The Vinyl Diary

Day 1

For me, learning to beatmatch with vinyl feels a bit like learning a sport that I’ve watched, but never played before. I know what it is I have to do in my mind, now I have to translate that knowledge into physical action. Not only has the process been explained to me by numerous people, but I find it rather intuitive and self-explanatory: Let record A play, cue up record B in your headphones, hold the record and maneuver it to the beginning of a bar, let go of the record so it corresponds with record A, crossfade from record A to record B.

What I’m not yet sure about is how to find out which records have similar tempos and how to handle those that don’t. I’m used to relying on DJ software telling me the BPM of every track, which is usually the first factor I consider when deciding which tracks to combine. I know I have to adjust the pitch faders, but how can I possibly get it exactly right like the computer does? Will it sound acceptable if I only get it approximately right? Will I waste a lot of time trying to beatmatch two records whose tempos were never even remotely compatible in the first place?

I don’t know where to start, so I decide to just jump right in and try to mix some random tracks. My first obstacle is one that never crossed my mind before I started practicing: Finding the right track on the record. With some records, it’s surprisingly difficult to figure out which side is which. Not all of them indicate which is side A and B (or 1 and 2) on the label. Through trial and error I discover that in those cases, the more official-looking label with the majority of text on it tends to be side A. The next step is counting the broad grooves on the record that mark the pauses between songs to determine the location of the desired track. This is easy with singles that tend have only two to four tracks on each side, but actually a bit of a chore with LPs.

As expected, I quickly get frustrated because I can’t properly mix any of the tracks. Even when I feel like I started record B at just the right time, it doesn’t line up with record A at all, and I can’t tell which is the faster one. I keep trying different ones, hoping to stumble upon two tracks that will magically line up with each other. I hesitate to use the pitch faders too much because the harmonies start to sound skewed. This has never been an issue for me with software, which allows you to change the tempo of a track independently from the pitch.

Eventually I realize I need to work more systematically, and to focus longer on the same two tracks to make any initial progress. To keep it simple I decide to work only with instrumentals for a while, so I can fade between tracks at any given place along the track structure. Luckily most hip hop singles include the pure instrumental track, a practice that was probably established to enable DJs to create mashups and for rappers to freestyle over. I attempt to mix Jaylib’s “The Red” with The Pharcyde’s “Passin’ Me By”. The latter starts with a sample and soft, unobtrusive drums, which I deem aesthetically suitable for a transition. But as it turns out after about 15 minutes, I’m too far ahead of myself. A lack of clear, distinct drums also means a lack of reference points for me to rely on. I replace it with “Jazz” by CPS, but now my ears are overwhelmed by all these drums overlapping, so I tend to move the crossfader across very quickly to get it over with, hoping for the best. After about 15 more minutes my brain starts to get stressed out by the hectic cacophony I’m producing, so I call it a day.

Day 2

For my second session I am determined to become fluent in mixing at least one pair of tracks, no matter how long it takes. I’ve picked two new tracks between which to mix and back and forth repeatedly to get into a rhythm, “Gotta Understand” by Jurassic 5 and “’93 Til Infinity” by Souls of Mischief. There are two ways I want to approach practice differently this time: First of all, instead of the start of a bar, I want to use the snare drum as my jumping-off point. I figure it makes more sense to focus on such a structurally important drum beat because in most hip hop beats it’s in the same place, plus it’s clearly audible on top of everything else. Second of all, I’m going to use both hands. Yesterday, I did everything with just my right hand – letting go of the record and then moving the crossfader. Today I want to keep one hand on the crossfader, the other on the record. Hopefully I won’t be too clumsy with my left hand on the record. I also have to figure out which fingers to touch the record with in the long run. So far I’m using my index and middle finger.

The snare is easy to capture. Right after the snare I hold the record and rewind it a little bit, hearing the snare play backwards slowly until I arrive at its beginning. I keep holding the record as “’93 Til Infinity” plays, waiting for the moment I feel confident enough to let it go in time with the other snare. I manage to accomplish this a few times, but I can hear the tracks don’t have the same tempo as they quickly drift apart, so I finally decide to adjust the pitchfaders and worry about harmonies later. Maybe it doesn’t sound as bad as I think it does and I’m just not used to altered pitches. I can’t tell which track is the faster one, so I take a long time figuring it out through trial and error. My turntables display the percentage pitch change digitally. I arrive at -2.5 for “’93 Til Infinity” and +3 for “Gotta Understand”. I could also alter just one of them by 5.5, but this way the pitch change is equally distributed, so each track is only as distorted as necessary. It’s easier to transition from “’93 Til Infinity” into “Gotta Understand” than vice versa because the latter is an “emptier”, more minimalistic instrumental track with a clear, simple drum beat. I suppose it’s more important for the incoming track - the new impulse - to be easily processable by my ears as they have gotten used to the first track and need to suddenly deal with two sources of input.

Side note: The right turntable feels heavier and more resistant than the left. They are only slightly different variations of the same model. Maybe it’s the records themselves that feel different? It never occurred to me before that some records might possess different physical qualities than others. I suppose I’ll find out as I use more records.

There are two basic tasks that have emerged: Matching the tempo and aligning the beats. There is no hierarchy or chronological order between them – they depend on each other. Obviously the tempos need to match in order for the beats to align properly, but the latter is equally important for the former: I have to make sure to start the second record in sync with the first one to compare their tempos as they start to drift apart. If I don’t start the second record perfectly on time, it’s hard to tell to which extent the deviation between them is due to a difference in tempo and not just a shift between the beats. At this point in the learning process, there’s always the possibility that I’m mistakenly changing the tempo when it really already matches up just because the beats weren’t properly lined up.

In a way, the two aspects represent different levels of this whole operation: Dealing with the tempo adjustment is a cognitive task, as opposed to the physical dexterity required to cue up the record at the right position and start it at the right time. I need to improve my hand-ear-coordination to make the process of tempo evaluation more efficient. That’s why, even after I manage to match a pair’s tempos, I keep repeating the “hold-rewind-let go”-routine, mixing back and forth between the pair, until it feels somewhat fluent.

Several times – about one out of three - I succeed in getting the two tracks matched up for the length of one or two bars until they start to slightly drift apart – long enough for a quick blend. After 35 minutes and with new confidence I decide to take on yesterday’s matchup of “Passin’ Me By” and “The Red” again, except this time with “The Red” as the incoming track because it has the clearer drumbeat. I manage to come a bit closer than the last time, but they are still far from perfectly matched. Maybe this pair just isn’t very compatible.

But “The Red” seems to be an adequate track for practicing, so I decide to stick with it and combine it with something else. Since Jurassic 5 proved to be easy to transition into earlier I choose “Future Sound”, the B-side of “Gotta Understand”. This time it doesn’t take me long to figure out that “Future Sound” is the faster track. I manage to slow it down to a point where I can occasionally match them up for the duration of one to two bars if I can get the second record to start exactly on time. But the closer I get, the harder it becomes to perceive the increasingly smaller deviations. I go back and forth between the two for about 25 minutes with mixed success.

I move on to the next pair, “Likwit Fusion” by Lootpack and, again, “Jazz” by CPS. It takes me several minutes to get the tempos somewhat close in my headphones before I even dare move the crossfader. This is usually the case. Since I always need a few attempts to start the second record on time so I can compare and adjust the tempos and, once I’ve matched them up, a few more until I can finally fade in the track, sometimes it takes me so long that the first track finishes before I’m ready to fade in the second one, so I have to start it from the top.

Out of sheer impatience, I introduce a new method into the process: Adjusting the records temporarily by either giving them a little push to speed them up or putting a little pressure on them to slow them down. This opens up new options for tempo matching and beat alignment alike. First of all, I can use it to evaluate whether a divergence is caused by different tempos or mismatched beats. If the latter is the case, a quick speeding up or slowing down can suffice to get the beats aligned. If the former is the case, they will still drift apart. Second of all, after I’m done matching the tempos and just practicing my hand-ear-coordination for a while, it enables me to make adjustments when I’m slightly off as I start the second record. However, I’m not yet exploiting the full potential of this approach by any means, as all of the above is still accomplished through pure trial and error – I have not yet rewired my brain to discern consciously and consistently which track is faster than or ahead of the other. More often than not, it doesn’t help at all or only makes things worse, but occasionally I get lucky.

After practicing with “Likwit Fusion” and “Jazz” for about 10 minutes, I exchange “Jazz” for “Raise It Up” by Homeliss Derelix, a more minimalistic beat with fewer layers and elements. I’m starting to feel more comfortable holding and moving the records. To get a rhythm, but also to kill the time as I wait for the next transition possibility, I start to move the cued-up snare back and forth in time with the other beat instead of just holding it at the beginning and letting go when the time comes. This has an interesting effect on my technique: Not only does the rhythmic movement help me release the second record in terms of timing, it also makes me give the record a sort of “guided push” as I start it, instead of just letting go of it by lifting my hand.

The last pair of the day, “Don’t Feel Right” by The Roots and “Urban Legends” by Masters Of Illusion, provide the answer for the question that arose earlier concerning the physical qualities of the records. “Don’t Feel Right” feels extremely different from all the other records I’ve used today. It feels lighter and starts slower. I have to give it just the right push. If I push it too hard, it starts too fast. It’s as if it resisted the pull of the slipmat underneath and took longer to follow its movement. I have to be careful when making on-the-go adjustments because they are amplified by the record’s lightness.

Day 3