

**An analysis and Application of Modern Contemporary
Production Techniques**

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The role of the modern music producer is constantly changing and evolving. The lines between which job is carried out by whom, are constantly being blurred. Our adaptability, and willingness to learn as producers is key to not only evolve but honour a musical lineage. There is genius in repetition, but true genius comes from adding new perspectives, emotions, and context to ideas that have stood the test of time. Within this essay, I shall lay out my references and source materials to justify and reinforce my songwriting decisions and how they were applied in an appropriate manner, staying true to the original pieces of music, without creating market replacements for the original music.

Lofi hip-hop has steadily become a cultural phenomenon within recent years, surging in popularity in 2020, steadily growing from trends appearing in early 2016 (figure 1). As a genre, it is entirely distributed and consumed through the internet (Winston and Saywood, 2019) accompanying a generation of music listeners through life and studying via playlists and YouTube based radio shows with titles such as “lofi hip hop music - beats to relax/study to.”

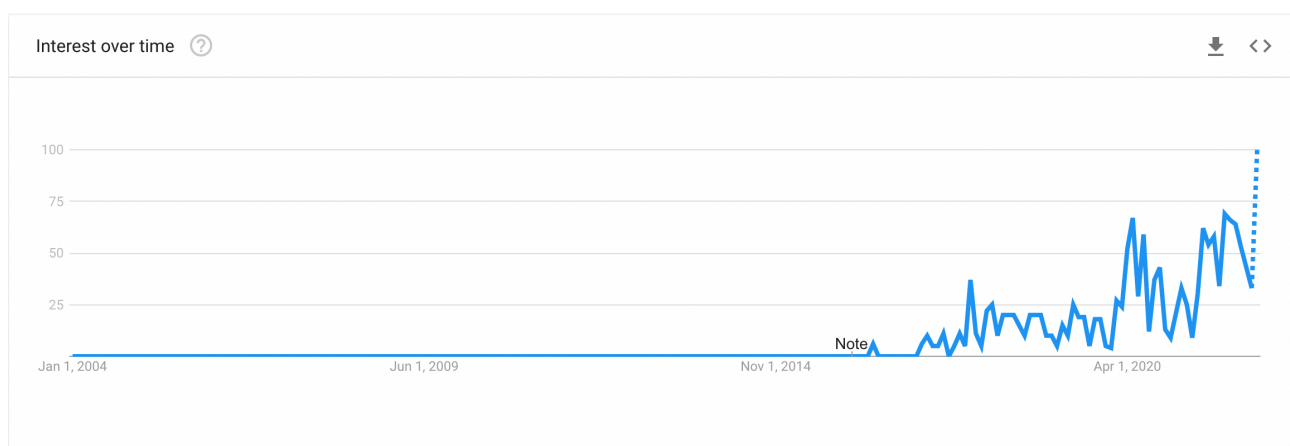


Figure 1. Interest over time in lofi hip-hop, Google Trends (01/01/2016 to 02/04/2022).

Lofi hip-hop is constructed in a common theme that rarely changes within the genre. A “jazzy” instrumental comprised of sample based “loops” which is sometimes performed by artists via

Musical Instrument Digital Interface (MIDI) (Tremblay, 2020), drums with characteristics derivative of producers “J Dilla,” “Nujabes,” and “Madlib,” (Parham, 2021) alongside textures that intentionally make the recording sound low fidelity (i.e Lofi). The producer J Dilla was known for his work with the Akai “MPC3000” (Vox, 2017). With this MPC3000, J Dilla used it without the quantise button activated, which led to a very human sounding performance of samples that were loaded onto the MPC3000, resulting in the iconic drum sound known in Lofi Hip-Hop today (Vox, 2017). Quantising is described by Brian “Raydar” Ellis as the process in which a device like the MPC3000 adjusts timing errors to a predetermined grid (Vox, 2017). The callback to earlier Jazz records can be heard in J Dilla’s production on Get Dis Money on the album “Fantastic, Vol.2” (2009) by Slum Village, where J Dilla samples Herbie Hancock’s “Come Running To Me” on his album “Sunlight” (1978). Low fidelity, commonly referred to as “Lofi,” is the concept in audio that a recording will contain environmental noise like birds chirping, traffic, or children playing, or artefacts and errors commonly found on analog recording equipment such as vinyl, tape, and early digital recording equipment such as the MPC3000 (Nemo, 2020).

“‘Lo-fi’ itself can apply across genres, as the term speaks to how music is recorded. This includes environmental sounds that make it onto the track, like kids playing outside or the rustling of papers.” (Nemo, 2020)

Lofi Hip-Hop has grown in popularity due to its association with its supposed ability to aid academic, and cognitive performance as the majority of viewers of Lofi Hip-Hop live streams claim to be studying whilst using the music as an aid to help focus themselves on their work (Winston and Saywood, 2019). The impact on one’s cognitive ability via music is not clear, and is based on many different factors including age, neuro-divergencies, and the given task (May, 2020).

“With the right (low-need-for-stimulation) personality, the right (instrumental) music and the right (low-to-moderately-difficult) task, the presence of music may significantly improve cognitive functioning.” (May, 2020)

The piece I have chosen to analyse for this assignment is “Blooming Dales” by Krynoze, featuring Diiolme (Lofi Recordings, 2021). It features a chord progression in C minor (Cm) that is consistent throughout the piece: i, VII, VI, v, #VI. This is outlined by the bass which can be heard under the arpeggiated Cm6 arpeggio played by the piano throughout the entirety of the piece. The A played in the bass heard at 0:12 and at 0:25 uses modal interchange, moving to C Dorian, to introduce a slightly lighter theme into the otherwise melancholy chord progression and to transform the mood of the piece from something melancholic, to wistful and hopeful. It appears that the overall mood of the piece has transformed from something with a clear cut emotion, defined by Cm, to something more ambiguous, and sophisticated. “Blooming Dales” sits at 70 beats per minute, which is directly within the range of most typical Lofi Hip-Hop songs, from approximately around 70bpm to 95bpm (Parham, 2021) and is also in 4/4 time. Lofi Hip-Hop also tends to stay within 4/4, 3/4 or 6/8 time (Parham, 2021). The structure is outlined by the arrangement. Instead of having a more traditional song writing approach using verses and choruses, different elements are introduced and stripped back to provide a sense of motion. The structure is as follows: Introduction (8 bars), A Section (8 bars), B Section (8 Bars), Breakdown (4 Bars), C Section (8 bars), D section (8 bars), Outro (4 bars to a fade). “Blooming Dales” also features a heavy use of “Lofi” characteristics. In the intro it is clear to not only hear a preamp noise floor, wind, but also birds chirping. This was likely captured on a field recorder. The piece also features a piano which reinforces the harmony by playing arpeggiated melodies, and the main chord sequence. Melodies are also supported by a second piano voicing and electric guitar. The harmony is reinforced also by the bass, likely played by an electric bass guitar due to its melodic nature, and tendency to glide between notes in the performance. The

drums and percussion have a 16th based rhythm that change with the aforementioned structural changes in the arrangement. The layered percussive elements are likely Foley. Foley is described as:

“a unique sound effect technique that involves creating and “performing” everyday sounds for movies and television shows. Foley artists create these sounds in a recording studio during post-production, in synchrony with the picture, to enhance the quality of the audio.”

Foley has begun to appear in Lofi Hip-Hop music, and other genres such as trap, and future bass as not only rhythmic and musical ideas, but to add to the overall texture of the piece (Russell, 2021). What appears to be a cymbal, or a hi hat to an average music listener may actually be a spoon on a plate, keys rattling, or paper being crumpled (Russell, 2021). This can be heard in “Blooming Dales” in the drums serving as the voicing for the hi hat.

My piece titled “Red Tail” has followed many of the concepts discussed previously. Firstly, the chords I chose don’t follow the same harmony as “Blooming Dales.” It instead uses the same harmonic concepts found in Lofi Hip-Hop. Where “Blooming Dales” uses a minor chord sequence with modal interchange to create a softened atmosphere, I used the following chord sequence in F Major (F): IVmaj7, V7, iiim7, IV6add9, iiim7. On the last rotation (2:25), the sequence resolves to the following IVmaj7, V7, iiim7, I6add9. By using extensions within the chords, I was able to add a more sophisticated mood and atmosphere, whilst calling back to the Jazz roots of Lofi Hip-Hop observed in the sampling by Lofi Hip-Hop pioneers “J Dilla” and “Nujabes.” This harmony is played by a Lofi organ patch on a synthesiser, using an effect change that features a liberal use of distortion, downsampling, as well as low pass and high pass filters to create a soft bed for the harmony whilst also remaining idiomatic to Lofi Hip-Hop. Some subtle rhythmic “pumping” that can be heard in the organ is achieved via the use of Low Frequency Oscillators (LFOs) and side-

chaining within the synthesiser itself. The bass is also derived from this organ patch, but via the envelope, effects section, and further sound design such as the removal of reverbs in the original patch a warm and organic bass sound was achieved, similar in style to that of J Dilla. Harmonically, the bass is simply playing root notes to strengthen the harmony. A felt piano is also used to fill out the texture in the higher registers. A felt piano was chosen due to its prominence in the source music, as well as its use to brighten the tonality of the piece. An octave pluck on the note C observed in the felt piano at 0:36 was used in the main sections of the piece as a device to strengthen the main sections, as well as add momentum to a section change as the note choice being a C creates a sense of pull to the tonic (F). The drums feature a percussive loop using afro-cuban features, primarily a 3:2 clave and a shaker or cabasa, that has been heavily compressed and EQ'd to artificially create a lofi sound. A pitched down Hi Hat can be heard at 0:11 to create a transitional effect, similar in Timbre to a shaker. The kicks, snare, and Hi Hats are all samples from a J Dilla sample collection, to further reinforce the iconic sound of J Dilla in the piece. In order to cement the low fidelity aspect of the piece, various parameters were added. At the beginning of the piece a field recording from the LABS softwares by Spitfire Audio. As part of the "Tundra Atmos" package using the instrument "Atmos," a C3 is played on a keyboard producing wind, preamp noise floor, and bird song. I also used a stop/start recording of a tape machine, timed with a Vinyl emulator to simulate the experience that a real tape machine was starting up in an environment that listener can get lost in, whilst staying true to the Lofi Hip-Hop idiom. This is done in reverse order at the end of the piece to simulate the hypothetical machine being turned off.

Upon reflection, I feel that I have stayed true to the Lofi Hip-Hop genre with the piece of music that I have produced, whilst bringing my own spin to some of the idiomatic features of Lofi Hip-Hop and avoiding plagiarising the source material. In the future, I would like to experiment with more simple chords, and a structure that is truer to contemporary pop writing styles.

The second piece I have chosen to analyse is far different to that of the previous piece of music in both genre and concept. “Flash & Metal” is a cinematic metal piece by the composer Mick Gordon set to the 2016 video game “DOOM.” The brief sent to Mick Gordon for DOOM was as follows:

“Doom is about demons on mars, you have a shotgun, send them back to hell. No guitars. I love synths. We want you to make music that no-one has ever heard before. It needs to fit the game perfectly, and be instantly loved by millions of fans.” (Gordon, 2017)

Additionally, this already seemingly restrictive and demanding brief music in video games has to be engaging, yet distant enough so as to immerse the player and not distract them from the task in game (Sanders and Cairns, 2010).

“Music added to a game is able to cause duration to be under-estimated in the prospective paradigm but not the retrospective paradigm..... the addition of music can make playing more or less immersive depending on whether the music is liked or not.” (Sanders and Cairns, 2010).

According to Gordon (2017) this led to a drastic change in his approach to executing the given brief, from simply using dark and “evil” sounding musical motifs, into conjuring inspiration from concept art, an unorthodox approach to synthesis (figure 2), and even modified and extended range guitars. These pedals, tape machines, preamps and other analog hardware had allowed Gordon to alter the process and outcome (Gordon, 2017).

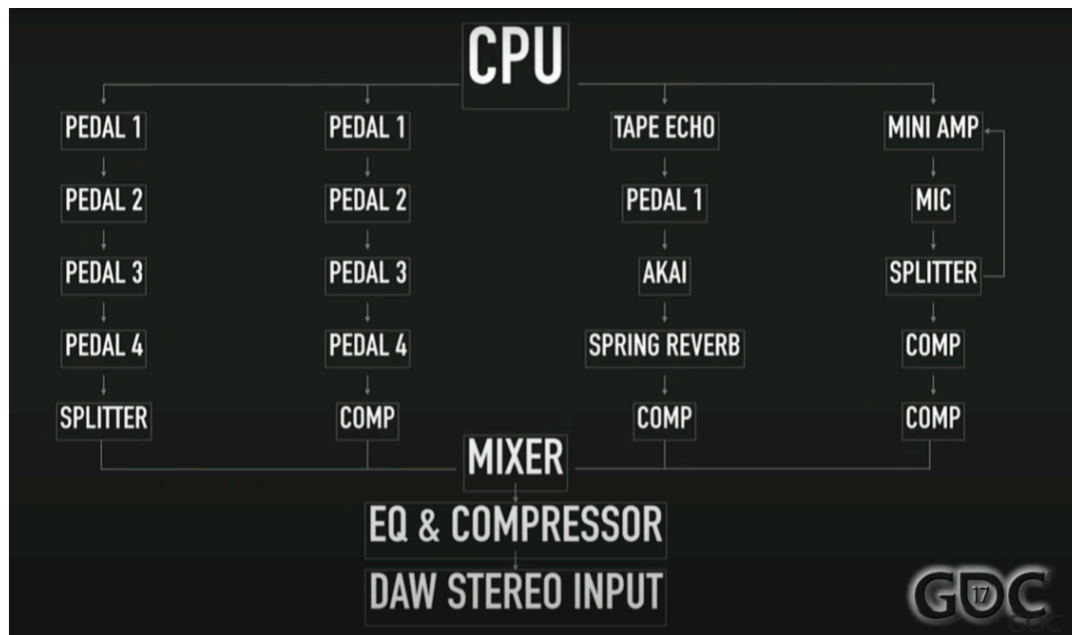


Figure 2: Sine Wave Signal Path used for synthesis in the DOOM soundtrack (Gordon, 2017).

In order to tie in to the legacy of DOOM, guitars were added at a later date but with a new approach. Shawn Bevan is referenced by Gordon (2017) as inspiration for some of the guitar tones heard in “Flash & Metal.” Bevan would record guitars twice as fast, and up an octave onto tape at 30 inches per second (ips) and then slow it down to 15ips which would lower the octave of the guitar and half the tempo whilst also creating a “chunky” guitar tone. This slowing of the audio would also bring performance issues to light playing riffs at such a high tempo. Extended range guitars were also used to create a sound that was different to what had been used in the past. A nine string guitar was used tuned to double drop B. A standard tuning for guitar is known as “E Standard”. This tuning is an octave plus a perfect fourth lower than a standard guitar. This nine string guitar was ran through “Morph” by “Zynaptic.” Morph takes two sounds and interpolates one sound onto another. Gordon (2017) used this plugin to blend the original chainsaw sound from the early games with this nine string riff to create a new sound. He also touches on the cultural legacy of DOOM and its association with satanism. Using wavetables that featured satanic images, raised some cultural issues with DOOM and its legacy (Gordon, 2017). Along with various uses of

synthesis including wavetable and modular synthesis (Gordon, 2017), Flash & Metal uses guitars, drums, and an electric bass to further tie the piece into DOOM's legacy, as well as create a powerful and otherworldly atmosphere in the games environment (Gordon, 2017).

My second piece called "Ifrit" named after a sub species of Jinn from Islamic and Arabic folklore, known for being "uncontrollable" and "destructive," (Britannica.com, accessed 2022), was difficult to approach due to my lack of experience writing metal. By implementing the aforementioned techniques used by Gordon I was able to change my process, and positively effect the outcome of this piece. Where Flash & Metal uses C# as its key centre, I used D. Both Ifrit and Flash & Metal use chromaticism to create a rising texture within its melodic core played by extended range guitars. Chromaticism allows a wide variety of textures to be used, whilst having a feeling of uncertainty as no harmonic quality is described. I also applied the technique described earlier by "slowing" the main riff using tape. To achieve this without a tape machine, I recorded the guitars at twice the speed and an octave higher, then slowed it down to the track tempo and applied a vocal formant shifter to lower the octave of the guitar heard in the guitar riff at 0:50 creating a smilier sound heard in Flash & Metal. In the game during moments where there is no music, Gordon created a Shepard Tone which is a riser that continues to rise. Multiple voices that are rising in pitch can be heard, with the highest pitch increasing in volume as the lowest increases in volume creating the "never ending" riser effect (Friedman, 2020). At 0:16 in Ifrit, a Shepard Tone is introduced low in the mix that slowly increases in volume. This was to create an unsatisfying sense of tension that eventually leads to the main riff heard at 1:31 in Ifrit. Structurally, Flash & Metal follows a game narrative. I adapted my structure to be more conventional, writing to a listeners perspective. That being, Intro, Breakdown, Main Riff (Chorus), Breakdown 2, Bridge, Main Riff (Chorus).

This piece of music was particularly challenging to produce particularly due to the limited research, on DOOM, as well as my lack of experiencing mixing, editing, and writing guitar riffs for heavy music. Despite these challenges, my experience with synthesis and the changing of my process led to a new and exciting outcome.

The final piece I chose to research is titled “Watch Your Step” By Disclosure featuring Kelis, a UK Garage and breakbeat inspired House track. The concept behind the album as a whole, and this piece in particular was to achieve a quick, and effectively written song without over embellishment. This was to enhance the legacy of “organic” music found in Disclosure’s songwriting and to stay true to the inspirations gathered from breakbeat and 90s dance culture (Disclosure, 2021). Kelis called back to her 90s rave and club scene in NYC and London. *“The Old breakbeat records weren’t super word...its supposed to be fun and light and to the point.”* This was also adapted into my composition. The structure for Watch Your Step is as follows: Intro (8), Verse 1 (8), Chorus 1 (8), Post Chorus 1 (8), Breakdown (4), Verse 2 (8), Chorus 2 (8), Post Chorus 2 (8), Breakdown (16), Chorus 3 (16), Post Chorus 3 (8), Outro (16) (Disclosure, 2020). A similar song writing philosophy found in my research of Lofi Hip-Hop of adding or subtracting elements can be observed in the arrangement of Watch Your Step. Drums are constructed using a 909 ride and hi hats, J Dilla style claps and snares matched with 707 and 909 snares layered. The “Dilla” clap comes in early to create a flam adding a natural element to the otherwise robotic electronic drums. This matched with the breakbeat furthers this technique. Hi Hats are layered textures, a cabasa and two electronic hi hats (likely 909/707 90s era). This was further layered with extra percussive layers like cowbells (Disclosure, 2021). Harmonically, the chord sequence is B minor (Bm) for three bars, and B minor with an added 7th (Bm7) for the last bar. These chords are played on vintage, Juno style synthesisers. Movement is mainly provided by the bass line. A pluck anchors the harmony around Bm (playing a B) and this synthesiser uses automated parameters to alter the texture over time

(Filter cutoff, release etc). A “dub siren” created by a sine wave with basic LFO modulation inspired by UKG/Dubstep artist Pearson Sound is also used. Light bus processing featuring a saturator (FF Saturn) to sum audio into one space and glue sounds. As well as stacking plugins using small additions as if they were analog gear (Disclosure, 2021). Vocally, a heavy plugin chain was used to create the desired “broken” and “vintage sound that Disclosure set out to capture including a heavy use of compression, which brought out desirable artefacts in the recording. The post chorus uses a shure 520 dx to create a broken sound, stacked with heavy compression and saturation, furthering this concept of overdriven and harmonic rich distorted vocals. The vocals featured two Layers with the main vocal and adlibs. Adlibs were inspired by “Millionaire” by Kelis for its spoken word sections. Post chorus is also spoken word. The chorus has more layers with wider panning but similar processing including a whisper panned hard right and left.

My composition “Overdrive” follows a similar structure to Watch Your Step but with a longer breakdown (8 bars as opposed to 4 for the first breakdown) and a vocal in the second breakdown. In order to achieve width in the vocal heard in the source piece, I used a plugin to create the desired width on a mono vocal track. The post chorus also uses heavy distortion, and side chaining, similar in style to Watch Your Step.

In conclusion, I feel that despite the challenges faced with producing music that is effective to a brief and newly researched and discovered, I feel that I have effectively executed the given briefs to a modern and high standard of work. As discussed previously adaptability, and willingness to learn as producers is key to not only evolve but honour a musical lineage.

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