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An Application of the Musical Style of Jazz Saxophone to the Double Bass

By Gareth Hill

A dissertation submitted in partial
fulfilment of requirements for the degree of

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In Jazz Performance

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Declaration

The contents of this dissertation are the result of my original work, except where stated and it has not been submitted, fully or in part, for any other course at this or any other institution.

Gareth Hill, 2008

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Abstract

The aim of this dissertation is to explore improvising on the double bass through an investigation of the improvised solos of prominent jazz saxophonists. This involves a melodically focused analysis of solos of Charlie Parker, Dexter Gordon, Sonny Rollins, Joe Henderson, Oliver Nelson and Eric Dolphy. My melodic analysis is in aid of furthering my melodic concept on the double bass and consists largely of analysis in three areas: intervallic content, phrasing and melodic devices. It is through this process that I hope to develop techniques for the double bass and further my own concept for improvising. The disparity between saxophone and the double bass means that there is much to be gained from transferring ideas from each instrument. There are differences in dexterity, phrasing abilities and acoustics that have allowed the saxophone to develop an improvising style entirely different to that of many double bassists. While saxophonists I enjoy, solo in an exciting and complex way, my soloing on the double bass is generally slower, less melodic and lacking in intensity and concept. I believe that this study can give great insights into my playing as well as creating a model which may be used by others to develop their own improvising on the double bass.

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Chapter 1

Introduction

In my experience as a jazz double bassist, I have played a number of roles on my instrument. The role of accompanist involves being an effective part of a rhythm section (commonly with a drummer and piano or guitarist), providing backing for a soloist. This function requires the bassist to have skills in both harmonic and rhythmic areas. A walking bass line (a practice common of jazz bassists) should work simultaneously with the rhythmic feel of the drummer and the harmony provided by the chord instrument of the jazz ensemble. This function of accompaniment is the primary role of the jazz bass player and is an important skill, requiring both strength and sensitivity. Another function asked of bassists is that of the soloist. The soloing bassist is thrust from the background as an accompanist and into the foreground, suddenly as the primary focus of the group. The transition into this role is not one that comes easily to a bass player (speaking from my own experience). Many jazz bassists receive relatively few opportunities to improvise as soloists or even perform melodies in a standard ensemble. This compounded with an often inadequate musical support from the remaining members of the ensemble means that bass solos can often be less musically exciting than those from other instruments. The culture of the jazz ensemble allows less solo improvising opportunities to bassists and, in my case, has allowed me a relatively limited experience of improvising creatively and melodically as a soloist. Furthermore, in comparison to other instruments popular in jazz, there is a lack of instructional literature aimed

directly at improvised double bass soloing. It would appear that there are many forces hindering the bassist from developing his or her own improvising style. This study is directed at furthering my development as a soloing improviser, by looking at the solos of players of an instrument completely different to my own.

The primary aim of this study is to develop a melodic improvising concept for the double bass. This concept is specifically melodic for a reason: I feel that a sense of melody is lacking in my improvising. Furthermore, I believe that a focus on melody will produce an improvising style based on strong musical ideas that are expressive and coherent. In order to achieve this I have chosen to focus on jazz saxophonists. Many saxophonists have inspired me with not only intricate and dextrous ideas, but intriguing melodic concepts. I hope that the study of a separate instrument can give me not only a better understanding of jazz improvisation, but a new concept for the double bass that can function in a melodic way reflecting this foreign musical style. The process is one of translation: identifying musical traits common to many saxophonists or even from only one individual and developing techniques and concepts that can allow similar musical outcomes on the double bass. I believe that through this process of translation, new musical ideas and techniques can be found for my own improvising and, in doing so, expand the musical capabilities of the instrument itself.

I have structured this study into three main areas. Firstly, the saxophone and double bass are compared as instruments. Secondly, examples of saxophone improvisation are analysed concerning melodic techniques and concepts. Lastly, saxophone ideas are applied to the double bass. These topics form the three middle chapters of this dissertation. A final chapter concludes

the dissertation, summarising the skills and information I have gained and suggesting further research.

Chapter two covers the inherent differences between saxophone and the double bass through a comparison of the instruments' constructions, mechanics, acoustics, techniques and traditional musical roles. At the lowest level, the mechanics and construction of a musical instrument directly affect its sound and technical capabilities. In this respect, saxophone and double bass have obvious differences. On a very basic level, the fact that one is made from brass and the other from wood gives some indication that they are constructed and, in turn, played differently. Closer investigation reveals that each instrument produces sound in an entirely different way: the double bass uses the vibrations of taut strings and saxophone relies on a vibrating reed. It is from these very basic distinctions that variation in sound production and technical ability stem. This chapter also discusses the way each instrument can function musically and the effect this has had on the traditional roles each plays in the jazz ensemble. Here I investigate the issues affecting the musical limitations and possibilities of double bass and saxophone. This will produce a foundation for firstly understanding how saxophonists play what they play, and secondly how I can transfer this to the double bass.

The decision to study jazz saxophone and the selection of individual performers, have been made largely because of my attraction to particular jazz saxophonists. I have developed a great appreciation of the instrument and the many inspiring musicians that use it within jazz. Even before I began this project, I knew of a number of players I wished to emulate: Joe Henderson, Sonny Rollins, Oliver Nelson... the list went on. Ultimately, to maintain a

reasonably sized study I had to exclude many saxophonists I admire greatly; these included (but were not limited to) Ornette Coleman, John Coltrane and Dave Liebman. My final group included six saxophonists: Charlie Parker, Eric Dolphy, Dexter Gordon, Joe Henderson, Sonny Rollins and Oliver Nelson. I feel that this group represents a wide range of playing styles and presents a good cross section of jazz saxophonists.

With this group, I selected one example of solo improvisation from each player. I decided to let my ears choose what solos to study, trying to select solos that were genuinely stimulating. After transcribing each solo, I then began examining each solo with reference to melodic ideas and construction. Initially I was unsure of how to evaluate this music in a useful and effective way. Traditional analysis techniques, such as harmonic analysis, seemed inappropriate to my aims; harmonic analysis only provides a relationship between one note and an accompanying chord and does not deal with a group of notes combining to make a melodic phrase. After some thought, I chose a series of different analytical techniques that would each produce information as part of a melodic concept. These concern intervallic content, phrasing techniques and melodic devices. In chapter three, I used these analytical techniques to examine each solo. While this analysis was adequate for this study, I felt that there was a great deal missing. Approaching this music in a purely analytical way meant that I ignored the emotional and less quantifiable parts of these improvisations. I needed to acknowledge an emotional connection to this music in order to develop this in my own playing. Consequently, I tried to include an emotional response to each solo. This is a purely subjective part of my analysis and cannot be effectively demonstrated in the form of a written dissertation. However, a

personal response to music is important to acknowledge; the process of developing a new musical concept should never exclude this aspect. The inclusion of emotional content with the more substantiated analysis of these solos provides a more complete picture of the complex musical statements of the six improvisations.

Chapter four discusses the application of musical ideas found in chapter three. I have dealt with the information gained from each type of analysis separately. To apply this information to the double bass, I have developed exercises that focus on the ideas gained in intervallic content, phrasing and melodic devices. Brief examples of these exercises are shown in the body of the chapter (but are shown more comprehensively in appendix C). This section also discusses different techniques for the double bass that deal with the technical challenges saxophone material presents. In this chapter I have included the analysis of an additional solo from the double bassist Brian Bromberg. I feel that his playing shows an understanding of the melodic style of saxophone players. He is adeptly using techniques and concepts I have only begun to explore in this study and his solo is unhindered by his instrument's limitation. Bromberg is a successful example of the translation of the saxophone style to the double bass. This chapter is followed by a conclusion of the dissertation in chapter five, discussing what has been learned from the study and areas for further research.

Chapter 2

Saxophone vs. Double Bass: Construction, Technique and Sound

When attempting to transfer one instrument's playing style to another, an understanding of the musical capabilities of each instrument is essential. The saxophone and double bass are entirely different instruments: each instrument is constructed differently, they each produce sound through a different process and the sound produced is of a fundamentally different nature. As well as these differences, the manner in which each instrument is used by musicians to produce sound varies greatly. It is therefore unsurprising that these instruments should function in largely dissimilar musical roles. The construction, techniques and sound of each instrument produce musical limitations and advantages, which need to be investigated and compared.

Every musical instrument is built differently. These differences are necessary and useful; they produce the wide array of musical sounds available to musicians. Furthermore, instruments require an input of energy if these sounds are to be actualised. In the case of acoustic instruments (as opposed to electronic), specific physical techniques are used by the musician to produce a variety of sounds. While an instrument can produce a range of different sound qualities, the techniques and their resulting sounds inherent to any instrument produce limitations on its musical output. Perhaps it is these sonic limitations that have led to the variety of instruments in use today.

Musical instruments can be roughly categorised by their sound producing mechanisms. Percussion instruments produce sound by being struck by other objects (a mallet, drum stick or musician's own hand). String instruments produce sound with taut strings being bowed, plucked or struck. Wind instruments require the breath of a musician in order to sound. These categories refer to similarities in the types of sounds that are produced and the methods that produce them. Immediately, these generalisations are useful in comparing double bass and saxophone. The double bass is classified as a string instrument, while the saxophone is classified as a wind instrument.

As previously mentioned, an individual instrument is capable of producing a wide, yet limited, range of musical sounds. What are the qualities with which these sounds can be analysed? Douglas E. Hall (1980) determines two categories of elements that can distinguish sound. The first category contains physical elements of sound that can be measured. These are amplitude, frequency and wave form. However, since sound is not only a physical occurrence - a wave-like series of air pressure fluctuations - but also a perceptual experience in which the listener perceives sound, Hall suggests a second category of elements concerned with the perception of sound. This includes loudness (or dynamics), pitch and timbre. Logically, it would seem that the three physical qualities of sound should each equate to a perceptual quality, and largely this is the case. Degrees of amplitude can be linked to levels of loudness, different frequencies to variations in pitch, and wave form to timbre. Yet Hall goes on to say that each physical element also has an effect on the remaining two perceptual qualities. Amplitude can have a small effect on pitch but large on timbre, frequency affects both loudness and timbre and a variation

in wave form can affect pitch slightly but loudness greatly. The analysis of qualitative information about the sound of each instrument can be used to determine factors influencing the resulting perceived sound. This can then lead to information concerning the different aural effects of the sound produced by both double bass and saxophone.

In a musical context, different instruments are used to exploit their individual range of sounds. The pitch, timbre and dynamic range of an instrument allow it to function in specific ways. In Robert Donington's *The Instruments of Music* (1962), he describes the tone of reed instruments as being "some of its [the orchestra's] strongest colourings... They are often heard alone, or nearly so: but when blended with other instruments, they colour that blend pervasively, a single oboe or clarinet making itself felt easily through a mass of strings." (Donington 1962: 99) This statement suggests that a reed instrument can be detected easily through the sound of an entire orchestral string section. One reason for this perceptual disparity lies in the physical qualities of the wind and string sounds. Since this is described as a "blended sound"[1], I suggest that the wind player would not be producing a sound with significantly greater physical qualities of amplitude or frequency. This leaves variation in the remaining physical quality, waveform, as the cause of a pervasive oboe or clarinet sound. As mentioned before, waveform can influence the perception of loudness greatly.

A comparison of the double bass and saxophone in a jazz setting sees this situation recur: while the saxophone can easily be heard above a typical jazz rhythm section, double bass is often overpowered by an accompaniment of only

[1] I take this to mean that the sound is unified, in both frequency and amplitude.

piano and drum kit. While more factors are involved here, this can be seen partly as a result of differing waveforms. The different waveforms produced by each instrument allow saxophone to serve well as a soloist and double bass to be an effective accompanist. As waveform is dependent largely on the physical actions that produce sound on any given instrument, the root cause of this phenomenon is in an instrument's construction. To better understand the differences aiding the contrast between the two instruments, it is necessary to compare each instrument's construction, techniques of producing sound and their resulting sounds.

The double bass consists primarily of a set of four strings stretched tautly from a tail piece, along a bridge and over a finger board, then attached to tuning pegs at the headstock where the string tension can be adjusted. These strings create vibrations when bowed or plucked with fingers. The bridge carries any string vibrations to the curved wooden front plate of the body of the double bass. These vibrations are carried further from the front plate to the back plate by the sound post, positioned closely under the bridge. The hollow shape of the body allows resonances to occur in the air contained within. It is these resonances that give a double bass its acoustic sound. According to the build of the body of an instrument, different vibrational frequencies will have different resonant qualities. It is these resonant qualities that give an individual double bass its particular sound. String vibration and body resonance allow the double bass to produce its acoustic sound. In jazz performances, this sound is often aided by electric amplification through the use of a pick-up.

The saxophone is built and functions in an entirely different way. It produces vibrations with the user blowing air at a single reed attached to a

mouthpiece. The reed is placed at such an angle so that while vibrating, it can alternatively block or allow air through to the body of the instrument, creating air vibrations. The mouthpiece is attached to a conical metal tube which is flared at one end. Air vibrations produced by the reed are resonated by the column of air contained in the tube. The length of this tube determines the frequency at which the air column will vibrate. Holes and accompanying key work occur along the metal tube, allowing the length of the air column to be altered, producing different pitches. The distinct sound of a saxophone is the result of a variety of physical features. It is as if the saxophone is a hybrid of other kinds of wind instruments. Firstly, the saxophone employs a single reed mouthpiece which is very similar to that of a clarinet. Secondly, attached to the mouthpiece is a resonating tube that, unlike the clarinet, is not cylindrical. The bore of a saxophone's body is like that of an oboe: it is conical (although an oboe's bore will be of a more acute angle). Finally, a saxophone is made predominantly of brass, similar to other instruments of the brass family. While these features all contribute greatly to the saxophone's sound, it is the conical bore of the saxophone's body that generates much of this tone colour. The bore of the instrument refers to the inside shape of the hollow body. A body with a conical bore will have a small diameter at the end where the mouthpiece attaches, which widens at a certain angle towards the open end. When compared to an oboe, for instance, the bore of a saxophone widens at a much greater rate. Hall says: "Narrow tubes have sharp resonances for many modes, whereas higher frequencies readily escape from wide tube mouths without forming strong standing waves." (1980: 291) Essentially this means that the saxophone's wider bore gives less resonance to the higher frequencies than that

of an oboe. Donington corroborates: "The wide taper militates against high harmonics...The first or fundamental harmonic is unusually strong, while the strongest upper harmonic is the fourth, at the double octave...and a dwindling intensity thence upwards to the fifteenth." (1960: 106) The suppression of higher harmonics due to a wide conical bore can be considered a large factor in the saxophone's sound. The body shape of the saxophone affects sound production in another way. A larger bore means that a saxophone requires larger holes than many other wind instruments to vary the length of the air column. These larger holes help to radiate more sound from the instrument. The saxophone's distinct timbre and loud volume can be attributed to its body shape and construction.

As mentioned before, the waveform produced by each instrument affects its musical functioning. Similarly, the range of amplitude and frequency also affects this. The double bass produces, in comparison to the saxophone, generally lower frequency sounds that have less amplitude. The small amplitude of the double bass sound greatly affects its perceived loudness, while lower frequencies reduce the perceived loudness more subtly. Differences in frequency and amplitude, combined with waveform variation all conspire to allow the saxophone to be heard above the jazz ensemble and the double bass below it. If these were the only differences between these two instruments, it would suffice to say that they are worlds apart. However, there is more to cover.

Until now I have dealt only with differences in sound and the general processes that this sound results from that set apart saxophone and the double bass. I have not yet fully examined how the construction and sound of an

instrument affects the way it can function musically. As previously mentioned, musicians are required to employ specific techniques in order to draw sound from an instrument. The saxophone requires the use of breath, control of the reed with the tongue, and fingers to manipulate the key work. The double bass requires the use of both hands: one hand for plucking or bowing while the other alters the string lengths. The technical aspects of each instrument allow some musical practices to be easily performed and others to be near impossible. It is my suggestion that these techniques have affected the musical role an instrument performs in an ensemble.

In jazz music, traditionally the double bass is plucked. This technique produces an essentially percussive sound that blends well with the wholly percussive sound of the drum kit. A bassist's common role within jazz ensembles is to provide both a rhythmic and harmonic element to the rhythm section. Most commonly this is through a "Walking Bass Line", a practice in which repeated crotchets outline the harmonic content (particularly the root notes) of a melodic form while maintaining a steady rhythmic pulse. The harmonic and rhythmic elements of this practice cooperate with the other members of the rhythm section. Pitches included in the line work with chords played by piano or guitar and the walking line combines with the rhythmic feel implied by the drummer. The bass player is generally required to maintain a walking bass line throughout an entire piece. The double bass is suited to this practice: the percussive nature of plucked double bass allows it to function well with a drummer, its low range allows the production of low root notes that support chords and it has the ability to continue plucking over extended periods. It would seem as if the double bass was made specifically for playing walking

bass lines. Conversely, conventional saxophone technique does not allow for continuous walking lines. If a saxophonist was to attempt a walking bass line, it would not be long before they would need to breathe again. A saxophonist's lung capacity and breath control place a limit on continuous playing, meaning that a walking line would need to be broken momentarily in order to continue.

In comparison to double bass, saxophone is better suited as a soloist and performer of melodies. As well as being a louder instrument, traditional saxophone technique allows a variety of articulation methods that can shape and colour a melodic line. The speed of breath used to produce sound can be easily altered to affect tone and dynamics. The reed can be manipulated by the tongue and lips to produce a variety of articulations. Every part of a note's duration, including how the note is attacked, what quality is given to the body of the note and how the note ends, can be altered with breath control and reed articulation. Together, breath control and articulation give the saxophone a range of phrasing options. Through breath control, the dynamic shape of a musical phrase can be formed with crescendo and decrescendo, while articulations can accentuate and shroud individual notes. It is this control that gives the saxophone its facility for melodic playing, something that the plucked double bass can lack. Plucking only allows control of the beginning of a note; once a note has been struck it can only decay gradually or be stopped by muting the string. A sustained tone is not possible through plucking since a plucked note will instantly begin to naturally decay after the initial attack. This means that plucked notes cannot be shaped in the same way a saxophonist might. A note cannot crescendo at all, nor decrescendo with any type of actual control. The double bass has less ability to phrase than the saxophone.

The range of pitches accessible by each instrument at any given time is also different. Technically, the saxophone can reach any note within its range with relative ease. Through the positioning of its key work, a great variety of notes can be attained with only small movements of the fingers. Saxophonists are consequently known for their dexterity in playing rapid passages of notes. The double bassist, on the other hand, is limited in note choice by how quickly fingers can be moved from position to position on the fingerboard. In some cases movements of upwards of a metre must be performed in order to produce particularly large intervals. While limiting the speed at which these large intervals can be performed, the distance travelled can also affect the accuracy of intonation on the instrument. The dexterity that each instrument allows to its user plays a large part in understanding how each can be used musically. A saxophone's dexterity means that it can create complex and dramatic series of notes played in rapid succession. This contributes to its ability to perform as an effective melodic and soloing instrument, an ability not as easily accessible on the double bass. A major difference between saxophone and double bass lies in their abilities to perform particular intervals quickly.

An examination in construction, sound and techniques of these two instruments has shown many differences. Their constructions produce sound in different ways. Acoustically, they produce dissimilar sounds, and their techniques allow for different musical practices. These differences show not only that double bass and saxophone are poles apart, but that there is much to be gained from an attempt to develop and apply the saxophone style to the double bass. The musical style of the saxophone endures none of the technical constraints of the double bass and consequently can produce a more melodic

style of music. This style can be used as a template to develop a similar style on the double bass by innovating and approximating foreign musical concepts and techniques. These vast differences allow much new musical work to be attempted on the double bass.

Chapter 3

Analysis of the Saxophone Style

In order to develop a saxophone-like concept on the double bass, I have chosen to study of a range of prominent saxophonists. This should allow me to discover stylistic similarities common to the whole group as well as musical ideas specific to individual players. These saxophonists are: Charlie Parker, Oliver Nelson, Eric Dolphy, Dexter Gordon, Joe Henderson and Sonny Rollins. The process of selecting this group involved listening to many solos from a range of saxophonists. I already knew in a general way what players I would like to include in my study, as I had been exposed to many saxophonists that appealed to me. I narrowed this group down and chose a single example of solo improvisation from six players. The reasons for choosing each solo were varied, ranging from the "sense" that it might be able to be reproduced effectively on the double bass to the simple attraction of one particular phrase. The next task was to produce a method of analysis that could provide useful information from the solos and assist my final goal of developing a melodic saxophone-like improvising style. This chapter explains the process and results of this analysis, with the following chapter covering the application of the saxophone style to my instrument.

My analysis relied heavily on the notated representation of each solo, otherwise known as transcription (I have included excerpts within this chapter, but the full transcriptions can be found in appendix A). During the process of notating each solo, I endeavoured to reproduce accurately the notes and rhythms

played by each improviser. Often I found that what was being played would not fit neatly into the framework of this notation system and I was forced to make approximations and compromises. Flexibility in rhythm and pitch were common causes of compromise. My analysis drew information from these transcriptions, finding patterns and other points of interest within each solo. I examined particular aspects including intervallic content, phrasing, melodic devices and structural concepts. An analysis concerning the intervallic content produced information about the range of intervals and different intervallic patterns that each saxophonist used to construct musical phrases. Phrasing analysis concerned the articulations players used to shape individual notes and larger passages. Evidence of melodic devices and structural concepts was also found during the analysis and gave an indication of the musical concepts used by saxophonists. I have chosen these forms of analysis over other more traditional types of analysis (including chord/scale and harmonic analysis)[2] for I believe that they can produce better information in aid of reproducing a melodic style of improvising.

This process was designed to yield the secrets of the saxophone style, and much has been gained. Yet, my analysis often gave me very dry information from what is richly nuanced and expressive music. By looking exclusively at the patterns and musical devices contained within my transcriptions, I was missing a vital part of this music. The emotion and creativity that each player brought to their music could not be fully represented in my transcriptions, and furthermore can not be adequately analysed through a

[2] The chord/scale theory and related harmonic of a solo, while useful, do not give information relating to the construction of melodic phrases. They can only produce information linking one pitch to an accompanying chord. This is a vertical style of analysis, while mine has tried to deal with the horizontal information of the elements producing a melodic phrase

purely academic process. This information is in the purely subjective realm and is unable to be fully realised through logical means. To miss this aspect of the music is to miss the point: the emotional relationship that these musicians have with their music is its primary driving force. Improvisation without this kind of emotional connection cannot be considered a real expression of an individual. As such, it would be a mistake for me to exclude this musical aspect from my analysis. The cultivation of this kind of relationship to music is essential in forming an improvisational approach. By including this with my more formal analysis, I hope to provide a more comprehensive picture of each solo that will help me in forming a melodic improvising style.

Charlie Parker

The musical legacy of Charlie Parker has left a lasting imprint on jazz. His musical vocabulary has been a major source of inspiration for jazz musicians since the beginning of his popularity in the 1940s. Parker, along with many of his contemporaries, founded a music which would become known as Bebop. Bebop can be typically described as a frenetic and complex kind of music. This is due mostly to the often fast tempos and the intricate melodic shapes used by Bebop improvisers. While many jazz musicians have gained inspiration from the innovative works of Parker and others involved in Bebop, this music has been formed by some into a somewhat standardised teaching practice.

> Bebop has [become] the pedagogue's delight. It has proved to be one style of improvising which can easily be taught. And taught it is; in colleges, music schools, night classes, prisons; through a constant flow of tutors, methods and 'how to' books,

> resulting in the first standardised, non-personal approach to teaching improvisation. (Bailey 1992: 49-50)

This quotation from the guitarist Derek Bailey, expresses the institutionalised state that Bebop is in. Many Bebop phrases have been keenly analysed and often broken down into fragments. Furthermore, a harmonic analysis of these fragments can determine the precise placement of each fragment in coherence with the harmonic form of jazz tune. It becomes then a simple process of mastering these individual patterns then performing them in appropriate places to produce music remarkably similar to the Bebop of the middle of the 20th century. While this process is effective in an educational system, it can produce music that is formulaic and lacking in real expression. Bailey goes on to say

> The mechanics of the style are everywhere; of the restlessness, the adventurousness, the thirst for change which was a central characteristic of the jazz of that period there seems to be no sign at all. (Bailey 1992: 50)

The inherent danger in the analysis of this or any other improvisation is that, while an understanding of the technical aspects of the improviser is gained, the emotional content that is vital to the spirit of the music is most likely ignored. A balanced approach to this music valuing the emotional response as well as an understanding of the simple "mechanics of the style", should allow a deeper understanding of improvised solos as musical statements.

Parker's solo on "Thrivin' on a Riff" (Savoy 903, 1945) is an example of his playing, early in his short career[3]. This recording is somewhat out of the

[3] Parker first came to prominence in around 1940, continuing his career through drug addiction until his death in 1955.

ordinary as it does not begin with a statement of the melody, instead, after a short piano introduction, a young Miles Davis plays a trumpet solo. Parker's solo is cushioned between Davis' slightly unconfident solo (understandably, due to the reverence in which Parker was held at the time) and a piano solo by Argonne Thornton (later know as Sadik Hakim (Rinzler; Kernfeld, 2008)). The melody is only played at the very end of the recording.

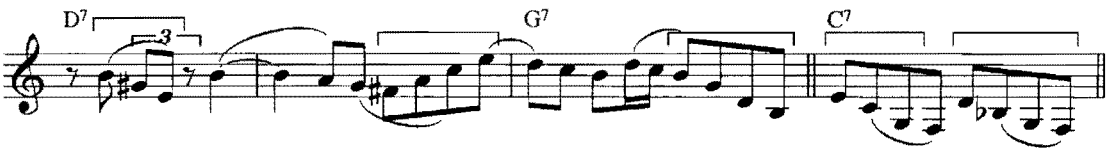
The difference between Davis and Parker is palpable. A short and somewhat meandering solo by Davis leads into a contrasting confidence from Parker. The first A section[4] of Parker's solo almost mimics the mood of the previous solo, but as we reach the second A, Parker begins in a higher register, increasing in intensity. The solo continues to build through the B section then relaxes in the last A of the first chorus. This relaxation continues through the second chorus, despite the addition of a virtuosic double time phrase. This can be partly attributed to the lower register much of the second chorus is played in, as opposed to the dramatic use of high range in the first.

As mentioned before, Parker's standing in jazz history is reason enough to include him in this study, but I have chosen to include this solo because of its strong appeal. The contrast, melody and surprise (particularly in the B section of the first chorus) produced in this solo, set it apart from anything else I had heard from Parker. I felt this was an effective solo and worthy of further study.

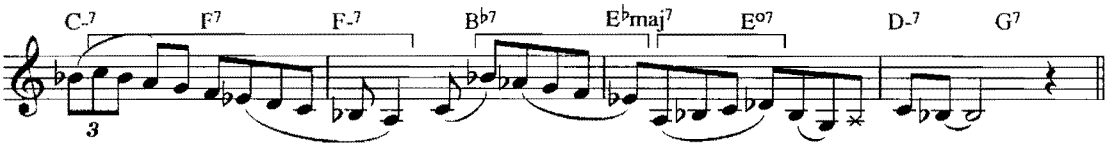
While parts of this solo are very melodic, much of it sounds particularly complex. Parker often plays lines of consecutive quavers creating intricate progressions of notes within his phrases. Significantly, this type of playing often employs intervallic patterns, largely consisting of arpeggios, as well as

[4] Thrivin' on a Riff is based on a "rhythm changes" form, the sections being AABA.

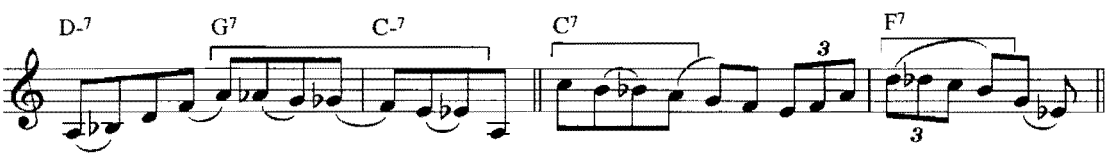
stepwise and chromatic movement (see examples 1-3)[5]. As we shall see, this is a common practice among all six saxophonists. While each uses this method differently, similarities in intervallic content allow us to draw some generalisations. The resulting information allows us to make informed choices when practicing technique for this style. The presence of arpeggiated, stepwise and chromatic movement, provides a good indication of how I will need to approach the application of Parker's and a generalised saxophone style on the double bass.



Example 1: Chorus 1 & 2 (Bars 17-19, 53) – Use of arpeggiated movement



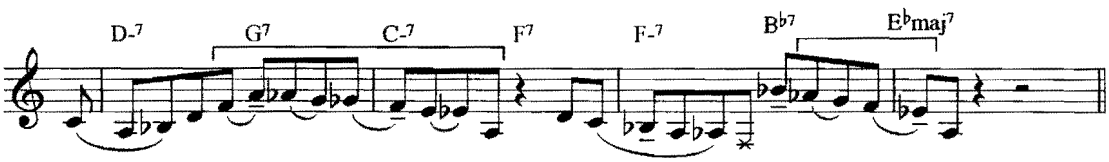
Example 2: Chorus 2 (Bars 36-39) – Use of stepwise movement



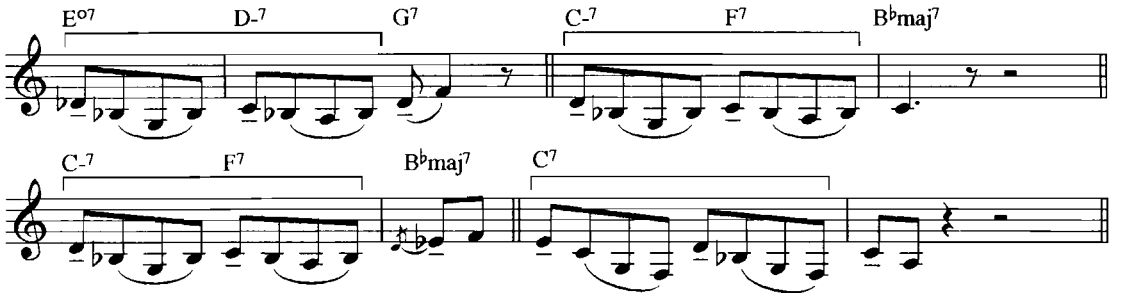
Example 3: Chorus 1 (Bars 3-4, 23-24) – Use of chromatic movement

[5] This is demonstrated briefly in examples 1-3, however for a full understanding of this solo's intervallic content, examine the full transcription in appendix A, or better still listen to the recording.

Due to the playing styles of each instrument, the ability to articulate each varies greatly. For this reason, I have included an analysis of phrasing in my study. Phrasing analysis concerns itself particularly with slurred phrasing, as the act of slurring while plucking presents difficulties to the double bassist but contributes greatly to the melodic shape of a phrase. Parker uses slurring in a variety of ways, slurring through different groupings of multiple quaver or through fast flurries of notes, as in his use of ornament-like devices or double time playing. Patterns emerge in his phrasing: often he slurs quavers in groups of two or articulating in a pattern of one quaver then three slurred (as shown in example 4). Phrasing is an important concept to grasp as it provides shape and direction to music. While the information included here and in other solos can be used to help develop a phrasing technique, an understanding of how to use these techniques can be harder to find. I found that only through listening and familiarisation that I could get an indication of how these players use phrasing. This is a skill that can only be absorbed through listening, and as an integral part of expression, should defy analysis.



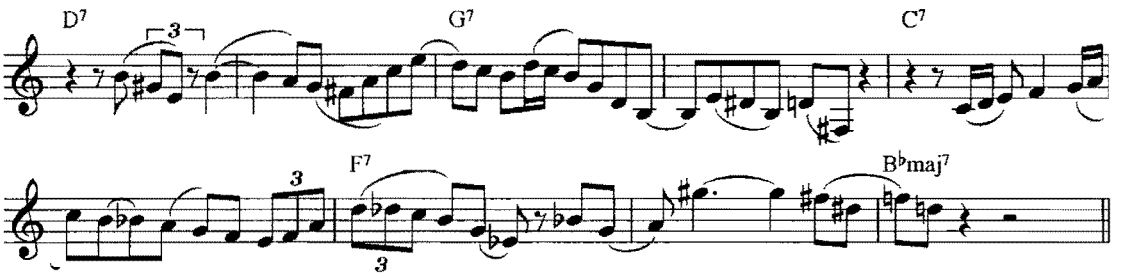
Example 4: Chorus 1 (Bars 2-6) – Two note slurring



Example 5: Chorus 1 & 2 (Bars 6-7, 48-49, 53-55, 63-65) – Phrasing pattern: 1st quaver is articulated and the remaining are slurred

Throughout this solo, Parker manages to produce both significantly melodic and intricate musical ideas. There is a quality to his lines that has become apparent to me over many listenings. Although it is now familiar, I can still recognise the sense of inventive surprise Parker instils into much of his playing. One section of this solo stands out as a good example of this (see example 6). The B section of the first chorus contains two phrases, both about four bars long. A striking arpeggio sets off the first phrase, which twists and turns, ending on a low F sharp. The second phrase starts with two ornament-like runs through a major scale. This fragment also sets up the subsequent phrase. I appreciate these set up ideas; they work as a melodic diving board from which the rest of the phrase springs. The drive both devices give to each phrase is particularly noticeable. However, the most significant part of this section appears towards the end: Parker plays an awkward major seventh interval from A to high G sharp. This drama is then resolved cunningly at the beginning of the next A section, with two chromatically descending minor thirds. This single interval was a significant reason I initially chose to study this solo. The sheer unexpectedness of this part of Parker's phrase, to me, embodies

the spirit of jazz improvisation. This inventiveness is a large part of what makes this music great.



Example 6: Chorus 1 (Bars 17-25) – Phrase from B section of Chorus 1

Musical Devices used by Charlie Parker

- Variation in range, producing different levels of solo intensity
- Intricate intervallic patterns within swing quaver lines
- Arpeggiated, stepwise and chromatic intervallic content
- Slurred phrasing patterns, including two note and one then three note slurring
- Ornaments used to set up phrases
- Large dissonant intervals creating melodic interest and tension

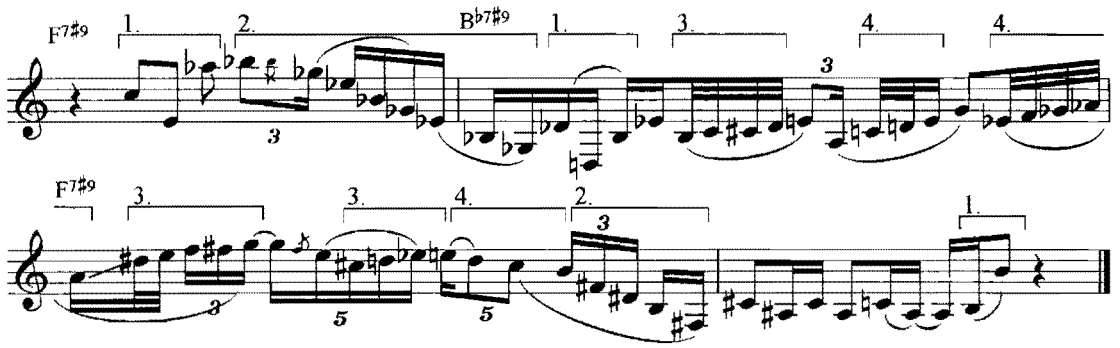
Eric Dolphy

Eric Dolphy is extreme. This is evident right from the beginning of his solo on Oliver Nelson's tune "Teenie's Blues" (from the Nelson album "Blues and the Abstract Truth" Impulse A-5). Dolphy produces a solo that places us on a wild rollercoaster, dragging us this way and that, pausing only to prepare for the next

onslaught. Within phrases, Dolphy moves effortlessly through the range of his alto saxophone, most noticeably with his use of large intervals (intervals greater than a perfect fifth). A vast technical facility allows Dolphy to produce rhythmically rapid passages throughout this range. The solo is executed with a sharp, grating tone that pierces through the sound of the accompanying band. It is the combination of these elements that differentiates Dolphy's playing from that of the other chosen saxophonists. While his playing poses more difficulties to the double bassist than any other saxophonist here, I consider him to be one of the most exciting. The very opening phrase was reason enough for me to choose this solo; there was something so feral and raw about the way he began that instantly pulled me in. Felt from the beginning and throughout, Dolphy's extreme concept is an inspiration to me.

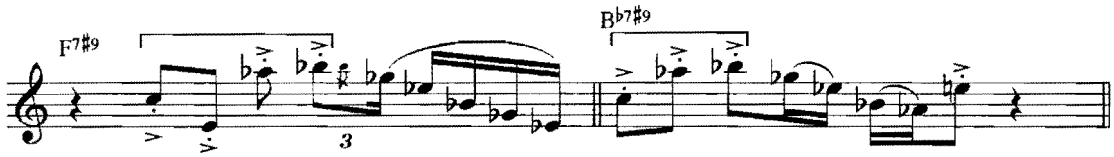
Dolphy sustains his phrases through multiple bars largely through phrases containing fast dexterous rhythms. Dolphy's facility in this regard is impressive: he can sustain technically demanding phrases over many bars, maintaining interest throughout. We can generalise these fast rhythms as being "double time", that is, swung semiquavers superimposed upon a swung quaver feel. While Dolphy plays some rhythms that can be considered discretely double time, consistently he plays rhythms that are against or around the rhythmic feel implied by the accompaniment. In so doing, he deftly illuminates the limitations inherent in the classical notation system, forcing me to determine exactly how I am to write a thirteen note grouping over three beats. Due to this rhythmic ambiguity it is only fair to say that his fast rhythms are an impression implying the feeling of a double time line.

A complex rhythmic facility is combined with intricate progressions of notes displaying a variety of intervallic choices. Commonly, Dolphy uses sections of arpeggiated intervals, often continuing the pattern through many octaves. Chromatic scales are also used frequently to approach a given note. Stepwise motion is also used. However, what defines Dolphy is his use of large intervals. I have defined large intervals as being intervals greater than a fifth, most noticeable when played consecutively. The use of large intervals is described by Dave Liebman, as part of his concept of "chromatic melodic playing": "Using close intervals results in smooth, flowing shapes, whereas large leaps over wide spaces are very common, creating asymmetric and jagged contours". (Liebman, 2001: 47) The first three notes of Dolphy's solo are a good example of large interval use. Two striking intervals of a minor sixth and major tenth are produced at the beginning of Dolphy's opening statement, setting off a long and intricate phrase involving imaginative uses of the rhythmic and intervallic elements mentioned previously. Reflecting on Parker's "Thrivin' on a Riff" solo, both saxophonists use large intervals in a similar dramatic way, but to varying extents. While Parker used just one large interval to reach a high point in his solo, Dolphy exploits this practice, using it in the opening of his solo and throughout. The exhilaration created in the opening phrase demands attention, leaving (to my ears) the remaining solo to relax from this point. Large intervallic playing can produce tension within a solo, and, in Dolphy's case, can be juxtaposed effectively with other intervallic content. Example 7 shows the variety of intervallic material contained within the opening statement. Brackets [1] through [4] show large intervals, arpeggios, chromatic and stepwise movement respectively.

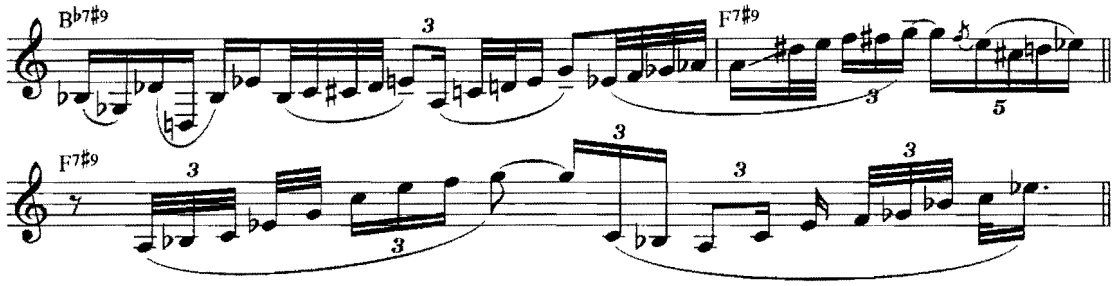


Example 7: Chorus 1 (Bars 1-4) – Intervallic content

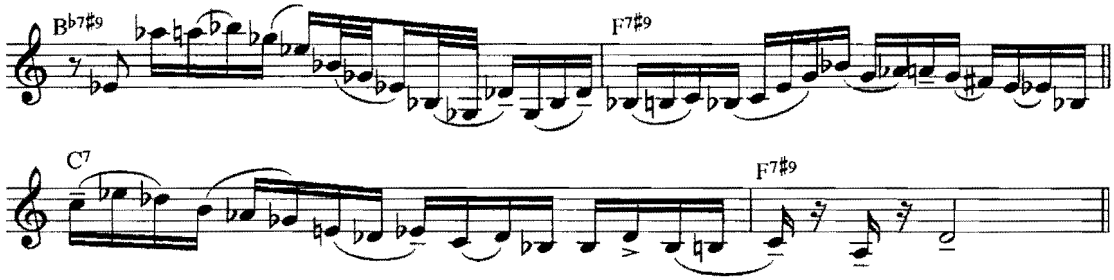
Dolphy's Teenie's Blues solo is interspersed with a variety of articulations, ranging from short pointed accents to rapid slurred runs. These articulations are used, along with their melodic counterparts, to enhance the raw and wild nature of the solo. Dolphy makes his large intervals leap out, playing them as accented short notes, thus reinforcing their dramatic character (see example 8). Dolphy's fast runs of arpeggios, scales and chromatic lines are slurred and produce direction towards a resting note, and can be considered ornament-like. These slurred phrases are often used far more as a gesture than for the actual pitches of the briefly played notes. Fast directed runs are used to create dramatic contours within Dolphy's phrases and add to the solo's overall character (see example 9). Other slurred groupings are used within double time lines: in common note groupings of two and three, but also in four, five and longer. In one section, Dolphy uses three note groupings to create syncopated phrases within a continuous semiquaver line (as shown in example 10). Other parts of Dolphy's solo can be described as melodic material. These sections are slower rhythmically and feature smoother articulation and less harsh sound (A melodic phrase is shown in example 11).



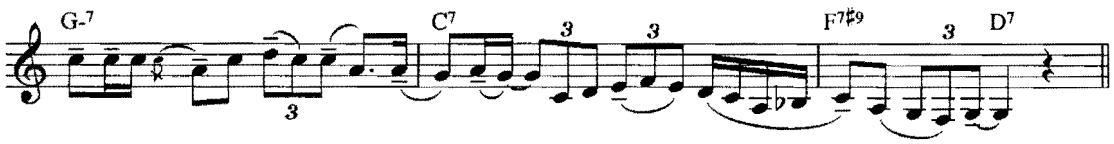
Example 8: Chorus 1 (Bars 1, 5) – Large intervals



Example 9: Chorus 1 & 3 (Bars 2-3, 25) – Directed slurred runs



Example 10: Chorus 2 & 3 (Bars 14-15, 34-35) – Semiquaver note grouping: phrases containing different types slurred groupings



Example 11: Chorus 2 (Bars 21-23) – A melodic phrase exhibiting slower rhythms and smoother phrasing

Notably, within a phrase, Dolphy uses a large variety of differently paced rhythms, different intervallic material and varied articulation. This results in a dense solo, most phrases full of differing sounds. This gives the sense that Dolphy is never lingering on any one thought for too long and in doing so

creates an inherently frenetic solo. A combination of a frequently harsh tone, the steep contours of large intervals and blistering runs, all of which are produced throughout a massive range, helps to creates the technically and aurally demanding style of Eric Dolphy.

Often the technique required to accurately reproduce this solo on the double bass feels beyond me. I can picture myself practicing endlessly, to execute every intricacy of Dolphy's playing and it still not being quite right. But the character and feeling of this solo still appeals to me. The way it can be so technically demanding, yet sound so free, confounds me. If there is one thing that I would like to gain from this solo it would be its sense of freedom, its wild abandon that draws you in. Even recreating just half of that feeling would be an achievement.

Musical Devices used by Eric Dolphy

- Rhythmic Ambiguity
- Arpeggiated, stepwise and chromatic intervallic content
- Large interval content
- Range of articulations, pointed staccato to slurring
- Harsh tone
- Combination of many different musical ideas and devices within individual phrases

Oliver Nelson

Following Dolphy's solo on "Teenie's Blues" saxophonist Oliver Nelson plays, perhaps inevitably, a completely different kind of solo. After Dolphy's solo, Nelson's playing is stunning. His solo includes generally slower rhythms and an inherently melodic sense. Nelson seems to linger upon individual musical thoughts, often through simple repetition. The result is a wholly more accessible solo; each idea has been given space to be absorbed by the listener. The differences between both players are striking: Nelson slow and melodic, Dolphy frenetic and jagged. Despite their differences, both players possess a common quality: an individual approach to jazz music. Hearing these supremely creative musicians side by side, each playing with an individual voice, shows just how personal this music can be. It is safe to say that an individual approach is featured by each saxophonist in this study, and should be considered an important virtue for a jazz improviser.

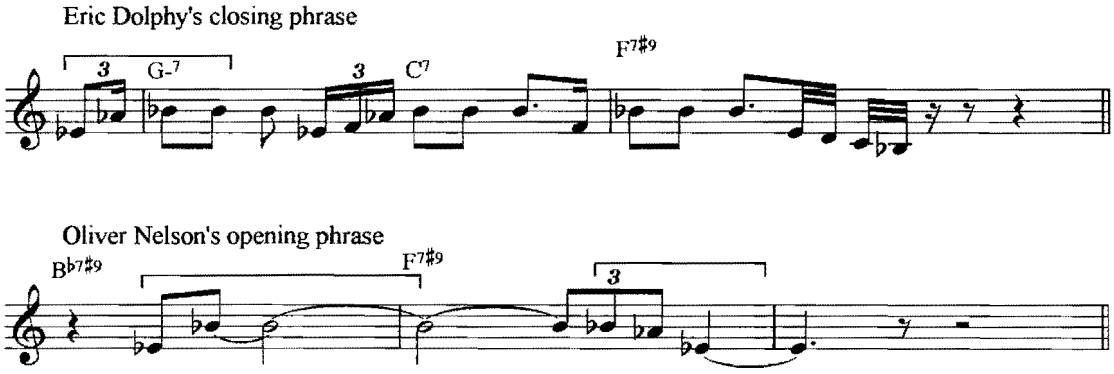
Nelson's exceedingly melodic style of improvising primarily involves melodic development, a practice in which a phrase is subsequently developed in the following phrase or phrases, with each subsequent phrase having a clear musical relationship to the initial phrase. Virtually all of the material contained within this solo can be analysed as being a part of melodic development process: either as an initial phrase that is to be developed upon or as a subsequent variation. In its simplest form, melodic development involves the use of repetition while including variations. Repetition singularly is an effective tool as it allows musical ideas to be better absorbed, not only by the listener, but by any accompanying band members. This in turn gives the accompanying musicians an indication of what may be coming next and to prepare a response. Repetition also gives a solo a strong sense of form; a listener may be given a

sense of melodic ideas relating to each other in a distinct way. The danger of repetition is predictability. If used too much, it can lead to the listener knowing (and possibly not caring) what comes next. Nelson's use of melodic development shows an understanding of this. Consistently his phrases develop through repetition with his creativity guiding their growth, often to unpredictable endings.

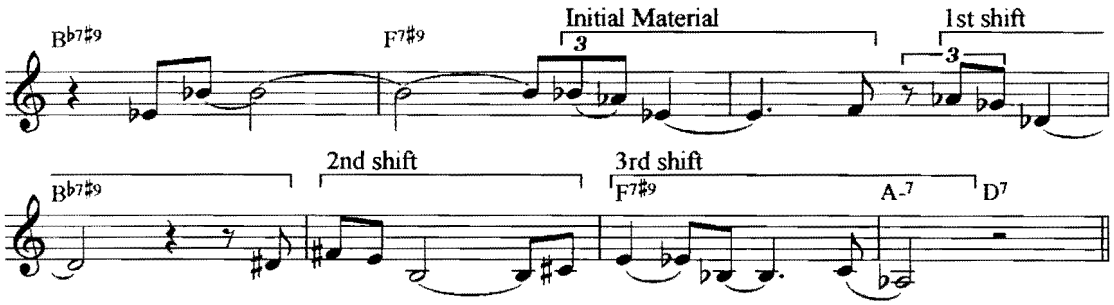
Nelson's improvising shows an awareness of form. His melodic developments are always based around the structure of the song, in this case a twelve bar blues. In each of the four choruses Nelson plays, he begins each chorus with a new musical idea, developing it further, sometimes for an entire twelve bars. This adherence to form reinforces the clarity and succinctness this solo contains.

In the opening chorus Nelson begins, characteristically, using a simple type of melodic development. His initial phrase is formed with reference to material from Dolphy's solo. His first two notes, E flat and B flat are a simplified version of the last statement of Dolphy's solo (see example 12). Nelson continues by now reversing the note order of Dolphy's phrase and in doing so, produces an initial four note phrase. This initial phrase is then "sequenced" three times in descending tones (see example 13). Sequencing is the repeated shifting of an initial musical idea to start on different pitches. Strictly speaking, sequencing involves a shift in pitch of a series of notes so that the intervallic relationships contained within the series remain identical. This is also known as parallel sequencing. However, sequencing can often occur in a diatonic fashion, where the shifted intervals conform to a given key centre. In Nelson's opening phrase he uses parallel sequencing. The intervals contained

between the four notes are preserved in each sequence step except the last, where they are changed only slightly. In this way, the simple idea of sequencing is used very effectively by Nelson, particularly in the way he creatively strays from his own sequential pattern. This kind of practice invokes, for me, a different kind of musical thought, outside the specifics of whether it conforms to a specific pattern or not. In this case Nelson is using sequencing as musical tool not in and of itself, but as a device helping to form an inherently melodic phrase. This attention to melody over a strict adherence to a musical device is an indication of a creative melodic concept at work, willing to follow intuition above intellect, where necessary.

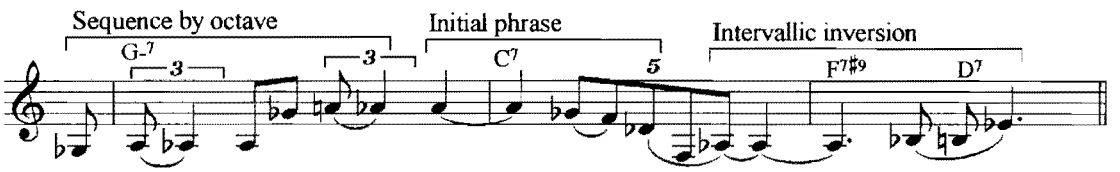


Example 12: Transformation of Dolphy's last phrase by Nelson to begin his Teenie's Blues solo



Example 13: Chorus 1 (Bars 2-8) – Sequencing

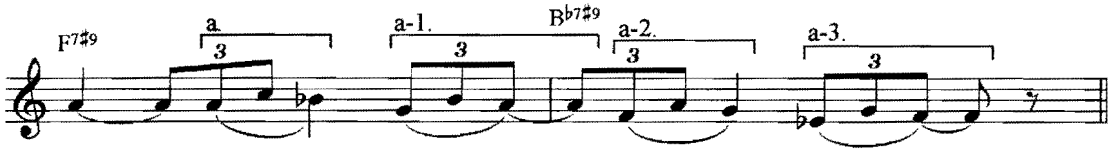
Nelson closes his first chorus with a phrase consisting of a three note fragment sequenced up an octave. This is followed by a segment employing a more complex type of melodic development called "intervallic inversion". This is a process in which a proceeding series of intervals have been inverted to produce correlating pitches in a reverse direction. The first four notes of this segment descend by the intervals of a tone, semitone, then a major third, however when starting on the following A flat (an octave lower), the succeeding notes become an inverted mirror of the previous, and now occur in ascending intervals (see example 14). I find this type of melodic development to be complex and it was not initially obvious to me. Its presence shows that Nelson possesses a deep understanding of different melodic constructions and how they can work effectively within the melodic phrase.



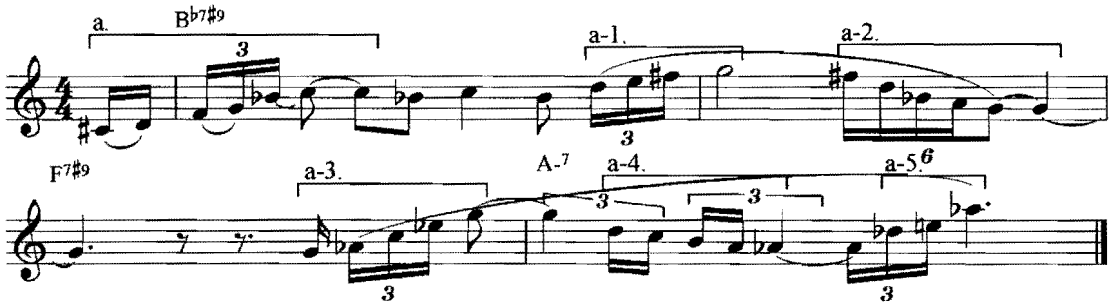
Example 14: Chorus 1 (Bars 9-11) – Sequencing by octave – Intervallic inversion

Although the second chorus is probably the least thematically cohesive of the four choruses, Nelson still draws much of his material from sequencing. Nelson's first phrase exhibits a diatonic style of sequencing (see example 15). This sequence descends four times by scale steps, each modulation adhering to a B flat major tonality. Sequencing is also used later in the chorus when Nelson plays some rapid glissandi-like runs (see example 16). These runs end at sustained notes: firstly C, then Gs in octaves and A flats in octaves. It is possible to interpret these glissandi and sustained notes as a sequence:

sequenced up a fifth, down an octave, up an octave, down a major seventh and finally up another octave. To me these glissandi work as a musical idea that links the phrase. The move from G to A flat is particularly effective in creating tension in this chorus. Other than these two sequences, chorus two contains an effective double time phrase in which Nelson uses much chromatic intervallic movement. Its intricate nature is also reminiscent of Parker, greatly varying its direction during the phrase. This double time section is interesting to me as Nelson doesn't appear to use any specific type of melodic development. As I have mentioned before, Nelson is very happy to use different melodic development devices but is willing to stray from these patterns in order to form a melodic phrase. This double time section is in the same spirit as these variations, if only on a larger scale. Nelson is willing to stray from his favoured concept of melodic development to play something not derived from patterns.



Example 15: Chorus 2 (Bars 13-14) – Diatonic sequencing



Example 16: Chorus 2 (Bars 17-20) – Sequenced glissandi

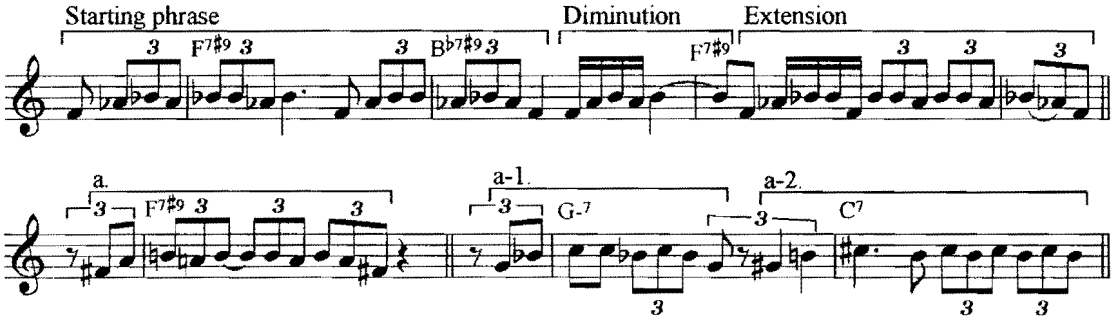
The two last choruses both feature melodic development in the form of repetition and variation. In each chorus, a repeated phrase is continually varied, yet these variations manage to retain the essential character of the original phrase. In the foreword to Nelson's musical exercise book, "Patterns for Improvisation" (1966), Nelson defines his approach to melodic development in his description of sequencing

> A sequence is a repetition of a pattern on different scale steps. As long as the original pattern is correct, any irregularities which might appear in its sequence are justified (Nelson 1966: i)

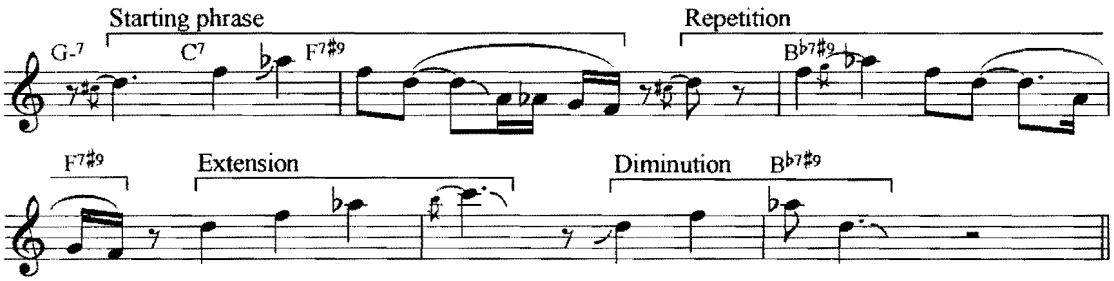
I interpret this quotation as referring to the intervallic anomalies that occur within many of Nelson's sequenced phrases. We can see an example of this within the first chorus (see example 13), where the third modulation strays from the strict sequence. Although not strictly contained within the parameters of the sequence, this third modulation maintains the essential character of the phrase being developed. The melodic development used in the third and fourth choruses aspires to the same ideal: variations are produced while pertaining to an original pattern or character.

Examples 17 and 18 show how phrases are developed within Nelson's third and fourth choruses, respectively. In each chorus, Nelson uses essentially the same types of melodic development to further his melodic ideas. Specifically, repetition, and the variations of extension and diminution are used as simple developments. These variations not only preserve the character of their original versions, but are used to build tension in each chorus. Notice that in chorus three, the initial phrase is sequenced harmonically twice, each time up

a semitone. When used here, as in chorus two, an ascending semitone modulation creates a heightened tension.



Example 17: Chorus 3 (Bars 24-28) – Melodic development: rhythmic, diminution and extension, (Bars 30-31, 32-34) – Sequencing by ascending semitones



Example 18: Chorus 4 (Bars 36-41) – Melodic development: repetition, extension and diminution

In Nelson's Teenie's Blues solo, melodic development is used almost exclusively to help build the entire improvisation. The structure and concept it provides to the improvised material cannot be underestimated. Through simple melodic devices, Nelson creates a solo easily comparable to that of his fellow saxophonist, Eric Dolphy. The vast majority of this solo can be described as sequencing, most often in octaves or seconds. This and the content of Nelson's musical exercise book (consisting mainly of short phrases that are sequenced many times chromatically), makes it obvious that Nelson uses sequencing as a

primary part of his improvising concept. In the case of ascending modulations by semi-tones, a sense of heightened tension is produced. Other instances of melodic development are even simpler yet still effective: Nelson employs repetition, extension and diminution. By being simple, these melodic developments help to produce a solo that is accessible, yet meaningful. In fact, it is this simplicity intrinsic to much of Nelson's playing that makes him so distinct to me. Nelson plays with melodic sense that allows his simple ideas to be effective. His flexible use of melodic devices shows an inner concept that does not allow these devices to become dogmatic. While this solo can sound simple, Nelson's deep musical understanding maintains tension and emotion throughout. This solo is at once simplistic, complex and melodic; it is the product of a great improviser

Musical Devices used by Oliver Nelson

- Distinct melodic sense, concerned with the creative use of different types of melodic development in the production of musical phrases
- Effective use of sequencing (including diatonic movement)
- Repetition and variation
- Extension and diminution
- Intervallic inversion
- Double time playing involving chromatic intervallic content
- Attention to form used in solo construction

Dexter Gordon

On his 1952 album "GO!"(BLP 4112, 1952), Dexter Gordon solos on the song "Three O'clock in the Morning". Immediately, I was attracted by the relatively slow tempo of the song. After listening to many saxophonists (including Gordon) playing at much faster tempos than this recording, this solo presented a refreshing contrast (and was something I could imagine being played on the double bass). Perhaps due to this slower tempo, Gordon solos with a consistently melodic and paced approach. His phrases have a special quality in that they always lead towards the next phrase. Gordon manages to retain clear melodic relationships within his solo without the consistent use of melodic development techniques (as in Nelson's solo). There is a "rightness" which binds each phrase to the next and this solo together; something I would call a coherent melodic flow. This is, of course, a purely subjective observation, not easily proven through written analysis. It is essential to listen to the recording cited to gain some idea of what Gordon is doing here. While ephemeral, Gordon's sense of melodic flow is as important as any other element that can be gained through more quantifiable analysis.

Another notable feature of Gordon's playing is his treatment of the swing rhythm. This is evident from the very beginning of the solo, where the opening phrase starts with six F quavers. The way Gordon places these notes is rhythmically different from the rest of the band. In a traditional situation, in which this group is essentially playing in, swing quavers are normally derived from the first and third quavers of group of triplet quavers. This contributes to the rhythmic feeling of swing. However, in this situation Gordon's playing is conflicting with the rhythmic feel. His quavers are closer to a duplet, or

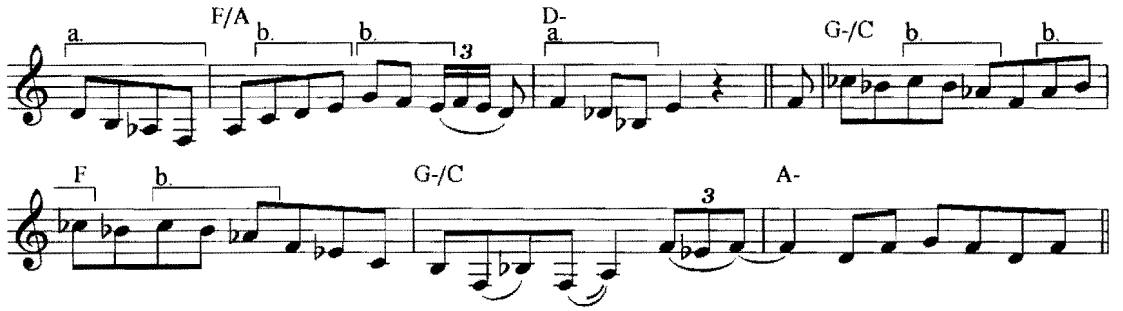
"straighter" subdivision of the beat. Amazingly, the two conflicting rhythms work together to create something different. By producing rhythmic contrast between the soloist and rhythm section, Gordon's rhythmic placement creates tension while distinguishing his solo line from the accompaniment.

Gordon uses rhythmic placement in partnership with an equally distinctive style of articulation. Contrary to the more common saxophone style of phrasing notes with slurs, Gordon individually articulates almost every note. The ability to produce this articulation may again be a result of a slower tempo, as Gordon tends to slur groups of faster notes. However, to sustain individual articulation for a whole solo indicates that this has probably been well practised and should be considered a regular part of Gordon's improvisational concept. This articulation adds greatly to his obtuse style of rhythmic placement. Extra emphasis is given to each articulated note, which in turn gives the associated rhythm more prominence. Gordon's continuous use of unusual articulation and rhythmic placement gives a unifying character to the melodic material contained within this solo.

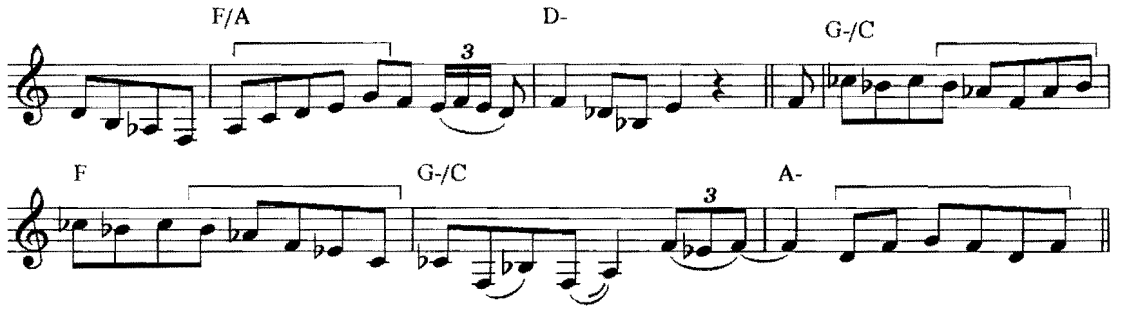
As I have been describing Gordon's music with the term "melodic", it is important to note the inherent flaws that occur with this word. The Oxford Dictionary of Music (Kennedy, 1996) describes "melody" as being "A succession of notes, varying in pitch, which have an organised and recognisable shape". This definition provides scope for discussion; notes that vary in pitch can be easily identified, but the idea that a series of notes can have a sense of organisation and shape is, at best, subjective. An attempt to determine decisively whether a phrase had either organisation or shape would be pointless, but to ignore these qualities of music would also be a mistake. It is perhaps

through a less analytical method that we can learn the nature of melody and of melodic playing. A process of familiarisation can give an appreciation of the subjective nature of what constitutes an organised and recognisable shape within the musical phrase. This is an important idea that will be discussed further in chapter four.

Turning again towards a more analytical approach, an analysis of the intervallic content of the "Three in the Morning" solo gives us some insight into the construction of melodic phrases. Overwhelmingly, Gordon's phrases are dominated by intervals of seconds and thirds. Instantly, this suggests intervallic content of arpeggiated and stepwise movement, which both occur. However, Gordon often uses these intervals interchangeably, in a discontinuous manner and consequently, he limits the occurrence of substantial arpeggiated and stepwise movement (see example 19). As a result, Gordon's playing does not conform well to the aforementioned categories. This, however, means that much of his playing can be derived from a different type of scale, namely the pentatonic scale, a five note scale consisting of both seconds and thirds. Examples 19 and 20 both show different analyses of Gordon's playing. Example 19 shows stepwise and arpeggio movement indicated in brackets [a] and [b] respectively. The same excerpts are analysed again in example 20, in terms of pentatonic movement. This example shows greater parts of these phrases have been drawn from pentatonic scales.

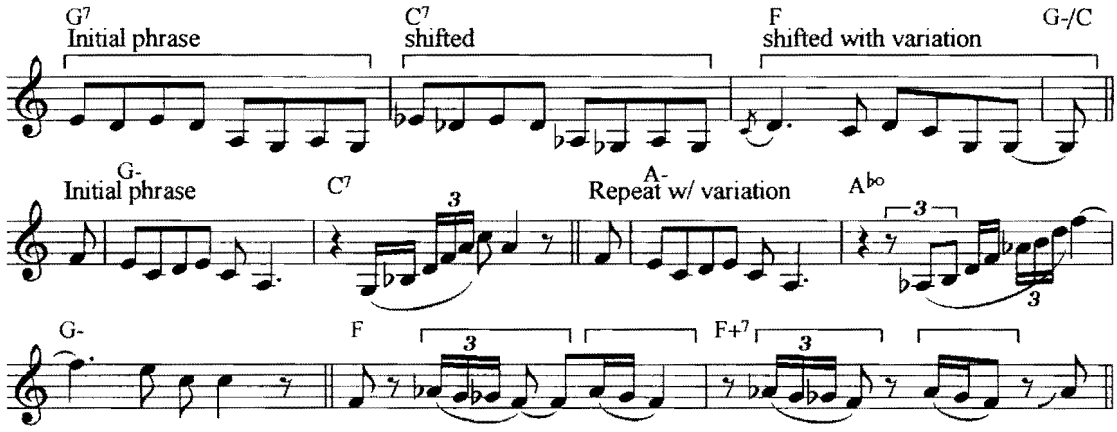


Example 19: Chorus 1 & 2 (Bars 26-28, 65-69) – Limited use of stepwise and arpeggiated movement



Example 20: Chorus 1 & 2 (Bars 26-28, 65-69) – Use of pentatonic movement

Gordon's solo contains melodic concepts similar to the other researched saxophonists. These can be grouped as types of melodic development, including sequenced phrases, melodic repetition and variation and sustained repetition (see example 21). These three concepts are worth mentioning not because they have a large presence in Gordon's solo but that they show similarities with the approaches of other saxophonists within this study. Consequently, these melodic concepts can be drawn together to form part of a generalised concept derived from the saxophone style.



Example 21: Chorus 1, 2 & 3 (Bars 29-32, 14-16, 36-39, 85-86) – Sequencing, repetition with variation, sustained repetition

Gordon's playing shows a musician with a deeply personal style, willing to stray from tradition in some respects (in terms of his phrasing, rhythmic feel and intervallic content), but also to remain inside it through his use of common melodic devices. His style of melodic flow is both elusive and appealing; it should not be underestimated as it is a major part of his concept. For these reasons, Dexter Gordon is an important part of the jazz saxophone style and tradition.

- All phrases have a sense of melodic flow
- Swing quavers played in a more "straight" style
- Quavers almost never slurred together, each note individually articulated
- Intervallic content of stepwise, arpeggiated and notably pentatonic movement
- Sequencing, repetition and variation, and sustained repetition

Joe Henderson

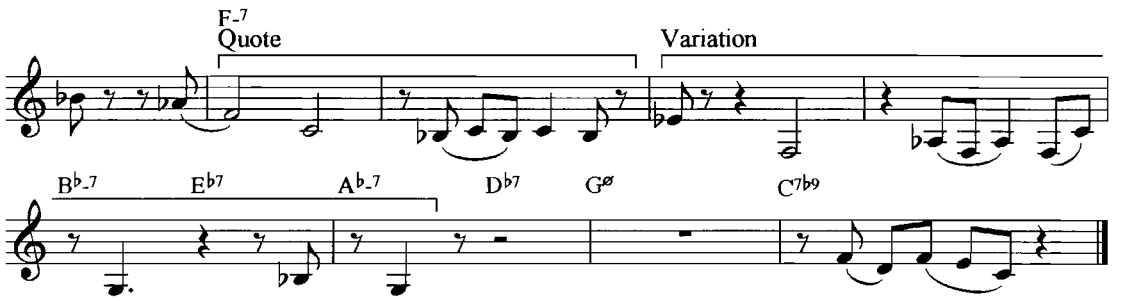
Joe Henderson's solo on "Black" contained on his recording "Mode for Joe" (BLP 4227, 1966), shows an extraordinary individual creativity at work. For the most part, Henderson relies on simple melodic and rhythmic devices to form his improvisation. It is worth noting that, when taken individually, these devices are not exceptional. They can be as simple as a repeated rhythm or group of notes. But when developed through Henderson's own idiosyncratic process, creative and surprising melodic statements are derived from this simple material.

Henderson opens his solo with a quote from the melody of the tune "Softly as in a Morning Sunrise" (see example 22). This melody is only a starting point, as by bar 4, it has been distorted enough to present a different musical direction. We can see the ensuing result of this musical diversion in example 23. Here Henderson begins an extended passage of repeated off-beat quavers, continuing for twelve bars. Within this rhythmic framework intervallic patterns are continually set up, only to be subsequently broken away from. This

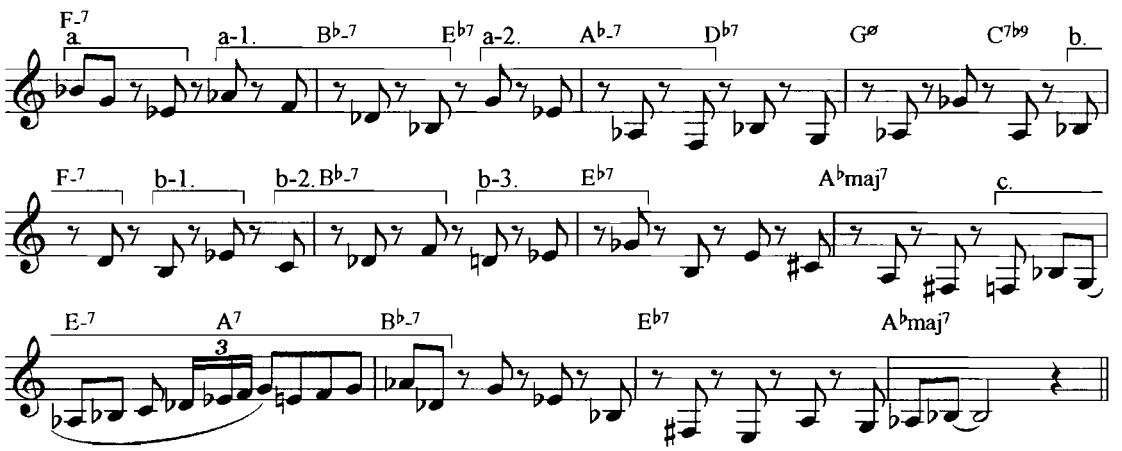
perpetual formation and deviation to and from identifiable patterns is an intrinsic part of Henderson's playing and, as I shall show, forms a large part of this solo. Upon closer examination, this phrase begins with a pattern of arpeggios descending in scale steps starting on B flat (see [a] brackets in example 23). Within this initial pattern there are already irregularities. The first descending arpeggio contains just three notes while the second is extended to four. A third descending arpeggio occurs only to deviate from its intervallic pattern after just two notes. This is not a drastic deviation; the third descending arpeggio appears to have simply been augmented by a larger interval as this is followed by a descending third, implying an arpeggiated sound. However, Henderson has deviated enough to abandon this pattern as, by the next bar, he starts another. This is an ascending sequence of thirds, starting on B flat (shown in [b] brackets in example 23). This sequence repeats four times, with the two last repetitions occurring as extended variations. Both patterns within this phrase show Henderson's taste for deviation. This device is used on a larger scale to deviate from the rhythmic pattern that unifies this section.

In bracket [c] of example 23, Henderson includes a segment that strays from off beat quaver rhythm, using mainly consecutive swing quavers. This detour is short, as the phrase returns to off beat quavers in the next bar, yet it highlights Henderson's ability to deviate, seemingly at will. The combination of this and the previous intervallic patterns, show deviation present at both a macro and a micro level in this section. The mood created by this practice should not be underestimated. This solo has an energetic unpredictability to it, which I believe is largely because of Henderson's unique treatment of patterns. This practice of producing patterns and deviating from them should not be

considered the same as the repetition and variation concept present in other saxophonists' work (particularly that of Nelson). While a repetition and variation concept requires a musical idea to have some relationship to a previous idea, the defining feature of Joe Henderson is that his patterns are set up only to be thrown away. This disregard for consistent continuity gives his music a great sense of restlessness, and is a defining individual feature of his playing.



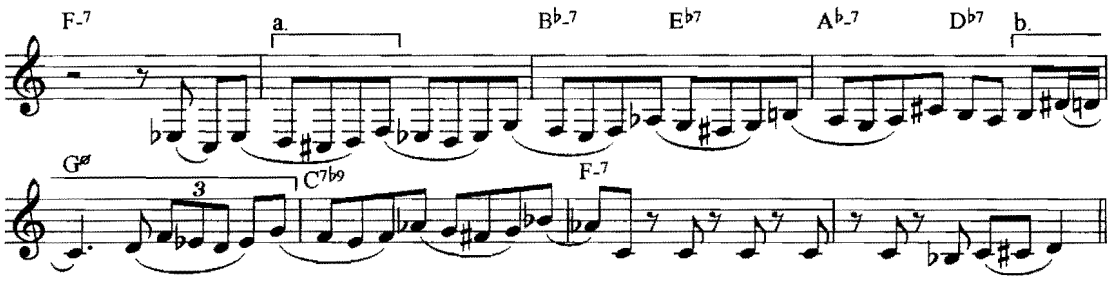
Example 22: Chorus 1 (Bars 1-8) – Opening phrases including "Softly as a Morning Sunrise" quote



Example 23: Chorus 1 (Bars 12-23) – Off beat quaver passage

This solo contains more extended passages that are based on repeated ideas, but one in particular demonstrates a similar idea of departure and return that was observed earlier. In bar 84, an ascending sequence of quavers begins

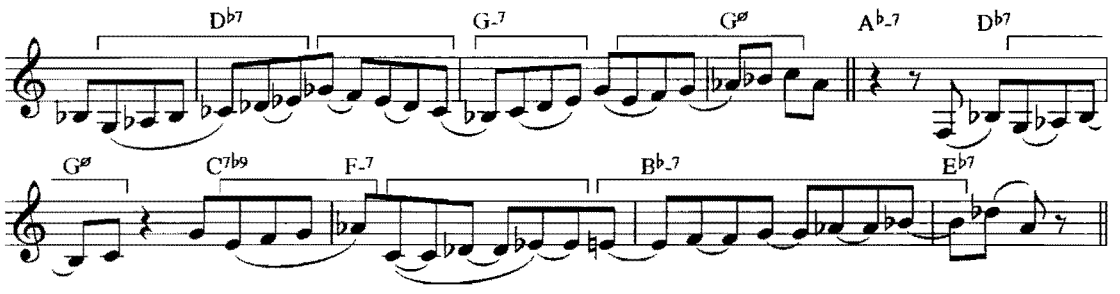
(see bracket [a] in example 24). At first, this four note sequence is shifting by semitones, but by the fourth repeat this movement is by tones. The sequence is varied further in bracket [b] with rhythmic variation, but once again returns to the pattern in the following bar. This variation mirrors that of the previous example: within a phrase, a musical idea is repeated only to become more varied and finally to return to its previous unvaried state. Henderson's concept of melodic development presents an individual approach, one that produces a chaotic result, logical in its own way. This is an effective form of melodic development that produces a solo built on shifting sands, in which melodic ideas and patterns are free to be altered and abandoned at any given time.



Example 24: Chorus 3 (Bars 83-90) – Sequencing

Included in much of this solo are phrases consisting mainly of continuous swing quaver passages, a musical idea used by all of the saxophonists in my study. This type of playing is a defining element that saxophonists (as well as other jazz instrumentalists) are renowned for. However, Henderson's swing quaver lines differ from the many of the instances I have seen in this study. Intervallically, I found that they are constructed largely of stepwise movement (see example 25). This can be described distinctly as movement in intervals of a second while following an ascending or

descending direction. The other saxophonists within my study do not often produce such distinct scales; instead, stepwise movement occurs in smaller segments, these patterns often broken up by larger intervals. Henderson consistently produces series of consecutive notes that contain part of or an entire scale, and which often extend well past the range of an octave. This is a trait individual to Henderson, due to an absence of prolific stepwise movement in any of the other solos in my study.



Example 25: Chorus 1 & 2 (Bars 29-32, 54-58) – Stepwise motion

As with all these saxophonists, Henderson plays with an individualistic approach. His melodic variations are idiosyncratic and defy expectation. He often uses simple rhythmic patterns with which to build his phrases. When using rhythmic and melodic patterns, Henderson manages to create interest with his disregard for continuing these patterns. The intervallic content contained within his lines is often stepwise and also differentiates his playing. It is these differences that make Henderson similar to the other saxophonists I have studied: each saxophonist plays as an individual and makes musical choices based solely on their own musical concept. The statements made in each of these solos come from a deep sense of individual musical identity, an identity nurtured by each musician's creativity. As a great jazz musician, Joe Henderson

plays with an identity that is and of himself. This is surely a large part of playing the saxophone and therefore, of being part of the jazz tradition.

Musical Devices used by Joe Henderson

- Effective use of simple melodic and rhythmic patterns
- Ability to produce and deviate from patterns in creative and unexpected ways
- Sequencing
- Extended rhythmic patterns
- Extended use of stepwise movement in swing quaver lines

Sonny Rollins

Sonny Rollins has been a dominant figure in jazz for over sixty years and continues to perform and record to the present day. Part of the key to his longevity is his creative drive. In Eric Nisenson's book on the life and music of Rollins, *Open Sky* (2000), he describes Rollins as a "pure improviser", an improviser that creates music without the safety nets of preconceived formulas or "licks". This is corroborated by Rollins himself

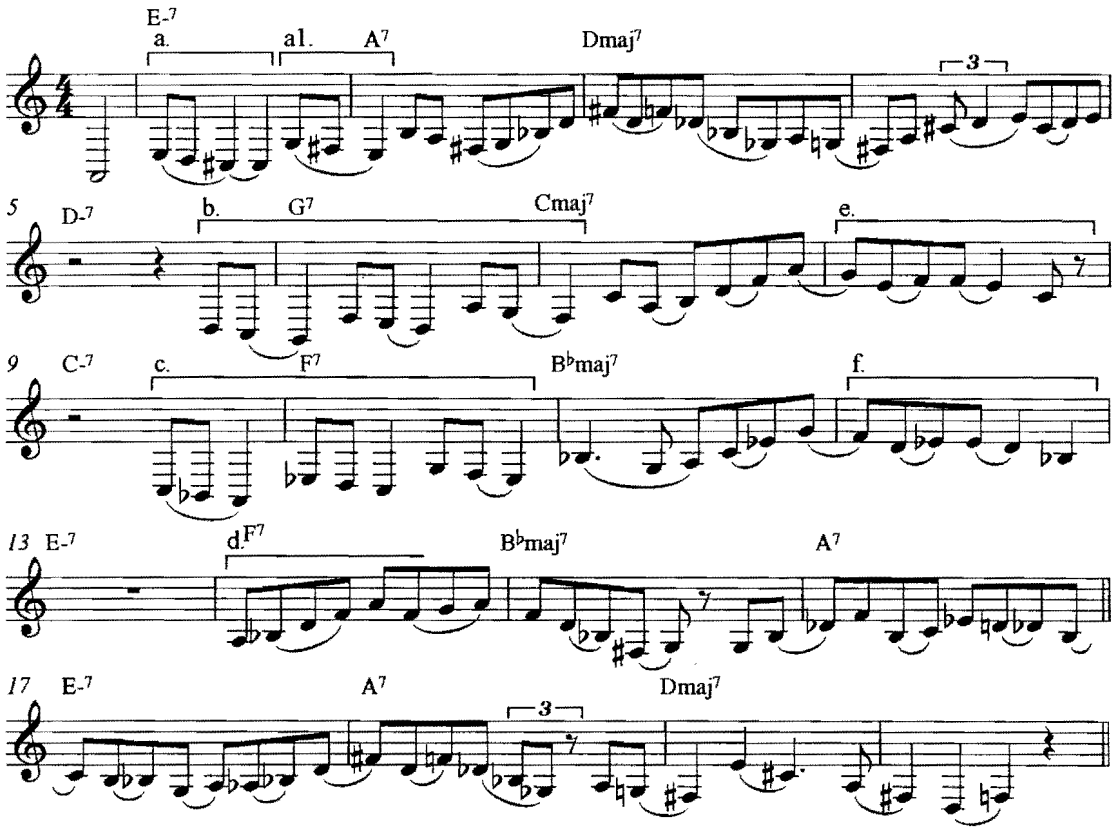
> I don't completely accept anything as final. If I did, I would be playing the way I did in 1951 or something...If I did that, I would turn into a guy who copied, and I can't copy. It's not my style of playing; it's not my nature. I'm trying to play jazz, creative jazz, where you play things in the moment, at the

> moment that I get it - it comes into your mind and you're able to play it.
>
> (Nisenson 2000: 178)

While it may be possible to refute these claims of pure creativity by identifying repetitive patterns within Rollins' recorded material, this is of no consequence. It is obvious that creativity is central to Rollins' concept. His pursuit of new musical directions has been well documented (most famously during his extended break from performing where he found a suitable place to practice on a Manhattan bridge) and this creative drive is evident in the way he uses melodic devices in his solo on "Tune Up" from his album "Newk's Time" (Blue Note 76752, 1957).

Rollins opens his solo with a four bar phrase beginning with a three note sequence that is shifted in thirds, indicated by brackets [a] and [a-1] in example 26. The phrase continues with arpeggiated quaver lines and finishes with a repeated three note segment that uses the opening three notes in reverse an octave higher. This first phrase becomes the creative impetus for the subsequent phrases of this opening chorus. The opening three note sequence is used similarly to begin the next two phrases in the fifth and ninth bars (see [b] and [c] in example 26). The sequence itself starts a tone lower on each repetition and is varied in rhythmic placement. These two subsequent phrases are nearly identical modulated mirrors of each other (if we ignore rhythmic variations). Importantly, each phrase ends in an identical fashion and in so doing produces a four note segment that Rollins will use in later phrases(see [e] and [f] in example 26). Chorus one finishes with a phrase that breaks the patterns set up in the previous twelve bars shown in bracket [d]. This phrase ignores the musical ideas of the preceding phrases and is much longer,

extending four bars into the following chorus. The first chorus demonstrates Rollins' effective use of repetition. An initial phrase is used repeatedly with minor rhythmic variation. A pattern is set up through repetition and is subsequently dismantled. A longer contrasting phrase is produced that ignores the previously set patterns. Rollins uses repetition like a house of cards: building slowly, piece by piece only to joyfully tear it all down. In this way, Rollins and Henderson are similar in concept. Both players use and abuse repetition and patterns, but in their own idiosyncratic ways.

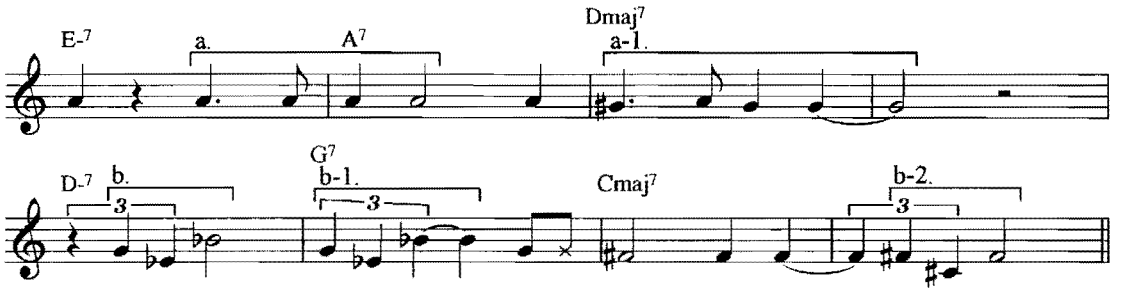


Example 26: Chorus 1 & 2 (Bars 1-20) – Creative use of repetition, sequencing and pattern deviation

Rollins' Tune Up solo consists mainly of arpeggiated intervallic material, interspersed with chromatic and stepwise movement. Rhythmically, phrases are often built around continuous lines of swung quavers. This intervallic and rhythmic content is common within jazz and Rollins is very capable of using it creatively. However, there are large sections in this solo where Rollins strays from this well worn method, to draw from a simpler yet equally effective material.

At the beginning of chorus three, Rollins plays a repeated note phrase using just two notes, A and G sharp. The following phrase becomes slightly more complex, involving a crotchet triplet phrase but returns to the previous rhythmic idea, ending with a repeated F sharp. Within these phrases, Rollins employs effective rhythmic displacement. In example 27, a rhythmic pattern occurs on beat three of the first bar (see brackets [a]) and is repeated in bar three (see brackets [a-1]), this time starting on beat one. In brackets [b] and [b-1], a crotchet triplet rhythm is displaced from the second crotchet triplet of the first bar to the first beat of the second bar. This rhythm is played once more in its original configuration in brackets [b-2]. In this section, Rollins limits the amount of notes he uses while his rhythms become slower yet more syncopated. By using fewer notes, Rollins can now create interest through rhythmic complexity. Furthermore, repeated pitches allow for even greater syncopated effects as the rhythm of the phrase becomes the creative element. Rollins' use of rhythmic playing appears again in chorus five and at the end of the solo in chorus seven, where his staccato quavers are striking. When used in contrast, Rollins' rhythmic playing and harmonically complex quaver lines produce light

and shade within this solo. This variety of material gives the solo shape and substance.



Example 27: Chorus 3 (Bars 33-40) – Rhythmic displacement

The ingenuity displayed within this solo shows just how creative Rollins is with his solo material. If he is repeating an idea, it is always done with imagination and never reproduced verbatim. Rollins' repeated phrases are broken by an unrelated phrase, at once giving closure to this pattern and producing the beginning for a new direction. His adept use of continuous swing quaver lines is contrasted by rhythmically focused phrases using fewer notes. By employing great creativity in constructing this solo, Rollins, as he says, is certainly never "a guy who copies". His creative drive exemplifies to a large extent what jazz music should be, that is, original.

Sonny Rollins' use of Musical Devices

- Creative use of repetition and variation, including effective rhythmic displacement
- Sequencing

- Large amount of arpeggiated intervallic material, particularly in swing quaver lines
- Musical ideas using fewer notes employ rhythmic displacement and syncopation to create interest

The Saxophone Style

The study of these six saxophonists has shown primarily their individual approaches to improvisation. Each conceive and develop musical ideas in very different ways, using a variety of musical devices. Oliver Nelson, Joe Henderson and Sonny Rollins all use methods of melodic development to build their solos, but approach these devices very differently. Large angular intervals were used to great effect by both Charlie Parker and Eric Dolphy, however their solos cannot be considered comparable. Dexter Gordon presented a phrasing style that I found no evidence of in any of the other solos. It should be mentioned that this study of jazz saxophonists should not be considered comprehensive; I have chosen only six out of dozens of significant exponents and selected only one example of improvising by each. Further study may reveal more similarities and individual traits. However, conclusions can be drawn about both the striking individuality of each saxophonist and of a generalised saxophone style.

A generalised style is useful in identifying what kind of technical skills should be developed when applying saxophone material to the double bass, but it should not overshadow any more individual musical concepts. Keeping this in mind we should approach these generalisations with caution, treating them

not as rules but more as guidelines. The general saxophone style I have found can be divided into three main musical areas. The first consists of phrasing elements. These include articulations, slurring patterns and accents. The second concerns the intervallic content of each solo, analysed in terms of different types of intervallic movement. The last area involves melodic concepts featured in the solos, such as repetition, variation and sequencing. These three areas, phrasing, intervallic content and musical concepts form the analytical basis for my understanding of the saxophone style.

Phrasing

Phrasing is a defining factor in comparing instruments' playing styles. As mentioned in chapter two, the double bass and saxophone each allow the musician particular forms of articulation, slurring and accentuation. The fundamental differences between the plucking of a string and the blowing of a reed directly influences the way a melodic line can be phrased. Therefore, differences in phrasing can be considered a direct result of the very physical differences in each instrument. This is an essential part of this study.

In saxophone phrasing, the use of slurs is an important, yet challenging technique. Slurring occurs in the playing of each saxophonist and is used, unsurprisingly, to smooth a melodic line. When used to phrase swing quavers, the effect is palpable. Instead of hearing each quaver jutting out from the line, as would likely happen when each is articulated individually, groups of quavers are slurred together creating a smooth contour. From my analysis, quavers in this situation are commonly grouped together in twos or threes, although larger

groupings occur. While in groups of two and three, these slurs are used in combination with stresses or accentuations to produce different rhythmic patterns within the essentially static rhythm of the repeated quaver line. Duplet groupings often give reference to the pulse while groups of three alternate stresses, move in and out of sync with the beat. In other situations, saxophonists in my study slurred through the entirety of a rapid succession of notes.

The inclusion of slurring in a musical phrase gives it new significance. The way saxophonists combine slurring with articulation and accentuation gives variety, shape and musical meaning to their phrases. Slurring is a relatively simple act on the saxophone, yet requires much thought and different techniques to be reproduced on the double bass. This conflict in technical ability is an important hurdle to overcome in pursuing a saxophone derived style.

After having analysed the phrasing of all six saxophonists, the playing of Dexter Gordon stood out. He phrased this solo with a totally different conception to the others. Using minimal slurring, Gordon individually articulated nearly every note. The result is not spiky and staccato as could be assumed, but remains smooth, forming an intriguingly phrased solo. This is due to the care and imagination Gordon gives to each of his articulations. He allows variety in each articulation, meaning that he can phrase effectively within his obscure style as he is able to produce a range of emphases. Although this style flies in the face of the dominant saxophone slurring style, it presents an appealing alternative. Perhaps both of these styles can be used in conjunction. This will be discussed in the subsequent chapter.

Intervallic Content

An analysis of the intervallic patterns used in the construction of phrases is significant as it allows us to develop different types of intervallic movement on the double bass. This process revealed a number of distinct patterns that saxophonists use within phrases. They were: stepwise, arpeggiated, chromatic, pentatonic and large intervallic movement. Most commonly, stepwise and arpeggiated movement were used in the construction of phrases. This is unsurprising, as the intervals contained in each (seconds and thirds respectively) can be considered common melodic intervals. While stepwise movement is common in my own playing of the double bass, the extended use of arpeggios, as seen in many of the saxophonists' solos, is not. Including arpeggiated intervallic material in my own playing will require the development of new techniques. This will be discussed further in the following chapter.

Each saxophonist used some amount of chromatic movement. This movement often appeared as part of small melodic devices, like chromatic approach and enclosure. Chromatic movement is effective in this way as it creates direction towards a targeted note. Use of the pentatonic scale could also be found frequently in these solos, especially in the playing of Dexter Gordon. But possibly the most striking intervallic content was that using large intervals (which I defined loosely as intervals larger than a fifth). This movement was used most effectively by Eric Dolphy. Other saxophonists used large intervals, often as high points of their solos, but Dolphy's use was the most widespread. Dolphy would use large intervals consecutively and frequently towards the extremities of his range. These parts of his solo were produced in such a strained and jagged way that they created emotional high points. The effect of

this kind of technique is very appealing but not easily applied to the double bass. Intervals larger than a perfect fifth present technical challenges on the double bass and consequently the applied use of a saxophone style of large intervallic playing needs to be further addressed. Furthermore, all types of intervallic movement mentioned here present individual technical challenges to the double bassist. New techniques and an understanding of the use of intervallic patterns are necessary for the development of the saxophone style.

Melodic Concepts

The use of melodic concepts featured prominently in much of the chosen solos. My analysis was concerned with identifiable melodic developments that appeared within these improvised material. The concepts of repetition, variation and sequencing were clear melodic ideas, easy to discern and demonstrate from notated material. These ideas are also effective in a melodic sense: the developed material creates an aural link to what was played previously, the act reinforcing the significance of both phrases. In my study, Oliver Nelson used melodic development, specifically the device of sequencing, most extensively and to great effect. Close to the entirety of his solo was constructed from developed material, much of it being sequenced. I made a link between this solo and his published book of exercises, containing phrases modulated chromatically through the range of the saxophone. Nelson's book is obviously an important window into his improvising technique and will be discussed further in reference to its application to the double bass. Other players, such as Joe Henderson and Sonny Rollins, used repetition and variation as large parts of

their improvising. Short phrases were often repeated, varying slightly their pitches or rhythmic placement within the bar. One example of this is a simple type of repetition by Henderson: during his first chorus on his "Black" solo he begins to play a series of offbeat quavers. This repeated rhythmic pattern becomes the basis for an extended passage. Henderson uses this rhythmic impetus to develop melodic ideas, consisting of arpeggios and other intervallic patterns. Rollins uses a similar kind of rhythmic pattern at the end of his solo on "Tune Up". Repetition is an effective tool and a part of the concept of these two saxophonists.

The melodic concepts mentioned here present material that cannot be considered wholly specific to the saxophone. Undoubtedly these concepts would appear in a study of any other jazz instrument. Furthermore, while some examples of melodic concepts mentioned here may require new facility in order to be applied to the double bass, these technical difficulties do not lie in the concepts themselves. Therefore, as they are not exclusive to the saxophone and sometimes technically unchallenging, the value in these ideas is in their contribution to a new melodic concept for the double bass. These ideas provide effective melodic devices that can be used as creative tools within my own improvisations.

The three features I have identified in the analysis of my transcriptions (phrasing, intervallic content and musical concepts) are all useful tools in the development of a new saxophone derived style for the double bass. They provide a good number of pieces for the saxophone sound puzzle. However, it is through the analytical process that I feel some large puzzle pieces have been left out. In my written analysis I have tried to include my own emotional

responses to the music. If I ignore the emotional content within the music and our own response, I may overlook including this important aspect in my own improvising. Furthermore, I have not even attempted to analyse the inherent logic that goes into constructing any singular musical phrase. I believe that the concepts that produce meaningful musical phrases cannot be fully understood through analysis. Only through listening and immersion can familiarity and a strong affinity with this idiom be attained, as well as a subsequent insight into the creation of meaningful melodic ideas. The information obtained through this osmosis-like process gives better instruction for jazz improvising than any kind of analysis ever could. It is with this in mind that I next attempt to apply this style to the double bass.

Chapter 4

Application of the Saxophone Style to the Double Bass

My aim for this study has been to further my improvising through the analysis of saxophone soloing. My analysis has produced information in three general areas, namely intervallic content, phrasing and melodic devices. A typical approach to now applying this material to my instrument would be to simply reproduce the six solos on my instrument. While this process is useful in a technical sense, reproduction does not provide the basis for a fully formed concept nor does it acknowledge the information I have gained through my analysis. My process of application involves the development of exercises that reflect the areas of my analysis. I hope that this will allow me to develop my own improvising concept with reference to the ideas I have gained in this study. In any case, if a bassist was able to learn a series of saxophone solos perfectly, he or she would have developed a phenomenal technique but may have no idea of what to do with this new found facility. Here we have touched on the improviser's dilemma: what do I play? The process of developing an improvising style must somehow deal with technique (how to play) and concept (what to play). These are two skills that can be approached separately, but should always be thought of in relationship to each other. If we are to succeed in creating an honest expressive improvising style then musical concept must always precede the development of technique. The areas of my analysis can

also be thought of similarly: intervallic content and phrasing are technical approaches, while melodic devices are conceptual. Consequently, it seems appropriate to focus on the application of musical concepts displayed by the six saxophonists first, followed by intervallic content and phrasing.

Melodic Devices

A large part of my analysis concerned melodic devices. Eventually, it became clear that some melodic devices were common to many saxophonists. For instance, sequencing and repetition were key parts of both Sonny Rollins and Oliver Nelson's solos in particular. I must restate that I do not consider these ideas of melodic development specific to the saxophone. My experience suggests that many other jazz instrumentalists make use of similar melodic devices. However, as it is an effective part of these saxophonists' improvising concepts, it is appropriate to include it in mine.

The process of applying melodic devices to the double bass needs to be carefully considered. Most important is an understanding of the way melodic development is used by saxophonists. Consistently, they showed a creative and flexible approach to devices like sequencing and repetition. Phrases showing this allowed devices to contribute only as a part of and were subservient to a whole musical statement. Devices were almost never used exactly. The musical creativity each saxophonist here has instilled in their use of melodic devices should not be forgotten and must become a part of my own process.

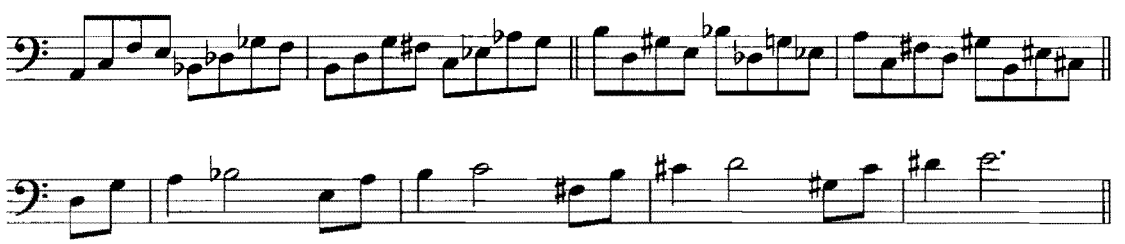
It is with this in mind that I can approach applying this material. My aim here is to absorb ideas of melodic development so that they can appear

naturally in my playing. One solution is to compose and learn musical exercises that conform to these ideas. I have included some of my pre-composed exercises further on and more completely in appendix C. The very act of developing exercises allows me to include the kind of creative element I saw in the saxophone solos. I have tried to include the same flexible approach in my written exercises. Another approach to this involves actively improvising with these concepts, in performance and the practice space. While playing I remain conscious of using the melodic device I am trying to incorporate. As both of these approaches do not reach my intended goal of including melodic development devices naturally within my improvising, it is through a combination of these two approaches that I feel these ideas can transfer into my improvising concept.

Sequencing is an effective method of melodic development. Used in some way by each saxophonist, sequencing involves a series of notes shifting in pitch. This is best described in the case of a strict sequence, where the intervals between each note in the series remain identical between each sequence step. Each note has been shifted up or down by the same interval. However, sequencing often occurs where each sequence step conforms diatonically to a key centre; the intervals contained in each are changed to fit the notes of a given scale.

If I am to use this concept on the double bass, it is important to look at how this melodic device can work logically on the instrument. The essence of this concept is in the ability to take small groups of notes and to perform them starting from practically any note on the double bass. The process is then in two steps: firstly developing melodic fragments to work from and secondly

sequencing these fragments throughout the range of the instrument (see example 28). The sequencing of these fragments should be by a variety of intervals: semitones, tones, thirds, even by octaves. Part of the difficulty in applying this device to the double bass involves developing a fingering style that is versatile enough to accommodate the shifting sequencing requires. While any group of notes will present its own problems, I have found that maintaining a regular fingering pattern for each sequence step makes sequencing much more manageable. Once a fingering pattern has been developed for a given note series, this can then generally be used throughout the range of the double bass. A regular fingering pattern not only produces a regular phrasing style for each sequence step but makes the very act of sequencing much more logical. I am now able to begin the fingering pattern on the next sequenced note and have the facility and foresight to execute the remaining sequence.



Example 28: Examples of exercises for the development of sequencing

It is worth restating that these saxophonists did not use sequencing as a strict model. Often there were deviations from the sequence, sometimes mid-phrase and regularly when ending a phrase. These deviations show that the players were willing to be flexible with sequencing. It could be used as a melodic tool, but not so much as to suppress the melodic sense of a phrase. The context in which this device is used is one of creative melody, where the

musical principles of a melodic device should not dictate fully the structure and sound of an improvised phrase. Therefore, the practise of this skill should also include some kind of creative impetus, allowing sequencing to become a creative tool and not a repetitive task. This leads to another melodic device, repetition.

The repetition of musical ideas is also featured in each solo I examined. It is effective largely because of its musical clarity. In its simplest form, a musical idea is stated then repeated ad nauseam. This idea may consist of a series of pitches or a rhythmic pattern. Repetition allows a phrase to be better absorbed by a listener, each repetition increasing the significance of the musical idea. It also produces a sense of expectation in a solo by giving a clear indication of what might come next. In its basic form, repetition can easily become a very stale device and should be used with care. This aspect leads many saxophonists to include variation within their repetitions. Variations used include rhythmic and pitch variations as well as uses of phrase extension and diminution. The inclusion of variations within a repetitive concept gives life to a phrase. Each variation changes a musical idea slightly, which when used over a larger section gives a sense of development and growth. Variation breaks ever so slightly the strong continuity produced by repetition when used singularly; it is an effective tool in combating predictability. When used together, repetition and variation create interest and musical development through the continued use of an individual musical idea.

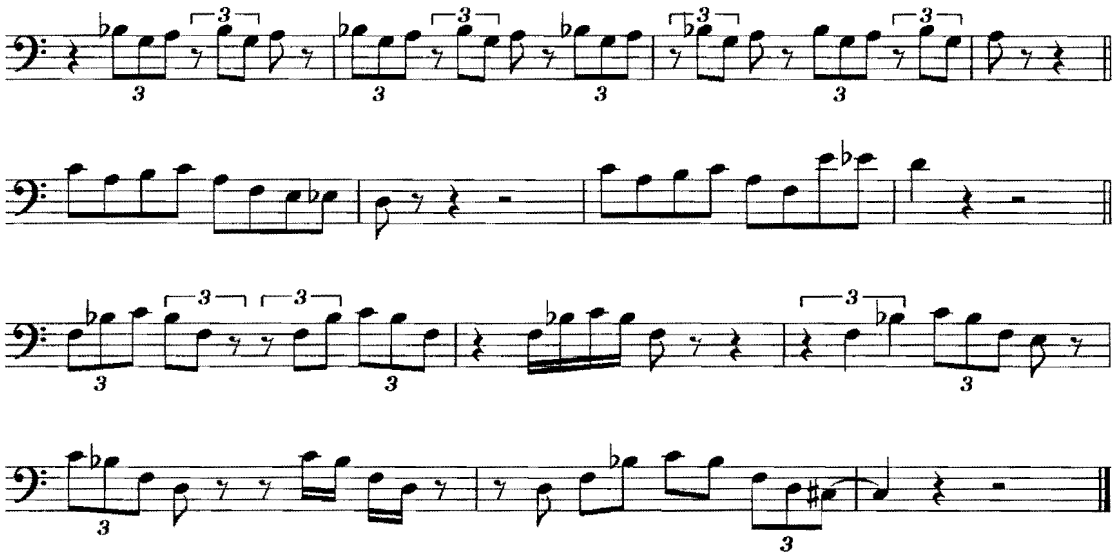
It is useful to reflect on the varied treatment of repetition displayed by each saxophonist. It is undoubtedly difficult to convey the essence of these individual musical styles through words (not to mention whether any of this

essence survives through the filter of my analysis), as well as being easy for the application of melodic devices, including repetition, to fall into formulaic traps. It is therefore necessary for me to remain mindful of the source material when developing these concepts on the double bass. In each solo, repetition and other melodic development devices are used as a creative tool, as part of a distinct melodic concept. My use must reflect the individuality of these players and include melodic devices as a reflection of my own musicality.

While each saxophonist I studied featured repetition in their solo, it is obvious to me that they are not using repetition in precisely the same way. For instance, my analysis showed that Rollins and Henderson both use small repetitive rhythmic ideas in their playing. This conclusion is easy to make through analysis of my written transcriptions, yet listening to each musician reveals differences. Henderson's repeated rhythms seem rough and skittish with a nervous agitated character to them, while Rollins' playing is more centred; each note sounding more considered. Separate from any judgement of taste, here we can conclude that the musical devices used by each saxophonist, while similar in some respects, are differentiated by their use within an individual concept.

In my analysis I have identified two general types of repetition used in this group of saxophonists. The first is a rhythmic based repetition, as mentioned before concerning Rollins and Henderson. This includes repeated short phrases that are often varied by rhythmic placement. The second type deals with the use of more melodic phrases, as shown by Gordon and Parker. Often in these solos a phrase is repeated with a modified ending. This can occur as just two phrases, something like a "call and response" idea, or may be

extended to repeat many times with many different variations. It is these two types of repetition that I will be dealing with, but this is not an exhaustive list (see examples of repetition in example 29). I view the variation that these musicians use in combination with repetition and other concepts as an instruction: use these devices as starting points to begin exploring the musical possibilities available to you. Play formulaically at your own peril!



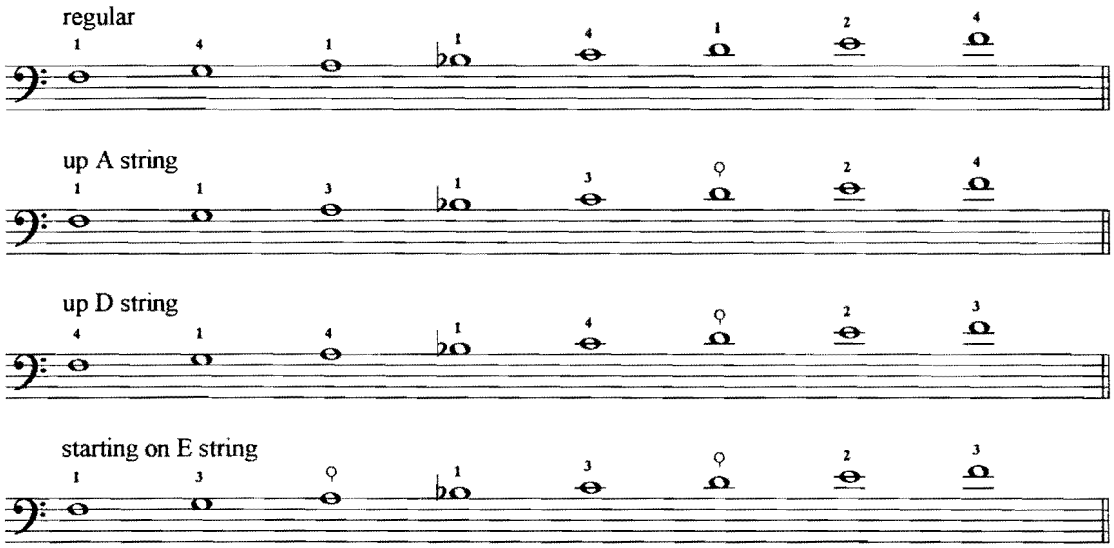
Example 29: Exercises for development of repetition concept

Intervallic Content

An analysis of the intervallic content of each saxophonist revealed a wide range of intervallic material. Generally, stepwise and arpeggiated content was predominant. As these are particularly melodic types of intervallic content, I was unsurprised by this approach. Also common, were instances of chromatic and pentatonic material. However, the most unusual was the featured use of large intervals. This type of playing creates dramatic contours and is a focal

point of many solos. The breadth of intervallic content is significant; it marks the differences in facility and traditional practices that saxophonists and double bassists possess when playing their respective instruments. It is essential for me to explore the different types of intervallic content presented by saxophonists to begin the development of a similar style on the double bass. This should be pursued through exercises designed specifically for the production of these types of intervals.

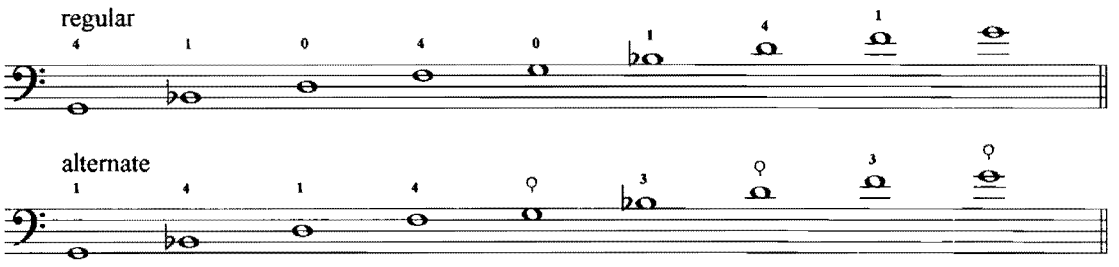
As I began including different intervallic movement in my playing, I felt that stepwise movement was already a large part of my improvising. Prior to starting this project, I practised a range of scales on my instrument. However, after looking at how these saxophonists use intervallic movement I realised that I could improve my approach. Stepwise movement was used in combination with other intervallic content and included sudden changes in direction. This information led me to conclude that I needed a more flexible system of fingering for this type of movement. I practised different types of scales until fluent over the range of the instrument. As part of this, I varied the fingerings for each scale in an effort to increase the flexibility I possessed in my use of scales. This approach should develop a more versatile skill set for fingering during improvisation (this is shown in example 30).



Example 30: Variation in fingering of F major.

I used the same approach with other types of intervallic movement. Arpeggiated, chromatic and pentatonic movement can all be practised in the same way. Variations of arpeggios and the chromatic and pentatonic scales can be explored on the double bass, with attention to fingering variations. Each type of movement possesses its own problems for the double bass, particularly arpeggiated movement. The consecutive thirds of arpeggios means that shifting must often occur. I have developed alternate fingering patterns that alleviate some of the shifting problems for arpeggios (see example 31).

This practice regime encompassing different types of intervallic movement should allow me a better technical facility for performing a saxophone derived concept and should, in any case, be an effective way of developing fingering technique on the instrument.



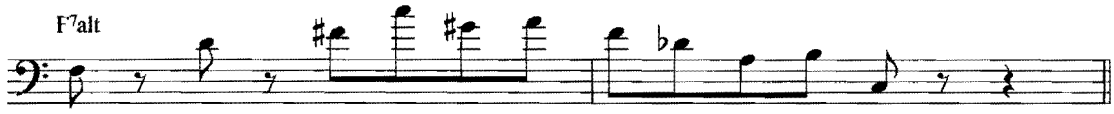
Example 31: Fingering variations for G minor seven arpeggio

However, I have not covered an important part of the intervallic content of the saxophone. In many solos large intervals were used, singularly or consecutively, to produce dramatic focal points. This type of playing shouldn't be disregarded; while inherently technically demanding, large intervals can increase intensity within a solo.

The process of developing large intervals for use on the double bass is not as straight forward as that for other intervallic material. There are no set scales or arpeggios that deal specifically with this movement. Fortunately when regarding large intervals, I can divide these saxophonists into two: Eric Dolphy and everyone else. The majority of saxophonists I have studied used mainly octave intervals as a featured large interval. Octaves can be practised effectively: The interval can be practised shifting up and down each individual string and also exploiting string crossings. Difficulties occur when attempting large intervals in a Dolphy style.

Dolphy's large interval use can be summarised as groups of consecutive dissonant large intervals, often including direction changes, resulting in a very striking and angular sound. The essence of this type of playing is in its irregularity. Dolphy is creating musical sounds foreign to most listeners and striking to all. If this type of playing is to be reproduced, I must honour this

unpredictability. My process for applying this style then becomes an investigation of the different types of large intervals that can be produced on the double bass and a subsequent piecing together of intervals that together make an interesting sound. These phrases have been written down and then practised until they feel comfortable on my instrument. In order to maintain the Dolphy style, I have tried to produce phrases that give an unusual and striking sound. Example 32 shows one large interval phrase I have written, with more included in appendix C.



Example 32: Composed large interval phrase.

Phrasing

Phrasing is one aspect of saxophone playing that is vastly different on the double bass. It is phrasing that gives saxophone a frequently smooth sound. By slurring multiple notes, saxophonists can produce unbroken and contoured phrases. The challenge then lies in reproducing this same smooth articulation on the double bass. One solution to this phrasing discrepancy is to employ the use of a bow. While bowing is not common place for jazz double bass, the practice can expand the expressive range of the instrument. I equate the bow to breath of the saxophone; the bow can sustain notes as well as vary the dynamic of a sustained sound. The expressive possibilities of bowing are literally

endless. However, plucking is the dominant technique for jazz double bass and saxophone playing has prompted me to re-examine my plucking technique.

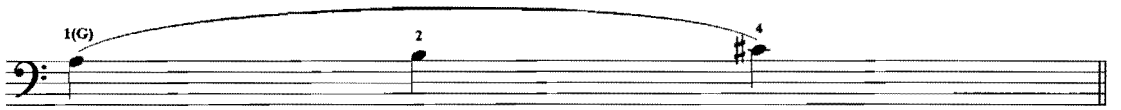
When I pluck the double bass I have a natural tendency to articulate every note, often without tonal variation. This regularly produces phrases that are dynamically flat. If I vary the weight and attack I give to each note I can emulate a similar shaped sound to my phrases. While this is an improvement, I have shown that saxophonists employ large amounts of slurring. I have developed an approach to this involving the use of pull-offs and hammer-ons. These are left hand techniques that change the pitch of a string without it being rearticulated by the right hand. A pull-off involves the lifting of one finger from the string to produce a lower pitch, while a hammer-on requires a finger to stop the string at a higher point to produce a higher pitch. Both techniques can produce notes on the double bass with no articulation from the right hand, producing a smoother slurred sound between notes. This is the primary technique that I feel emulates the slurred saxophone sound on the plucked double bass. Nevertheless, it possesses some limitations. There is a limit to how many notes can be slurred over; a string will only vibrate for a certain amount of time through the use of multiple hammer-ons or pull-offs. Also, it is often practical to slur over no more than an interval of a minor third. If larger intervals are performed similarly, they either don't sound or the slur can become a slide[6]. Acknowledging these limitations, we can now examine applying phrasing techniques to other parts of the saxophone concept.

Firstly, I have practised slurring with the scales and arpeggios identified in the intervallic analysis. I approached this simply at first, developing slurring

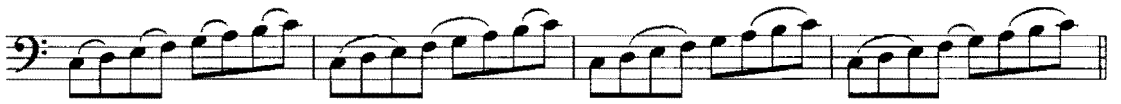
[6] While this is not always a bad sound, it is somewhat against the saxophone sound of smoothly slurred groups of notes.

gradually with simple rhythms. However, as the majority of intervallic material was included in lines of swing quavers and slurring was consistently used to shape these lines, it is appropriate for me to practise slurring intervallic material with swing quaver rhythms. Through this process I can practise slurring different note groupings, as featured by many saxophonists. Slurring was most often used in this way to group two quavers, where an off beat quaver was slurred to the next quaver, on the beat. Using the hammer-on/pull-off technique, this grouping is easily achievable on the double bass, requiring only two notes to be slurred together. It is in negotiating note groupings of three or more that problems can be encountered. In the case of three note slurs, these often involve a shift in left hand position when slurring through stepwise motion. Normally a shift would mean that the slur would either be broken or that a slide would occur between notes. This can be avoided; by shifting between my three fingers in the lower positions (ignoring the possibilities of the thumb position[7]), I can avoid breaking the slur or sliding and produce a group of slurred three notes somewhat cleanly (see example 33). Slurring larger numbered groups than this almost certainly requires significant shifting of the left hand, which must be dealt with in attempting a smoothly slurred group of notes. I have found that maintaining contact with the fingerboard and moving quickly during shifting allows the slur to be better formed. It is these methods that I need to explore and develop in order to adequately produce slurred groups of multiple notes. Different slurring patterns are illustrated in example 34.

[7] Due to the increase in available fingers (from three to four) and smaller note spacing, thumb position presents a larger number of slurring possibilities than the lower position.



Example 33: Fingering style for a three note slur.



Example 34: Slurring patterns: 2 note, 3 note, 1 then 3 note and irregular

Secondly, the skills developed should be applied to everything I play. I have examined melodies to determine where slurring might be appropriate. I have included slurring in phrases I developed for practising melodic devices, using a variety of phrasing patterns for each individual example. I even tried incorporating slurring into my accompanying bass lines. Through this process, a new smoother style of phrasing on the double bass has emerged, informed by the adept slurring of the saxophonists in this study.

However, the exploration of phrasing should not end there. There is a variety of different articulations shown by the saxophonists. Articulations such as accents and staccato and tenuto notes fill phrases, shaping solos in a multitude of ways. Variation in right hand articulation should be explored in order to reflect this. This includes variation in: a) the force and amount of finger used and b) on which part of the string it is plucked. Combining this with a slurring approach should give me an articulation style similar to many of the saxophonists here. While slurring is a frequently used articulation for many saxophonists, Dexter Gordon differentiated himself in this respect. Gordon individually articulated nearly every note in his solo, simultaneously maintaining a smooth and well phrased feeling. His approach, while

individualistic, uses re-articulation as its basis and, to me, is a model for the versatility articulation should possess on any instrument. The act of shaping a phrase effectively through re-articulation exclusively is a valuable exercise for the double bass, if only for the breadth of expression gained in the control of the right hand. A range of different right hand articulations is an important part of an expressive phrasing ability. Gordon's playing forces me to think about this aspect of my own phrasing in different ways.

Structural Concepts

This section covers musical ideas I identified concerning musical structure. This is an equally important improvising aspect as the other music devices I have covered, but is not as easily quantifiable. My analysis of the intervallic content, phrasing and musical devices does not indicate their use in a phrase or within the broader context of a solo. While I believe that the construction of a phrase or solo must primarily be informed by an individual's musical sense, there were significant concepts concerning solo and phrase construction that I found in these solos. These include: a combination of differing musical elements within phrases, contrast between simple and complex musical ideas, variations in range and an attention to the form of a piece when improvising. It is questionable whether awareness of these concepts is useful for an improviser. It is unlikely that a soloist is thinking specifically about any structural ideas when improvising. My experience and research suggests that improvisers are rarely "thinking" in a logical sense, and instead are letting a more creative part of their consciousness direct their playing. The story of Sonny Rollins's

exposure to Gunter Schuller's analysis of Rollins' "Blue Seven" solo is a good example. Nisenson describes the drastic effect awareness of the analysis had on Rollins' playing

> Schuller's study of "Blue Seven" is an example of what serious, scholarly jazz criticism can be. It had a strong but unnerving effect on Sonny. He had never thought about his playing in the terms used by Schuller, and reading the piece made him so self-conscious that it was hard to relax on the bandstand and just play. (Nisenson 2000: 93)

The gap between analysis and what is actually going on in an improviser's mind is significant. In reference to this event, Nisenson quotes Rollins

> This is my modus operandi: I study, but then when I am onstage, I don't have to concentrate. So I don't have to think about which chord goes here and how this chord is run and all this kind of stuff. Then the music gets to the point where it plays itself, so to speak. (Nisenson 2000: 94)

I feel that this is an important idea, that you practise musical concepts and techniques to the point where they need not be thought about in a performance setting. I feel that awareness of conceptual ideas can, in performance, block the creative flow of improvising by switching the mind to more critical, analytical state. The actual practice of conceptual ideas should be confined to the practice space, allowing concepts to be formed in an analytical and thoughtful structure, so that, in performance, they may be disregarded and improvising can occur in a creative and less prescribed way. The awareness and conscious use of these

larger structural concepts should remain in the practice space and be absorbed until they can appear intuitively in improvisation.

The introduction of concepts into my improvising practice is not easy process. The practices of combining differing musical ideas within a phrase, varying the complexity of solo, playing in a variety of different registers and developing musical phrases with reference to a musical form, are not easy for me to quickly assimilate and require me to consider their application. Each concept can be practised in a conscious way, by thinking specifically about producing solo phrases that describe these ideas when improvising. This process can give a rudimentary understanding and technical ability to perform these concepts but may also end up producing an improvising style devoid of creative substance. If I practise with a specific concept in mind it is likely that my improvising will rely solely on this for inspiration. The aim of practising these concepts is similar to that of the melodic devices; to absorb these concepts so they can eventually become a part of my intuitive playing. I believe that close and repeated listening to recorded material can also be a key to developing these concepts. After listening to a piece of music for some time, the music becomes familiar and a part of my musical knowledge. The structural ideas mentioned before can be learnt this way; through familiarity with musical recordings, a different more intuitive understanding of the concepts can be gained and can become a part of my improvising concept.

After exploring the previous musical elements on the double bass we are left with a scattered group of somewhat disparate elements. How exactly does possessing an effective slurring technique allow meaningful musical phrases to be created? How does a knowledge and application of the intervallic content of

saxophonists give me an indication of what notes to play in a phrase? Why should repetition and sequencing allow my phrases any kind of musical significance? Though there are no easy answers to these questions, there is one approach that will not work. The skills I have developed through this study must not be taken as separate entities; they must be seen as parts of a whole. They must be coagulated into a larger musical concept, moulded and reshaped by my musical sensibilities until they can be called my own. This process must take into account that, through analysis, I have dismantled this music. I have chosen many parts of interest and investigated them, but due to limits of practical analysis, I left many of significance relatively untouched. Ideas that I feel have not been fully covered here include the expressive and emotional content contained in each solo, as well as tone colour and rhythmic ambiguity. While being a vital part of music, this content is not easily dealt with in musical analysis and can be easily overlooked. This is why I stress that the concepts I have raised in my study need to be used in context, in an encompassing musical concept. The issues dealt with here are complex problems as they do not fit well into analysis and in any case, need to be learnt through repeated listening and not formal analysis. It is for these reasons that conceptual ideas are difficult to contain within a section of or indeed a whole dissertation. Furthermore, I am dealing with the development of a personal musical concept; this is a process that I feel should occupy much of my musical life.

Brian Bromberg

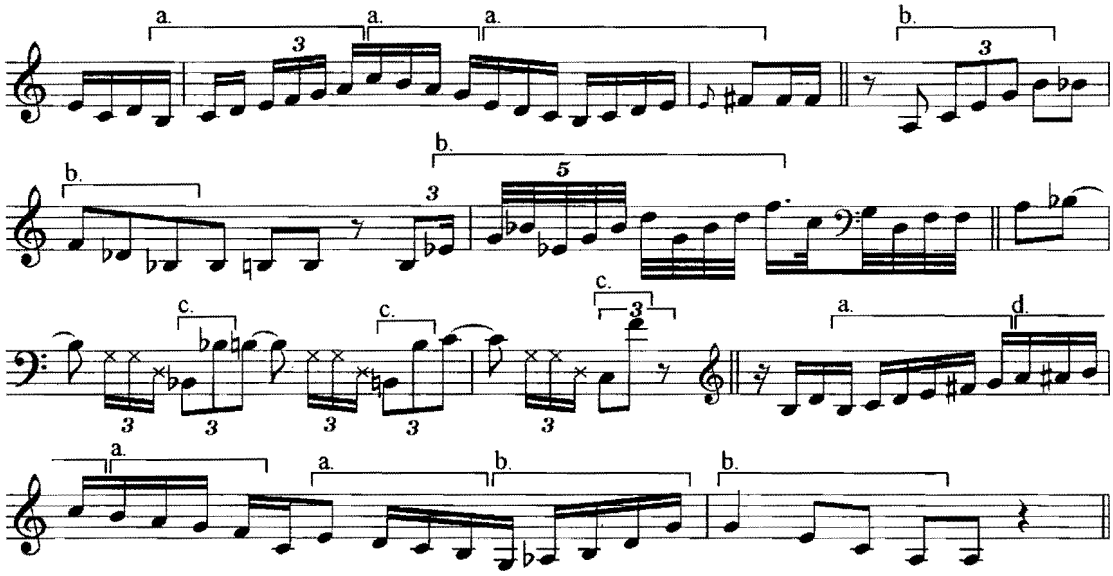
In an effort to further address the importance of including saxophone musical ideas within the space of a musical concept, I have chosen to analyse one more transcription as the conclusion to this chapter. This is a solo by the bassist Brian Bromberg from the track "I Wish I Knew" on pianist Alan Broadbent's album "You and the Night and the Music" (Artistry 7007, 2003). Bromberg is a double bass player who appears to have already found much inspiration from the saxophone style. His ideas are melodic and dextrous; they have a creative freedom throughout his instrument. His phrases are smooth and shaped, and often make use of varying ideas. The way this solo is shaped reminds me of the other saxophone solos. Using these features, Bromberg manages to create a melodic and saxophone-like solo with a musical sense unlike any bassist I have encountered. Only rarely does Bromberg use devices that I would call specific to the double bass and when he does, it is within this different musical sense.

My immediate reaction to this solo is towards Bromberg's obviously vast technical facility. Within his often complex and rapid phrases he never appears to end a melodic line because of any technical limitations. It seems as if at any point on the instrument, Bromberg can deliver creative and melodically appropriate additions to his phrases. This technical ability facilitates Bromberg's melodic concept: it is able to handle the intricacy and dexterity that this type of playing demands.

After my sense of technical awe subsided, I was able note many similarities between the content of this and the saxophonists' solos. The characteristics that were identified in my previous analyses were all present.

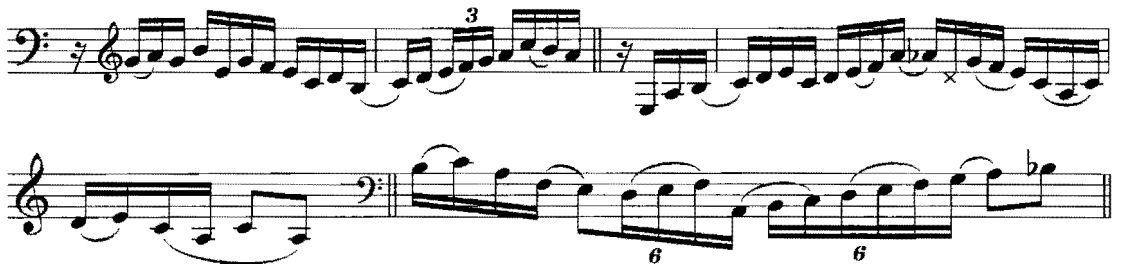
Bromberg's intervallic content was varied, including much stepwise and arpeggiated movement as well as use of large interval, chromatic and pentatonic movement. His phrases are shaped with the addition of slurring through hammer-ons and pull-offs. Often phrases are embellished with slides and ornaments. Significantly, Bromberg employs similar melodic devices including: sequencing and repeated rhythmic figures. While possessing an obvious aural similarity to saxophone playing, I was surprised to see this likeness shown also in analysis; I was not anticipating the overwhelming amount of similarities Bromberg shows here.

Bromberg's intervallic content is important in that it shows that he has overcome the technical limitations of the double bass. In order to be able to produce lines intervallically similar to saxophonists, a different technical flexibility is required. While many parts of this solo contain strictly stepwise motion, a substantial part uses arpeggiated movement (an intervallic content differentiating a large amount of saxophone playing from my own). To a lesser extent, chromatic, pentatonic and large intervallic movement was used in conjunction with the previous types. This intervallic content is shown in example 35, where [a] brackets indicates stepwise movement, [b] arpeggiated movement, [c] large intervals and [d] chromatic. The point here is not that intervallic material is simply present, but that Bromberg combines this material. Phrases often contain a variety of distinct intervallic passages while also deviating towards other types. The effect is that complex phrases are produced that weave intricate melodic lines throughout this solo. This is reminiscent of many saxophonists, particularly Parker and even Dolphy.



Example 35: Choruses 1 & 2 Bars (19-21, 10-12, 42-44, 7-9) – Intervallic content

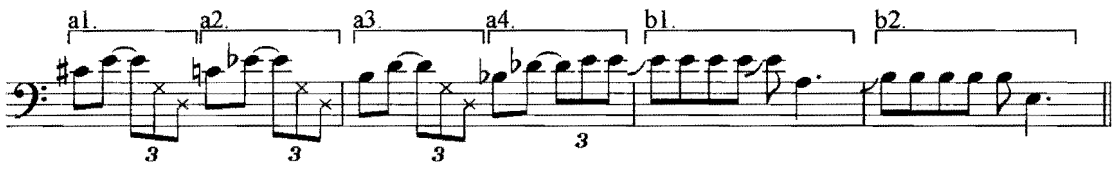
It is in these intricate sections that Bromberg's phrasing ability becomes obvious. While slurring is used frequently, it is not as often as I would assume from the smooth character his phrases have. Bromberg uses hammer-ons and pull-offs as two or sometimes three note slurs, allowing these articulations to be a feature of the phrase (see example 36). It is surprising to me to hear this technique already in use, while I have only just begun to approach playing this way. When not slurring, notes are articulated in varying gradations, from soft to heavily accented. This flexible plucking style is comparable to the plucking techniques I have described earlier. Again it seems as if Bromberg has already mastered the ideas of my research, adeptly playing in ways I have only begun to appreciate.



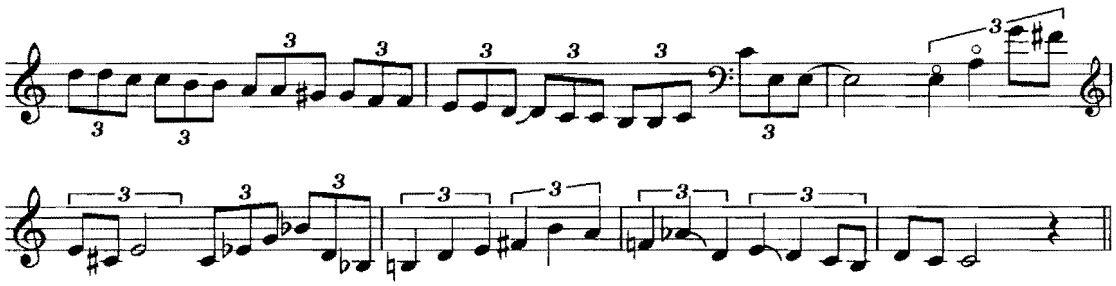
Example 36: Chorus 1 & 2 Bars (19-20, 27-29, 42) – Slurring examples

Bromberg makes use of saxophone-like melodic devices, like sequencing and rhythmic repetition. Sequencing is used throughout this solo: small phrases are frequently shifted by semitones and there are also instances of sequencing by fourths and diatonically. Example 37 shows a phrase exhibiting ascending sequencing by semitones followed by sequencing by descending fourths. Bromberg also uses rhythmic repetition as a vehicle for improvisation; one passage is based entirely around triplet crotchets (see example 38). These melodic devices are treated in a way consistent with the use by saxophonists. That is, these patterns are used as a guide, an idea from which to work creatively. This is best shown in the music occurring in the opening bars (see example 39). Bromberg plays a figure drawn from the melody to begin, which is repeated and extended a bar later. In the following bar, a phrase begins with the same previous rhythm but with different notes. This leads into a new phrase derived from the variation in bar two, this phrase is a tone lower. The phrase in bar six is a repetition of this with minor variation. As complicated as this appears on the page, it is relatively simple to the ear. In these seven bars, Bromberg is creatively developing a melodic phrase. He is using the previously described melodic devices, often with creativity and sometimes obtusely, to

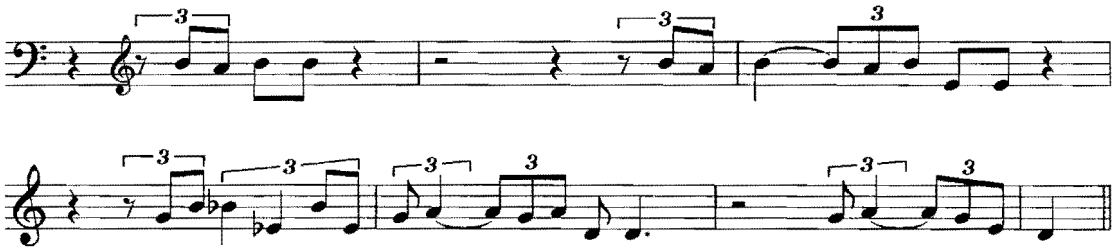
carry his melody through this opening passage. It is the impetus behind these devices that should be noted as being similar to the saxophonists in this study.



Example 37: Chorus 1 Bars (15-18) – Sequencing



Example 38: Chorus 2 Bars (55-61) – Rhythmic repetition



Example 39: Chorus 1 Bars (1-7) –Creative melodic development

It is both heartening and daunting for me to hear Bromberg's improvising. I am pleased to hear that the concepts I am describing here are not impossible: there is already someone doing the types of things I have been researching. However, the immense facility and creativity that Bromberg possesses on his instrument must have come from a large amount of concerted effort. This is surely the key to unlocking a new improvising concept, gaining a facility that can cope with what I want to play.

Chapter 5

Conclusion

The aim stated at the beginning of this work was: to develop a new improvising style for the double bass through an analysis of saxophone soloing. This has been satisfied through the course of this dissertation. Initially, a comparison of saxophone and double bass as instruments revealed the physical abilities and limitations of both. This was followed by an analysis of the six chosen saxophone solos, producing information regarding intervallic content, phrasing, melodic devices and structural concepts. This section also showed similarities between each of the saxophonists, which I drew together as reflective of a general saxophone style. The information gained from both the instrumental comparison and analysis chapters was then used to develop techniques and improvising concepts that would reflect the saxophone style on the double bass. I have developed techniques in both fingering and phrasing that help me to produce saxophone-like improvising. As well as this I have investigated structural and melodic concepts in order to introduce them into my improvising concept. The main ideas I have developed are these:

- The development of intervallic movement on the double bass, including stepwise, arpeggiated, pentatonic, chromatic, large intervallic movement. It is essential for me to become fluent with these different types of movement throughout my instrument.

- A more versatile phrasing skill, involving variation in plucking and, in particular, techniques for slurring. This primarily involves the use of hammer-ons and pull-offs.

- An exploration of different melodic devices. Sequencing, repetition, variation and rhythmic displacement should be used to develop musical ideas. It should also be noted that melodic devices should be used as a **musical** device, helping to produce meaningful musical statements.

- Inclusion of structural ideas, including combining differing musical ideas within a phrase, varying the complexity of solo, playing in a variety of different registers and developing musical phrases with reference to a musical form. These ideas need to be absorbed through careful practice and listening until they appear intuitively in my improvising.

These four areas can, without a doubt, help me greatly in my development as an improviser. They each describe a part of musical styles shown in the solos I have studied. It is here that the problem lies: the ideas I have drawn from saxophone playing present only a part of an improvising concept. The danger for me is that if I begin to practise saxophone ideas as exercises alone, I have overlooked the other parts of these improvisers that contribute to their greatness. The creativity and self expression that is possessed by each of the saxophonists I have studied is the underlying drive that produces these solos. My playing

should also reflect this. Consequently, I must strive to use these ideas within my own musical context, introducing them into my concept.

It has been the distinct differences between saxophone and double bass that have made this project effective. The physical differences described in chapter two showed just how dissimilar they are. They have both been used by a great number of innovators in jazz history, but have enjoyed very different roles. This meant that the solos I investigated presented considerable material that expanded my abilities on my instrument as well as my musical understanding. I also believe that my study has changed the capacity to which I can perform in the jazz ensemble. I can now play a melodic role in an ensemble, which in turn, can allow others (like the saxophonist) to explore accompanying functions. To play differently in ensemble is something I wish to pursue.

This study has also opened up further directions of research. As well as continued study into the improvising of each musician I have covered here, there are opportunities to study a range of other musicians. I wish to investigate more saxophonists in an effort to gain more insight into their idiom, including Ornette Coleman, John Coltrane and Dave Liebman. This study has also shown me the benefits of inter-instrumental study; I can see advantages in examining pianists, trumpeters and singers, as well as many other instrumentalists. I would also like to investigate the processes and musical skills that other jazz musicians feel they have drawn from other instruments. As this approach to learning is not widely promoted and I have found that many players have mentioned being influenced by instruments other than their own, it would seem to be a rewarding topic for further study.

This concerted study of saxophone improvising has given me great insights into not only a melodic style of improvising, but into the nature of expressive musicality. The time spent with this music has revealed the intricacy of nuance and level of technical musicianship that is required to attain this expression, and has simultaneously allowed me a closer affinity with jazz music. It is with the idea of furthering my own technique in the pursuit of an enhanced melodic and expressive goal, that I can now work forward as a jazz bassist.

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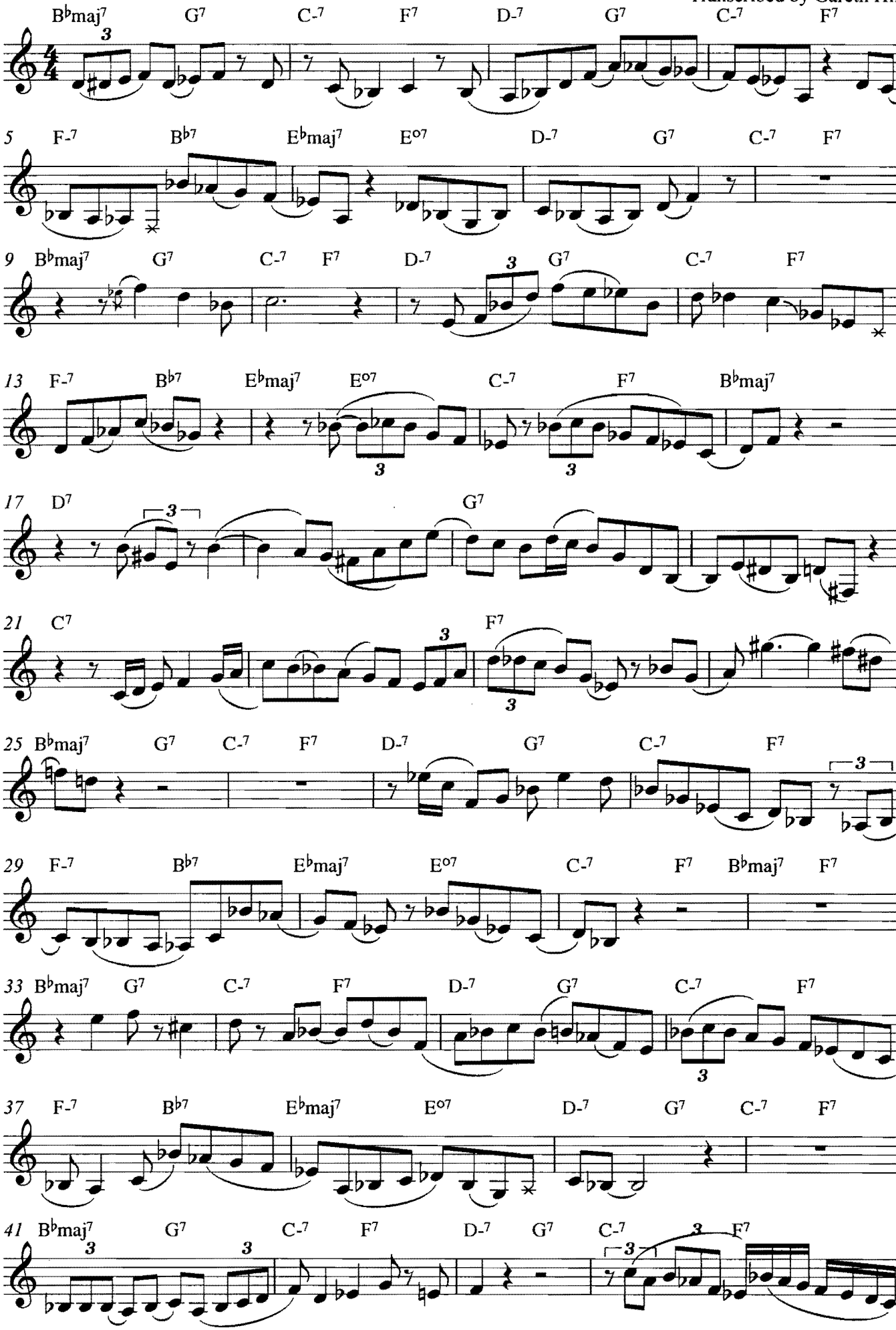
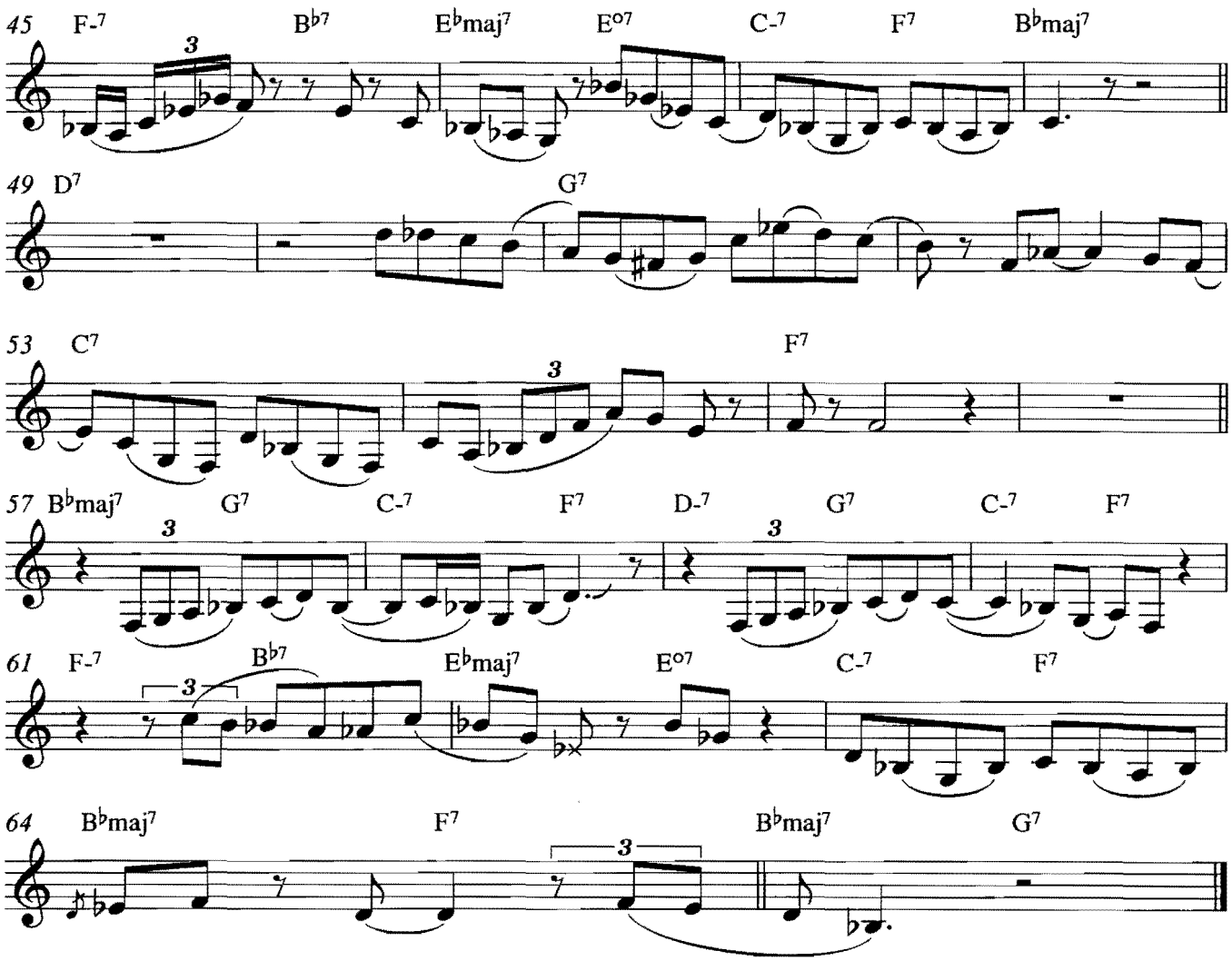
Appendix A: Complete Transcriptions

Charlie Parker's solo on Thrivin' on a Riff

Transcribed by Gareth Hill

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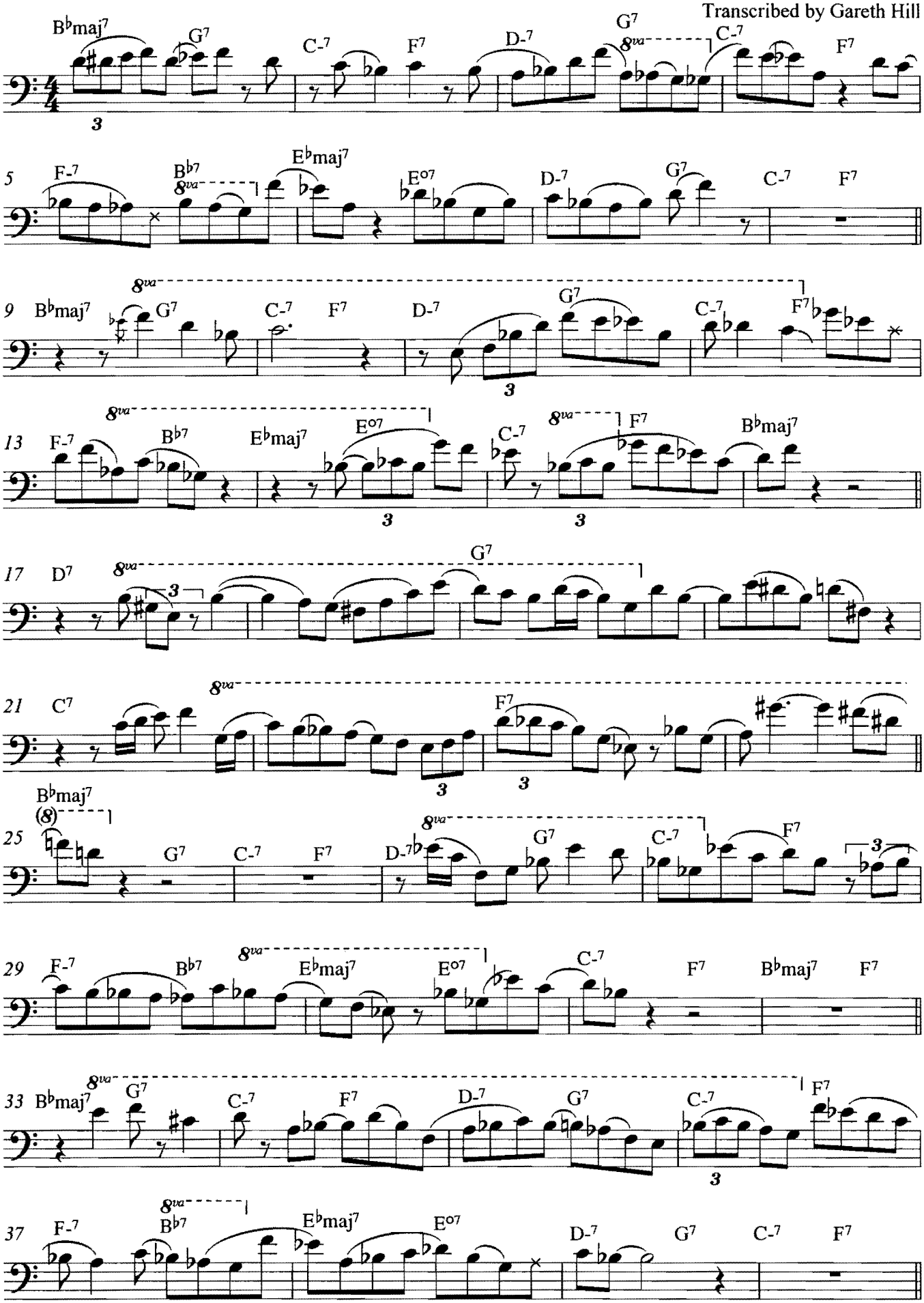
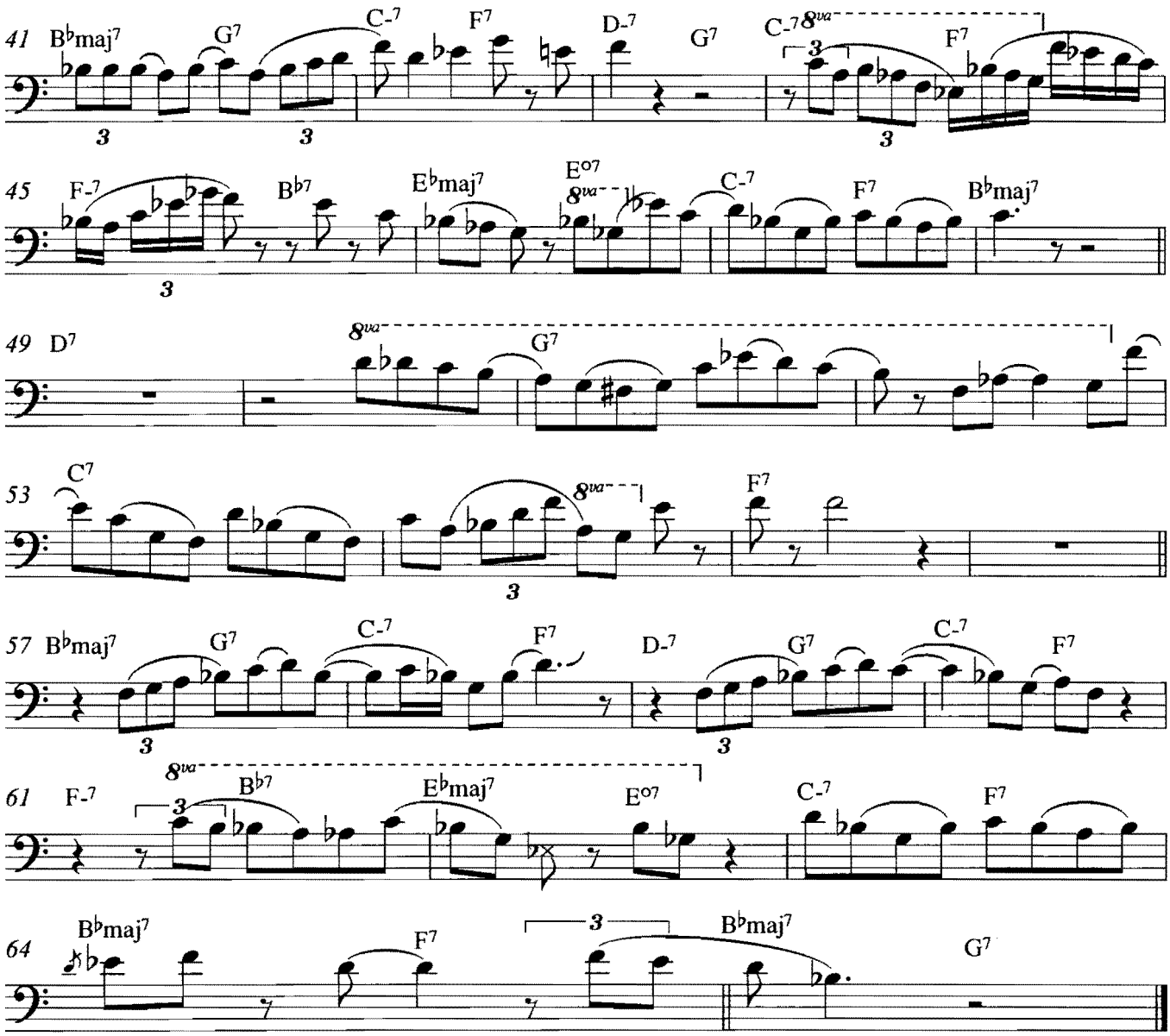
49 D7 G7
53 C7 F7
57 B♭maj7 G7 C-7 F7 D-7 G7 C-7 F7
61 F-7 B♭7 E♭maj7 E°7 C-7 F7
64 B♭maj7 F7 B♭maj7 G7

Charlie Parker's solo on Thrivin' on a Riff

Transcribed by Gareth Hill

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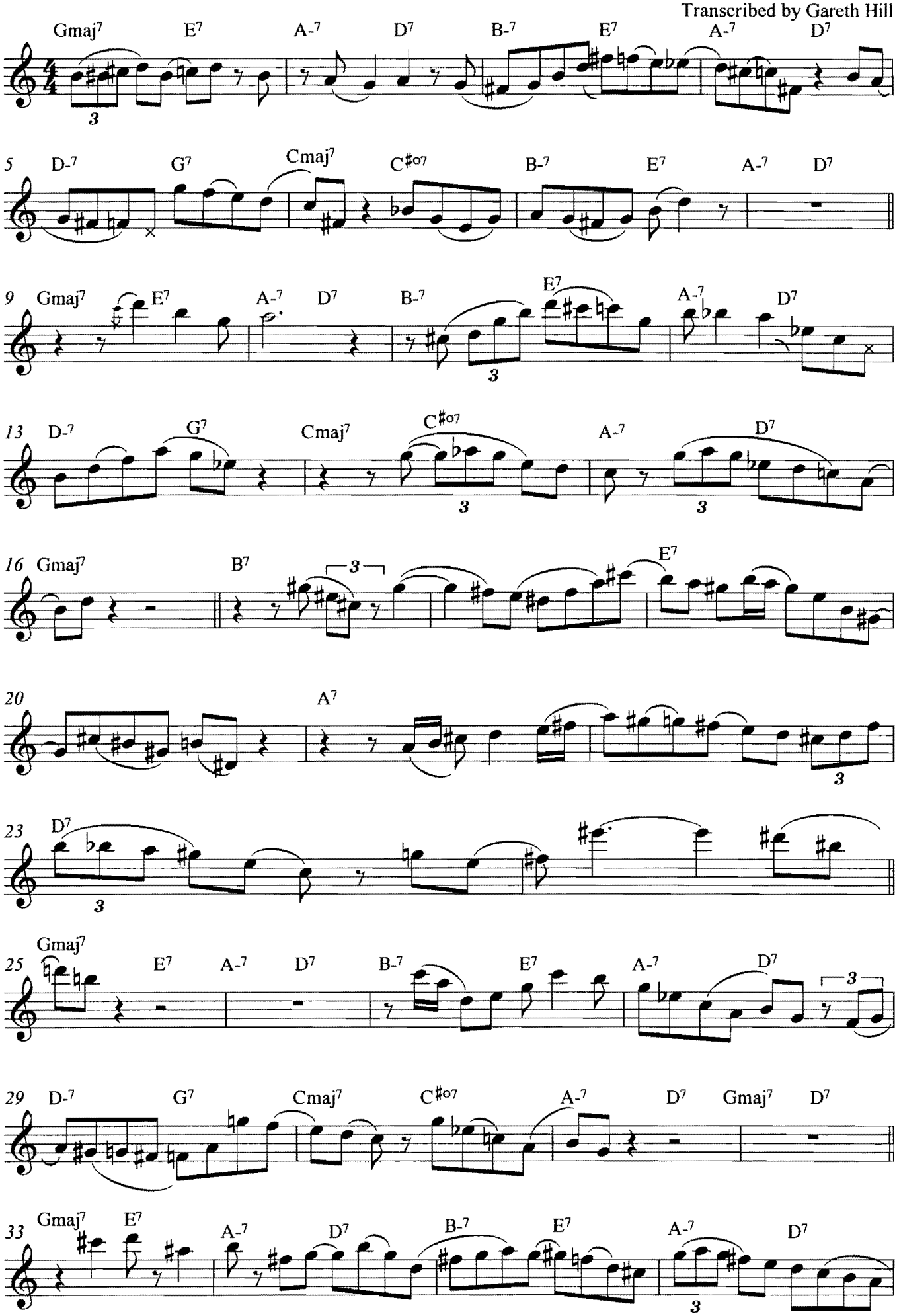
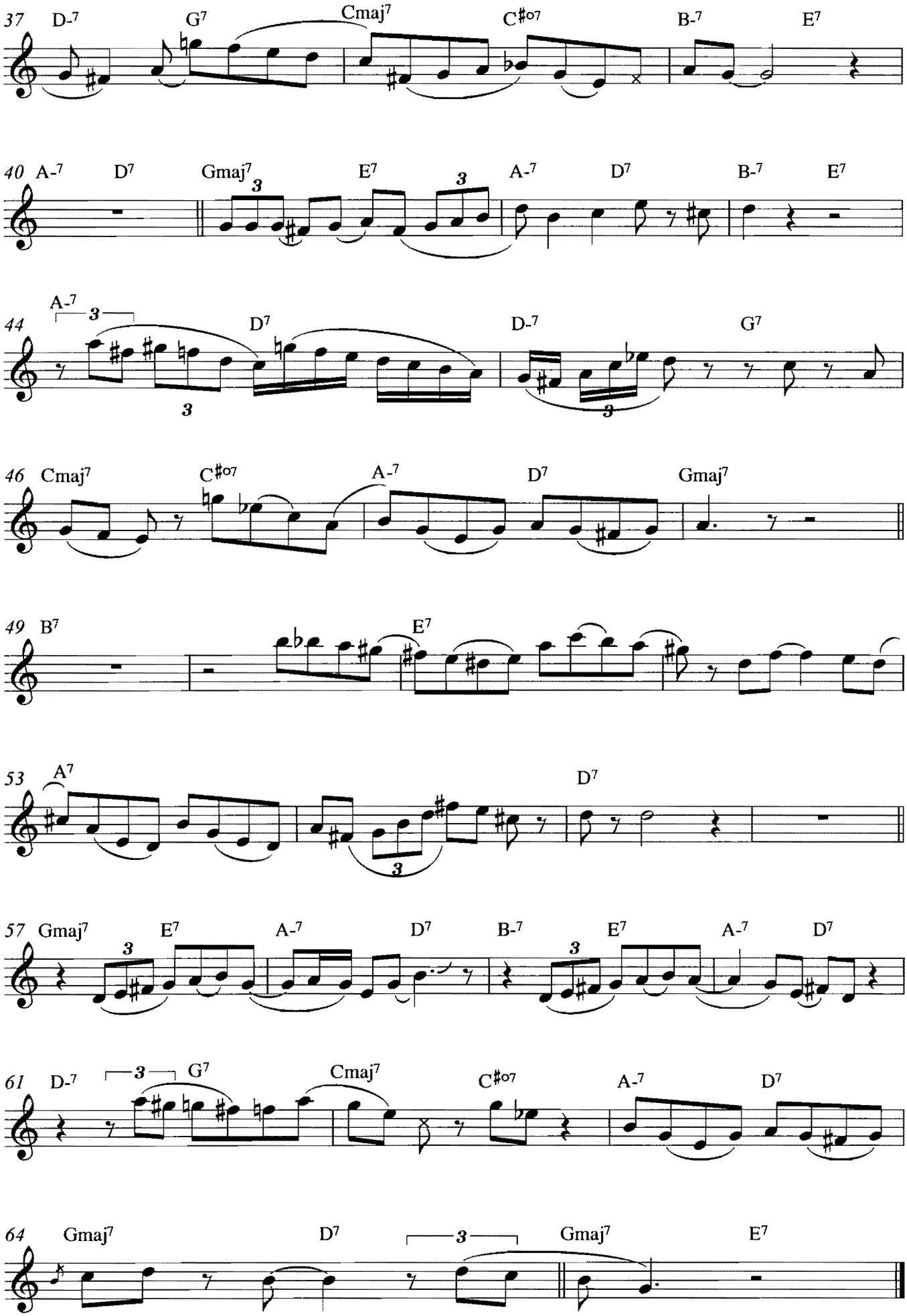
45 F-7 B♭7 E♭maj7 E°7 8va C-7 F7 B♭maj7
49 D7 8va G7
53 C7 8va F7
57 B♭maj7 G7 C-7 F7 D-7 G7 C-7 F7
61 F-7 8va B♭7 E♭maj7 E°7 C-7 F7
64 B♭maj7 F7 B♭maj7 G7

Charlie Parker's solo on Thrivin' on a Riff (E♭)

Transcribed by Gareth Hill

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40 A-7 D7 Gmaj7 E7 A-7 D7 B-7 E7
44 A-7 D7 D-7 G7
46 Cmaj7 C#o7 A-7 D7 Gmaj7
49 B7 E7
53 A7 D7
57 Gmaj7 E7 A-7 D7 B-7 E7 A-7 D7
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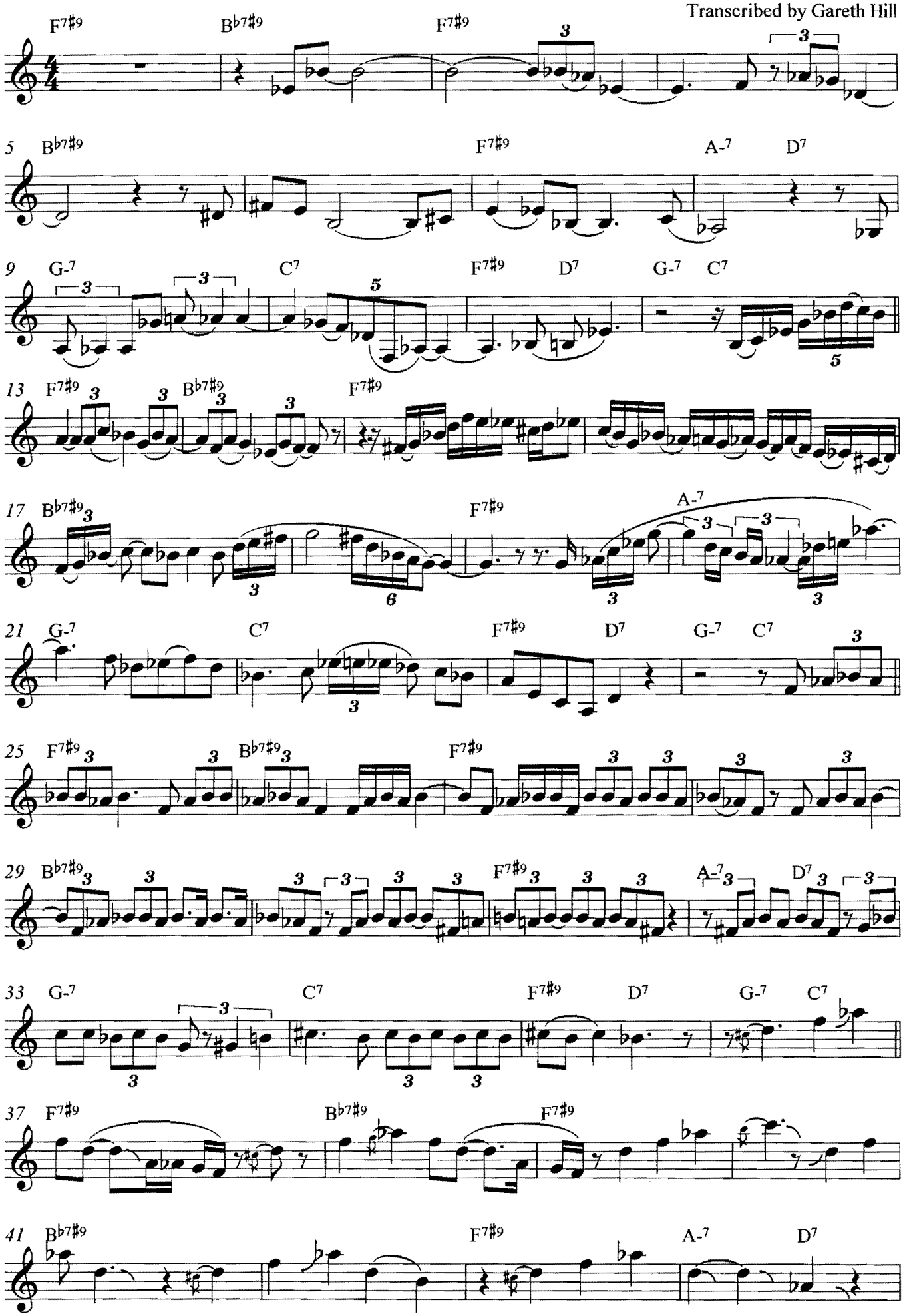
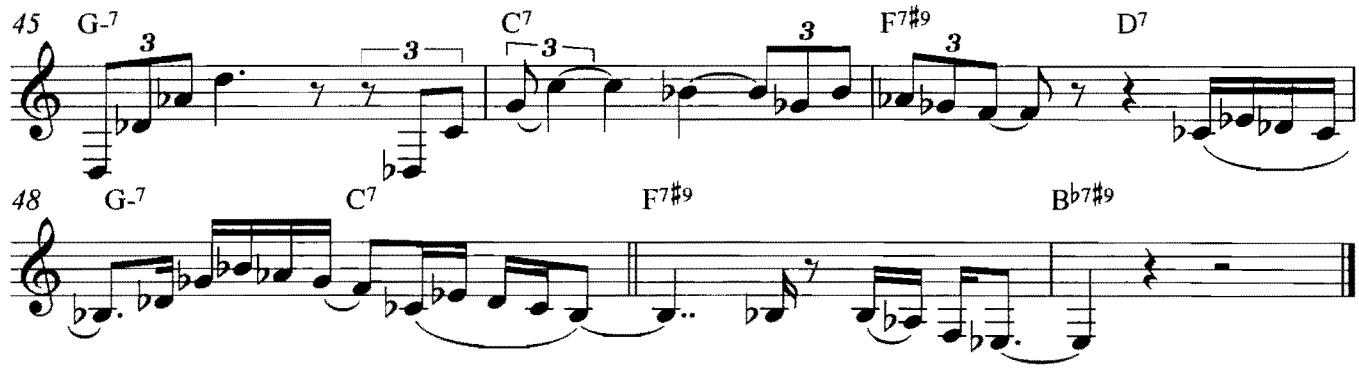
Oliver Nelson's solo on Teenie's Blues

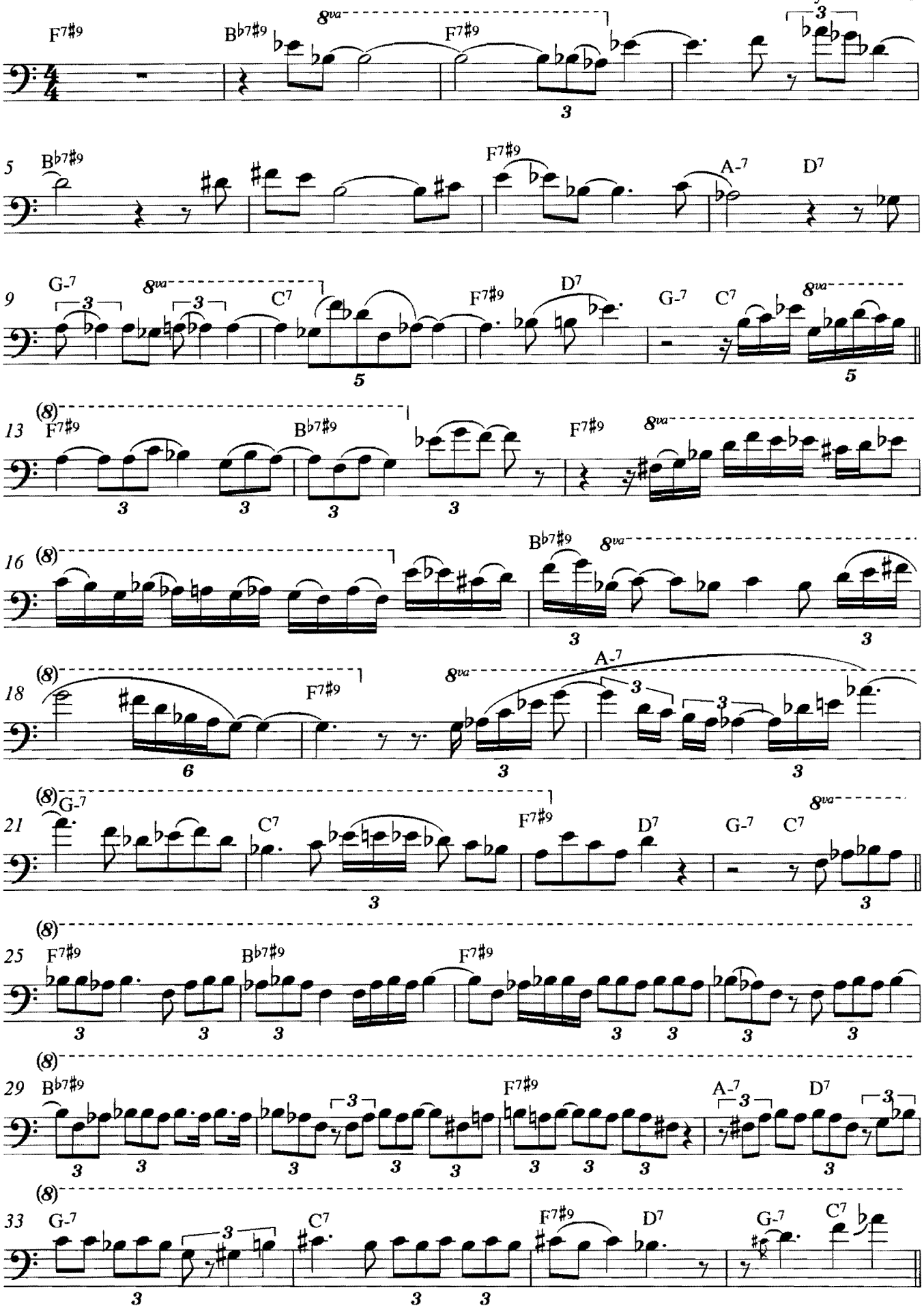
Transcribed by Gareth Hill

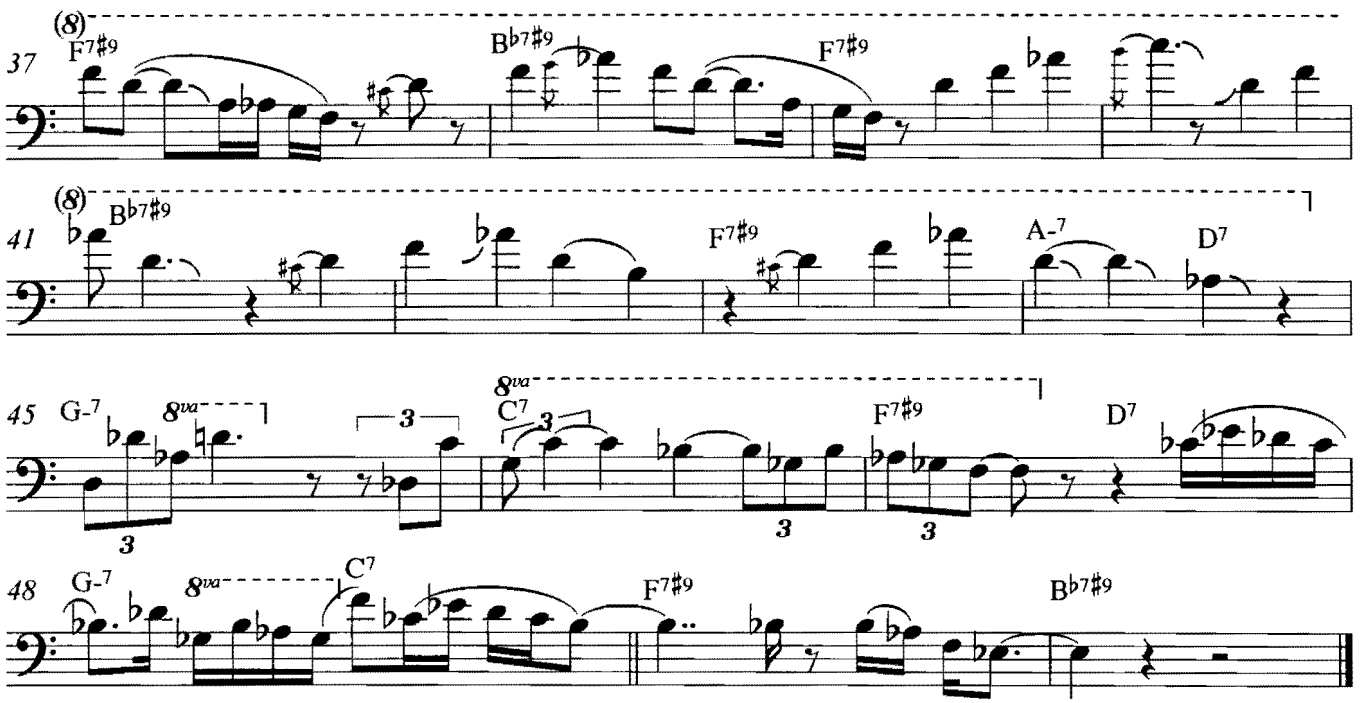



45
G-7
C7
F7#9
D7
48
G-7
C7
F7#9
B♭7#9

Oliver Nelson's solo on Teenie's Blues

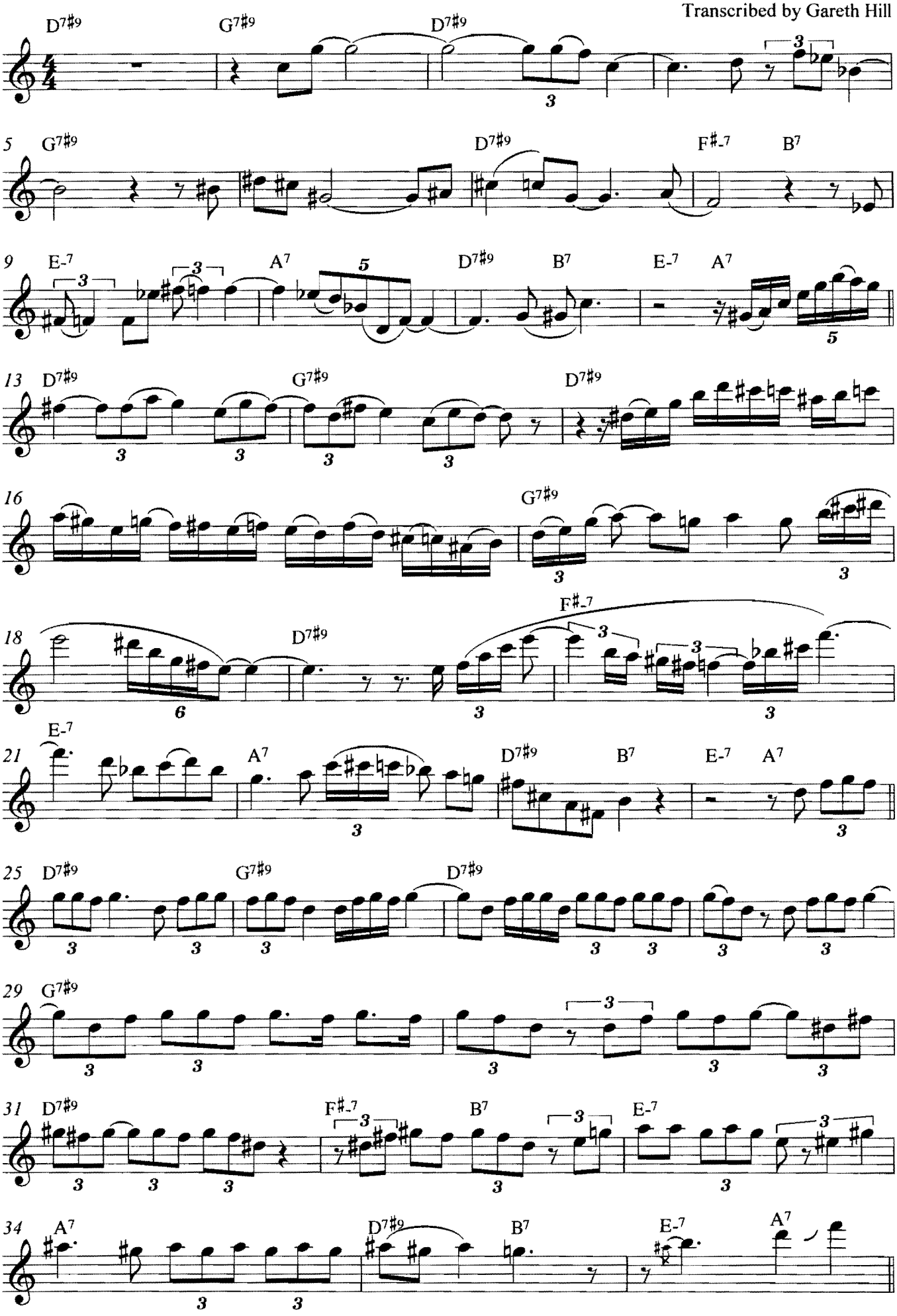
Transcribed by Gareth Hill

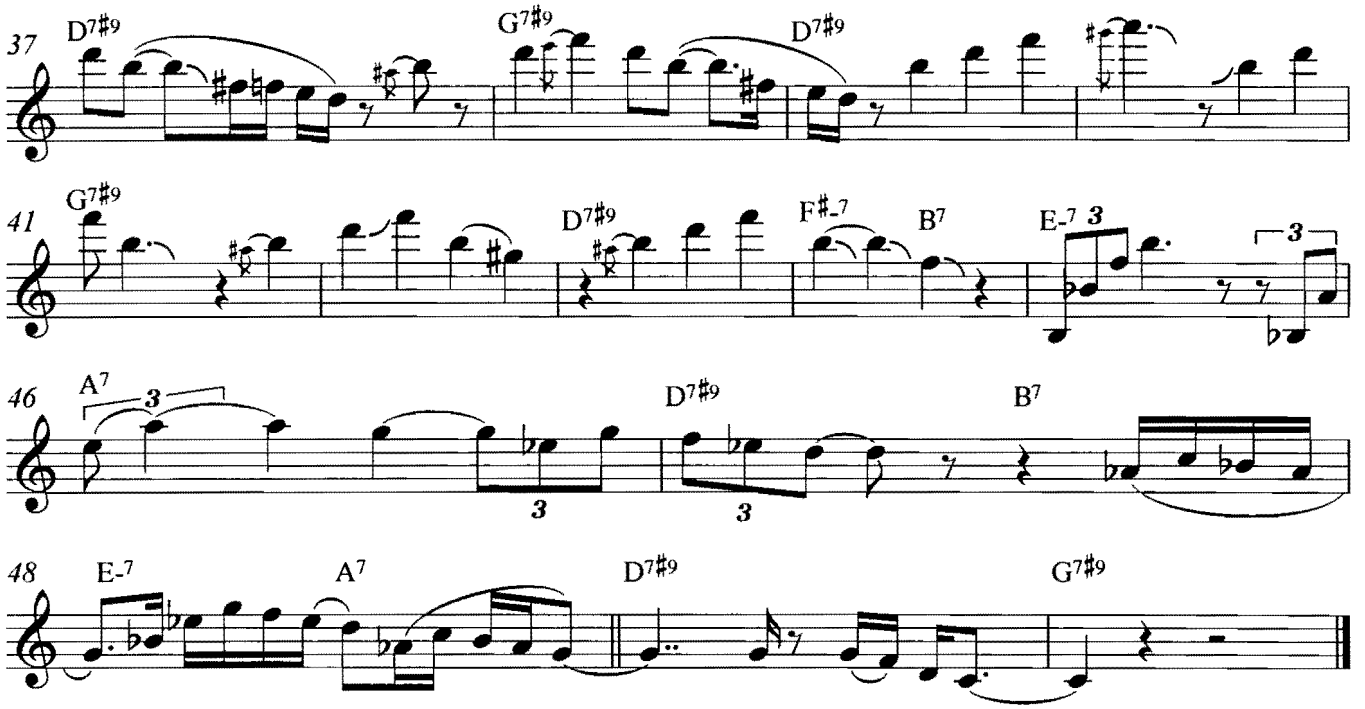



(8)
37
F7♯9
B♭7♯9
F7♯9
(8)
41
B♭7♯9
F7♯9
A-7
D7
45
G-7
8va
3
C7
F7♯9
D7
48
G-7
8va
C7
F7♯9
B♭7♯9

Oliver Nelson's solo on Teenie's Blues (E♭)

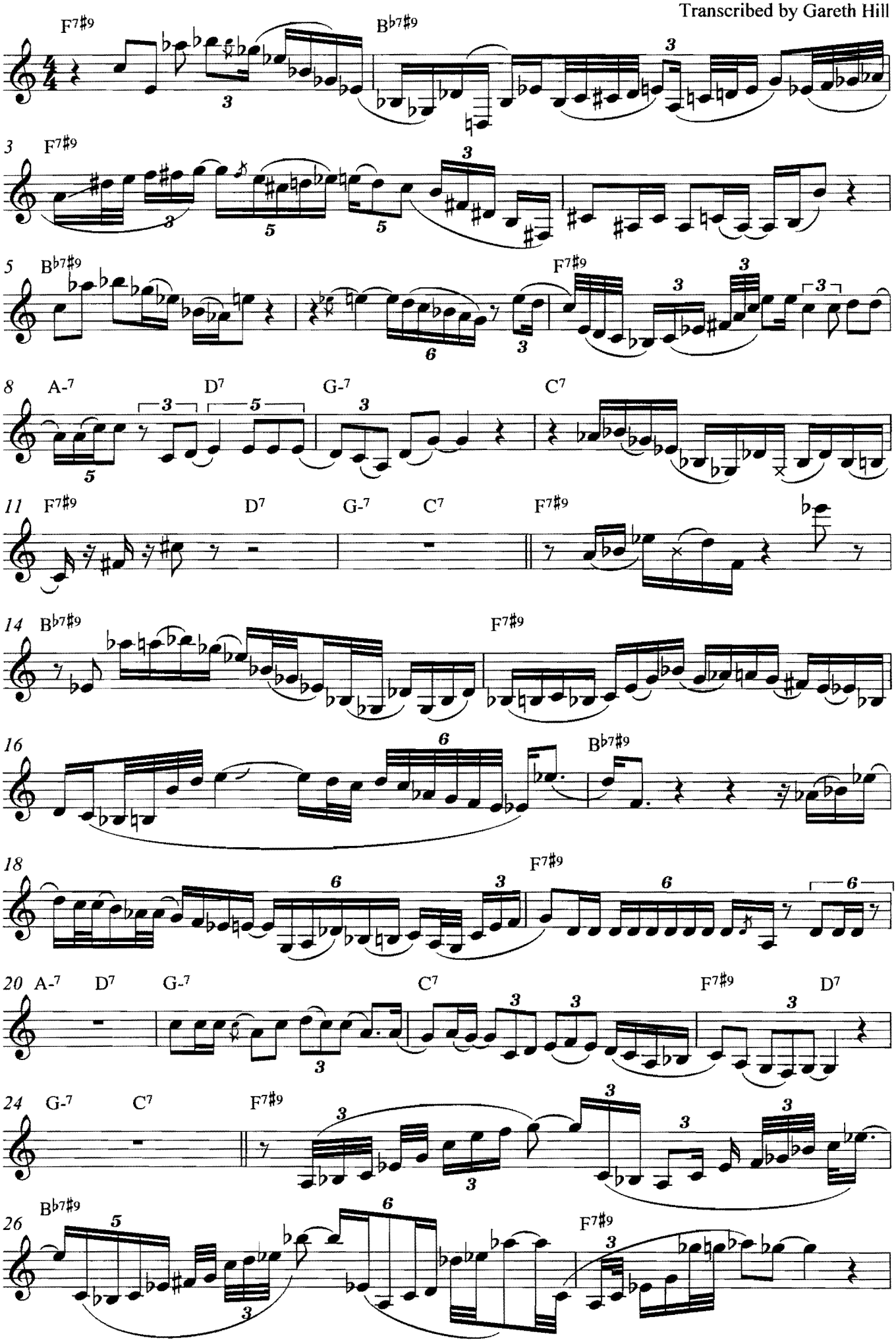
Transcribed by Gareth Hill

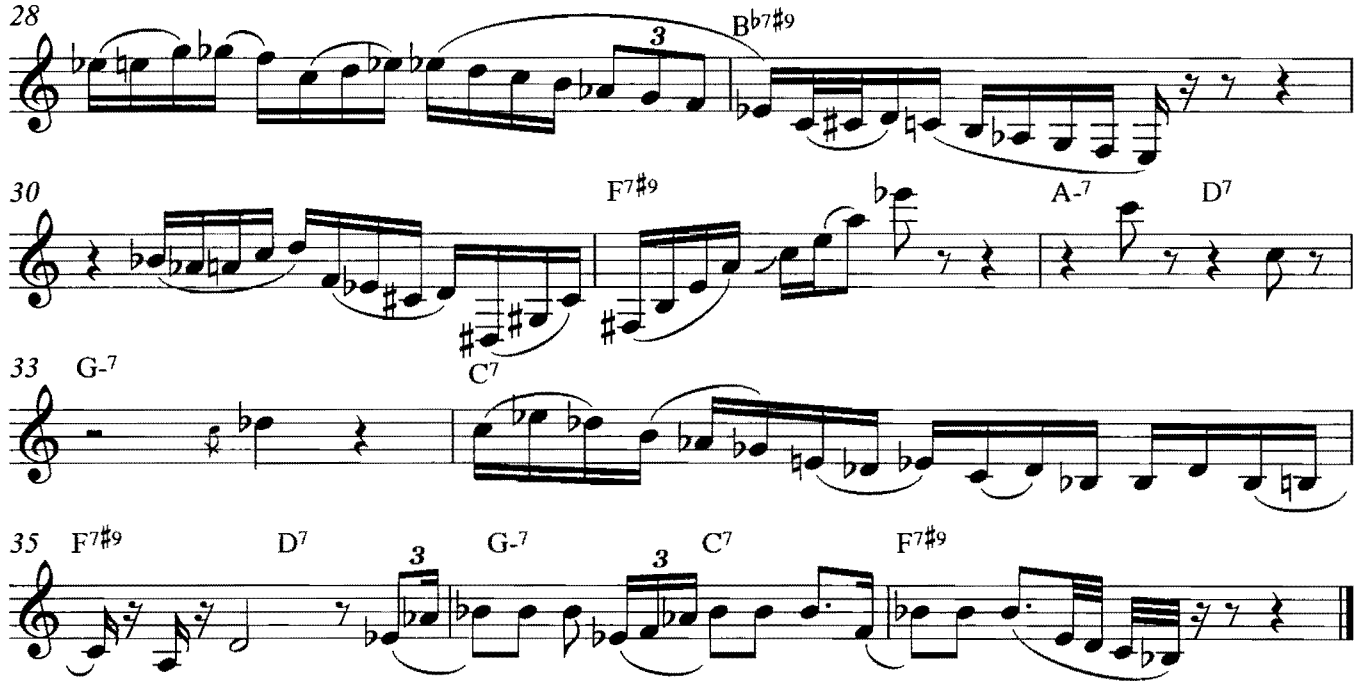



37
D7#9
G7#9
D7#9
41
G7#9
D7#9
F#-7
B7
E-7
3
3
46
A7
3
D7#9
B7
3
3
48
E-7
A7
D7#9
G7#9

Eric Dolphy' solo on Teenie's Blues

Transcribed by Gareth Hill

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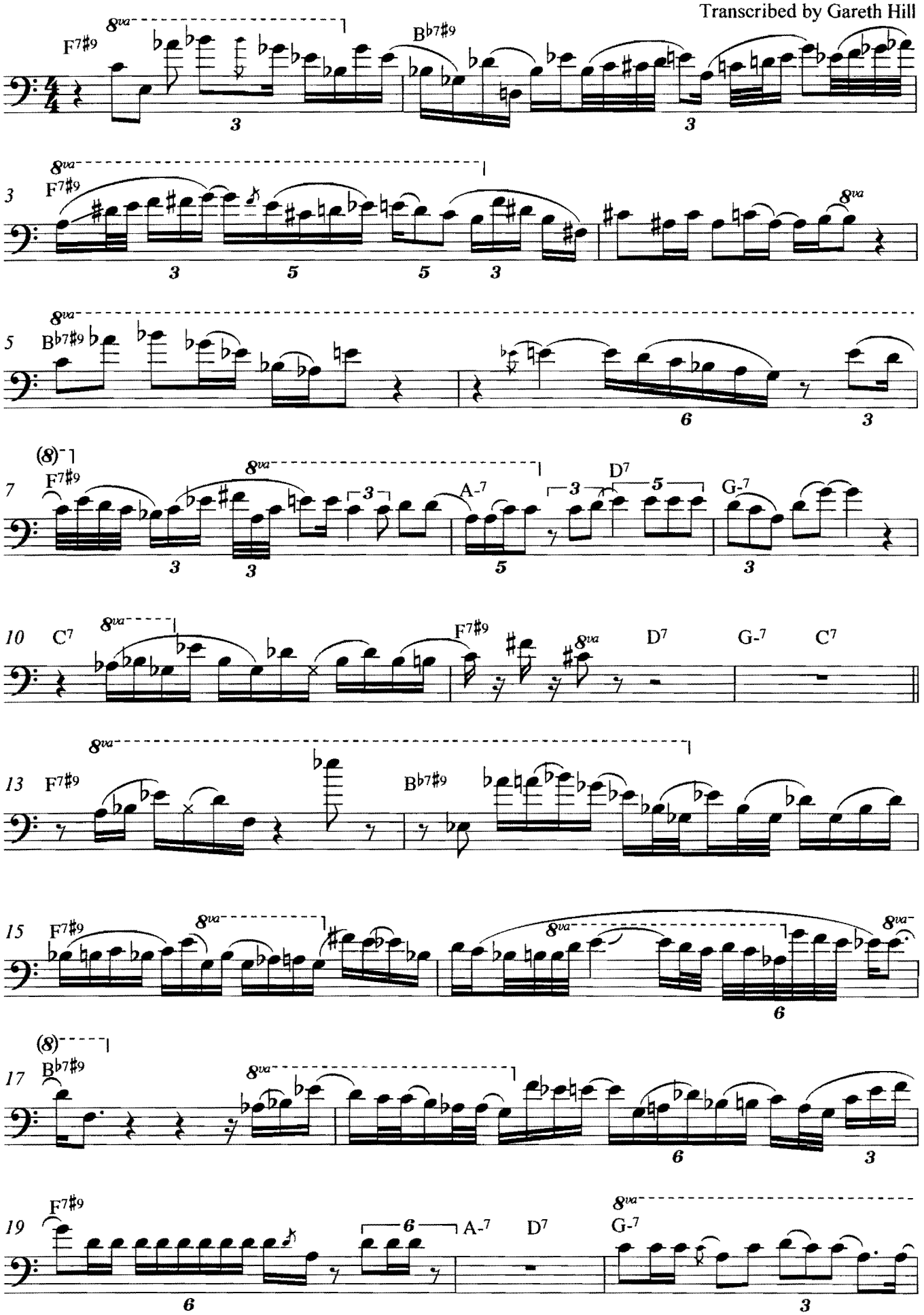
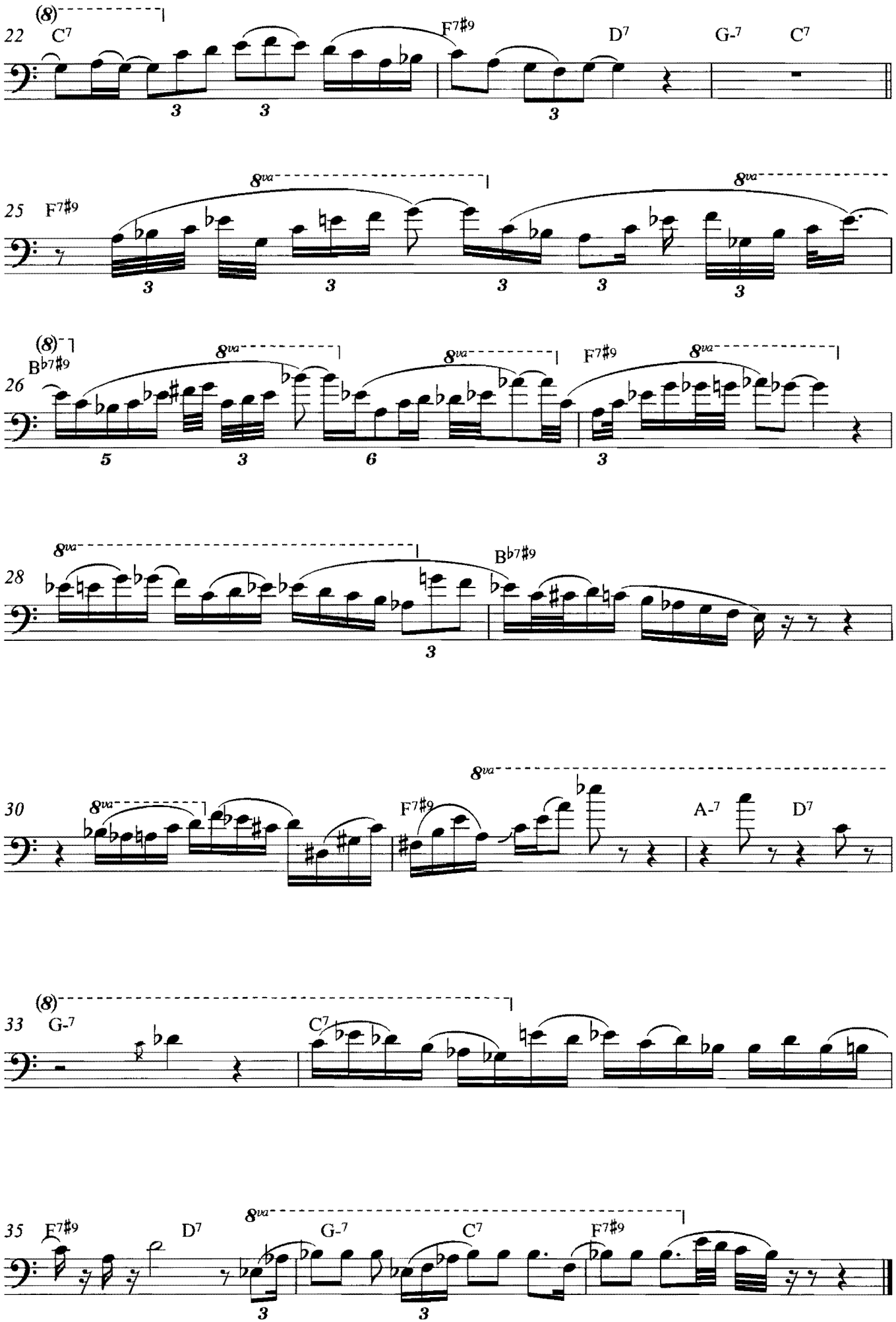
B♭7♯9
30
F7♯9
A-7
D7
33
G-7
C7
35
F7♯9
D7
G-7
C7
F7♯9

Eric Dolphy' solo on Teenie's Blues

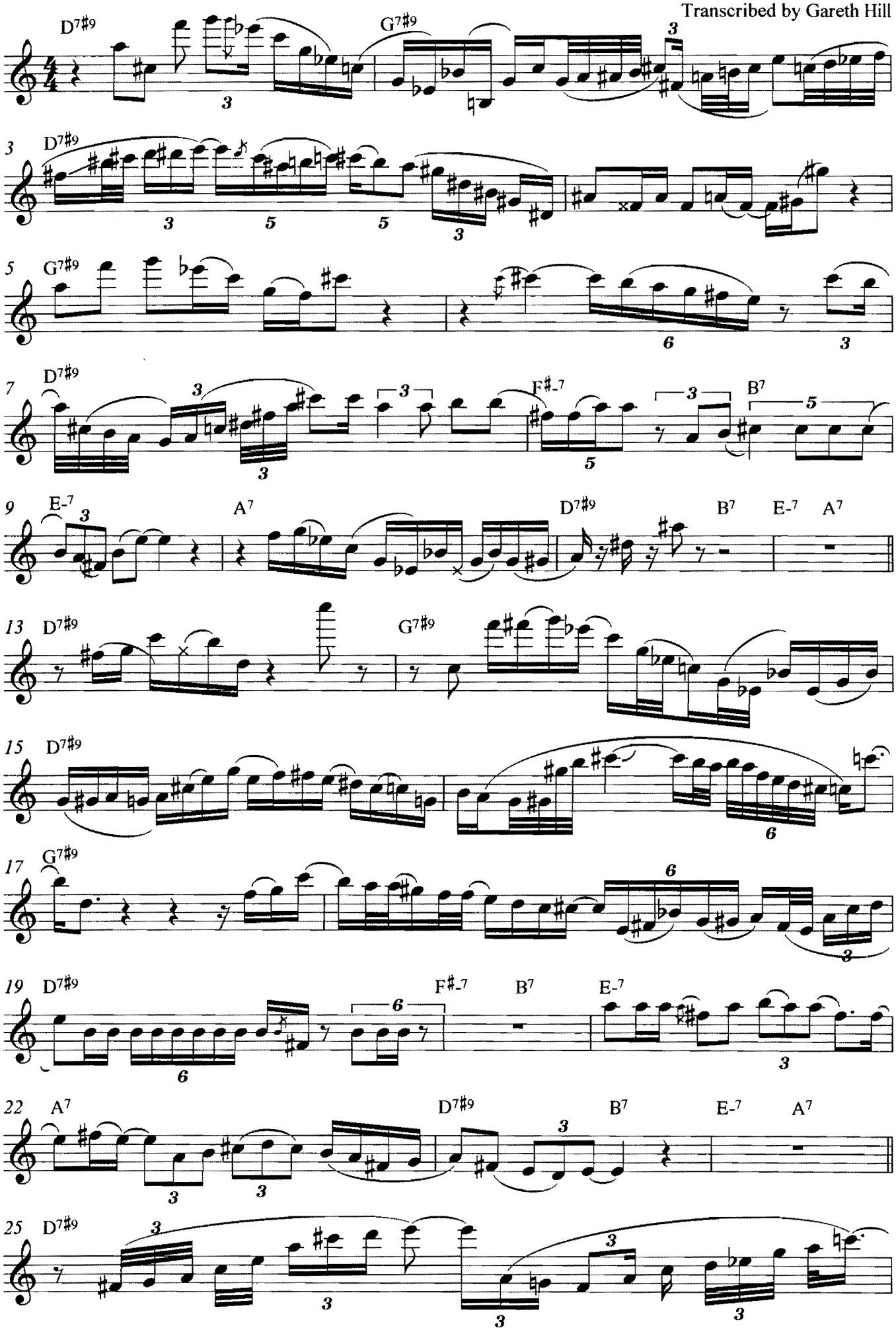
Transcribed by Gareth Hill

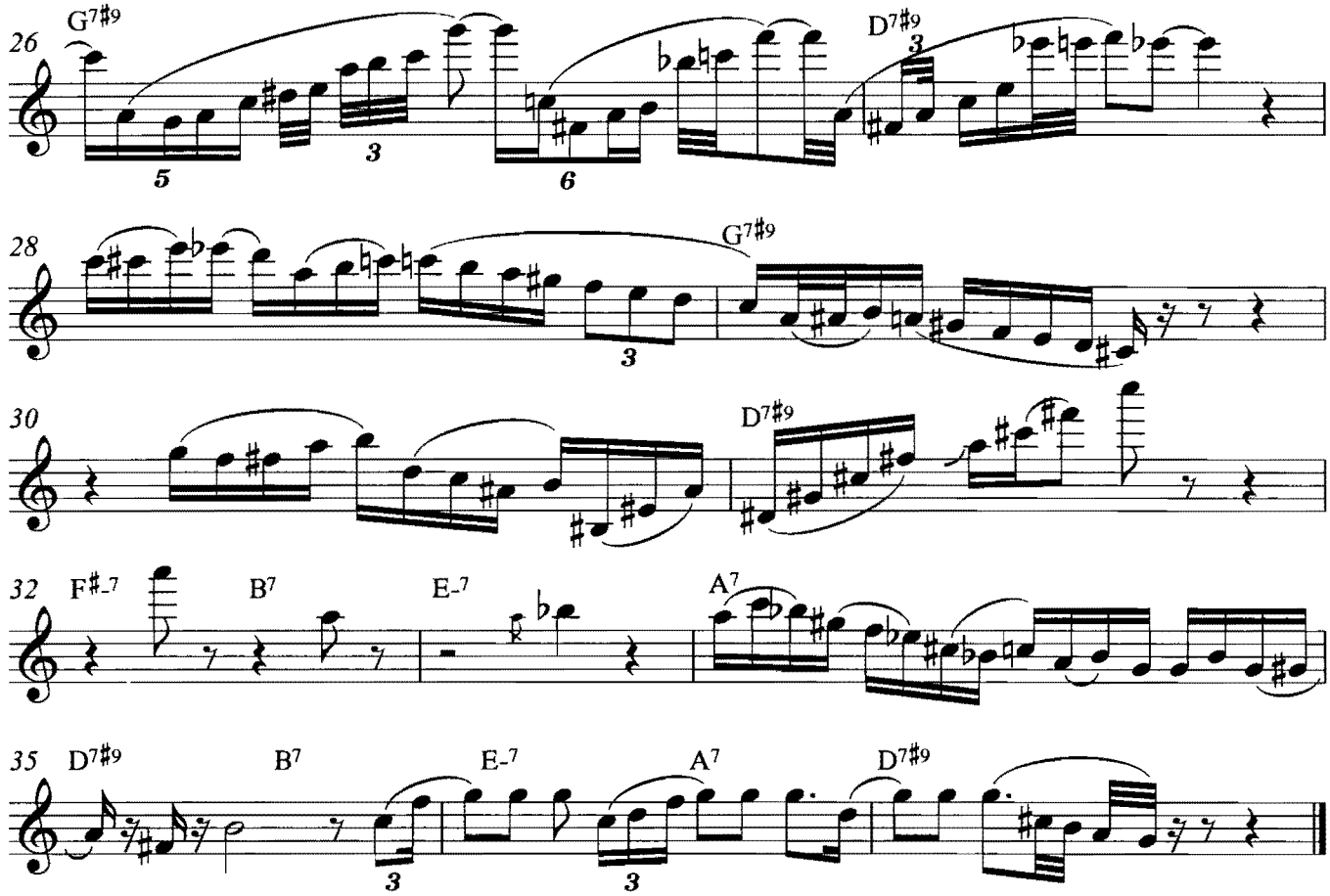



22
C7
F7#9
D7
G-7
C7
25
F7#9
26
Bb7#9
F7#9
28
Bb7#9
30
F7#9
A-7
D7
33
G-7
C7
35
E7#9
D7
G-7
C7
F7#9

Eric Dolphy' solo on Teenie's Blues (E♭)

Transcribed by Gareth Hill

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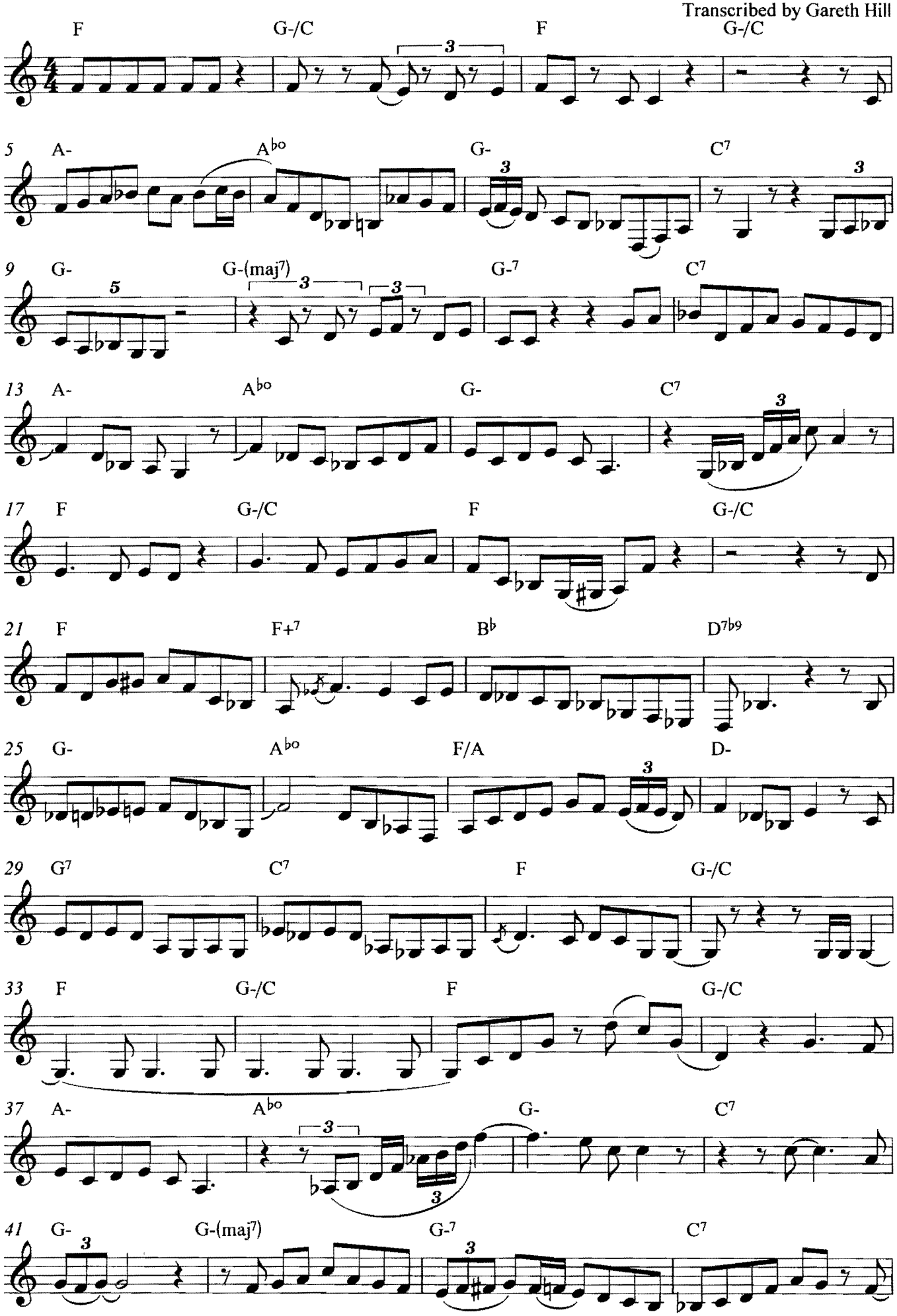
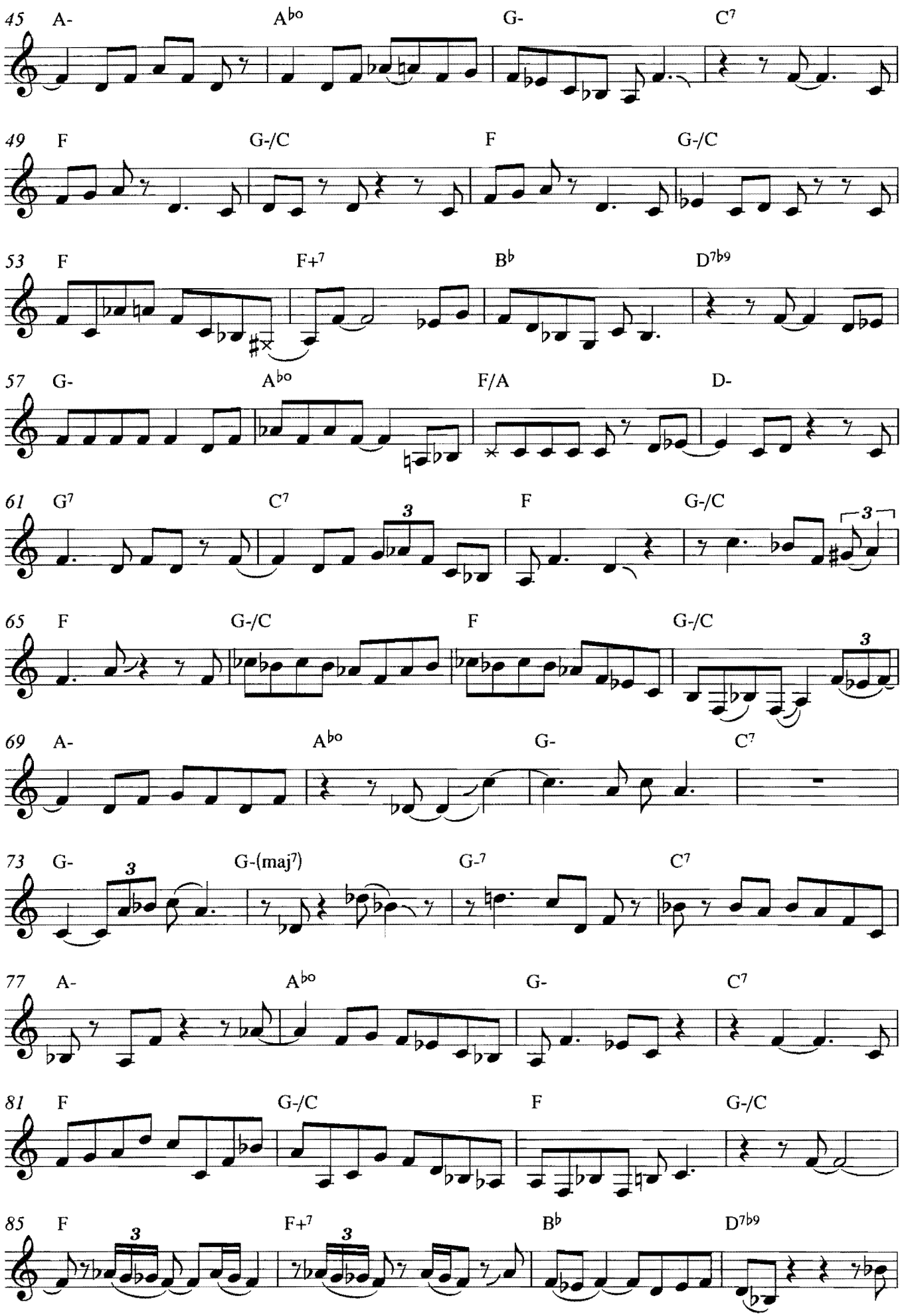
G7#9
5
3
6
D7#9
3
28
G7#9
3
30
D7#9
32
F#-7
B7
E-7
A7
35
D7#9
B7
3
E-7
A7
3
D7#9

Dexter Gordon's Three O'clock in the Morning solo

Transcribed by Gareth Hill

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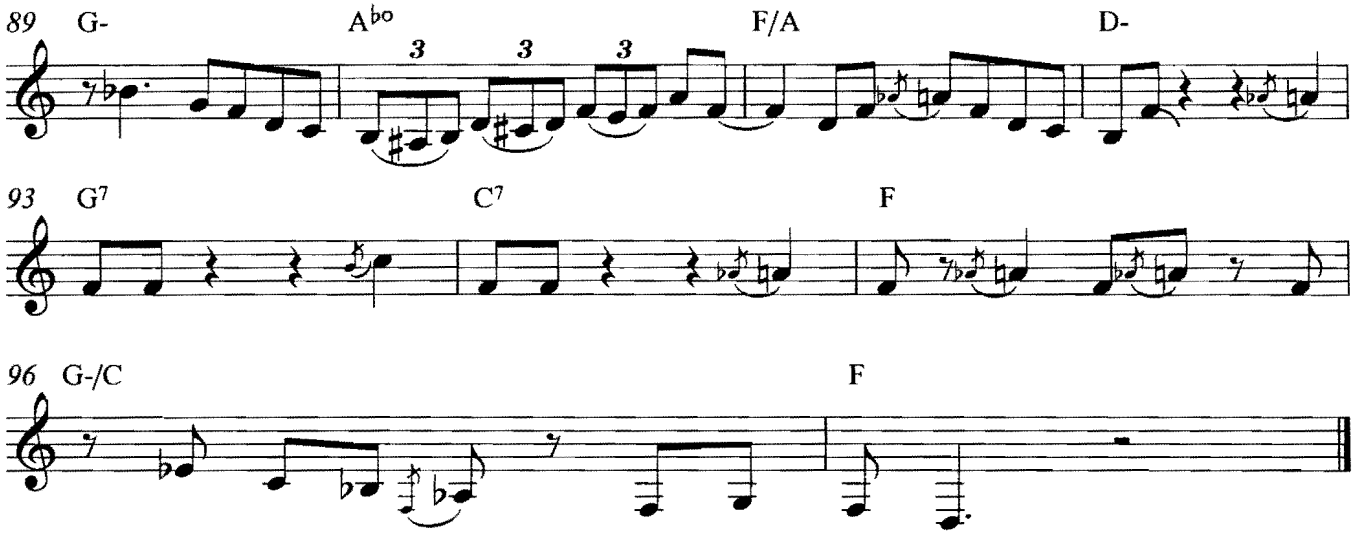
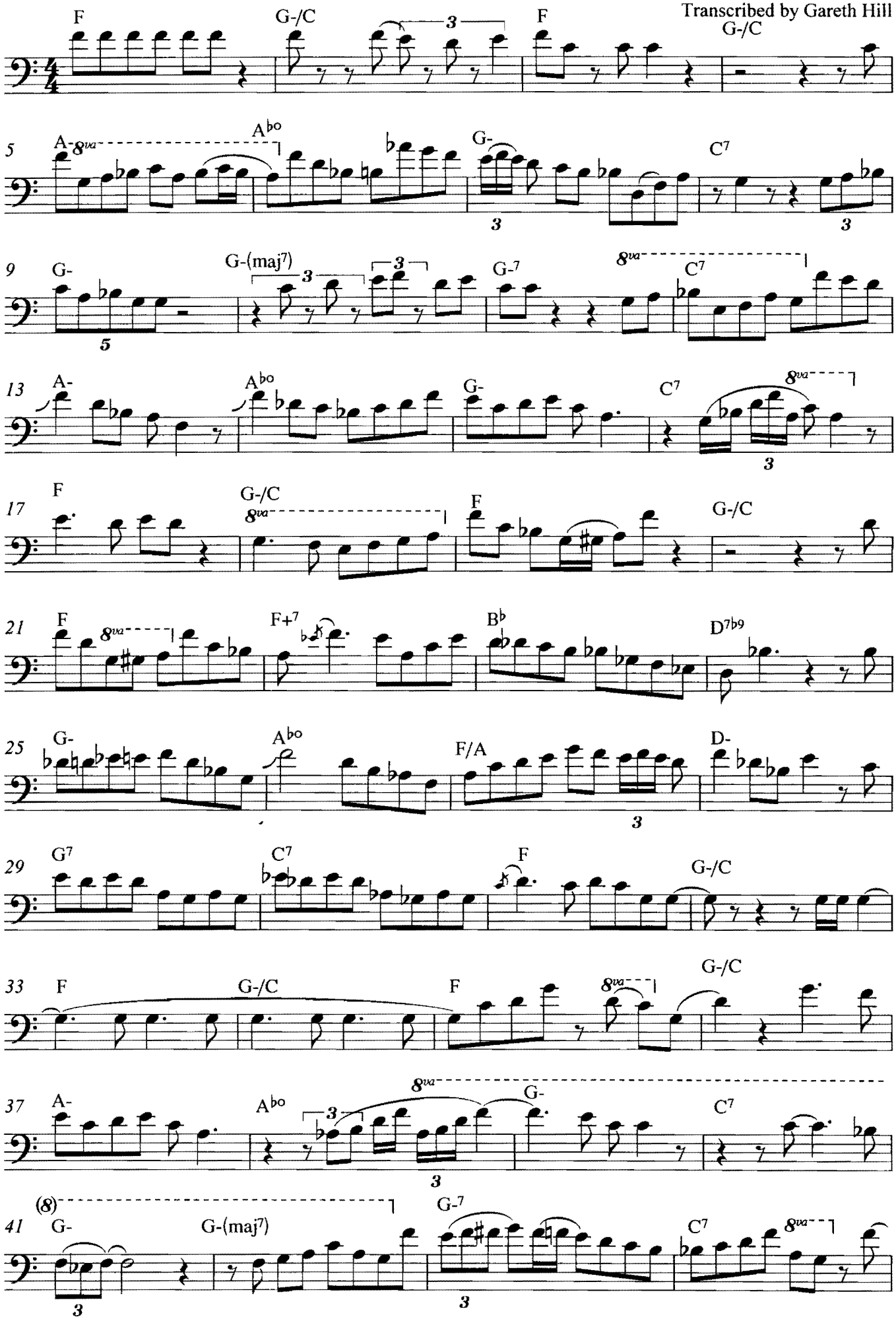
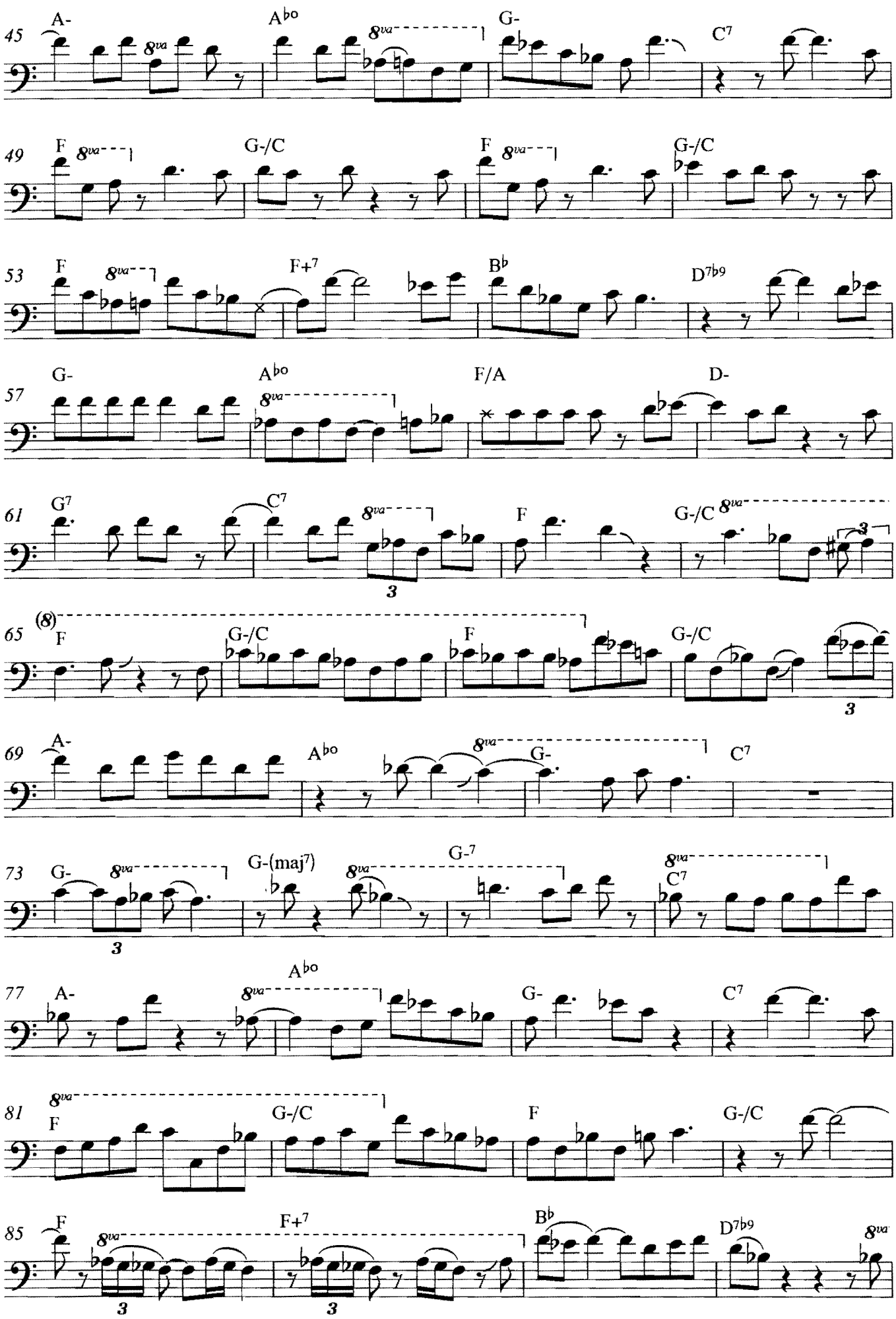
49 F G-/C F G-/C
53 F F+7 B♭ D7♭9
57 G- A♭o F/A D-
61 G7 C7 F G-/C
65 F G-/C F G-/C
69 A- A♭o G- C7
73 G- G-(maj7) G-7 C7
77 A- A♭o G- C7
81 F G-/C F G-/C
85 F F+7 B♭ D7♭9

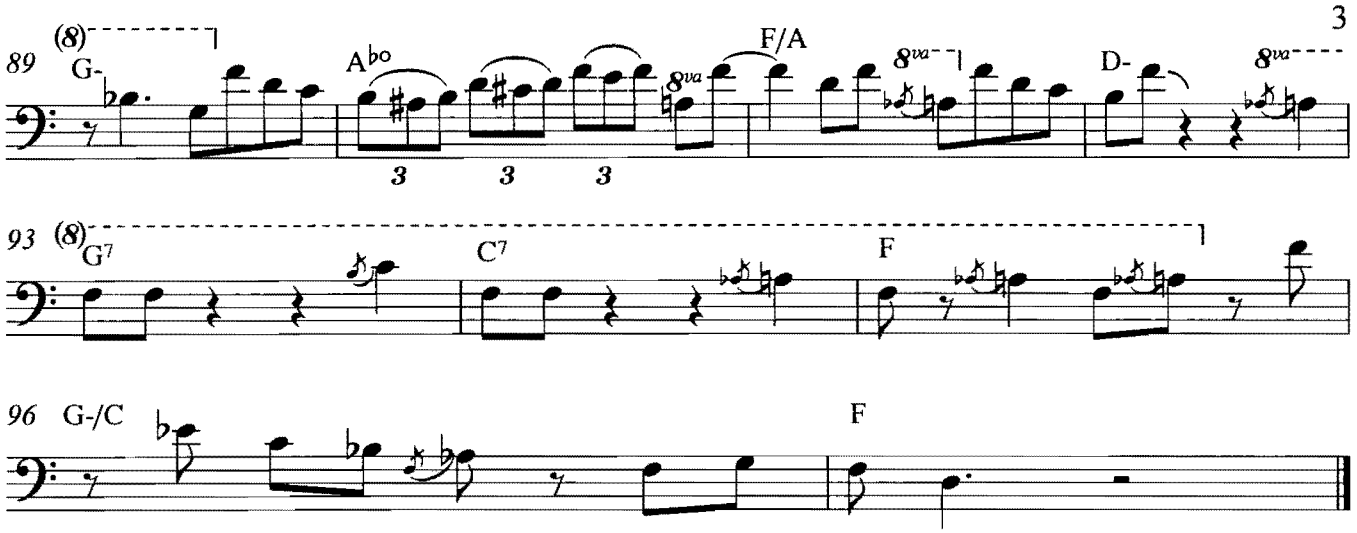

89
G-
A♭o
F/A
D-
93
G7
C7
F
96
G-/C
F

Dexter Gordon's Three O'clock in the Morning solo

Transcribed by Gareth Hill

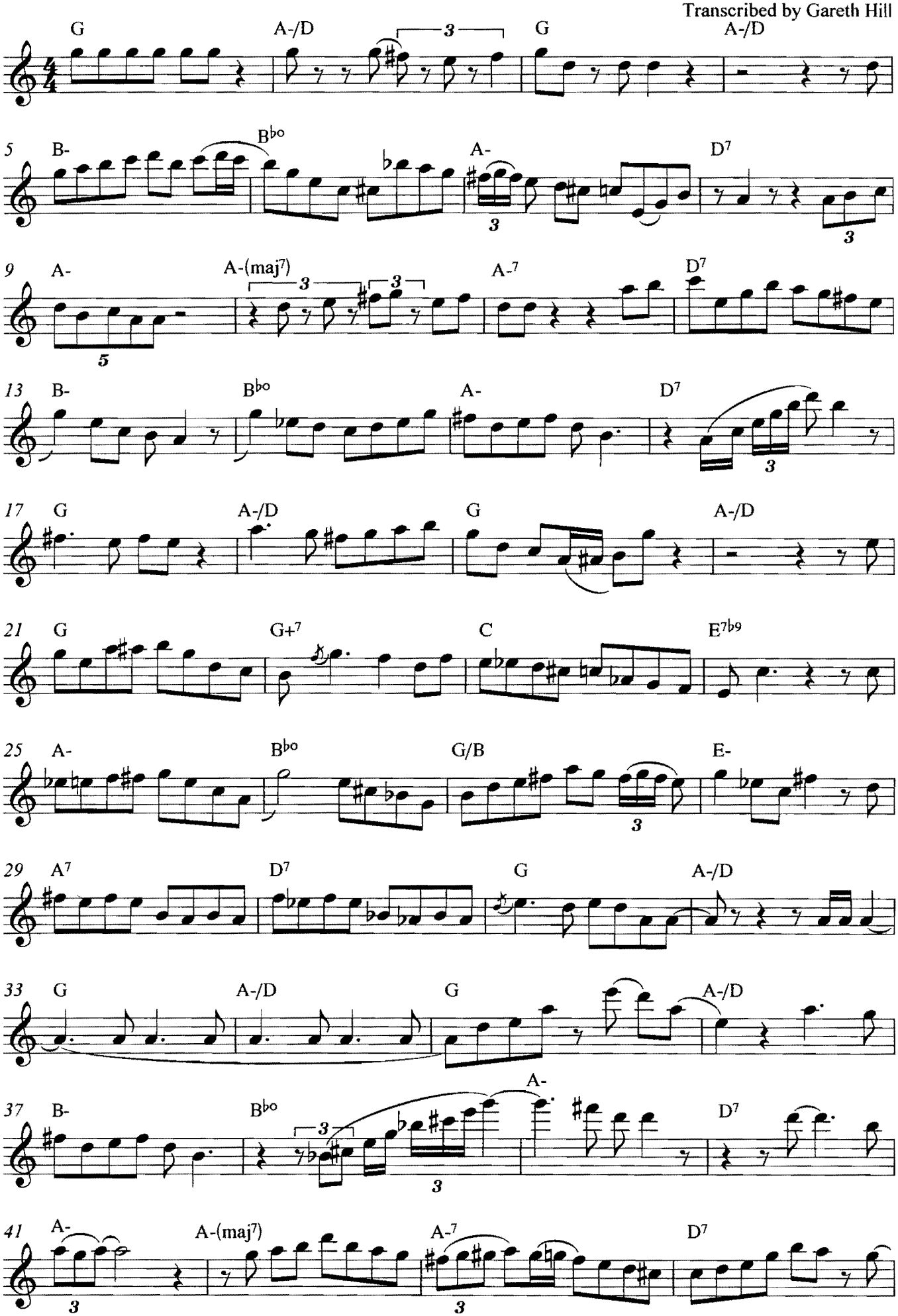


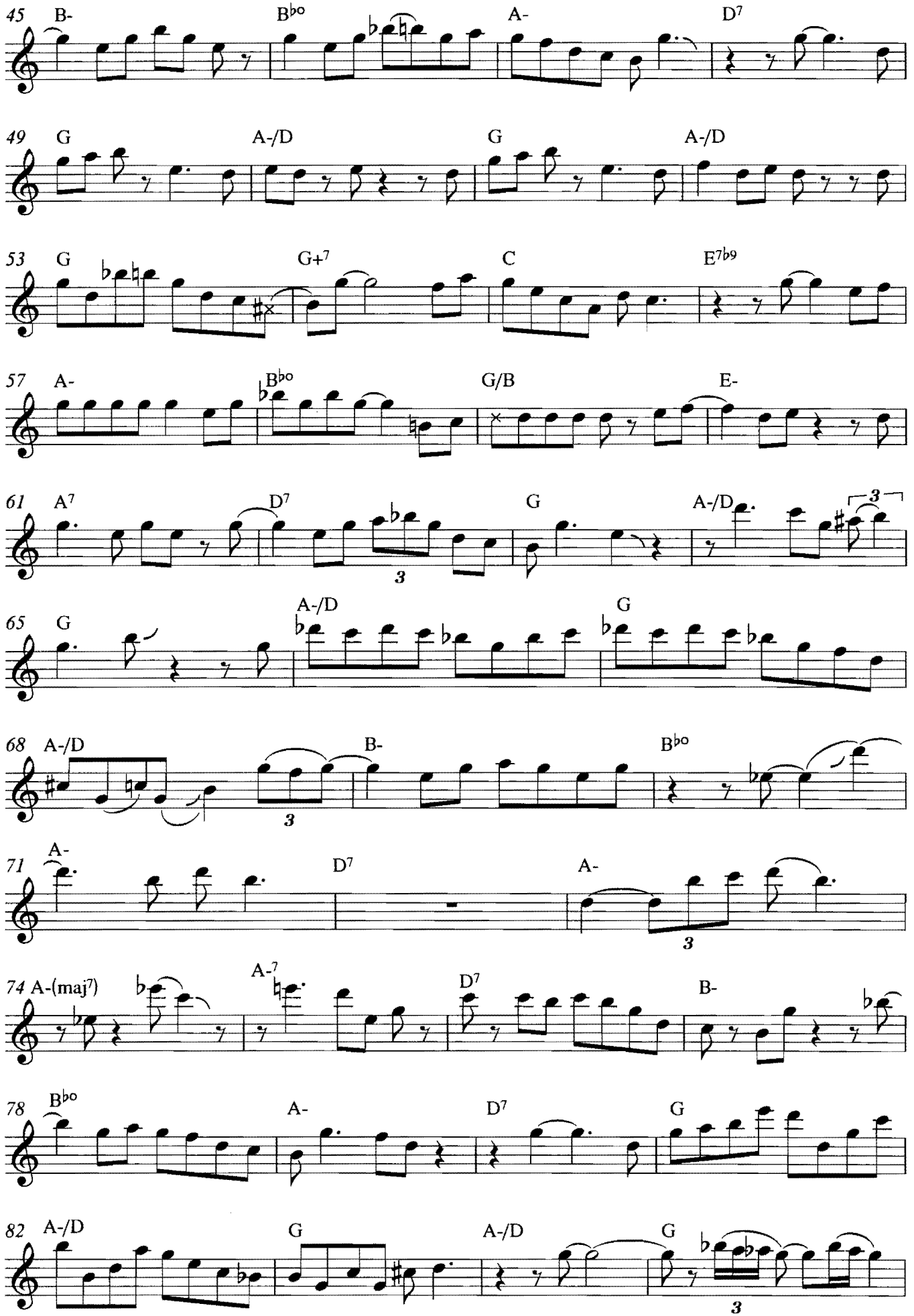

45
A-
A♭o
G-
C7
49
F
G-/C
F
G-/C
53
F
F+7
B♭
D7♭9
57
G-
A♭o
F/A
D-
61
G7
C7
F
G-/C
65
(8)
F
G-/C
F
G-/C
69
A-
A♭o
G-
C7
73
G-
G-(maj7)
G-7
C7
77
A-
A♭o
G-
C7
81
F
G-/C
F
G-/C
85
F
F+7
B♭
D7♭9


89
(8)
G-
A♭o
F/A
8va
D-
93
(8)
G7
C7
F
96
G-/C
F

Dexter Gordon's Three O'clock in the Morning solo (Bb)

Transcribed by Gareth Hill

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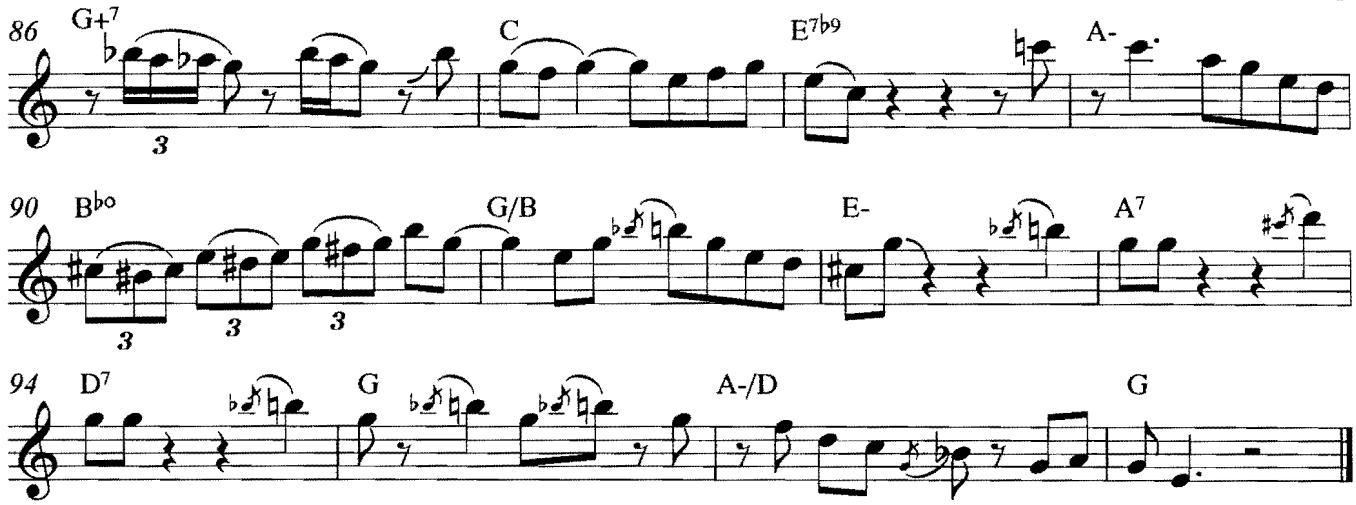
49 G A-/D G A-/D
53 G G+7 C E7b9
57 A- Bbo G/B E-
61 A7 D7 G A-/D
65 G A-/D G
68 A-/D B- Bbo
71 A- D7 A-
74 A-(maj7) A-7 D7 B-
78 Bbo A- D7 G
82 A-/D G A-/D G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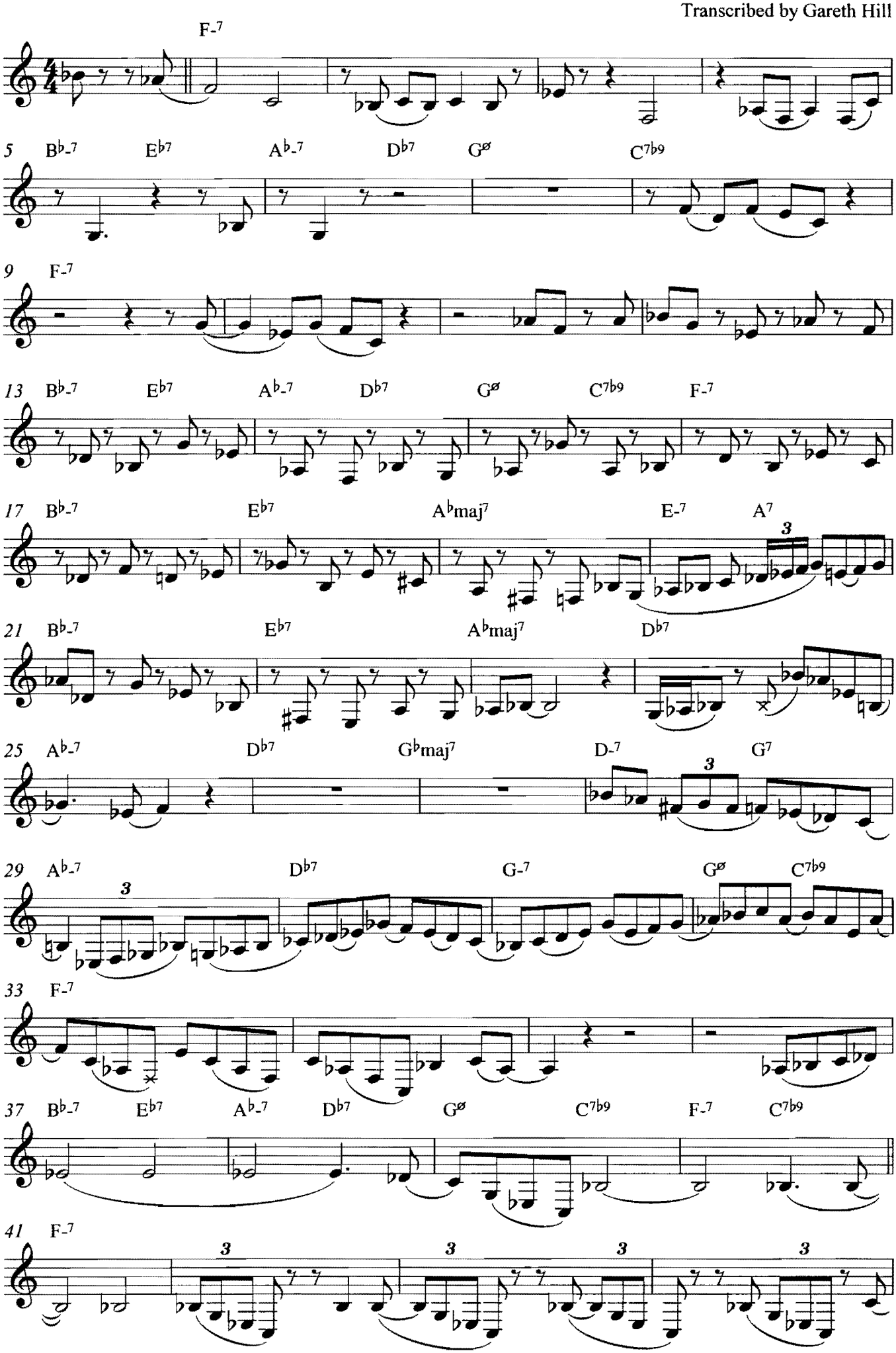
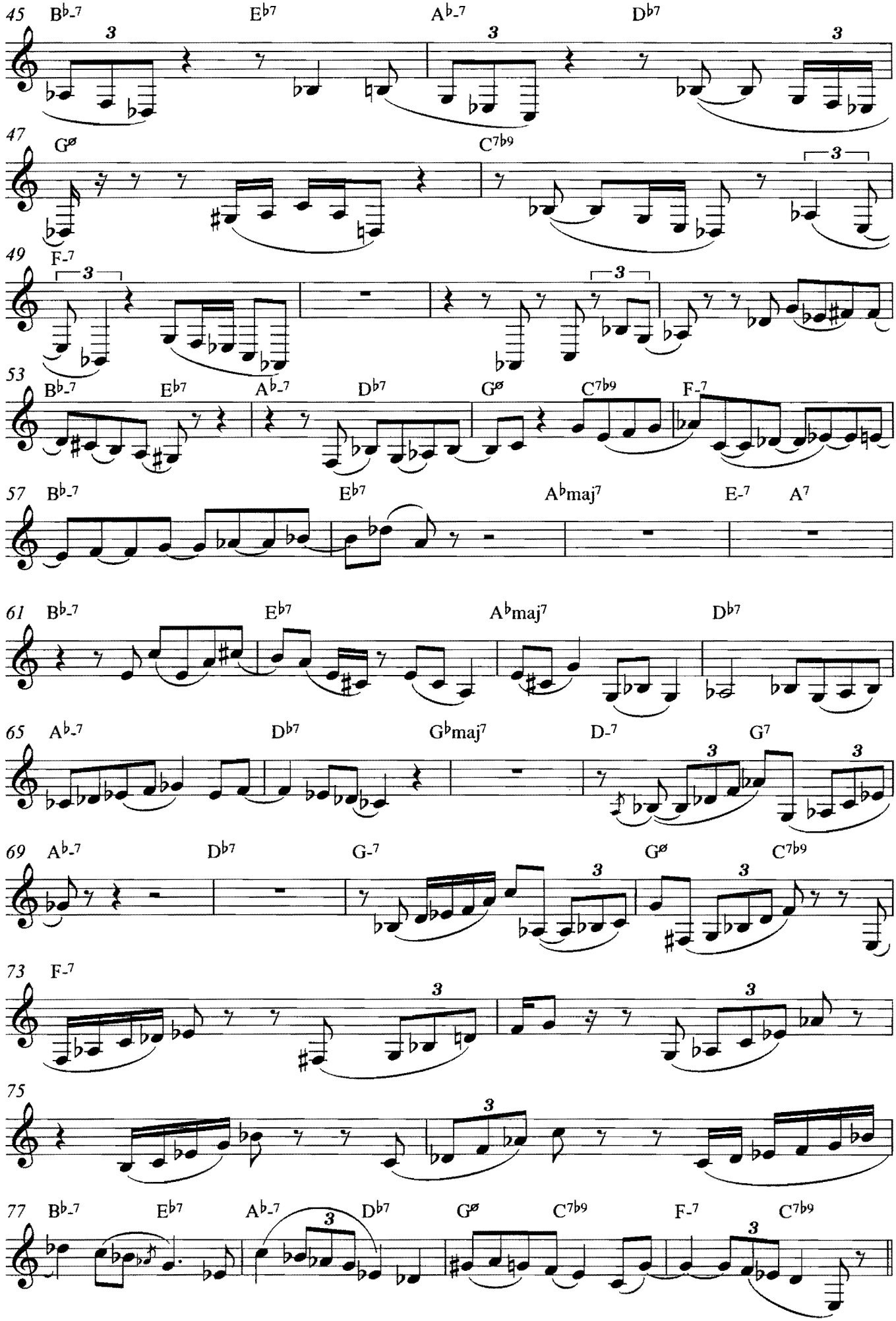
G+7
C
E7b9
A-
90
Bbo
G/B
E-
A7
94
D7
G
A-/D
G

Joe Henderson's solo on Black

Transcribed by Gareth Hill

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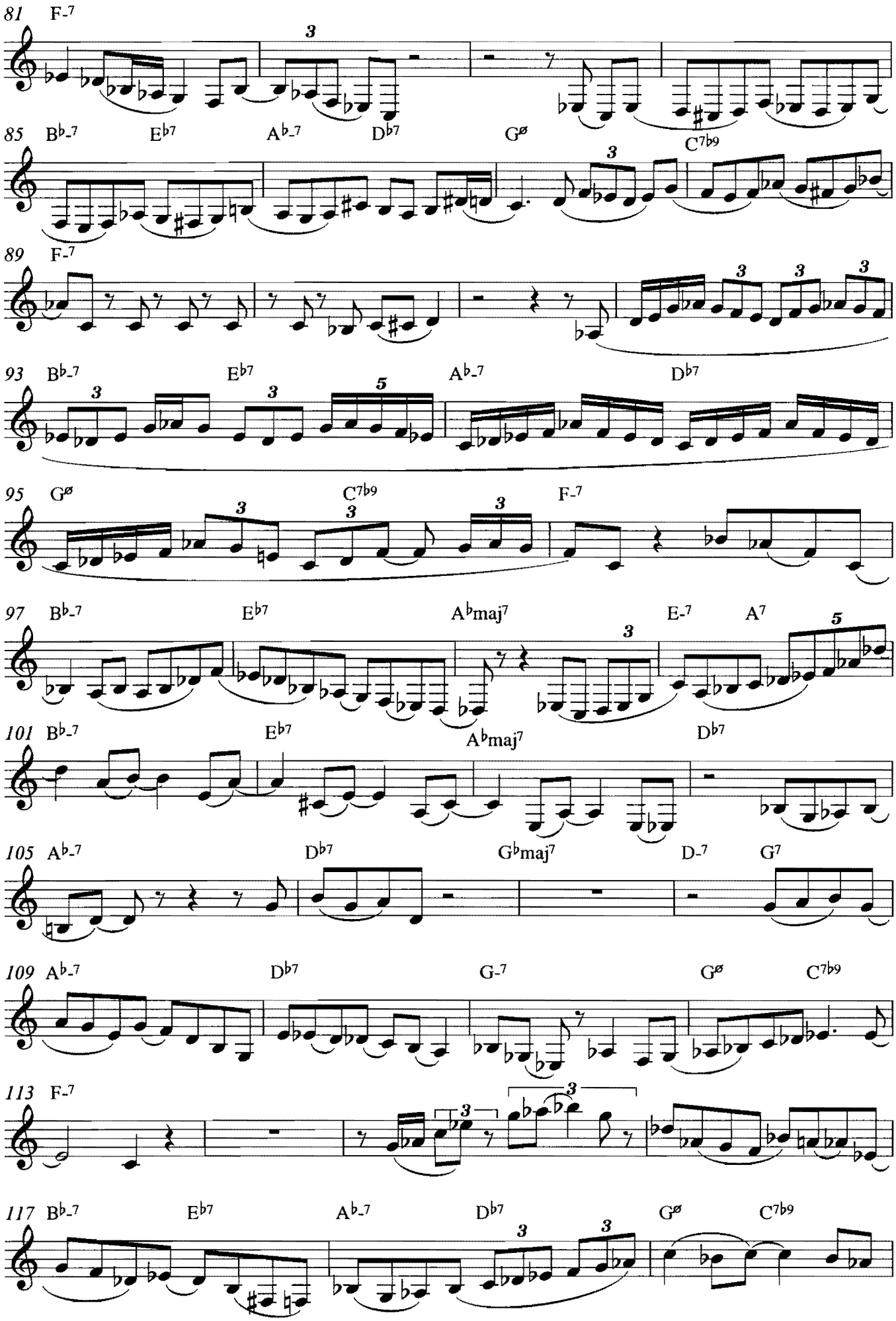
47 Gø C7♭9
49 F-7
53 B♭-7 E♭7 A♭-7 D♭7 Gø C7♭9 F-7
57 B♭-7 E♭7 A♭maj7 E-7 A7
61 B♭-7 E♭7 A♭maj7 D♭7
65 A♭-7 D♭7 G♭maj7 D-7 G7
69 A♭-7 D♭7 G-7 Gø C7♭9
73 F-7
75
77 B♭-7 E♭7 A♭-7 D♭7 Gø C7♭9 F-7 C7♭9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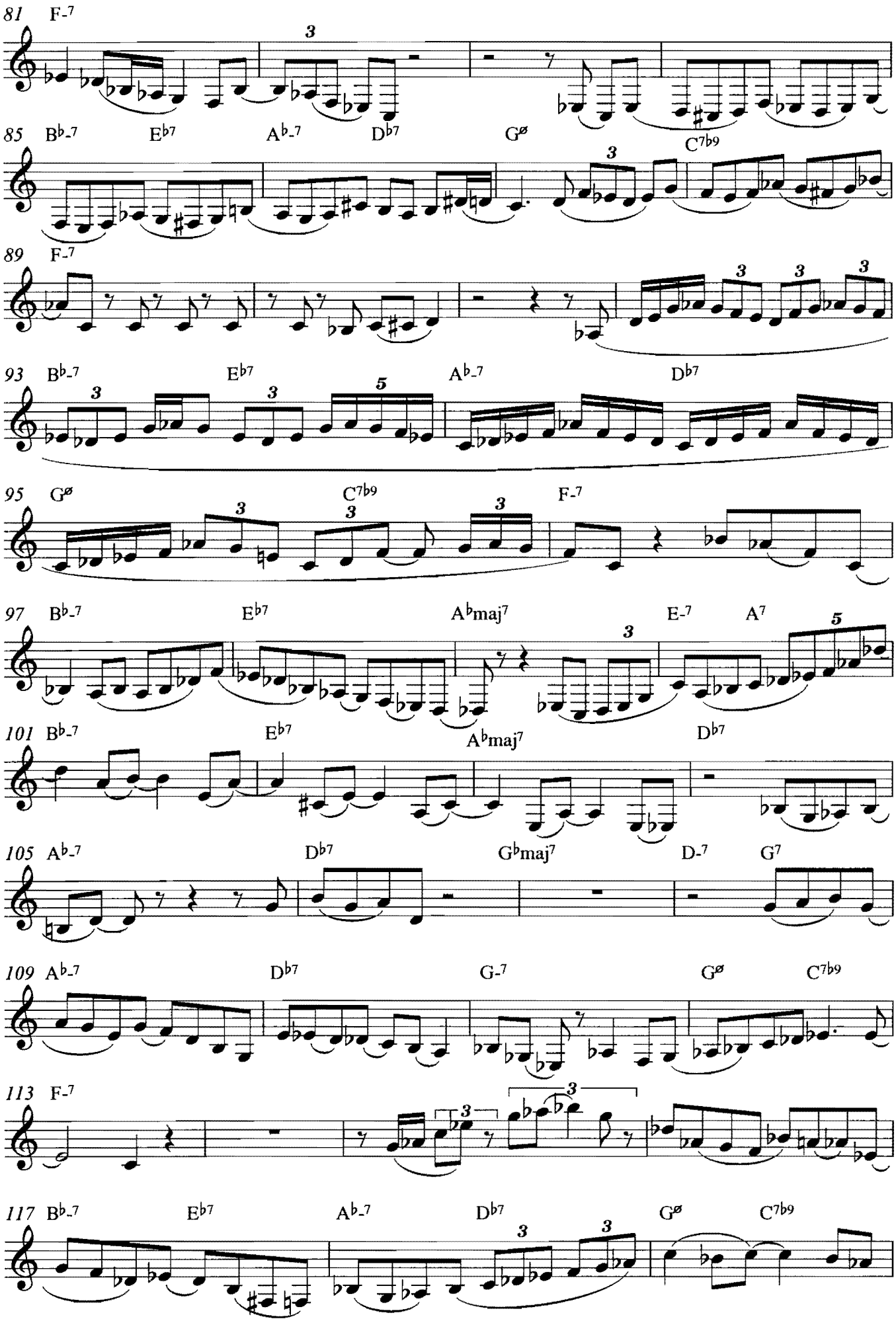
89 F-7
93 B♭-7 E♭7 A♭-7 D♭7
95 Gø C7♭9 F-7
97 B♭-7 E♭7 A♭maj7 E-7 A7
101 B♭-7 E♭7 A♭maj7 D♭7
105 A♭-7 D♭7 G♭maj7 D-7 G7
109 A♭-7 D♭7 G-7 Gø C7♭9
113 F-7
117 B♭-7 E♭7 A♭-7 D♭7 Gø C7♭9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85 B♭-7 E♭7 A♭-7 D♭7 Gø C7♭9
89 F-7
93 B♭-7 E♭7 A♭-7 D♭7
95 Gø C7♭9 F-7
97 B♭-7 E♭7 A♭maj7 E-7 A7
101 B♭-7 E♭7 A♭maj7 D♭7
105 A♭-7 D♭7 G♭maj7 D-7 G7
109 A♭-7 D♭7 G-7 Gø C7♭9
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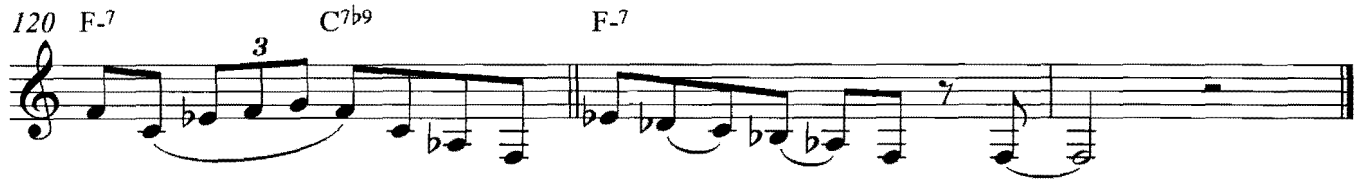
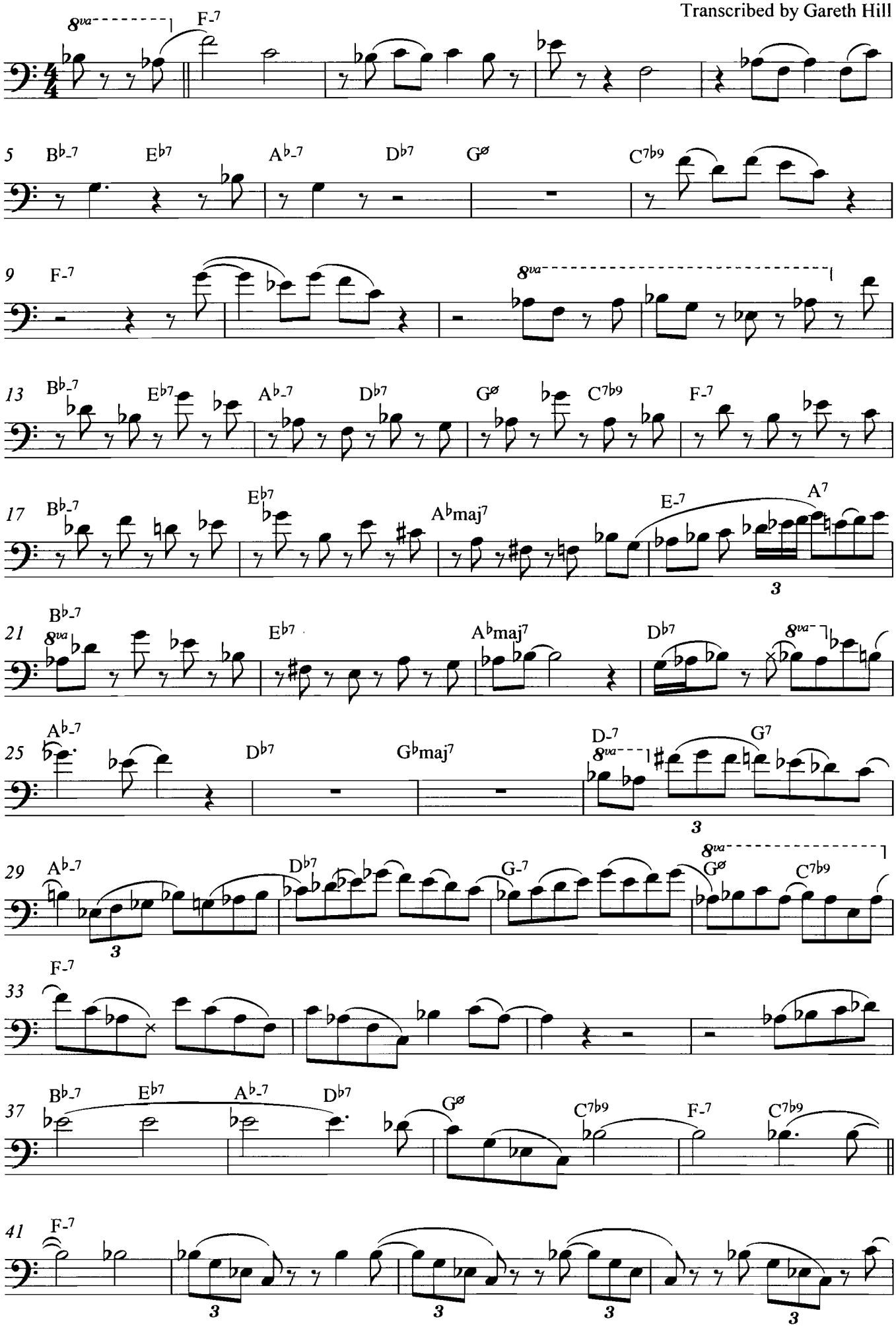
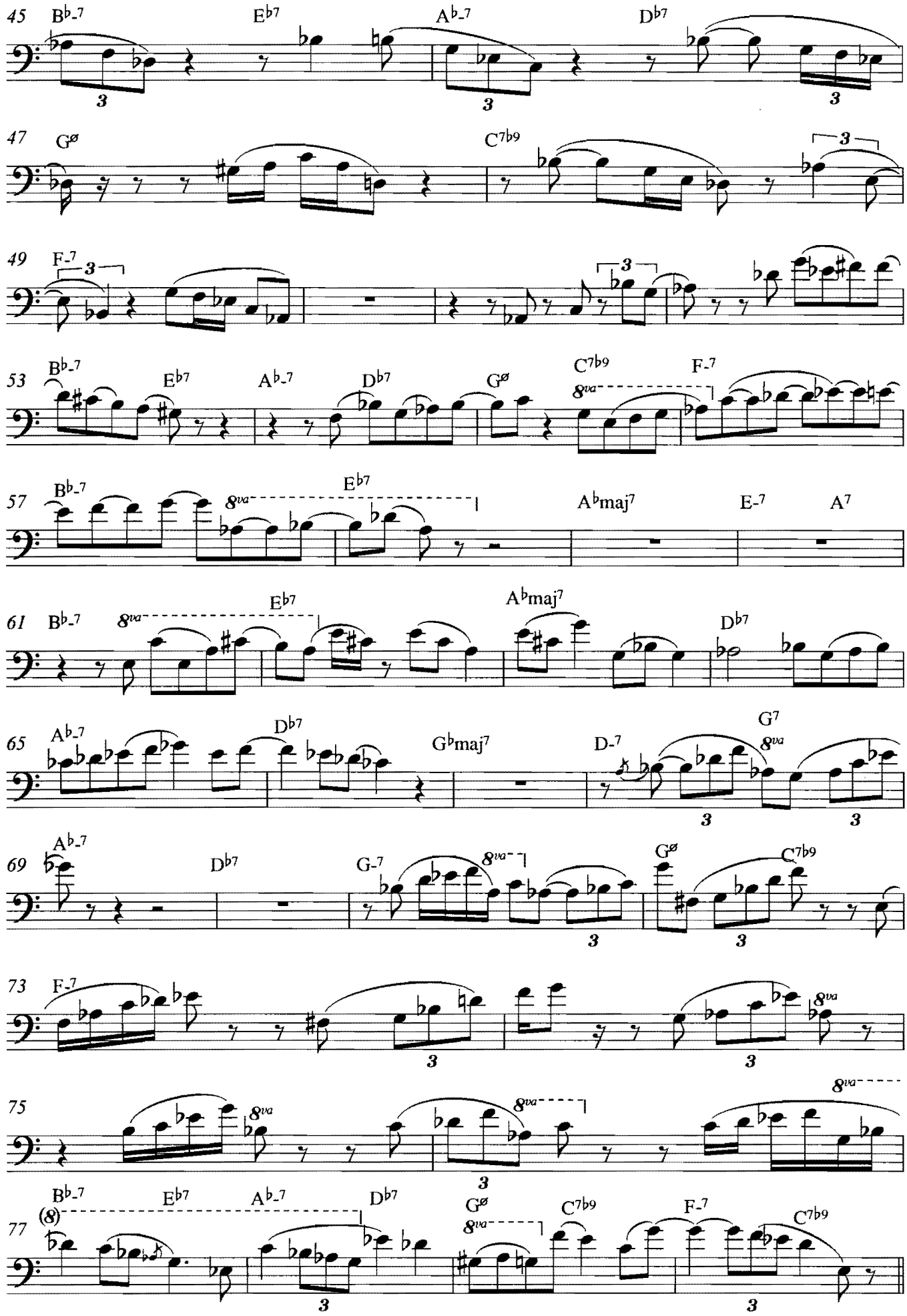
117 B♭-7 E♭7 A♭-7 D♭7 Gø C7♭9

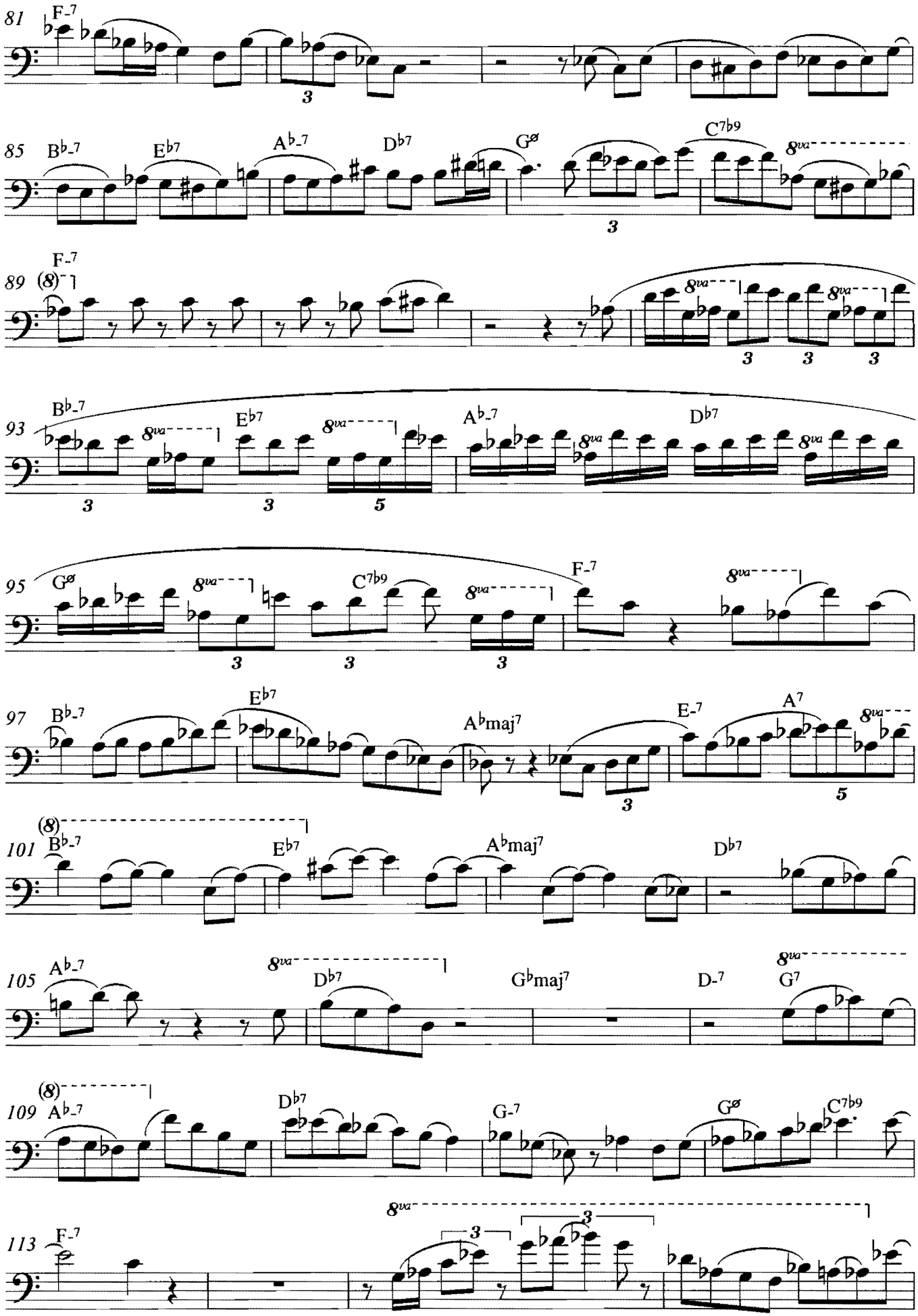

120
F-7
C7b9
F-7
3

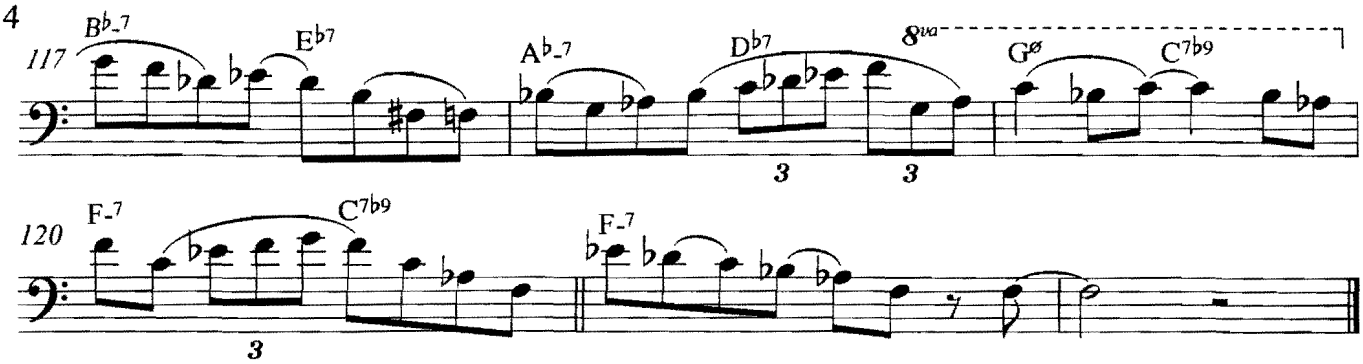
Joe Henderson's solo on Black

Transcribed by Gareth Hill



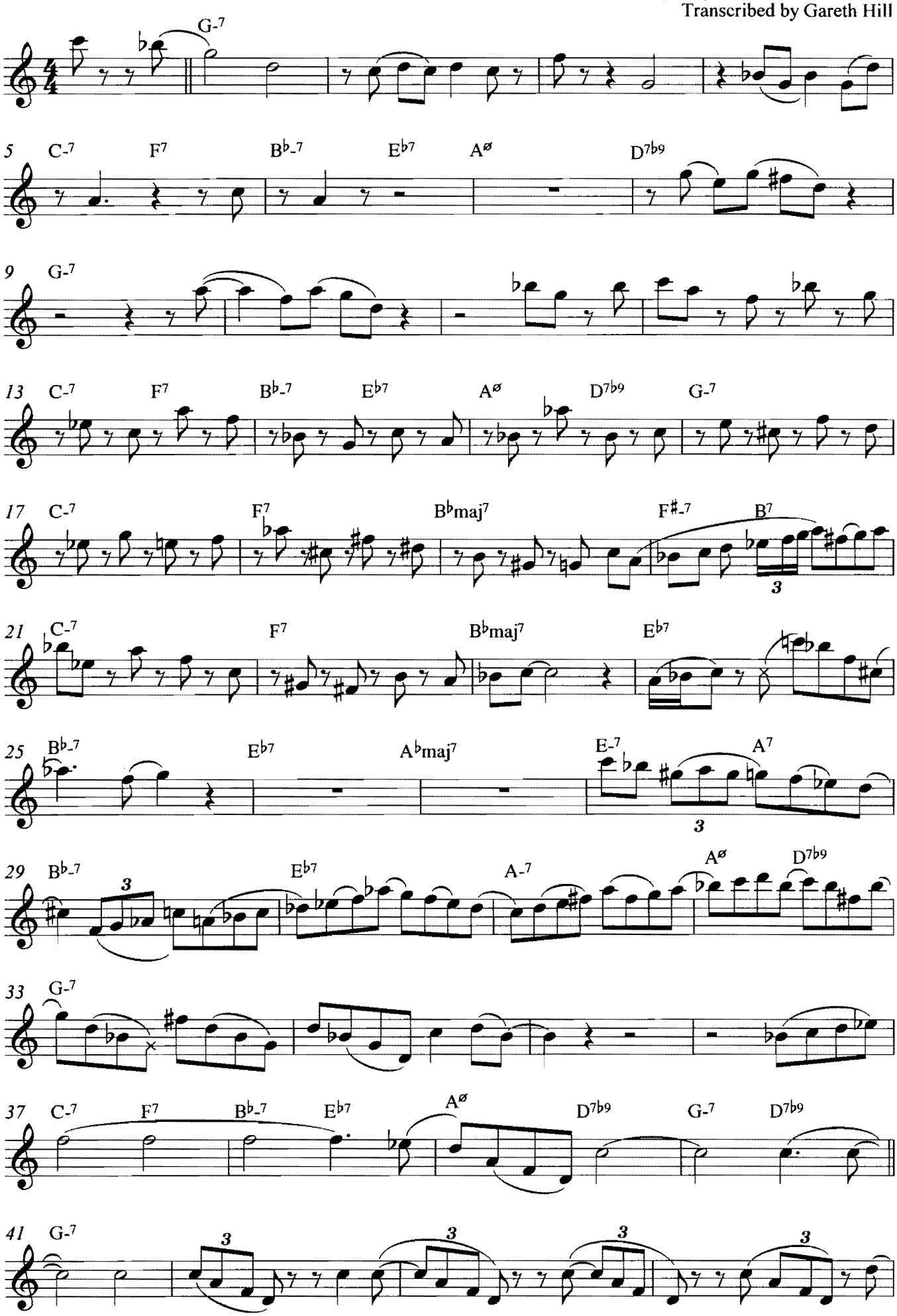

45 B♭-7 E♭7 A♭-7 D♭7
47 Gø C7♭9
49 F-7
53 B♭-7 E♭7 A♭-7 D♭7 Gø C7♭9 F-7
57 B♭-7 E♭7 A♭maj7 E-7 A7
61 B♭-7 E♭7 A♭maj7 D♭7
65 A♭-7 D♭7 G♭maj7 D-7 G7
69 A♭-7 D♭7 G-7 Gø C7♭9
73 F-7
75
77 B♭-7 E♭7 A♭-7 D♭7 Gø C7♭9 F-7 C7♭9

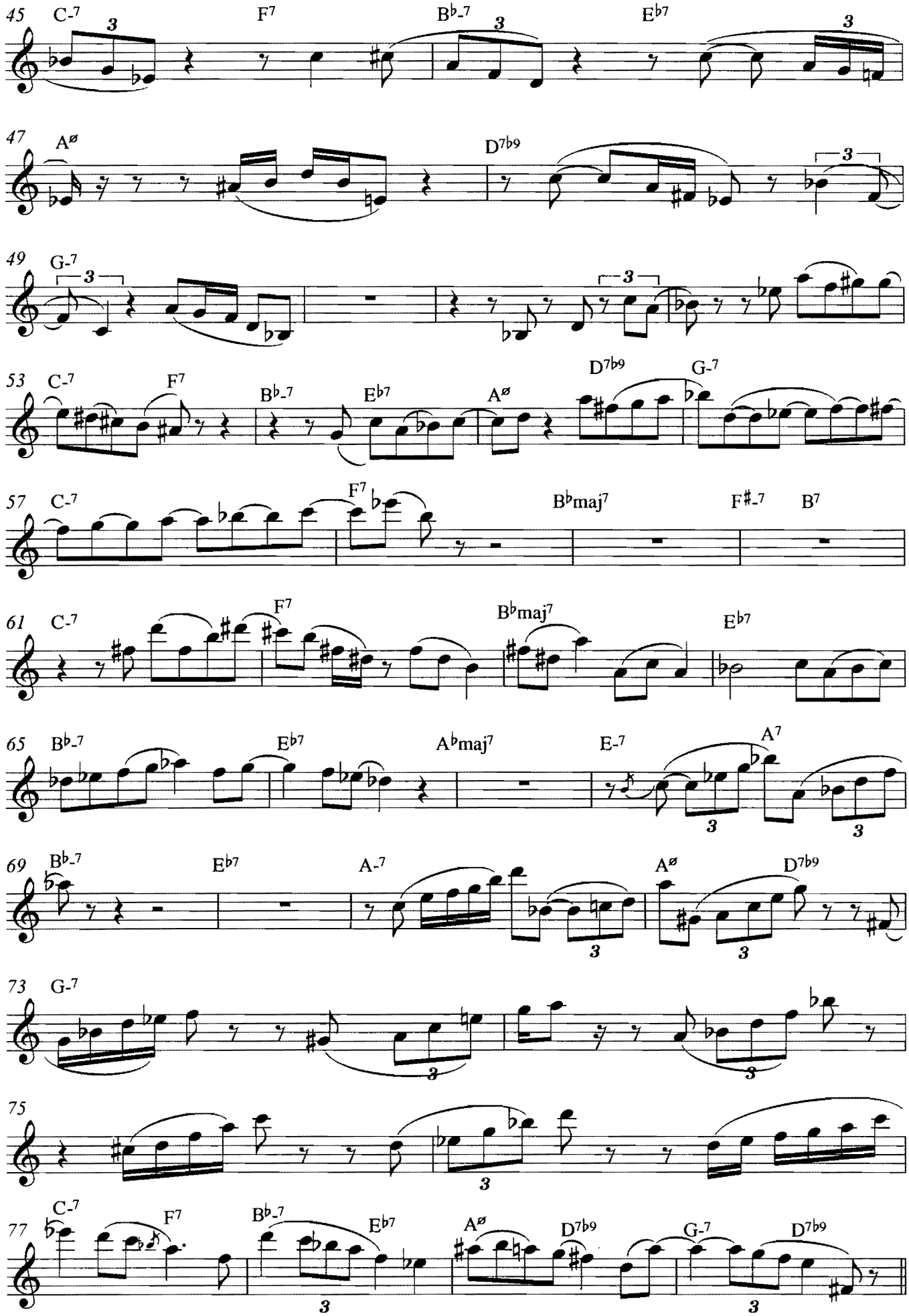

81
F-7
85
B♭-7
E♭7
A♭-7
D♭7
Gø
C7♭9
8va
89
F-7
(8)
93
B♭-7
E♭7
A♭-7
D♭7
95
Gø
C7♭9
F-7
97
B♭-7
E♭7
A♭maj7
E-7
A7
101
(8)
B♭-7
E♭7
A♭maj7
D♭7
105
A♭-7
D♭7
G♭maj7
D-7
G7
109
(8)
A♭-7
D♭7
G-7
Gø
C7♭9
113
F-7

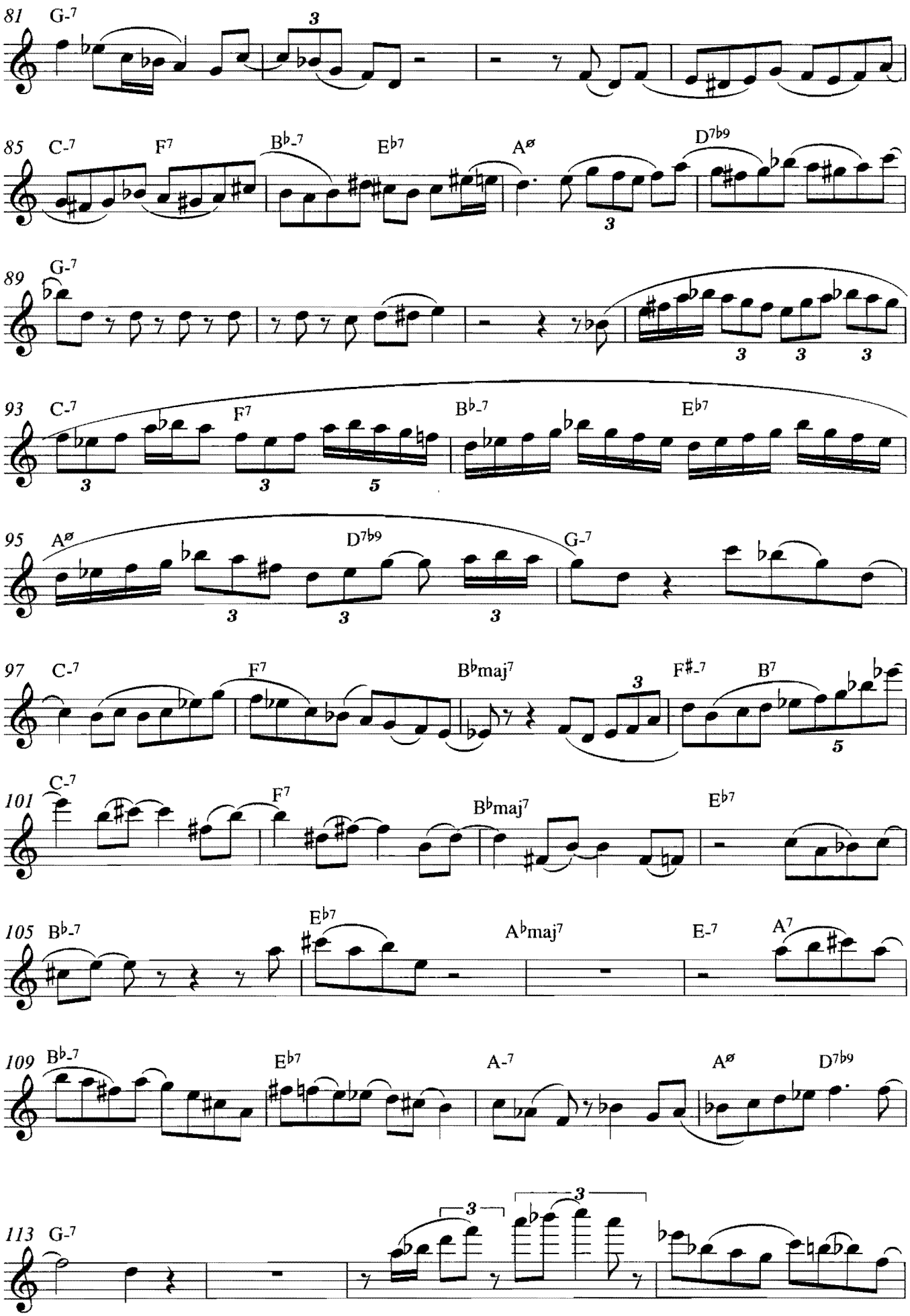

117
B♭-7
E♭7
A♭-7
D♭7
8va
Gø
C7♭9
3
3
120
F-7
C7♭9
3
F-7

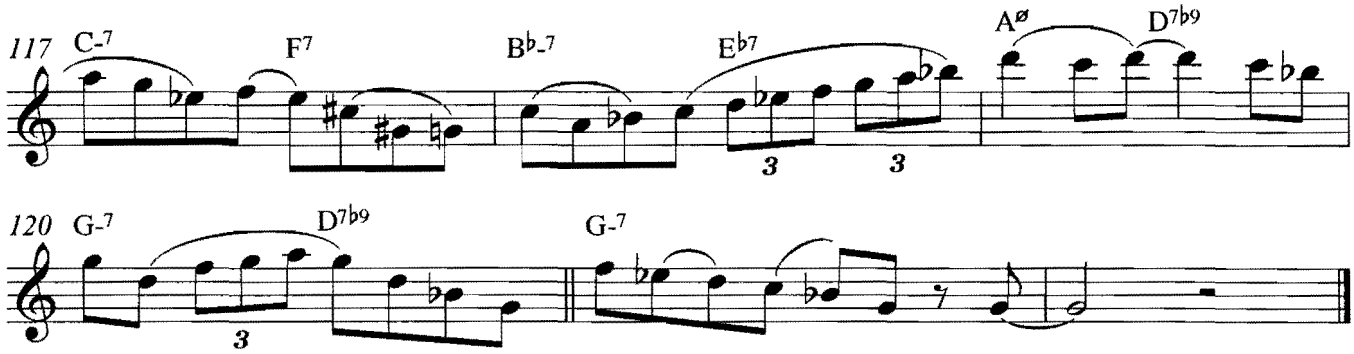
Joe Henderson's solo on Black (B♭)

Transcribed by Gareth Hill



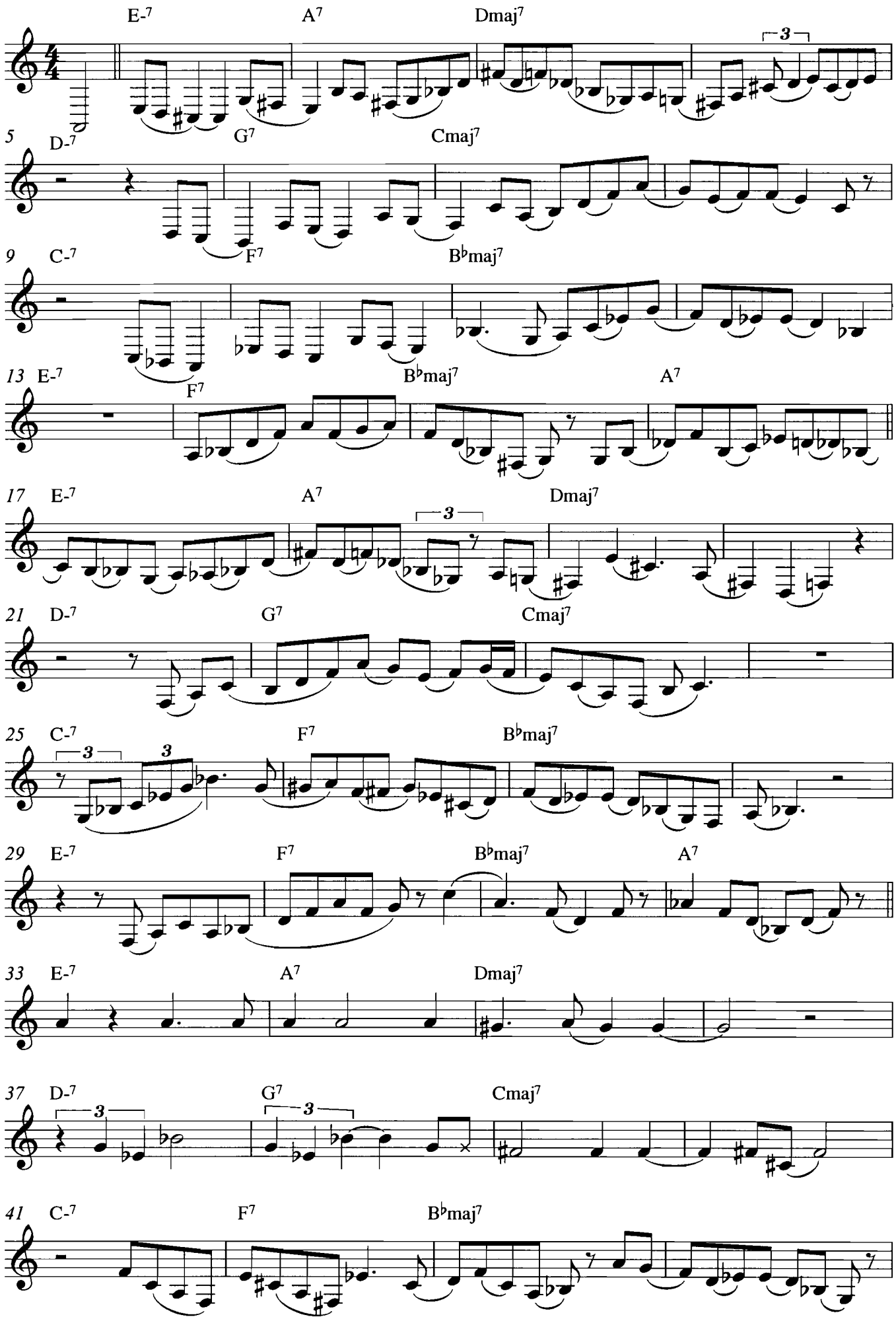

45 C-7 F7 B♭-7 E♭7
47 Aø D7♭9
49 G-7
53 C-7 F7 B♭-7 E♭7 Aø D7♭9 G-7
57 C-7 F7 B♭maj7 F♯-7 B7
61 C-7 F7 B♭maj7 E♭7
65 B♭-7 E♭7 A♭maj7 E-7 A7
69 B♭-7 E♭7 A-7 Aø D7♭9
73 G-7
75
77 C-7 F7 B♭-7 E♭7 Aø D7♭9 G-7 D7♭9

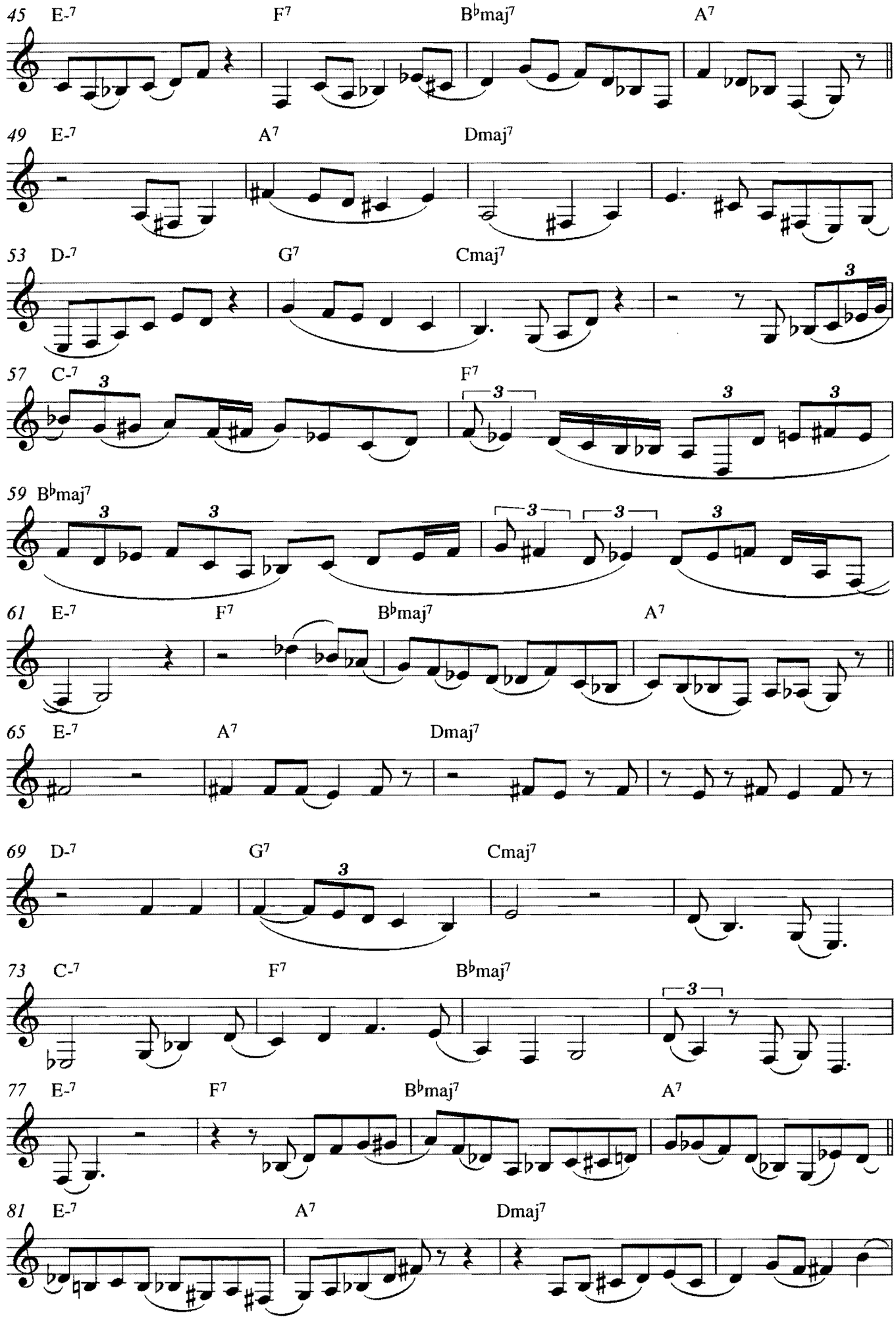

81 G-7
85 C-7 F7 B♭-7 E♭7 A⌀ D7♭9
89 G-7
93 C-7 F7 B♭-7 E♭7
95 A⌀ D7♭9 G-7
97 C-7 F7 B♭maj7 F♯-7 B7
101 C-7 F7 B♭maj7 E♭7
105 B♭-7 E♭7 A♭maj7 E-7 A7
109 B♭-7 E♭7 A-7 A⌀ D7♭9
113 G-7


117
C-7
F7
B♭-7
E♭7
A∅
D7♭9
3
3
120
G-7
D7♭9
G-7
3

Sonny Rollins' solo on Tuneup

Transcribed by Gareth Hill

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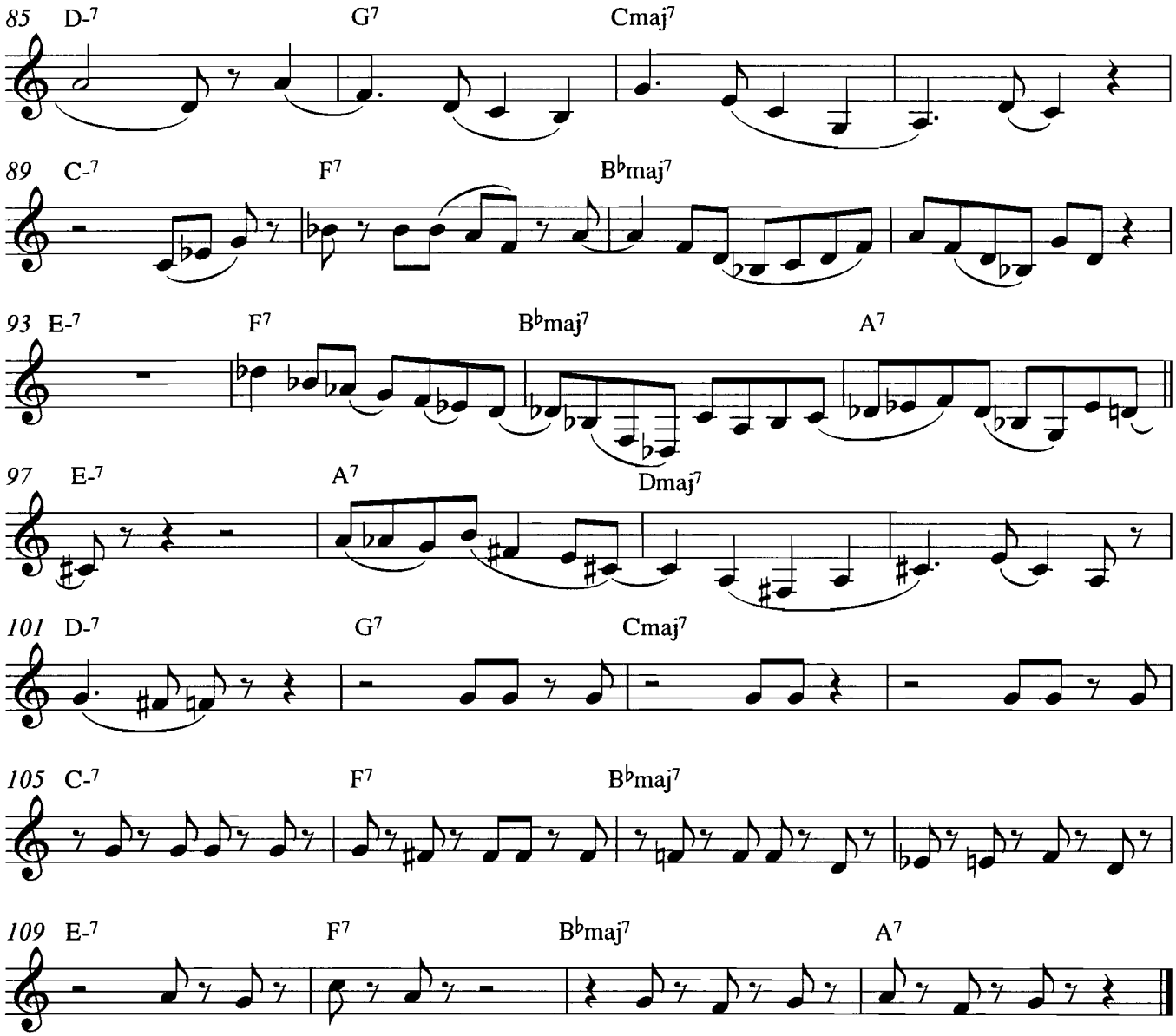
49 E-7 A7 Dmaj7
53 D-7 G7 Cmaj7
57 C-7 F7
59 B♭maj7
61 E-7 F7 B♭maj7 A7
65 E-7 A7 Dmaj7
69 D-7 G7 Cmaj7
73 C-7 F7 B♭maj7
77 E-7 F7 B♭maj7 A7
81 E-7 A7 Dmaj7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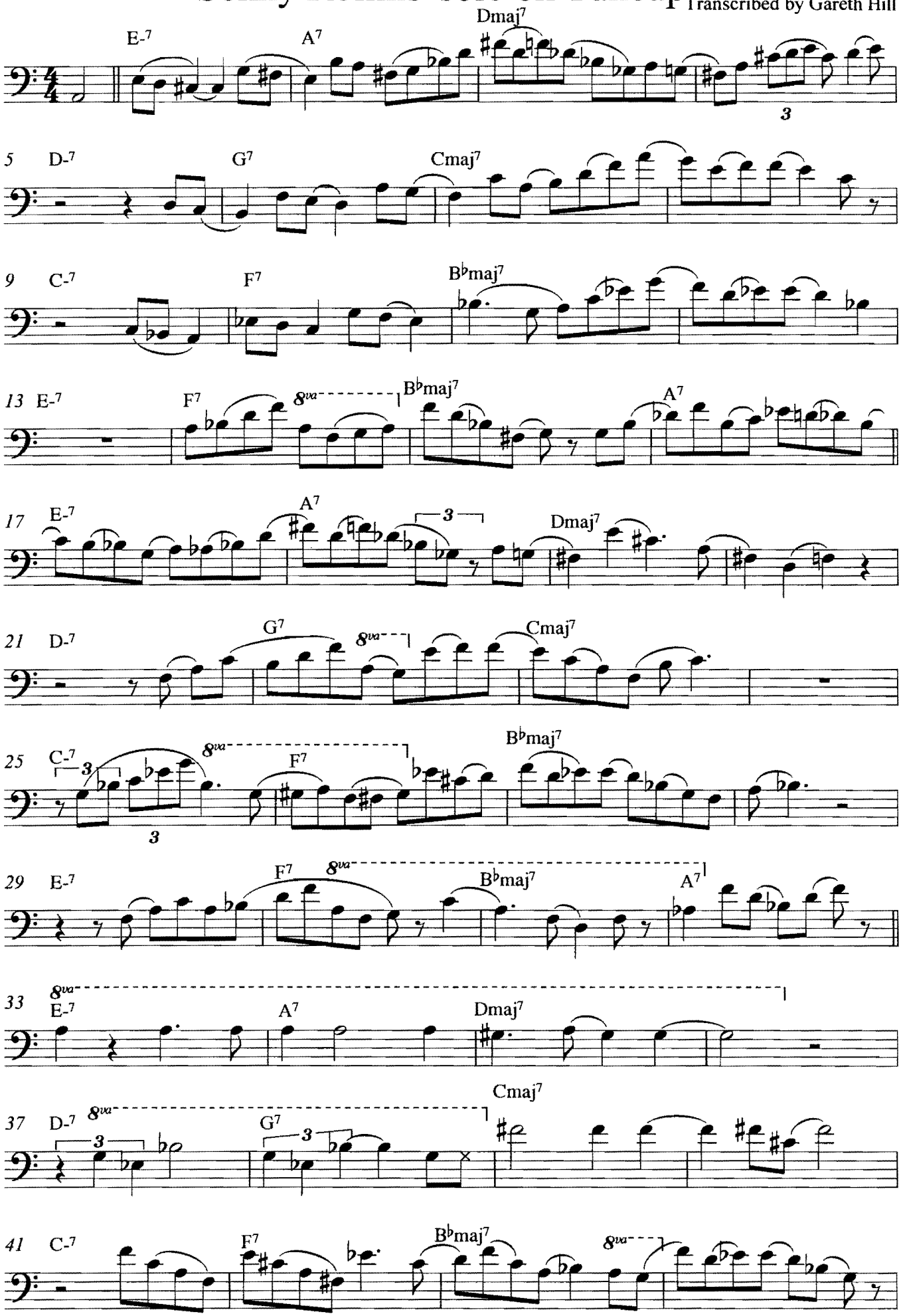
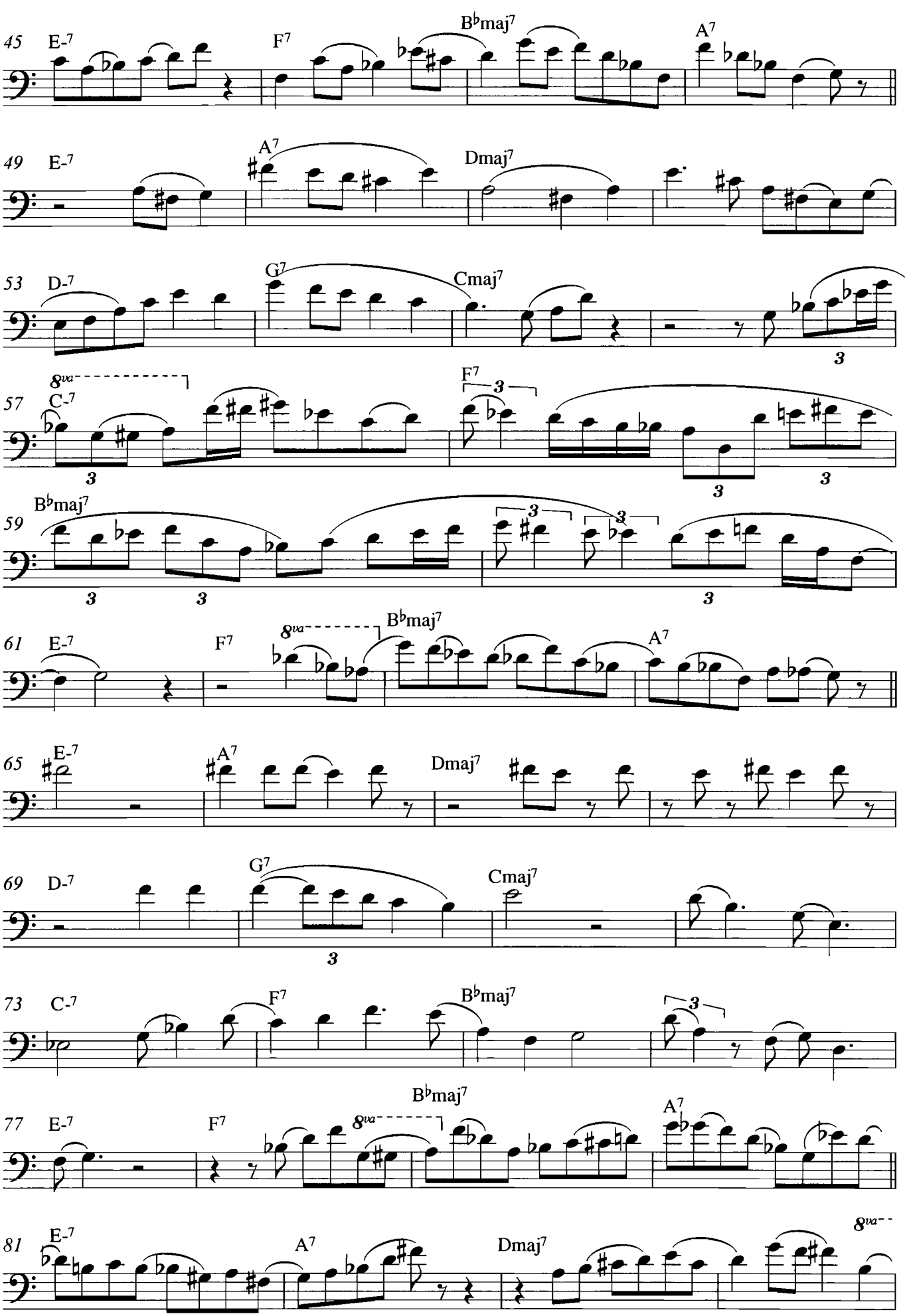
89 C-7 F7 B♭maj7
93 E-7 F7 B♭maj7 A7
97 E-7 A7 Dmaj7
101 D-7 G7 Cmaj7
105 C-7 F7 B♭maj7
109 E-7 F7 B♭maj7 A7

Sonny Rollins' solo on Tuneup

Transcribed by Gareth Hill

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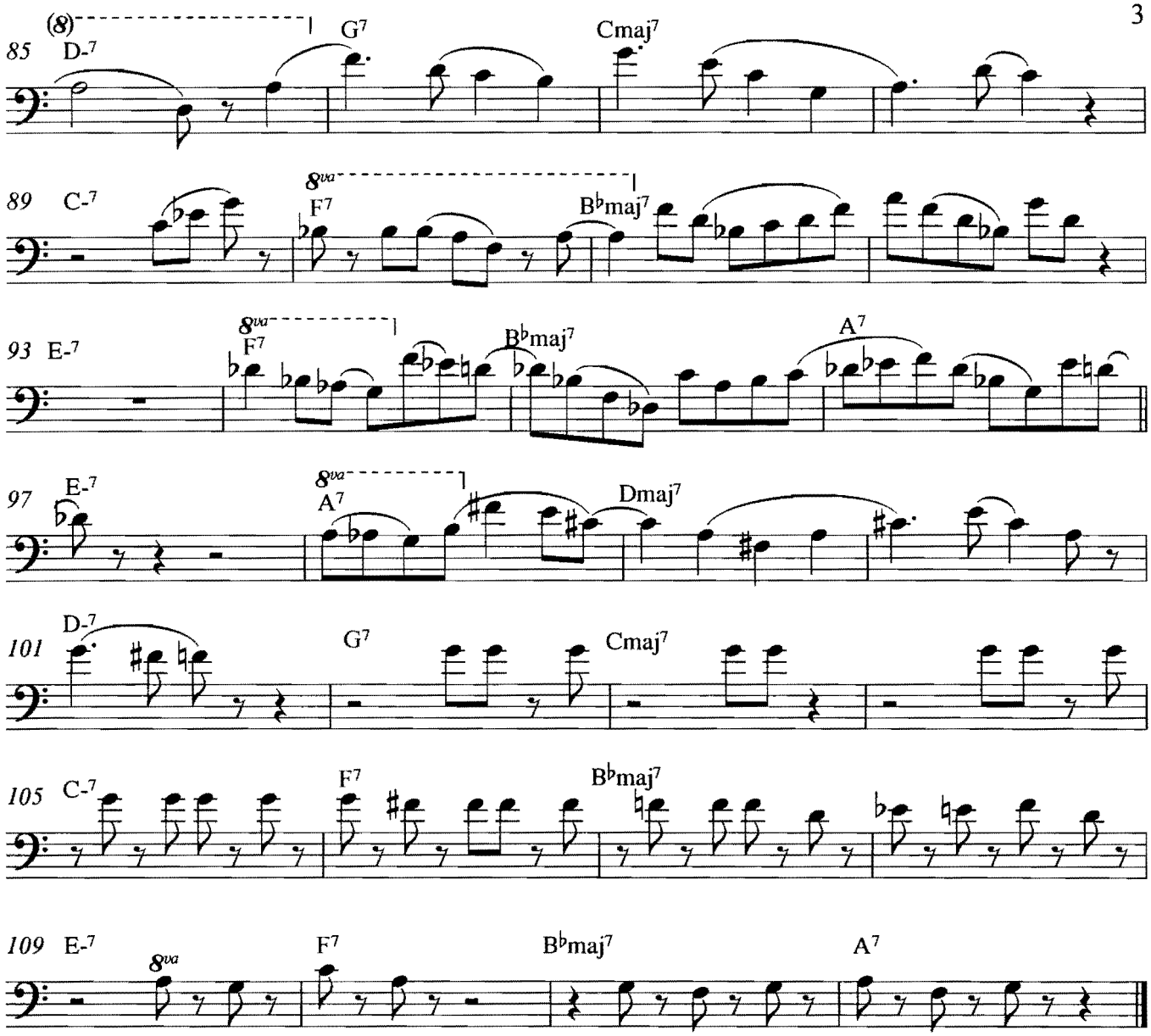
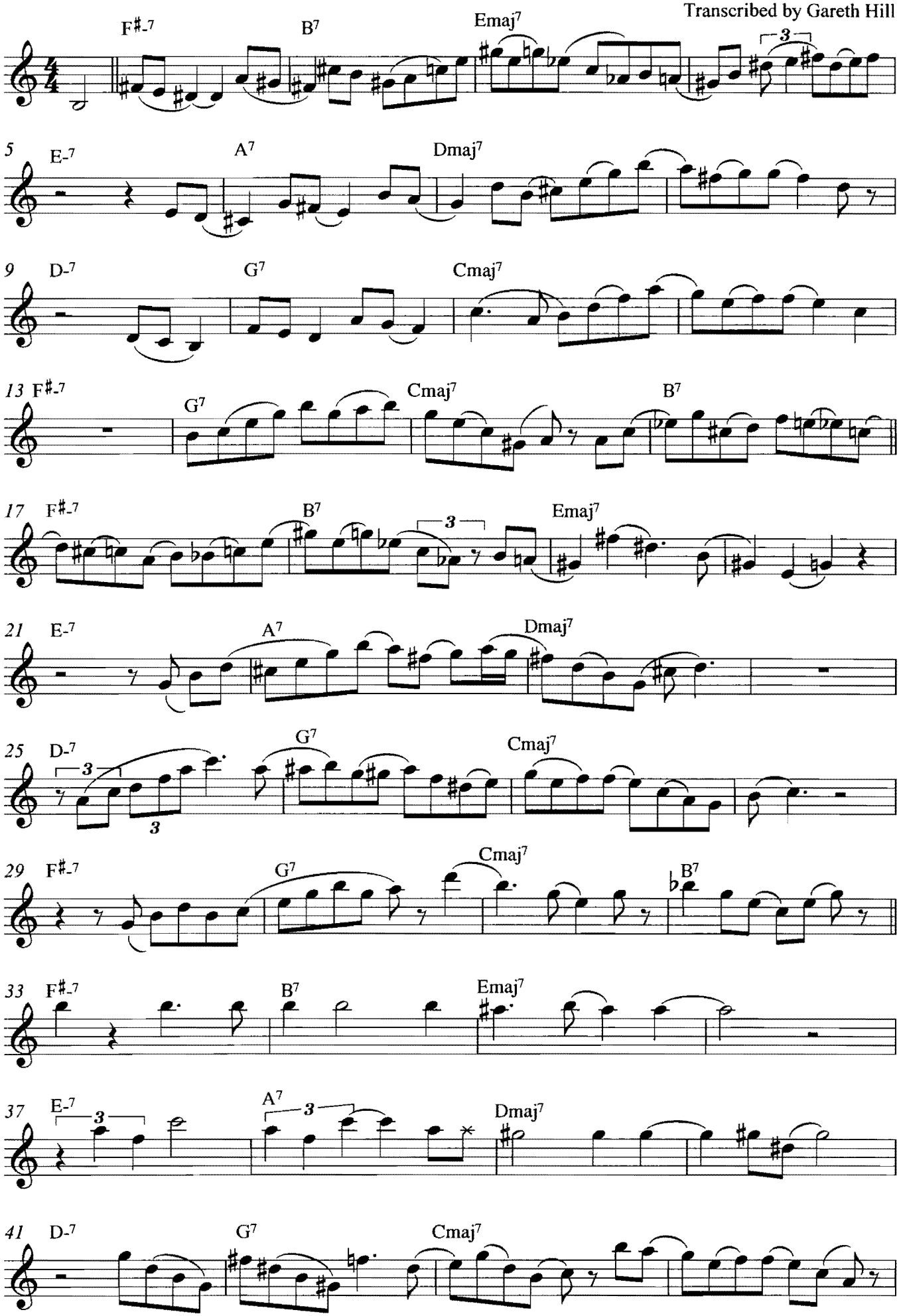
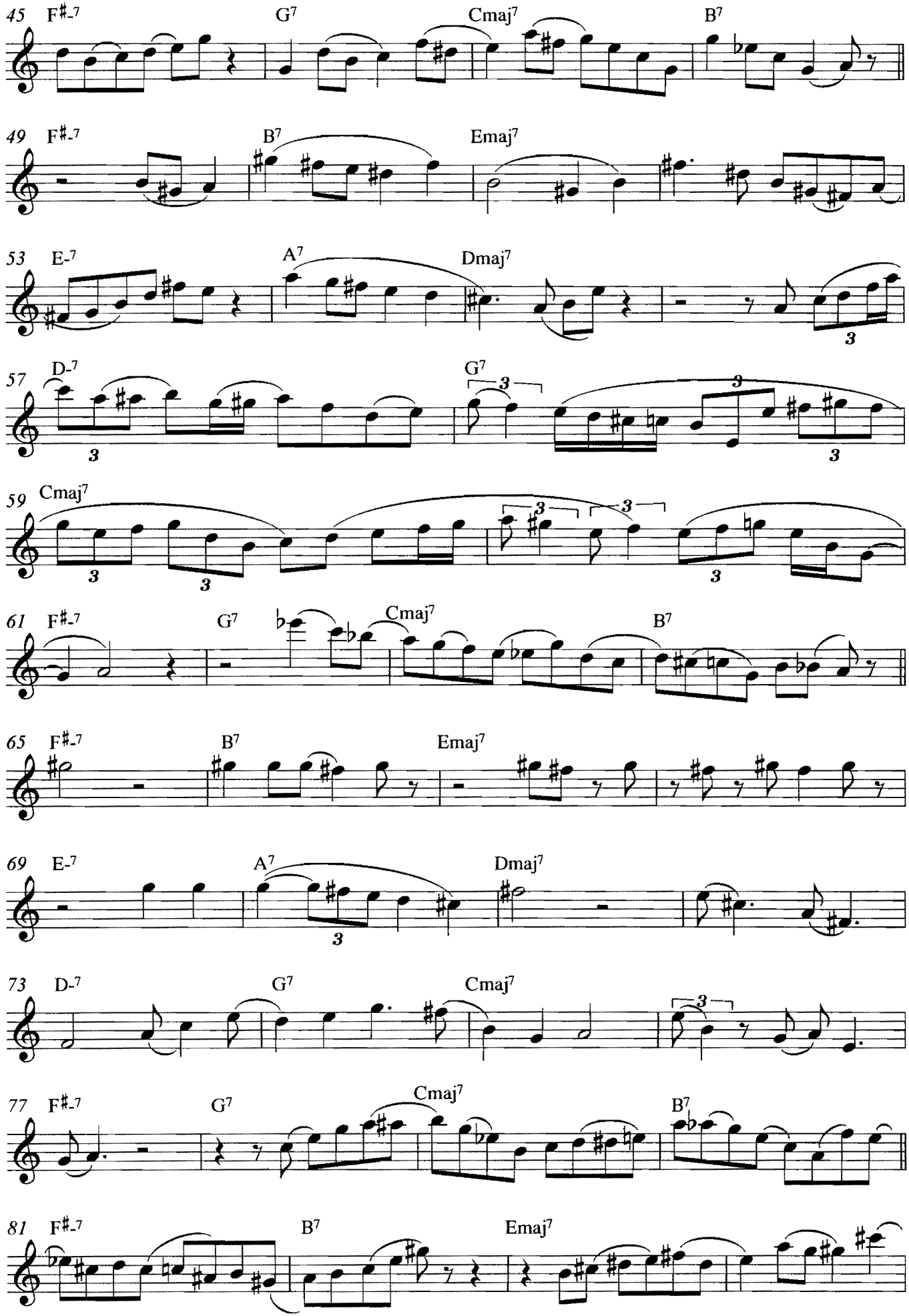
49 E-7 A7 Dmaj7
53 D-7 G7 Cmaj7
57 C-7 8va F7
59 B♭maj7
61 E-7 F7 8va B♭maj7 A7
65 E-7 A7 Dmaj7
69 D-7 G7 Cmaj7
73 C-7 F7 B♭maj7
77 E-7 F7 8va B♭maj7 A7
81 E-7 A7 Dmaj7 8va


(8)
85 D-7
G7
Cmaj7
89 C-7
8va
F7
B♭maj7
93 E-7
8va
F7
B♭maj7
A7
97 E-7
8va
A7
Dmaj7
101 D-7
G7
Cmaj7
105 C-7
F7
B♭maj7
109 E-7
8va
F7
B♭maj7
A7

Sonny Rollins' solo on Tuneup (B♭)

Transcribed by Gareth Hill

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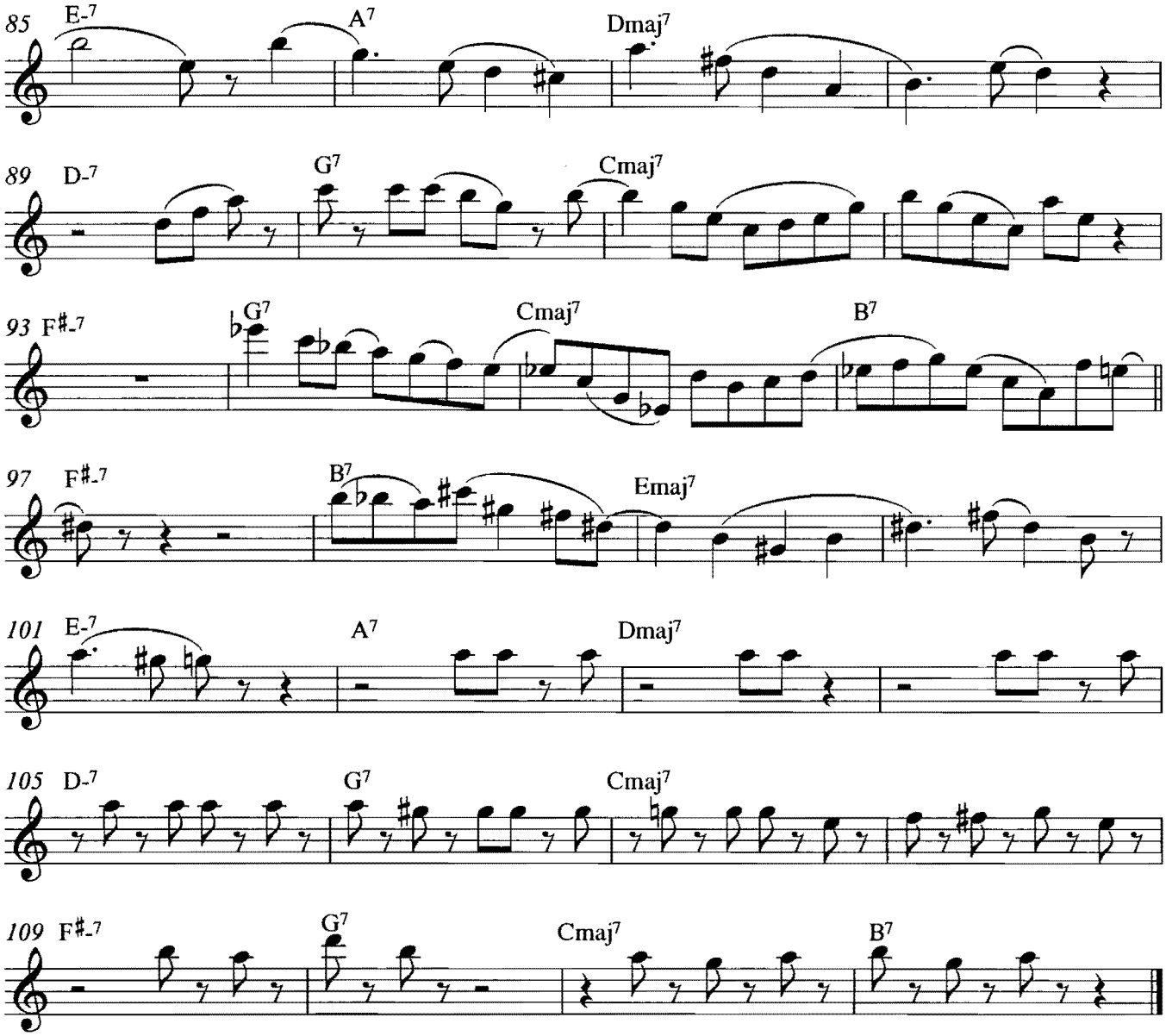
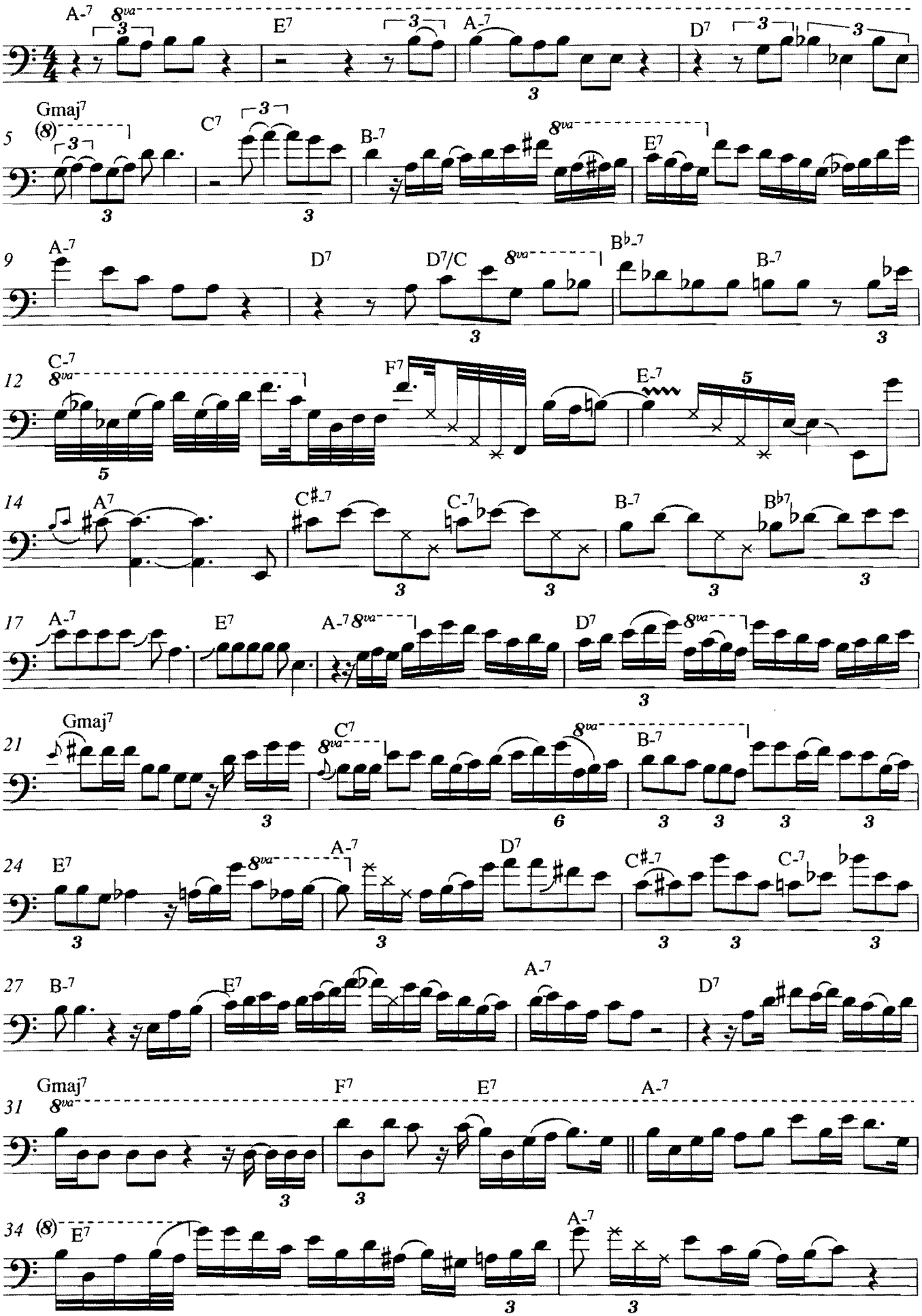
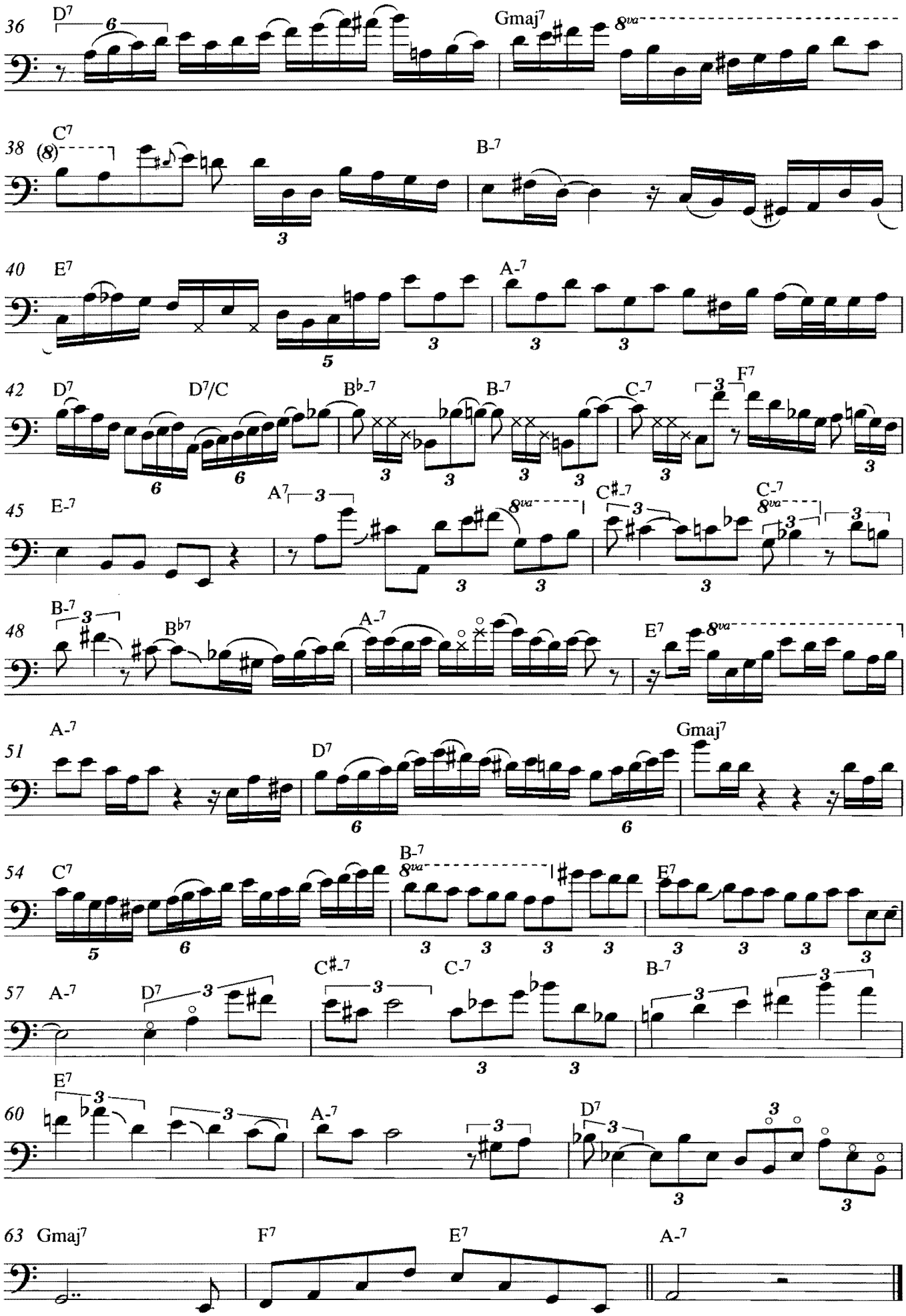
49 F#-7 B7 Emaj7
53 E-7 A7 Dmaj7
57 D-7 G7
59 Cmaj7
61 F#-7 G7 Cmaj7 B7
65 F#-7 B7 Emaj7
69 E-7 A7 Dmaj7
73 D-7 G7 Cmaj7
77 F#-7 G7 Cmaj7 B7
81 F#-7 B7 Emaj7


85 E-7
A7
Dmaj7
89 D-7
G7
Cmaj7
93 F#-7
G7
Cmaj7
B7
97 F#-7
B7
Emaj7
101 E-7
A7
Dmaj7
105 D-7
G7
Cmaj7
109 F#-7
G7
Cmaj7
B7

Brian Bromberg's solo on I wish I knew

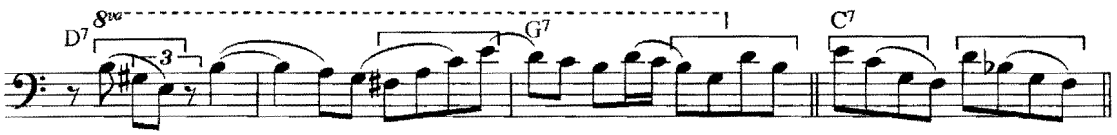
Transcribed by Gareth Hill



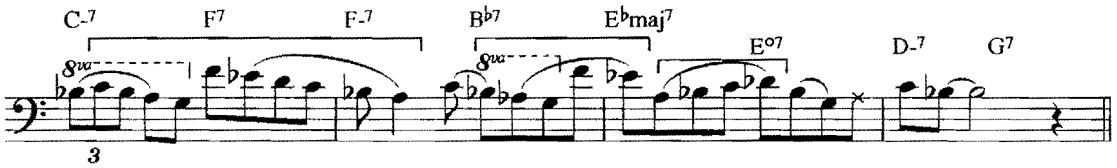

36
D7
Gmaj7
8va
38
C7
(8)
B-7
40
E7
A-7
42
D7
D7/C
B♭-7
B-7
C-7
F7
45
E-7
A7
C♯-7
C-7
48
B-7
B♭7
A-7
E7
51
A-7
D7
Gmaj7
54
C7
B-7
E7
57
A-7
D7
C♯-7
C-7
B-7
60
E7
A-7
D7
63
Gmaj7
F7
E7
A-7

Appendix B: Bass Clef examples from Chapter 3

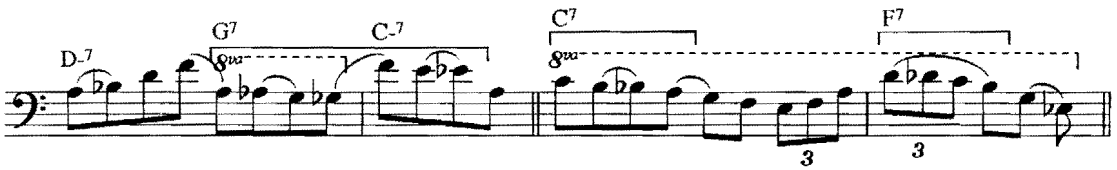
Charlie Parker



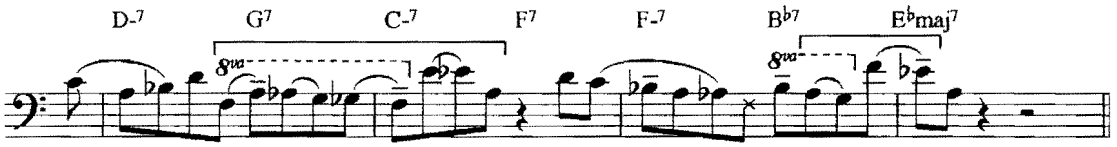
Example 1: Chorus 1 & 2 (Bars 17-19, 53) – Use of arpeggiated movement



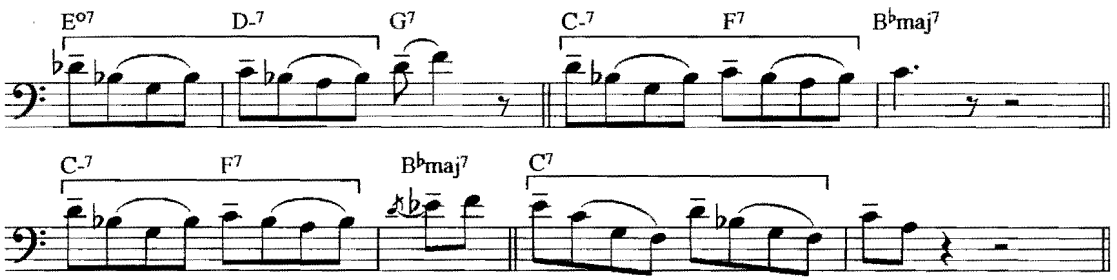
Example 2: Chorus 2 (Bars 36-39) – Use of stepwise movement



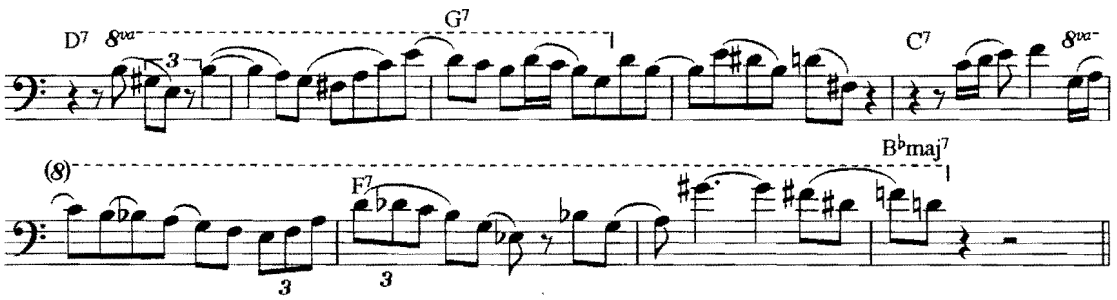
Example 3: Chorus 1 (Bars 3-4, 23-24) – Use of chromatic movement



Example 4: Chorus 1 (Bars 2-6) – Two note slurring

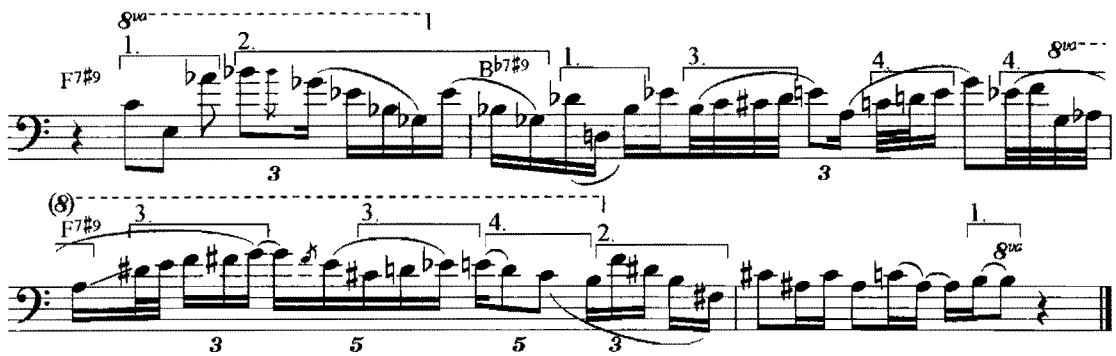


Example 5: Chorus 1 & 2 (Bars 6-7, 48-49, 53-55, 63-65) – Phrasing pattern: 1st quaver is articulated and the remaining are slurred

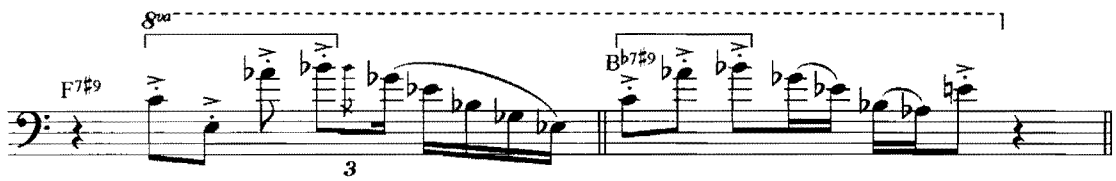


Example 6: Chorus 1 (Bars 17-25) – Phrase from B section of Chorus 1

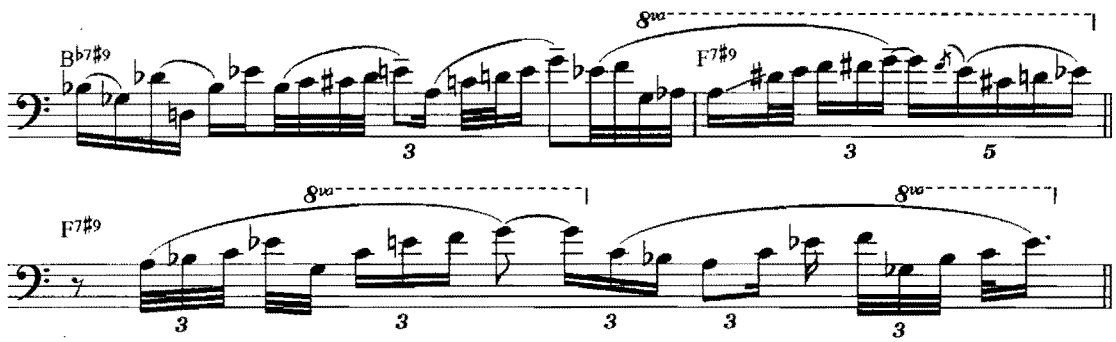
Eric Dolphy



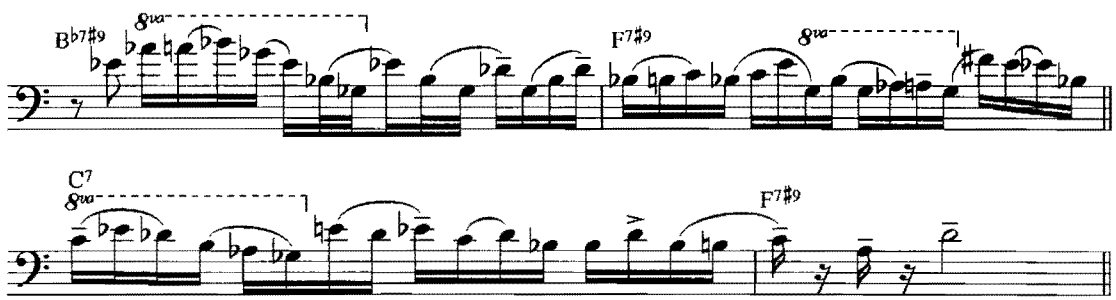
Example 7: Chorus 1 (Bars 1-4) – Intervallic content



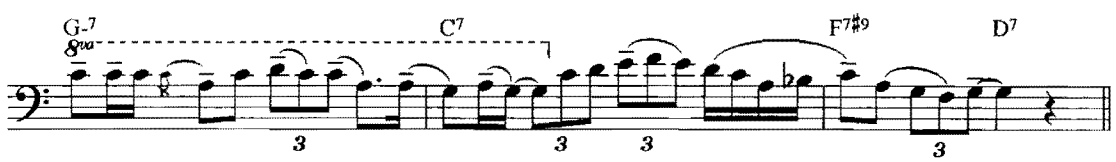
Example 8: Chorus 1 (Bars 1, 5) – Large intervals



Example 9: Chorus 1 & 3 (Bars 2-3, 25) – Directed slurred runs

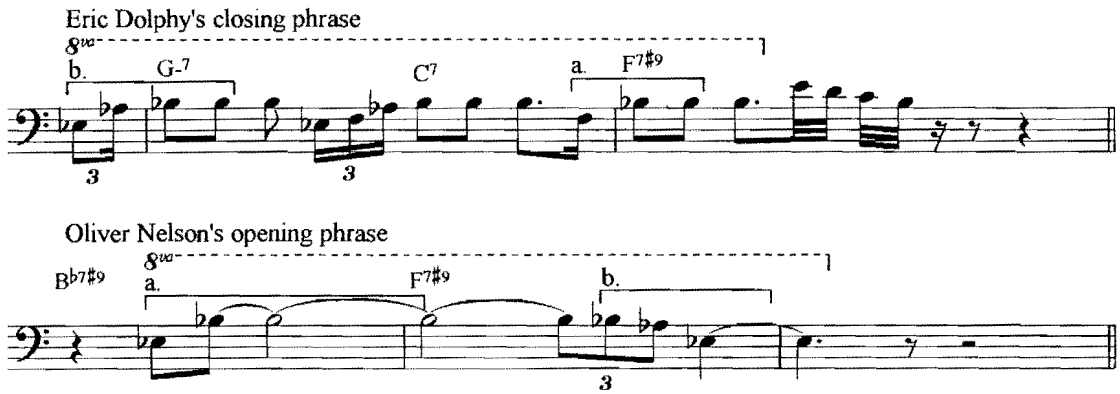


Example 10: Chorus 2 & 3 (Bars 14-15, 34-35) – Semiquaver note grouping: phrases containing different types slurred groupings

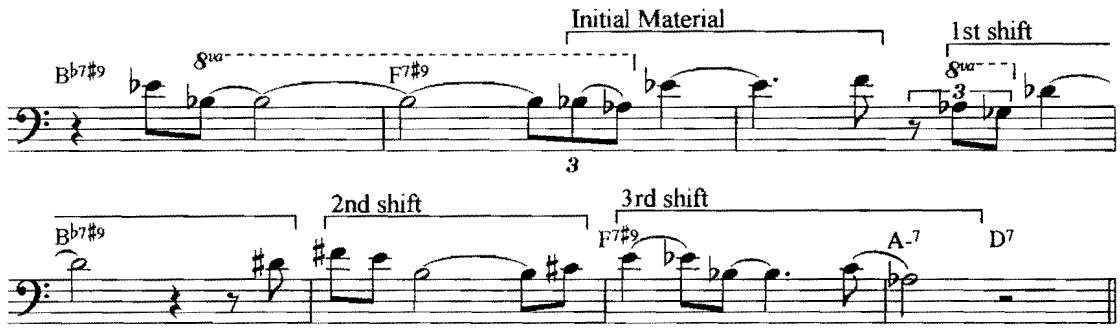


Example 11: Chorus 2 (Bars 21-23) – A melodic phrase exhibiting slower rhythms and smoother phrasing

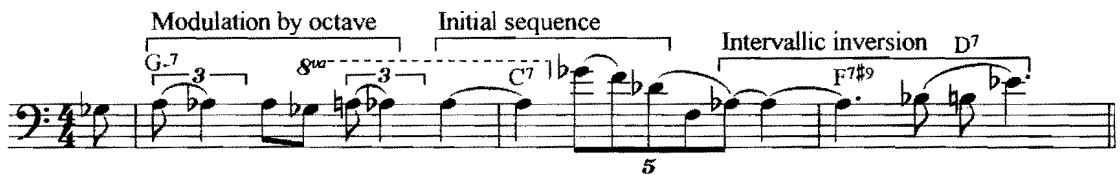
Oliver Nelson



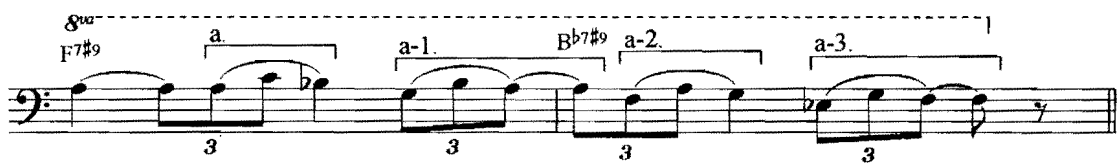
Example 12: Transformation of Dolphy's last phrase by Nelson to begin his Teenie's Blues solo



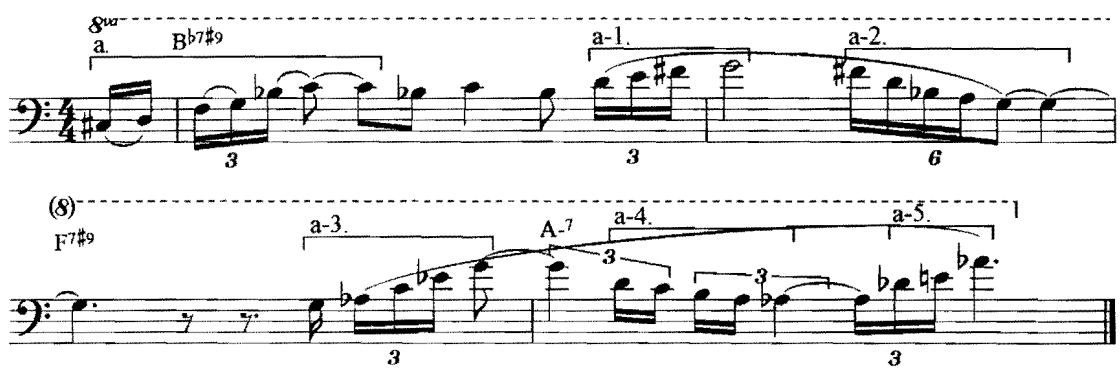
Example 13: Chorus 1 (Bars 2-8) – Sequencing



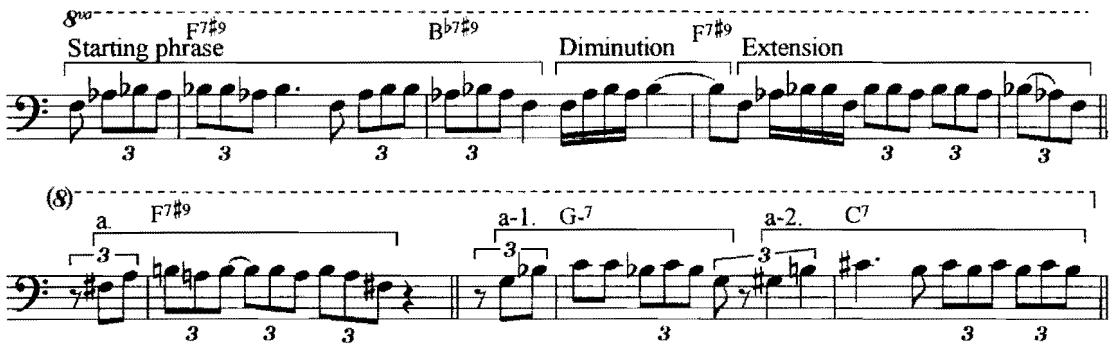
Example 14: Chorus 1 (Bars 9-11) – Sequencing by octave – Intervallic inversion



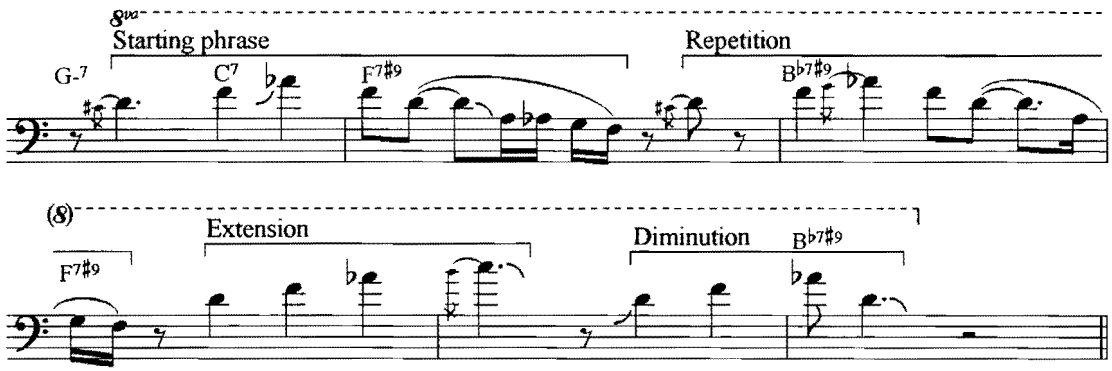
Example 15: Chorus 2 (Bars 13-14) – Diatonic sequencing



Example 16: Chorus 2 (Bars 17-20) – Sequenced glissandi

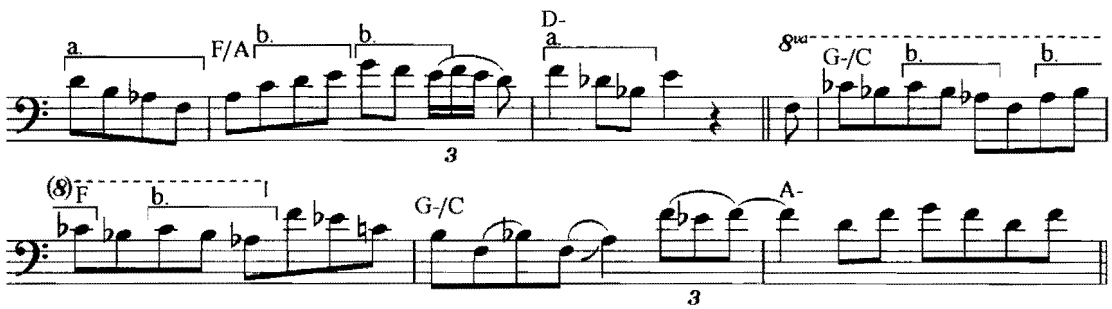


Example 17: Chorus 3 (Bars 24-28) – Melodic development: rhythmic, diminution and extension, (Bars 30-31, 32-34) – Sequencing by ascending semitones

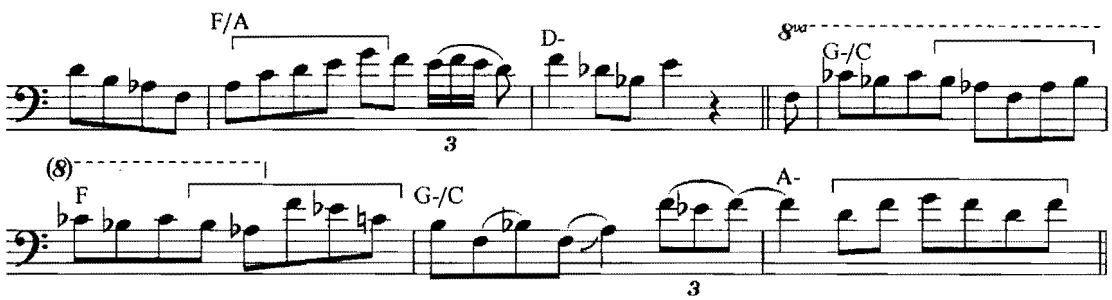


Example 18: Chorus 4 (Bars 36-41) – Melodic development: repetition, extension and diminution

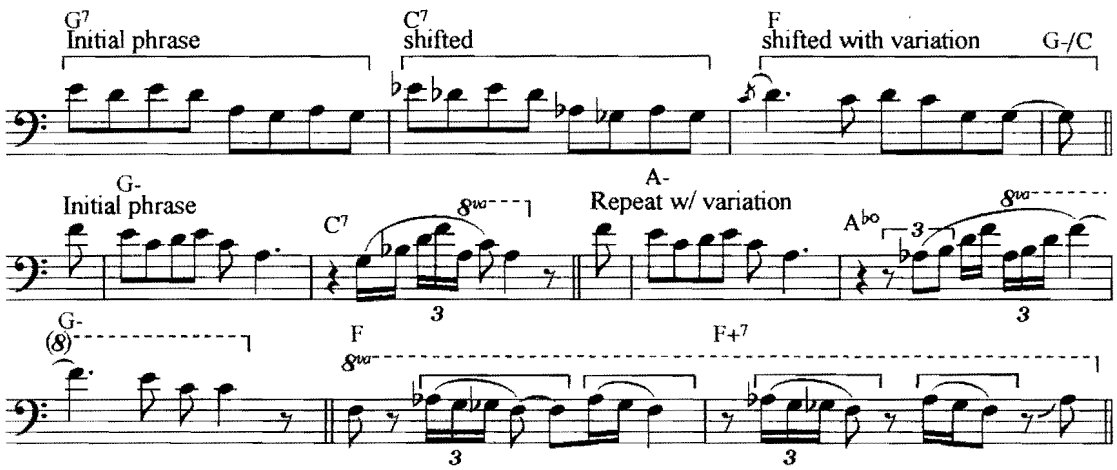
Dexter Gordon



Example 19: Chorus 1 & 2 (Bars 26-28, 65-69) – Limited use of stepwise and arpeggiated movement

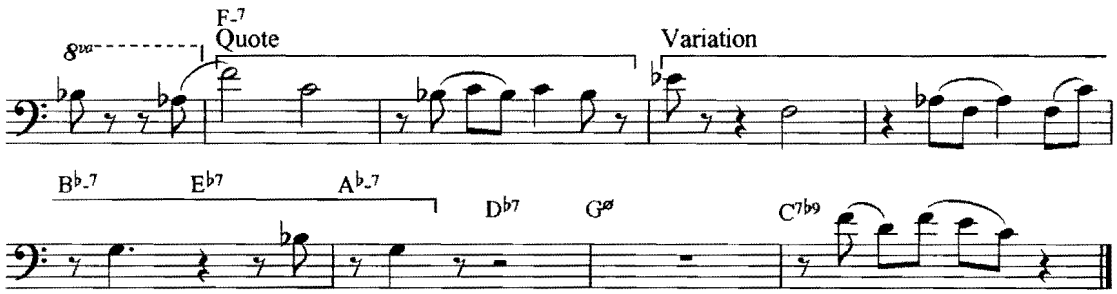


Example 20: Chorus 1 & 2 (Bars 26-28, 65-69) – Use of pentatonic movement

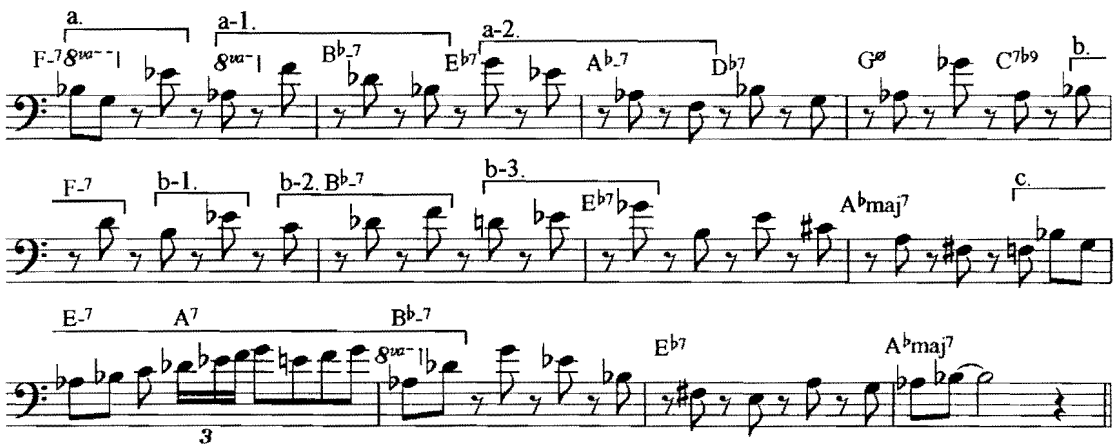


Example 21: Chorus 1, 2 & 3 (Bars 29-32, 14-16, 36-39, 85-86) – Sequencing, repetition with variation, sustained repetition

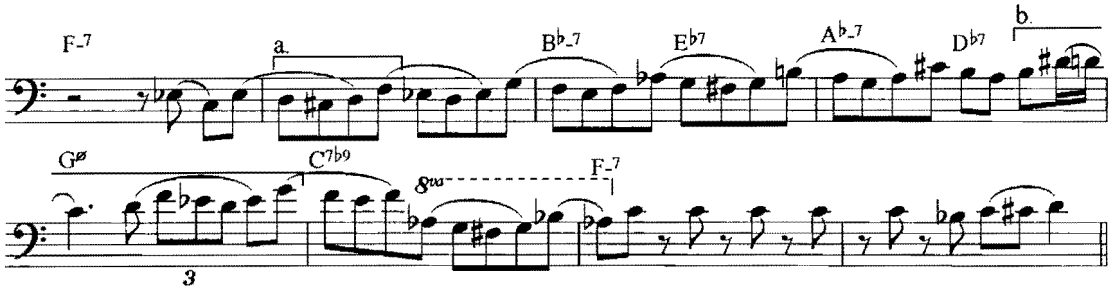
Joe Henderson



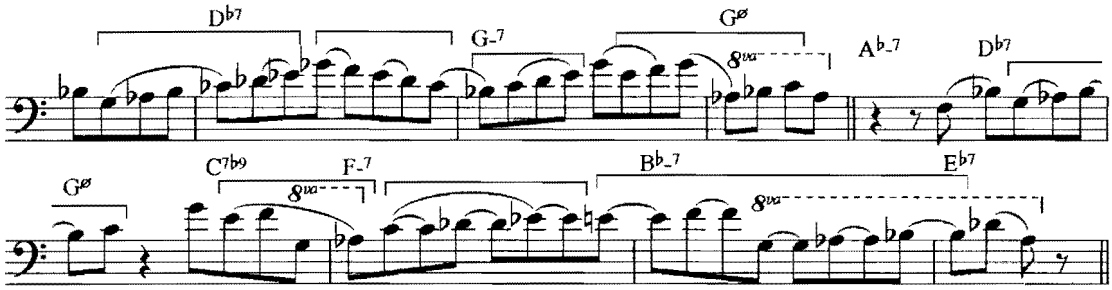
Example 22: Chorus 1 (Bars 1-8) – Opening phrases including "Softly as a Morning Sunrise" quote



Example 23: Chorus 1 (Bars 12-23) – Off Beat Quaver Passage

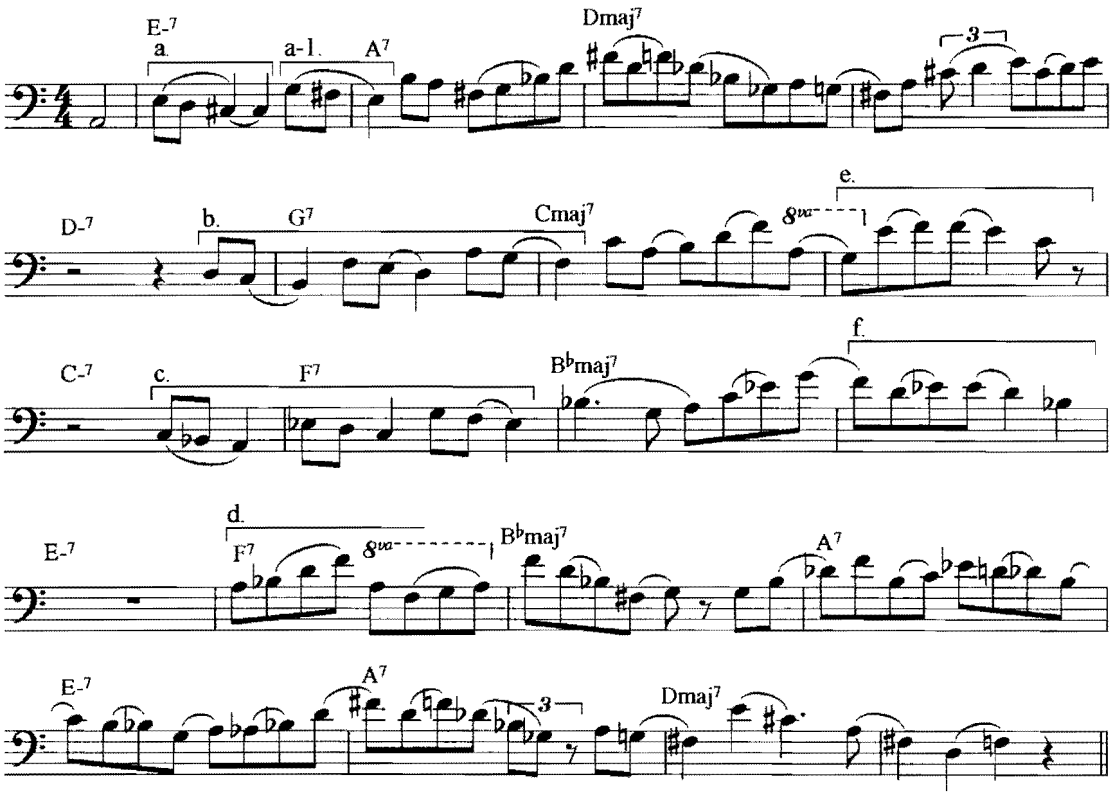


Example 24: Chorus 3 (Bars 83-90) – Sequencing

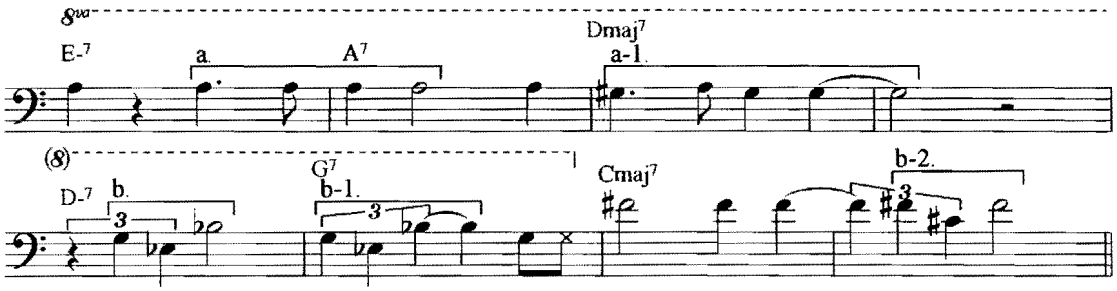


Example 25: Chorus 1 & 2 (Bars 29-32, 54-58) – Stepwise motion

Sonny Rollins



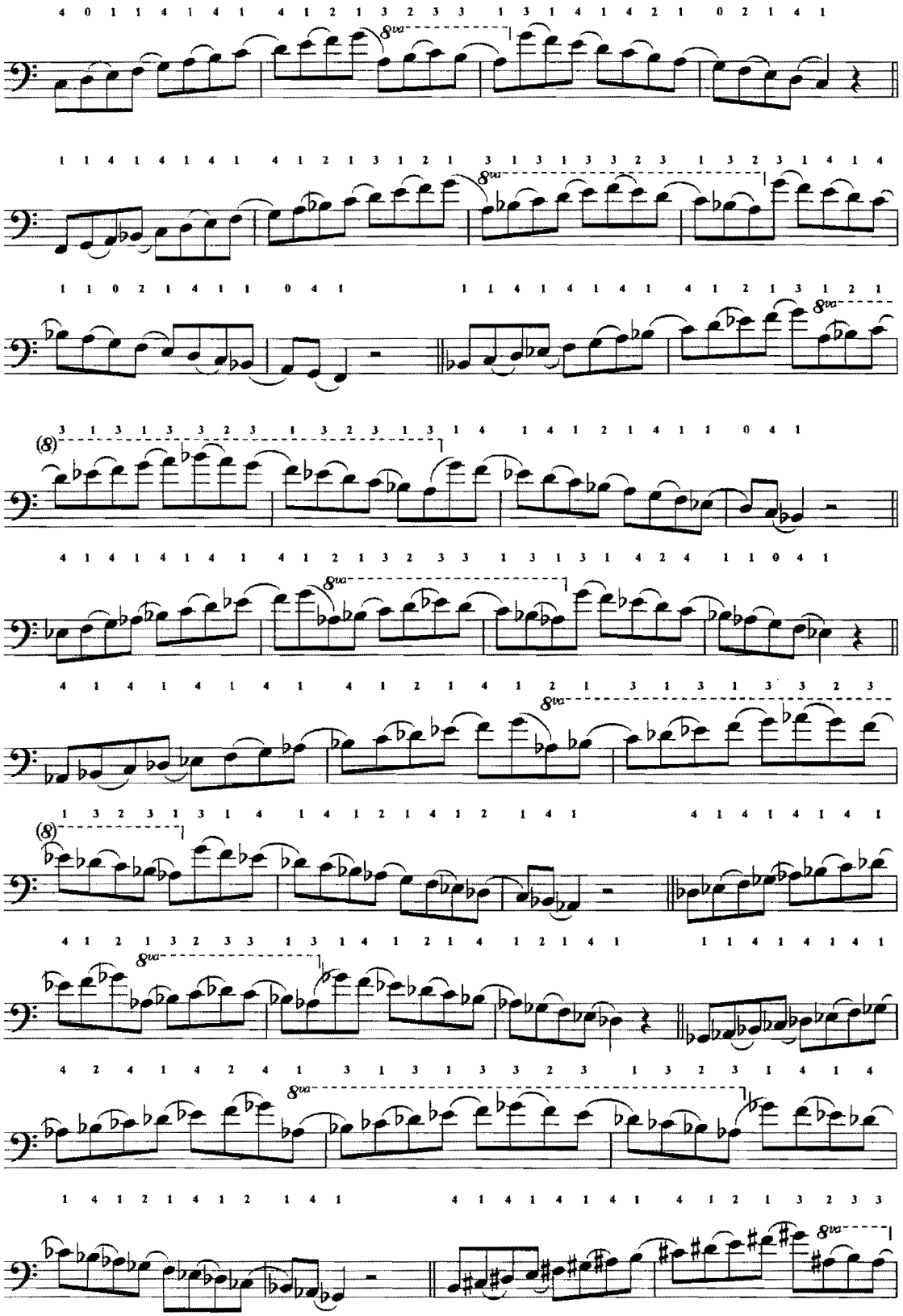
Example 26: Chorus 1 & 2 (Bars 1-20) – Creative use of repetition, sequencing and pattern deviation

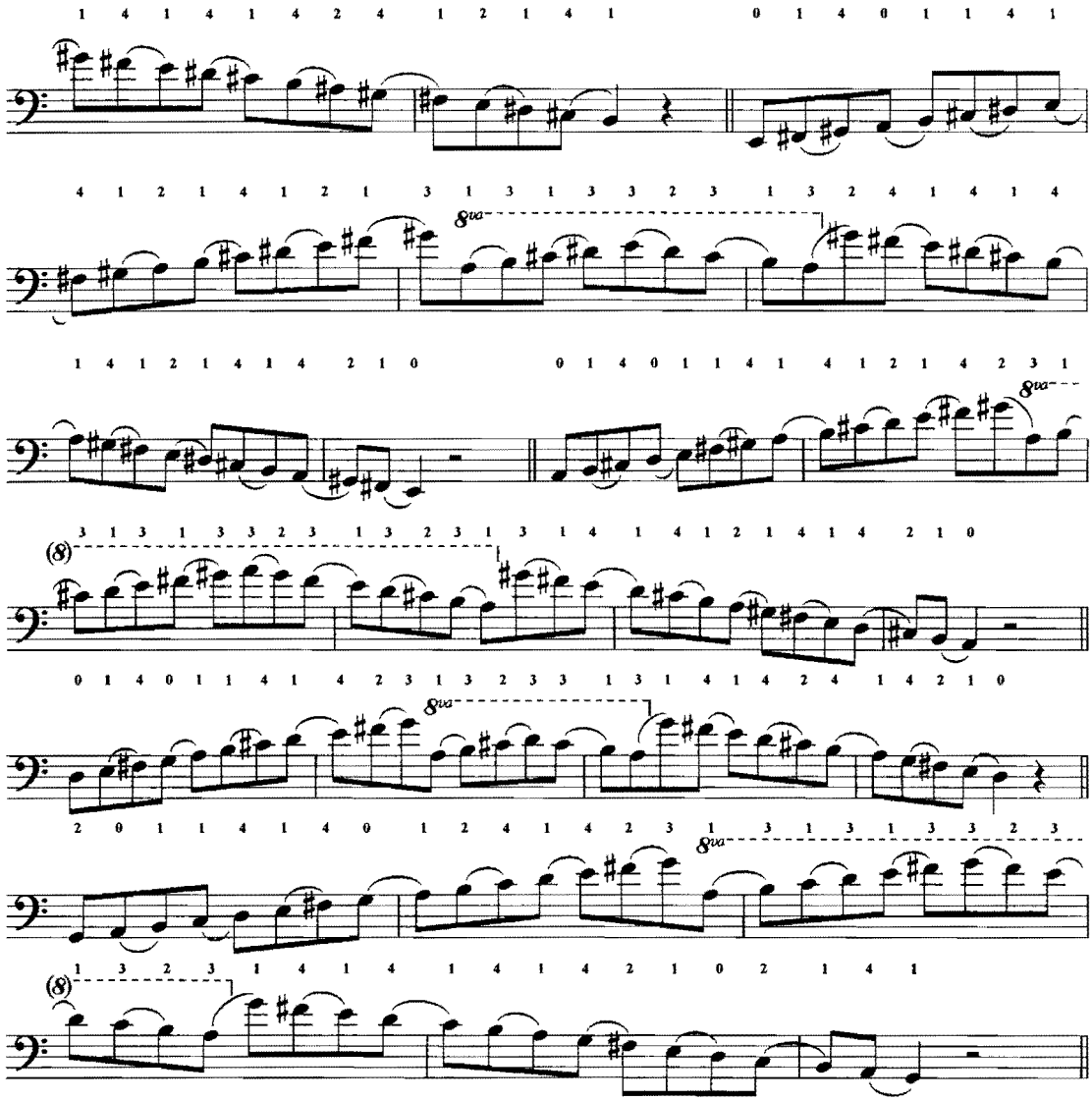


Example 27: Chorus 3 (Bars 33-40) – Rhythmic displacement

Appendix C: Further Exercises

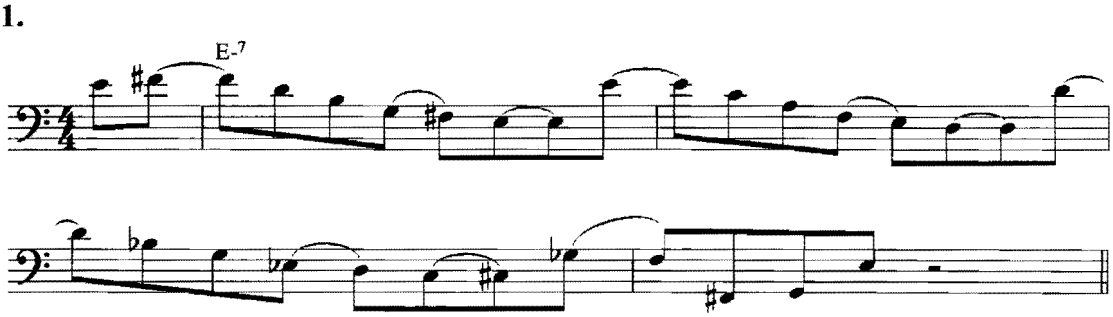
Slurring through Major Scales (with fingering):





Sequencing Phrases

1.



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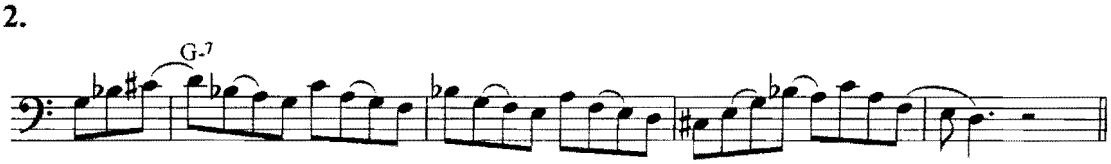
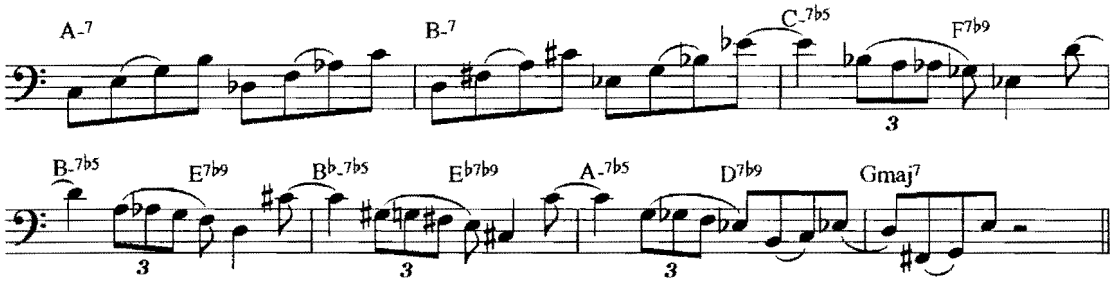
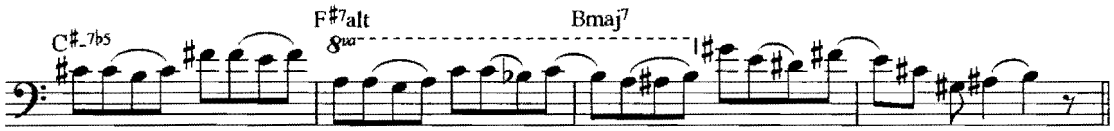


3.

4.

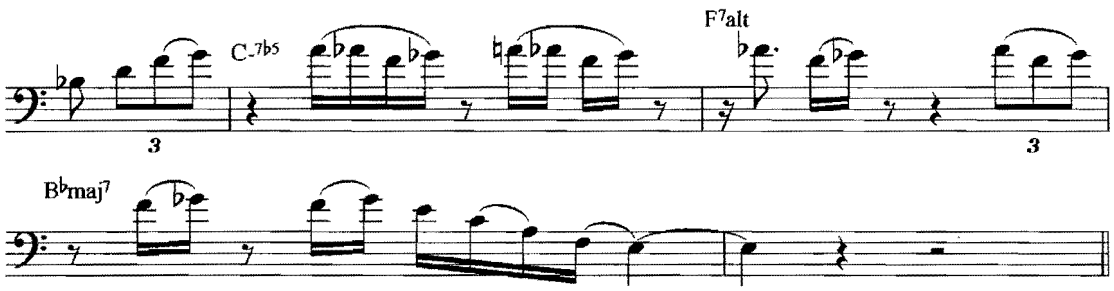


5.



Repetition

1.



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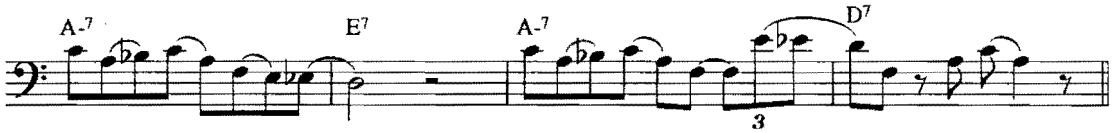

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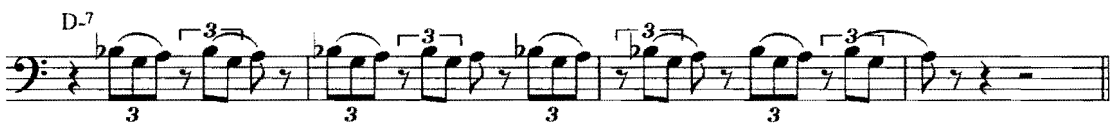

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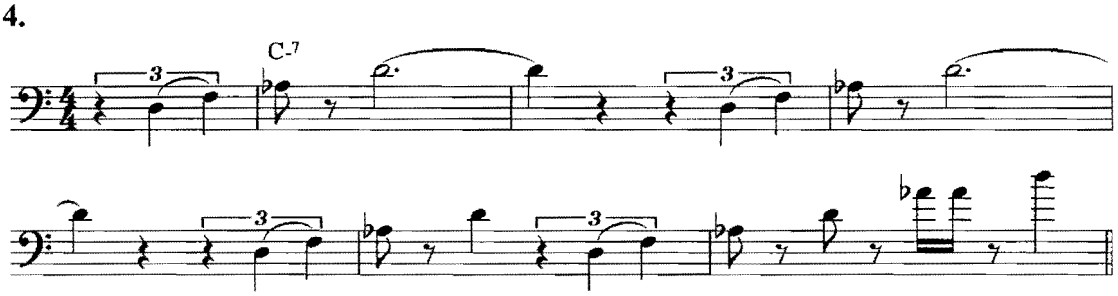
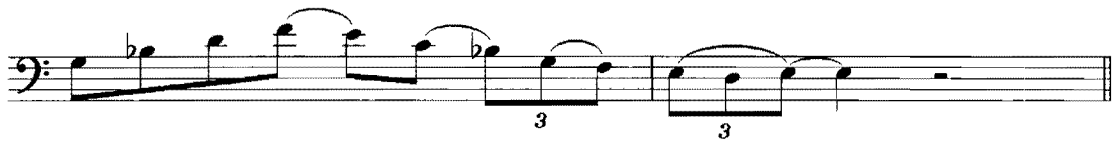


Other exercises displaying different intervallic material

1.



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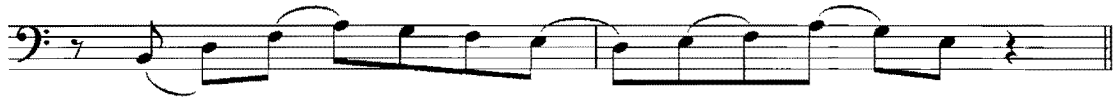

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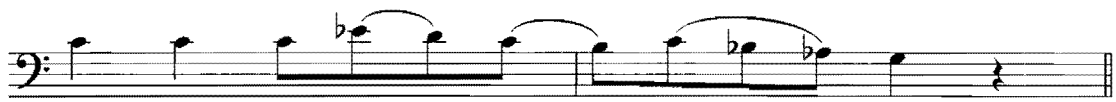

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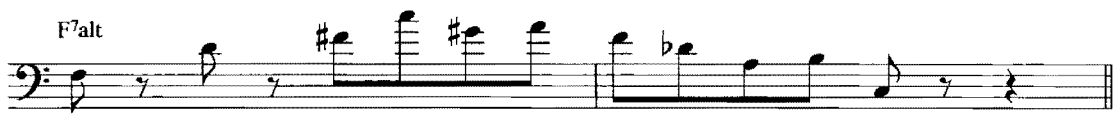

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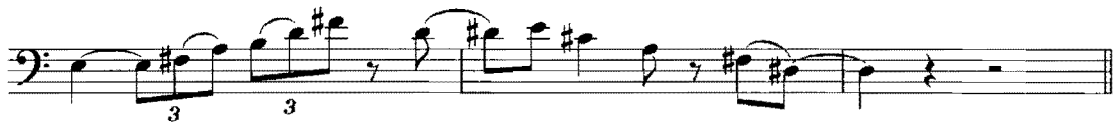

6.