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An Analysis of Common Music Production Elements From the 1980s: Highlighting the Musical Influences of Michael Jackson, Prince, and Madonna

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AN ANAYLSIS OF COMMON MUSIC PRODUCTION ELEMENTS FROM THE 1980s: HIGHLIGHTING THE MUSICAL INFLUENCES OF MICHAEL JACKSON, PRINCE, AND MADONNA

By
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Introduction

The 1980s are back. More specifically, the sounds from the music of the 1980s have reemerged in the music of today's rock and pop artists, and Vogel tags this trend "80s 2.0" (Helmsing, Porter 2020, 297). Over the past decade, there has been a trend of revisiting sounds of the past, and current American pop artists have begun merging the nostalgic sounds from previous decades with the innovative sounds of today in their music. Himrelrick labels this a "step into the past and a breath of fresh air in pop music" (Himelrick 2022). This fusion of musical sounds is achieved by using recording technology, instrumentation, and recording techniques made famous during the decade the sound was introduced. In her article, "Reviving the '90s?" Mireille Silcoff shares her theory on the process of popular culture being influenced by that of a previous decade and refers to this influence as a cultural revival. A remnant of the previous one remains as each decade passes. Whether that revival is through a toy, song, or cultural association from a previous decade once launched, revivals do not go away when a fresher one is introduced (Silcoff 2004). Silcoff's explanation reveals why the revival movement of using nostalgia remains strong today, especially in music.

In the 1980s, America was in a severe state of dismay. The economy experienced a recession that affected the music industry with significant drops in music sales and employee layoffs in major record companies (Starr and Water 2005, 231). However, the music industry began recovering by the mid 1980s as a result of the success of Michael Jackson, Madonna, and Prince, who had emerged as the biggest icons at the time (Vogel

2019, 79). Thus, when referencing music of this era, these artists are regularly mentioned due to their success and long-term impact on popular culture. In the early 1980s, they released era-defining, blockbuster albums that led the music charts for several years, and their albums, *Purple Rain*, *Thriller,* and *Like a Virgin* defined the era and represented the apex of music and pop culture (Chiu 2020).

The 1980s were an important decade of experimentation and innovation for technology. More specifically, digital technology was on the rise with the introduction of new digital technologies such as drum machines, sequencers, samplers for digital sampling, and the music instrument digital interface (MIDI). These technologies had been around for several years; however, the 1980s was when they became more accessible and affordable to the average consumer, and more consumers became able to afford them (Starr and Water 2005, 232). Another innovation of the 1980s that played a major role in the music industry was the debut of MTV in 1981. MTV (Music Television) gave music artists a visual and creative platform to promote their music. Around the time MTV was introduced in the United States, the record industry was severely suffering due to a failing economy and declining music sales, and it became critical for musicians to find a new platform to promote their music (Vogel 2019, 77–78). Therefore, this new platform (MTV) brought more revenue to record labels and artists, turning average acts into stars.

The music of the 1980s era played a significant role in inspiring how music sounds in the 2020s decade, and the music production elements used by Michael Jackson, Prince and Madonna can still be heard today in the music of The Weeknd, Jessie Ware, and Beyoncé.

This project demonstrates how music of the 1980s influenced music today and makes an analytical comparison of the elements of music production used in the 1980s with those used by artists in the twenty-first century.

Chapter 1

A Brief History of 1980s Music Technology and its Impact on the Music Industry

Popular music released in the 1980s was known for having a particular "sound" (Lavengood 2019, 1). The 1980s represent a significant shift in how popular music was produced and heard, and the main driving force behind the sound in the music of the 1980s came from the digital synthesizer, drum machine, and the implementation of MIDI. Nile Rodgers, music producer for popular artists such as Chic and Madonna, shared that in the early 1980s, live musicians were required to perform popular music. However, once drum machines, synthesizers, and sequencers became more affordable, musicians had access to a rapidly expanding palette of sounds (Burgess 2014, 142). These music technologies created more opportunities for musicians to employ a different creative and experimental approach to composing and arranging music like never before.

The introduction of the MIDI in 1983 by David Smith, Tom Oberheim, and Ikutaro Kakehasi at the National Association of Music Merchants (NAMM) convention was a groundbreaking invention of the 1980s era. Prior to its debut, during the early days of the synthesizer, manufacturers sought solutions on how to combine multiple synthesizers to create a thicker, richer sound texture, also known as layering (Huber 2020, 6). Initially, the process of connecting multiple synthesizers involved using a control voltage (CV), which is an analog method of controlling synthesizers, drum machines, and sequencers. However, as these electric musical instruments became more

advanced in technology, this method became obsolete. As a result, the MIDI protocol was implemented to provide a standardized protocol for future music technology, and it expanded the capabilities, connectedness, and convenience to the functionality of synthesizers and drum machines (Huber 2020, 7). One of the features of MIDI was its capability of synchronizing different electric music instruments such as synthesizers and drum machines, which allowed musicians to discover new possibilities in the combination of sounds, complex rhythms, and musical feel (National Museums Liverpool, n.d.). One of the first synthesizers to have this technology built in was the Yamaha DX-7 released in 1983.

The synthesizer was an innovative technology that was one of the main defining characteristics of the sound of American popular music in the 1980s. Nick Sullivan shares "When one thinks '80s, the first sound that likely comes to mind is the unmistakably rich, wobbly synthesizer" (Sullivan 2019). No other synthesizer made more of an impact than the Yamaha DX-7. Within a decade, the DX-7 sold over 160,000 units, and much of its success can be attributed to its affordable price (Colbeck 2001, 1). Prior to the 1980s, digital synthesizers were very expensive, costing over $88,000 (no author, The Economist 2020); however, the DX-7 was priced under $2000, making it possible for more consumers to purchase this synthesizer. In addition, the DX-7 also featured sixteen voices of polyphony (sixteen notes can be played simultaneously), a sixty-one-key keyboard featuring aftertouch, thirty-two patch memory banks, and MIDI (Vail 2002).

The DX-7 is known as the sound of the 1980s. "And then there was that sound. Yamaha's take on digital FM synthesis sounded like nothing before it—certainly not the

tired, old analog waveforms to which synthesists had been limited for over a decade. Crystalline electric pianos, bells, and crisp tuned percussion alongside spiky, unashamedly digital basses—there was nothing warm or indistinct about the DX, but it was just what musicians were looking for" (Electronic Musician 2019). The particular sound that is often referenced as the sound of the 1980s is the electric piano preset labeled "E. PIANO 1," and popular music artists from a wide range of genres used this sound within their songs. The few songs in which this sound was used include "Man in the Mirror" (Michael Jackson), "Never Gonna Give You Up" (Rick Astley), and "Where Do Broken Hearts Go" (Whitney Houston) (Lavengood 2019, 3). The sound of the DX-7 allowed popular music artists to all share an "unmistakable '80s sound" due to its influence (no author, The Economist 2020).

However, with the success of the Yamaha DX-7, other keyboard manufacturers sought to follow up with a new synthesizer to rival its success. Around the time, Roland developed what they considered the "DX-7 killer" (Vail 2003), and the Roland D-50 synthesizer, released in 1987, would be their answer to the DX-7. Although the Roland D-50 was a digital synthesizer, it expanded the FM synthesis technology to another level, and would be used on many commercial albums including Michael Jackson's *Bad* released in 1987 (Preve 2020). Other popular Roland synthesizers used in the 1980s were the Jupiter 8, JX-3P, and Juno 106, which appeared in countless hits. The anthemic opening to Michael Jackson's "Thriller" was played on a Jupiter-8, while "Axel F" (the globally pervasive instrumental theme to "Beverly Hills Cop") featured a Jupiter-8 on melody and a JX-3P on the chord stabs (Hsu 2015).

Besides synthesizers, drum machines were in high demand and popular during the 1980s, and popular music artists of the 1980s incorporated them into their music (Wang 2014, 223). Several drum machine models had been released a few years earlier; however, they did not become relevant until the late 1970s, and the surge continued into the 1980s (Verna 1994). The drum machine dates back to the late 1950s, with the Wurlitzer Side Man being one of the earliest drum machines, which were not originally intended to be studio recording devices (Wang 2014, 1). They were used only as accompaniment devices with presets for home musicians—professional musicians did not use them because they lacked programming options for rhythmic patterns (Graham 2016, 1).

In the 1970s, more companies began developing drum machines with professional musicians in mind, which more songs began incorporating as the primary rhythmic accompaniment devices. For example, Donna Summer's "Love to Love You Baby," produced by Pete Bellotte and written by Italian musician Giorgio Moroder, one of disco's most significant singles, made use of the drum machine (Shapiro 100). One company that would play a significant role in developing drum machines was the Roland Corporation, which released the CR-78 CompuRhythm in 1978. The CR-78 was one of the first analog drum machines to feature programmable rhythms that could be saved on an internal microprocessor (Wang 2014, 223). Pop artists such as Phil Collins ("In the Air Tonight") and Hall Oates ("I Can't Go For That") were among the first pop artists of the 1980s to utilize the CR-78 in their songs. The CR-78 featured fourteen unique individual sounds that became quickly integrated within popular music of the 1980s (Electronic music 2020).

By the beginning of the 1980s, manufacturers continued developing newer drum machines; however, one challenge was getting a sound that was closer to conventional drums (Wang 2014, 4). In the early 1980s, Roger Linn developed the Linn LM-1, which became the first programmable drum machine that used digital samples of acoustic drum sounds (Graham 2016, 2). Other features of the LM-1 included the ability to program flams and rolls in multiple time signatures and the capability to save entire song compositions to tape. The LM-1 became a staple within the popular music industry. "The ubiquity of the first LM-1 machine amongst commercial record production was such that it defined the sonic character of chart pop music of the decade. The LM-1 was featured on many hit pop records of the early 1980s, including Prince's *1999* (1982), Madonna's *Madonna* (1983), and Michael Jackson's *Thriller* (1982)" (Bennett 2018, 40). Subsequently, sounds from the LinnDrum were associated to the commercial success of the most popular, prolific, and materially successful US artists and were, therefore, an aspirational instrument in music productions of the 1980s (Bennett 2018, 41).

Prince would become one of the leading artists to use the LM-1 within his music, as he began using the LM-1 in 1981 and would use it to develop a signature sound on his albums *1999* and *Purple Rain* (Brett 2020, 245). Prince used the LM-1 in innovative ways to achieve the desired sound for his music. Brett discussed Prince's workflow, stating that he would often connect the LM-1 with other components of his studio such as guitar pedals, reverbs, and noise gates to create a one-of-a-kind rhythm instrument with adjustable timbres that could be adjusted in numerous ways to suit the song (Brett 2020, 258). Other notable drum machines produced and used in the popular music of the 1980s include the Roland TR-808, TR-606, TR-909, TR-707, TR-727, CR-8000, Oberheim

DMX, the updated Linn LinnDrum, E-Mu Drumulator, and the Sequential Drumtraks (Graham 2016, 14–43).

The 1980s represented a period of rapid growth in digital music technologies specifically applied to musical instruments such as synthesizers, drum machines, and samplers. Consequently, popular music artists quickly embraced these technologies within their music. Furthermore, the extended possibilities in timbre, polyphony, and rhythm combined with the convenience, affordability, and accessibility of these technologies made them essential to the success of music artists of the 1980s.

CHAPTER 2

Michael Jackson, Prince, and Madonna: The Musical Icons of the 1980s

The three major music artists that made a significant impact in the 1980s were Michael Jackson, Madonna, and Prince, who have been labeled the "biggest icons of the '80s" (Vogel 2011, 79). In 1984, their albums separately spent several consecutive weeks at number one on the music charts, and this was an important milestone for the pop music genre because the only chart-topping albums in the previous year were those in the rock genre (Sullivan 2018, 49). The success and contributions of Michael Jackson, Madonna, and Prince contributed to the development of music in the 1980s.

Thriller contributed to a shift in the sound of traditional pop music when the music industry in the early 1980s was in between the fading fad of disco and the new synth-pop craze. It balanced out the two genres by introducing something new: because *Thriller* was energetic and sensual, "you can dance to it, work out to it, make love to it, and sing to it. It's hard to sit still to" (Rothman 2017). Jackson's music has always had a crossover appeal that took two opposite genres and combined them in new ways to reach new audiences, and one of the most celebrated instances of this play of genre occurs in "Beat It" from the *Thriller* album. Here, Jackson took two genres believed to lie on opposite ends of the affective and associative spectrum—heavy metal, and electro-funk—and rather than simply fusing them, created a generic montage. As a result, the music

clearly mixes or blends genres in ways that evoke a kind of racial integration (Brackett 2012, 172). Much of Jackson's crossover sound was attributed to Jones and Jackson blending the traditional sounds often found in pop, rock, and R&B genres with the new sounds of the synthesizer and drum machine throughout their music. The synthesizer was heavily featured throughout the *Thriller* album. "Thriller" made extensive use of both the analog and digital synthesizers by using sounds such as the synth bass, synth pads, and strings to create new textures and timbres. For example, the popular Linn LM-1 drum machine replaced the traditional acoustic drum set sound in providing rhythmic accompaniment, and the opening brass sound was from the Roland Jupiter 8 analog keyboard (Wang 2014, 223).

In addition to using innovative music technology, Michael Jackson also incorporated visual mediums such as the music video for his music, and as a result, the music video format became an asset to both music artists and popular culture in the early 1980s. Music videos had been around for some time; however, the concept changed with the introduction of the MTV network. MTV changed the way music was delivered to the public and helped revive a stagnant music industry. According to Tannenbaum and Marks:

> "Although MTV did a lot for record labels by helping to revive a slumping industry, it was the bands who benefitted most. The MTV network gave a platform to new acts, asking only that they be beautiful or outrageous. MTV could make stars out of Brits in eyeliner, rappers in genie pants, permed Jersey boys, even choreographers with weak singing voices. Within weeks, acts went from

journeymen, or unknowns, to stars whose faces were familiar across the country" (Tannenbaum and Marks 2011, 6).

Prince Rogers Nelson, known simply as Prince, was another music artist that made a significant impact on 1980s music and pop culture. Similar to Michael Jackson, Prince's introduction to music began early in his life. Both of Prince's parents were musicians, and their careers influenced Prince's exposure to and love for music. Prior to the release of his infamous *Purple Rain* album in 1984, Prince had released five albums, *For You* (1978) *Prince* (1979)*, Dirty Mind* (1980)*, Controversy* (1981), and *1999* (1982). His earlier albums showcased his evolving artistry and musicianship. Early on in his career, Prince made it known that although he identified as an African American musician, he did not want his music to be classified by a single genre. "Prince had concerns about marketing. Every major record company had a separate black music department and felt it was easier to market whites as rock and blacks as funk, soul, R&B, or disco. 'I'm an artist and I do a wide range of music...' 'I'm not an R&B artist, I'm not a rock 'n' roller'" (Ronin 2011, 381).

Prince's major contribution to the 1980s music industry was through incorporation of music technology in his music. He used sounds from the synthesizer and the drum machine, especially in his music that was released in the 1980s because music technology enabled him to work faster in the studio and to create sonic textures originally not possible from traditional instrumentation. Synthesizers replaced horn sections and functioned as accents and fills, the bass guitar was less heavy, or omitted altogether, while drums were heavily processed (Court 2018, 7–8).

One specific music technology that Prince was most famous for using was the LM-1 Drum Machine. He was introduced to the LM-1 in 1981 and immediately began using it to program the drums for his music. He had a unique approach to using the LM-1, which made his music standout from other musicians that used the drum machine. Prince approached programming drums as if he was playing a live acoustic drum set—because the LM-1 was essentially a machine, rhythms programmed on it were very mechanical and unvaried, unlike the variableness of a live drummer. Prince would often program a basic drum rhythm first, leaving space for drum fills, and then on the second take, manually add drum fills to imitate a live drummer (Brown 2016, 159).

Prince also incorporated the use of manipulating sounds and adding audio effects to develop a signature sound with the LM-1. In an interview about his production techniques, he explained that he had always taken an intuitive approach to the LM-1, guitar effects pedals, and synthesizers, working by feeling and tinkering with his equipment to explore what it could do. “I don’t ever read manuals,” he said. “I don’t want to have a preconception about what a piece of gear should or shouldn’t do. I just start using it. I start pushing buttons, and I discover the sounds that I can make with it” (Tudahl 2018, 253).

Prince would often detune specific LM-1 drum sounds and add different audio effects not native to drum machines, as the LM-1 featured twelve sounds with a tunable knob above each sound that allowed users to alter the tuning of each instrument. As the knob is turned, the sound’s pitch and timbre change, depending on which direction the knob is turned. Another feature of the LM-1 is that it includes individual outputs for all twelve sounds, which allows the instruments to be processed in different ways. Prince

combined these two approaches to create unique sounds. Roger Linn, the creator of the Linn LM-1, explains the process that Prince often used to process the LM-1.

> "The Linn LM-1 had little faders on it, mixers, and individual outputs on the back. We'd take the kick out, and the snare, and then the hi hat usually by itself, usually claps by themselves, but then everything else would come out a stereo mix and go into his Roland Boss pedals, the kind you still see today. That would have flanger and chorus in it. You hear a lot of times the hi hat is chorused, and its very wide stereo. So are claps and things on many of these songs. So, the chorus, the distortion pedal, the Heavy Metal pedal, the [DD digital] delay, and the flanger. He would click them on and off to dial in what he wanted for the drums." (Crane 2017)

Prince's approach to using music technology helped revolutionize how music sounded in the 1980s.

One of the most significant cultural musical icons of the 1980s was Madonna. Madonna Louise Veronica Ciccone's success and influence in the music industry earned her the title the "Queen of Pop" (O'Connell 2017, 172). However, unlike Michael Jackson and Prince, Madonna's journey to musical stardom began through the world of dance, drama, and modeling (Larkin 1997, 305–306). Madonna's influence extended beyond her musical abilities into popular culture through her stylistic innovation, self-promotion, scandal, and public visibility, and most notable about her career was the amount of independence she demanded over her career (Thompson 2007, 129). O'Connell shares that "while Madonna is considered primarily a pop music icon, Madonna remains an important model of female independence and rebellion. Her

insistence on maintaining control of her own music and video productions stands in great contrast to earlier female recording artists" (O'Connell 2007, 173).

Producer Reggie Lucas was responsible for assisting with the development of Madonna's earlier sound. Her first album, *Madonna*, which was produced by Lucas, incorporated both synthesizers and the drum machine. In an interview with Rolling Stone, Lucas shared, "This was the first record I ever used a drum machine instead of a drummer. And the bass on 'Borderline' is an ARP 2600 synthesizer" (Kreps 2018). Each track featured both instruments along with the electric guitar, and this album was received with positive reviews and sold over ten million copies, which helped establish Madonna's career and reputation as an artist, paving way for her next album (Rettenmund 2016, 292, 317). Guitarist and producer, Nile Rodgers, would go on to produce her next album, *Like a Virgin*, released in 1984, which contained similar instrumentation as that in her previous album.

Jackson, Prince, and Madonna revolutionized both music and the popular culture of the 1980s, and their music revived and invigorated a stagnating music industry. They were among the most successful and innovative music artists due to their success and innovation that they introduced through their music.

Chapter 3

Comparative Analysis of the Influence of 1980s Music on Current Music

The sounds of the 1980s are being revived in contemporary pop music today. Music artists have integrated elements such as similar drum and synthesizer sounds, harmony rhythmic accompaniment, and similar vocal melodies to develop songs that sound nostalgic. This analysis aims to establish a musical framework which effectively displays the influence of 1980s musical elements on current music. Jan LaRue's respected method of musical analysis called "SHMRG" (sound, harmony, melody, rhythm, and growth) from the book *Guideline for style* will be applied. The following section includes three songs from the 1980s and three from current popular music, and the songs are grouped in pairs comparing one from the 1980s with a current song. The songs for this analysis include:

1. "Little Red Corvette" by Prince and "Tough Love" by Jessie Ware
2. "Human Nature" by Michael Jackson and "Out of Time" by The Weeknd
3. "Express Yourself" by Madonna and "Born this Way" by Lady Gaga

Song Analysis 1: “Little Red Corvette” and “Tough Love”

“Little Red Corvette” was the breakthrough hit from Prince’s album *1999* was released in 1983. Shortly after the debut of “Little Red Corvette,” it rose to number six on the pop charts, number fifteen on the R&B charts, and number seventeen on the Album rock charts. Sullivan further shares that Rolling Stone magazine ranked it the seventeenth best single of the past twenty-five years in 1988 (Sullivan 2013, 383).

“Tough Love” is the title single from Jessie Ware’s album *Tough Love* released in 2014. “Tough Love” shares many similarities with “Little Red Corvette” by Prince, and it is very clear that Ware incorporated influences such as sounds from similar music technologies made famous by Prince’s music within her song. “Tough Love” is a crystalline ballad, which brings to mind Prince at his minimalist 1980 best, and the wide-open spaces and minimalist touches—a reverberating bass string, slight tremors at the end of every word—induce chills (PR Newswire 2014).

Sound:

“Little Red Corvette” begins very subtle with a programmed rhythmic drum pattern and a warm brassy pad from a synthesizer. The drum sounds are a bass drum, shaker, and a processed hi-hat sound, and are produced by the LM-1 drum machine used in many of Prince’s songs released during the 1980s (Brett 2020, 245). This same instrumentation continues into the first half of the verse. However, when the second half

of the verse begins, more instrumentation is added that functions as a build. A synthesized bass sound, tom, and snare drum are also added to the second verse, and the instrumentation builds into the chorus where multiple guitar sounds are added and a synthesized lead sound that doubles the melody line is sung by the vocals. The second verse functions similar to the first verse.

"Tough Love" begins comparably to "Little Red Corvette" with a pad and drums, and the drum sounds that include a kick drum differ slightly, a low filtered percussive loop, and a detuned rim shot from the LM-1 that was often used in Prince's music. The synthesized pad is more flute-like in timbre and another lead-synthesized sound plays throughout the introduction and verse. When the chorus begins, the sounds of the instruments resemble those in the verse of "Little Red Corvette" with drums, a filtered hi-hat, and synthesizer pad sounds. A filtered hi-hat plays which resembles "Little Red Corevette" to add movement, and more sounds such as various synthesizer lead and bass sounds are added as the song develops. Additionally, "Tough Love" utilizes thick vocal layering.

Harmony:

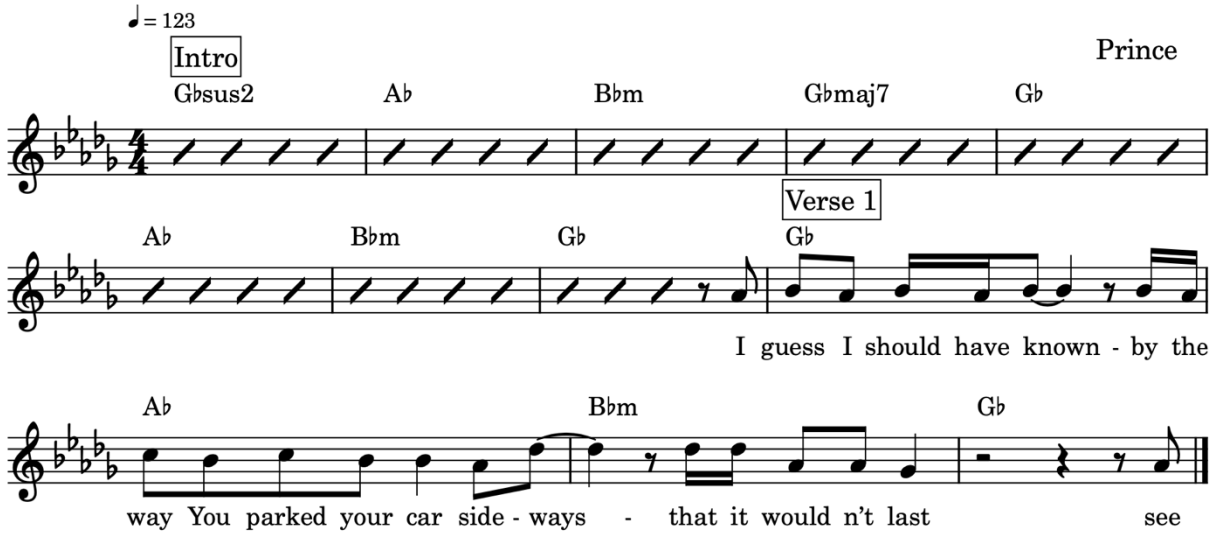
"Little Red Corvette" and "Tough Love" both share similarities in harmonic function. Overall, both songs are harmonically reserved, utilizing repetition of harmonic rhythmic accompaniment throughout the arrangement. "Little Red Corvette" is in D-flat Major, while "Tough Love" is in C Major. The harmonic progression for "Tough Love" is centered around V-vi-IV-IV, while that for "Little Red Corvette" is centered around

IV-V-vi-IV. The vertical harmonic structure is established by a synthesizer pad for both songs. Harmonically, the tonic is never established in either song.

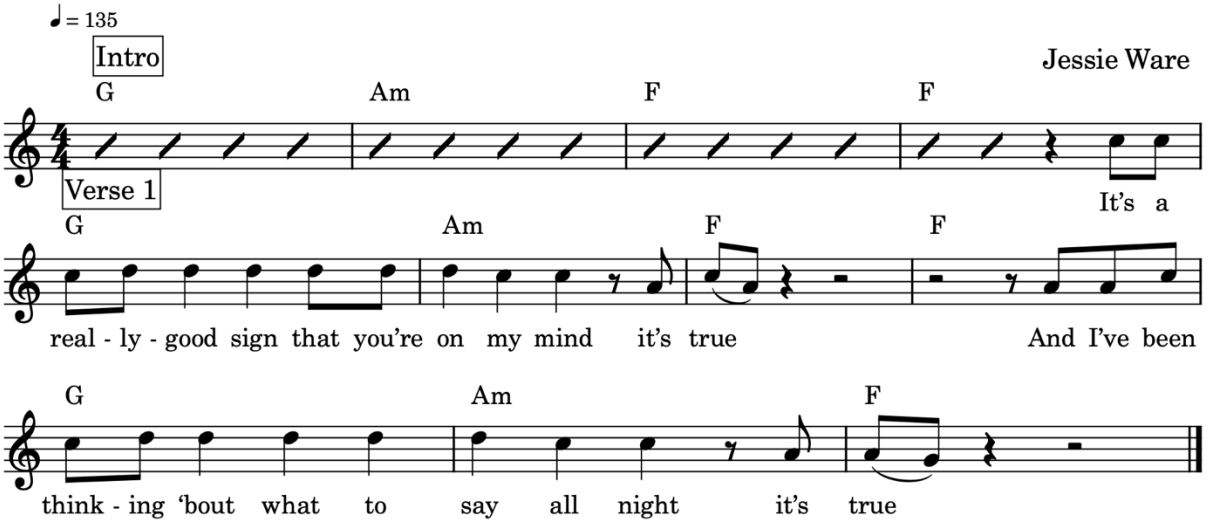
Melody:

Due to the sustained and repetitive nature of the harmonic rhythm accompaniment of both songs, the vocal melodic contour utilizes more variance in rhythmic movement. In addition, each section of both song preserves a consistent melodic line that maintains a similar shape in pitch development. Furthermore, the lead vocal melody for both songs is sung in a minor mode, and as shown in Example 3.1, the melodic vocal line that Prince sings throughout "Little Red Corvette" is based on the Aeolian mode. He begins each section highlighting the sixth degree of the D-flat Major scale, while the melody that Jessie Ware sings throughout "Tough Love" is largely based on the A minor pentatonic scale as seen in Example 3.2.

Example 3.1. Melodic analysis of "Little Red Corvette"



Example 3.2. Melodic analysis of “Tough Love”



Rhythm:

The meter for both songs is in 4/4, and both songs utilize a programmed rhythmic sequence provided by a drum machine to establish the rhythm. Both songs include a kick drum that accents the strong beat (beats one and three); however, “Little Red Corvette” adds an extra beat in the kick drum on the second eighth note of beat two as seen in Example 3.1. The pulse is established in the verses of “Little Red Corvette” by the hi-hat playing an eighth-note rhythm; however, in “Tough Love,” the pulse is established by a

similar eighth note rhythm played by percussion loop that has filtered out all high frequencies.

Growth:

Growth is achieved by the following:

1. The instrumentation and vocal layering in both songs assists in the development and growth between each section of the song.
    a. "Tough Love": The instrumentation in the introduction and first verse for includes a single synthesizer pad, synthesizer lead sound, and drums; however, when the pre-chorus begins an eighth note, hi-hat and more synthesizer pad sounds are added to the instrumentation. Once the chorus begins, the instrumentation returns to the instrumentation used for the first verse with the addition of an ambient lead guitar sound. The rest of the song follows a similar approach with adding and subtracting instrumentation as each section of the song is introduced.
    b. "Little Red Corvette": The instrumentation in the introduction and the first eight measures of the first verse includes a single synthesizer pad and drums. For the second eight measures of the first verse, a fuller rhythm is established by the drums and a synthesizer bass and synthesizer pad sound are added. During the chorus, a guitar and more synthesizer sounds are added. However, once the second verse begins, the instrumentation returns to the instrumentation used for the first verse back.

2. The verses for both songs feature only one lead vocalist; however, background vocals are added when the chorus begins.
3. The form for "Tough Love" is Intro (8), Verse 1 (16) Pre-Chorus (8), Chorus 1 (8), Verse 2 (16), Pre-chorus (8), Chorus 2 (8), Instrumental Bridge (8), Bridge (16), Chorus 3 (8), Outro (8).
4. The form for "Little Red Corvette" Intro (8), Verse 1 (16), Chorus 1 (8), Verse 2 (16), Chorus 2 (8), Instrumental solo (8), Bridge (8), Chorus 3 (8), Chorus 4 (8), Chorus 5 (8), Breakdown (16), Chorus 6 (8), Chorus 7 (8), Tag (8), Instrumental fadeout (8).

Song Analysis 2: "Human Nature" and "Out of Time"

As Quincy Jones was searching for more songs for *Thriller*, he needed something that brought a different aspect to the album. David Paich of the group Toto submitted a cassette of demos to be considered for the album. When Quincy and Michael heard the demo to "Human Nature," they immediately fell in love with both the melody and lyrics of the song. "Human Nature" became the fifth single from Michael Jackson's *Thriller.* The song, written by Toto band member Steve Porcaro and hit songwriter John Bettis, was the perfect fit for the album. Vogel adds, "Human Nature is an explosion of color. Its shimmering synth strings and evocative lyrics take the listener to a vibrant city as experienced for the first time—in all of its wonder and excitement and possibility" (Vogel 2011, 100, 130).

"Out of Time" is the seventh track from The Weeknd's *Dawn FM* album released in 2022, and the concept of *Dawn FM* heavily draws on the influence of music from the

1980s. *Dawn FM* sees The Weeknd dive deeper into the 1980s pop inspiration that he started on his previous album as he delivers his most conceptual and sonically impressive records to date (Herrera 2022). The Weeknd cleverly includes an interlude before "Out of Time," called "A Tale by Quincy" with iconic producer, Quincy Jones, who is infamously known for producing Michael Jackson's first two albums, *Off the Wall* and *Thriller.* This inclusion by Quincy Jones extends the influence of Michael Jackson on The Weeknd's song.

Sound:

The instrumentation for "Out of Time" includes an EP sound (similar to E. Piano 1 from the DX-7), electric bass, programmed drums, muted guitar, a synth flute, and a synth brass-pad, which remain throughout the song. An FM bell pad and handclaps are added leading into the chorus, and heavy reverb processing is used on these instruments, resulting in a lush and spacious sound texture. The snare drum sound resembles the deep detuned snare drum from the Linn drum machine used throughout Michael Jackson's *Thriller* album on songs such as "Wanna Be Startin' Somethin.'" For the second chorus, synthesizer strings are added to the arrangement. As the music fades toward the end of the song, a spoken dialogue that resembles a radio announcer is introduced to serve as a segue to the next song. The main lead vocal was recorded in mono; however, light reverb processing is used to give it a slight stereo effect. The main background vocals that open the choruses are in stereo with quite a bit of reverb and an added slap-back delay effect. The contrapuntal background vocals that are added in the second chorus are slightly panned, but remain close in comparison to the other background vocals. The electric

piano, which doubles the lead vocal, occupies the left field, while the guitar is in stereo with a large amount of reverb processing.

The ballad “Human Nature” retains a warm, mellow timbre that directly supports and accentuates the song’s reflective lyrics, and the layers of instrumentation and vocals all work cohesively to achieve this tuneful sound. The instrumentation consists of several synthesizer sounds (pads, strings, French horns, synth lead, and bass) in combination with guitar, electric piano, drum set, shaker, and clave. Due to how well this song was mixed, each instrument and vocal element occupied a different space within the stereo field.

Harmony:

Overall, the harmonic chordal structure of “Human Nature” is repetitive. “Human Nature” is in the key of D Major, and the main chord progression is centered around the IV and V chords, i.e., G Major 7 to A Major 7. The synth pad and guitar establish the vertical harmonic structure in the verse and chorus, while all other instruments and vocals feature a single melodic line. The tonic is not reached until each downbeat of the chorus, and a key feature of the song is the opening movement of the G Major 7 chord going to an A Major with a non-diatonic movement to an F Major 7 to an E Minor 7 chord, which progression is repeated later in the song. The outro features a modulation to F Major, C Major, and ends on a B-flat Major 7 with an added sharp 11.

“Out of Time” is in the key of E-flat Major, and in contrast to “Human Nature,” “Out of Time” utilizes a repeating harmonic chordal progression throughout each section of the song with no variance, and the Electric piano and FM Bell pad establishes the vertical harmonic structure. Additionally, the vocal arrangement of the background

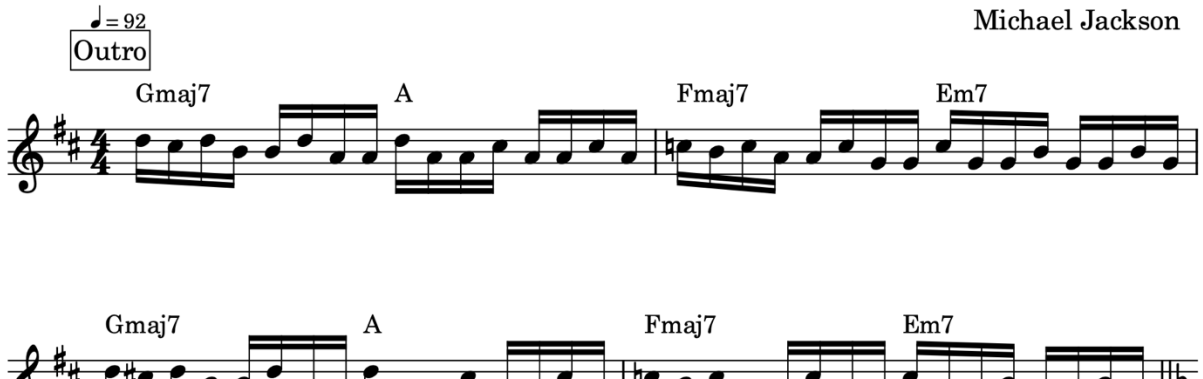
vocals makes extensive use of unison vocal doubling in both the higher and lower octaves. The second pre-chorus introduces both two-part and three-part harmonies, and when the chorus begins, the vocals alternate between both unison and two-part harmony.

Melody:

The vocal melody in "Human Nature" uses a call-and-response method of phrasing in the verses and choruses, and each ascending line is answered with a descending response. The lead vocal also featured a variety of rhythmic approaches between the verse and chorus. In the choruses, the instrumentation and melody mirror each other. The lead vocal, bass, and electric piano play the same rhythm for "why, why" during the choruses. For the descending line in the chorus, "tell em that it's Human Nature," the guitar doubles the lead vocal while the bass and electric piano play a similar descending walk down.

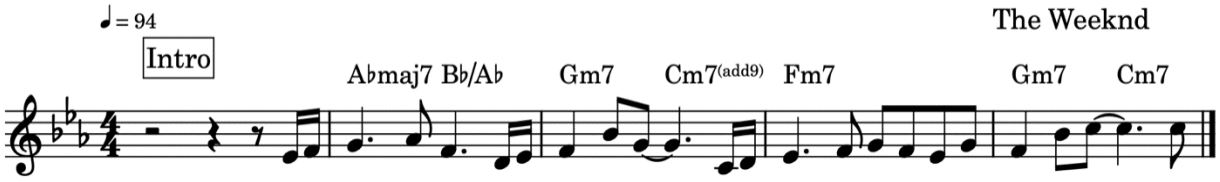
The melodic line in Example 3.3. is in Lydian mode where this scale is a G Major 7 chord, the same happens when the harmony goes to F major. Additionally, the vocal melody uses contrapuntal motions within the verse, and as the melody descends, the chords ascend in the first six measures. At the seventh measure, the chords descend from a F-sharp Minor 7 (iii) to a E Minor 7 chord while the vocal melody ascends. This repeats for all verses. When the chorus is introduced, the vocal melodic line and harmonic structure move together.

Example 3.3. Synthesizer brass ostinato in "Human Nature"



"Out of Time" opens with an eight-measure instrumental intro. On the fifth measure, a synth brass sound plays a melody as shown in Example 3.4., which is repeated intermittently throughout each section of the song. The vocal line for "Out of Time" is mainly centered around the E-flat Major pentatonic scale. During the verses, the lead vocal adds the seventh scale degree then returns to singing within the pentatonic scale during the pre-chorus. When the chorus arrives, the lead vocal sings the fourth scale degree; however, it functions as a brief neighboring tone returning to the third scale degree. Additionally, during the choruses, both the vocal arrangement and instrumental accompaniment function in unison, playing the same rhythm and melody for the vocal lyric "out of time," similar to that in the chorus of "Human Nature."

Example 3.4. Synthesizer Brass ostinato in "Out of Time"



Rhythm:

Both songs are in 4/4 meter, with the quarter note being around ninety-three beats per minute. The rhythm provided by the drums in "Human Nature" is played using a half-

time feel where the kick drum plays on the first beat and the snare on the third beat. Alone, the kick drum and snare make the rhythmic pulse feel unstable.

Therefore, to assist in establishing the rhythmic pulse, the guitar and shaker play eight- and sixteenth- note rhythms, which emulate the rhythm that the hi-hat normally plays. This approach is a departure from the norm of other popular songs of the 1980s, where the hi-hat was used to further support the rhythm and drums. The rhythm and phrasing of Michael's lead vocal is cleverly placed around the beat, only accenting a strong downbeat at either the start of the phrase or new section.

"Out of Time" follows a similar approach for placing the lead vocal around the rhythm supplied by the drums; however, the downbeat is only accentuated as each phrase ends, and the rhythmic pattern established by the drums is more standard with the kick drum playing on beats one and three while the snare plays beats two and four. The guitar functions as a rhythmic accompaniment throughout the song.

Growth:

Growth is achieved by the following:

1. The instrumentation and vocal layering assists in the development and growth between each section of the song.
    a. "Human Nature":
        i. A new musical element is added or removed every eight bars in the first verse and every four bars in the choruses and remaining verses.

ii. The song starts off with drums, guitar, shaker, clave, synth bass, a synth lead, synth brass pad, and electric piano.

iii. The first eight bars of the first verse feature the lead vocal, drums, guitar, shaker, clave, synth bass, and electric piano, and in the ninth bar, a synth brass pad is added and builds up until the chorus is reached. Once the chorus arrives, the sound is removed.

iv. Background vocals are introduced during the first line of the chorus and on the fifth bar of the chorus, a synth lead line plays a melodic line.

v. The second verse is eight bars, which is half as long as the first, and on the fifth bar, the synth brass pad is used again.

vi. The second chorus is similar to the first; however, another layer of background vocals sings the melodic line introduced by the synth lead line that was played in the first verse.

vii. The second time the intro is played, the lead vocal and background vocals sing a contrapuntal melodic line.

viii. The rest of the song follows a similar pattern.

b. “Out of Time”:

i. Retains the same instrumentation throughout each section of the song, which includes: Electric Piano, programmed drums, Bass, Muted Guitar, synthesizer brass sound, and synthesizer flute sound.

ii. An FM Bell sound is used for the choruses and a synthesizer string sound is used during the second chorus

2. The form for "Human Nature" is Intro (4), Verse 1 (16) Chorus 1 (8), Verse 2 (8), Chorus 2 (10), Instrumental Interlude (2), Intro (4), Verse 3 (8), Chorus 3 (8), Chorus 4 (8), Chorus 5 (9), Outro (8), Fade out.
3. The form for "Out of Time" is Intro (8), Verse 1(8), Pre-chorus 1 (8), Chorus 1 (8), Verse 2 (8), Pre-chorus 2 (8), Chorus 2 (8), Chorus 3 (8), Interlude (8), Radio outro.

Song Analysis 3: "Express Yourself" and "Born this Way"

"Express Yourself" is the second single from Madonna's *Like a Prayer* album released in 1989. This song became a signature song for Madonna due to its message of self-empowerment, catchy melody, and energetic music arrangement. Madonna championed the theme of individuality of her career and this song further established that idea. She shared about the song, "The ultimate thing behind the song is that if you don't express yourself, if you don't say what you want, then you're not going to get it. And in effect, you are chained down by your inability to say what you feel or go after what you want" (Rettenmund 2016, 174).

Lady Gaga's single, "Born this Way," released in 2011, garnered her much attention and recognition. The song achieved success, reaching number one on the Billboard charts and went number one on iTunes in less than three hours (O'Connell 2017, 313). One characteristic often attributed to the song were the common elements shared between this song and "Express Yourself." Many critics felt that Lady Gaga

directly copied this song from Madonna, and Lady Gaga is no stranger to receiving comments regarding the similarities between her and Madonna. "Madonna has been a consistent reference point attributed to Lady Gaga throughout her career due to the physical resemblance, common Italian-American background, and their approach to going against the status quo in regard to popular culture" (Williams 2014, 31).

Sound:

Madonna's "Express Yourself" is an energetic and upbeat song. The instrumental accompaniment works cohesively to achieve a robust sound, and the instruments in this song consist of a Wurlitzer electric piano, Hammond Organ, horn section, guitar, synth bass, drums, and percussion. Most of the song includes full instrumentation, except for the verse that reduces to only the electric piano, guitar, organ, synth bass, and drums. In addition, both the lead and background vocals use similar vocal reverb and delay audio processing.

The sounds used in Lady Gaga's song "Born this Way" are more aggressive than those of her counterpart, and "Born this Way" replaces the traditional pop music instrumentation such as electric guitar, bass, and keyboards. The song heavily utilizes synthesizers as the main sound that drives the arrangement. The instrumental accompaniment comprises programmed drum machines and a combination of various synthesizer sounds such as synth bass, strings, leads, synth brass, and multiple atonal synth effects, which are used as transitional sounds between sections. The synth bass and synth brass incorporate a modern audio production technique called sidechain compression, which is an audio processing technique that involves controlling the

parameters of a sound via a compressor where when one sound (such as a kick drum) plays, all sounds that are side-chained together quickly reduce in volume, also known as "ducking." This technique is often applied to synthesizers and bass sounds to give the sound a "pumping" effect, which was mainly used in the EDM and hip-hop genres; however, in the 2000s, mainstream pop music began incorporating this technique.

Harmony:

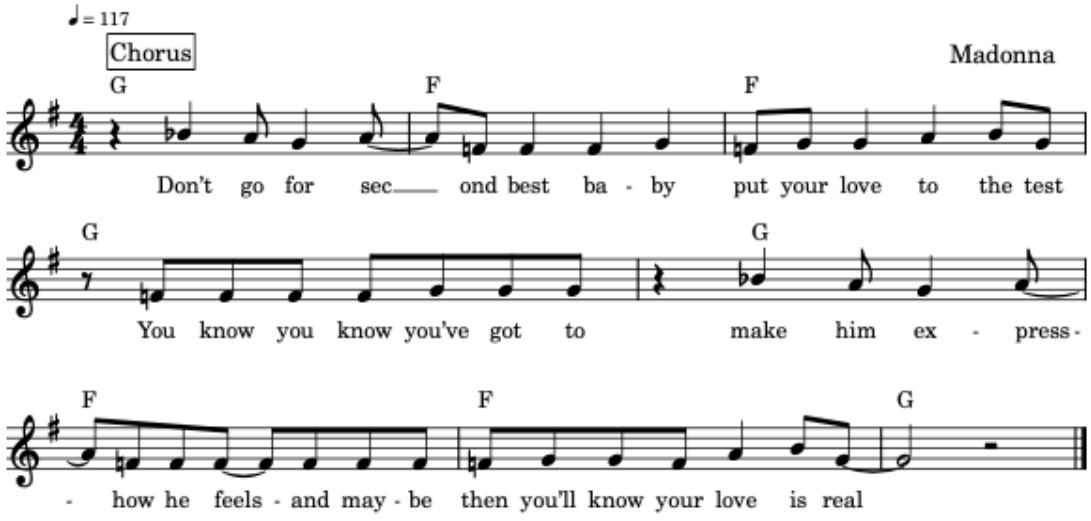
When "Born this Way" was released, audiences quickly connected it to "Express Yourself" due to how both songs closely resembled each other. Frere-Jones wrote that "Born this Way" confused audiences around the world because they were often tempted to start singing Madonna's "Express Yourself" at some point during the song (Frere-Jones 2011). This similarity is partially due to the fact that both songs include the chord progression movement I to flat-VII. Furthermore, it is possible to sing the melody of either song over both sets of chord changes. The vocal arrangement for both songs uses a mixture of unison as well as two-part and three-part background vocal harmonies throughout each section of the song. The vocal arrangement for "Express Yourself" uses a thicker vocal texture in comparison to its counterpart that stylistically resembles a soulful gospel arrangement, which connects to the message of self-empowerment that Madonna stresses in the lyrics of the song (Sullivan 2018, 91).

Melody:

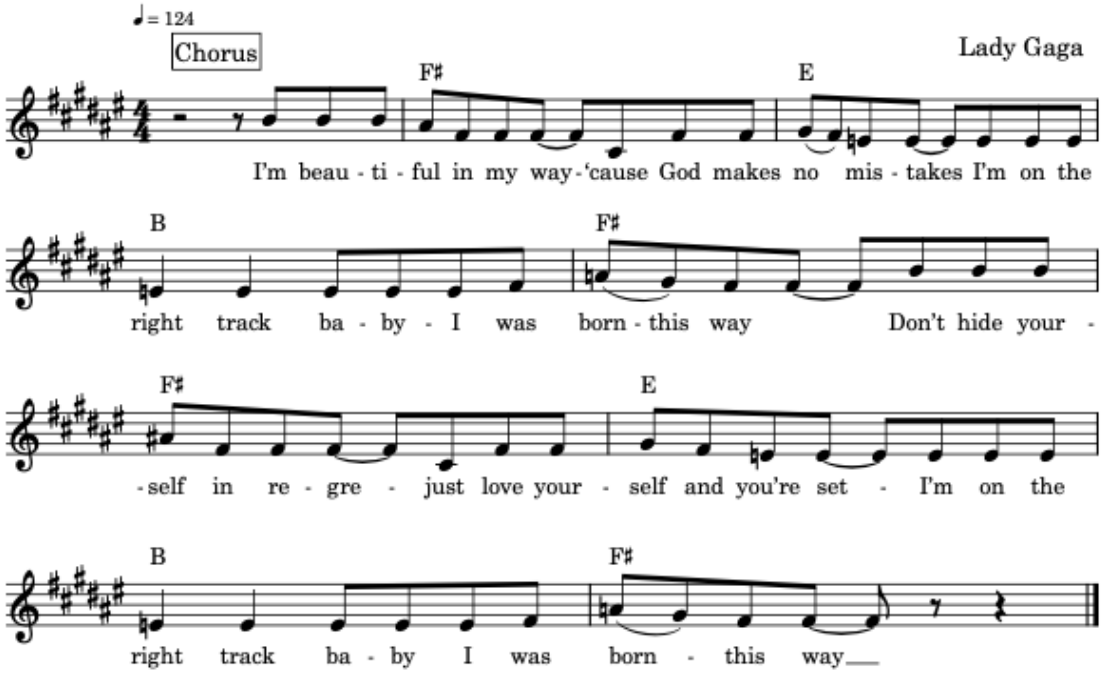
Both songs use varying approaches to developing the contour and shape for the melody in each verse. The verse for "Express Yourself" as notated in Example 3.5.

begins on the fifth scale degree (D4) and ultimately reaches the fourth scale degree (C5) through a series of ascending and descending leaps and steps. The melody uses a similar motion by beginning each phrase with an ascending line that ends with descending line. “Born This Way” begins on the third scale degree (A-sharp 3) and reaches the fifth scale degree (C-sharp 5) by also combining a series of leaps and steps. The lead vocal during the choruses for both songs is based on the mixolydian mode that is a derivative of the major scale, and as shown in Example 3.6. Both songs enforce this scale by accentuating the lowered seventh scale degree then resolving to the tonic in the chorus.

Example 3.5. Vocal melody in “Express Yourself”



Example 3.6. Vocal melody in “Born this Way”



Rhythm:

The time signature for both songs is in 4/4. The tempo for “Express Yourself” is around 116 bpm, while “Born This Way” is slightly faster with a tempo of 124 bpm. The rhythmic accompaniment provided by the drums in both songs retains a consistent drum pattern throughout each section of the song. The kick drum for “Express Yourself” plays on the first and second beat, while the snare plays on beats two and four. The hi-hat uses a variety of syncopated eighth- and sixteenth-note rhythmic patterns. However, “Born This Way” rhythmically departs from “Express Yourself.” Lady Gaga describes her *Born this Way* album as “a marriage of electronic music with major rock ‘n’ roll, pop, anthemic style melodies with really sledgehammering dance beats” (Peters 2012). “Born this Way” incorporates the stylistic traits of electronic music by having the snare drum

play on two and four with a driving kick drum that plays on all four beats, a technique also known as “four to the floor.” Additionally, during the verse and choruses, the synth bass and synth brass pulse on the second eighth- note of each downbeat.

Growth:

Growth is achieved by the following:

1. The instrumentation and vocal layering in both songs assists in the development and growth between each section of the song.
    a. “Express Yourself”: During the choruses and the bridge, the background vocals sing in unison with the lead vocal in three-part harmony. For the verses, the background vocals sing two-part harmony intermittently at the end of phrases.
    b. “Express Yourself”: The drums and percussion elements change with each section of the song. The verses contain just kick, claps, snare, hi-hat, and a crash cymbal; however, during the intro, choruses, and bridge, a cowbell is added.
    c. “Born this Way”: The instrumentation during the verses is minimal and only include drums and a low pulsing synth bass and synth brass. During the choruses, multiple brighter pulsing synths are added.
2. The form for “Express Yourself” is Intro (8), Chorus 1 (8), Verse 1 (16), Chorus 2 (8), Verse 2 (16), Chorus 3 (8), Tag 1 (8), Bridge 1 (12), Tag 2 (8), Verse 1b (8), Bridge 2 (8), Chorus 4 (8), Tag 3 (8), Tag fadeout.

3. The form for “Born this Way” is Dialogue Intro, Instrumental Intro (4), Verse 1 (16), Chorus 1 (16), Tag 1 (4), Verse 2 (16), Chorus 2 (16), Tag 2 (12), Chorus 3 (16), Tag 3 (8), Tag 4 (8) Outro fadeout.

Conclusion

The impact of 1980s pop music on current music extends beyond sound and includes the influence of different characteristics of harmony, melody, rhythm, and growth between sections of the songs. Current music artists have integrated these influences to create music that hints at the past while containing modern sounds.

Chapter 4

Analysis of Original Compositions

Six original songs were composed by the author of this paper to further demonstrate the musical influence of Michael Jackson, Prince, and Madonna on today's music. This chapter analyzes three of those songs and highlights common musical elements shared between the original songs and songs from the previously mentioned music artists. The elements that will be highlighted include similarities in melody, harmony, rhythm, form, and music production components such as instrumentation, audio processing techniques, and sounds from synthesizers and drum machines.

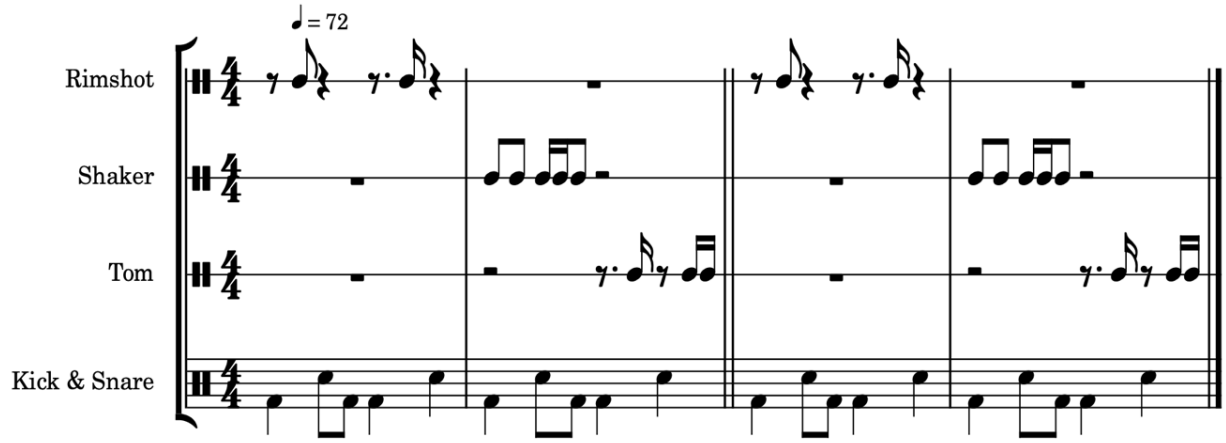
"Worth It"

"Worth it" incorporates musical elements such as common rhythmic drum patterns, harmonic progressions, and instrumentation used in the music production of Prince, and the rhythmic drum pattern used is a four-measure pattern directly inspired by "The Beautiful Ones" (featured on Prince's *Purple Rain* album). The rhythmic pattern is repeated throughout most of the song, and as the song develops, the rhythmic pattern changes to add contrast and movement between sections of the song.

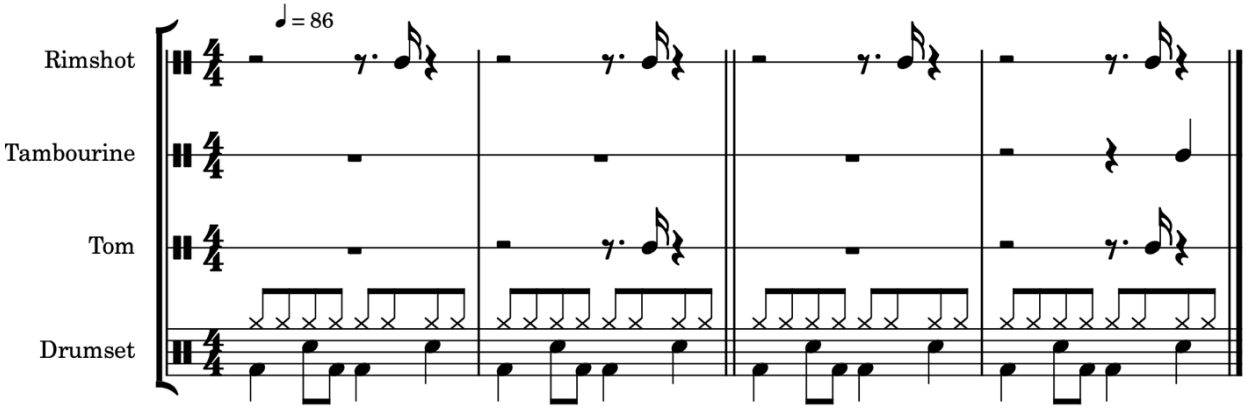
For example, after the first chorus, the snare is omitted during the section before the second verse. "Worth it" follows a similar structure of omitting the snare (rimshot) and

adding different rhythmic instruments in chosen sections of the song. Examples 4.1. and 4.2. demonstrate the rhythmic pattern similarities of both songs.

Example 4.1. Four-measure drum pattern in “Beautiful Ones”

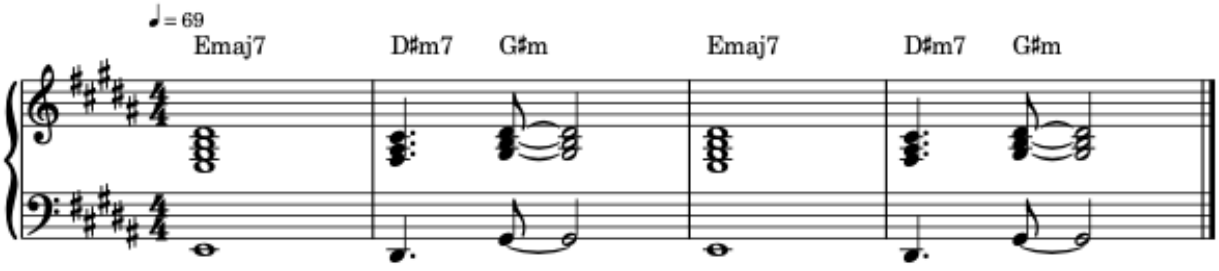


Example 4.2. Four-measure Drum Pattern in “Worth It”

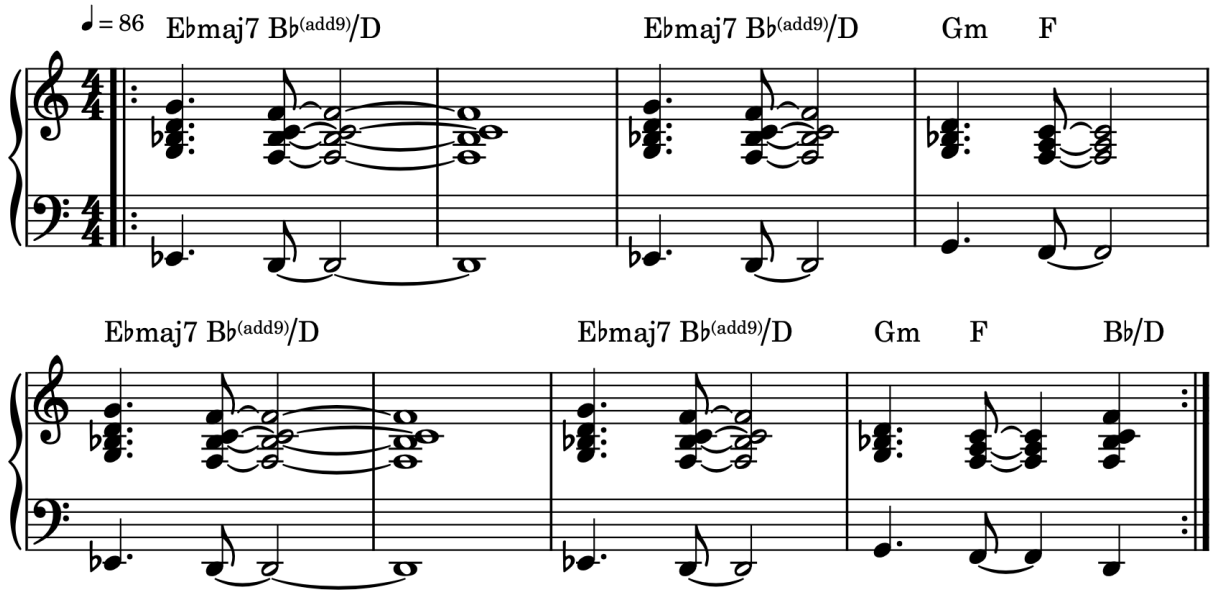


"Worth it" incorporates a harmonic progression that is similar to that in "Do Me Baby" (featured on Prince's *Controversy* album). The main harmonic progression for "Do Me Baby" is notated in Example 4.3. This progression—IV7-iii7-vi7—repeats throughout the song with little variation to the pattern. Similarly, as shown in Example 4.4., "Worth it" incorporates the aforementioned chord progression; however, the iii7 chord is voiced differently. Furthermore, the chords function different rhythmically in comparison to "Do Me Baby."

Example 4.3. Main harmonic progression in "Do Me Baby"



Example 4.4. Main harmonic progression in “Worth It”



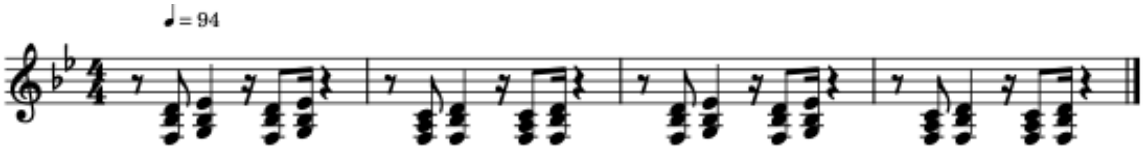
A unique but customary production element used in “The Beautiful Ones” (featured on Prince’s *Purple Rain* album) is the predominant use of multiple synthesizer layers and electronic drums. Prince layered multiple synthesizer sounds from the Oberheim OB-Xa, including pads, strings, and bells, which created rich textures and movement throughout the song. “‘The Beautiful Ones’ is orchestrated in a unique way. Prince created this other world using synthesizers, guitars, pianos, lots of digital delay, and reverb” (Tudahl 2018, 176). Additionally, the drums were programmed on the LM-1 drum machine, which includes the infamous detuned rimshot sound that Prince uses in his music. “Worth it” follows a similar approach by using similar layered synthesizer sounds and electronic drum sounds. production. Most of the drum sounds come from a plugin that emulates the LM-1 drum machine, while the synthesizer pad, bells, and string

sounds are from a virtual instrument that emulates the sound of the Oberheim OB-Xa synthesizer.

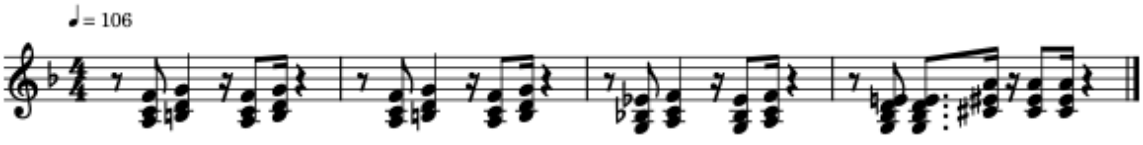
"Infatuation"

"Infatuation" stands out amongst the other compositions, and as one of its main characteristics, it incorporates common rhythmic and sound characteristics used in the pop music of the 1980s. Rhythmically, as shown in Examples 4.5. and 4.6., the ostinato played by the synthesizer brass patch[1] in "Infatuation" mirrors the ostinato played by a similar synthesizer brass patch in "Another Part of Me" (featured on Michael Jackson's *Bad* album). The ostinato in both songs is repeated throughout the song.

Example 4.5. Synthesizer Brass patch ostinato in "Infatuation"



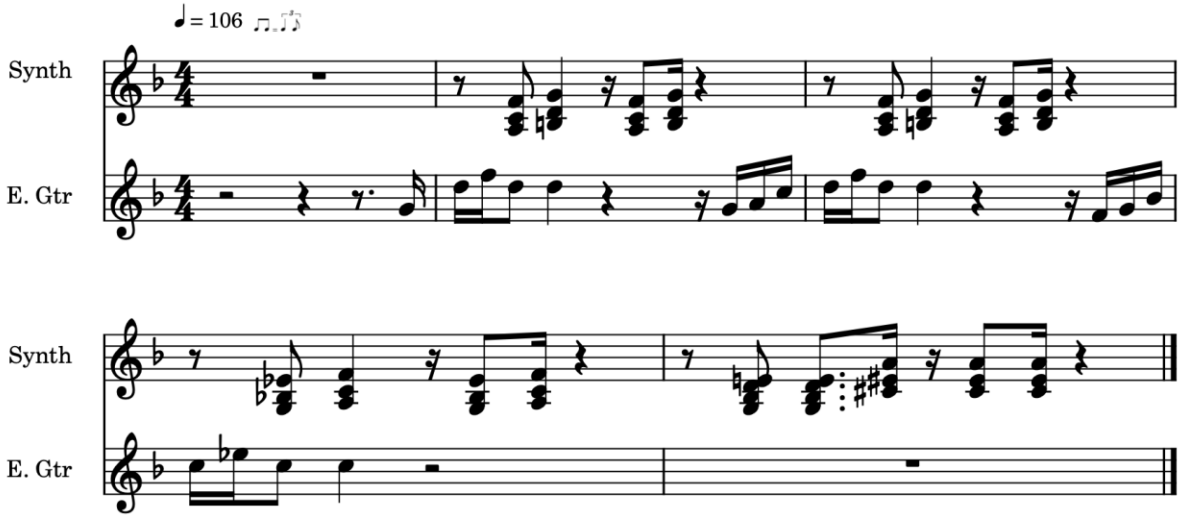
Example 4.6. Synthesizer Brass patch ostinato in "Another Part of Me"



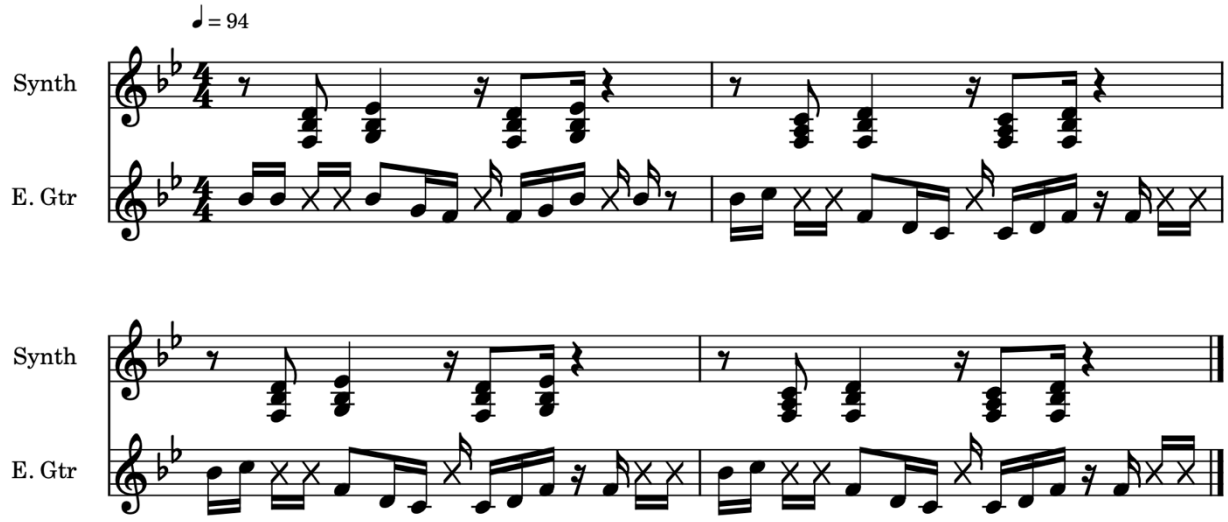
[1] In this context, a patch is an internal setting within a synthesizer that selects an instrument sound. A patch can also be referred to as an instrument or voice.

Additionally, in both songs, the guitar plays in conjunction with the main synthesizer ostinato, which creates an allusion of a call and response between the two instruments. This feature adds an interesting rhythmic contrast compared to how the guitar functions in the other compositions. Example 4.7. shows how the synthesizer and guitar function together in "Another Part of Me." The guitar begins the section with a pickup measure before the synthesizer plays, and both instruments emphasize the second beat of each measure. As shown in Example 4.8, "Infatuation" follows a similar pattern; however, the guitar is more rhythmically active than that in "Another Part of Me."

Example 4.7. Synthesizer and Guitar motif in "Another Part of Me"



Example 4.8. Synthesizer and Guitar motif in “Infatuation”



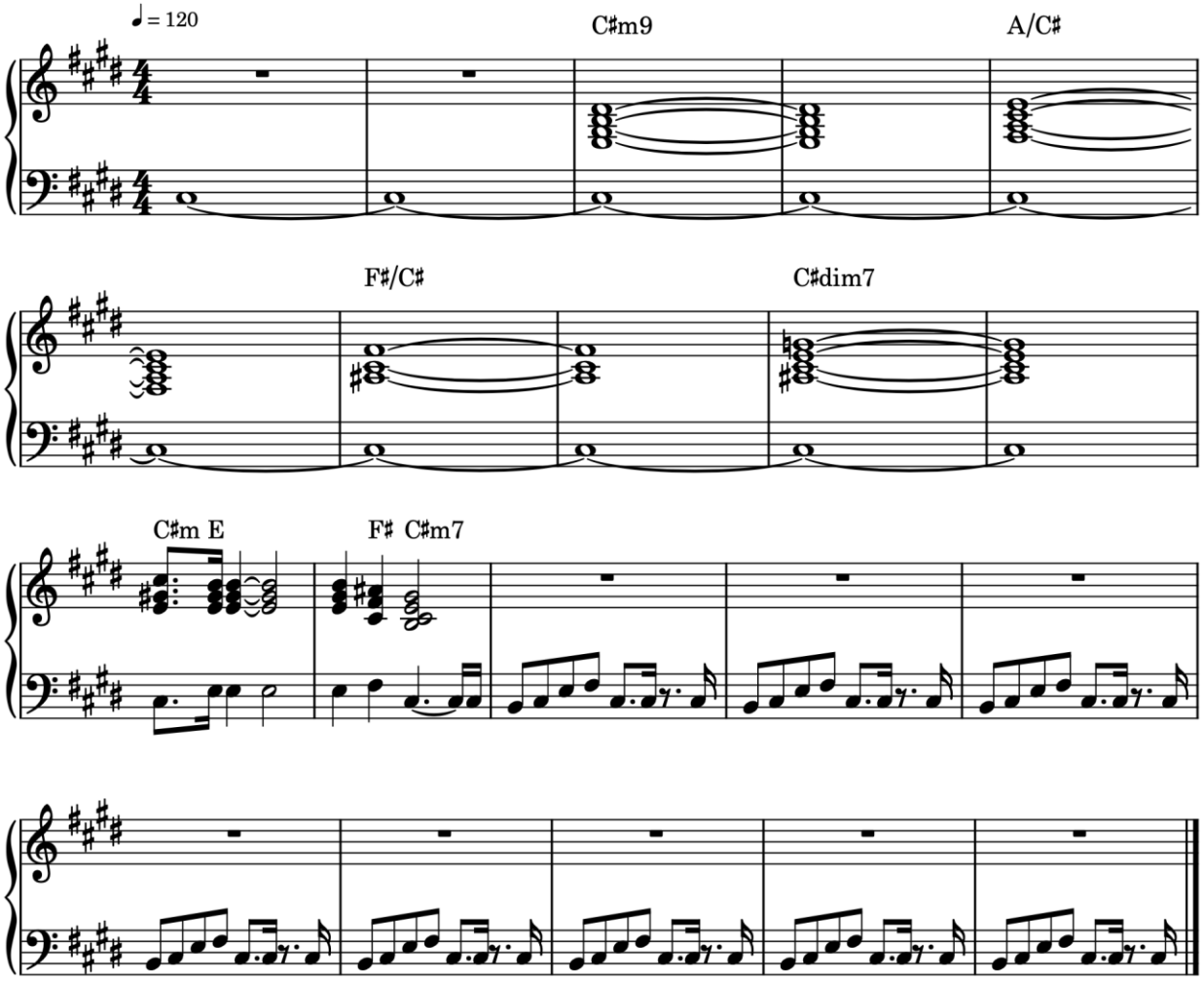
The production elements used in “Infatuation” parallels the production and sound of Madonna’s earlier music. More specifically, “Infatuation” incorporates the instrumentation and production elements used in “Lucky Star” (featured on Madonna’s self-titled album *Madonna*), for which the instrumentation includes piano, guitar, electronic drums from the LINN Drum, DMX Drum machine, and synthesizer sounds such as bass, brass, bells, and lead sounds from the Arp 2600, Oberheim OB-X, and Prophet synthesizers. “Infatuation” contains the same instrumentation with the exception that a Fender Rhodes Electric Piano sound is used instead of an acoustic piano. The guitar tone is played on a Stratocaster guitar with a clean sound—meaning more of the natural sound of the guitar is heard with minimal audio effects inserted in the signal chain—and the only audio effects used are reverb and light chorus. This approach to the guitar is used

in much of Madonna's earlier music. "Infatuation" incorporates a similar guitar tone throughout the song, and the guitar tone utilizes reverb and chorus.

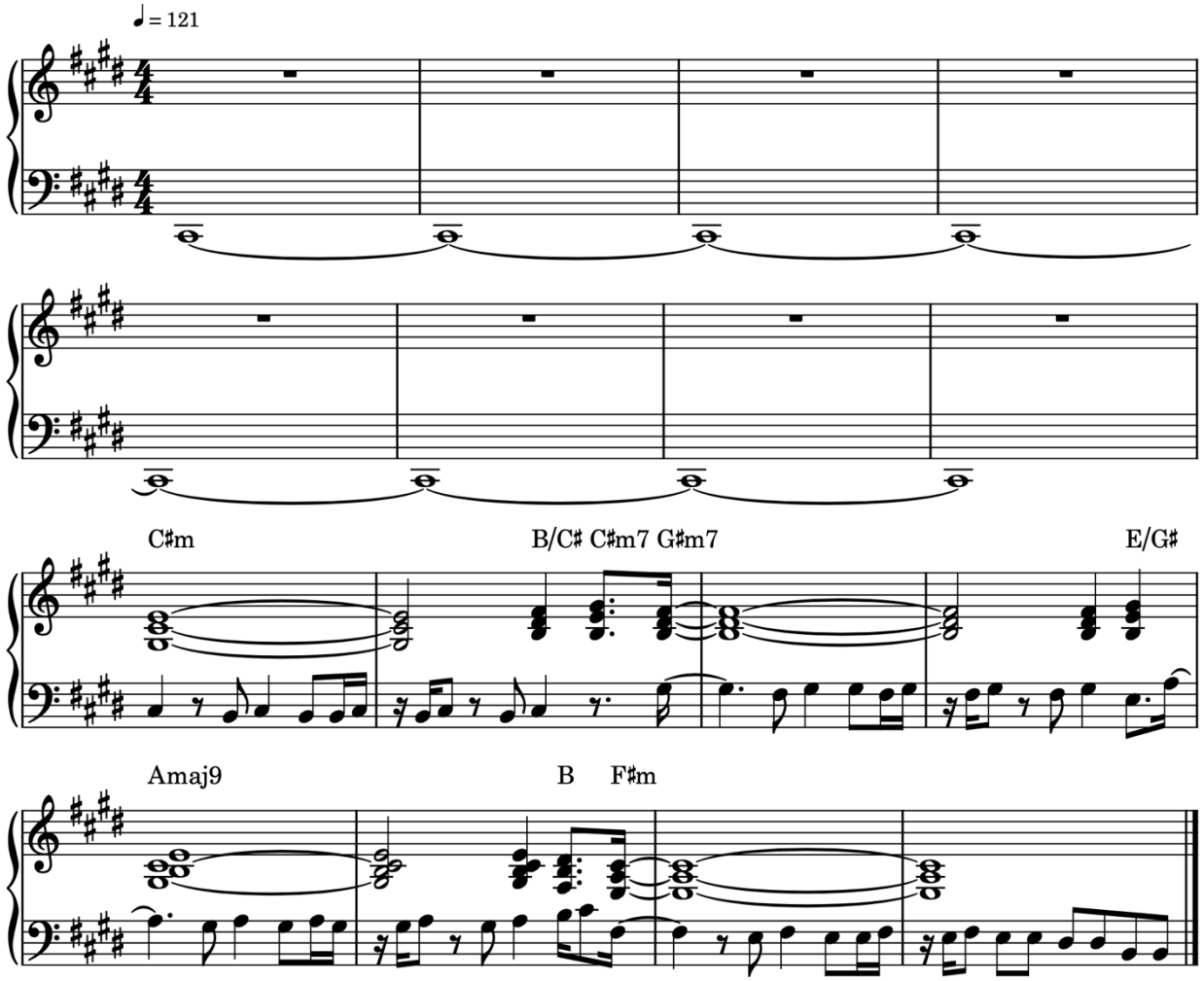
"Crush"

"Crush" is another original composition that authentically draws on multiple influences. The intro to "Crush" incorporates a similar harmonic approach to Michael Jackson's "Thriller." Immediately after the sound effect used for the intro, as shown in Example 4.8, "Thriller" begins with a synthesizer brass sound that builds and pedals on the C-sharp in the bass, while the chordal harmony changes every other measure until m. 9–10 where the phrase climaxes to the main theme of the song. The synthesizer bass line begins in m. 18 in concert with the electronic drum rhythm. Similarly, the intro to "Crush" begins with the bass synthesizer pedaling on the C-sharp for the first eight measures, and the chordal harmony begins in m. 9 along with the synthesizer bass line and electronic drum groove.

Example. 4.8. “Thriller” intro



Example 4.9. “Crush” Intro



Additionally, “Crush” integrates an arranging technique of including a musical interlude after the second chorus, a method also used by Prince in most of his music produced in the 1980s. Prince included musical interludes to feature instrumental solos from the guitar or synthesizer. Typically, he places this interlude in between a chorus and verse after a bridge or during an outro of the song, and this arranging technique is used in

many of his songs such as “Darling Nikki,” “Computer Blue,” “Baby I’m a Star,” and “Let’s Go Crazy.” Similarly, “Crush” contains an extended musical interlude after the second chorus. During the first half of the musical interlude, the synthesizer plays an ostinato that continues for eight measures until the unison line that leads into the guitar solo. Additionally, “Beat It” (featured in Michael Jackson’s *Thriller* album) uses the same approach with having an extended musical interlude that leads into a guitar solo.

The production elements (instrumentation and synthesizer layering) used in “Crush” are closely related to the similar production elements used in “Thriller.” The instrumentation used in “Thriller” includes a live horn section, guitar, drums (programmed on the Linn Drum Machine), bass (layered using the Minimoog and Roland Jupiter-8 synthesizers), and multiple synthesizer layers using the Roland Jupiter-8 synthesizer. Michael Jackson’s producer, Quincy Jones, was very strategic in how he layered certain instruments. He would often layer instruments together to create “textures and colors” that provided richness and depth,” and the result of these layered instruments such as the synthesizers used in “Thriller” allowed for new possibilities in the sounds used in production in the 1980s (Vogel 2011, 95). The instrumentation in “Crush” includes a similar approach in layering. The synthesizer brass patch is layered using multiple sounds from the Roland Juno 106, Jupiter 8, and Roland D-50 plugin emulation. Furthermore, the synthesizer pads in the intro are layered using a plugin emulation of the Synclavier and Roland D-50 synthesizers.

Chapter 5

The Recording Process

The entire project accompanying this paper was arranged and recorded in a home studio, and for each of the compositions, it was necessary to include the sounds of electronic drums and synthesizers used in popular music of the 1980s, which proved to be a challenge. Unfortunately, recording with these instruments was not an option due to factors such as price, availability, and inconsistencies with the audio in certain synthesizers because of age. Consequently, to remedy these factors, computer software versions of these vintage synthesizer instruments—also known as virtual synthesizers—were used to reproduce the sounds needed for each composition. Most of the software instruments used in this project were part of the Arturia V Collection, which includes popular synthesizers such as the Prophet 5, Yamaha CS-80, Synclavier, Yamaha DX7, Minimoog, and Oberheim OB-Xa. U-He Diva, Native Instruments Massive, Roland's software emulation of the Roland Jupiter 8, Roland Juno 106, Roland D-50 synthesizer, Aly James' VPROM (emulation of the LINN Drum), and Omnisphere by Spectrasonics.

Layers—the combination of two or more patches—are programmed for each composition to produce the desired sound. When using them, it is important to choose sounds that sonically complement each other. The first approach to layering involves

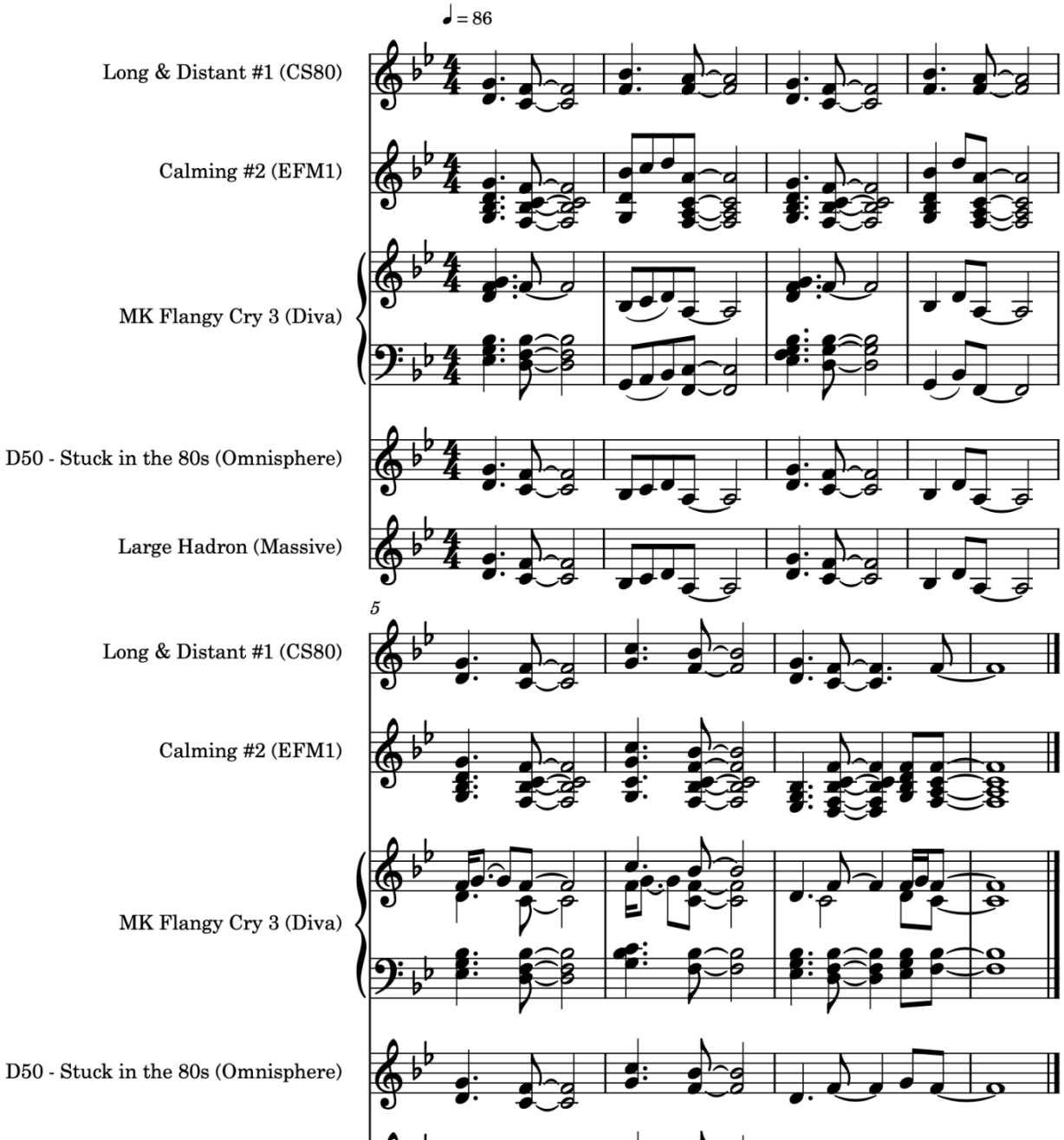
combining two similar sounds with different characteristics, and "Worth It" uses this technique for the electric piano sound. The DX-7 software instrument is one of the featured synthesizers used in this composition, and was layered with a similar sound from the Yamaha CP88 digital stage piano. The E. Piano 1 patch from the DX-7 was used to provide the Electric piano sound. Unfortunately, the original sound of the E. Piano 1 from the DX-7 produced a very dark and thin tone, and it needed another sound to supplement it within the composition. This was why the addition of electric piano sound from another synthesizer was necessary. The sound used from the digital stage piano was a custom-layered patch that consisted of a similar DX-7 E, and the piano sound was combined with a sound from the Electric Piano Fender Rhodes. Additionally, reverb was added to provide space and depth. Finally, both sounds were recorded separately, then were routed to the same bus channel and recorded as one patch, and the result of this technique produced a brighter and fuller sound.

Additionally, the synthesizer pad sounds in "Worth It" utilizes layering; however, a different technique is used in incorporating these sounds within the composition. Pads are unique because the sounds that are produced from this timbre cover a broad range of frequencies, depending on the patch chosen. Oftentimes, if used alongside other instruments that occupy the low- or mid-range frequencies, pads can make the mix sound muddy or unclear. Therefore, to achieve a cohesive sound from the chosen pad patches, the sounds in "Worth it" are played using a mixture of shell voicings[2] and alternate chord voicings per sound. There are five separate software instruments used to create the pad

[2] Shell voicings are chords which only contain the root, third and seventh. These chords often omit the root and fifth.

layer, and Example 5.1. displays how each sound is voiced. Each pad voicing takes into consideration the sound characteristics of all five sounds. Pad one, which uses Arturia's V Collection CS80 software instrument, produces a warm mid-range sound, while Pad two, which uses Logic Pro X's EFM 1 software instrument, has a darker sound. Therefore, to balance the unique character of each sound, different voicings were played.

Example 5.1. Synthesizer pad voicings used in the chorus of "Worth It."



The songs that incorporated electric guitar were remotely recorded by separate musicians, and each guitar was recorded into a Universal Audio Apollo Twin audio interface using a mixture of stereo chorus, delay, and compression. Different amp setups were used by the guitarists. The Fender hot rod deluxe amplifier and Shure sm57 microphone were used in “Infatuation,” while the guitarist for “Crush” and “Worth it” used a Kemper Profiling amplifier. The vocals were also recorded virtually using a Universal Apollo Interface.

Conclusion

The main objective of this document is to analyze the music played in the 1980s and show the musical components that influenced music in the 2020s. The music of Michael Jackson, Prince, and Madonna played an essential role in the evolution of music production of the 1980s that stood the test of time because these artists took advantage of the developments in music technology and incorporated them into their music. Consequently, the new musical technology that includes synthesizers and drum machines became more prevalent, eventually becoming a standard for music production. Although music has advanced and progressed over the years, popular music artists in the 2010s continued to incorporate musical components from the 1980s into their songs. Therefore, inspired by musical elements from the 1980s, six original compositions were composed and recorded, showing their similarities in terms of production and arrangement.

With technological advancement in the musical instruments used in the 1980s, there has been a significant change in how music is produced and, ultimately, how it sounds. The introduction of digital synthesizers initiated a new era of innovation and creativity that was typically unavailable to the average musician. However, as musical instruments with current technology became more affordable, more musicians became able to acquire such equipment, making their music richer in terms of production and sound. Michael Jackson, Prince, and Madonna were among the top 1980s popular artists to incorporate sounds from instruments such instruments as the LINN Drum, Yamaha DX-7, Roland D-50, and Oberheim OB-Xa into their music.

Furthermore, the influence of popular music of the 1980s extended beyond the sound of synthesizers and included additional musical elements in harmony, melody, rhythm, and form. Artists of the 2010s decade such as The Weeknd, Lady Gaga, and Jessie Ware integrated musical characteris

tics such as common harmonic chord structures, rhythmic accompaniment, vocal phrasing, melodic contour, and song form. These musical characteristics were often merged with sounds from contemporary music production to create an original sound that combined the music of both decades.

Finally, the impact of music production elements within the music of the 1980s remains a relevant resource, as more popular music artists from future decades are embracing the sounds from yesterday. It is thus evident that this trend of fusing sounds from the past with those from the present is here to stay. Therefore, we believe that this project will be beneficial to both musicians and students who are interested in the history and application of 1980s music production elements.

Appendix A

Software Instruments and sounds used in Compositions

"Worth It"

Drums

Kick 1 – AlyJamesLab - VPROM LM – LINN Drum

Kick 2 – ThatSound - 1985 Boomy Kicks (AMS1)

Snare – AlyJamesLab - VPROM LM-1 – LINN Drum

Snare 2 – Native Instruments Battery 4 – Oliver's 80s Snares (custom sound)

Snare 3 – Logic Pro X Drum Machine Designer – Roland TR-808

Rim – AlyJamesLab - VPROM LM-1 – LINN Drum

Claps – AlyJamesLab - VPROM LM-1 – LINN Drum

Hi-Hat 1 – AlyJamesLab - VPROM LM-1 – LINN Drum

Hi-Hat 2 - Native Instruments Battery 4 – Acoustic Hi-hats (custom sound)

Toms 1 – AlyJamesLab - VPROM LM-1 – LINN Drum

Toms 2 – ThatSound – "Huey Toms"

Toms 3 - Native Instruments Battery 4 – 80s toms (custom sound)

`

Cymbal Swell - Native Instruments Battery 4 – Cymbal Swell (custom sound)

Tambourine – Logic Pro X Sampler – Rock Kit

Bass

Bass - Arturia V Collection DX7 – Rom2B 16-Syn-Bass 1

Electric Piano

Electric Piano 1 – Arturia V Collection DX7 – E. Piano 1

Electric Piano 2 – Yamaha CP88 (digital stage piano) – DX Legend/73 RD Studio (custom sound)

Poly-synth

Poly-synth 1 – Arturia V Collection CS80 – Aquaroc

Poly-synth 2 – Arturia V Collection Jup-8 V4 – Horns of Africa

Poly-synth 3 – Arturia V Collection DX7 – Dark & Shimmering

Poly-synth 4 - Arturia V Collection Prophet V3 – Prophet strings

Poly-synth 5 – U-He Diva – Rush of Angels L.N.

Pads

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Pad 1 – Arturia V Collection Jun-6v – 80s PWM Pad

Pad 2 – Arturia V Collection OB-Xa – Lonely Sunday

Pad 3 – Native Instruments Massive – Large Hadron

Pad 4 – Arturia V Collection CS80 – Long & Distant #1

Pad 4 – U-He Diva – MK Flangy Cry 3

Pad 5 – Spectrasonics Omnisphere – D50 - Stuck in the 80s 4

Pad 6 – Logic Pro X EFM1 – Calming #2

Bells

Bells – Arturia V Collection OB-Xa – Silver Dawn

"Crush"

Drums

Kick 1 - AlyJamesLab VPROM - Linn Drum

Kick 2 - Native Instruments Battery 4 - Oliver Retro Kicks

Snare 1 - Native Instruments Battery 4 - Oliver Live snares

Snare 2 - Native Instruments Battery 4 - Oliver 80s snares

Snare 3 - AlyJamesLab VPROM - Linn Drum (detuned)

Claps 1 - AlyJamesLab VPROM - Linn Drum

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Claps 2 - Logic Pro X Q-Sampler - custom sound

Rim - AlyJamesLab VPROM - Linn Drum (detuned)

Tom 1 - Native Instruments Battery 4 - Oliver toms

Tom 2 - AlyJamesLab VPROM - Linn Drum

Hi-hat 1 - Native Instruments Battery 4 - Oliver hi hats

Hi-hat 2 - AlyJamesLab VPROM - Linn Drum

Cowbell - AlyJamesLab VPROM - Linn Drum

Percussion 1 - Native Instruments Battery 4 - Oliver Percussion

Cymbals - Native Instruments Battery 4 - Oliver cymbals

Tambourine - Thatsound - tambourine loop

Drum Loops - multiple loops were combined

Bass

Bass - Arturia V Collection Mini V - 3osc

Bass - Roland D-50 software instrument - polyphonic synth

Electric Piano

Electric Piano 1 – Arturia V Collection DX7 – E. Piano 1

Electric Piano 2 – Yamaha CP88 (digital stage piano) – DX Legend/73 RD Studio (custom sound)

Poly-synth

`

Poly-synth 1 - Roland D-50 software instrument - polyphonic synth

Poly-synth 2 - Spectrasonics Omnisphere - Great Polysynth

Poly-synth 3 - U-He Diva - Jupiter Arp 1 L.N.

Poly-synth 4 - Spectrasonics Omnisphere - JX03 - Classic Prince Poly

Pad

Pad 1 - Arturia V Collection Synclavier V - Bigwave

Pad 2 - Arturia V Collection Synclavier V - Brass operator

Pad 3 - Roland D-50 software instrument - Soundtrack

Pad 4 - Arturia V Collection Synclavier V - Clandestine

Bells

Bells - Spectrasonics Omnisphere - D50 - Bell Chorale

"Daydreamin"

Drums

Kick 1 - Native Instruments Battery 4 - Oliver kicks (retro)

Kick 2 - Native Instruments Battery 4 - Oliver kicks (retro)

Kick 3 - Logic Pro X Drum Machine Designer - Video star kit

Kick 4 - Native Instruments Battery 4 - Custom kit

`

Kick 5 - Native Instruments Battery 4 - LinnDrum Kit

Snare 1 - Native Instruments Battery 4 - Oliver 80s snares

Snare 2 - Native Instruments Battery 4 - Oliver disco snares

Snare 3 - Native Instruments Battery 4 - Machete Kit

Claps 1 - Native Instruments Battery 4 - Oberheim DMX Kit

Claps 2 - Logic Pro X Drum Machine Designer - Sequential DrumTraks (tuned down)

Claps 3 - Native Instruments Battery 4 - Elements EDM claps

Claps 4 - Native Instruments Battery 4 - Lynn 1200 Kit

Cowbell - AlyJamesLab - Linn Drum kit

Toms - Logic Pro X Drum Machine Designer - Video star kit

Drum fills - Logic Pro X Drum Machine Designer - Video star kit

Drum Loops - multiple loops were combined

Bass

Bass 1 - Arturia V Collection OB-Xa - Classic Synthwave Bass

Bass 2 - Arturia V Collection Mini - Model D

Bass 3 - Spectrasonics Omnisphere - Following Analog Bass

Rhodes

Rhodes - Spectrasonics Keyscape - LA Custom Chorus

Polysynth

Polysynth 1 - Arturia V Collection OB-Xa -1999 Keys

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Polysynth 2 - Arturia V Collection Jun-6 V - Classic Road

Polysynth 3 - Arturia V Collection OB-X - Innocent Keys

Polysynth 4 -Arturia V Collection Synclavier – Lightway

Arpeggiated Synth

Arp 1 - U-He Diva - Jupiter Arp 1 L.N

Arp 2 - Arturia V Collection Emulator - Molecule Pluck

Pad

Pad 1 - Spectrasonics Omnisphere - Bright and Beautiful

Bells

Bells 1 - Xfer Serum - Poly Triumph 87

Bells 2 - Xfer Serum - Synth Chords 80s Saws

Bells 3 - Xfer Serum - Big Sleepy

Bells 4 - Spectrasonics Omnisphere - JX03 - Eighties Bells

Bells 5 - Logic Pro X RetroSynth - 80s Wave Bells

“Infatuation”

`

Drums

Kick 1 - Native Instruments Battery 4 - Oliver 80s kicks

Snare 1 - Native Instruments Battery 4 - Oliver 80s snares

Snare 2 - Native Instruments Battery 4 - 80s snares

Snare 3 - Native Instruments Battery 4 - Oliver snare noise

Claps - Logic Pro X Drum Machine Designer - Custom Kit

Toms - Native Instruments Battery 4 - Oliver toms

Rimshot - Native Instruments Battery 4 - Oliver Linn Rim (Phaser)

Hi-Hat 1 - Logic Pro X Drum Machine Designer - Two Ton Pop

Hi-Hat 2 - Native Instruments Battery 4 - Oliver Hi-Hats

Shaker - Spectrasonics Stylus RMX - Shaker

Drum Loops - multiple loops were combined

Bass

Bass 1 - Arturia V Collection Prophet - 80s Bass

Bass 2 - Spectrasonics Omnisphere - Phunki-phi Bass 1

Rhodes

Rhodes - Spectrasonics Keyscape - Duo - Ultra 80s MIDI

Poly-synth

Poly-synth 1 - U-He Diva - FMR JunoJupiter 27 Chorused Guitar

Polysynth 2 - Native Instruments Massive - Revisted

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Polysynth 3 - U-He Diva - Attack the 80s L.N.

Polysynth 4 - U-He Diva - JP8 Brass 1 L.N.

Polysynth 5 - Xfer Serum - Shimmer Piano

Polysynth 6 - Spectrasonics Omnisphere - OB6 - Analog ‘80s Brass

Polysynth 7 - Spectrasonics Omnisphere - Modern Supersaw Oct

Polysynth 8 - Spectrasonics Omnisphere - Big Boned Polysynth

Arpeggiated Synth

Arp 1 - U-He Diva - Jupiter Arp 1 L.N

Bells

Bells 1 - U-He Diva - Jupiter Arp 1 L.N

Bells 2 - Roland Cloud Roland D-50 - Pizzagogo

Bells 3 - Spectrasonics Omnisphere - D50 Bell Chorale

“Good Enough”

Drums

Kick 1 - Native Instruments Battery 4 - Deep kicks (custom)

Kick 2 - Native Instruments Battery 4 - Deep Kicks (custom)

Kick 3 - Native Instruments Battery 4 - Linn Drum kit

Kick 4 - AlyJamesLab - Linn Drum kit

Snare - Native Instruments Battery 4 - Elements Snare kit

`

Rim 1 - Native Instruments Battery 4 - Acoustic Snare rims (custom)

Rim 2 - Native Instruments Battery 4 - Rims kit (custom)

Rim 3 - Native Instruments Battery 4 - Rims kit (custom)

Snaps - Native Instruments Battery 4 - Snaps kit (custom)

Sidestick - Native Instruments Battery 4 - Sidesticks (custom)

Hi-hat 1-3 - multiple loops were combined

Percussion - multiple loops were combined

Bass

Bass - Spectrasonics Omnisphere - Mini Triangle Sub

Rhodes

Rhodes - Spectrasonics Keyscape - Rhodes-LA Custom Chorus

Pads

Pad 1 - Roland Cloud Roland Juno 106 - PD Warmer Pad

Pad 2 - Arturia V Collection Emulator II V - A Quiet Moment

Pad 3 - Arturia V Collection Emulator II V - Changeling

Pad 4 - Spectrasonics Omnisphere - PWM Melodics

Pad 5 - Spectrasonics Omnisphere - Radiotone Melodics

Pad 6 - Spectrasonics Omnisphere - Agape Warmth

Pad 7 - Arturia V Collection Emulator II V - Sleep System

Pad 8 - Arturia V Collection Emulator II V - OB-8 Brass Love

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Pad 9 - Arturia V Collection Emulator II V - Chaos to Dust

Pad 10 - Logic Pro x Alchemy - Alone

Pad 11 - Spectrasonics Omnisphere - Metal Rain Trem Pad

Woodwind

Pan Flute - Roland XV-3080 Sound Module - Pan Flute

Bells

Bells 1 - Xfer Serum - Bel Air

Bells 2 - Roland Cloud Roland D-50 - Fantasia

Vocal Sample

Vocal sample was edited and chopped

“Seconds Away”

Drums

Kick 1 - Native Instruments Battery 4 - Oliver 80s kicks

Snare - Native Instruments Battery 4 - 80s Snares

Claps 1 - AlyJamesLab - Linn Drum kit

Claps 2 - Native Instruments Battery 4 - Roland TR-808 Kit 1

Rimshot - Native Instruments Battery 4 - Roland TR-808 Kit 3

Percussion - Native Instruments Battery 4 - Acetone Rhythm Ace

`

Toms 1 - Native Instruments Battery 4 - Concert Toms Mix In

Toms 2 - Native Instruments Battery 4 - Huey T Big

Drum Loops - multiple loops were combined

Bass

Bass 1 - Arturia V Collection DX7 - Rom1a 15-BASS 1

Bass 2 -Spectrasonics Omnisphere - Lofi Electro Bass 2

Bass 3 - Xfer Serum - Classic Funk

Electric Piano

Electric Piano 1 – Yamaha CP88 (digital stage piano) – DX Legend/73 RD Studio (custom sound)

Poly-synth

Poly-synth 1 - Xfer Serum - Poly Smoothest

Poly-synth 2 - Xfer Serum - Oliver Pad

Pad

Pad 1 - Roland Cloud Roland D-50 - Future Pad

Vocal Sample

Vocal sample was edited using a pitch shift plugin

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Appendix B: Recording Credits

"Crush" – 5:27

Monty Wells, Marcus Perry – songwriter

Marcus Perry – drum Programming & synth Programming

Tyrone Jackson – electric guitar

Blair Whitlow – background vocals

Kynadi Echols – background vocals

Ronnie Robertson – background vocals

Rayvon Owen – lead vocalist

"Daydreamin" – 4:15

Melody Sheppard, Elizabeth Red, Marcus Perry – songwriters

Marcus Perry – drum Programming & synth Programming

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Joshua Lutz – electric guitar

Elizabeth Red – vocals

"Infatuation" – 4:38

Elizabeth Red, Marcus Perry – songwriters

Marcus Perry – drum programming & synth Programming

Adam Mcphail – electric guitar

Elizabeth Red – vocals

"Worth It" – 5:35

Marcus Hall, Marcus Perry – songwriters

Marcus Perry – drum programming & synth programming

Tyrone Jackson – electric guitar

Marcus Hall – vocals

"Good Enough" – 3:53

Marcus Hall, Marcus Perry – songwriters

Marcus Perry – drum programming & synth programming

Kyle Hicks – additional drum programming

`

David Bell – electric guitar

“Seconds Away” – 4:00

Quincy Thompson, Marcus Perry – songwriters

Marcus Perry – drum programming & synth programming

All music composed & arranged by Marcus Perry

Mixed by Tony High in Nashville, TN

Mastered by Marcus Perry in Nashville, TN

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