

Jeremy Ahn and Dr. Max Keller

Department of Music; J.N. Andrews Honors Program; Andrews University

Abstract

This project uses Negative Harmony as a basis and reference point for producing original songs in the style of instrumental jazz and funk. Negative harmony is a loose term that describes a technique of reharmonization made popular by musician Jacob Collier. While negative harmony is best understood as a reharmonization technique, I am essentially writing new songs with chord progressions that strive to replace common chord progressions with their negative harmony counterparts. I ultimately seek to make music with unconventional but viable harmonies and grow as a musician in the process.

Background

Negative harmony has been popularized by Jacob Collier, a multi-instrumentalist who described it in an interview as any note or chord in any key center having a polar opposite around an axis of symmetry. Collier based this concept on ideas articulated by Ernst Levy in his book "A Theory of Harmony", that describes the polarities of notes and chords being based on overtones and undertones. The argument that Collier makes is that both a harmonic chord and its negative harmony equivalent will have equal gravity towards the following chord in a harmonic progression. This offers an opportunity for very creative chord changes in methods of composing and improvising like modal interchange or reharmonization. Regardless, the 'negative chords', though seemingly dissonant, will have an equal viability that justifies their use over their more traditional counterparts.

Methodology

- **Producing songs:** Songs will be composed and produced through Ableton Live using a combination of built-in Virtual Instruments, external plugins, and recorded audio.
- **Album:** An album of 6 demo songs will be produced, connected by a theme of having a chord progression based on Negative Harmony.
- **Style:** The arrangement of the songs will be based on jazz standard tunes with a short melody and solo sections over a chord progression. The style will be loosely based on the sound of Anomalie, a jazz/funk keyboardist and producer.

Methodology

- **Inversion chart:** To compose the songs, I will use the method of modal interchange to write chord progressions based on the negative harmony. Common chord progressions, such as the one shown in Figure 1, can be inverted to their negative counterparts through the inversion circles shown to the left with the proper axis.

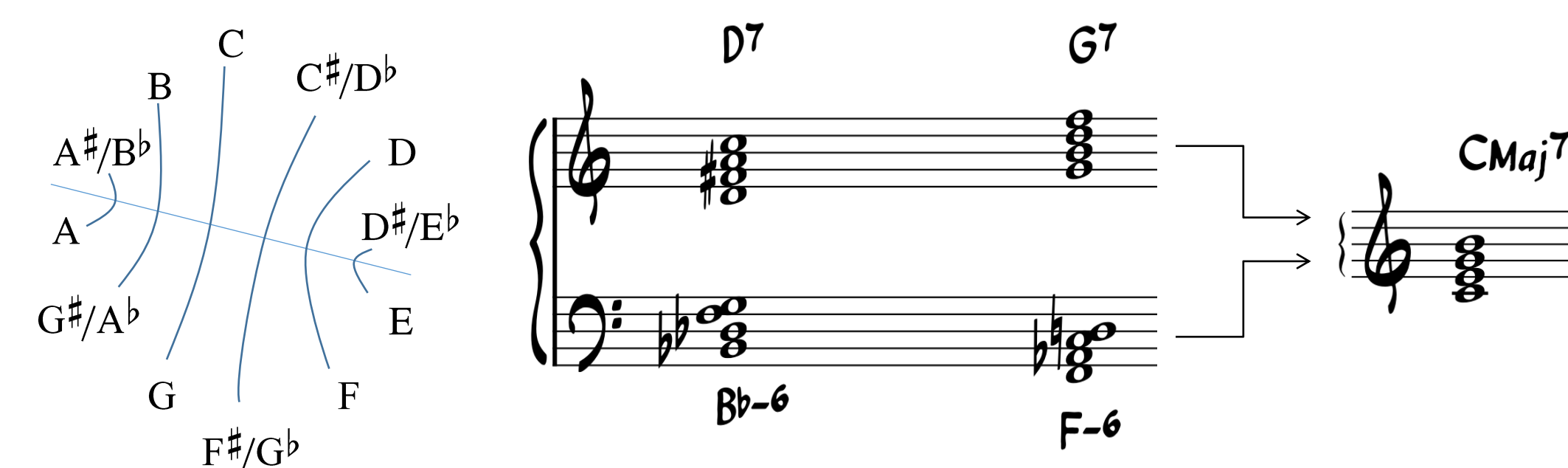


Figure 1. Negative harmony inversion index for C major/minor

Results

Ableton Live Sessions:

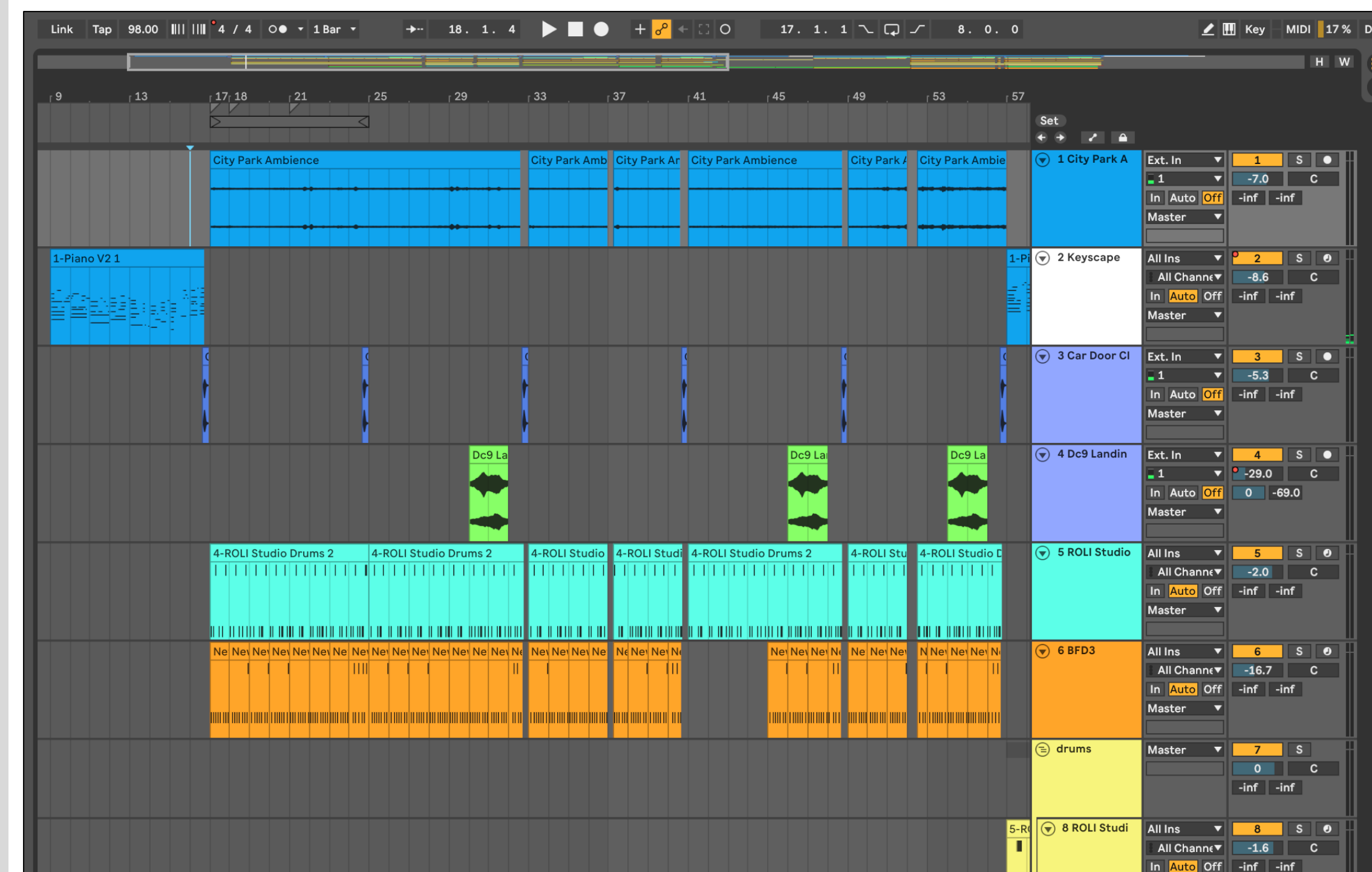


Figure 2. Ableton Live session for City Jam

- **MIDI:** Figure 2 shows an example of an Ableton Live session where the song was recorded using a MIDI keyboard and Virtual Instrument plugins like Omnisphere and Keyscape from Spectrasonics.
- **Audio:** Occasionally, royalty free sounds were also used such as the City Park sounds in the background of *City Jam*, or orchestral hits in *End of the Road*.
- **Demos:** The songs have been written and recorded and are mixing and mastering, which is outside the scope of this project.

Results

Song Transcriptions:

Figure 3. Transcription of main chord progression and melody of *City Jam*

- **Inversion Example:** $G^7 \Rightarrow F^-6$:
 $G \Rightarrow C$; $B \Rightarrow A^b$; $D \Rightarrow F$; $F \Rightarrow D$
- Transcriptions were scored for each song, and modelled after jazz lead sheets. Only the melody and basic chords are included, as well as stylistic choices, tempos, and key.
- **Featured artists:** Lucas Aguiar on electric guitar
Nathaniel Chung on organ

Conclusion

Album: Total of 6 songs were written and recorded as a part of the album.

Modal Interchange: Negative chords were largely used as passing chords, similar to secondary dominants. Some songs used more negative harmony than others.

Unconventional Negative Harmony: For *The Subway Sparrow*, the inversion index for F#-C was used to create and analyze the chords. Although different from the other progressions, the inversions are consistent.

Personal Growth: Through writing and recording songs from a perspective of Negative Harmony, I have expanded my own musicianship in playing chords, reharmonization, and composition.

Selected Bibliography

- Collier, Jacob. In My Room. Performance by Jacob Collier. Jacob Collier. 2016.
- Collier, Jacob. "Interview: Jacob Collier (Part 1)". Interview by June Lee. YouTube, 14 April 2017, <https://www.youtube.com/watch?v=DnBr070vcNE&t=107s>
- Dupuis, Nicolas. Metropole. Performance by Anomalie (Nicolas Dupuis). Anomalie. 2017.
- Levy, Ernst, and Siegmund Levarie. A Theory of Harmony. State University of New York Press, 1985.
- Pease, Frederick, and Ken Pullig. Modern Jazz Voicings: Arranging for Small and Medium Ensembles. Edited by Michael Gold, Berklee Press, 2001.
- Pease, Frederick, and Rick Mattingly. Jazz Composition: Theory and Practice. Berklee Press, 2003.
- Terefenko, Dariusz. Jazz Theory: from Basic to Advanced Study. Routledge, 2014.