio equipment,] but we created those things before all these companies even knew what the hell was going on. When you look at filtering, for example, that was a thing that we were doing because we stumbled across it. It was actually a defect in the original [E-mu] SP-12 design. When you plugged in the plug into the mix out of a SP-12, and the cord doesn't go in all the way, it still makes a connection but it shaves off the high end [sound frequencies]; what was left was the bass portions of the sound. When we realized that we said, "Oh wow, that's a cool effect."²⁹

Another innovation of the Bomb Squad was to act like a traditional band, where each member would take charge of a particular sampler (see p. 122) or turntable and they would “jam” and improvise sounds until they came up with something they liked.

Hank Shocklee, the Bomb Squad

We all did everything. Besides me, Keith [Shocklee], Eric [Sadler], and Chuck [D], there was Flavor Flav and Terminator X. Everything was divvied up to whoever was feeling what at that particular moment. If Eric felt like, “I can add a little sequence part here”—it may just be a tambourine loop—then he would add that. If Flav feels like, “I wanna add the timing to this little drum sample,” he’s going to add that. . . . Nobody had a station, but what we did do is get down as a band. Eric might be on the drum pads, Keith might be on another set of drum pads, Chuck might be on a turntable, Flavor might grab a bass, Terminator was on a turntable, I might be on a keyboard sampler. And we’re all just jamming—just making a fucking mess—but we’re running tape. Every now and then you’ll get a moment that will be the most incredible five seconds and that little piece might end up being a part of a record.³⁰

This unique, pioneering way of using studio production equipment resulted in a very distinct, freer, and more organic sound than had previously been made.

Hank Shocklee, the Bomb Squad

We did not sequence things, [with the equipment keeping it in precise time]. We wanted everything to have our feel. If you really listen closely, a lot of the timing on things is not correct and it’s not supposed to be correct. You can

easily take a high hat, put it into a machine, quantize it [so that it is perfectly in time], and let it run from beginning to end. That sounds very mechanical. You’re not going to get the loose feel of it. When we play it by hand, the high hats are at different lengths and different timing. When you start stacking those things, you’re getting a groove that’s being created from all the things that are a little bit off. The reason why most records made today are boring is because they’re linear. They begin and end doing the same patterns, the same spacing, the same timing. Records are supposed to be a living, breathing thing.³¹

Prince Paul

Prince Paul has produced a number of acclaimed releases throughout hip-hop’s history—one of his most enduring production projects was De La Soul’s debut album, *3 Feet High and Rising*, where he expanded hip-hop’s sampling palette considerably by looking to genres and artists outside of hip-hop’s usual sphere.

Jaycee, the Aphilliates

When I got *3 Feet High and Rising* I remember listening to it on the bus and thinking, “Damn, they’re not using the typical samples that other people are using.” A lot of early to mid ’80s rap was based on James Brown loops and *Ultimate Breaks and Beats* samples, [which were compilations of mainly funk and R&B tracks]. A lot of Def Jam’s sound was ruled by straight Roland TR-808 [drum machine sounds] with samples manually layered on top of it. De La [Soul’s record] just didn’t sound like anything else, period. I was so impressed with the album that I bought it on all formats: CD, cassette, and [vinyl] LP.³²

Tom Silverman

That album is so important because it threw out the rule-book. At the time, hip-hop was starting to define itself as being one thing. . . . These guys said: “No, you don’t have to sound like that.”³³

Prince Paul

It was a combination of me, [and De La Soul’s] Pos, Dave, and Mase. We combined our collections. We more or less gathered what our families listened to and had collected over the years. Pos had a deep collection. His dad had some really obscure records, which helped us out a lot. I’d been collecting forever and I always had weird records. Everybody came to the table with their own little thing. It was almost like we were trying to outdo each other, like, “Oh, look what I got!” That’s why the album sounds so layered out. We just kept adding stuff to it. When that album came out we treaded on territory that nobody was willing to go. I just remember people scratching their heads. Either you really liked it or you hated it. It was an extreme record and it was radical in its time.³⁴

Prince Paul’s methodology of finding samples from unusual sources has had a huge impact on subsequent producers’ styles.

RZA, Wu-Tang Clan

When I first started producing, the only person I knew doing the kind of bugged-out sampling I was into was Prince Paul—him and maybe a few other guys. I still think that first De La Soul album, *3 Feet High and Rising*, is a masterpiece. Paul and I have been friends since 1988. He even programmed the hi-hats on my first single on Tommy Boy. I never thought about imitating his style, but he did

show everybody that you could take anything with a sampler—cartoons, children’s records, French lessons—and make it musical. I’m a kung-fu fiend, so I would sample from kung-fu movies, but also, if I’m walking down the street and see a *Peter Pan* vinyl sitting on the ground, a man selling it for a dollar—I’m buying that. If I see a *Flintstones* record for a dollar—I’m buying that. Anything. I buy it, I listen to it, and start hearing the phrases inside of it. And then, I’m sampling it.³⁵

His music also often has a very playful and free approach—unafraid to include “mistakes” and diverge from how hip-hop normally sounds.

Posdnuos, De La Soul

Prince Paul taught us that you need to leave open the surprise of a mistake, because it could turn around and be great, Paul’s a genius that way. He’s not afraid to scrap a record and start from scratch and try something else totally different. A lot of ideas came from us just joking around. I’d crack a joke and next thing you know we’re doing a game show. We learned, mostly from Paul, that you don’t always need to map things out. You can make mistakes. And the zaniness of the album, overall, definitely came from Paul.³⁶

Prince Paul

There are tons of mistakes on that album. I’ll listen to it and go, “Oops. That was a mistake, there’s a mistake, that’s a mistake.” There’s a part of “Me, Myself And I” where the music drops out; that was a mistake. Me and Pos used to mix everything by hand. We didn’t have automation. Everything was kind of on the fly as the song went along. There was a part where one of us was supposed to leave the

beat in, and we forgot. We just looked at each other, threw it back in on time and said, "Eh, that's good enough!"³⁷

He has continued this approach of using unusual sounds and sources in his later solo work and production for other hip-hop luminaries, ensuring that hip-hop keeps an "alternative" side to its sound.

James Lavelle, UNKLE

[*3 Feet High and Rising*] was definitely a reaction to the slightly more hardcore area of what was going on in hip-hop. As a concept record, it's probably one of the best ever. It's like the Pink Floyd of hip-hop, their *Dark Side of the Moon*, the way it musically and sonically moves around. . . . It was an interesting contrast from things being much more hardcore and urban . . . it became such a huge influence around what was going on at the time. It broke down a lot of barriers; it crossed into so many different peoples' lives. The samples, the whole way it was put together, it was so unique. An amazing collage; an amazing painting of a record.³⁸

from samples—in particular, they would often use the 808's bass kick drum sound to beef up the bottom end of the music.

Big Daddy Kane

Marley [Marl] had a gritty feel for music. Regardless of how clean or brand-new the record was that he was sampling, or how light the production may have been, he always gave it a really gritty feel when he sampled it. He always put the 808 to it and gave it a heavy bottom and warm feel.²¹

Rakim

Our engineer Patrick Adams did a lot of that . . . I'd basically just take my break beats and ideas in, and he'd sample it up and put the [Roland TR-]808 on it. Patrick was the guy who first turned me on to the 808. We'd dress up the beats.²²

Q-Tip, A Tribe Called Quest

[On the song "Excursions,"] I put a reverse [Roland TR-]808 behind it, right before the beat actually kicks in.²³

Samplers/Sequencers

One of the main types of beatmaking equipment, often the central piece in most beatmakers' set-ups, is a sampler and sequencer. This is a machine which both "samples" sounds by recording them in from records, TV, or any other audio input (rather than using prerecorded sounds that come with the machine), and is then also used to "sequence" those sounds, usually through tapping out rhythms by hand on a series of "pads," where each pad plays back

a sampled sound. Two of the most popular and widely used sampler/sequencers are the E-mu SP-1200 and the Akai MPC.

E-mu SP-1200

The SP-1200, manufactured by E-mu and brought out in 1987, is responsible for a lot of the beats produced during hip-hop's golden age (see p. 147). It is an upgrade of the SP-12 which came out in 1986 and was also popular with beatmakers—the SP-1200 has more sampling time than its predecessor, so it can store more and longer sounds.

Buckwild

[The SP-1200] was such an amazing machine that [you] could do so much with. Some of the features on there made it the ultimate drum tool. Hip-hop was always a drum driven form of music. Whatever drums you would chop, coming out of the 1200 they would sound so raw. One of my favorite tracks was ["They Reminisce Over You (T.R.O.Y.)"], by Pete Rock [& C.L. Smooth]. Hearing the way those drums were chopped and the way they played it just sounds so crazy. The song mode, patterns, features . . . it has to be the most incredible machine, or the foundation of hip-hop. You could talk about the [drum machines like the] 808s or the 909s, but you know, our team, we used the 1200 more as our foundation than anything else. There was so much that you could do that it's not funny.²⁴

Pete Rock

Everything that you ever heard from me back in the day was the SP-1200. That machine made "Reminisce" ["They

Reminisce Over You (T.R.O.Y.)”, “Straighten It Out,” “Shut ’Em Down [Remix],” “Jump Around [Remix].”²⁵

Even though it was state of the art and one of the most advanced machines at the time, the SP-1200 had a low amount of sampling time compared to today’s equipment (i.e., the number of seconds of sound that could be recorded into the machine was relatively limited). This meant producers had to be creative with what they sampled and how they used the samples, as they could not simply loop long segments of another record.

DJ Clark Kent

Back in the day, when I had the [SP]-1200, you had 10 seconds! You could never put 10 seconds on one pad. Each pad had the ability to take 2.5 seconds. And if you took 2.5 seconds on one pad at one time, the next pad wouldn’t let you take a whole 2.5 seconds. It would give you like a second or 1.2 seconds. So you had to become creative. Being an arranger . . . you had no choice!²⁶

DJ Muggs, Cypress Hill

I didn’t have a lot of records [when I began beatmaking]. I had a couple crates of records. The first time, there might be nothing on those records. But I’d keep going through them, and find the littlest pieces. I had the SP-1200, so all we had was ten seconds of sampling time . . . it was just all these little sounds. Whatever you have, you’re going to adapt to it. So I just adapted to what I had.²⁷

Hank Shocklee, the Bomb Squad

There’s little tricks that were developed on it. For example, you got [a limited number of] seconds of sample time to divide amongst eight pads. So depending on how much

you use on each pad, you decrease the amount of sample time that you have. [So] you take a 33 1/3 record and play it on 45, and you cheat the system [by sampling the sounds in faster so they take up less room, then slowing them back down using one of the machine’s functions]. [Another] aspect that we created is out of a mistake—one day I was playing “Black Steel in the Hour of Chaos” and it came out real muffled. I couldn’t hear any of the high-end part of it. I found out that if you put the phono or quarter-inch jack halfway in, it filters the high frequency. Now I just got the bass part of the sample. I was like, “Oh, shit, this is the craziest thing on the planet!”²⁸

Buckwild

With the 1200, the drums were always so hard because of the 12 bit sampler [which recorded sounds in lower, grittier quality]. There were certain things I wish I could take with it and put that into today’s samplers, because it’s missing. There were less options but it made you work. Your limitations make your brain think more.²⁹

Akai MPC

In 1988 Akai launched what was to become the main successor to E-mu’s SP-1200—the MPC (originally MIDI Production Center, now Music Production Controller). It allowed more sampling time than the SP-1200 and had a pad layout that a lot of beat-makers prefer.

Pete Rock

I used the MPC on *Soul Survivor II*. That was kind of the beginning of using it. I thought it had a thinner sound

than the SP, but it had way more sample time—like three minutes. So, can't beat that. I got hundreds of beats on the SP-1200, but I like the MPC. I'm really starting to get in the midst of it now.³⁰

Alchemist

I think it's probably hands down the most handy machine when it comes to production. It has just what you need. It pretty much defined the standard of production for beats. I feel like with the MPC it's the standard. Partly because of the swing capabilities, [MPC Swing] in it, which made the drums for a lot of producers over the years [because it adds a less rigid and more "swung" feel to the rhythm of the drums]. You knew automatically because of their drum swing that it was something the MPC did. Once I got to the MPC, I was like, "YES, this is what I was trying to do the whole time!" I can't think of any machine that's similar . . . [other machines after the MPC] always seem like they have to have the 16 pads [as their layout] and basically simulate the style of the MPC. I was watching a demo of [a newer machine] and thought, "this is very MPC-esque."³¹

There are various models of the MPC and several of these continue to be manufactured, making it easier to obtain than the SP-1200, which ceased production in the late 1990s. Different beatmakers prefer different models of MPC—generally later models have more sampling time and more features.

DJ Premier

The engineer I was using in the early 1990s introduced me to the MPC60 and he was like, "Hey, you should try this—the way you lay tracks down and adjust levels, it's kind of like a tape recorder without the tape." I gave it a try

and have been addicted to it ever since. Akai gave me an MPC2500, but I have not yet used it, because it's a learning curve, and I have to learn all the commands. I like the difficulties of the older equipment.³²

Dr. Dre

I love using the MPC3000. I like setting up like four or five different MPC3000s, so I don't have to keep changing disks. So I have them all lined up, and I have different drum sounds in each one, and then we use one for sequencing the keyboard.³³

Some producers don't actually sample sounds directly into the MPC, they use a separate sampler to store the sounds (a machine that can only sample sounds and does not let you sequence those sounds) and they use the MPC just as a sequencer in order to "trigger" the sounds from the separate sampler in different rhythms.

DJ Premier

I don't sample with the MPC60, I just use it to trigger drums. Instead I sample in the [Akai] S950 and trigger them from the MPC—everything, also my keyboards, is [connected] to the MPC.³⁴

The MPC remains the standard beatmaking machine today, despite legions of imitators, including computer software that mimics the MPC's functions.

Alchemist

In general, MPC always has and always will be the standard as far as when you're talking about rap, beats, and production. You know, my favorite producers from day one

were Premier—MPC. Pete Rock? MPC. Diamond D? MPC. I mean I could go down the list forever. It's pretty much the standard. It's good to be able to even follow in those footsteps and keep that tradition going forward. You know, making music that comes out of that machine, it sounds crazy. Impersonation has gotten to extreme levels with regards to MPC with people trying to copy it, but I think at the end of the day with the sound that comes out of it, I can usually call it. I can say, "that's [an] MPC, yo."³⁵

Keyboards

Lots of different makes and models of keyboard have been used in the creation of hip-hop music throughout its history and they have been used in various ways. Earlier hip-hop records would sometimes use keyboards as the primary instrument, with melodies and rhythms being performed live, because without samplers and sequencers, the parts could not simply be recorded once and looped easily.

Arthur Baker

[Afrika] Bambaataa wanted to use the keyboardist who had played on a record that he liked, and this turned out to be John Robie . . . John played everything by hand, nothing was sequenced on [Afrika Bambaataa's record,] "Planet Rock"—we didn't have a sequencer at that time.³⁶

Often, beatmakers will use keyboards alongside samples, and sometimes keyboards are used to replay samples, if a beatmaker does not want to use an actual segment of a record.

Dr. Dre

I love the old school [keyboard] sounds, ARP String Ensemble, Rhodes, old school Clavinet, the whole shit. I'm a big keyboard fan.³⁷

Some beatmakers collect keyboards to add to the range of sounds that they can use on their records—these range from older, classic keyboards to more cutting-edge, modern keyboards.

RZA, Wu-Tang Clan

On [GZA's] *Liquid Swords* album—all the synth you hear is the Nord Lead, which was made by Clavia. I have more than thirty keyboards—but I'm not sure if I have a true favorite. I like the Fantom, but I don't have a main keyboard. Still, I have to give a lot of respect to the Kurzwell. The ASR-10 is my favorite keyboard in history, but the Kurzwell would be my second favorite. Also, the Kurzwell can actually read the ASR-10 disc. So when I did [the album] *Wu-Tang Forever*, I took all my ASR and EPS discs and just stuck them into the Kurzwell. It's compatible like that, so it's like the overfiend of the whole shit. At first, I was interested in more chopping sounds, then I got more into keyboards.³⁸