

LOCKDOWN:
A COMPOSITIONAL RESPONSE TO COVID-19

A Thesis
by
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Submitted to the School of Graduate Studies
at Appalachian State University
in partial fulfillment of the requirements for the degree of
MASTER OF MUSIC

December 2020
Hayes School of Music

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Abstract

LOCKDOWN: A COMPOSITIONAL RESPONSE TO COVID-19

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Lockdown is a compositional songwriting and recording project made during and in response to the COVID-19 lockdowns, which have presented many unique challenges for composers. These challenges include the illegality of many rehearsals and performances, the necessity to create music from home, and the lack of incentives to remain productive. *Lockdown*, a personal solution to these challenges, is a collection of seven songs inspired by the COVID-19 photography of Brian Kessler. It takes the form of an audio album and a songbook of lead sheets and photographs.

Acknowledgements

I would like to express gratitude to all members of my committee: Dr. Hiu-Wah Au, Dr. Andrew Hannon, Dr. Victor Mansure, and especially to Dr. Nicholas Cline whose weekly meetings helped keep me accountable for the goals outlined in my thesis prospectus.

I would also like to extend gratitude to Dr. Jennifer Snodgrass for her belief in my project and unwavering support. Serving as TA in her songwriting course has been a highlight of my graduate experience.

I am deeply indebted to Brian Kessler, an invaluable collaborator and the photographer of the images used as inspirations for this project's pieces.

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Chapter 1: The Problem and The Plan

In the spring of 2020, in response to the discovery of the spread of COVID-19, much of the world entered lockdowns of some sort. Myriad public events were postponed or cancelled. This thesis addresses the effects of these lockdowns on the composer, and more importantly, describes a specific compositional solution to the lockdowns; one that generated musical output without rehearsals or concerts. This paper describes the design, development, and execution of a musical work entitled, *Lockdown*, an audio album and songbook of songs inspired by the COVID-19 photography of Brian Kessler, composed, performed, and recorded by me.

Kessler and I had previously collaborated on a photography-inspired musical project called *Unsolicited Jingles*. One composer would photograph the sign of a local business and send it to the other who had 24 hours to write and record a commercial jingle for the unknowing business. This process resulted in over 40 jingles which are documented on the website, www.unsolicitedjingles.com.

Unsolicited Jingles proved three important things: 1) visual imagery is a fruitful source of inspiration for musical ideas, 2) a relatively small amount of modern music technology can be used to create a wide variety of sounds and styles, and 3), a system of external accountability dramatically increases productivity.

Kessler, who is the artistic director and in-house composer of an advertising agency in Glendale, CA (and a skilled photographer), was recruited to take a series of ten

photographs depicting Los Angeles life in COVID-19 lockdown and schedule them to be emailed to me weekly. Each photograph would inspire a separate piece of music.

The genre of composition would be the popular song, a natural fit for the instruments available in the home studio: keyboards, acoustic and electric guitars, electric bass, countless digital instruments, and voice. From a compositional perspective, the vocal line would be paramount. Above all else, popular music should be singable, so other instruments should scaffold and compliment, but never compete with the vocal line.

Without other musicians, the project would require a digital audio workstation (DAW) for multitrack recording. The DAW used to create “Lockdown” was Logic Pro X. Each song was to be composed utilizing popular song forms and notated in a lead sheet, which would communicate the song’s structure by sectional divisions, pitch and rhythm of the main melody, lyrics, harmony and harmonic rhythm, tempo, and style.

Lockdown is a solution to the compositional problems often experienced in COVID-19 lockdown, namely:

- the sudden illegality of traditional live performances and rehearsals¹
- limited access to other musicians
- the lack of creative productivity stemming from these circumstances

¹ Roy Cooper, Executive Order No. 121, “Stay At Home Order and Strategic Directions for North Carolina In Response To Increasing COVID-19 Cases,” March 27, 2020, Section 3.A, <https://files.nc.gov/governor/documents/files/EO121-Stay-at-Home-Order-3.pdf>

Chapter 2: The Result

Writing and recording jingles could give one a false sense that this project would be similarly fast-paced and spontaneous. Not only are the songs on *Lockdown* significantly longer than the unsolicited jingles, they are written using modern song formats, namely verse/chorus and AABA. Adherence to these formats contributes to a sense of organization when composing, but also limits some of the impromptu creative choices that may accompany other compositional settings.

Regular online interaction with Dr. Cline contributed to productivity. Meeting weekly during the semester resulted in higher productivity than when alone, before the semester started, not because external feedback necessarily increases the amount of work done, but because it channels it constructively. Without feedback like this, the isolation of lockdown threatens creative output.

Writing and recording one full song per week proved too ambitious a goal. However, by mid-October, I had written and recorded seven songs inspired by Kessler's COVID-19 photography – 21 minutes of original music, twice as much as any other semester in my graduate work. The project was successful in that it addressed the COVID-19 pandemic and lockdowns, it navigated the problem of live rehearsals and performances, it required no other musicians, and it resulted in a quantitatively high level of output.

Each song will be explored in separate chapters to come, but first, some broad findings about the project will be shared. Firstly, all pieces followed a compositional process that can be described by this flow chart:

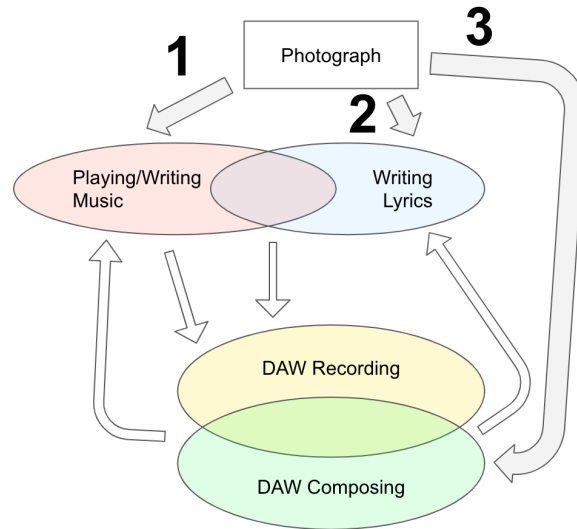


Figure 1. The Songwriting and Recording Workflow

In **route 1** the photograph inspires musical ideas, which begin as playing and writing on guitar or piano. In **route 2** the photograph inspires lyric writing directly. Often, these paths overlap, which is why this is demonstrated by a Venn diagram. **Route 3** is a unique path facilitated by the DAW, in which compositional ideas are developed first in the DAW and lyrical and musical ideas stem from there. All three of these routes inevitably create a feedback loop that begins in the shared stage of DAW recording and composing and results in further lyrical and musical composition and circulating indefinitely. This feedback loop can make it difficult to know when a piece is finished, which highlights the importance of due dates. As I found, sharing due dates with others, especially those to whom you are accountable, is essential to facilitate productivity.

Working without cowriters, a band, or sound engineers, a songwriter has total control of his or her musical product but is deprived of the wider breadth of ideas that would be generated by a group. Leaning on technology can free up the brain to mitigate this shortcoming. For instance, putting a chord progression in a DAW and looping playback allows the songwriter to audition endless vocal melodies and lyric choices without tiring other live musicians. Other exploration becomes possible by DAW usage. When a chord progression is written as MIDI information, changing the progression's key, harmonic rhythm, synthetic instrumentation and tempo is relatively effortless; the DAW becomes a compositional tool, not just a recording platform.

The process led to an improvement in technological savviness. Capabilities within the Logic software increased as did skill of microphone best practices. When *Lockdown* was conceived, a sort of ideal, standardized procedure was imagined; one that was quickly challenged by limitations. Ad-hoc problem solving resulted in a higher level of technical competency at the end than at the beginning of the project. It seems there will never be a clean arrival at the ideal technological process, only unending evolution towards that theoretical goal.

By the end of *Lockdown*, a number of recording techniques had become religiously incorporated. For instance, "LCR mixing" was used for the majority of the album, a technique detailed by engineer and author Eric Sarafin, of panning all instruments completely to the left, completely to the right, or directly in the center of the stereo field.² On this album almost every guitar and vocal track is doubled and hard panned to opposite stereo sides, which widened the mix and also strengthened the vocal parts, emphasizing what is arguably

² Eric Sarafin, "Width Is Space," Mixerman.net, July 12, 2018, <https://mixerman.net/width-is-space/>

the most important instrument in popular music, the voice. Bass parts were almost exclusively placed right in the middle of the mix and rarely doubled in an attempt to keep clarity in the low-end frequency spectrum. Recording and mixing this way was not a top-down dictum on the album's composition, but rather an earned practice resulting from the process, reinforcing the concept that art is not an arrival, but a journey.

The composition of this album required thoughtful management of technical resources. Increased instrumentation and number of tracks, as well as the effects plug-ins used on those tracks (compression, EQ, pitch adjustment, reverb, etc.) depleted computer processing, so acceptance of certain limits in these regards was necessary. Many of the solutions to these issues were learned best through trial and error – pushing the technology to its limits and then devising workarounds. Again, the art is a dynamic and adaptive process, not a clean-cut result of top-down decisions.

This album's organizational practices were also subject to a feedback workflow. Clear file organization, track labeling, sectional markings, and conservation of computer RAM can feel like hindrances to the creative flow of a writing and recording session, but failing to work these habits into a workflow tends to cause significant problems later in the production. A sort of Darwinian selective process takes hold, which is why the organizational methods employed at the end of this project are more disciplined than those of the beginning. So even in the organizational realm, the art is a process, not a result.

There is no overarching set of harmonic rules that dictate the album's content besides a general compliance with tonal harmony. However, some musical ideas occur enough times that they deserve special recognition. One of these concepts is the rounding of the harmonic overtone series to the nearest equal tempered values and the use of a scale derived from this

process. I created a spreadsheet that takes a Hz value as input and generates the Hz values of every overtone up to the 512th harmonic. It also labels the nearest solfege value of each harmonic as well as the cent deviation the natural harmonic is from the equal tempered value.

Figure 2 is a segment of this spreadsheet up to the 14th harmonic. The relative redness or blueness of a shaded cell depicts how sharp or flat the pitch is to its closest equal tempered value.

Harmonic:	fundamental	2	3	4	5	6	7	8	9	10	11	12	13	14
Enter Hz Here:	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
Ratio:	1/1	2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13
ET Hz closest to Just:	100	200	300	400	504	599	713	800	898	1008	1131	1199	1270	1425
Closest ET Solfege:	Do	Do	Sol	Do	Mi	Sol	Te	Do	Re	Mi	Fi	Sol	Le	Te
Delta from ET to Just:	0.0%	0.0%	0.1%	0.0%	-0.8%	0.1%	-1.8%	0.0%	0.2%	-0.8%	-2.8%	0.1%	2.4%	-1.8%
Cent Adjustment to Just:	0	0	2	0	-14	2	-31	0	4	-14	-49	2	41	-31

Figure 2. Just Intonation of the First 14 Harmonics

The 7th, 9th and 11th harmonics became special foci of my attention, as they roughly correspond to the equal tempered intervals of the minor 7th, major 2nd, and augmented 4th, respectively. As the table demonstrates, the 7th harmonic is actually 31 cents flatter than an equal tempered minor 7th and the 11th harmonic is almost exactly equidistant from an equal tempered perfect 4th and augmented 4th. The 9th harmonic is, to most listeners, indistinguishable from an equal tempered major 2nd. In the music of *Lockdown*, the equal tempered approximations of these pitches were sometimes used as parts of a tonic chord. In doing this I am asking the listener to hear these extra-triadic pitches as stable, my justification being they are extensions of a natural overtone series. This practice is certainly not utilized on every song, but it is used in varying degrees on “Penicillin,” “What We Need to Say,” and “To Be Continued....”

The equal tempered approximations of the 7th, 9th and 11th harmonics are included in the “acoustic” scale, “so called because it resembles the eighth through the fourteenth partials (acoustic components) of its tonic.”³ This scale can also be thought of as the fourth mode of melodic minor. Starting on D, it is D, E, F#, G#, A, B, and C. Use of this scale is most obvious in “Penicillin.”

Mode mixture is a fairly common trait of the songs on *Lockdown*. The term traditionally refers to the borrowing of chords in parallel major and minor keys, but in this paper, it is broadened to also include borrowed chords of any parallel modes: ionian, dorian, phrygian, etc. A bII chord in major can therefore be considered mode mixture because it is borrowed from phrygian. Similarly, a IV chord with a dominant seventh is mode mixture because it is borrowed from dorian. These borrowed chords allow *Lockdown* to be harmonically colorful, yet undeniably tonal.

Lockdown is arguably more harmonically adventurous than the majority of the songs on Spotify’s USA Top 200 at the time of this writing.⁴ It is, however, less daring in terms of song form. Most of the songs on this album fall into two main structural categories:

- Verse/Chorus
 - some ordering of verse and chorus sections
 - verses contain different lyrics and sometimes different melodies, but usually the same harmonic progressions
 - choruses usually contain identical lyrics, melodies and harmonic progressions

³ Matthew Arndt, “Scale,” Twentieth- and Twenty-First-Century Music, last modified April 4, 2020, <https://wiki.uiowa.edu/display/75128/Scale>

⁴ Spotify, “Charts,” Top 200, United States, weekly, September 25 – October 2, 2020. <https://spotifycharts.com/regional/us/weekly/2020-09-25--2020-10-02>

- AABA
 - The A sections contain the same melody and harmony and often start or end on a repeated line of text called a refrain, but otherwise have different lyrics
 - the B section has a distinct melody and harmony from the A sections

Some transitional material is used to connect sections and some sections are defined as instrumental breaks. The sections are discretely labeled in the lead sheets. Deciding song form and adhering to it was a fundamental part of the composition and recording process. Being indecisive about form forces the composer to spend more time in the feedback loop depicted in Figure 1, and thus, lowers productivity.

Each song on “Lockdown” is described in greater detail in the following chapters. I’ll explain the song’s inspiration in terms of Kessler’s photography, approaches in the composition and production, and analysis of the resulting music in theoretical terms. The songbook and audio recordings are necessary supplements to the following chapters.

Chapter 3: “Hollywood Dreams on Hold”

When looking at Brian’s photograph the eye is drawn to two places: the masked couple walking down Beachwood Drive and the looming Hollywood sign on the south-facing side of the Hollywood Hills. I fictionalized that the song’s characters moved to Los Angeles to pursue their dreams in the entertainment industry and have now, in lockdown, had to place these dreams on hold. The characters became almost parodies of young Angelinos in show business. She was a Pilates instructor and backup dancer. He was an actor and waiter. They met in acting class. Both of them had to put their Hollywood dreams on hold, but in doing so, grew closer, and discovered they were each other’s Hollywood dream. In a blend of routes 1 and 2 (Fig. 1), I went to work with a guitar and conceived the chorus and its melody: “Too bad we had to put our Hollywood dreams on hold....”

The neighborhood in the photograph conjured the entertainment industry and many of the production qualities of current popular music, of which the following are used in

Hollywood Dreams on Hold:

- precise quantization of MIDI events
- synth bass, pads, and leads
- auto-tuned vocals
- harmonic progressions utilizing primarily I, IV, V, and vi chords

Knowing these features would be intrinsic to the song, it made sense to move the writing process from the sketchpad to the DAW before completing all the lyric content.

Many of the musical features afforded by the DAW impacted the lyrics, cementing my perception of the DAW as part of the compositional feedback loop (Fig. 1).

The harmonic progression of the verses is essentially vi, IV, I, V, at a rate of one chord per measure, arguably the most ubiquitous progression of popular music in the last decade. In Bb these chords are: Gm, Eb, Bb, F. However, in *Hollywood Dreams on Hold*, there are some notable deviations from this. In the first three measures, a chromatic descension from the notes F to Eb creates the progression Gm⁷, E^{o7}/G, Eb^{Δ7}, while the final measure of the phrase is still the tonic, F. A slight rhythmic deviation of this progression occurs in mm. 5-8. Measures 9-16 adhere devotedly to the vi, IV, V, I progression, except that the harmonic rhythm is hastened in m. 10 with the early arrival of Bb to accompany the desired melody. This distinct melody gives the second half of the verse a contrast to the first half and could arguably be called a pre-chorus.

The synth break in mm. 17-24 uses almost the same progression of measures 1-4 except with a C⁷ substituting for the E^{o7}/G. This instrumental break is intended for dancing, a nod to the fictional female character's passion.

The first four bars of the second verse (mm. 25-28) mirror those of the first verse. Many of the differences are caused by the bass line and the inversions created by it. The last 12 measures of the second verse use the vi, IV, I, V progression, but contain the same hastening of the harmonic rhythm in m. 34 that was used in m. 10.

Since the verses start on the vi chord (Gm), the choruses provide contrast by starting on the I chord (Bb). This Bb is held for two bars, halving the harmonic rhythm of the verses, which provides further contrast between the sections. In mm. 48-49 and again in m. 53, the Eb harmony includes the #11 (A). The chorus ends on a V chord (F) permitting it to launch

into the synth break at m. 58 with the same harmonic progression used when the synth break followed verse 1 earlier. Although this is a V to vi progression, I hesitate to call it a “deceptive” resolution because of the frequency and predictability of its use, not just in this piece, but in popular music in general.

The third verse is the only one to not utilize the chromatic descension of F to Eb that dictated the harmony of the first halves of the two prior verses. It also contains an extra transitional bar (m. 82) that uses a ii – V progression to launch into the second chorus. For four bars, most of the production is stripped away, revealing an acoustic guitar and a relatively naked vocal part. This is intended to provide a calm contrast before the full return of the instrumentation at m. 88. The song ends on the vi chord, not the I, matching the spirit of the text, “on hold.” The story of these lovers, and their dreams is not resolved.

The song form is verse/chorus with synth breaks after the first verse and the first chorus:

Verse 1	synth break	Verse 2	Chorus	synth break	Verse 3	Chorus
---------	-------------	---------	--------	-------------	---------	--------

Chapter 4: “Eyes Alone”

The photograph depicts a young woman at a Black Lives Matter protest. Her face below the eyes is obscured by her mask. “Eyes Alone” explores the doubt that arises when attempting to read the facial expression of a masked person. The song asks, “What can I know reading eyes alone?”

The process of writing “Eyes Alone” began as a blend of routes 1 and 2 (Fig. 1). That is, initially, the lyrics and music were conceived together. Harmonically, the verses start on B before moving down a chromatic submediant to G and then down another chromatic submediant to E. This progression conjured Nirvana as both “In Bloom” (1991) and “Heart Shaped Box” (1993) utilize this harmonic progression at the beginning of their verses. Instrumentation choices for “Eyes Alone” were therefore influenced by 1990s grunge, particularly Nirvana’s album, *MTV Unplugged in New York* (1994), which featured cello and acoustic guitar that was occasionally distorted by effects pedals. This album included three songs written by Curt Kirkwood of The Meat Puppets, a songwriter who also fancied the chromatic submediant relationship and used it notably on their highest charting single, “Backwater” (1994), the guitar solo of which, inspired the guitar solo on “Eyes Alone.”

The B to G progression describes the first chord change in the verses, but it also describes the starting and ending harmony of the verses as well (m. 5 and m. 13).

At measure 14, the chorus starts on Bm, the first use of parallel key modulation on *Lockdown*. Applied dominants are used in the chorus to suggest the keys of both D and B

minor, but in mm. 20-23 the G to A motion feels like IV to V and at m. 23 the resolution to Bm7 feels like a deceptive cadence in the key of D more than a VI to VII to i cadence in B minor. When this motion is repeated in the second and final chorus, the G to A resolves to D, not B minor.

The form of “Eyes Alone” is verse/chorus with its guitar solo dividing the song in two:

Verse 1	Chorus	guitar solo	Verse 2	Chorus
---------	--------	-------------	---------	--------

The guitar solo section is shaded red because it shares the same harmonic progression as the verses.

Whereas “Hollywood Dreams on Hold” features mostly synthetic instrumentation, “Eyes Alone” uses many analog instruments including all guitar and bass tracks. This presented a unique tuning problem in the production.

The song was written on the acoustic guitar with a capo on the seventh fret. The capo is a device that applies pressure to all strings simultaneously, creating a sort of artificial nut at whichever fret location the guitarist applies it. It permits a guitarist to play in different keys without using new chord shapes. Admittedly, the seventh fret is an unusually high setting for a capo, but the decision was made to facilitate certain chord shapes that retained better intonation on the particular acoustic guitar in use.

The capo can often hold and leak tension after being set, causing it to drift out of tune. The narrower strings without coiling are more likely to move in either direction than the coiled heavier strings. After setting the capo, certain strings sounded lower than desirable when compared to the same pitch on other strings. These lower strings were tuned upwards until a satisfactory tuning for all chords used in the song was achieved. Then the acoustic

guitar parts were recorded followed by the vocals which were sung in accordance with the guitar tuning. Only after attempting to add synth cello did the recorded guitars and vocals reveal themselves as 28 cents sharp. The pitch discrepancy was too vast, even for grunge.

By employing a pitch alteration plugin, the cello part was raised 28 cents. The bass guitar was tuned 28 cents sharp prior to recording as was the electric guitar. Recording “Eyes Alone” was a reminder that a time existed when it was not uncommon for a four-piece band to go into a recording session having no idea what A=440 Hz even means, perfectly content to tune to each other and nothing else. Today, almost every song on Spotify’s Top 200 uses significant synthetic instrumentation. Standardized tuning is ubiquitous. I am persuaded to see the tuning mishap on “Eyes Alone” as a happy accident, one that lends the song character from an earlier time.

Chapter 5: “Penicillin”

Here we see another Black Lives Matter protest photograph, one that puts the movement’s monogram in undeniably clear focus, although askew. The photograph depicts a baby, possibly the holder or decorator of the BLM sign. A juxtaposition of the graveness of the movement against the innocence of the baby is suggested. The subject of race relations was avoided in “Eyes Alone,” but it would be confronted in “Penicillin.”

The subject matter of “Penicillin” is the embarrassing way the United States government demonstrated disregard for the lives of impoverished African Americans in “the ‘Tuskegee Study of Untreated Syphilis in the Negro Male,’ a secret experiment conducted by the U.S. Public Health Service to study the progression of the deadly venereal disease — without treatment.”⁵ The study persisted from 1932 to 1972. It came to an end only after it was surfaced by journalist Jean Heller of the Associated Press.

The men deceived in this ethical malfeasance were told they had “bad blood,” and were “kept in the Study through incentives like free meals... and burial insurance.”⁶ To call these men participants is to ignore the fact that “researchers never obtained informed consent

⁵DeNeen L. Brown, “‘You’ve got bad blood’: The horror of the Tuskegee syphilis experiment,” The Washington Post, May 16, 2017, <https://www.washingtonpost.com/news/retropolis/wp/2017/05/16/youve-got-bad-blood-the-horror-of-the-tuskegee-syphilis-experiment/>.

⁶John A. Lynch, *The Origins of Bioethics: Remembering When Medicine Went Wrong* (Michigan State University Press, 2019), 43.

from the men and never told the men with syphilis that they were not being treated but were simply being watched until they died and their bodies examined for ravages of the disease.”⁷

Even when penicillin – invented by Alexander Fleming in 1928 – became the standard medication for syphilis in the 1940s, the victims of the Tuskegee Experiment were denied treatment.

In 1997, in the White House, President Bill Clinton offered a formal apology for the Tuskegee Experiments. Using the third route in the workflow diagram (Fig. 1), I placed two selections of his speech into Logic to begin work on “Penicillin”:

- 1) *What was done cannot be undone.*
- 2) *We can look at you in the eye and finally say, on behalf of the American people, what the United States government did was shameful, and I am sorry.*⁸

The rest of the text of “Penicillin” is an ironic, first-person characterization of those administering the study. The music is an attempt to match the dementedness of this position. The song gets its title from the final line of the chorus, “Fleming gave his rabbits penicillin. We gave ours none.”

The form of the song is such:

Intro	Verse 1 (Clinton 1)	Chorus	Verse 2	Clinton 2	Chorus
-------	------------------------	--------	---------	-----------	--------

The intro is the only true use of microtonality on the album, featuring a scale derived from the harmonic overtone table with a starting frequency of 73.42 Hz (D2). A twelve-note

⁷Brown, ““You’ve got bad blood””

⁸ William J. Clinton, “Remarks in Apology to African-Americans on the Tuskegee Experiment,” *Weekly Compilation of Presidential Documents*, 33 WCPD 718 (May 16, 1997): 718-20, <https://www.govinfo.gov/content/pkg/WCPD-1997-05-19/pdf/WCPD-1997-05-19-Pg718.pdf>

pitch set was constructed in which the cent deviation of each of the twelve solfege degrees was determined by the first instance of the nearest solfege assignment in the harmonic series. For instance, the 23rd harmonic produces fi (^#4) at 28 cents sharp, but the fi at 49 cents flat is used instead because it occurs earlier in the series (at the 11th harmonic and again at the 22nd). Similarly, le (^b6) was used at 27 cents flat over 41 cents sharp because it precedes it in the overtone series (25th vs. 26th harmonic). Figure 3 shows the harmonic table up to the 27th harmonic, the first instance of la (^6). Figure 4 is the resultant twelve-note pitch set, although ^b6 (le) is not used in the intro. A doubling or halving of any Hz value produces the same note name and cent deviation in the octave above or below, respectively.

Harmonic:	fundamental	15	16	17	18	19	20	21	22	23	24	25	26	27
Enter Hz Here:	73.42	1101.3	1174.72	1248.14	1321.56	1394.98	1468.4	1541.82	1615.24	1688.66	1762.08	1835.5	1908.92	1982.34
Ratio:	1/1	15/14	16/15	17/16	18/17	19/18	20/19	21/20	22/21	23/22	24/23	25/24	26/25	27/26
ET Hz closest to Just:	73.42	1109	1175	1245	1319	1397	1480	1568	1661	1661	1760	1865	1865	1976
Closest ET Solfege:	Do	Ti	Do	Ra	Re	Me	Mi	Fa	Fi	Fi	Sol	Le	Le	La
Delta from ET to Just:	0.0%	-0.7%	0.0%	0.3%	0.2%	-0.1%	-0.8%	-1.7%	-2.8%	1.6%	0.1%	-1.6%	2.4%	0.3%
Cent Adjustment to Just:	0	-12	0	5	4	-2	-14	-29	-49	28	2	-27	41	6

Figure 3. Just Intonation of Harmonics 15-27

Harmonic:	fundamental	17	9	19	5	21	11	3	13	27	7	15
Hz:	73.42	1248.14	660.78	1394.98	367.10	1541.82	807.62	220.26	954.46	1982.34	513.94	1101.30
ET Hz closest to Just:	73.42	1244.57	659.29	1396.99	370.01	1568.06	830.65	220.01	932.38	1975.64	523.28	1108.79
Closest ET Solfege:	Do	Ra	Re	Me	Mi	Fa	Fi	Sol	Le	La	Te	Ti
Cent Adjustment to Just:	0	5	4	-2	-14	-29	-49	2	41	6	-31	-12

Figure 4. Scale Derived by Harmonic Series

The intro of “Penicillin” presents the verse harmony and melody in synthetic instruments using this tuning (Fig. 4). The 49 cent flatness of fi (G#) is particularly noticeable, as it is almost precisely a quarter tone below equal tempered ^#4. The 14 cent flatness of mi (F#) is pleasant compared to the brightness of the equal tempered ^3. When the first verse starts, the pitches switch to equal temperament, but the *choices* of the scale

degrees used in the harmony and melody are informed by how early they present themselves in the overtone series. This is, of course, the same logic that determines the pitches included in the “acoustic” scale. It is notable, however, that the verse melody of *Penicillin* does use ^4 , and more bluntly, at measure 17, it descends to ^b3 (F natural) atop a D dominant quality harmony, producing the enharmonic equivalent of the famous “Hendrix Chord” (Dominant 7, #9), not invented by, but often used by guitarist Jimi Hendrix. This chord is presented with electric guitar at the end of *Penicillin* as a nod to him. I used drop D tuning for the electric guitar and built the Hendrix chord as such:

Hendrix Chord in D

electric guitar in drop D tuning

Figure 5. The “Hendrix” Chord in Drop D

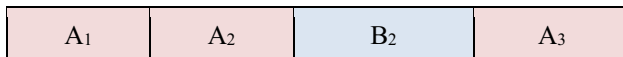
The pitch conception of “Penicillin” would not have occurred without having an interest in the harmonic overtone series or the ability to manipulate microtones in a DAW.

D is clearly the tonal center of the piece, and, although the non-diatonic extensions used in the harmony present a stability explained by the harmonic overtone series, they are not without dissonance and even discomfort. Considering the subject matter, listening to “Penicillin” should not be a comfortable experience.

Chapter 6: “Less Than Minimum Wage”

In this image, a knife sits atop the banister of Kessler’s apartment building. He lives upstairs. Out of frame, to the right, is the entrance to the downstairs apartment. The impression of the knife as a weapon is hard to ignore, although Kessler explains that his neighbor uses it to open Amazon packages, leaving their contents outside his home for several days in case they are contaminated with coronavirus. The photograph initially inspired ideas about an exaggerated fear of germs producing a greater danger than the germs themselves. In a weekly composition lesson, Dr. Cline commented that the photo looked like an abandoned crime scene, which led to the conception of a fictional, would-be criminal who embarks on a home burglary, but aborts his attempt after realizing the whole endeavor would actually pay less than minimum wage. The title is a play on the adage that “crime doesn’t pay,” acknowledging that crime does pay, just less than the average job in fast food.

Workflow routes 1 and 2 (Fig. 1) were simultaneously explored with guitar. The song’s hook, “crime pays less than minimum wage” emerged as the final line of the verse, not in a standalone chorus. This was a strong indicator that the song didn’t have a verse/chorus structure but was instead in AABA form:



Harmonically, the A sections are in F and the B section is in the relative D minor, but the following Roman numerals will be presented only in F. With the exception of some

flavor substitutions, the progressions largely follow the circle of fifths. There are a lot of chords in the song, but the verse progression can be reduced to I, ii, V, I, IV, I, V, I. Similarly, the chorus progression can be reduced to V/vi, vi, V/V, V, I, ii, V and then back to I when the third verse starts.

On a more granular level, a chromatic pattern in the B section is the source of some interesting chord changes starting at m. 38:

mm:	38		39		40		41		42		43	
chromatic line:	D	D#	E	F	G	Ab	A	Bb	C	C#	D	
harmony:	G	G+	Em/G	G7	C	Ab/C	Am/C	C7	F	F+	Dm/F	

Figure 6. A Pattern of Chromaticism and Resultant Harmony

The structure and harmony of “Less Than Minimum Wage” is reminiscent of a Cole Porter standard, but the instrumentation, largely inspired by DAW exploration, conjures 1980s new wave. The rhythm of the A sections is straight, but the B section in 12/8 has a swing feel, perhaps a nod to the song’s jazz standard form. The song rigidly adheres to AABA form, but it is worth noting that the B section is only 13 bars long, compared to the regular 16 bar length of the A sections.

Whereas “Hollywood Dreams on Hold” is a story song whose lyrics represent one narrative, “Less Than Minimum Wage” describes three narratives thematically linked. The three A sections describe a petty thief, corrupt minister, and gangster, all of them second rate, none of them earning a livable wage through their endeavors.

Chapter 7: “DJ Wash Your Hands”

The image of a Hollywood club marquee advertising an act called “DJ Wash Your Hands” inspired thoughts of a four-on-the-floor electronic dance beat ironically promoting safety and hygiene instead of sex and drugs. With this idea in mind, the song was started in the DAW via route 3 (Fig. 1) with an aggressive synth bass timbre thumping away at 140 beats per minute. However, the interpretation of “DJ” as disk jockey was supplanted by the interpretation of “DJ” as a reference to DJ Conner, the son of Roseanne and Dan Conner on the television show, “Roseanne” (1988-1997).

This reference, combined with the phrase “Wash Your Hands,” evoked a memory of an episode wherein DJ, entering adolescence, begins masturbating frequently, monopolizing the family bathroom. I remembered the Conner family, aware of his new habit, encouraging DJ to wash his hands before dinner. The episode in question was found and its audio was imported into Logic. Sure enough, the character of Dan Conner, played by John Goodman, delivers the line, “DJ, did ‘ya wash your hands?”⁹ The coincidence was too irresistible not to use. Two times in the bridge, during periods of vocal rest, the Goodman sample is inserted into the song. “DJ Wash Your Hands” was not going to be an electronic dance song promoting hygiene, but instead, a coming of age song about a boy thrust into adulthood. This realization changed the compositional approach completely.

⁹ *Roseanne*, season 6, episode 7, “Homeward Bound,” written by Michael Borkow, aired November 2, 1993, on ABC.

With a guitar, the workflow began anew, this time utilizing routes 1 and 2 (Fig. 1). The first interval expressed in the melody is a disjunct downward leap of a minor 7th meant to evoke the lowering of the voice that accompanies adolescence, both in cases where it happens naturally and affectedly. This melody sits in a rhythmic phrase that uses a bar of 2/4 for every two bars of 4/4. This lopsided phrasing was infectious enough to make a simple two chord harmonic progression with a repetitive melody interesting.

The form of “DJ Wash Your Hands” could be interpreted in multiple ways. For instance, the four-bar material at m. 17 could easily be considered a chorus. However, the preceding verse material is twelve bars long, so when totaled, the section is an even sixteen. For this reason, the first verse is considered to occupy mm. 5-20, and mm. 17-20 are considered a subset of the verse with repeating ending content called a refrain.

It is also tempting to consider the entire sixteen bars an A section of a modified AABA form. In this view, the bridge would be considered the B section. This categorization is certainly arguable; however, the bridge’s purpose is mostly modulatory, and not meant to showcase an important thematic melody. Therefore, the lead sheet sections the song as such:

Intro	Verse 1 (& Refrain)	Verse 2 (& Refrain)	Mouth Trumpet (sans Refrain)	Verse 3 (& Refrain)	Bridge	Verse 4 (sans Refrain)
-------	------------------------	------------------------	---------------------------------	------------------------	--------	---------------------------

This formal division is an argument that the song may be in what Peterik, Austin, and Lynn call, “the single-verse form:”

In this verse form, different lyrics are placed over the same music and are repeated in close succession. The chorus and bridge are often eliminated in this form, so the title typically appears in the first or last line of the verse.¹⁰

¹⁰Jim Peterik, Dave Austin, Cathy Lynn, *Songwriting For Dummies*, 2nd ed. (Hoboken, NJ: Wiley Publishing, 2010), 55.

Harmonically, the refrain moves to the relative F# minor. The less rhythmically active melody sways between notes G# and F#. The G# is an upper extension of both chords it sits atop; first the 9th of F#m and then the 13th of B7.

The bridge, which occupies mm. 47-56, represents the passage of childhood to adulthood. It uses a series of applied dominants to modulate up a whole step to the key of F# major, but on the word “loved” in the line, “everything I’ve ever loved is made of sand,” the harmony is B minor, the minor iv of the new key. This is meant to evoke a melancholy about the end of the pre-adolescent world. A final verse is presented in the new key, representing graduation into adulthood.

As this song is about the passage of time, the lyrical metaphor of sand through an hourglass is used. During adolescence the rate of sand falling is abruptly and violently spiked: “through the hourglass comes a teenage fist of sand.” During the song’s bridge the metaphor is extended, this time sand referring to the castles and other constructions on a beach, representing a childhood about to be swept away by the incoming tide of adulthood.

The song’s instrumentation is meant to evoke the simple innocence of childhood. The instrumental solo that occurs in mm. 37-46 is written for the emulation of a trumpet using only one’s mouth: the “mouth trumpet.” This solo was bolstered with synthetic trumpets later in production. The kazoo would be another fitting solo instrument to consider.

In its two-chord verse progression and instrumentation, “DJ Wash Your Hands” is remarkably simple. However, rhythmic imbalance, a notable, disjunct melodic leap, and a somewhat maladroit modulation all signify the awkward phase of adolescence.

Chapter 8: “What We Need to Say”

The photograph shows a latex glove on a sidewalk. The fingers of the glove appear to have been purposely arranged as the hand of the devil, “metal’s famous hand signal,” often attributed to Ronnie James Dio of heavy metal bands Black Sabbath and Dio.¹¹ With this symbol in mind, workflow route 1 (Fig. 1) was used to compose a metal guitar riff before any lyrical choices were made.

The riff was written in C minor, a somewhat unusual key for heavy metal riffs, as keys of E, A and D (open strings on the guitar) tend to be easier for guitarists. Admittedly, the riff was a bit awkward to finger. However, raising the A string to Bb greatly facilitated its performance. This tuning adjustment hinted at the possibility that the guitar could now easily produce some chords that were heretofore unavailable to me in standard tuning. Raising the B string to C furthered this exploit. The open strings were now set to E2, Bb2, D3, G3, C4, and E4. With this tuning, I penned the verse and chorus progressions using both C minor and C major. The juxtaposition of these keys represents the contrast between metal and latex as materials.

A reexamination of the photograph resulted in the realization that the heavy metal hand symbol usually has the thumb tucked in (Fig. 7a) and that the symbol was perhaps,

¹¹Steve Appleford, “Odyssey of the Devil Horns: Who is responsible for bringing metal’s famous hand signal to the tribe?” Los Angeles City Beat, September, 9, 2004, <https://web.archive.org/web/20071122030548/http://www.lacitybeat.com/article.php?id=1216&IssueNum=66>

more convincingly, in the shape of the American Sign Language symbol for “I love you.” (Fig. 7b).



Figure 7. Heavy Metal (a) and “I Love You” (b) Hand Signs

This newfound symbol of affection led to the imagination of a COVID-ravaged post-apocalypse, wherein modern communication was no longer usable. In this fictional world, this glove was left on the sidewalk as a note for an estranged loved one, highlighting how laughably insignificant many arguments that break up relationships seem compared to the threat of global pandemic. The glove was a reminder that life is short, so we should share the important things we need to say to each other and avoid petty disagreements. The song’s title and lyrics reflect this concept.

Structurally, the song is in verse/chorus form, bookended by the guitar riff, with a four-measure vocal introduction. The riff appears in half its full duration after the first chorus, bolstering its role as a precursor to the verse material:

Intro	Riff	Verse 1	Verse 2	Chorus	Riff (1/2 length)	Verse 3	Chorus	Riff
-------	------	---------	---------	--------	----------------------	---------	--------	------

The opening vocal harmony contains the equal tempered versions of the 7th and 11th harmonics of the overtone series (Fig. 2). The 11th harmonic slowly rises to the 12th before the C minor guitar riff starts at measure 5 (Fig. 8):

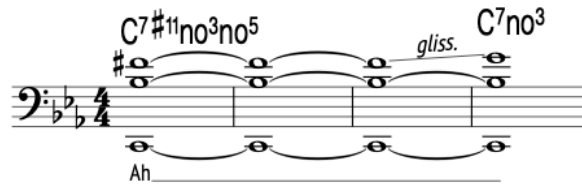


Figure 8. Flat Seven and Sharp Eleven Vocal Harmony

$\wedge b7$ is diatonic in C minor, but the $\#11$, while not diatonic to C minor or major, is more commonly associated with the tonic of a major key, especially in jazz. It could be thought of as a borrowed note from C Lydian. In this way, the opening vocal harmony eludes to the mode mixture that permeates the song.

The guitar riffs are in C minor. The verses are in C major, but they use bVI and $bVII$ chords borrowed from minor. One could interpret the Db as a bII borrowed from C Phrygian. The chorus does not contain any C chords, major or minor, but it does utilize the IV and V of C major throughout and, in its final bar, the bVI and $bVII$ of C minor.

“What We Need to Say” is a song of juxtaposition; latex and metal, love and the devil, C major and C minor. Perhaps the simplest expression of this contrast occurs in the last two bars of the song when the C minor guitar riff resolves with a Picardy third.

Chapter 9: “To Be Continued...”

This picture of The Vista movie theater in Los Feliz is hopeful. The marquee reads, “To be continued...,” suggesting our lockdown world will eventually get back to normalcy. However, the westward setting sun implies things will get darker before getting lighter. With the COVID-19 lockdowns still in effect and no sure end in sight, “To Be Continued...” was a good candidate for the final song on the album.

Like “What We Need to Say,” this song began as a simple musical idea with no accompanying lyrics (workflow route 1 of Figure 1). The D major drone-like guitar part in 3/4 was the first music composed and it was put into the DAW early. Lyrics were written by looping playback of this guitar part and experimenting with various melodic phrasing. This led to a call-and-response relationship between the main, lyricized singing, and the background, non-linguistic syllables in what would come to be the verse material. The verse is essentially one extended D chord, but it does utilize ^b7 in m. 19, which supports the idea that the tonic can express stability while utilizing this pitch, the seventh harmonic of the overtone series.

The chorus, in contrast to the elongated static harmony of the verses, repeats the same chord progression four times: Bm7, Aadd9, F#m7, and D/G at a rate of one chord per measure. The antiphonal quality of the singing in the verses is replaced by a thicker vocal texture in rhythmic alignment in the chorus. The intro and outro of *To Be Continued...* use the verse harmony, so they are presented in the same red shading. The form is quite simple:

Intro	Verse 1	Chorus	Verse 2	Chorus	Outro
-------	---------	--------	---------	--------	-------

The lyrics may seem like proscriptive measures for lockdown:

*Protect the weak from the infiltration,
shield the young from the knowledge within,*

However, the next lines suggest a sort of hubris in the attempts to govern safety in a world that is inherently dangerous:

*Where did we leave that prescription?
The one that treats original sin,*

The chorus lyrics express a selfish sadness in the sentiment that the end of the world is not as devastating as the loss of a lover:

*The thought of the end of this life,
means less to me than how I miss you,*

Yet the song questions what the “end” even means, suggesting time is not a line with a start and endpoint, but an endless circle:

*You don't remember when you started this life,
Could that be the proof the circle is within you?
Maybe the line is only theoretical,
So you and I are to be continued...*

The second verse references the Christian hymn, *Will the Circle Be Unbroken* by Ada Habershon and Charles Gabriel (1907):

*It'll hurt, and we will cry for our friends,
and eulogies will go unspoken,
But our lives will not come to an end,
because the circle is unbroken,*

Following this text comes a I, V7, I harmonic motion in mm. 51-52, which occurs only once in the song. It is meant to evoke early American gospel music à la *Will the Circle Be Unbroken*.

The ellipsis in the title of “To Be Continued...” reinforces the idea that life, and therefore art, is a process, not an arrival, a concept I believe the entire *Lockdown* project communicates. There is no hard ending for “To Be Continued...,” just a slow fade-out, a convention I typically dislike in popular music, but which feels appropriate here.

Conclusion

Lockdown was never intended to produce only music that explores coronaviruses, COVID-19, or the ensuing lockdowns. The project took as its inspiration photography from these circumstances but resulted in songs that extend into various aspects of the human experience, often unrelated to a pandemic. It is my aim that this paper elucidates the connections that generated these ideas.

Writing pop music can feel harmonically limiting. While I make no claim that COVID-19 or the lockdowns had any direct influence on my probing into natural harmonics, I do believe I was looking for ways to expand pitch material and exploration into the overtone series offered that in a way that feels genuine and nonarbitrary. For me it has justified expanding the rules of tonal harmony to include extensive mode mixture, a point I hope my tables illustrate. Beyond this, I hope my interest in the overtone series will encourage work with more nuanced tuning systems, an area of music that electronics is particularly suited to tackle.

From a form perspective, the songs on *Lockdown* are highly structured, but I believe the decisions that dictate their form could be more artistically motivated and less beholden to rigidity. This freedom does come at a cost, however, as form seems to be one of the constructive boundaries that artists can lean on to meet due dates and achieve cohesion.

Lockdown required a significant use of technology. It has strengthened some of my technical practices, but these are dwarfed by the number of unanswered technical questions it

has spawned. I am not under the delusion that I will ever catch up to the industry's cutting edge in this regard, but I take some satisfaction in knowing that I will need to specialize in certain skills and delegate in others.

Despite being a solo project, *Lockdown* has reinforced the importance of external influences on artistic productivity. Brian Kessler's photography served as creative inspiration, but it also represented a deal between artists: "If you take these photographs, I'll produce this music." A pact of this sort makes the artist more accountable for his or her work. Similarly, my lessons with Dr. Cline represented a productivity pact as well. Only by meeting weekly deadlines was I able to take advantage of his teaching and mentorship.

Especially important to keep in mind during lockdown, the workflow depicted in Figure 1 can be fatal to an artist's productivity because it encourages endless introspection. External forces are necessary to eject the artist from this feedback eddy. These forces can take the form of deadlines, but behind these deadlines are other people, to whom we must feel accountable. Even in pandemic lockdowns, the artist must seek out ways to collaborate and also report productivity. This seems to be a necessary ingredient for creative output, but even more so when live interaction has become so rare.

Sadly, *Lockdown* reinforces the cold fact that I will never attain complete artistic satisfaction; an actuality that I sometimes fool myself into believing is untrue. There is no final product. The process is the product and it is constantly evolving.

Lockdown is not pessimistic, however. The album demonstrates that art flourishes despite, and perhaps especially because of, times of stress, adversity, and loneliness. In these times, making connections with others is more difficult, but the need and reward for such connections is as high as ever.

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Vita

David Barton Harris is a composer and songwriter, born in Boone, NC in May of 1982. In 2004 he was awarded the Bachelor of Arts degree from the University of North Carolina at Chapel Hill with an emphasis in Music Composition. He taught improvisational and sketch comedy in Los Angeles from 2008 to 2018 before returning to North Carolina to achieve the Master of Music degree with a concentration of Music Composition and Theory from Appalachian State University in December of 2020.



Lockdown

seven songs by

David Barton Harris

photography by

Brian Kessler

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Introduction

Lockdown is a compositional response to the COVID-19 lockdowns of 2020. In North Carolina, in March of 2020, gatherings of 10 or more people were prohibited. Band, orchestra and choral programs were effectively prevented from rehearsing and performing. My work in choral composition was put on hold.

Rather than compose works that may never get performed, I decided to write music to be recorded by myself in my home. This would bypass a number of the limitations of lockdown, but also present challenges, perhaps none more significant than the removal of external pressures by other artists to meet deadlines. After all, a concert date is an effective incentive to get scores to performers on time.

I knew that including other artists would increase accountability for my productivity, and so I reached out to Brian Kessler, fellow jingle writer for *UnsolicitedJingles.com*, with an idea to use his photographic input as inspiration for my music. In a manner similar to *Unsolicited Jingles*, he would email a photograph depicting some aspect of Los Angeles life in COVID lockdown every week for 10 weeks and I would use this visual art to inspire the writing and recording of 10 songs.

My ambitions may have been too lofty, or perhaps they were just lofty enough to generate the output they did. In any case, I completed the seven songs in this song book by my deadline. The photography is included with each song's lead sheet. Both are meant to accompany the listening of "Lockdown."

Program Notes

Above the tempo marking of almost every lead sheet is the name of one or two musical artists or bands meant to communicate the song's style.

Some non-voiced parts are notated in smaller noteheads and in parentheses. I feel these melodic lines are important enough to the songs to be included in their lead sheets.

The lead sheets exist for two main reasons. Firstly, they are meant to accompany the experience of listening to the album, much like liner notes on an LP or CD. Secondly, should someone wish to perform one or more of these songs, they should utilize these lead sheets for direction. The lead sheets do not perfectly depict the recordings, but they contain as much pertinent information as I feel is necessary to reproduce the essence and spirit of the songs.

Lockdown:

1) <i>Hollywood Dreams on Hold</i>	4:15	5
2) <i>Eyes Alone</i>	2:25	9
3) <i>Penicillin</i>	2:51	12
4) <i>Less Than Minimum Wage</i>	2:22	16
5) <i>DJ Wash Your Hands</i>	2:53	19
6) <i>What We Need to Say</i>	3:07	22
7) <i>To Be Continued...</i>	2:58	25

-David Harris, November 3, 2020



Hollywood Dreams on Hold

Chainsmokers

♩ = 100

David Barton Harris

VERSE 1

Gm⁷ E^{ø7}/G E^bΔ/G E^bΔ⁹ F^{sus}4 F

She com - plained a - bout the ser - vice at the Bourg - eois Pig, said she just want - ed a lat - te, not a life sto - ry, the ba -

5 Gm E^{ø7} E^bΔ⁷ B^b B^b/F F

ris - ta winked. How 'bout a pas - try on the house?

9 Gm E^b B^b F

Do you think I got this bo - dy giv - ing in to when some - one off - ers me some - thing sweet?

13 Gm E^b B^b F

— May - be you have - n't seen me, but soon I'll be le - gen - dar - y, soak - ing up the Hol - ly - wood dream, oh, oh, oh,

SYNTH BREAK

17 Gm C⁷ E^bΔ⁹ F

He was

21 Gm C⁷ E^bΔ⁹ F

He was

VERSE 2

25 Gm^7 $E\phi^7/C$ $E\flat\Delta^7$ F $B\flat$ F/A
 work-ing his way_ down Mel-rose, through the Fair-fax kids who smoke pot_ and steal clothes, list - en - ing to "Where Is My Mind?"_

29 Gm $E\flat$ $B\flat$ F
 On days like this he knew why he left his friends be - hind,

33 Gm $E\flat$ $B\flat$ F
 give me one more chance and I got this, trust_ in me, I can come up with some_ thing_ sweet,

37 Gm $E\flat$ $B\flat$ F Hol - ly - wood
 _ may - be you have - n't seen me, but soon I'll be le - gen - dar - y, soak - ing up the Hol - ly - wood dreams, oh, oh, oh,

CHORUS

41 $B\flat$ Gm^7 $B\flat/F$ $E\flat\Delta$
 dreams_ Too bad_ we had_ to put our Hol - ly - wood dreams on_ hold,_ hold,_ hold,_ hold. We wan-na be_

46 Gm^7 $B\flat/F$ $E\flat\Delta$ $E\flat\Delta\#11$ $E\flat\Delta$ $E\flat\Delta\#11$ $E\flat\Delta$
 _ like the Hills_ and ne - ver grow_ old,_ the Hills_

50 Gm^7 Gm^7sus^2 Gm^7 F $Fsus^4$ $E\flat add\#11/F$
 _ they don't seem_ to get jad - ed_ un - der the weight_ of_ the

54 Cm^9 Gm^7/D $E\flat\Delta^9$ $E\flat$ $B\flat$ $E\flat$ F
 pie in the sky_ the tempt - a - tion of gold,_ prom - is - es told_ turn to Hol - ly - wood dreams on hold_

SYNTH BREAK

58 **Gm** **C7** **E \flat Δ 9** **F**

62 **Gm** **C7** **E \flat Δ 9** **F**

In

VERSE 3

66 **Gm** **E \flat** **B \flat** **F/A**

act - ing class she was blown a - way_ by the range of char - a - cters_ he play-ed,___ he had the con - fi - dence,___

70 **Gm** **E \flat** **B \flat** **F**

he had the con - fi - dence_____ of a diff-erent dec - ade,___ he had on - ly just start-ed to dance when she fell

74 **Gm** **E \flat** **B \flat /E \flat** **B \flat Δ** **F**

down,___ when I'm on my feet with some - bod - y mo - tion is___ the___ lang - uage___ that___ I___ speak,

78 **Gm 9** **E \flat Δ 9** **B \flat sus 4** **F** **Cm** **F**

___ whoa,___ whoa,___ whoa,___ you are my Hol - ly - wood dream_ oh,___ oh,___ oh,___

CHORUS

83 **B \flat** **Gm 7** **E \flat add 9**

too bad___ we had___ to put our Hol - ly - wood dreams on___ hold,___ we wan-na be___

88 **Gm 7** **B \flat /F** **E \flat Δ** **E \flat Δ \sharp 11** **E \flat Δ** **E \flat Δ \sharp 11** **E \flat Δ**

___ like the Hills___ and ne - ver grow___ old,___ the Hills___

92 **Gm 7** **Gm 7 sus 2** **Gm 7** **F** **Fsus 4** **E \flat add \sharp 11 /F**

___ they don't seem___ to get jad - ed,___ un - der the weight___ of,___ the

96 **Cm 9** **Gm 7 /D** **E \flat Δ 9** **E \flat** **B \flat** **E \flat** **F** **Gm**

pie in the sky,___ the tempt - a - tion of gold,___ prom - is - es told_ turn to Hol - ly - wood dreams on hold___



Eyes Alone

David Barton Harris

Nirvana
Meat Puppets

♩ = 90

VERSE 1

4

E7 B G/D Gsus²

You could be judg-ing me si-lent-ly, or bask-ing in our so-li-dar-i-ty

9

E7 A G⁹ Dm/F G

you could be won-der-ing if I look fa-mi-liar, I look like some-bod-y ap-par-ent-ly

CHORUS

14

Bm G E7 A A⁷/G

Eyes, eyes, eyes, eyes, eyes, a-lone, what can I know read-ing eyes a-lone?

18

D/F# F#7 Bm E7 G Aadd⁴

What do I miss with-out the shape of your lips? How can I read your eyes?

21

G A G/B A/C#G Aadd⁴ Bm⁷

How can I read your eyes? How can I read your eyes a-lone?

GUITAR SOLO

25

B B

29

E7 A G⁹ Dm/F G *gliss.*

gliss.

VERSE 2

34 **B** **G/D** **Gsus²**

It's been se - ven__ months and__ se - veral weeks, I've changed my whole rout - ine, _____

38 **E⁷** **A** **G⁹** **Dm/F** **G**

what can I e - ver know, _____ know with - out__ the sub - text__ of dim - ples_ and the se - crets of your mouth? all I've got is

CHORUS

43 **Bm** **G** **E⁷** **A** **A⁷/G**

Eyes, eyes, eyes, eyes, eyes, a - lone, _____ what can I__ know__ read - ing eyes a - lone? _____

47 **D/F#** **F#⁷** **Bm** **E⁷** **G** **Aadd⁴**

What do I miss__ with - out the shape of your__ lips? How can I__ read your eyes?_

rit. . . .

50 **G** **A** **G/B** **A/C#** **G** **Aadd⁴** **D**

How can I__ read your eyes? How can I__ read your eyes__ a - lone?



Penicillin

David Barton Harris

♩. = 70

INTRO

(pitch adjusted piano)

D7(#11)

cent adjustment from equal temperament: +2 +2 -49 +2 +2 -49 +2 +2 -31 +6 +6 +2 -49 +2 +2

-49 +2 +2 -49 +2 +2 -31 +6 -31 +6 +2 -29 -14 -14

D7(#11)/A

+2 -31 +6 +6 -14 +2

D7(#11)

-31 +5 +4 -2 -31 -2 -31

FΔ9 Dm11/C Cm9 A7(b9) D7(#9#11)

We've de -

VERSE 1

+2 +2 -49 +2 +2 -49 +2 +2 -31 +6 +6 +2 -49 +2 +2

D7(#11)

ter - mined that test - ing is ver - y ne - ces - sar - y the con -

-49 +2 +2 -49 +2 +2 -31 +6 -31 +6 +2 -29 -14 -14

D7(#11)/A

sent of the pa - tient is hard - ly an - y - one's co - cern, all we

+2 -31 +6 +6 -14 +2

D7(#11)

need is will - ing sub - jects and

-31 +5 +4 -2 -31 -2 -31

FΔ9 Dm11/C Cm9 A7(b9) D7(#9#11) Bb6 FΔ9 Bb6 FΔ9

will - ing is a re - la - tive term, it's a re - la - tive term,

Bill Clinton:
"What was done cannot be undone."

CHORUS

37 Bb^{Δ} C^7 A A^7 Dm Dm^7/C

We are Pub - lic - Health at your ser - vice, your

41 Bb C A Dm/F C/E

safe - ty is our num - ber one,

45 Dm^6 Dm^6/G C/D C A $A/C^{\#}$ Dm $F^{\Delta 9}$

Flem - ing gave his rab - bits pen - i - cill - in,

49 Bb/F $C^{\#0}/G$ $D/F^{\#}$ $D^7/F^{\#}$ Bm $Bb+$ A^7

we gave ours none,

VERSE 2

53 $D7(\#11)$

You must en - tice them if you want their co - op - er - a - tion

57 $D7(\#11)/A$

you can use the per - cep - tion of ben - i - fits, It'd

61 $D7(\#11)$

pro - bably be pru - dent to hi - re a hand - ler, some - one that

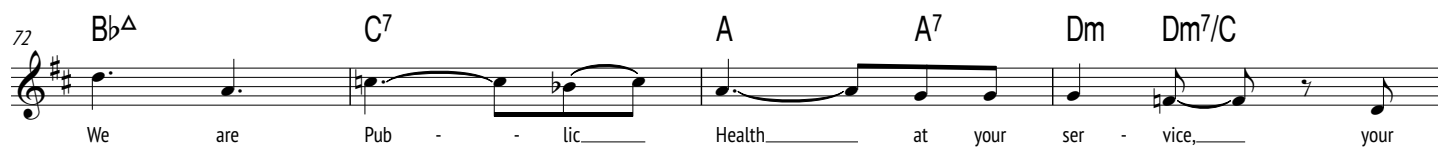
65 $F^{\Delta 9}$ Dm^{11}/C Cm^9 $A^7(b^9)$ $D^7(\#9\#11)$ Bb^6 $F^{\Delta 9}$ Bb^6 $F^{\Delta 9}$

they feel they can trust, some - one they trust,

Bill Clinton:
"We can look at you in the
eye and finally say, on
behalf of the American
people, what the United
States government did was
shameful, and I am sorry."

CHORUS

72 Bb^{Δ} C^7 A A^7 Dm Dm^7/C



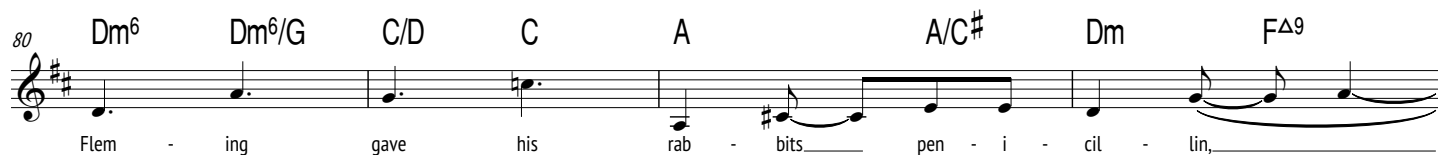
We are Pub - - lic Health at your ser - vice, your

76 Bb C A Dm/F C/E



safe - ty is our num - ber one,

80 Dm^6 Dm^6/G C/D C A $A/C^{\#}$ Dm $F^{\Delta 9}$



Flem - ing gave his rab - bits pen - i - cil - lin,

84 Bb/F $C^{\#0}/G$ *rit.* $D/F^{\#}$ $D^7/F^{\#}$ Bm $Bb+$ A^7 $D^7(\#9\#11)$



we gave ours none.



Less Than Minimum Wage

Devo
Ben Folds Five

David Barton Harris

♩ = 118

F

Gm¹¹

A1

Well I thought no-thing could be worse, than wor-king the old fa-shioned way but it

C

G

F

5

turns out that crime pays less than min-i-mum wage now

B^bΔ

F

A⁷

Dm

Dm⁷/C

9

may-be I'm just a se-cond rate cri-mi-nal or may-be I'm un-der-paid but ac-

F

D^b7

Csus⁴

F

13

cord-ing to the re-cords I keep, crime pays less than min-i-mum-wage well I've

F

Gm¹³

A2

17

ne-ver been one o-ver-come with the urge to leave a sum in the off-er-ing plate but I'm

C

B^bsus⁴

G

F

21

hap-py to sell you a ti-cket to E-den and a gua-ran-tee that you will be saved now

B^b

F

A⁷

Dm

Dm⁷/C

25

may-be I'm just a se-cond rate mi-ni-ster on an un-con-vinc-ing cru-sade cause ac-

F

D^b7

Csus⁴

F

F^Δ

F⁷/C E⁷sus⁴

29

cord-ing to the re-cords I keep, crime pays less than mi-ni-mum wage

34 **B** A⁷ A⁷/C[#] Dm Dm⁷/C B⁷ B⁷/D

No _____ I _____ can't _____ be - lieve I left my knife at the scene of the - crime _____ the

38 G G⁺ Em/G G⁷ C Ab/C Am/C C⁷

mo - ney in gas _____ that I spent _____ to get back _____ all the time I put in _____ to ma - king a mask _____ op - er -

42 F F⁺ Dm/F B^b^Δ/D B^bm(^Δ7) G⁷ Gm⁷/B^b C⁷

a - tion - al cost _____ made the op - er - at - tion a loss _____ made it all - just a waste of my time,
The

47 **A3** F Gm¹¹

ma - fi - a mo - vies make it seem _____ like ma - king mo _____ ney is eas _____ y but to

51 C B^bsus⁴ G F

shake some - one down _____ to shove a jun - kie a - round _____ I'm not sure _____ I have a - ny of that in _____ me - - now

55 B^b^Δ F A⁷ Dm Dm⁷/C

ba - by, may - be I'm just a se - cond rate mob - ster, May - be I'll ne - ver be made _____ cause ac -

59 F D^b7 C^{sus}⁴ F

cor - ding to _____ the _____ re - cords I _____ keep _____ crime pays less than mi - ni - mum wage, _____

62 rit. D^b E^badd⁹sus⁴ E^badd⁹ F^Δ13

_____ crime pays less, crime pays less than mi - ni - mum wage _____



DJ Wash Your Hands

Neutral Milk Hotel,
Fleet Foxes

David Barton Harris

♩ = 86

INTRO

VERSE 1

E A E A E A

Yes, (a-hem) I mean yes, in just a sum-mer I e - volve in - to a man,

8 E A E A E/G#

I burn my child-ren's toys, I start a band, through the hour-glass comes a teen-age fist of sand, Mom says

REFRAIN

15 F#m9 F#m B13 B7

Dee Jay, Dee Jay, D J wash your

VERSE 2

19 E A E A

hands, hand in hand, I fol-low Li - sa into the un-known of the stands, the chap-er-ones don't ap-prove but I

25 E A E E/G#

bet they un - der stand, cause through the hour-glass comes a teen-age fist of sand, Mom says

REFRAIN

31 F#m9 F#m B13 B7

Dee Jay, Dee Jay, D J wash your

VERSE 3 (Instrumental)

(mouth trumpet)

35 E A E A

hands,

40 E A E

BRIDGE

45 A C#7 F# A7 F#7 B7 G#7

wash your hands _____ Oh _____ what a help-less feel - ing, _____ the tide de - vou - r - ing the

50 C#m C#m7/B G#m F# Bm F#

land, _____ eve - ry-thing I've e - ver loved is made of sand, _____ D J wash your

VERSE 4

55 B F# B

hands, wash your hands, no one said you're per-fect, so just do the best you can, fall-in' on your face is a per-fect time to im

61 F# B F# B G#m9 C#7 F#

prove u-pon your plan, don't spend your hou-rs count-ing ti - ny grains of sand, D J wash your hands



What We Need To Say

Queens of the Stone Age,
Faith No More

David Barton Harris

♩ = 94

INTRO

GUITAR RIFF

C7#11no3no5 gliss. C7no3 Cm B♭ G

Ah

7 Cm G B♭ Cm B♭ G

VERSE 1

11 C B♭6/9

We _____ are the e - v - idence for the pre - sence of the mul - ti - verse, and

15 A♭Δ B♭6/9/G C

we _____ went from soul - mates to so what so quick, the

VERSE 2

19 C7 C7/B♭ FΔ9

on - ly ex - pla - na - tion I can come up with is

23 A♭Δ D♭Δ#11/A♭ C C/E C/G

in - fi - nite ver - sions of you and I must co - ex - ist,

CHORUS

27 FΔ9 Gsus4 FΔ9/A Gadd11/B

the com - ing of spring, in the span of a day, the gla - cial walls we built bet - ween us melt a - way

31 FΔ9 Gsus4 FΔ9/A

as to the rea - son I called, I found out to - day our lives are

34 Gadd11/B FΔ9 Gsus4 A♭Δ B♭6/9

o - ver well be - fore we say what we need to say, we should say what we need to say,

GUITAR RIFF

38 Cm B \flat G Cm G B \flat

VERSE 2

42 C⁷ E \flat ⁶ C E \flat ⁶ Fadd⁹

we, we were clos - er than in - sep - era - ble, and now we ne - ver talk, and

46 C⁷ E \flat ⁶ D \flat Δ ^{#11}/A \flat C C/E C/G

since we've been on opp - o - site ends_ of the u - ni - verse, you've be - come my Jab - ber - wock, but I feel the

CHORUS

50 F Δ ⁹ Gsus⁴ F Δ ⁹/A Gadd¹¹/B

the com - ing of spring, in the span of a day, the gla - cial walls we built bet - ween us melt a - way

54 F Δ ⁹ Gsus⁴ F Δ ⁹/A

as to the rea - son I called, I found out to - day our lives are

57 Gadd¹¹/B F Δ ⁹ Gsus⁴ A \flat Δ B \flat $\%$

o - ver well be - fore we say what we need to say, we should say what we need to say,

GUITAR RIFF

61 Cm (guitar) B \flat G Cm

64 G B \flat Cm B \flat G C rit.



To Be Continued...

Tears For Fears,
The Human League

♩ = 85

David Barton Harris

INTRO

VERSE 1

Dadd⁴ 3 D⁶add⁴ Dadd⁴

Pro - tect the weak from the in - fil - tra - tion, and

9

shield the young_ from the know-ledge with - in,

13 D⁶add⁴

where did we leave that pre - script - ion?

17

the one__ that treats o - ri - gi - nal sin, the one__ that treats o - ri - gi - nal sin,

CHORUS

21 Bm⁷ Aadd⁹ F#m⁷ D/G

the thought of the end of this life means less to me__ than how I miss you, they may

25 Bm⁷ Aadd⁹ F#m⁷ D/G

lock the door__ and turn out the lights, but you and I__ are to be con - tin - ued,

29 Bm⁷ Aadd⁹ F#m⁷ D/G

you don't re - mem - ber when you start - ed this life, could that be the proof_ the cir - cle is with - in you?

33 Bm⁷ Aadd⁹ F#m⁷ D/G

may-be the line is on - ly the - o - ret - i - cal, so you and I__ are to be con - tin - ued,

VERSE 2

37 Dadd⁴

It - 'll hurt and we will cry for our friends, and

41

eu - lo - gies will go un - spo - ken, but our

45

lives will not___ come to an end,

49

be - cause___ the cir - cle is un - bro - ken, the cir - cle is with - in,

CHORUS

53 Bm⁷ Aadd⁹ F#m⁷ D/G

the thought of the end of this life, means less to me___ than how I miss you, they may

57 Bm⁷ Aadd⁹ F#m⁷ D/G

lock the doors and turn out the light, but you and I are to be con - tin - ued,

61 Bm⁷ Aadd⁹ F#m⁷ D/G

you don't re - mem - ber when you start-ed this life, could that be the proof___ the cir - cle is with - in you?

65 Bm⁷ Aadd⁹ F#m⁷ D/G Dadd⁴ repeat and fade out

may-be the line___ is on - ly the - o - ret - i - cal, so you and I___ are to be con - tin - ued,